



Notice to the Public and Interested Affiliations

July 14, 2014

eBuy RFQ #895903

Strategic Sourcing Initiative #tbd

Interact link:

<https://interact.gsa.gov/group/federal-strategic-sourcing-initiative-fssi-maintenance-repair-operations-mro>

As part of its ongoing Supply Transformation and modernization efforts, the US General Services Administration, Federal Acquisition Service, Global Supply Program, intends to leverage an estimated \$720 million dollar requirement for orders placed to strategic suppliers capable of providing exceptional service and prices to the federal government.

The Federal Strategic Sourcing MRO Office is releasing a *draft* Request for Quotations to establish Blanket Purchase Agreements against Schedule 51-V. This requirement is termed, the “Strategic Sourcing Initiative, Maintenance, Repair and Operations, Requisition Channel.” (MRO, Requisition Channel)

The objective of the acquisition will be to identify the four most qualified strategic delivery partners for the Global Supply Program; technical, past performance, and price considered (see the attached DRAFT RFQ, dated July 17, 2014). This is an internal GSA requirement. GSA is taking an approach that will allow it to rely on select strategic sourcing partners to serve clients through the GSA Global Supply Program after the closure of its internal supply distribution facilities.

The scope of the Requisition Strategic Sourcing BPAs is described in two categories, Hardware and Tools. Contractors will be required to provide all *category products* within scope of the Blanket Purchase Agreements awarded under their Schedule 51-V Catalog Special Item Number.

GSA is requesting feedback on the following matters:

- Affirmative responses from small businesses with Service-Disabled, Veteran-Owned Small Business classifications, Small Disadvantaged classification, and HUB zone classifications capable of supplying a significant amount of the items within scope of this procurement as the prime contractor supplying at least 50% of all orders. Identify, to the maximum extent possible, the entire scope of supply that falls within this BPA. Please limit your email response to 200 words or less on this matter. Interested contractors are cautioned that they must be registered and certified with the United States Small Business Administration (SBA) (<http://www.sba.gov/>) for proper consideration of socioeconomic status.
- Affirmative responses from small businesses with other classification status capable of supplying a significant amount of the items within the scope of this procurement as the prime contractor supplying at least 50% of all orders. Identify, to the maximum extent possible, the entire scope of supply that falls within this BPA. Please limit your email response to 200 words or less on this matter.
- Notification that a small business has historically supplied a product within the scope of the Strategic Sourcing BPAs to the GSA Global Supply Program through a set-aside under Part 19, Part 8, or through a competitive 8(a) procurement, a sole source 8(a) procurement, or other sole source procedures for a socioeconomic category. Please limit your email response to 200 words or less on this matter.
- Industry comments on the change in scope of the MRO Requisition BPAs to remove paints, sealants and adhesives will be accepted. Please limit your email response to 200 words or less on this matter.
- A draft of the RFQ for the MRO Requisition Channel was previously posted for Industry feedback in February 2014. However, since that time, changes have been made to the RFQ--particularly to the sections below, and GSA is reposting its Draft RFQ for industry comments on the RFQ as revised. Comments on the following areas will be accepted:
 - Section 4.0 (Scope- removal of PSA);
 - Section 5.0 (Request for Quotation);
 - Section 8.0 (Transportation and Routing Requirements) as well as the Transportation Attachments;
 - Sections 18.0 and 19.0 (Methodology for Award and Evaluation Criteria); and
 - Attachment 3 Market Basket - Item Purchase Description (IPD) Listing.

Comments submitted in response to this draft RFQ must be submitted by an authorized representative of the contractor only. The contractor is responsible for examining and understanding the entire draft RFQ document in preparing its comments, questions, and concerns.

GSA will consider responses until July 30, 2014, and may or may not alter its procurement strategy for this vehicle on the basis of the response received.

Direct all communication to fssi.mro-req@gsa.gov. Comments or questions in response to this draft RFQ must include “Strategic Sourcing MRO-REQ Draft RFQ July 2014” in the subject line in order to receive consideration.



Request for Quotation (DRAFT)

eBuy DRAFT RFQ #895903

Establishment of

Multiple Blanket Purchase Agreements for

**Maintenance, Repair and Operation Supplies for the
General Supplies and Services' Global Supply Requisition Channel**

Solicited to:

GSA Multiple Award

Schedule 51 V Contract Holders

Special Item Numbers Describing the Requirement:

105 002

Issuing Agency:

United States General Services Administration

Federal Acquisition Service

Heartland Acquisition Center

FSSI Division

1500 E Bannister Rd

Kansas City, MO 64131

July 14, 2014

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PART I - BACKGROUND AND SCOPE

1.0 Introduction

The General Services Administration (GSA), in an effort to continue the initiative began by the Office of Federal Procurement Policy (OFPP) in 2005 through its Chief Acquisition Officers Council (CAOC) to provide for strategic sourcing on a Government-wide basis, seeks to establish Blanket Purchase Agreements (BPAs) for the Purchasing Channel and Global Supply Requisition Channel of Maintenance, Repair and Operations (MRO) supplies against GSA's MAS 51 V, Hardware Superstore. Each Channel is being separately solicited; therefore, this requirement is to support the Global Supply Requisition Channel only. Within this Channel, the BPAs are being solicited against Special Item Number (SIN) SIN 105 002 – Hardware Store, Home Improvement Center, or MRO – Catalog.

2.0 Background

The Federal Strategic Sourcing Initiative (FSSI), chartered under the purview of the Federal Government's CAOC, is governed by the Strategic Sourcing Leadership Council (SSLC), and overseen by the OFPP. Many agencies actively participate in FSSI through the Community of Practice and Commodity Councils that provide user-input to various FSSI procurement activities. MRO supplies are one of several commodities for which GSA is seeking a more effective Government-wide acquisition approach through strategic sourcing.

In December 2012, the Office of Management and Budget (OMB) and OFPP further reinforced their FSSI efforts through issuance of Memo M1302: Improving Acquisitions through Strategic Sourcing. One component of this memo directed GSA to implement no less than ten (10) new Government-wide strategic sourcing solutions; five (5) in each of Fiscal Years 2013 and 2014.

Strategic sourcing is a structured, analytical, and collaborative process for optimizing an organization's supply base while reducing total cost of ownership and improving mission delivery. A strategic sourcing effort typically involves the following activities:

- Analyze spend data;
- Analyze the market;
- Develop a strategy;
- Seek and negotiate with suppliers;
- Select and award to successful suppliers;
- Implement strategy; and
- Monitor performance.

In OMB Memorandum Number M-09-25 dated July 29, 2009, entitled Improving Government Acquisitions; OMB mandated that all Federal agencies cut their procurement expenditures by 3.5 percent for both Fiscal Years 2010 and 2011 for a total reduction of 7 percent. In the Acquisition Savings Plans that agencies submitted in response to this memo, many agencies projected savings from the use of agency-wide and Government-wide strategic sourcing. The Government-wide strategic sourcing of MRO supplies is anticipated to assist the Administration in achieving its goal of cutting \$40 Billion per year from procurement spending.

3.0 Goals and Objectives

To achieve the Government's goals, the following objectives are sought through this acquisition:

- Achieve uniform prices and measurable total cost savings while maintaining or improving current service capability levels;
- Obtain significant reporting and transactional data to enable GSA to better manage spend for MRO supplies;
- Provide customer agencies with available options to meet socioeconomic goals;
- Ensure regulatory compliance in the acquisition of MRO supplies and commodities to include the AbilityOne Program and sustainable purchase requirements;
- Align purchasing with existing and planned GSA business practices; and
- Promote greater efficiency for GSA ordering activities

The overall goal of this Requisition Channel acquisition is to provide the Government with a fast and efficient way for Federal agencies to requisition for MRO supplies and commodities at discounted prices with prompt, cost-effective delivery and effective customer service. Additionally, successful orders will assist with capturing economies of scale, ensuring compliance with applicable regulations, fostering markets for sustainable technologies and environmentally preferable products, simplifying data collection, and promoting opportunities for small businesses.

To meet these goals, GSA intends to implement strategic sourcing for MRO supplies by establishing multiple BPAs against MAS 51 V (Hardware Superstore) contracts for the Global Supply Requisition Channel, through which other government agencies (civilian and military) will submit requisitions to GSA to fulfill.

4.0 Request for Quotations

This Request for Quotations is being issued in accordance with the procedures in FAR Part 8.405-3, Blanket Purchase Agreements established against Schedule. The RFQ is

being issued in the eBuy system. All questions and responses must be submitted through the eBuy system no later than the closing date indicated within the eBuy system.

Blanket Purchase Agreements do not obligate funds, and there will be no funds obligated when BPAs are established in response to this RFQ. There is no minimum order. There is no maximum order. The total estimated dollar value of the Blanket Purchase Agreements is \$720,000,000 over five years.

The period of performance of the BPAs will be one, 12 month base period, with four optional 12 month periods in accordance with FAR Part 8.406.

The RFQ will be issued against Schedule 51-V, 105-002, Catalog. Two categories of Blanket Purchase Agreements will be established in response to the RFQ. The government intends to award one unrestricted BPA in the Hardware category and one unrestricted BPA in the Tools category. The government intends to issue one BPA to a small business, as defined by the NAICS codes under SIN 51-V, 105-002, in the category Hardware, and one in the category Tools.

The RFQ will be issued in the eBuy system. All respondents must hold a schedule contract, 51-V, special item number 105-002, to respond to the RFQ. All respondents must submit their offer in the eBuy system prior to the closing date. All communication, including questions submitted, must occur through the eBuy system.

5.0 Scope

Scope of the BPA: Two product categories are within scope of the FSSI BPA, Hardware and Tools. The following is a description of National Stock Numbers (NSN) that are within scope of both product categories. Contractors will be required to submit commercial part numbers and item/product descriptions that are consistent with the NSN.

The list below is not intended to be an exhaustive list, however, it is intended to provide clear boundaries surrounding the scope description of each product category. After award, contractors will be required to submit a spreadsheet itemizing every product within scope.

Hardware: The General Hardware Items (or Hardware) category includes items that can typically be found at hardware or home improvement stores encompassing items used to perform a variety of maintenance and repair jobs, as well as items used for the purpose of heating, ventilation, and air conditioning and electrical and power equipment and components. Examples of products represented in the Hardware category include, but are not limited to: screws, ladders, brackets, drill bits, welding equipment, hoses, valves, faucets, rollers, drop cloths, storage containers, protective goggles, earplugs, portable air

heating, ventilation, and air conditioning and electrical and power equipment and components. Examples of products represented in the Hardware category include, but are not limited to: screws, ladders, brackets, drill bits, welding equipment, hoses, valves, faucets, rollers, drop cloths, storage containers, protective goggles, earplugs, portable air conditioners, portable heaters, portable fans, humidifiers, dehumidifiers, pumps, compressors, generators, motors, lights, cables, extension cords, surge protectors, switch boxes, lanterns, flashlights, batteries, and battery chargers.

Tools: The Tools and Tool Cabinets (or Tools) category includes hand tools, power tools, and storage specifically designed for tools. Examples of products represented in the Tools category include, but are not limited to: wrenches, shears, screwdrivers, scissors, saws, knives, hammers, drills, tool sets and kits, tool batteries, and tool cabinets.

Interested GSA Schedule 51 V Contractors are requested to submit quotes for the specific market basket list provided within Attachment 1, Requisition Channel MRO Supplies Quote Sheet **(To Be Provided at a Later Date)**. The market basket items are made up of historically high volume supplies procured by GSA Global Supply.

Each category will be built around a market basket of core-items. The market basket is made up of several hundred high-spend MRO supplies that are used Government-wide. Contractors shall offer discounts on the market basket of core-items. The contractors' proposed non-market basket item schedule discounts will be used in determining the discounts for the thousands of other products covered in the non-market basket items as shown in the contractors' price lists falling within the same category. All awarded, in-scope category items within the contractors' schedule price list shall be included in the BPA as non-market basket items.

The Requisition Channel market basket of core-items was developed based on the last three years' procurement history, pulled from GSA procurement history databases to identify essential, high-demand items within each MRO category. An MRO Supplies Quote Sheet was developed to calculate the average discounts of the market basket core-items to be used in establishing the discounts for the non-market basket items.

The MRO Supplies Requisition Channel Request for Quotation (RFQ) will be designed to specifically maximize opportunities for small businesses.

Partial Set-Aside: There will be unrestricted award competition. A maximum of two BPAs will be awarded in the unrestricted competition. There will also be a competition restricted to small business. At least two and perhaps more than two BPAs will be awarded under the restricted competition, depending upon on the government's needs. The allocation of orders of both product categories will be fulfilled according to the following General Services Administration Acquisition Manual clause incorporated into the RFQ:

GSAM 552.219-70 Allocation of Orders, Partially Set-Aside Items: Where the set-aside portion of an item or group of items is awarded to a Contractor other than the one receiving the award on the corresponding non-set-aside portion, the Government will divide the requirements to be ordered between the two Contractors with the objective of achieving, as nearly as possible, a 50/50 division of the total value of orders placed after the award of the set-aside portion. In no case will this division vary by more than a 60/40 division (with either the non-set-aside or set-aside Contractor receiving the larger portion) from the time of the award of the set-aside portion.

Excluded Scope: The following Federal Stock Class (FSCs) are not within scope of the Requisition Channel. Procurements for the Global Supply Program have traditionally been directed to small and socio-economically disadvantaged businesses, and will continue to be purchased in this manner.

The Draft RFQ, released July 2014, is not defining the products excluded from the scope of the FSSI BPAs. Feedback is being solicited until July 30, 2014.

Small Business Orders: When more than one small business has a Blanket Purchase Agreement for a National Stock Number item, the requisition shall be placed with the lowest-priced small business BPA holders.

Requisition via Global Supply Channel

Requisition is a simple method for agencies to acquire a broad range of products, supplies, and equipment directly from GSA. GSA conducts a competitive procurement in compliance with the Federal Acquisition Regulations (FAR) and other required policies. Agencies submit a requisition to GSA for a simple government-to-government transaction that is quick, safe, and compliant. GSA offers product fulfillment, order status, billing support and comprehensive customer service for agencies using the requisition method.

GSA's Global Supply offers approximately 400,000 items via requisition-based ordering. Customers may use their Activity Address Code (AAC/DoDAAC) or equivalent. When Department of Defense (DoD) customers requisition, the use of Military Interdepartmental Purchase Requests (MIPRs) are permitted. These MIPRs are the funding documents used to obligate funds to meet specific needs for a definitive period of time. These orders provide supplies for special projects requiring a high level of technical expertise, high dollar requirements, or both.

The Requisition Channel BPAs for MRO supplies are designed to meet different Federal agencies' and Department of Defense (DoD) agencies' requirements to be supported by GSA Global Supply. Use of the resulting BPAs is open to purchases by all Federal

agencies and DoD *through* GSA Global Supply.

Contractors shall note that the MRO Requisition Channel market basket is based on historical purchases through GSA Global Supply. All items quoted by the Contractor shall be available on the Contractor's MAS 51 V contract prior to the closing date and time of this RFQ.

PART II - GOODS AND SERVICES

6.0 Contractor Business Requirements

This is an acquisition for supplies, not services. However, key business deliverables are required to ensure proper performance of the vehicle.

Contractors are expected to maintain all key business requirements throughout the BPAs' performance period(s). These key business requirements shall include:

6.1 Program Management Deliverables

The BPAs established are for supplies and not for services, however the following deliverables are required to ensure proper performance of these acquisition vehicles.

The Contractor shall adhere to the following schedule of deliverables, which will be used by the GSA Contracting Officer's Representative (COR) or her/his delegate(s) to monitor timely progress of the established BPA. All references to workdays are business days (Monday through Friday), unless otherwise specified, with the exception of Federal holidays (mentioned below) or days the Government may otherwise be closed. When the due date is a non-business day, the deliverable is due NLT the next business day.

The Contractor shall provide the Contracting Officer, Project/Program Officer, or designee(s) with a primary and alternate POC within 5 calendar days after establishment of the BPA. The Contractor shall provide updated information for POC/alternate as changes occur.

Within 30 calendar days of BPA establishment, the Contractor must submit its most current full-line catalog reflecting BPA established pricing catalog in electronic format (Microsoft Excel spreadsheet) to the Contracting Officer, Project/Program Officer or designees. This must include all catalogue items by category awarded, including both market basket and non-market basket items.

The following schedule of deliverables will be used by the GSA Contracting Officer's Representative, Administrative Contracting Officer, or their delegates to monitor timely progress of the established BPA. When the due date falls on a non-work day, the deliverable is due by the next work day.

Milestone/Deliverable	Action Provided From	Planned Completion Date
Kickoff Meeting	Contractor and Government	NLT 15 calendar days after award
Provide Primary and Alternate POC information	Contractor	NLT 5 calendar days after award
Establish BPA Pricing Catalogue	Contractor	NLT 30 calendar days after award
Confirmation of ordering process correspondence with AbilityOne (NIB)	Contractor	NLT 15 calendar days after award

6.2 Program Management Review

The GSA Contracting Officer, GSA Program Officer, and/or designees, shall call quarterly program review meetings for the first year and quarterly or bi-annually for the option period(s), at the Contracting Officer's (CO) discretion. Such meetings will be held in any format directed by the CO, either in person, by webinar, or conference call and may include all BPA holders, representatives from prospective customer agencies, a combination of current and prospective customer agencies, or individual BPA holders. Program management review meetings will be held at no additional cost to the Government.

6.3 Customer Service

Contractor shall provide a primary point of contact (POC) for BPA and order administration issues. The individual(s) must be available for resolution of purchase order and other issues during normal business hours Monday through Friday, except Federal holidays. Contractor points of contact shall be knowledgeable of the Federal Government's purchase procedures, the special transportation needs described herein, and any other order fulfillment or strategic sourcing-specific procedures described in the RFQ and its attachments. This dedicated Contractor POC must be available to meet with GSA officials for resolution of purchase order-level, BPA, and/or contractual issues. The same POC may serve multiple ordering activities within GSA and may interface with one or more of the following GSA representatives: GSA National Customer Service Center representatives, GSA Purchase Order contracting officers, GSA Schedule Contracting Officers, MRO Requisition BPA Contracting Officers, Specialists, and Administrative Contracting Officers.

6.4 Quality Control

The Contractor is responsible for providing quality control to ensure a proper level of performance, including procedures employed throughout the BPA's period of performance, that ensure items provided conform to contract performance standards (e.g., delivery time, deliverables relating to reporting submissions, etc.).

The Government reserves the right to inspect any and all items and Contractor quality control mechanisms or processes at the Contractor and/or Government facility, as may be necessary to determine supplies conform to BPA requirements.

7.0 Delivery Requirements

7.1 Freight on Board (FOB) Destination

The Contractor shall ensure delivery to locations specified by GSA Global Supply as delineated on the order.

7.2 Packing Slip

The Contractor shall prepare a packing slip for each order placed under the contract and provide it with the order. The Contractor shall ensure the delivery ticket or packing slip contains the following minimum information:

- Name of Contractor;
- Contract number, order, or call number;
- Government employee/purchaser and activity address;
- Government Order or Requisition number
- Date of purchase;
- Itemized list of supplies shipped;
- Manufacturer's part numbers;
- National Stock Number (NSN); and
- Quantity, unit price, and total cost of each item shipped.

The name of the Government employee/purchaser and the agency name shall appear in all "ship-to" address blocks of packing slips and invoices.

7.3 Safety Data Sheet

The safety data sheet (SDS) shall be submitted in accordance with the latest revision of Federal Standard No. 313. For shipments to the customer, the contractor shall provide one copy of the SDS inside or affixed to the outside of each transport package. If affixed outside, the SDS must be placed in a weather-resistant envelope.

7.4 Plastics Removal in Marine Environment (PRIME)

PACKAGING OF ITEMS IN THE PRIME PROGRAM

At the request of the U.S. Navy Supply Systems Command, items that are included in the Navy's PLASTICS REMOVAL IN MARINE ENVIRONMENT (PRIME)

PROGRAM under the U.S. Marine Plastic Pollution Research and Control Act of 1987 (MPPRCA) and the International Convention for the Prevention of Pollution from Ships Treaty (MARPOL) Annex V are items which require biodegradable packing materials. The package shall be the same as that normally provided by the supplier and the pack shall comply with the rules and regulations applicable to the mode of transportation except that the use of plastic packing materials and pressure sensitive tapes are prohibited. Additionally, the use of plastic cushioning or filling material in the shipping container is also prohibited for shipments to the Navy or Marines. The definition of plastic shall be in accordance with that given in ASTM D883-00, "Standard Terminology Related to Plastics". To know if an item is designated as "PRIME", contractors may refer to the Item Purchase Description (IPD) or consult with the contracting officer for a list of PRIME items.

7.5 Damaged Goods

Damaged goods are the Contractor's responsibility and liability. If ordered items are received in damaged condition, the Contractor must replace items and ship within 4 business days¹ after receipt of notification of damage, at the Contractor's expense. The Contractor must provide a returned merchandise authorization (RMA) and prepaid shipping label with each replacement order. The cardholder or Government employee/purchaser will document damage on shipping documents.

7.6 Returns

The Contractor shall allow the Government to return items in the original packaging and in sellable condition up to 30 days from the date the item was delivered. The Contractor shall provide a full refund, less any applicable restocking fee, for such items within 30 days of receipt of the returned item.

7.7 Restocking fees

The Contractor may assess a restocking fee in accordance with the established schedule restocking fee amount, however capped at no more than 10 percent of the item cost when the Contractor incurs additional costs due to customer ordering error. There shall be no restocking fees when the item is returned due to item condition or Contractor error. In the event of purchaser error, the purchaser would be responsible for return freight.

7.8 On-Time Delivery

The Contractor shall maintain a 98 percent on-time delivery record. On a rolling 90-day basis, delivery must occur within the required timeframes for at least 95 percent of orders placed during the period (see Attachment 4 – *Performance Requirement Summary*).

¹ Replacement orders will be treated the same as the original order. If other than (4) business days was required of the original, the same delivery time will apply to the replacement.

The 98 percent on-time delivery baseline will not include any items for which the Contractor has notified the customer of stock outages or delivery problems at time of order placement.

7.8 Real Time Order Status

Contractor shall provide real time order status information available at all times electronically by GSA or its end customers. This information shall include order ship date, current location (or last "checkpoint" and time), and estimated delivery date.

8.0 Transportation and Routing Requirements

The Contractor proposal shall demonstrate to the Government that the contractor understands the basic processes and requirements contained in this section, and how the Contractor will conform to these requirements. GSA or GSA-specified systems will largely supply "ship to" addresses for customer orders. However, this process can also require the contractor to furnish information regarding characteristics of the order to GSA/ GSA-specified systems that can impact where and how an order is to be shipped. For CONUS shipments, the Contractor largely controls the manner in which customer requirements are delivered so as achieve the best balance of time and cost while meeting customer or contractually defined delivery dates. For OCONUS shipments, particularly in support of DOD, additional requirements occur. Transportation Attachment 1 shows general shipment information related to contractor transportation requirements.

8.1 Routing Instructions

Contractors will be provided routing instructions via the purchase order, its electronic equivalent, or via the Vendor Shipment Module (VSM). Contractors are encouraged to use the VSM when possible. Routing instructions will include "Ship To" and "Mark For" addresses, and, if applicable, specific or special handling instructions apply.

8.2 CONUS Shipments

In most cases these shipments are FOB Destination. The contractor is responsible for all charges and fees. Dependent upon the item and shipment characteristics the mode selected for delivery should be made with on-time delivery in mind. The following considerations should be understood.

8.3 Shipment Consolidation

Shipments to the same customer, as defined by the "Mark For" Activity Address Code (AAC) information, may be consolidated into appropriate unitized containers. Comingling of shipments destined to multiple customers to maintain item integrity is not allowed. Pack and consolidate for the ultimate consignee.

8.4 Delivery timeline, CONUS

Delivery should be made in accordance with the required delivery date (RDD) identified on the purchase order. See Transportation Attachment 2 for general CONUS delivery time requirements.

8.5 OCONUS Shipments

By their very nature OCONUS (export) shipments are more complex. Additionally, attention must be paid as to whether the consignee is a Department of Defense (DoD) recipient or non-DoD recipient. For most OCONUS shipments the contractor responsibility for delivery of the item will be considered complete once the shipment passes into the hands of the government or government transportation contractor. OCONUS order routing can occur in different ways that reflect the type of customer and characteristic of the order. Quoters may find helpful considering the specific outcomes to understand the different business process requirements that attain these outcomes. Outcomes are: APO / FPO mail; Military Air; Military "Express" (i.e., "WWX - World-Wide Express"); Surface shipment to DOD Consolidation Points; surface shipment to specified freight forwarders, and on occasion, special transportation involving commercial air freight. As of the issuance of this solicitation, GSA is developing / implementing use of the DLA "Vendor Shipment Module", which will greatly assist the OCONUS routing process for DOD shipments, including providing a means of production of the unique DOD shipping labels and some other documentation needed for OCONUS shipments. GSA also provides other business and IT process interfaces that will generate instructions to the Contractor on where and "how" (i.e., mode of shipment) in the event the VSM is not applicable for specific shipment groups.

8.6 Mode Selection

Mode selection will be generally be made by GSA and directed to the contractor. Specific instructions will be provided via the purchase order, and particular attention must be paid to the "Ship To" and "Mark For" information. Refer to Transportation Attachment 1 for general weight and cube characteristics for each mode.

8.7 Delivery timeline, OCONUS

Delivery should be made in accordance with the required delivery date (RDD) identified on the purchase order. See Transportation Attachment 3 for OCONUS delivery time requirements.

8.8 Use of Army/Air Force Post Office (APO) and Fleet Post Office (FPO)

If the package meets the requirement for use of the APO or FPO, the Contractor will ship to the consignee using the appropriate APO or FPO. The requirements can be found at: (<https://www.usps.com/ship/apo-fpo-guidelines.htm>). See Transportation Attachment 4 for guideline information regarding use of APO and FPO addresses.

8.8.1 Issues with APO/FPO Shipments. If the shipment has been identified as meeting the postal service criteria, but issues arise, the contractor will contact the appropriate transportation office for shipping instructions.

8.9 Use of Consolidation Points

Three types of consolidation points are possible interim points for shipments under this solicitation, the aerial or water port, a government facility or a third party facility. In each case however the primary requirements apply. Shipments will be marked, labeled, packed and consolidated for the ultimate consignee.

8.10 Special Case Transportation

GSA is regularly involved in numerous events which may require changes in the normal processes and procedures. The following paragraphs discuss these situations.

8.10.1 Material Sourced from AbilityOne. AbilityOne and National Industries for the Severely Handicapped currently utilize GSA's Transportation Routing services, i.e., ship FOB "Origin" under Government Transportation means, as the most cost-effective way for transportation. Since the Government mandates continued sourcing from these product sources, GSA has an interest in assuring that transportation continues to process in the most cost-effective manner. The Contractor shall propose how transportation of this product will occur in instances where sourced directly from these contractors. The Government reserves the right to specify alternate means of transportation from these sources.

8.10.2 Federal Emergency Management Administration (FEMA) Disaster Response Areas. The nature of the operations being supported in responding to disasters requires additional awareness and cooperation. Shipments made under these circumstances will be directed from a GSA organization. Contractors must be able to meet these requirements which may not reflect normal routing or prioritization.

8.10.3 Security Cooperation Agreement Shipments. This category includes Foreign military Sales (FMS) as well as other agreement in which the consignee is not a U.S. entity. These shipments will be identified on the

purchase order and may have additional customer requirements. However, in most cases these will be treated similarly to OCONUS shipments with contractor delivery points in CONUS.

8.11 Use of the Vendor Shipment Module (VSM)

The Defense Logistics Agency maintains the VSM which is a web-based application that allows contractors to print commercial bills of lading, military shipping labels, packing slips, address labels and small package carrier labels. Purchase order information is pre-loaded into VSM as well as routing business rules. VSM can be accessed by an individual on a computer, or via Electronic Data Interchange (EDI).

9.0 Contractor Inventory Management Requirements

This section details contractor responsibility for inventory management and catalog coverage.

Contractors will be expected to provide a comprehensive list of MRO Hardware and Tools products that are of benefit to the federal customer. With respect to the federal cataloging system of National Stock Numbers (herein after referred to as NSNs), it will be the contractor's responsibility to work with GSA in matching their product offerings to currently available NSNs via the technical specifications of each item. The applicable NSNs will be provided by GSA.

Contractors will be responsible for providing a catalog of items with NSN matches in response to this RFQ. Upon initial BPA establishment, GSA will coordinate with contractors to verify the company's self-identified NSN matches. In addition, a list of commercially available part numbers matched to NSNs will be provided by GSA for quick reference and catalog matching. Therein after, the contractor will be contracted to provide the NSN, rather than a specific part number. It will be their responsibility to fulfill NSNs on their list even as part numbers change. Should a viable product become unavailable given the NSN requirements, they will notify GSA of a full discontinuation of that NSN/product as it relates to their catalog.

Contractors will be responsible for keeping up-to-date catalog information for contract items, and ensuring that GSA is privy to this list. If they are contracted to provide an NSN, part number(s) must be listed in accordance. Contractors may still provide products not linked to an NSN in their list of offerings, but will remain contracted by part number for those goods.

With respect to NSN application, the contractor is expected to cover a majority of non market basket NSNs in their applicable supply class(es) to be considered. In addition, the contractor must be able to meet the NSN requirements at the prices as set forth in a dynamic pricing analysis. Each NSN will accordingly have a maximum price, provided along with the initial part-number match list for

reference. NSN price changes will only be made/considered twice annually. The price change policies established on the BPA will not change the price change policies and clauses established on the Schedule for the selected awardees. The price change policies established for this acquisition will apply only to the BPA.

If a contractor cannot provide an NSN at the price set forth by the dynamic price analysis, then they will no longer be a carrier of this product.

Following the initial NSN to part-number match in contract set-up, contractors will be responsible for ongoing verification that new products match the requirements. If they are questioning a product's match, they can send to it their Government POC/COR for agency verification. GSA will conduct periodic audits of various NSNs to verify that contractors are meeting the specifications. GSA will also respond to customer feedback via the National Customer Service Center (NCSC) regarding incorrect product complaints. Contractors will be measured on their thoroughness and accuracy in meeting NSN specifications. Should a product be determined to not be an NSN match, the contractor will have to remove it from their available catalog immediately.

10.0 Ordering Requirements

10.1 Order Issuance and Allocation

For each category within the solution, there will be two (2) awardees. Awardees will receive orders in roughly the following manner.

Orders will be issued to contractors as requisitions are received by GSA. One order will be issued to fill one complete requisition. Initially, requisitions will not be split between contractors. Requisitions consist of one NSN, quantity, and one delivery location.

Orders will generally be issued to contractors sequentially (i.e. contractor 1, contractor 2, contractor 1, contractor 2, etc.) conditioned upon maintaining an equal dollar volume by NSN for each contractor supplying the NSN.

The order allocation process may be changed solely at the government's discretion to obtain better pricing on an individual NSN basis, to consolidate multiple requisitions destined for the same delivery locations, and/or to achieve equitable spend distribution to all BPA holders, including both small and large business BPA holders.

While the requirements for the Requisition Channel will be received by GSA via FedStrip/MilStrip or Military Interdepartmental Purchase Request (MIPR), the actual placement of an order to a contractor will be issued from GSA. The contractor will receive orders directly from GSA Global Supply via EDI transactions.

Please note that orders for AbilityOne items require additional coordination. See Section 12.0 below for details on this process.

10.2 Order Responsiveness

For any orders placed as outlined above, the Contractor shall provide the following:

- Electronic acknowledgement within 8 hours to the customer that the order was received;
- Electronic acknowledgement within 8 hours of the order being shipped;
- Electronic acknowledgement of credit returns or refunds within 48 hours; and
- Out-of-stock/backorder notification within 24 hours informing the customer when an item will be available. Customers will determine if they wish to wait for the back-ordered item or order from another contract holder. If no response is received from the customer within 24 hours of notification of a back-ordered item's delivery estimate, the Contractor shall default to "Kill" for the line item.

10.2.1 Partial Orders – Fill or Kill

In the "fill" or "kill" phase, Contractors are required to obtain affirmative acknowledgement from the customer, GSA Global Supply, on all orders received. Should an order fail to be able to be fulfilled by the Contractor at the time order is placed, the Contractor shall provide notification to GSA Global Supply that the intended order cannot be filled within the time specified and provide (when applicable) backorder details regarding the order. Should the customer fail to acknowledge to the Contractor to move forth with the requested items placed on backorder, the Contractor shall "kill" (not fulfill) the order within 24 hours of the Contractor's response to the customer's backorder. Otherwise, Contractor's receipt of acknowledgment to move forth with the backorder for the agreed date of fulfillment, the Contractor shall "fill" the order as requested, agreed, and acknowledged.

Fill or Kill applies at the line-item level, not at the order level. The Contractor must:

- Notify the GSA ordering Contracting Officer placing the order within 24 hours if there are any problems filling an order;
- Provide any anticipated wait time; and
- Allow the customer to cancel that item or wait for the later delivery.

Notification and agreement with the customer must be in writing or through the ordering portal. The Contractor shall automatically deliver items available and notify customers within 24 hours of order placement when a backordered item can be delivered at a later date/time. Customers will determine if they wish to wait for the backordered item or order from another contract holder. If no response is received from the customer

within 24 hours of notification of a backordered item's delivery estimate, the Contractor shall default to "Kill" for the line item.

10.2.2 Order Tracking

The Contractor shall maintain an order tracking system that permits the Government to ascertain the location of an order between the time the order leaves the Contractor's facility and delivery and acceptance at destination.

10.2.3 Order Minimum

The established minimum order is \$0.00. In the Requisition Channel, expedited deliveries and/or fees will not be required nor permitted.

10.3 Contractor Invoice Submission

After shipment, Contractors shall submit invoices electronically, otherwise, they shall mail to:

GSA Accounts Payable Branch
PO Box 419018
Kansas City, MO 64141

Contractors having any inquiries regarding payment details and status may contact GSA representatives at (816) 926 – 7287 during normal operating hours.

11.0 Electronic Data Interchange (EDI) Requirements

Contractors must be able to conduct business utilizing a standardized electronic method. All transactions will be submitted to and received by the **prime Contractor ONLY**. Under the Delivery Orders, GSA will not conduct electronic transactions with the prime Contractor's subcontractors or dealers. All electronic communications between GSA and awarded Contractors will be through the GSA Electronic Data Interchange (EDI) Gateway or a GSA-provided third party service provider.

Due to the potentially large volume of delivery orders, GSA's preferred method of communications is EDI. If a non-EDI method is agreed upon, GSA will revisit the communications agreement periodically and reserves the right to partially or comprehensively implement EDI transactions within 6 months of notification.

The following information is provided to assist contractors to communicate with GSA via EDI.

11.1 Electronic Communications with GSA

GSA will on-board the awarded Contractors directly to the GSA EDI Gateway or a GSA-provided third party service provider using the standards of EDI business

documents detailed below. GSA personnel will coordinate the on-boarding activities with the contractor.

11.2 Government to Business Communications

GSA communicates using American National Standards Institute (ANSI) X12 transaction sets as follows: (details are available at <http://vsc.gsa.gov/ediuser.eddven.cfm>)

- 810 Invoice
- 855 Purchase Order Acknowledgement
- 856 Advance Shipment Notice
- 865 Purchase Order Change Acknowledgement (not an initial requirement, but may be phased in at a later date)
- 997 Functional Acknowledgement
- 214 Transportation Carrier Shipment Status Message (not an initial requirement, but may be phased in at a later date)
- 846 Inventory Inquiry/Advice (not an initial requirement, but may be phased in at a later date)
- 850 Purchase Order
- 860 Purchase Order Cancellation

GSA purchase orders are transmitted hourly to the Contractor. The Contractor is required, at a minimum, to acknowledge all purchase orders within 24 hours of receipt.

11.3 Government to Business Transactions Using EDI

This section provides additional details regarding government-to-business transactions using EDI.

Purchase Order, Electronic Data Interchange (EDI) 850. GSA will submit purchase orders to contractors via the GSA EDI Gateway utilizing Electronic Data Interchange (EDI).

The EDI Purchase Orders generated by GSA utilize the EDI 850 transaction set and use, at a minimum, version 3010. EDI 850 transaction sets are transmitted hourly, seven days a week, providing the data needed to identify, process, and track all orders.

Purchase Order Cancellation, EDI 860. An EDI 860 Cancellation transaction set cancels a customer order in its entirety or for the full quantity of a line item. GSA receives a cancellation status if the cancellation was successful or a shipment status if the cancellation was unsuccessful. An EDI 860 Change Request (Buyer-Initiated) transaction set initiates an overage shipment transaction (the customer desires to retain and pay for the extra items received) and provides the data necessary to generate an invoice that GSA can process. The contractor is required to provide a status, using the Ship Notice/Manifest, EDI 856, or Purchase Order Acknowledgement, EDI 855 detailed below, within 24 hours after a Purchase

Order Cancellation or Purchase Order Change Request (Buyer Initiated) was received.

11.4 Business to Government Communications

The Contractor shall communicate with GSA to:

- acknowledge receipt of a purchase order;
- acknowledge receipt of a purchase order change;
- provide purchase order status including, but not limited to, cancelled, backorder, and shipped;
- invoice for orders fulfilled;
- correct erroneous information provided to GSA on the disposition of a purchase order;
- provide shipment information including tracking number
- provide delivery information including, but not limited to date of delivery and order signatory (not an initial requirement, but may be phased in at a later date); and
- provide inventory information (not an initial requirement, but may be phased in at a later date)

Data exchange between the awarded Contractor and the GSA EDI Gateway shall occur via EDI or XML only.

The Contractor shall communicate information back to GSA using American National Standards Institute (ANSI) X12 transaction sets as follows: (details are available at <https://vsc.gsa.gov/EDIUser/eddven.cfm>)

- 810 Invoice;
- 855 Purchase Order Acknowledgement;
- 856 Advance Shipment Notice;
- 865 Purchase Order Change Acknowledgment (not an initial requirement, but may be phased in at a later date);
- 997 Functional Acknowledgement;
- 214 Transportation Carrier Shipment Status Message (not an initial requirement, but may be phased in at a later date); and
- 846 Inventory Inquiry/Advice (not an initial requirement, but may be phased in at a later date)
- 850 Purchase Order
- 860 Purchase Order Cancellation

The Contractor is required to work with GSA to understand and adhere to GSA business rules and requirements as they relate to:

- processing of backorders;
- purchase order acknowledgements;
- shipment information;
- delivery information;

- delivery documentation;
- accuracy of data provided to GSA;
- contractor cancellations;
- customer cancellations;
- interpretation of GSA data in order to meet GSA shipping documentation guidelines; and
- processing of emergency purchase orders

11.5 Business to Government Transactions Using EDI

This section provides additional details regarding business-to-government transactions using EDI.

Functional Acknowledgement Transaction, EDI 997. The contractor is required to transmit a Functional Acknowledgement Transaction, EDI 997, to GSA within 24 hours upon receipt of the Purchase Order. This is required for all Purchase Orders.

Purchase Order Acknowledgement, Version 4010, EDI 855. The contractor may use Purchase Order Acknowledgement, Version 4010, EDI 855 in place of the Advance Ship Notice Manifest, EDI 856, as described below.

Advance Ship Notice/Manifest, Version 4010, EDI 856. The contractor is required to provide additional shipping notification using the Advance Ship Notice/Manifest, Version 4010, EDI 856 within 24 hours after an order has been shipped to a customer. The EDI 856 transaction set provides the shipment status (ship, cancel or backorder) of an order. For export shipments that cannot be mailed, this transaction set informs GSA of the Export Packing Facility or the Consolidation and Containerization Point that received the shipment. The EDI 856 transaction set should always display full line-item accountability.

Invoice EDI 810. In order to invoice GSA, the contractor must utilize either the Invoice, EDI 810 transaction set, using version 3010; or the FedPay portal at <http://apps.ocfo.gsa.gov/vendorpayment/index.htm>. If using EDI, the 810 transaction set is sent to FedPay to initiate payment to the Contractor.

NOTE: THE CONTRACTOR SHALL INVOICE AT TIME OF SHIPMENT.

Communications Protocol: The awarded Contractor may choose a Value Added Network (VAN) or Secure File Transfer Protocol (SFTP) to conduct business with GSA; i.e., sending and receiving Electronic Data Interchange (EDI) or Extensible Markup Language (XML) transactions.

Additional Technical Information for Transactions: Specifically, at a minimum, GSA will use the Reference Number (REF) segment with '2I' qualifier to receive the tracking number and carrier information of the shipment; the Date/Time Reference (DTM) segment with qualifiers '011' for shipped dates and '139' estimated ship dates, and the PRF segment will house the contract number and the release/delivery order number in PRF01 and PRF02, respectively. GSA will be

notified once the Purchase Order has been received, via the EDI 997 transaction set and once the order has been shipped, via the EDI 855 or 856 transaction set.

Please note that other EDI transactions may become mandatory as the program evolves.

Resources. The following web site is available as a resource for researching detail on the above business-to-government and government-to-business transactions.

EDI: EDD EDI Documentation, available at <https://vsc.gsa.gov/EDIUser/eddven.cfm>

11.6 Testing

Prior to contract award, GSA personnel may test the Contractor's ability to transact via EDI as a material requirement of the RFQ.

Post award, GSA personnel will coordinate testing with the Contractor. GSA will coordinate end-to-end testing with GSA systems and the Contractor's systems.

At a minimum, the following transactions will be tested:

- 850 purchase/delivery order;
- 997 functional acknowledgement;
- 855 purchase order acknowledgement;
- 856 advance ship notice/manifest;
- 860 PO cancellation/buyer initiated change; and
- 810 invoice

GSA may select up to 20 items from the Contractor's catalog for end-to-end testing and may select to conduct testing with live (production) orders.

For any EC/EDI clarifications please contact the GSA EDI Helpdesk at [703-605-9444](tel:703-605-9444).

PART III - BPA TERMS & CONDITIONS

The following are additional terms and conditions that will be incorporated, along with Parts I and II above and the successful Quotations, into all established Blanket Purchase Agreements upon BPA award.

12.0 Industrial Funding Fee Remittance

The GSA Program Funding Fee reimburses GSA for the costs of procuring and administering the BPA. The GSA Program Funding Fee is comprised of the Industrial Funding Fee (IFF) due on sales under the Contractor's MAS contract. The Contractor shall incorporate into its total BPA unit price(s) and remit to GSA in accordance with the MAS contract IFF provision, a GSA Program Funding Fee. This program funding fee shall consist of the GSA IFF, currently set at 0.75 percent (.0075). The GSA Program Funding Fee may be subject to revision(s) at any time, upon notice by the GSA Contracting Officer. Upon revision, the Contractor shall be required to adjust BPA prices up or down

by the applicable percentage to reflect any future change in the GSA Program Funding Fee structure.

Remittance of the GSA IFF portion (.0075) of the Program Funding Fee shall be completed in accordance with the requirements of the Contractor's underlying MAS 51 V contract. The Government reserves the unilateral right to change remittance instructions from time to time at no additional cost to the Government, following notification by the CO.

The GSA Program Funding Fee reimburses GSA for the costs of procuring and administering the BPA. The GSA Program Funding Fee is comprised of the Industrial Funding Fee (IFF) due on sales under the Contractor's MAS contract. The Contractor shall incorporate into its total BPA unit price(s) and remit to GSA in accordance with the MAS contract IFF provision, a GSA Program Funding Fee. This program funding fee shall consist of the GSA IFF, currently set at 0.75 percent (.0075). The GSA Program Funding Fee may be subject to revision(s) at any time, upon notice by the GSA Contracting Officer. Upon revision, the Contractor shall be required to adjust BPA prices up or down by the applicable percentage to reflect any future change in the GSA Program Funding Fee structure.

Remittance of the GSA IFF portion (.0075) of the Program Funding Fee shall be completed in accordance with the requirements of the Contractor's underlying MAS 51 V contract. The Government reserves the unilateral right to change remittance instructions from time to time at no additional cost to the Government, following notification by the CO.

13.0 Requirements Related to Regulatory Compliance

13.1 AbilityOne® Program

The BPA requires statutory compliance with the Javits-Wagner-O'Day (JWOD) Act (41 USC 46-48c), which requires the Government to purchase supplies contained on the JWOD procurement list from AbilityOne® participating nonprofit agencies if available within the period required (FAR 8.704). The Contractor shall be an AbilityOne® distributor for procurement list items within the market basket prior to submission of its quotation. (*Note:* Most AbilityOne® purchases by authorized commercial distributors are through an approved AbilityOne® distributor.) The Contractor shall remain an AbilityOne®-authorized distributor for the MRO products during the BPA's period of performance. Contractors will be notified of any change in the AbilityOne® representation during the course of the BPA.

In the event a commercial item becomes an AbilityOne® item through addition to the JWOD procurement list, the BPA holder is required to automatically substitute AbilityOne® items when Essentially-the-Same (ETS) items are ordered.

13.2 Authorized Distributor

The Contractor shall be an AbilityOne distributor for procurement list items within the market basket prior to submission of its quotation. Information on the AbilityOne Program can be found at www.abilityone.gov.

13.3 Addition of Products

Based on an addition to the Procurement List or otherwise, if a commercial product is designated “essentially the same” (ETS) in accordance with 41 CFR Chapter 51, the BPA holder is required to update its Schedule contract and BPA to remove the ETS commercial product and add the corresponding AbilityOne product. BPA holders must block the purchase of ETS items by substituting the appropriate AbilityOne product.

13.4 Allocation of AbilityOne Orders

The NSNs identified in Attachment 1, Requisition Channel MRO Supplies Quote Sheet **(To Be Provided at a Later Date)** from AbilityOne’s National Industries for the Blind (NIB) are shipped from multiple NIB Non-Profit Agencies (NPAs). NIB manages the NPA allocation percentage for these NSNs and, in accordance with FAR Subpart 8.705-3, Contractors shall execute the allocations as directed by NIB Headquarters ([703-310-0354](tel:703-310-0354), gsa2@nib.org) to appropriately allocate each order to the appropriate NPA. While SourceAmerica (formerly known as AbilityOne’s NISH) does not currently have allocated items, the POC there is Monica Zveare, mzveare@sourceamerica.org; [571-226-4504](tel:571-226-4504).

Within 15 calendar days after establishment of a BPA, the Contractor shall acknowledge to the GSA CO that they have been in contact with NIB regarding this coordination process. The Contractor must also provide quarterly reporting to GSA and NIB Headquarters within 30 days of the end of the quarter on allocation results to ensure NPA allocation program integrity.

When the direct order process has not been authorized, the ordering office shall submit a letter request for allocation (requesting the designation of the AbilityOne participating nonprofit agency to produce the supplies or perform the service) to the central nonprofit agency designated in the Procurement List. Ordering offices shall request allocations in sufficient time for a reply, for orders to be placed, and for the nonprofit agency to produce the supplies or provide the service within the required delivery or performance schedule.

The ordering office’s request to the central nonprofit agency for allocation shall include the following information:

For supplies — Item name, stock number, latest specification, quantity, unit price, date delivery is required, and destination to which delivery is to be made, including packing, marking, and/or other special instructions as necessary.

When an allocation is received, the ordering office shall promptly issue an order to the specified AbilityOne participating nonprofit agency or to the central nonprofit agency, as instructed by the allocation. If the issuance of an order is to be delayed for more than 15 days beyond receipt of the allocation, or canceled, the ordering office shall advise the central nonprofit agency immediately.

Ordering offices may issue orders without limitation as to dollar amount and shall record them upon issuance as obligations. Each order shall include, as a minimum, the information contained in the request for allocation. Ordering offices shall also include additional instructions necessary for performance under the order; e.g., on the handling of Government-furnished property, reports required, and notification of shipment.

13.5 Sustainability

13.5.1 Comprehensive Procurement Guidelines (CPG)

All the regulations, laws and Government program requirements applicable to the Contractors' MAS 51V contract will apply at the BPA and order level. In addition, the following additional detail is required for performance under the BPA.

In addition the Schedule 51V contract requirements for CPG compliance, during the BPA period of performance, GSA will begin to require an automatic substitution policy to ensure the Government is buying products that foster markets for environmentally sustainable content and sustainable technologies. BPA holders shall assess the environmentally sustainable content of BPA products at least annually and refresh their product list with the highest-content products. For more details on the Environmental Protection Agency's CPG, please visit www.epa.gov/cpg. Contractors should note that CPGs are minimum content standards and that higher environmentally sustainable content is desired to foster markets for environmentally sustainable products and sustainable technologies.

13.5.2 Executive Order 13423

Attachment 2, EPP Product Criteria, is provided to assist contractors in meeting these mandates under the BPA for MRO Products.

13.5.3 Additional Requirements

The BPA requires compliance with the Resource Conservation and Recovery Act (RCRA), Section 6002; the BioPreferred Program, Design for the Environment (DfE) Safer Product Labeling Program; Federal Energy Management Program (FEMP); WaterSense, as well as DFARS Subpart 225.7002, "Restrictions on food, clothing, fabrics, and hand or measuring tools" (the Berry Amendment).

In accordance with Schedule 51V contract clause 52.216-18, orders placed under the FSSI BPAs will be subject to the Schedule contracts terms and conditions, including but not limited to, environmental mandates (e.g. Environmentally Preferable Purchasing Program, the Comprehensive Procurement Guidelines, and Energy Star), statutory mandates (e.g. Section 508 Web Accessibility, and Trade Agreements Act), including updates to same during the course of BPA performance, including Schedule Refreshes.

The BPA CO will identify any new federal environmental requirements applicable to this BPA. The Contractors shall update their product offerings to include compliant products within 90 calendar days of this notification (unless otherwise notified).

13.6 Commercial Items

The MRO supplies are identified as, and determined to be, commercial items readily available in the commercial marketplace. Consequently, the items have no inherent special capabilities and characteristics above and beyond its commercial standards. However, transportation and marking requirements particular to DoD customers will be required.

14.0 Government Administration

14.1 Government Points of Contact

The GSA Contracting Officer and the Contract Specialist are the points of contact for this requirement. Address any questions or concerns you may have any time prior to the Questions submission close date. Written requests for clarification may be sent to the following e-mail addresses:

FSSI.MRO-Req@gsa.gov

Meredith Parker, Contracting Officer
General Services Administration
Federal Acquisition Service
E-mail: meredith.parker@gsa.gov

Stephen Kinsella, Contract Specialist
General Services Administration
Federal Acquisition Service
E-mail: steve.kinsella@gsa.gov

14.2 Order Administration

Any disputes arising from any awarded orders against established BPAs that remain unresolved shall be subject to resolution in accordance with FAR 8.406-6, Disputes, and under the terms and conditions of the respective Contractor's Federal Supply Schedule 51V contracts including FAR 52.212-4(d) and FAR 52.233-1.

Evaluations of contractor performance will be completed in CPARS for each performance period of the BPA (after completion of the base year and after each of the option years). This CPARS evaluation will cover contractor performance on all orders completed under the BPA except for any orders previously rated in CPARS, for example, orders exceeding the Simplified Acquisition Threshold (SAT) in accordance with 8.406-7.

In addition to considering overall performance in the fulfillment of orders, the CPARS evaluation will cover contractor adherence to the Performance Requirement Summary. The CPARS evaluation may also cover some or all of the following areas in accordance with FAR 42.1502: Quality of Product, Schedule (on-time delivery percentage, timely submission of required reports, etc.), Business Relations, Utilization of Small Business, and other areas deemed appropriate by the Contracting Officer.

Assignment of Administrative Contracting Officers (ACOs) for this BPA may be changed at any time by the Government without prior notice to the Contractor.

15.0 Price Adjustments

Price adjustments will be determined by the BPA Contracting Officer and must be consistent with 51V Schedule Clause 552.216-70, Economic Price Adjustment. However, the Government will not allow a price increase request for products approved under the BPAs for the first year of the BPA.

In approving any request for a price increase, the Contracting Officer will conduct a dynamic pricing analysis that compares contractor pricing data to the historical pricing data as well as market data. The mere fact of a price increase commercially will not be sufficient cause for approving a price increase under the BPA.

The government reserves the right, prior to exercising an option, to verify that the price offered to GSA represents the most competitive price being offered within the federal government, adjusted for tiered discounts and administrative funding fees.

16.0 Applicable Provisions and Clauses

As emphasized elsewhere in this document, the terms, conditions, and program mandates of the contractors' Schedule 51V contract shall apply to the BPA and all orders placed thereunder. In addition, the following provisions and clauses shall apply to the BPAs and all orders placed thereunder:

Provisions and clauses incorporated by reference:

No.	Provision Title	Date
52.204-6	Data Universal Numbering System Number	(JUL 2013)
52.209-7	Information Regarding Responsibility Matters	(JUL 2013)
552.233-70 2000)	Protests Filed Directly with the General Services Administration	(MAR
No.	Clause Title	Date
52.203-17 2013)	Contractor Employee Whistleblower Rights and Requirement to	(SEP
	Inform Employees of Whistleblower Rights	
52.204-2	Security Requirements	(AUG 1996)
52.204-9	Personal Identity Verification of Contractor Personnel	(SEP 2007)
52.204-10	Reporting Executive Compensation and First-Tier Subcontract Awards	(JUL 2013)
52.209-6	Protecting the Government's Interest When Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment	(AUG 2013)
52.209-9	Updates of Publicly Available Information Regarding Responsibility Matters	(JUL 2013)
52.217-9 2000)	Option to Extend the Terms of the Contract (fill-in date: 365 days after BPA establishment)	(MAR
52.219-28 2013)	Post-Award Small Business Program Rerepresentation	(JUL
52.222-3	Convict Labor	(JUN 2003)
52.222-21 1999)	Prohibition of Segregated Facilities	(FEB
52.222-26	Equal Opportunity	(MAR 2007)
52.222-36	Affirmative Action for Workers With Disabilities	(OCT 2010)
52.223-18	Encouraging Contractor Policies to Ban Text Messaging While Driving	(AUG 2011)
52.225-13 2008)	Restrictions on Certain Foreign Purchases	(JUN
52.227-14	Rights in Data -- General	(May 2014)

252.201-7000 Contracting Officer's Representative	(DEC 1991)
552.211-73 Marking	(FEB 1996)
552.211-89 Non-Manufactured Wood Packaging Material for Export.	(JAN 2010)

PART IV - CONTRACTOR INSTRUCTIONS FOR QUOTATION SUBMISSION

17.0 Format for Quotation Submission

In order to effectively and equitably evaluate all quotations, the Contracting Officer and the Contract Specialist must receive information sufficiently detailed to clearly address submission requirements as outlined below. Each of the Volumes outlined below must be submitted in a separate (electronic) document.

The contractor's quotation submission shall consist of three (3) Volumes. These required Volumes are as follows:

Volume Number	Submission Volumes Brief Descriptions	File Name to Include	Page Limitation
Volume I	Step One Criteria	Step One	as detailed below
Volume II	Step Two Logistical Capability & Past Performance	Step Two	as detailed below
Volume III	Spec Sample and Price – MRO-Requisition Quote Sheet (Attachment 1)	Price	None

17.1 Volume Descriptions

Volume I – Step One Criteria

Quoters shall provide a response addressing each of the fourteen (14) criteria and other information in the Step One Procedures below.

Volume II – Step Two Criteria: Logistical Capability and Experience

For Logistical Capability, quoters shall provide a detailed response addressing each of the criteria and any other information in the Step Two Procedures below as well as complete and submit Attachment 7 – Contractor Cover Sheet.

Volume III – Price (Firm-Fixed Price)

Quoters shall complete Attachment 1, MRO Requisition Channel Quote Sheet. Contractors shall have items available under the relevant SIN on their GSA MAS 51 V contract prior to submission of its quotation. See Section 5.0 above.

17.2 Electronic Format

The Contractor shall submit quotes in electronic format. The Contractor shall submit quotation using Microsoft Excel (.xls) file and/or an Acrobat (PDF) file or compatible. Only one electronic quotation shall be provided per Contractor; all categories offered shall be contained within the quotation. All of the quote files may be compressed (zipped) into one file entitled "quotation.zip" using WinZip version 6.2 or later version, or the quotation files may be submitted individually contained within one single email response per Contractor submission.

17.3 Page Format

The submission shall be clearly indexed and logically assembled. Each volume shall be clearly identified and submitted as a separate document. All pages of each volume shall be appropriately numbered and identified by the complete company name, date and solicitation number in the header and/or footer. The top, bottom, left and right margins should be a minimum of one inch each. Font size should be no smaller than 12-point. Times New Roman fonts are required. Characters shall be set at no less than normal spacing and 100% scale. Tables and illustrations may use a reduced font size not less than 8-point and may be landscape. Line spacing shall be set at no less than single space. No reduction is permitted except for organization tables, charts or other graphic illustrations. The Contractor shall ensure the print is easily readable. Double spacing is not required for information in tables/graphics. The Contractor shall not use charts, tables, or graphics to subvert the page limits. Page numbers, company logos, and headers and footers may be within the page margins ONLY, and are not bound by the 12-point font requirement. Pages in violation of these instructions, either by exceeding the margin, font or spacing restrictions or by exceeding the total page limit for a particular volume, will not be evaluated. The page count will be determined by counting the pages in the order they come up in the print layout view.

PART V - METHODOLOGY FOR ESTABLISHING BPAS AND EVALUATION CRITERIA

18.0 Methodology for Establishing BPAs

In each category, there are a maximum number of BPAs to be established as a result of this RFQ and, of the BPAs established in each category, it is the goal of the Government to set-aside a certain number of BPAs for small business concerns, as established within the following table:

Category Number	Maximum Number of BPAs	Unrestricted Award Basis	Restricted Award Basis; Small Business Set Aside
1 – Hardware	2	1	1
2 – Tools and Tool Cabinets	2	1	1
TOTAL	4	2	2

Quoters shall be a GSA MAS Schedule 51V Contractor – Hardware Superstore, and shall be able to offer the Tools and Hardware items described in the Scope of this document, Section 5.0. The Government may establish BPAs without further communications based on initial quotes received. Accordingly, each initial quote should be submitted in as complete a form as possible and without taking exception to any provision.

GSA will evaluate quotes of the market basket items. The two (2) Requisition Channel categories are mutually distinct based on the structure of the evaluation factors assigned to each designated category as described further in this RFQ. Price quotes for the BPAs shall be inclusive of all shipping charges for the items offered under each Category.

BPAs awarded as a result of this RFQ will be established on the basis of the RFQ non-price and price evaluation factors described below. Two BPAs will be established within each identified category based on the quotes received, while maintaining the size restrictions for each category.

The Government will perform an in-depth review of the quotes. The Technical Evaluation Team will rate each evaluation factor for each quote against the specified evaluation criteria in the solicitation. A No-Go on any Step One factor will render the quotation unacceptable, upon which no further consideration will be given.

19.0 Evaluation Criteria for Award

Evaluations will be conducted using the procedures in FAR Part 8.4, using the definition of best value found in FAR Part 2.101. Quotes will be evaluated in a three step process. Quotes that fail to meet the requirements during each step will be eliminated from competition and not evaluated under the procedures in the next sequential step.

19.1 Step One Procedures

Quotations will be evaluated for conformity and responsiveness with the following Go/ No-Go criteria. A failure on **any single one** of these criteria will result in a No-Go rating and the quoter will be eliminated from the competition:

19.1.1 Go/No-Go Criterion 1

The vendor has followed all instructions in the Submission Instruction Part IV above, including certifying that that all products offered meet the specification standards of the National Stock Number item description and/or ANSI standards. The vendor has submitted a quote for 100% of the “Market Basket Items”, which are products that have been identified as being purchased by Global Supply customers on a frequent basis.

19.1.2 Go/No-Go Criterion 2

The vendor is registered in the System for Award Management under the same DUNS used in submitting its quote and has current, updated information contained therein, including updated Representations and Certifications information with regard to Socioeconomic status, and has an active Schedule 51V contract (Page Limit: One Page).

19.1.3 Go/No-Go Criterion 3

The vendor is an authorized AbilityOne provider. Letter of certification as an authorized AbilityOne reseller shall be submitted with the quote (Page Limit: One Page).

19.1.4 Go/No-Go Criterion 4

The vendor will certify whether a product is manufactured in accordance with all applicable DFARS clauses (Section 225.7, Prohibited Sources, and 225.8, Other International Agreements and Coordination) (Page Limit: One Page).

19.1.5 Go/No-Go Criterion 5

The vendor will have the capability of offering all products in GSA Advantage and DoD email (Page Limit: One Page).

19.1.6 Go/No-Go Criterion 6

The vendor will have the capability to submit GSA-required data regarding NSN and part number information, on-time delivery of orders, total quantity and dollar spend as well as savings realized by category, and other data as required to meet the goals of the acquisition throughout the life of the BPA, as described in this document (Page Limit: One Page).

19.1.7 Go/No-Go Criterion 7

Demonstrate the ability to comply with Item Purchase Descriptions.

The Contractor shall provide a written statement that they have reviewed and comply with the requirements, characteristics, and specifications for the Government’s Item Purchase Descriptions (IPDs) provided for the Market Basket items with this RFQ (Attachment 3) and for any and all

non-Market Basket Items to be provided within the scope of the Hardware and Tools categories. Contractors' quotations failing to submit this statement will not be considered for further evaluation and shall result in receiving a No-Go rating. (Page Limit: One Page).

19.1.8 Go/No-Go Criterion 8

Demonstrate the current ability to support a requisition environment.

Key requirements to address this ability shall include, but are not limited to: Familiarity with FEDSTRIP / MILSTRIP processes relating to transaction formats, receipt of transactions, processing of shipments and shipment documentation, NSN matching from Contractor Inventory Management Requirements, integration with DoD's VSM network, routing of shipments to specified freight forwarders and DoD consolidation points, water ports and air terminals; ability to comply with DoD's requirements for how shipments are palletized and organized for DoD consolidation point processing (described elsewhere in this solicitation), and ensure appropriate marking, packaging, and labeling. Contractors shall demonstrate in their proposal how their business processes will meet these requirements and demonstrate Contractor capability to conform to the unique needs of the DoD integrated global distribution system referenced elsewhere in this RFQ (i.e., MIL STD 129; Defense Transportation System; DD Form 1348; interface with GSA to accomplish routing and shipping coordination); and describe any past experience in meeting these capabilities. Contractors that do not address the ability to support this requisition environment will receive a No-Go rating. (Page Limit: Five Pages)

19.1.9 Go/No-Go Criterion 9

Demonstrate the ability to meet the electronic communication capability.

The Contractor must be able to conduct business, utilizing a standardized electronic method (either EDI or Web Portal). All transactions will be submitted to and received by the prime Contractor only. Under BPA Delivery Orders, GSA will not conduct electronic transactions with the prime Contractor's Sub-Contractors or dealers. All electronic communications between GSA and the Contractor will be through GSA EDI Contractor or the GSA EDI Gateway. The quotation shall include a narrative statement as evidence that the Contractor will be able to conduct business utilizing a standard electronic method, via EDI or Web Portal. If the Contractor is unable to provide a sufficient narrative as evidence that it complies with being able to conduct business using a standard electronic method, the quotation will not be considered for further evaluation and shall receive a No-Go rating. (Page Limit: One Page).

19.1.10 Go/No-Go Criterion 10

Demonstrate the ability to secure scannable bar codes (Universal Product Coding (UPC)).

The Contractor shall have the ability to convert products to UPC coding. The Contractor shall ensure that all products are labeled with scannable bar codes (based on SKU, internal item number, or Universal Product Code). These bar codes must have the capability of being scanned by the Symbol LS4208 Barcode Scanner, or an equivalent scanner. A written statement declaring the Contractors' ability to convert products to UPC coding must be submitted in response to this factor, declaring assurance that all products are labeled with scanner bar codes. Contractors failing to submit this statement within quotations will not be considered for further evaluation and shall result in receiving a No-Go rating. (Page Limit: One Page).

19.1.11 Go/No-Go Criterion 11

Demonstrate the ability to provide substantial Subcontracting Goals for Socioeconomic Concerns.

A copy of the current approved subcontracting plan shall be provided. As part of BPA performance, the Contractor shall submit subcontracting goals that are greater than those under its existing MAS 51 V subcontracting plan. The Schedule level Subcontracting Plan is still binding and will not be replaced or removed under this vehicle. The Subcontracting Plan attachment is provided only for proposing Goals that exceed the Schedule Plan. Quotations that fail to provide subcontracting goals that exceed the Contractor's MAS plan will receive a No-Go rating. (Subcontracting Plan Template -Attachment 8) (Page Limit: Fifteen Pages).

19.1.12 Go/No-Go Criterion 12

Demonstrate the ability to comply with packing, packaging, marking, labeling, and documenting requirements.

The Contractor shall provide evidence of knowledge for all packing/packaging requirements, marking, labeling, and documents (noted within the Transportation and Routing section and Transportation Attachments). Requirements include, but are not limited to, knowledge of MIL-STD 129 and FED-STD 123. Therefore, Quoters are required to submit with their responses, samples of the packing slips and package labels for both CONUS and OCONUS deliveries. Contractor quotations failing to provide **sample** evidence of their knowledge of all packing/packaging, marking, labeling, and documenting requirements will not be considered for further evaluation and shall result in receiving a No-Go rating. (Page Limit: Five Pages)

19.1.13 Go/No-Go Criterion 13

Demonstrate the ability to offer Fill or Kill status.

The quotation shall supply evidence of a clear understanding of the requirement for Fill or Kill at the line-item level. The Contractor will automatically deliver items available and notify customers within 24 hours of order placement when a back-ordered item can be delivered. Customers will determine if they wish to wait for the back-ordered item or

order from another BPA holder. If no response is received from the customer within 24 hours of notification of a back-ordered item's delivery estimate, the Contractor shall default to "Kill" for the line item. If the Contractor is unable to provide sufficient narrative evidence demonstrating a clear understanding of this requirement, the submitted quotation will not be considered for further evaluation and shall result in receiving a No-Go rating. (Page Limit: One Page).

19.1.13 Go/No-Go Criterion 14

Past Performance.

Past Performance information will be used to assess relative risks associated with a Quoter's likelihood of success in fulfilling the solicitation's requirements as indicated by that Quoter's record of performance in past contracts of similar type, size, and scope. The Government will conduct a performance assessment based on the quality, relevancy and recentness of the Quoter's past performance as it relates to the probability of successful accomplishment of the required effort.

Past performance will be determined through review of three (3) past performance questionnaires (Attached) submitted by the quoter.

In addition, the System for Award Management (SAM), the Federal Awardee Performance and Integrity Information System (FAPIS), Past Performance Information Retrieve System (PPIRS), ACO Report Cards, and other data obtained from any other sources that are considered accurate and relevant will be reviewed. Reports will be retrieved at a minimum using each Contractor's DUNS number but may also use other search criteria. The Contractor should be aware of any negative past performance information contained in SAM, FAPIS, PPIRS (CPARS), and any other applicable system of record, should have addressed the issues as permitted by the system. Should the CO obtain negative past performance information from a source to which the Contractor has not had an opportunity to respond, the Contractor will be given the opportunity to submit a one-page explanation of mitigating circumstances for consideration by the CO.

19.1.13.1 Acceptable or Excellent Past Performance (Go)

An acceptable past performance rating will be given if the vendor submits three past performance questionnaires with an overall rating of Acceptable (3 out of 5 on a likert rating scale) or higher on the Past Performance Questionnaire.

An Excellent provider will provide evidence of three "highly satisfied"--rated a 4 or 5 out of 5 on a likert rating scale--customer reviews for the past three consecutive years.

19.1.13.2 Unacceptable Past Performance (No-Go)

Quoters with unacceptable past performance will be given a “No-Go” rating for this factor and will be excluded from competition. Unacceptable past performance is defined as two or more findings of negative past performance.

19.1.13.3 Negative Information

The government may search public records of past performance, contact agencies with knowledge of the contractor’s past performance, and communicate within GSA to determine that there is not a pattern of poor performance on the part of the contractor. The government will consider mitigating circumstances if the contractor brings a negative performance rating to the attention of the government at the time the quote is submitted. The government does not guarantee that the contractor’s efforts to provide mitigating information will result in a Go rating for this criterion.

Two findings of negative past performance not found to be wholly mitigated by circumstances will result in the Quoter being excluded from competition (No-Go rating).

19.1.13.4 Neutral Past Performance

A contractor submitting a quote without relevant past performance must submit a narrative explaining why the lack of past performance will not prevent the government from meaningfully predicting the likelihood that the contractor will perform on an unacceptable, acceptable, or excellent basis.

The government will evaluate such explanations or claims as they arise during evaluations. The submission of a claim to be given a neutral past performance rating will not entitle the contractor to communication or exchanges during evaluations, nor will it bind the government to rate the contractor in a manner that will favorably impact the contractor’s competitive standing at the end of evaluations.

19.2 Step Two Procedures

Logistical Capability and Experience will be evaluated under a narrative rating system and will receive a rating of excellent, acceptable, or unacceptable.

Positive Demonstration of Logistical Capability

The contractor must choose three previous federal clients and provide all requested performance metrics (below) for the previous three years (Metrics Page

Limit: 3 Pages). No records of order placement and shipment delivery may be omitted for the three federal clients selected. The clients selected must have placed at least five orders in the past three years that exceeded \$10,000,000. At least one client must have placed more than 20 orders that were shipped outside of the Continental United States. A substantial portion (50% or more) of these orders must have been in support of a requisition environment as described above in Criteria 7,8,10, and 12 of the Step One Procedures.

The contractor shall provide a narrative (Narrative Page Limit: 2 pages) demonstrating their experience in meeting the above criteria for the past two years.

In addition, the contractor must provide at least two references from the selected clients which will include their personal name, title, email address, physical address, and telephone number. It is acceptable to submit contact information from the same references completing the Past Performance questionnaires, however it is not necessary that they be the same.

19.2.1 Acceptable Logistical Capability

The vendor will positively demonstrate their ability to meet the following logistical requirements at the the required performance levels through submission of a narrative that responds positively to every requirement in the Goods and Services section. Unacceptable offers will be excluded from competition. An acceptable logistical capability rating will be given if the vendor demonstrates the following:

19.2.1.1 The vendor will demonstrate their ability to fill orders for all of the market basket items in either Advantage or their awarded catalog.

19.2.1.2 The vendor will submit evidence of its capability to provide products in the Continental United States within 4 business days of requisition, and will provide evidence that delivery times are met 95% of the time for all orders placed with the three selected clients during the past three years.

19.2.1.3 The vendor will submit evidence of its capability to provide products outside of the Continental United States within 7 business days of requisition, and will provide evidence that delivery times are met 95% of the time for all orders placed within the three selected clients during the past three years.

19.2.1.4 The vendor will submit evidence of its ability to escalate and resolve problem shipments through the submission of a triage chart with identified points of contact and telephone numbers.

19.2.1.5 The vendor will submit metrics for the number of items returned by the three selected federal clients during the past three years. An acceptable return rate will not exceed 90%.

19.2.1.6 An acceptable Logistical Capability rating will translate into a ranking of "4".

19.2.3 Excellent Logistical Capability

The vendor will be rated as capable of providing excellent logistical capability if found to meet the following criteria:

19.2.3.1 In addition to meeting the requirements for Acceptable Logistical Capability, an Excellent provider will demonstrate a 98% on-time, accurate shipping record for Orders in excess of \$20,000,000 for the past three consecutive years.

19.2.3.2 An excellent Logistical Capability rating will translate into a ranking of "5".

Final Technical Ranking

The most technically qualified Quoters will advance to price evaluation. The purpose of ranking Quoters in the following method is to determine which Quoters are most qualified to perform the requirement. The Quoters who score the highest according to the below methodology will not necessarily be awarded a BPA if they fail to win the subsequent price competition.

The following chart is an example of how the final technical scores will translate into a decision to retain the Quoter and move to the next phase of competition; a maximum score of 8 is possible: Logistical Capability excellent, "5", Experience excellent, "3".

Any Quoter found unacceptable in Logistical Capability or Experience will be eliminated from competition. Scores of 8, 7, and 6 will move to the next phase of competition.

Unrestricted Competitor	Technical Score	Decision
BPA Holder #1	8 (5+3)	Evaluate Price
BPA Holder #2	7 (5+2)	Evaluate Price
BPA Holder #3	7 (4+3)	Evaluate Price
BPA Holder #4	6 (4+2)	Evaluate Price

19.3 Step Three Procedures

Technical Specification Sample and Price Evaluation.

19.3.1 Technical Specification Sample

A stratified random sample of National Stock Number items will be identified and provided to Quoters at this step. All Quoters advancing to Step Three will be asked to submit specifications consistent with the sample of NSN numbers in the Category being offered. Quoters whose samples are less than 98% compliant with a review of the specification for conformance with the NSN description and schedule standards (i.e., TAA compliance) will be eliminated from competition (The 98% compliance review is a measure of quality, not a statement that the contractor is not responsible for meeting compliance requirements 100% of the time. Any items found not to be in compliance with regulatory requirements at the time of evaluation or after award must be removed from the contractor’s BPA offering).

19.3.2 Market Basket Evaluation

The average of all item quotes inclusive of quantity discounts will be calculated. High-spend, market basket items will be given a weight of two (2).

Quote Sheet Organization, Market Basket Items

Market Basket Item	Schedule Price	Proposed Discount	Aggregate Spend Tier 1	Aggr. Spend Tier 2	Aggr. Spend Tier 3	Aggr. Spend Tier 4	Aggr. Spend Tier 5	Avg. Value for Evaluation Purposes (columns 3-8)
NSN								\$25.00, 15%

19.3.3 Sample price evaluation by NSN (non-market basket) in representative sub-segments

A stratified random sample of National Stock Number items that are NOT market basket items will be requested from all Quoters. Non-market basket items will be priced by proposed quantity discount from Schedule by sub-category, per the attached Quote sheet. *Contractors are responsible for identifying and segmenting their proposed non-market basket item products.* The average of all item quotes inclusive of quantity discounts will be calculated. Non-market basket items will be given a weight of one **(1)**.

Quote Sheet Organization, Non-Market Basket Items

Item: Category	Schedule Price	Proposed Discount	Aggregate Spend Tier 1	Aggr. Spend Tier 2	Aggr. Spend Tier 3	Aggr. Spend Tier 4	Aggr. Spend Tier 5	Avg. Value for Evaluation Purposes (columns 3-8)
Sample Description, Brand Name or Equal								\$25.00, 15%

20.0 Reverse Auction Process

Following the evaluation of market basket and non-market basket items, final price positions on market basket items will be revealed. Non-market basket item discounts will be revealed. Quoters will have the opportunity to reduce their prices to the most competitive position possible.

The best quoted price will be provided in the form of non-attributable (to specific contractors) figures.

The final quotes must represent the lowest overall price, including market basket evaluation and non-market basket proposed discounts.

21.0 Final Selection

The extended market basket prices, which should represent the lowest overall total price, market basket and non-market items considered, will be the final discriminatory factor in determining awards.

22.0 Option Year Pricing

GSA will not separately evaluate option-year pricing. Option-year pricing will be based on changes approved for the Contractor's MAS contract pricing while maintaining the offered BPA discounts. Pricing will be evaluated based on the combination of the offered discounts and all of the offered aggregate volume discounts and aggregate tiers for the base period. The offered price and aggregate volume discounts and aggregate tiers will be evaluated individually to ensure that the lowest possible pricing is obtained for both market and non-market basket items. The dynamic pricing analysis covered in Sections 9.0 and 15.0 will also be utilized by the Contracting Officer in determining whether to exercise the option year. Evaluation of options shall not obligate the Government to exercise the option(s).

PART VI - ATTACHMENTS AND OTHER INFORMATION

23.0 Attachments

- Attachment 1: Requisition Channel MRO Supplies Quote Sheet (to be provided at a later time)
- Attachment 2: Environmentally Preferable Purchasing Criteria (reference only)
- Attachment 3: Market Basket - Item Purchase Description Listing
- Attachment 4: Performance Requirement Summary (to be provided at a later time)
- Attachment 5: GSA Class Deviation – 552.203-72– Representation by Corporations Regarding an Unpaid Delinquent Tax Liability or a Felony Conviction Under Any Federal Law (DEVIATION) (APR 2012)
- Attachment 6: Environmental and Energy Conservation Objectives and Requirements (to be provided at a later time)
- Attachment 7: Contractor Cover Sheet
- Attachment 8: Subcontracting Plan² (for reference only in goaling)
- Attachment 9: Past Performance Questionnaire (to be provided at a later time)

² The Schedule level Subcontracting Plan is still binding and will not be replaced or removed under this vehicle. The Subcontracting Plan attachment is provided only for proposing Goals that exceed the Schedule Plan.

24.0 Transportation Attachments

Trans. Att. 1:	Transportation and Delivery for Acquisition
Trans. Att. 2:	Delivery Timelines for CONUS Shipments with no special provisions
Trans. Att. 3:	Delivery Timelines for OCONUS Shipments with no special provisions
Trans. Att. 4:	Use of the Military Postal System
Trans. Att. 5:	OCONUS Shipments

25.0 Acronyms

AAC	Activity Address Code
APO	Agency Program Officer
BPA	Blanket Purchase Agreement
CAOC	Chief Acquisition Officers Council
CFO	Chief Financial Officer
CO	Contracting Officer
CONUS	Contiguous United States
CPG	Comprehensive Procurement Guidelines
DfE	Design for the Environment
DOD	Department of Defense
EPA	Environmental Protection Agency
ET	Eastern Time
ETS	Essentially-the-Same
FAPIIS	Federal Awardee Performance and Integrity Information System
FAR	Federal Acquisition Regulations
FEMP	Federal Energy Management Program
FOB	Freight on Board
FSSI	Federal Strategic Sourcing Initiative
GSA	General Service Administration
GSS	Global Supplies and Services
IFF	Industrial Funding Fee
JWOD	Javits-Wagner-O'Day
MAS	Multiple Award Schedule
MRO	Maintenance Repair Operations
NLT	No Later Than
NSN	National Stock Number
OCONUS	Outside the Contiguous United States
OFPP	Office of Federal Procurement Policy

OMB	Office of Management and Budget
POC	Point of Contact
PPIRS	Past Performance Information Retrieve System
RCRA	Resource Conservation and Recovery Act
RFI	Request for Information
RFQ	Request for Quotation
RMA	Returned Merchandise Authorization
SAM	System for Award Management
SBA	Small Business Administration
SIN	Special Item Number
SSLC	Strategic Sourcing Leadership Council
TAA	Trade Agreements Act

26.0 Definitions

Agency Program Officer: Government official who supports the Contracting Officer to define the agency's needs and ensure that the contract outlines the capabilities of meeting those needs.

Aggregated Sales Discounts: Additional discounts that go into effect upon reaching a cumulative level of spend Government-wide under the entire BPA.

Aggregate Threshold: The cumulative spend level used to define when aggregate tiered discounts will apply.

Authorized Ordering Officials: Customer Agency Contracting Officers and GSA SmartPay Purchase Card holders who are authorized to purchase.

BPA Holders: Companies that have been selected for a specific requirement having the capabilities of providing the products/services described within the BPA.

Contiguous United States (CONUS): The 48 adjoining states in North America, south of Canada and north of Mexico, and the District of Columbia.

Container Load (CL): A Container-Load (CL) shipment is defined as a shipment that is 800 cubic feet (ft³) in volume or greater and/or 10,000 lbs or greater in weight, otherwise, any shipment which will occupy at least half of a standard 20 feet dry sea van, when the volume and weight of the container contents are evenly distributed over the floor of the container.

Contracting Officer: A Government official having the authority to enter into, administer, and/or terminate contracts and make related determinations and findings. GSA Contracting Officers or their delegates are responsible for administering the BPAs. Contracting Officers are authorized ordering officials.

Damaged Goods: Goods/Products that have been injured, spoiled, or were destroyed and are no longer valued at market cost.

Direct Order Process: Once a commodity or service is added to the Procurement List, the central nonprofit agency may authorize the contracting activity to issue orders directly to a nonprofit agency without requesting an allocation for each order.

Electronic Data Interchange: Is a document standard which when implemented acts as a common interface between two or more computer applications in terms of understanding the document transmitted.

End-User: The person who actually uses a particular (final) product.

Government Bill of Lading Method: Method for which goods are transported for any agency of the federal government; view the following link for details - <http://gsa.gov/graphics/fas/FreightHandbook2012.pdf>

Green Products: Products that are made from environmentally sustainable materials relative to comparable products.

Market Basket: The entire market basket items product list required under the BPA. The Contractor's quote must include 100% of the Market Basket items. The market basket of market basket items required under the BPAs are broken down into two categories of Maintenance, Repair, and Operations (MRO) Supplies. The MRO BPAs consist of Category One (Hardware) and Category Two (Tools and Tool Cabinets). Market Basket items within each category do not overlap with items in the other categories.

Non-Market Basket: Items available under the Contractor's MAS contract that are clearly within the scope of this BPA program that are offered as part of the Contractor's BPA catalog.

Outside the Contiguous United States (OCONUS): All United States' possessions, territories, and states outside of the contiguous United States, including, but not limited to, Alaska, Hawaii, Puerto Rico and Guam.

Ordering Office: The office within an agency where a purchase order originates.

Program Office: The office within an agency that defines and maintains the objectives of the purchase order.

Proposed BPA Prices: Prices submitted by Contractors for market basket items on the MRO Supplies Quote Sheet.

UPC-A: UPC-A is used for marking products which are sold at retail in the USA. The barcode identifies the manufacturer and specific product so point-of-sale cash register systems can automatically look up the price.

Weighted Total Extended Market Basket Value: The Weighted Total Extended Market Basket Value is calculated by multiplying the Proposed BPA Price and the Aggregated Sales Discounts by the Estimated Annual Volume of each item. These values are then multiplied by the assigned weight for the base tier as well as the additional five (5) aggregate tiers. The Weighted Total Extended Market Basket Value is the sum of all the extended tier prices for all items within a category.

Attachment 4 (MRO)— Product Environmental Attributes

Instructions: for each product your company is proposing to offer, where one or more environmental attributes are marked as “must offer” or “offer exclusively,” list your proposed part numbers for one or more compliant items. GSA will check a sampling of proposed items during evaluation to ensure they meet the listed criteria.

Note: You do not need to list compliant part numbers for items which you offer on other Federal contracts but are not proposing to offer through the FSSI BPA.

Key:

“Optional” — Contractor is encouraged to offer products with this attribute / category

“Must Offer” — If Contractor offers products in this category, then products with this attribute must be offered. However, not all products offered in the category need to have the attribute.

“Offer Exclusively” — If Contractor offers products in this category, all items offered in the category need to have the attribute.

* = see detailed requirements column where multiple attributes apply

Environmental Items by Category	CPG	BioPreferred	ENERGY STAR	WaterSense	Detailed Requirements	Part Numbers?
MRO— Hardware						
Bathroom Sink Faucets	n/a	n/a	n/a	Must Offer		
Showerheads	n/a	n/a	n/a	Must Offer		
Toilets	n/a	n/a	n/a	Must Offer		
Urinals	n/a	n/a	n/a	Must Offer		
Garden Hose	Optional	n/a	n/a	n/a	60-65% postconsumer rubber and/or plastic	
Soaker Hose	Optional	n/a	n/a	n/a	60-70% postconsumer rubber and/or plastic	
Disposable Food Containers	n/a	Optional	n/a	n/a	67% minimum biobased content	
Office Recycling Containers and Waste Receptacles (Plastic)	Must Offer	n/a	n/a	n/a	20% minimum postconsumer content	
Pallets: Paperboard	Must Offer	n/a	n/a	n/a	50% minimum postconsumer paperboard	
Pallets: Plastic	Must Offer	n/a	n/a	n/a	100% minimum postconsumer for plastic lumber	
Pallets: Wooden	Must Offer	n/a	n/a	n/a	25% minimum postconsumer for thermoformed	
Parts Wash Solution	n/a	Optional	n/a	n/a	95% minimum postconsumer wood	
Manual-Grade Strapping (Polyester)	n/a	Optional	n/a	n/a	65% minimum biobased content	
Manual-Grade Strapping (Polypropylene)	Must Offer	n/a	n/a	n/a	50% minimum postconsumer content	
Industrial Drums: Fiber	Must Offer	n/a	n/a	n/a	10% minimum recovered content	
Industrial Drums: Plastic	Must Offer	n/a	n/a	n/a	100% postconsumer paper	
Industrial Drums: Steel	Must Offer	n/a	n/a	n/a	30% minimum postconsumer content	
Greases: Food Grade	n/a	Optional	n/a	n/a	16% minimum postconsumer content	
Greases: General	n/a	Optional	n/a	n/a	42% minimum biobased content	
Greases: Multipurpose	n/a	Optional	n/a	n/a	49% minimum biobased content	
Greases: Rail Track	n/a	Optional	n/a	n/a	72% minimum biobased content	
Greases: Truck	n/a	Optional	n/a	n/a	30% minimum biobased content	
Pre-Formed Packing & Insulating Materials	n/a	Optional	n/a	n/a	71% minimum biobased content	
Room Air Conditioners (non-portable, if offered)	n/a	n/a	Offer Exclusively	n/a	74% minimum biobased content	
Uninterruptable Power Supplies	n/a	n/a	Must Offer	n/a		
Battery Chargers	n/a	n/a	Must Offer	n/a		

LED Lighting	n/a	n/a	Offer Exclusively	n/a
Compact Fluorescent Lamps	n/a	n/a	Offer Exclusively	n/a
Downlights	n/a	n/a	Must Offer	n/a
Ceiling Fans	n/a	n/a	Must Offer	n/a
Decorative Light Strings	n/a	n/a	Must Offer	n/a
Light Fixtures	n/a	n/a	Must Offer	n/a
Lighting Controls	n/a	n/a	Optional	n/a
Exit Signs	n/a	n/a	Must Offer	n/a

MRO— Tools and Tool Cabinets

Battery Chargers	n/a	n/a	Must Offer	n/a	20% minimum postconsumer fiber
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MRO— Paints, Adhesives, and Sealants

Wood and Concrete Sealers: Penetrating Liquids	n/a	Optional	n/a	n/a	79% minimum biobased content
Wood and Concrete Sealers: Membrane Concrete Sealers	n/a	Optional	n/a	n/a	11% minimum biobased content
Wood and Concrete Stains	n/a	Optional	n/a	n/a	39% minimum biobased content
Interior Paints and Coatings: Latex	n/a	Optional	n/a	n/a	20% minimum biobased content
Interior Paints and Coatings: Water-borne Alkyd	n/a	Optional	n/a	n/a	20% minimum biobased content
Interior Paints and Coatings: Oil-Based	n/a	Optional	n/a	n/a	67% minimum biobased content
Interior Paints and Coatings: Solvent-borne Alkyd	n/a	Optional	n/a	n/a	67% minimum biobased content
Reprocessed Latex Paints: Dark Colors	Optional	n/a	n/a	n/a	50% minimum postconsumer content
Reprocessed Latex Paints: White, Off-White and Pastel Colors	Optional	n/a	n/a	n/a	20% minimum postconsumer content
Consolidated Latex Paint	Optional	n/a	n/a	n/a	100% minimum postconsumer content

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HARDWARE CATEGORY MARKET BASKET ITEMS

**1. 4110-00-203-0565 Ver: 35 UI: EA Status: Active AAC: G
DISPENSER, DRINKING WATER, MECHANICALLY COOLED**

NSN Description:

Power Usage: AC, 115 volts, 60 Hertz, Single Phase
Dispenser Type: Gravity, Inverted Bottle and Steel Cabinet
Cabinet Height: 38 inches minimum and 44 inches maximum
Cabinet Depth: 25 inches maximum
Cabinet Material: Steel
Draw Off Capacity: 0.95 Gallons Per Hour
Draw-Off Device Type: Faucet
Condenser Type: Air, Hermetically Sealed
Features: Complete and Accurate Installation Instructions

**2. 4110-00-255-8760 Ver: 23 UI: EA Status: Active AAC: G
DISPENSER, DRINKING WATER, MECHANICALLY COOLED**

NSN Description:

Power Usage: AC, 115 volts, 60 Hertz, Single Phase
Dispenser Type: Basin Top Cabinet w/Top Draw-Off
Cabinet Size: 38 inches minimum and 44 inches maximum
Cabinet Depth: 25-1/2 inches maximum
Draw Off Capacity: 9-1/2 Gallons Per Hour Minimum
Draw-Off Device Type: Bubbler
Condenser Type: Air, Hermetically Sealed
Features: Complete and Accurate Installation Instructions

**3. 4110-01-471-1875 Ver: 5 UI: EA Status: Pending AAC: J
REFRIGERATED APPLIANCE:**

NSN Description:

General Characteristics: Established for GSA customers unable to order ACC I NSNs thru normal Fedstrip/Milstrip procedures; Specify make and model number of appliance as exception data on requisition; Please note that the price listed on this NSN is an average price; Contact supplier for exact pricing information.

**4. 4140-00-256-9912 Ver: 8 UI: EA Status: Active AAC: G
FAN, CIRCULATING**

NSN Description:

This technical description covers a desk/floor standing and wall mounted oscillating fan with a blade diameter of 12 inches.

The fan shall conform to the following design and performance characteristics:

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Plug Style - North America

Blade Diameter - 12 inches, +/-1/2 inch

Air Capacity - 2000 Cubic Feet per Minute (CFM) minimum

Power Consumption - 65 Watts maximum

Voltage Rating - 120 Volts AC +/-10% at 60 Hertz +5%, Single Phase

Salient Characteristics:

Design and construction - The fan covered by this technical description shall include a base, blade assembly, fan guard, motor, oscillating mechanisms, switches, cable assembly, and all other parts necessary to constitute a complete and functional product.

Insulation - Insulation shall be Class A or B in accordance with the National Electrical Manufacturers Association (NEMA) Standard No. MG-1

Switch - The switch shall have one off and not less than 3 on speeds positive position

Power cord and plug - The fans shall be furnished with a three wire power supply cord with an integral ground. The supply cord shall have a minimum overall length of eight feet.

Base - The base shall be suitable for desk or floor use and wall mounting. The base shall be metal or plastic and provide sufficient strength to support the weight of the fan when it is wall mounted. The base shall also have sufficient weight and strength so that the fan remains stationary when operating on a desk top at the highest speed.

Blade Assembly - The blade assembly shall consist of a complete air screw having at least three impact resistant plastic blades molded together with a hub or central support.

Head Tilt - The tilt adjustment shall adjust to a minimum of 10 degrees above or below the horizontal plane of the motor axis for desk fans. The head tilt and locking device shall be designed to permit adjustment and locking of the tilt position within the range as specified above without the use of tools.

Oscillating mechanism - The oscillating mechanism shall have a cycle with a minimum angle range oscillation of 80 degrees. The mechanism shall be designed to be disengaged in any position within the oscillation cycle. The fan shall remain stationary in the position of engagement.

Guard - The guard shall enclose the entire face, perimeter, and reverse side of the fan blades and associated moving parts. The guard shall consist of a front section and a rear section, designed so that when assembled to form a complete guard. Additionally, the sections must be readily separable, without the use of special purpose tools, so as to permit access to the blade assembly and associated moving parts.

UL - The fan shall conform to the requirements of Underwriters Laboratories Inc. (UL) Standard No. UL 507

Operating speed - The low speed position shall provide 60 to 80 percent of the maximum speed when operating at rated voltage and frequency. The fan shall be operated at both low and maximum speed settings and speed (r.p.m) shall be measured stroboscopically or with a counter which imposes no appreciable load on the fan motor. The sensitivity and accuracy of the test apparatus shall be such that differences of 20 r.p.m. may be detected.

CFM air delivery - The fan shall be mounted so that the axis is 4 feet above the floor. The plane of rotation of the fan blades shall be at least 5 feet from any wall. The anemometer shall be rigidly supported in the air stream with the axis of rotation parallel to the axis of rotation of the fan. The anemometer stand shall be located so that the center of the anemometer in each station will be in a single vertical plane which is parallel to and 9 feet in front of the plane of rotation of the fan blades. Test readings shall be taken at 2 inch intervals over a four foot span, both vertical and horizontal lines at a distance of 9 feet in front of the plane of rotation of the fan blades. The center of the four foot span referenced above shall be on a line coincident with the axis of rotation of the fan blades. A total of 49 test readings shall be taken. Each test reading shall be

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taken over an operating period of not less than two minutes. All readings shall be taken at maximum fan speed. The air delivery in cubic feet per minute shall be the average of all test readings in feet per minute multiplied by the area of a 4 foot diameter circle (12.56 square feet). The minimum CFM shall be 2000 CFM.

Vibration limits - The rotating components of the fan shall be balanced to the extent that the total vibration shall not exceed 0.003 times the distance in inches between an upward extension of a vertical line running through the approximate center of the motor support and point of measurement. The distance is to be measured parallel to the motor axis with the motor housing adjusted for zero degrees tilt.

Data - In addition to the safety and installation instruction required by UL Standard No. 507, the contractor shall furnish with the fan a copy of the manufacturer's standard "owner/operator manual" applicable to the machine. The manual shall include instructions for operating the machine, safety precautions, commercial repair instructions which shall include a complete list of all replaceable parts, and preventative/routine maintenance instructions. This data shall be the same information that is provided with similar machines sold in the commercial market.

5. 4140-00-833-5068 Ver: 21 UI: EA Status: Active AAC: G FAN, CIRCULATING, COLUMN, ELECTRIC, NON OSCILLATING

NSN Description:

This technical description covers a 30 inch pedestal mounted non-oscillating fan. The fan shall include a pedestal, blade assembly, fan guard, motor, switch, cable assembly, and all other parts necessary to constitute a complete functional product

The fan shall conform to the following design and performance characteristics:

Plug Style - North America

Blade Diameter - 30 inches, +/-1/2 inch

Speed Settings - 2 minimum

Air Capacity - 8000 CFM minimum at maximum speed setting, 5000 CFM minimum at minimum speed setting

Power Consumption - 260 Watts +/-10 Watts

Voltage Rating - 120 Volts AC +/-10% at 60 Hertz +5%, Single Phase

Salient Characteristics:

Insulation - Insulation shall be Class A or B in accordance with the National Electrical Manufacturers Association (NEMA) Standard No. MG-1

Switch - The switch shall have one off and not less than 2 on speeds.

Power cord and plug - The fans shall be furnished with a three wire power supply cord with an integral ground. The supply cord shall have a minimum overall length of eight feet.

Base - The base shall be suitable for floor use. The base shall be metal and provide sufficient strength to support the weight of the fan when it is floor mounted. The base shall also have sufficient weight and strength so that the fan remains stationary when operating at the highest speed.

Blade Assembly - The blade assembly shall consist of a complete air screw having at least three impact resistant metal blades connected together with a hub or central support.

Head Tilt - The tilt adjustment shall adjust to a minimum of 10 degrees above or below the horizontal plane of the motor axis for the circulating fans. The head tilt and locking device shall be designed to permit adjustment and locking of the tilt position within the range as specified above without the use of tools.

Column and pedestal - The column shall be of a telescoping design consisting of an upper column sliding into or out of a lower column. The lower column shall prevent the accidental removal of the upper column. Without the use of special tools,

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the upper column shall lock at any height within the vertical adjustment limits of the column. When the column is at its highest adjustable positions, the top of the fan guard shall not be less than 90 inches, nor more than 96 inches from the floor. The column shall have an adjustable height of not less than 30 inches above its lowest adjustable position. The power supply cord shall enter the pedestal, or at any point that is less than 3 inches above the floor level. A bushing shall be used to protect the supply cord against abrasion and fraying where the supply cord enters and exits the column. The supply cord shall also have a strain relief where the cord enters the fan motor.

Guard - The guard shall enclose the entire face, perimeter, and reverse side of the fan blades and associated moving parts. The guard shall consist of a front section and a rear section, designed so that when assembled to form a complete guard. Additionally, the sections must be readily separable, without the use of special purpose tools, so as to permit access to the blade assembly and associated moving parts.

UL - The fan shall conform to the requirements of Underwriters Laboratories Inc. (UL) Standard No. UL 507

Vibration limits - The rotating components of the fan shall be balanced to the extent that the total vibration shall not exceed 0.009 times the distance in inches between an upward extension of a vertical line running through the approximate center of the motor support and point of measurement.

Fan assembly - For shipping purposes, the fan may be partially disassembled into no more than five parts consisting of the motor, adjustable column, blade assembly, guard, and base. Re-assembling the fan shall not require special tool(s) or skill(s).

Data - In addition to the safety and installation instruction required by UL Standard No. 507, the contractor shall furnish with the fan a copy of the manufacturer's standard "owner/operator manual" applicable to the machine. The manual shall include instructions for operating the machine, safety precautions, commercial repair instructions which shall include a complete list of all replaceable parts, and preventative/routine maintenance instructions. This data shall be the same information that is provided with similar machines sold in the commercial market.

**6. 4140-00-851-9319 Ver: 9 UI: EA Status: Active AAC: G
FAN, CIRCULATING**

NSN Description:

This technical description covers a desk/floor standing and wall mounted oscillating fan with a blade diameter of 16 inches.

The fan shall conform to the following design and performance characteristics:

Plug Style: North America

Blade Diameter: 16 inches, +/-1/2 inch

Air Capacity: 4000 Cubic Feet per Minute (CFM) minimum

Power Consumption: 85 Watts maximum

Voltage Rating: 120 Volts AC +/-10% at 60 Hertz +5%, Single Phase

Switch: 1 off and not less than 3 on speeds positive position

Insulation: Class A or B in accordance with National Electrical Manufacturers Association (NEMA) Standard No. MG-1

Features: Base, Blade Assembly, Fan Guard, Motor, Oscillating Mechanisms, Switches, Cable Assembly, and all other parts necessary to constitute a complete and functional product.

Salient Characteristics:

Power Cord and Plug: The fan shall be furnished with a three wire power supply cord with an integral ground. The power supply cord shall have a minimum overall length of eight (8) feet.

Base: Shall be suitable for desk or floor use and wall mounting. The base shall be metal or plastic and provide sufficient strength to support the weight of the fan when it is wall mounted. The base shall also have sufficient weight and strength so that the fan remains stationary when operating on a desk top at the highest speed.

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Blade Assembly: Consists of a complete air screw having at least three impact resistant plastic blades molded together with a hub or central support.

Head Tilt: The tilt adjustment shall adjust to a minimum of 10 degrees above or below the horizontal plane of the motor axis for desk fans. The head tilt and locking device shall be designed to permit adjustment and locking of the tilt position within the range as specified above without the use of tools.

Oscillating Mechanism: Shall have a cycle with a minimum angle range oscillation of 80 degrees. The mechanism shall be designed to be disengaged in any position within the oscillation cycle. The fan shall remain stationary in the position of engagement.

Guard: Shall enclose the entire face, perimeter, and reverse side of the fan blades and associated moving parts. The guard shall consist of a front section and a rear section, designed so that when assembled to form a complete guard. Additionally, the sections must be readily separable, without the use of special purpose tools, so as to permit access to the blade assembly and associated moving parts.

UL - The fan shall conform to the requirements of Underwriters Laboratories Inc. (UL) Standard No. UL 507

Operating speed - The low speed position shall provide 60 to 80 percent of the maximum speed when operating at rated voltage and frequency. The fan shall be operated at both low and maximum speed settings and speed (r.p.m) shall be measured stroboscopically or with a counter which imposes no appreciable load on the fan motor. The sensitivity and accuracy of the test apparatus shall be such that differences of 20 r.p.m. may be detected.

CFM air delivery - The fan shall be mounted so that the axis is 4 feet above the floor. The plane of rotation of the fan blades shall be at least 5 feet from any wall. The anemometer shall be rigidly supported in the air stream with the axis of rotation parallel to the axis of rotation of the fan. The anemometer stand shall be located so that the center of the anemometer in each station will be in a single vertical plane which is parallel to and 9 feet in front of the plane of rotation of the fan blades. Test readings shall be taken at 2 inch intervals over a four foot span, both vertical and horizontal lines at a distance of 9 feet in front of the plane of rotation of the fan blades. The center of the four foot span referenced above shall be on a line coincident with the axis of rotation of the fan blades. A total of 49 test readings shall be taken. Each test reading shall be taken over an operating period of not less than two minutes. All readings shall be taken at maximum fan speed. The air delivery in cubic feet per minute shall be the average of all test readings in feet per minute multiplied by the area of a 4 foot diameter circle (12.56 square feet). The minimum CFM shall be 4000 CFM.

Vibration Limits: The rotating components of the fan shall be balanced to the extent that the total vibration shall not exceed 0.003 times the distance in inches between an upward extension of a vertical line running through the approximate center of the motor support and point of measurement. The distance is to be measured parallel to the motor axis with the motor housing adjusted for zero degrees tilt.

Data: In addition to the safety and installation instruction required by UL Standard No. 507, the contractor shall furnish with the fan a copy of the manufacturer's standard "owner/operator manual" applicable to the machine. The manual shall include instructions for operating the machine, safety precautions, commercial repair instructions which shall include a complete list of all replaceable parts, and preventative/routine maintenance instructions. This data shall be the same information that is provided with similar machines sold in the commercial market.

**7. 4140-00-961-5480 Ver: 9 UI: EA Status: Active AAC: G
FAN, CIRCULATING**

NSN Description:

This technical description covers a high velocity multipurpose fan.

The fan shall conform to the following design and performance characteristics:

Plug Style - North American

Blade Diameter - 14 inches, +/-1/2 inches

IPDs - TECHNICAL INFORMATION

Voltage Rating - 120 Volts AC +/-10% at 60 Hertz +5%, single phase

Air Capacity - 2600 Cubic Feet per Minute (CFM) minimum

Power Rating - 125 Watts maximum

Salient Characteristics:

Design and construction - The fan covered in this technical description shall include a blade assembly, motor, fan guard, switch, cable assembly and all other parts necessary to constitute a complete and functional product.

Dimensions - The dimensions of the fan shall not exceed 20 inches in height, 19 inches in width, and 13 inches in depth.

Insulation - Insulation shall be Class A or B in accordance with the National Electrical Manufacturers Association (NEMA) Standard No. MG-1.

Switch - The switch shall have one off and not less than two on speed positions.

Power cord and plug - The flexible cord shall be rated for use at a voltage not less than the rated voltage as specified above within this technical description. The fan shall be furnished with a three wire power supply cord with an integral ground. The power supply cord shall have a minimum overall length of eight feet. The power supply cord shall be terminated with a North American plug style.

Blade assembly - The blade assembly shall consist of a complete air screw having at least three impact resistant metal blades molded together with a hub or central support.

Guard and protective housing - The guard or protective housing shall completely enclose the face, perimeter, and reverse side of the fan blades and associated moving parts. Additionally, the guard or protective housing shall be designed to permit access to the blade assembly and associated moving parts without the use of special purpose tools.

Tilt adjustment - The tilt adjustment shall operate through a minimum angle range of 100 degrees, from straight up to 10 degrees below the horizontal. The tilt angles shall be construed as angles formed by the motor shaft axis and the horizontal plane.

NFPA - Wiring shall conform to National Fire Protection (NFPA) Standard No. 70, The National Electrical Code.

NEMA - Motors shall conform to the National Electrical Manufacturers Association (NEMA) Publication No. MG-1

UL - The Fan shall conform to the requirements of Underwriters Laboratories Inc. (UL) Standard UL 507

Operating speed - The low speed position shall provide 60 to 80 percent of the maximum speed when operating at rated voltage and frequency. The fan shall be operated at both low and maximum speed settings and speed (r.p.m.) shall be measured stroboscopically or with a counter which imposes no appreciable load on the fan motor. The sensitivity and accuracy of the test apparatus shall be such that differences of 20 r.p.m. may be detected.

CFM air delivery - The fan shall be mounted so that the axis is 4 feet above the floor. The plane of rotation of the fan blades shall be at least 5 feet from any wall. The anemometer shall be rigidly supported in the air stream with the axis of rotation parallel to the axis of rotation of the fan. The anemometer stand shall be located so that the center of the anemometer, in each station will be in a single vertical plane which is parallel to and 9 feet in front of the plane of rotation of the fan blades. Test readings shall be taken at 2 inch intervals over a four foot span, both vertical and horizontal lines at a distance of 9 feet in front of the plane of rotation of the fan blades. The center of the four foot span referenced above shall be on a line coincident with the axis of rotation of the fan blades. A total of 49 test readings shall be taken. Each test reading shall be taken over an operating period of not less than two minutes. All readings shall be taken at maximum fan speed. The air delivery in cubic feet per minute shall be the average of all test readings in feet per minute multiplied by the area of a 4 foot diameter (12.56 square feet). The minimum CFM air delivery shall be 2600 RPM.

Vibration limits - The rotating components of the fan shall be balanced to the extent that total vibration shall not exceed 0.009 times the distance in inches between an upward extension of a vertical line running through the approximate center

IPDs - TECHNICAL INFORMATION

of the motor support and point of measurement. The distance is to be measured parallel to the motor axis with motor housing adjusted for zero tilt.

Data - In addition to the safety and installation instructions required by UL Standard No. 507, the contractor shall furnish with each fan a copy of the manufacturer's standard "owner/operator manual" applicable to the machine. The manual shall include instructions for operating the machine, safety precautions, commercial repair instructions which shall include a complete list of all replaceable parts, and preventative/routine maintenance instructions. This data shall be the same information that is provided with similar machines sold in the commercial market.

**8. 4140-01-278-1527 Ver: 15 UI: EA Status: Active AAC: G
FAN, CIRCULATING**

NSN Description:

This technical description covers a two speed pedestal mounted Oscillating fan for a 30 inch blade assembly.

Salient Characteristics:

The fan shall conform to the following design and performance characteristics:

Plug Style: North America

Blade Diameter: 30 inches, +/-1/2 inch

Speed Settings: 2 minimum

Air Capacity: 8000 CFM minimum at maximum speed setting, 5000 CFM minimum at minimum speed setting

Power Consumption: 260 Watts +/-10 Watts

Voltage Rating: 120 Volts AC +/-10% at 60 Hertz +5%, Single Phase

Switch: 1 off and not less than 2 on speeds.

Insulation: Class A or B in accordance with National Electrical Manufacturers Association (NEMA) Standard No. MG-1

Features: Pedestal, Adjustable Column, 30 inch Blade Assembly, Fan Guard, Motor, Switch, Cable Assembly, and all other parts necessary to constitute a complete and functional product.

Power cord and plug: Flexible cord rated for use at a voltage not less than the rated above rated voltage for the North America plug style. The fan shall be furnished with a three wire power supply cord with an integral ground. The power supply cord shall have a useable minimum overall length of ten (10) feet.

Blade assembly: Consists of a complete air screw having at least three metal or plastic blades together with a hub or central support.

Head tilt: The fan head shall be adjustable in a vertical plane from 5 degrees below the horizontal plane to not less than 15 degrees above the horizontal plane. The fan head shall have a locking device capable of locking the fan head in any position. If a tool is necessary to lock the fan head into position, the tool shall be supplied with the fan.

Oscillating mechanism: The oscillating mechanism shall have a cycle with a minimum angle range oscillation of 80 degrees. The mechanism shall be designed to disengage in any position within the oscillation cycle. The fan shall remain stationary in the position of disengagement.

Column and pedestal: The column shall be of a telescoping design consisting of an upper column sliding into or out of a lower column. The lower column shall prevent the accidental removal of the upper column. Without the use of special tools, the upper column shall lock at any height within the vertical adjustment limits of the column. When the column is at its highest adjustable positions, the top of the fan guard shall not be less than 90 inches, nor more than 96 inches from the floor. The column shall have an adjustable height of not less than 30 inches above its lowest adjustable position. The power supply cord shall exit the pedestal, at any point that is less than 3 inches above the floor level. A bushing shall be used to protect the supply cord against abrasion and fraying where the supply cord exits the column. The supply cord shall also have a bushing where the cord enters the fan motor.

Guard: The guard shall enclose the entire face, perimeter, and reverse side of the fan blades and associated moving parts. The guard shall consist of a front section and a rear section, designed so that when assembled to form a complete guard.

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Additionally, the sections must be readily separable, without the use of special purpose tools, so as to permit access to the blade assembly and associated moving parts.

Vibration Limits: Rotating components of fans shall be balanced to the extent that total vibration will not exceed .009 times the distance in inches between an upward extension of a vertical line running through the approximate center of the motor support and the point of measurement.

Fan Assembly: For shipping purposes, the fan may be partially disassembled into no more than five parts consisting of the motor, adjustable column, blade assembly, guard, and base. Re-assembling the fan shall not require special tool(s) or skill(s).

Data: In addition to the safety and insulation instructions required by UL Standard No. 507, the contractor shall furnish with each fan a copy of the manufacturer's standard "owner/operator manual" applicable to the machine. The manual shall include instructions for operating the machine, safety precautions, commercial repair instructions which shall include a complete list of all replaceable parts, and preventative/routine maintenance instructions. This data shall be the same information that is provided with similar machines sold in the commercial market.

**9. 4140-01-416-4898 Ver: 12 UI: EA Status: Active AAC: G
FAN, CIRCULATING:**

NSN Description:

The fan described in this technical description is a clip-on fan intended for use in household and office environments.

Salient Characteristics:

The fan shall conform to the following design and performance characteristics:

Plug Style - North American

Air Flow Capacity in Cubic Feet per Minute (CFM) - LO: 400 minimum HI: 500 minimum

Speed Rating in RPM - LO: 2140 minimum. HI: 2300 minimum.

Power Rating in Watts - LO: 16 maximum HI 20 maximum.

Voltage Rating - 120 Volts AC, single phase

Frequency Rating - 60 Hz

Blade Diameter - 6.0 to 7.0 inches

Style - Portable, Clip-on

Special Features - Lightweight; Clips on to table, Shelf, Post or Chair; Multi-directional Tilt Adjust; and two speed settings

Design and construction - The fans covered in this technical description shall include a blade assembly, motor, fan guard, switch, cable assembly and all other parts necessary to constitute a complete and functional product.

Voltage and frequency - Unless otherwise specified, the motor for the fans shall be designed for a rated voltage of 120 volts alternating current +/- 10 percent, and a rated frequency of 60 hertz +5 percent.

Switch - The switch shall have one off and not less than two speed positions.

Power cord and plug - The flexible cord shall be rated for use at a voltage not less than 120 VAC +/- 10 percent. The fans shall be furnished with grounded or polarized plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way as a safety feature. The power supply cord shall have a minimum overall length of at least 6.0 feet.

Blade assembly - The blade assembly shall consist of a complete air screw having at least three impact resistant plastic blades molded together with a hub or central support.

Guard and protective housing - The guard or protective housing shall completely enclose the face, perimeter and reverse side of the fan blades and associated moving parts.

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UL - Fans shall conform to the requirements of Underwriters Laboratories Inc. (UL) Standard No. UL 507.

Materials - Materials not specified herein shall be of the quality specified by the manufacturer and shall conform to the manufacturer's own drawings, specifications, standards, and quality assurance procedures.

Data - In addition to the safety and installation instructions required by UL standard No. 507, the contractor shall furnish with each fan a copy of the manufacturer's standard "owner/operator manual" applicable to the machine. The manual shall include instructions for operating the machine, safety precautions, Assembly and Mounting Instructions, Adjustment Instructions, Cleaning/Maintenance Instructions and Service Instructions. This data shall be the same information that is provided with similar machines sold in the commercial market.

**10. 5340-01-346-4611 Ver: 3 UI: EA Status: Active AAC: G
PADLOCK:**

NSN Description:

PADLOCK: Shall conform with ASTM F883, Type PO 1 - Key Operated; Grade 2 - Performance Level; Option E - Corrosion Resistant; and the following additional requirements:

EXCEPTIONS TO THE ASTM:

- 1) Environmental tests are not required.
- 2) Paragraph 10.2 of ASTM F883 - Add: Padlocks designed with disks which rotate in one direction only shall be cycled in the normal direction of rotation only.
- 3) The salt spray and abrasion tests of ASTM F883 are not required to be performed.
- 4) In the event the padlock furnished incorporates a captive key or key retaining feature paragraphs 10.1.2.4 and 10.1.2.5 of ASTM F883 shall be performed in reverse order.
- 5) No key will operate more than one padlock per 50 padlocks.

The issue or revision of ASTM F883 used to determine conformance shall be the issue or revision current on the date of the solicitation for bid or purchase order as applicable. Copies of ASTM documents are available from: ASTM, 100 Barr Harbor Dr., West Conshohocken, PA 19428-2959.

SHACKLE - Shall be steel and uniformly case hardened. The shackle diameter shall be 1/4, 9/32, 5/16, or 3/8 inch at the supplier's option. The nominal shackle diameter selected shall be accurate within plus or minus 0.010 inch. Inside vertical clearance of the shackle shall be between 0.688 and 1.500 inches measured from the top center portion of the padlock case to the uppermost inside bend radius of the shackle. Horizontal or side clearance shall be 3/4 inch minimum.

CASE - Shall be solid or laminated at the supplier's option and may be constructed of any durable material compatible with shackle and lock mechanism so long as the padlock conforms with the test requirements specified in ASTM F883. The case shall be permanently marked with the manufacturer's name or recognized trademark.

MECHANISM - Shall be pin, disk or blade tumbler at the supplier's option. Pin tumbler mechanisms shall incorporate at least four (4) pins. Disk or blade mechanisms shall incorporate ten (10) or more disk or blade tumblers. The mechanism (all options) shall provide not less than 1,200 possible key changes and shall engage the shackle at toe and heel. The locking mechanism shall be constructed of noncorrosive material and securely fastened within the case to preclude forcible separation or opening of the padlock without mutilation. The mechanism shall be lubricated for smooth operation.

KEYING - Each padlock shall be furnished with 2 keys constructed of brass, bronze, nickel-alloy, or steel. Padlocks shall be furnished individually keyed. No key shall operate more than one (1) padlock per fifty (50) padlocks. The cylinder mechanism used shall accept keys made from key blanks available on the national domestic retail market. The supplier shall identify domestic retail sources for such key blanks upon request.

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WORKMANSHIP - The shackle and case shall have a smooth even surface. Sharp edges and burrs shall be removed and any contours shall be smooth, even transition. The lock mechanisms shall operate smoothly without binding and without the application of excessive force. The mechanism and keys shall provide for easy insertion and removal of keys without binding or sticking.

CORROSION AND DETERIORATION CONTROL. The padlocks, and chains when specified, shall be fabricated from compatible materials, inherently corrosion and deterioration resistant or treated to provide protection against the various forms of corrosion and deterioration that may be encountered in any of the applicable storage and use environments to which the padlocks may be exposed. Dissimilar metals which react to produce galvanic corrosion shall be electrically insulated from one another with corrosion inhibiting sealant, chromate tape, varnish, or other suitable means.

PRODUCT CONFORMANCE: The products provided shall meet the salient characteristics of this description, conform to the producer's own specifications, standards, and quality assurance practices and be the same product offered for sale in the commercial market. The Government reserves the right to require proof of such conformance.

**11. 5340-01-346-7462 Ver: 2 UI: EA Status: Active AAC: G
PADLOCK:**

NSN Description:

PADLOCK (BRASS OR BRONZE): Shall conform with ASTM F883, provided with non ferrous shackles and shall have the following additional requirements:

Type PO 1 - Key Operated
Grade 2 - Performance Level
Option F - Provided with non-ferrous shackles
PADLOCK CASE - Brass or bronze
PADLOCK SHACKLE - Brass or bronze

SHACKLE CLEARANCE

VERTICAL - 0.688 and 1.500 inches
HORIZONTAL - 0.750 inch minimum
DIAMETER - 1/4, 9/32, 5/16, or 3/8 inch at the supplier's option

CASE DIMENSIONS

WIDTH - 1.400- 1.700 inches
THICKNESS - 0.800 inches maximum

Unit of issue - EA (each)

EXCEPTIONS TO THE ASTM:

- 1) Environmental tests are not required.
- 2) Paragraph 10.2 of ASTM F883 - Add: Padlocks designed with disks which rotate in one direction only shall be cycled in the normal direction of rotation only.
- 3) The salt spray and abrasion tests of ASTM F883 are not required to be performed.
- 4) In the event the padlock furnished incorporates a captive key or key retaining feature paragraphs 10.1.2.4 and 10.1.2.5 of ASTM F883 shall be performed in reverse order.
- 5) No key will operate more than one padlock per 50 padlocks.

The issue or revision of ASTM F883 used to determine conformance shall be the issue or revision current on the date of the solicitation for bid or purchase order as applicable. Copies of ASTM documents are available from: ASTM, 100 Barr Harbor Dr., West Conshohocken, PA 19428-2959.

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SHACKLE - Shall be brass or bronze. Inside vertical clearance of the shackle shall be measured from the top center portion of the padlock case to the uppermost inside bend radius of the shackle. Horizontal or side clearance shall be 3/4 inch minimum.

CASE - Shall be solid or laminated at the supplier's option and shall be constructed brass or bronze and conform with the test requirements specified in ASTM F883. The case shall be permanently marked with the manufacturer's name or recognized trademark.

MECHANISM - Shall be pin, disk or blade tumbler at the supplier's option. Pin tumbler mechanisms shall incorporate at least four (4) pins. Disk or blade mechanisms shall incorporate ten (10) or more disk or blade tumblers. The mechanism (all options) shall provide not less than 1,200 possible key changes and shall engage the shackle at toe and heel. The locking mechanism shall be constructed of noncorrosive material and securely fastened within the case to preclude forcible separation or opening of the padlock without mutilation. The mechanism shall be lubricated for smooth operation.

KEYING - Each padlock shall be furnished with 2 keys constructed of brass, bronze, nickel-alloy, or steel. Padlocks shall be furnished individually keyed. No key shall operate more than one (1) padlock per fifty (50) padlocks. The cylinder mechanism used shall accept keys made from key blanks available on the national domestic retail market. The supplier shall identify domestic retail sources for such key blanks upon request.

WORKMANSHIP - The shackle and case shall have a smooth even surface. Sharp edges and burrs shall be removed and any contours shall be smooth, even transition. The lock mechanisms shall operate smoothly without binding and without the application of excessive force. The mechanism and keys shall provide for easy insertion and removal of keys without binding or sticking.

PRODUCT CONFORMANCE: The products provided shall meet the salient characteristics of this description, conform to the producer's own specifications, standards, and quality assurance practices and be the same product offered for sale in the commercial market. The Government reserves the right to require proof of such conformance.

12. 5350-00-221-0872 Ver: 5 UI: PG Status: Active AAC: G

CLOTH, ABRASIVE:

NSN Description:

NSN: 5350-00-221-0872

CLOTH, ABRASIVE: Shall conform with the listed salient characteristics and manufactured in accordance with the following ANSI Industry Specifications:

ABRASIVE - Crocus

BACKING - J weight jeans cloth

COATING - Closed coat

GRADE - Non-waterproof

BOND - Resin or glue

SIZE - 9 x 11 inch sheets

DESIGNED USE - Metal working

Unit of Issue - PG (50 sheets per package)

ANSI B74.18 - Specifications For Grading of Certain Abrasive On Coated Abrasive Products

Application for copies of ANSI standards should be addressed to the American National Standards Institute, 1430 Broadway, New York, NY 10018.

ASTM D 5035 - Standard Test Methods for Breaking Force and Elongation of Textile Products (Strip Force)

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ASTM E 29 - Standard Practice For Using Digits In Test
Data To Determine Conformance With
Specifications

The documents referenced in this purchase description shall be the issues in effect on the date of issuance of the invitation for bids or request for proposals. In the event of a conflict between this purchase description and a document referenced herein, this purchase description shall take precedence.

PERFORMANCE CRITERIA:

The abrasive cloth shall be constructed to prevent a sharp edge break in the resin or glue bond and the backing, when used in radius applications of 0.750 inch.

Abrasive Grain: The abrasive grain shall be crushed and graded in accordance with ANSI B74.18. Shall be evenly dispersed and completely cover the surface of the backing.

Adhesive: Any good quality adhesive is acceptable providing that dislodging of abrasive grain is minimized.

Abrasive Coverage:

Open Coat - 50 to 70% coverage, evenly dispersed

Closed Coat - Complete and uniform coverage

Cloth backing material: The treated cloth backing material shall be in accordance with Table 1 and tested in accordance with ASTM D 5035. When waterproof material is specified, the backing material shall be treated to make it impervious to water.

TABLE I

TYPE BACKING	BACKING WEIGHT	COATED CLOTH	
		AVERAGE BREAKING STRENGTH	WARP DIRECTION/FILLING DIRECTION
Jeans cloth	J weight	80 lbs/in	35 lbs/in
Drills cloth	X weight	130 lbs/in	50 lbs/in
Heavy drills cloth	Y weight	160 lbs/in	65 lbs/in

NOTE: Tolerance plus or minus 15%

Workmanship. The abrasive grain shall be evenly dispersed and positively bonded throughout the coated sheet. The sheet shall be designed to preclude disintegration of the backing and dis-lodging of the grain material during normal usage. The backing shall comply with the performance criteria as specified herein.

PRODUCT CONFORMANCE. The products provided shall meet the salient characteristics of this description, conform to the producer's own drawings, standards, and quality assurance practices and be the same product offered for sale in the commercial market. The Government reserves the right to require proof of such conformance.

13. 6230-00-270-5418 Ver: 3 UI: EA Status: Active AAC: G
FLASHLIGHT:

NSN Description:

FLASHLIGHT: This Item Purchase Description covers a regular plastic case, tubular flashlight using two D size batteries. The flashlight shall include 1 spot lens, 1 diffused lens, 2 red filters, 1 blackout filter, and 1 blue filter. The flashlight shall be in accordance with the following salient characteristics:

Unit of issue - EA (each).

IPDs - TECHNICAL INFORMATION

Flashlight case. The exterior surface of the case shall have molded flutes or ribs for ease in handling. The flutes or ribs shall be parallel to the longitudinal axis of the case and shall be raised approximately 1/32 inch from the surface of the case. Not less than five nor more than 20 flutes or ribs shall be provided around the circumference of the case. The flashlight, with batteries inserted, shall not sustain any damage to the base of the lamp, reflector or any internal part which could render the flashlight unserviceable when dropped 5 feet in free fall onto a vinyl tiled concrete floor. The flashlight shall be dropped twice in a horizontal position upon the switch/switch guard assembly, twice in a vertical position upon the head of the flashlight, and twice in a vertical position upon the base of the flashlight (lamp filament or lamp envelope damage shall not be a cause for rejection). The design of the case shall preclude metal parts of the flashlight from creating a closed circuit with the batteries, except with the switch in the "ON" or "FLASHING" position. The design of the case shall also preclude internal parts from abrading or otherwise damaging the batteries. Rivets and conducting metal strips along the inside wall of the flashlight cases shall be prevented from direct contact with the batteries. This may be accomplished by a protective plastic sleeve into which the batteries are inserted, after which the sleeve itself is inserted into the case, or by grooves or slots into which the rivets and conducting metal strips are safely kept away from contact with the batteries, or by some other means at the manufacturer's discretion. The flashlight case shall be fabricated from acrylonitrile-butadiene-styrene.

Lens caps, end caps, retainers, and other plastic parts. Flashlights shall have a means such as threaded lens caps and filter caps for the securing the lenses, reflectors, and filters (where used) in place. The flashlight shall have a means such as threaded end caps and battery retainers for securing the dry cells and providing stowage for the spare lamp. The flashlight shall have a stowage compartment for the stowage of diffusing lens and filters. All flashlights shall be initially fitted with the spotlight lens. External surfaces of all caps and retainers shall be fluted, ribbed or knurled for securely gripping. All lens caps, end caps, battery retainers, filter caps and lampholders shall be fabricated from acrylonitrile-butadiene-styrene.

Lamp-head housing. The lamp-head housing shall be constructed of acrylonitrile-butadiene-styrene or a corrosion-resistant metal. The housing shall permit replacement of the lamp. The lamp shall not become loose or displaced during rough handling when dropped as described in the Flashlight case paragraph.

Storage compartment. The flashlight shall have a storage compartment in the end cap for storing one lens and four filters.

Holder for spare lamp. Each flashlight shall be furnished with a spare lamp (see Lamps paragraph). The spare lamp shall be mounted in a holder inside the battery retainer cap in such a manner so as to be accessible, and shall not become loose or displaced when dropped as described in the Flashlight case paragraph.

Gaskets. Gaskets shall be provided on all flashlights, where necessary, to prevent the entrance of moisture into the interior of the flashlight or into the switch contacts. Gaskets shall be fabricated from rubber composition conforming to ASTM D2000, grades M3AA510B13C12F17, M3AA610B13C12F17, or M3AA710B13C12F17.

Switches. Switches shall be mounted on the side of the case and shall be of the push-slide type and shall be operable with one hand. Life expectancy of the switch shall be 25,000 cycles.. The switch shall not have internal electrical leakage. The switch shall be guarded to protect it from damage. Switches shall provide locked "OFF", "FLASHING" and positive "ON" positions. The flashlight shall not go off when shaken vigorously while the switch is in either the "ON" or "FLASHING" position.

Threads. Threads on each flashlight shall be tight, when a torque of 30 2 lb-in is applied to mating parts. Threads shall not strip or ride over those of the mating part when a torque of 50 2 lb-in is applied.

Reflector. The reflector shall be made of metal or plastic and the contour shall be essentially parabolic, projecting a beam of light as specified in the Spotlight paragraph. The reflecting surface shall be vacuum plated or electro-plated to assure a coefficient of reflection of at least 75. The reflector shall have sufficient rigidity to prevent distortion when the lamp batteries are in place. The reflecting surface shall be smooth and free from bubbles and pits.

Suspension ring. A suspension ring, made of either phosphor bronze or brass shall be secured to the bottom cap of each flashlight. Each ring shall be of one-piece construction and shall be fastened so that it cannot be readily detached by

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hand. The ring shall seat firmly to and recess in the bottom cap when not in use, and shall support a weight of 25 pounds without evidence of distortion.

Watertightness. All flashlights shall be watertight and show no evidence of moisture within any case or any attachment with the exception of the storage compartment and filter cap when submerged to a depth of 3 feet in a salt water solution (1.04 specific gravity) at room temperature (77 ± 5 F) for 1 hour. Before submergence a torque of 30 ± 2 lb-in shall be applied to all threaded parts of the flashlight, complete with a lamp and batteries.

Impact. All flashlights shall not be damaged or show evidence of moisture inside the flashlight except as specified in the Watertightness paragraph when subjected to the tests in the following subparagraphs.

Impact test conditions. The flashlight, without batteries installed, shall be placed in a cold chamber at -40 ± 5 F for 2 hours. With the flashlight stabilized at this temperature, immediately subject it to the following low and high impact tests. The point of impact shall be applied to:

- a. The outside of the flashlight case at a point midway between the ends of the case on a side 90° from the switch.
- b. The lens cap or filter cap.
- c. The end cap.

Low impact. Subject the flashlight to a 12 in-lb impact using a 1 lb steel ball at each of the points of impact specified above. Provided the flashlight remains intact, next subject the flashlight to the test in the Watertightness paragraph. Evidence of breakage from impact or nonconformance to the Watertightness paragraph shall constitute failure of this test.

High impact. The flashlight, having passed the low-impact test, shall be again placed in the cold chamber and conditioned at -40 ± 5 F for 2 hours and then immediately subjected to a 20 in-lb impact using a 1 lb steel ball at each of the points of impact specified above. Install fresh batteries and determine whether the flashlight operates as specified herein. Failure of the flashlight to operate as specified herein or damage to the case, the lens or filter cap, or the end cap shall constitute failure of this test.

Battery-contact spring. The battery-contact spring for all flashlights shall have a minimum compression of 3/8 inch and exert a minimum force of 2 lb against the battery. The spring configuration shall be of a design which will not allow damage to the battery when dropped as described in Flashlight case paragraph. The spring shall be of a design wherein no sharp or rough portion may pierce, lacerate, or protrude into the bottom battery while batteries are installed and spring is compressed.

Lamps. Each flashlight shall be supplied with two PR-6 lamps, one installed in the lamp head, the other in the spare lamp holder.

Environmental.

Temperature. All flashlights shall operate as specified herein at a temperature of 150 ± 5 F.

Humidity. All flashlights shall operate as specified herein at a temperature of 110 ± 2 F and a relative humidity of 85 ± 5%.

Corrosion resistance. Metals used in the fabrication of flashlights shall be corrosion resistant or treated to resist corrosion. The metals shall be of an alloy with properties to provide the required strength and rigidity. Unless protected against electrolytic corrosion, dissimilar metals shall not be used in contact with each other. All exterior metal surfaces shall be given a durable chemical blackening or black oxide finish. Flashlights shall be capable of withstanding a 200 hour salt spray test specified in ASTM B117 without detrimental effect on any of the performance requirements specified herein.

Light projection.

Spotlight. When using the spotlight lens located 5 feet from a screen, the plane of which is perpendicular to the optical axis of the flashlight, the flashlight shall project a concentrated beam of light not less than 5 nor greater than 11 inches in diameter.

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Diffused light. When using the diffusion lens located 4 feet from a screen, the plane of which is perpendicular to the optical axis of the flashlight, the flashlight shall project a distributed beam of light 60 to 80 inches in diameter. The light pattern shall have a uniform distribution of light except at the center where some concentration of light is desirable.

Spotlight and diffusion lenses.

Spotlight lens. The spotlight lens shall be fabricated from polycarbonate conforming to ASTM D3935. The dimensions for the spotlight lens shall be approximately 1.690 inches in diameter and 0.064 inch thick. The light transmission shall be at least 83 percent.

Diffusion lens. The diffusion lens shall be fabricated from polycarbonate conforming to ASTM D3935 and shall diffuse light as described in the Diffused light paragraph. The light transmission shall be at least 83 percent.

Filters. Filters shall be circular, having a diameter of 1.725 ± 0.025 inch and a thickness of 0.030 ± 0.01 inch. Filters shall be fabricated from plastic conforming to ASTM D3935.

Red filter. The filter shall be aviation red, type I, conforming to SAE-AS25050 and shall have the following spectral transmission qualities:

- a. Not over 0.2 percent transmission between wavelengths of 440 to 580 nanometers.
- b. Not over 15 percent transmission at a wavelength of 600 nanometers.
- c. Not under 80 percent transmission at a wavelength of 650 nanometers, as determined by tests specified in SAE-AS25050.

Blackout filter. The filter shall be opaque and shall have a light transmission of from 0.02 to 0.27 percent over the entire visible spectrum when tested using an illuminometer.

Blue filter. The filter shall be aviation blue, type I, conforming to SAE-AS25050.

Color of flashlights. The color of the plastic case, lens cap, end cap, and any exposed plastic switch shall be gray.

Fungus and moisture resistance. The electrical circuitry, including all components and connections, except as specified below, shall be protected from the effects of fungus growth and moisture by an overall treatment with a varnish conforming to ASTM D3955, Grade as applicable:

- a. Components or circuit elements that are inherently fungus and moisture resistant or which are hermetically sealed need not be treated.
- b. Components or circuit elements whose functions will be adversely affected by the varnish coating shall not be treated.

Identification. Flashlights shall be marked in accordance with MIL-STD-130, except that only the nomenclature and contractor's identification shall be included as information and molded on the outside of the flashlight case.

Measurement system. The values stated in inch-pound units are to be regarded as the standard. The metric values stated in parentheses are for informational purposes only.

Metric products. Products manufactured to metric dimensions will be considered on an equal basis with those manufactured using inch-pound units, providing they fall within the tolerances specified and all other requirements of this document are met. If a product is manufactured to metric dimensions and those dimensions exceed the tolerances specified in the inch-pound units, a request should be made to the contracting officer to determine if the product is acceptable.

Workmanship. The finished flashlight shall not contain rough edges, blemishes, or other disfigurements which could affect serviceability or appearance. All parts shall be clean, free from rust, toolmarks, pits and other injurious defects. External surfaces shall be free of burrs, sharp edges and corners except where sharp edges or corners are required or where they are not detrimental to safety.

REGULATORY REQUIREMENTS

IPDs - TECHNICAL INFORMATION

Regulatory requirements. The offeror/contractor is encouraged to use recovered materials to the maximum extent practicable, in accordance with paragraph 23.403 of the Federal Acquisition Regulation (FAR).

QUALITY ASSURANCE PROVISIONS

PRODUCT CONFORMANCE: The products provided shall meet the salient characteristics of this Item Purchase Description, conform to the producer's own drawings, specifications, standards, and quality assurance practices, and be the same product offered for sale in the commercial market. The Government reserves the right to require proof of such conformance.

**14. 6645-00-250-4680 Ver: 8 UI: EA Status: Pending AAC: G
STOPWATCH, LABORATORY:**

NSN Description:

ITEM NAME	STOPWATCH, LABORATORY
CASE SURFACE TREATMENT	ANY ACCEPTABLE
NOMINAL SIZE	2.0 INCHES (DIAMETER NOT INCLUDING STEM)
NOMINAL THICKNESS	0.5 INCHES
BASIS WEIGHT	1.0 POUND (MAXIMUM)
CASE MATERIAL	ANY ACCEPTABLE
JEWEL TYPE	NATURAL OR SYNTHETIC SAPPHIRE, RUBY OR GARNET
BEZEL TYPE	ANY ACCEPTABLE
CRYSTAL TYPE	ANY ACCEPTABLE
FACE TYPE	OPEN POCKET
BACKGROUND COLOR	WHITE
CRYSTAL COLOR	CLEAR, UNCOLORED
INSCRIPTION COLOR	ANY ACCEPTABLE
MAJOR GRADUATION COLOR	ANY ACCEPTABLE
MINOR GRADUATION COLOR	ANY ACCEPTABLE
DIAL BACKGROUND COLOR	WHITE ENAMEL
DIAL NUMERAL COLOR	BLACK
DIAL SCALE MARKING COLOR	ANY ACCEPTABLE
ENVIRONMENTAL PROTECTION	DUST, WATER, ANIT-MAGNETIC, SHOCK, CORROSION AND EROSION CAUSED BY ACIDS RESISTANT
NOMINAL JEWELS	7
GRADUATION UNIT	1.00 MINUTE AND 0.20 SECOND
SCALE QUANTITY	2
TOTAL READER TIME IN MINUTES	30.0
SCALE RANGE	+0.0/+30.0 MINUTE AND +0.0/+60.0 SECOND
SCALE NAME	MINUTE TOTALIZING AND SECOND
TOTALIZER DIAL RANGE	+0.0/+30.0 IN MINUTES
SEPARATE TOTALIZER DIAL	INCLUDED
DIAL SCALE MARKING LUMINOSITY	NON-LUMINOUS
WINDING METHOD	STEM
STEM OPERATION	CONSECUTIVE CROWN DEPRESSIONS FOR STOP, START AND RETURN TO ZERO
SWEEP HAND QUANTITY	1
SCALE QUANTITY	2
MOVEMENT SIZE DESIGNATION	16
MOVEMENT TYPE	CONTINUOUS RUNNING
NON-MAGNETIC CHARACTERISTIC	INCLUDED
ESCAPEMENT TYPE	ANY ACCEPTABLE

IPDs - TECHNICAL INFORMATION

SUBMERSIBILITY	NON-SUBMERSIBLE
SHOCKPROOF FEATURE	INCLUDED
WATERPROOF FEATURE	NOT INCLUDED
STRIKING MECHANISM	NOT INCLUDED
CIVIL DATE INDICATOR	NOT INCLUDED
LUMINOUS DIAL	NOT INCLUDED
LUMINOUS HAND	NOT INCLUDED
LUMINOUS NUMERAL	NOT INCLUDED
SPECIAL FEATURE	USED FOR LABORATORIES AND GEOLOGICAL SURVEYS IN AREAS OF HIGH HUMIDITY AND DUST

PRODUCT CONFORMANCE: THE PRODUCTS PROVIDED SHALL MEET THE SALIENT CHARACTERISTICS OF THE ITEM DESCRIPTION. THE QUALITY OF THE PRODUCT SOLD TO THE GOVERNMENT SHALL BE EQUAL TO OR BETTER THAN THE QUALITY OF THE PRODUCT SOLD BY MANUFACTURER IN THE COMMERCIAL MARKET. THE GOVERNMENT RESERVES THE RIGHT TO REQUIRE PROOF OF SUCH CONFORMANCE.

**15. 6645-01-544-0408 Ver: 6 UI: EA Status: Expired AAC: H
WATCH, WRIST**

NSN Description:

WRIST WATCH, CHRONOGRAPH PILOT'S: MARATHON PART #WW194014 OR EQUAL.

FEATURES INCLUDE: Black face with both 12 and 24-hour dials. Wrist watch 30ATM with black dial which includes 3 sub-dials; luminous hands and hour markers; day date calendar; 0 to 60 outer turning bezel; inner time ring with 1/100 minute and 1/5 second timing; water resistant to 300 meters/1,000 feet. Sapphire crystal; 25 jewel automatic movement (self winding); stainless steel (316L) case; 46MM diameter x 17MM thick. Bracelet is vulcanized rubber with stainless steel buckle; Register indexes and hands use MARAGLO paint for night viewing; Light sources for dial and hands are provided by self-lighting tritium tubes (activity between 26 to 30 millicuries). Manufacturer must meet U.S. NRC License requirements (10 CFR 32.22). Markings on back must be engraved with :Nomenclature, NSN, number of millicuries, NRC License No., Contract No., Cage Code, Date of Production, Serial No. for traceability and maintenance.

WARRANTY: The watch shall be warranted for parts and labor for a period of 3 years from the date of delivery to the government.

PACKAGING: Each watch shall be packaged in a box of the type commercially used for this product. Box must include necessary blocking and bracing to prevent damage in shipping. The box shall be closed to prevent accidental opening during shipping, handling and storage.

**16. 6645-20-001-9382 Ver: 10 UI: EA Status: Expired AAC: H
WATCH, WRIST, DIVERS, QUARTZ:**

NSN Description:

Watch, wrist, divers, quartz: Marathon part # WW194007 or equal.

Features include: Divers watch complete with a natural black rubber strap (Swiss made) and stainless steel buckle. Watch must meet latest edition of ISO 6425; Analog 2 scale dial showing standard and supplemental time; 1 sweep second hand, 1 minute hand, 1 hour hand. Movement is high torque quartz Swiss made 11-1/2 size, date, 1 jewel minimum, non-magnetic, 3 year running time without battery change. Stainless steel 316L case with screw down crown, sapphire crystal, waterproof tested to 30 ATM (1000ft). Uni-directional elevated elapsed time ring (60 minutes-120 clicks) engraved in white on black background. Black face features luminous hands and hour markings. Two scale dial shows standard and supplemental time. Light sources for dial, minute and hour hands provided by tritium tubes (Activity between 26 to 30 millicuries). Sweep second hand tip is illuminated with luminous MARAGLO. End of life display (EOL) where the second hand advances in 4 second increments when the battery needs replacing (replacement battery #371). Manufacturer must meet U.S. NRC License requirements (10 CFR 32.22). Markings on back must be engraved with: Nomenclature, NSN,

IPDs - TECHNICAL INFORMATION

number of millicuries, NRC License no., Contract no., Cage Code, Date of Production, Serial no. for traceability and maintenance.

Warranty: The watch shall be warranted for parts and labor for a period of 3 years from the date of delivery to the government.

**17. 6645-21-558-0133 Ver: 11 UI: EA Status: Expired AAC: H
WATCH, WRIST:**

NSN Description:

Watch, Wrist: Divers Watch Marathon part # WW194006 or equal.

Features include: Divers watch complete with a natural black rubber strap (Swiss made) and stainless steel buckle. Watch must meet latest edition of ISO 6425; Analog 2 scale dial showing standard and supplemental time; 1 sweep second hand, 1 minute hand, 1 hour hand. Movement is Swiss made: ETA 2824 movement, 11-1/2 size, date, 25 jewel minimum, self-winding, non-magnetic, minimum 36 hour running time. Stainless steel 316L case with screw down crown, sapphire crystal, waterproof tested to 30 ATM (1000ft). Uni-directional elevated elapsed time ring (60 minutes-120 clicks) engraved in white on black background. Black face features luminous hands and hour markings. Two scale dial shows standard and supplemental time. Light sources for dial, minute and hour hands provided by tritium tubes (Activity between 26 to 30 millicuries). Sweep second hand illuminated by MARAGLO. Manufacturer must meet U.S. NRC License requirements (10 CFR 32.22). Markings on back must be engraved with: Nomenclature, NSN, number of millicuries, NRC License no., Contract no., Cage Code, Date of Production, Serial no. for traceability and maintenance.

Warranty: The watch shall be warranted for parts and labor for a period of 3 years from the date of delivery to the government.

Packaging: Each wristwatch shall be packaged in a box of the type normally used for this product. Necessary blocking and bracing shall be utilized within the box to prevent damage. The box shall be closed to prevent accidental opening during shipping, handling and storage.

EXCEPTION TO THE SPECIFICATION: Paragraph 3.6, delete second sentence and substitute "Class 1, style A load binders shall have an operating lever not more than 21-1/2 inches in length and shall be capable of withstanding a tensile proof load of 12,000 pounds (see 4.3.1.2.1)."

Unit of Issue - EA (Each)

18. NSN: 4010-00-149-5584

CHAIN, WELDED: Shall be in accordance with Federal Specification RR-C-271F, dated July 5, 2011, with the following characteristics:

Type I, class 4, welded steel proof-coil chain in accordance with ASTM A413/A413M, grade 30.

ASTM A413/A413M Table 1 Grade 30 Proof Coil Chain characteristics:

Nominal Chain Size: 1/2 inch

Material diameter: 0.512 inch

Working Load Limit, max: 4500 lb

Proof Test, min: 9000 lb

Minimum Breaking Force: 18,000 lb

Inside Length, max: 1.79 inches

Inside Width, min: 0.72 inch

IPDs - TECHNICAL INFORMATION

The proof-coil chain shall be uncoated, and shall have a length of 100 feet.

Unit of Issue - LG (100-foot length)

19. NSN: 4020-00-141-7152

ROPE, FIBROUS: Shall be in accordance with Military Specification MIL-R-17343D, dated June 2, 1969, and Amendment 1, dated August 9, 1971, with the following characteristics:

MATERIAL - Nylon, IAW paragraph 3.3
CONSTRUCTION - 3 multi strand filament configuration with a right-hand or "Z" twist
DIAMETER - 3/4 inch diameter
CIRCUMFERENCE - 2-1/4 inches
COLOR - Natural
IDENTIFICATION MARKER - Included, IAW paragraph 3.11
IDENTIFICATION TICKET - Included, IAW paragraph 3.12

Exception to MIL-R-17343D:

1) Delete all references to "MIL-STD-105" and substitute "ANSI/ASQC Z1.4."

Unit of Issue - RL (600 continuous feet of rope per reel)

20. NSN: 4020-00-919-3443

ROPE, FIBROUS: Shall be in accordance with Military Specification MIL-R-17343D, dated June 2, 1969, and Amendment 1, dated August 9, 1971, with the following characteristics:

MATERIAL - Nylon, IAW paragraph 3.3
CONSTRUCTION - 3 multi strand filament configuration with a right-hand or "Z" twist
DIAMETER - 1.0 inch diameter
CIRCUMFERENCE - 3.00 inches
COLOR - Natural
IDENTIFICATION MARKER - Included, IAW paragraph 3.11
IDENTIFICATION TICKET - Included, IAW paragraph 3.12

Exception to MIL-R-17343D:

1) Delete all references to "MIL-STD-105" and substitute "ANSI/ASQC Z1.4."

Unit of Issue - RL (600 continuous feet of rope per reel)

IPDs - TECHNICAL INFORMATION

21. NSN: 4020-00-968-1356

ROPE, FIBROUS: Shall be in accordance with Military Specification MIL-R-17343D, dated June 2, 1969, and Amendment 1, dated August 9, 1971, with the following characteristics:

MATERIAL - Nylon, IAW paragraph 3.3
CONSTRUCTION - 3 multi stand filament configuration with a right-hand or "Z" twist
DIAMETER - 3/8 inch diameter
CIRCUMFERENCE - 1-1/8 inches
COLOR - Natural
IDENTIFICATION MARKER - Included, IAW paragraph 3.11
IDENTIFICATION TICKET - Included, IAW paragraph 3.12

Exception to MIL-R-17343D:

1) Delete all references to "MIL-STD-105" and substitute "ANSI/ASQC Z1.4."

Unit of Issue - RL (600 continuous feet of rope per reel)

22. NSN: 4020-00-968-1357

ROPE, FIBROUS: The nylon rope shall be in accordance with Military Specification MIL-R-17343D, dated June 2, 1969, and Amendment 1, dated August 9, 1971, with the following requirements:

MATERIAL - Nylon, IAW paragraph 3.3
CONSTRUCTION - 3 multi strand filament configuration with a right-hand or "Z" twist
DIAMETER - 1/2 inch strand diameter
CIRCUMFERENCE - 1-1/2 inches
COLOR - Natural
IDENTIFICATION MARKER - Included, IAW paragraph 3.11

Exception to MIL-R-17343D:

1) Delete all references to "MIL-STD-105" and substitute "ANSI/ASQC Z1.4."

Unit of Issue - RL (600 continuous feet of rope per reel)

23. NSN: 4510-01-426-4187

DISPENSER, DEODORANT: National Service Industries, Zep Mfg. Co. Division, Meter Mist 3000 Plus Automatic Dispensing System, Part Number 788801 aerosol dispenser, or equal, with the following characteristics:

Dispenser automatically controls odors and freshens air with three operation settings; day night, 24 hour, and a variable spray pattern.

IPDs - TECHNICAL INFORMATION

Five to twenty-five minutes per cycle provides coverage without excessive overspray. Indicator light informs when unit is operating and aerosol needs to be replaced.

Shall be functionally compatible with ZEP Manufacturing Co. Meter Mist aerosol 7-ounce deodorant containers.

Unit of Issue – EA (Each)

24. NSN: 4520-00-033-4286

HEATER, WATER, ELECTRIC: Shall conform to Underwriters Laboratories Standard for Safety, Household Electric Storage Tank Water Heaters, UL 174. The water heater shall be a self-contained electric water heater with all necessary controls mounted as an integral unit intended to provide hot water for residential use, and shall have the following characteristics:

Glass-lined steel tank
Round model
Double heating elements
Capacity - 80 +/- 2 Gallons.
Power input - Speed heater

- 1) Glass lined (porcelain enameled) round steel tank with a

80 +/-2 gallon capacity. The glass lining thickness shall be in accordance with industry practice and applied to all interior surfaces that are exposed to hot water.
- 2) The water heater shall have double heating elements with speed heater power input of 4500 watts for each element.
- 3) The water heater shall operate on alternating current and have nameplate voltage ratings of 230-240 volts and shall be suitable for operation on 208 volts systems.
- 4) All parts and assemblies of the water heater shall be interchangeable with the same type, model, size and manufacturer.
- 5) A combination temperature/pressure relief valve conforming to ANSI Z21.22 shall be installed on, or supplied with the water heater. If the valve is not installed, complete instructions for installation shall be supplied with the valve. The pressure setting of the valve shall not exceed the maximum working pressure of the water storage tank.
- 6) Acceptable evidence of compliance with the requirements of UL 174 shall be a UL label or listing mark; or a certified test report from an independent testing laboratory acceptable to the Government indicating the electric water heater has passed all tests, may be acceptable as evidence of conformance to the requirements of UL 174.

In accordance with the Energy Policy Act of 2005, the Federal Acquisition Regulations Section 23, and Presidential Executive Order 13123 the vendor shall provide electric water heaters that meet or exceed the latest Federal Energy Management Program (FEMP) energy-efficiency purchasing specifications. Refer to the FEMP Web site at www1.eere.energy.gov/femp/procurement/index.html to obtain proper sizing and cost-effectiveness data, operating tips and other important information.

Rated Storage Volume - 60 gallons or more

IPDs - TECHNICAL INFORMATION

Energy Factor	- 0.91 or more
Annual Energy Use	- 4,825 kWh/year or less

Unit of issue – EA (each)

25. NSN: 4520-00-540-2038

HEATER, SPACE, ELECTRIC (PORTABLE): The electric space heater is intended primarily for heating rooms with an available 240 volt outlet and shall conform to Underwriters Laboratories Inc. Standard UL 1278, Movable and Wall or Ceiling-Hung Electric Room Heaters, Standard for Safety, and shall have the following characteristics:

- 1) Upright, Convection, Fan Forced, 240 volts.
- 2) Single wattage: 3000 or 4000 watts at the manufacturer's option.
- 3) The plug and cord shall be rated for 20 amps.
- 4) The heater shall be furnished with a suitable carrying handle.
- 5) Heater enclosures shall be constructed of metal, plastic is not permitted.
- 6) The heater shall have a 3-prong plug in accordance with NEMA WD-1 and WD-6 (NEMA configuration 6-20P).
- 7) The heater shall have an automatic adjustable thermostat with a range of 45 degrees to 120 degrees F or greater, with a "positive off" feature. If a "positive off" thermostat is not used, the heater shall have a separate "positive off" switch. The heater shall not be required to have a tip-over switch.

UL 1278 Conformance: Acceptable evidence of compliance with the requirements of UL 1278 shall be a UL Label or Listing Mark, or a certified test report from an independent testing laboratory acceptable to the Government, indicating the space heater has passed all tests, may be acceptable as evidence of conformance to the requirements of UL 1278. The test reports shall be less than 2 years old.

Unit of Issue – Each (EA)

26. NSN: 4520-00-555-8696

HEATER, SPACE, ELECTRIC, (PORTABLE): The electric space heater is intended primarily for heating small rooms or small areas and shall conform to Underwriters Laboratories Inc. Standard UL 1278, Movable and Wall or Ceiling-Hung Electric Room Heaters, Standard for Safety, and shall have the following characteristics:

- 1) Upright, Convection, Fan Forced, 120 volts.
- 2) A Single wattage: 1250 watts (minimum); or a
Dual wattage: 750 and 1500 watts, or a;
Dual wattage: 1300 and 1500 watts, may be furnished at the manufacturer's option.
- 3) The plug and cord shall be rated for 15 amps.
- 4) The heater shall be furnished with a suitable carrying handle.
- 5) Heater enclosures shall be constructed of metal, plastic is not permitted.

IPDs - TECHNICAL INFORMATION

- 6) The heater shall have a 3-prong plug in accordance with NEMA WD-1 and WD-6 (NEMA configuration 5-15P).
- 7) The heater shall have an automatic adjustable thermostat with a "positive off" feature. If a "positive off" thermostat is not used, the heater shall have a separate "positive off" switch. The heater shall have a tip-over switch.

UL 1278 Conformance. Acceptable evidence of compliance with the requirements of UL 1278 shall be a UL Label or Listing Mark, or a certified test report from an independent testing laboratory acceptable to the Government, indicating the space heater has passed all tests, may be acceptable as evidence of conformance to the requirements of UL 1278. The test reports shall be less than 2 years old.

Unit of Issue – Each (EA)

27. NSN: 4520-00-865-5939

HEATER, SPACE, ELECTRIC (PORTABLE): The baseboard-style space heater is intended primarily for heating small rooms or areas and shall conform to Underwriters Laboratories Inc. Standard UL 1042, Electric Baseboard Heating Equipment, Standard for Safety; and shall have the following characteristics:

- 1) Low Silhouette, Natural Convection, 120 volts, 60 Hz.
- 2) Rod-type heating elements with heat-radiating metal fins.
- 3) Single wattage, 1000 watts minimum.
- 4) The plug and cord shall be rated for 15 amps.
- 5) The heater shall be furnished with a suitable carrying handle.
- 6) Height, (excluding handle), shall be 7 plus or minus 3 inches.
Width shall be 47-1/2 inches plus or minus 12.5 inches.
Depth shall be 4-1/4 inches plus or minus 2.75 inches.
- 7) Heater enclosures shall be constructed of metal, plastic is not permitted.
- 8) Any heater projections such as guards or grilles that are intended to guard hot heater surfaces shall be positively secured to the heater such as by
 - a) screws, rivets or welding or
 - b) being engaged in slots so that they cannot be removed without the use of tools, breaking or permanent bending or distortion.
- 9) The heater shall have a 3-prong plug in accordance with NEMA WD-1 and WD-6 (NEMA configuration 5-15P).
- 10) The heater shall have an automatic adjustable thermostat with a range of 45 degrees to 120 degrees F or greater, with a "positive off" feature. If a "positive off" thermostat is not used, the heater shall have a separate "positive off" switch. The space heater shall have a tip-over switch.

UL 1042 Conformance: Acceptable evidence of compliance with the requirements of UL 1042 shall be a UL Label or Listing Mark, or a certified test report from an independent testing laboratory acceptable to the Government, indicating the space heater has passed all tests, may be acceptable as evidence of conformance to the requirements of UL 1042. The test reports shall be less than 2 years old.

Unit of Issue – EA (Each)

IPDs - TECHNICAL INFORMATION

28. NSN: 4720-01-447-8757

HOSE, NON-METALLIC (GARDEN HOSE): Shall be Gilmour P/N 29-58100 or Apex P/N 888VR-100 FEET, or equal, with the following characteristics:

Commercial grade rubber/vinyl water hose

Length - 100 feet

Size - 5/8 inch diameter

Material - Rubber/vinyl with reinforcement

Construction - Protective hose collar at faucet end, abrasion-resistant cover, flexible and kink-resistant

Brass couplings, 500 psi burst strength, 4-ply minimum

Color - gray (colored stripe optional)

The garden hose shall contain 60-65% recovered material by weight as specified by the EPA Guidelines For Federal Procurement.

Unit of issue – LG (length of one hundred (100) feet)

29. NSN: 4940-01-490-2455

PAN, DRIP: Shall be in accordance with the following characteristics;

Capacity – 3 gallon

Height - 4-3/4 inches

Diameter – 17-1/2 inches

Thickness - .2950 mil

Crush and crack proof synthetic rubber

Double fiber woven reinforced

Oil resistant polyethylene resin

Molybdenum disulfide coated

Unit of issue – PG (package containing ten (10) each)

30. NSN: 4940-01-490-2463

PAN, DRIP: Shall be in accordance with the following characteristics:

Capacity - 6-1/2 gallon

IPDs - TECHNICAL INFORMATION

Height - 8 inches
Diameter - 14 inches
Thickness - .2950 mil
Crush and crack proof synthetic rubber
Double fiber woven reinforced
Oil resistant polyethylene resin
Molybdenum disulfide coated

Unit of issue – PG (package containing ten (10) each)

31. NSN: 4940-01-490-2470

PAN, DRIP: Shall be in accordance with the following characteristics:

Capacity - 15 gallon
Height - 10-1/2 inches
Diameter - 26-1/4 inches
Thickness - .2950 mil
Crush and crack proof synthetic rubber
Double fiber woven reinforced
Oil resistant polyethylene resin
Molybdenum disulfide coated

Unit of issue – PG (package containing ten (10) each)

32. NSN: 4940-01-504-5270

PAN, DRIP: Shall be in accordance with the following characteristics:

Capacity – 3 gallon
Height - 4-3/4 inches
Diameter – 17-1/2 inches
Thickness - .2950 mil
Crush and crack proof synthetic rubber
Double fiber woven reinforced
Oil resistant polyethylene resin
Molybdenum disulfide coated

Includes a 6-foot, Grade 30, galvanized steel chain, nominal size of 1/4 inch, with an eyelet attached. The eyelet shall be a standard bolt eyelet that 5/8" x 3".

Unit of issue – PG (package containing ten (10) each)

IPDs - TECHNICAL INFORMATION

33. NSN: 4940-01-504-5273

PAN, DRIP: Shall be in accordance with the following characteristics:

Capacity - 6-1/2 gallon
Height - 8 inches
Diameter - 14 inches
Thickness - .2950 mil
Crush and crack proof synthetic rubber
Double fiber woven reinforced
Oil resistant polyethylene resin
Molybdenum disulfide coated

Includes a 6-foot, Grade 30, galvanized steel chain, nominal size of 1/4 inch, with an eyelet attached. The eyelet shall be a standard bolt eyelet that is 5/8" x 3".

Unit of issue – PG (package containing ten (10) each)

34. NSN: 4940-01-535-7651

PAN, DRIP: Shall be in accordance with the following characteristics:

Capacity - 3 gallon
Height - 5 inches
Diameter - 17-1/2 inches
Thickness - .2950 mil
Crush and crack proof synthetic rubber
Double fiber woven reinforced
Oil resistant polyethylene resin
Molybdenum disulfide coated

Includes a rubber wheel chock with chain for attachment to the drip pan.

- 6-foot, Grade 30, galvanized steel chain, nominal size of 1/4 inch
- Black rubber chock 10"L x 8"W x 6"H with an eyebolt for chain attachment to the drip pan

Unit of issue – PG (package containing ten (10) each)

IPDs - TECHNICAL INFORMATION

35. NSN: 4940-01-535-7652

PAN, DRIP: Shall be in accordance with the following characteristics:

Capacity - 15 gallon
Height - 10-1/2 inches
Diameter - 26-1/4 inches
Thickness - .2950 mil
Crush and crack proof synthetic rubber
Double fiber woven reinforced
Oil resistant polyethylene resin
Molybdenum disulfide coated

Includes a rubber wheel chock with chain for attachment to the drip pan.
- 6-foot, Grade 30, galvanized steel chain, nominal size of 1/4 inch
- Black rubber chock 10"L x 8"W x 6"H with an eyebolt for chain attachment to the drip pan

Unit of issue - PG (package containing ten (10) each)

36. NSN: 4940-01-535-7653

PAN, DRIP: Shall be in accordance with the following characteristics:

Capacity - 6-1/2 gallon
Height - 8 inches
Diameter - 14 inches
Thickness - .2950 mil
Crush and crack proof synthetic rubber
Double fiber woven reinforced
Oil resistant polyethylene resin
Molybdenum disulfide coated

Includes a rubber wheel chock with chain for attachment to the drip pan.
- 6-foot, Grade 30, galvanized steel chain, nominal size of 1/4 inch
- Black rubber chock 10"L x 8"W x 6"H with an eyebolt for chain attachment to the drip pan

Unit of issue - PG (package containing ten (10) each)

37. NSN: 4940-01-535-7654

PAN, DRIP: Shall be in accordance with the following characteristics:

IPDs - TECHNICAL INFORMATION

Height - 2.000 inches
Length - 36.000 inches
Width - 36.000 inches
Crush and crack proof synthetic rubber
Double fiber woven reinforced
Oil resistant polyethylene resin
Molybdenum disulfide coated
Interlocking lips on all edges for spill proof containment and modularity (intended as an aircraft drip pan)

Unit of issue – PG (package containing ten (10) each)

38. **NSN: 5315-00-010-4659**

NAIL: Shall be in accordance with ASTM F1667 with the following requirements and characteristics:

Type I - Nails
Style 10 - Common
Table 15 - Steel wire, flat head, diamond point, round smooth shank, bright finish
Dash # - 7
Size - 8d
Shank Dia. - 0.131 inches
Head Dia. - 0.281 inches
Length - 2-1/2 inches
Part # - F1667 NL CM S-07 B

Application for copies of ASTM standards should be addressed to ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

Unit of issue – BX (fifty (50) pounds of nails per box)

39. **NSN: 5315-00-170-5314**

NAIL: Shall be in accordance with ASTM F1667 with the following characteristics:

Type I - Nails
Style 20 - Roofing
Table 29 - Steel wire, flat head, diamond point, barbed shank, zinc coated
Dash # - 36
Shank Dia. - 0.106 inch
Head Dia. - 0.375 inch
Length - 1-1/2 inches
Part # - F1667 NL RF S Q-36 Z

IPDs - TECHNICAL INFORMATION

Application for copies of ASTM standards should be addressed to ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

Unit of issue – BX (fifty (50) pounds of nails per box)

40. NSN: 5340-00-116-2375

CLOSER, DOOR: Shall be in accordance with the latest issue of ANSI/BHMA A156.4, with the following characteristics and requirements:

TYPE - SURFACE CLOSER (MODERN TYPE NO COVER) - ANSI/BHMA A156.4-1986 number C03012 (Hinge side mounting)

SIZE III - For 38 inch interior door or 30 inch exterior door

GRADE 2 - Tested in accordance with PT2

FINISH - 689 (Aluminum paint)

Copies of ANSI/BHMA Standards are available from Building Hardware Manufacturers Association, Inc., 60 East 42nd Street, New York, NY 10165 or the American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018.

UNIT OF ISSUE - EA (each)

41. NSN: 5340-00-116-2376

CLOSER, DOOR: Shall be in accordance with the latest issue of ANSI/BHMA A156.4, with the following characteristics and requirements:

TYPE - SURFACE CLOSER (MODERN TYPE NO COVER) - ANSI/BHMA A156.4, number C03012 (Hinge side mounting)

SIZE IV - For 48 inch interior door or 36 inch exterior door

GRADE 2 - Tested in accordance with PT2

FINISH - 689 (Aluminum paint)

Copies of ANSI/BHMA Standards are available from Building Hardware Manufacturers Association, Inc., 60 East 42nd Street, New York, NY 10165 or the American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018.

UNIT OF ISSUE - EA (each)

42. NSN: 5340-00-292-0896

PADLOCK: Shall conform to ASTM F883 and the following options, characteristics and requirements, as described herein:

Type PO 2 - Combination operated

Grade - 2

IPDs - TECHNICAL INFORMATION

Option C - Changeable combination with four (4) separately numbered dialed discs, designed to be located on the opposite side of the shackle (bottom of lock)

Option E - Corrosion Resistant (see exceptions below)

PADLOCK CASE - Solid or laminated

SHACKLE - Extended type, case hardened steel

CHAINS - Not required

TOOL - One (1) tool shall be furnished per lock, to change the combination of the lock

OVERALL LOCK LENGTH - 4.15 inches \pm 0.50 inch

SHACKLE CLEARANCE

VERTICAL	- 2.250 to 2.500 inches
HORIZONTAL	- 0.875 inch (minimum)
DIAMETER	- 0.281 to 0.314 inches

CASE DIMENSIONS:

OVERALL WIDTH - 1.80 inch \pm 0.050 inch

OVERALL THICKNESS - 0.800 - 1.125 inches

EXCEPTIONS TO THE ASTM:

GENERAL EXCEPTION

1) The salt spray and abrasion tests of ASTM F883 are not required to be performed.

COMBINATION RELATED EXCEPTIONS

2) Shock testing shall be conducted under the lower standard requirements for a "Grade 1" padlock, listed in Table 1

3) Padlocks designed with disks which rotate in one direction only shall be cycled in the normal direction of rotation

4) A single locking spring latch mechanism is acceptable in lieu of a single or dual dead bolt

5) When closing the shackle, the combination lock shall not close until the combination setting is thrown off, requiring a complete resetting to reopen

The issue or revision of ASTM F883 used to determine conformance shall be the issue or revision current on the date of the solicitation for bid or purchase order as applicable. Copies of ASTM documents are available from: ASTM, 100 Barr Harbor Dr., West Conshohocken, PA 19428-2959.

SHACKLE: Shall be steel and uniformly case hardened. Inside vertical clearance of the shackle shall be measured from the top center portion of the padlock case to the uppermost inside bend radius of the shackle.

CASE: Shall be solid or laminated at the supplier's option and may be constructed of any durable material compatible with shackle and lock mechanism so long as the padlock conforms with the test requirements specified in ASTM F883. The case shall be permanently marked with the manufacturer's name or recognized trademark.

MECHANISM: Shall be pin, disk or blade tumbler at the supplier's option. Pin tumbler mechanisms shall incorporate at least four (4) pins. Disk or blade mechanisms shall incorporate ten (10) or more disk or blade tumblers. The mechanism shall provide not less than 10,000 possible changes and shall engage the shackle at toe and heel. The locking mechanism

IPDs - TECHNICAL INFORMATION

shall be constructed of non corrosive material and securely fastened within the case to preclude forcible separation or opening of the padlock without mutilation. The mechanism shall be lubricated for smooth operation.

WORKMANSHIP: The shackle and case shall have sharp edges or burrs removed and any contours shall be smooth, even transition. The lock mechanisms shall operate smoothly without binding and without the application of excessive force.

CORROSION AND DETERIORATION CONTROL: The padlocks, and chains when specified, shall be fabricated from compatible materials, inherently corrosion and deterioration resistant or treated to provide protection against the various forms of corrosion and deterioration that may be encountered in any of the applicable storage and use environments to which the padlocks may be exposed. Dissimilar metals which react to produce galvanic corrosion shall be electrically insulated from one another with corrosion inhibiting sealant, chromate tape, varnish, or other suitable means.

NOTICE: Packaging and packing requirements in this item purchase description are unique at the request of the U.S. Navy Supply Systems Command. This item is included in the Navy's **PLASTICS REMOVAL IN MARINE ENVIRONMENT (PRIME) PROGRAM** under the U.S. Marine Plastic Pollution Research and Control Act of 1987 (MPPRCA) and the International Convention for the Prevention of Pollution from Ships Treaty (MARPOL) Annex V. Items in the **PRIME** program require biodegradable packing materials. The statement "**PLASTIC PACKING MATERIALS AND PRESSURE SENSITIVE TAPES ARE PROHIBITED**" is included in the packaging and packing requirements for all PRIME program items.

PREPARATION FOR DELIVERY: The item(s) shall be packaged and packed in accordance with the latest revision of ASTM D 3951, Standard Practice for Commercial Packaging. **PLASTIC PACKING MATERIALS AND PRESSURE SENSITIVE TAPES ARE PROHIBITED.** Copies of ASTM standards are available from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959. Phone: 610-832-9585, Fax: 610-832-9555, Web site: www.astm.org, e-mail: service@astm.org.

Unit of issue - EA (one each padlock)

43. NSN: 5340-00-514-2782

PADLOCK: Shall conform with all applicable requirements of ASTM F883, Standard Performance Specification for Padlocks, with the following characteristics:

Type PO 2 - Combination operated
Grade 2 - Performance Level
Option E - Corrosion resistant (see exceptions below)
PADLOCK CASE - Stainless steel, round face design
DIAL SETTING - Combination dial quantity is from 0-40
PADLOCK SHACKLE - Case hardened steel
CHAINS - Not required
CASE DIAMETER - 1.750 inches (nominal)

SHACKLE CLEARANCE:

VERTICAL - 0.750 + 0.250 inches
HORIZONTAL - 0.750 inch (minimum)
DIAMETER - 0.250 inches (nominal)

IPDs - TECHNICAL INFORMATION

NOTE: The supplier shall provide the same commercial model padlock, from shipment to shipment, throughout the life cycle of the contract, in an effort to preclude customer dissatisfaction or complaint(s).

EXCEPTIONS TO THE ASTM:

GENERAL EXCEPTION

1) The salt spray and abrasion tests of ASTM F883 are not required to be performed.

COMBINATION RELATED EXCEPTIONS

2) Shock testing shall be conducted under the lower standard requirements for a "Grade 1" padlock, listed in Table 1

3) Padlocks designed with disks which rotate in one direction only shall be cycled in the normal direction of rotation

4) A single locking spring latch mechanism is acceptable in lieu of a single or dual dead bolt

5) When closing the shackle, the combination lock shall not close until the combination setting is thrown off, requiring a complete resetting to reopen

The issue or revision of ASTM F883 used to determine conformance shall be the issue or revision current on the date of the solicitation for bid or purchase order as applicable. Copies of ASTM documents are available from: ASTM, 100 Barr Harbor Dr., West Conshohocken, PA 19428-2959.

SHACKLE: Shall be steel and uniformly case hardened. Inside vertical clearance of the shackle shall be measured from the top center portion of the padlock case to the uppermost inside bend radius of the shackle.

CASE: Shall be constructed of steel and be permanently marked with the manufacturer's name or recognized trademark.

MECHANISM: The locking mechanism shall be constructed of non corrosive material and securely fastened within the case to preclude forcible separation or opening of the padlock without mutilation. The mechanism shall be lubricated for smooth operation.

CORROSION AND DETERIORATION CONTROL: The padlocks shall be fabricated from compatible materials, inherently corrosion and deterioration resistant or treated to provide protection against the various forms of corrosion and deterioration that may be encountered in any of the applicable storage and use environments to which the padlocks may be exposed. Dissimilar metals which react to produce galvanic corrosion shall be electrically insulated from one another with corrosion inhibiting sealant, chromate tape, varnish, or other suitable means.

WORKMANSHIP: The shackle and case shall have a smooth even surface. Sharp edges and burrs shall be removed and any contours shall be smooth, even transition. The lock mechanisms shall operate smoothly without binding and without the application of excessive force.

UNIT OF ISSUE – EA (each)

44. **NSN:** 5340-01-346-4611

PADLOCK: Shall conform with ASTM F883, with the following characteristics and additional requirements:

TYPE PO 1 - Key Operated

IPDs - TECHNICAL INFORMATION

<u>GRADE 2</u>	- Performance level
<u>OPTION E</u>	- Corrosion resistant (see exception below)
<u>PADLOCK DESIGN</u>	- Rectangular type shape, solid or laminated
<u>PADLOCK CASE</u>	- Steel
<u>SHACKLE</u>	- Case hardened steel
<u>SASH CHAIN</u>	- None
<u>KEY RETAINING</u>	- Not allowed
<u>KEYING</u>	- Locks shall be keyed different, furnished with 2 keys per lock

CASE DIMENSIONS:

CASE THICKNESS - 1.000 inch (maximum)

SHACKLE DIMENSIONS:

INSIDE VERTICAL CLEARANCE - 1.000 to 1.625 inch

HORIZONTAL SIDE CLEARANCE - 0.750 to 0.875 inch

SHACKLE DIAMETER - 0.281 to 0.312 inch

NOTE: The supplier shall provide the same commercial model padlock, from shipment to shipment, throughout the life cycle of the contract, in an effort to preclude customer dissatisfaction or complaint(s).

EXCEPTIONS TO THE ASTM:

- 1)** Environmental tests are not required
- 2)** The salt spray and abrasion tests of ASTM F883 are not required to be performed
- 3)** No key will operate more than one padlock per 50 padlocks
- 4)** Key bumping test is not required

The issue or revision of ASTM F883 used to determine conformance shall be the issue or revision current on the date of the solicitation for bid or purchase order as applicable. Copies of ASTM documents are available from: ASTM, 100 Barr Harbor Dr., West Conshohocken, PA 19428-2959.

SHACKLE: Inside vertical clearance of the shackle shall be measured from the top center portion of the padlock case to the uppermost inside bend radius of the shackle. Horizontal or side clearance shall be the distance measured between the inside legs of the shackle.

CASE: Shall be solid or laminated at the supplier's option and may be constructed of any durable material compatible with shackle and lock mechanism so long as the padlock conforms with the test requirements specified in ASTM F883. The case shall be permanently marked with the manufacturer's name or recognized trademark.

MECHANISM: Shall be pin, disk or blade tumbler at the supplier's option. Pin tumbler mechanisms shall incorporate at least four (4) pins. Disk or blade mechanisms shall incorporate ten (10) or more disk or blade tumblers. The mechanism (all options) shall provide not less than 1,200 possible key changes and shall engage the shackle at toe and heel. The locking mechanism shall be constructed of non-corrosive material and securely fastened within the case to preclude forcible separation or opening of the padlock without mutilation. The mechanism shall be lubricated for smooth operation.

KEYING: Each padlock shall be furnished with 2 keys constructed of brass, bronze, nickel-alloy, or steel. Padlocks shall be furnished individually keyed. No key shall operate more than one (1) padlock per fifty (50) padlocks. The cylinder

IPDs - TECHNICAL INFORMATION

mechanism used shall accept keys made from key blanks available on the national domestic retail market. The supplier shall identify domestic retail sources for such key blanks upon request.

WORKMANSHIP: The shackle and case shall have a smooth even surface. Sharp edges and burrs shall be removed and any contours shall be smooth, even transition. The lock mechanisms shall operate smoothly without binding and without the application of excessive force. The mechanism and keys shall provide for easy insertion and removal of keys without binding or sticking.

CORROSION AND DETERIORATION CONTROL: The padlocks, and chains when specified, shall be fabricated from compatible materials, inherently corrosion and deterioration resistant or treated to provide protection against the various forms of corrosion and deterioration that may be encountered in any of the applicable storage and use environments to which the padlocks may be exposed. Dissimilar metals which react to produce galvanic corrosion shall be electrically insulated from one another with corrosion inhibiting sealant, chromate tape, varnish, or other suitable means.

UNIT OF ISSUE - EA (each)

45. NSN: 5340-01-346-4612

PADLOCK: Shall conform with ASTM F883, with the following characteristics and additional requirements:

<u>TYPE PO 1</u>	- Key Operated
<u>GRADE 2</u>	- Performance level
<u>OPTION E</u>	- Corrosion resistant
<u>PADLOCK DESIGN</u>	- Rectangular type shape, solid or laminated
<u>PADLOCK CASE</u>	- Brass, Bronze or Steel
<u>SHACKLE</u>	- Case hardened steel
<u>SASH CHAIN</u>	- Included (9 inch min. as specified herein)
<u>KEY RETAINING</u>	- Not allowed
<u>KEYING</u>	- Locks shall be keyed different with 2 keys

per lock

CASE DIMENSIONS:

CASE THICKNESS - 1.000 inch (maximum)

SHACKLE DIMENSIONS:

INSIDE VERTICAL CLEARANCE - 1.000 to 1.625 inch

HORIZONTAL SIDE CLEARANCE - 0.750 to 0.875 inch

SHACKLE DIAMETER - 0.281 to 0.312 inch

NOTE:

1) The supplier shall provide the same commercial model padlock, from shipment to shipment, throughout the life cycle of the contract, in an effort to preclude customer dissatisfaction or complaint(s).

EXCEPTIONS TO THE ASTM:

- 1) Environmental tests are not required.
- 2) The salt spray and abrasion tests of ASTM F883 are not required to be performed.

IPDs - TECHNICAL INFORMATION

3) No key will operate more than one padlock per 50 padlocks.

4) Key bumping test is not required

The issue or revision of ASTM F883 used to determine conformance shall be the issue or revision current on the date of the solicitation for bid or purchase order as applicable. Copies of ASTM documents are available from: ASTM, 100 Barr Harbor Dr., West Conshohocken, PA 19428-2959.

SHACKLE: Inside vertical clearance of the shackle shall be measured from the top center portion of the padlock case to the uppermost inside bend radius of the shackle. Horizontal or side clearance shall be the distance measured between the inside legs of the shackle.

SASH CHAIN: This padlock has a nine (9) inch long (minimum), sash chain attached on one end to the shackle or case. The chain shall be compatible to the shackle or case, supplied with an eyelet or bracket, with a hole on the loose end, for attachment purposes.

CASE: Shall be solid or laminated at the supplier's option and may be constructed of any durable material compatible with shackle and lock mechanism so long as the padlock conforms with the test requirements specified in ASTM F883. The case shall be permanently marked with the manufacturer's name or recognized trademark.

MECHANISM: Shall be pin, disk or blade tumbler at the supplier's option. Pin tumbler mechanisms shall incorporate at least four (4) pins. Disk or blade mechanisms shall incorporate ten (10) or more disk or blade tumblers. The mechanism (all options) shall provide not less than 1,200 possible key changes and shall engage the shackle at toe and heel. The locking mechanism shall be constructed of non-corrosive material and securely fastened within the case to preclude forcible separation or opening of the padlock without mutilation. The mechanism shall be lubricated for smooth operation.

KEYING: Each padlock shall be furnished with 2 keys constructed of brass, bronze, nickel-alloy, or steel. Padlocks shall be furnished individually keyed. No key shall operate more than one (1) padlock per fifty (50) padlocks. The cylinder mechanism used shall accept keys made from key blanks available on the national domestic retail market. The supplier shall identify domestic retail sources for such key blanks upon request.

WORKMANSHIP: The shackle and case shall have a smooth even surface. Sharp edges and burrs shall be removed and any contours shall be smooth, even transition. The lock mechanisms shall operate smoothly without binding and without the application of excessive force. The mechanism and keys shall provide for easy insertion and removal of keys without binding or sticking.

CORROSION AND DETERIORATION CONTROL: The padlocks, and chains when specified, shall be fabricated from compatible materials, inherently corrosion and deterioration resistant or treated to provide protection against the various forms of corrosion and deterioration that may be encountered in any of the applicable storage and use environments to which the padlocks may be exposed. Dissimilar metals which react to produce galvanic corrosion shall be electrically insulated from one another with corrosion inhibiting sealant, chromate tape, varnish, or other suitable means.

UNIT OF ISSUE - EA (each)

46. NSN: 5340-01-346-7462

PADLOCK: Shall conform with ASTM F883 and have the following requirements and characteristics:

IPDs - TECHNICAL INFORMATION

<u>TYPE PO 1</u>	- Key Operated
<u>GRADE 2</u>	- Performance Level
<u>OPTION F</u>	- Provided with non-ferrous shackles
<u>PADLOCK DESIGN</u>	- Rectangular style shape with a solid or laminated body
<u>PADLOCK CASE</u>	- Brass or bronze
<u>SHACKLE MATERIAL</u>	- Brass or bronze
<u>SASH CHAIN</u>	- Not included
<u>KEY RETAINING</u>	- Not included
<u>KEYING</u>	- Locks shall be keyed different, furnished with 2 keys per lock

SHACKLE CLEARANCE

<u>VERTICAL</u>	- 0.750 and 1.188 inches
<u>HORIZONTAL</u>	- 0.750 inch (minimum)
<u>DIAMETER</u>	- 0.250 ± 0.005 inch

CASE DIMENSIONS

<u>THICKNESS</u>	- 0.820 inches (maximum)
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NOTE: The supplier shall provide the same commercial model padlock, from shipment to shipment, throughout the life cycle of the contract, in an effort to preclude customer dissatisfaction or complaint(s).

EXCEPTIONS TO THE ASTM:

- 1)** Environmental tests are not required
- 2)** The salt spray and abrasion tests of ASTM F883 are not required to be performed
- 3)** In the event the padlock furnished incorporates a captive Key or key retaining feature paragraphs 10.1.2.4 and 10.1.2.5 of ASTM F883 shall be performed in reverse order
- 4)** No key will operate more than one padlock per 50 padlocks
- 5)** Key bumping test is not required

The issue or revision of ASTM F883 used to determine conformance shall be the issue or revision current on the date of the solicitation for bid or purchase order as applicable. Copies of ASTM documents are available from: ASTM, 100 Barr Harbor Dr., West Conshohocken, PA 19428-2959.

SHACKLE: Inside vertical clearance of the shackle shall be measured from the top center portion of the padlock case to the uppermost inside bend radius of the shackle. Horizontal or side clearance shall be the distance measured between the inside legs of the shackle.

CASE: The case shall be solid or laminated construction. The lock mechanism and padlock shall conform to the test requirements specified in ASTM F883. The case shall permanently marked with the manufacturer's name or recognized trademark.

MECHANISM: Shall be pin, disk or blade tumbler at the supplier's option. Pin tumbler mechanisms shall incorporate at least four (4) pins. Disk or blade mechanisms shall incorporate ten (10) or more disk or blade tumblers. The mechanism (all options) shall provide not less than 1,200 possible key changes and shall engage the shackle at toe and heel. The

IPDs - TECHNICAL INFORMATION

locking mechanism shall be constructed of non-corrosive material and securely fastened within the case to preclude forcible separation or opening of the padlock without mutilation. The mechanism shall be lubricated for smooth operation.

KEYING: Each padlock shall be furnished with 2 keys constructed of brass, bronze, nickel-alloy, or steel. Padlocks shall be furnished individually keyed. No key shall operate more than one (1) padlock per fifty (50) padlocks. The cylinder mechanism used shall accept keys made from key blanks available on the national domestic retail market. The supplier shall identify domestic retail sources for such key blanks upon request.

WORKMANSHIP: The shackle and case shall have a smooth even surface. Sharp edges and burrs shall be removed and any contours shall be smooth, even transition. The lock mechanisms shall operate smoothly without binding and without the application of excessive force. The mechanism and keys shall provide for easy insertion and removal of keys without binding or sticking.

Unit of issue – EA (each)

NOTICE: Packaging and packing requirements in this item purchase description are unique at the request of the U.S. Navy Supply Systems Command. This item is included in the Navy's **PLASTICS REMOVAL IN MARINE ENVIRONMENT (PRIME) PROGRAM** under the U.S. Marine Plastic Pollution Research and Control Act of 1987 (MPPRCA) and the International Convention for the Prevention of Pollution from Ships Treaty (MARPOL) Annex V. Items in the **PRIME** program require biodegradable packing materials. The statement "**PLASTIC PACKING MATERIALS AND PRESSURE SENSITIVE TAPES ARE PROHIBITED**" is included in the packaging and packing requirements for all PRIME program items.

PREPARATION FOR DELIVERY: The item(s) shall be packaged and packed in accordance with the latest revision of ASTM D 3951, Standard Practice for Commercial Packaging. **PLASTIC PACKING MATERIALS AND PRESSURE SENSITIVE TAPES ARE PROHIBITED.** Copies of ASTM standards are available from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959. Phone: 610-832-9585, Fax: 610-832-9555, Web site: www.astm.org, e-mail: service@astm.org.

47. **NSN: 5345-01-053-7925**

DISK, ABRASIVE: Shall conform with the listed salient characteristics and manufactured in accordance with the following ANSI and ASTM Industry Specifications:

ABRASIVE - Silicon carbide

GRIT - 80

BACKING - "A" weight, paper

COATING - Open coat

GRADE - Non-waterproof and surface treated with zinc stearate to reduce loading

STYLE - Plain flat, no arbor hole with pressure sensitive adhesive backing (PSA)

BOND - Glue over glue

SIZE - 6 inch outside diameter

USAGE DESIGNATION - Metal Working

ANSI B7.7 - Safety Regulations for Abrading Materials With Coated Abrasive Systems

ANSI B74.18 - Specifications For Grading of Certain Abrasive On Coated Abrasive Products

IPDs - TECHNICAL INFORMATION

Application for copies of ANSI standards should be addressed to the American National Standards Institute, 11 West 42nd Street, New York, NY 10036.

ASTM D828 - Test Methods for Tensile Breaking Strength of Paper and Paperboard

ASTM E 29 - Standard Practice For Using Digits In Test Data To Determine Conformance With Specifications

Application for copies of ASTM standards should be addressed to ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

TAPPI Standard T 410 - Grammage of paper and paperboard (weight per unit area)

Applications for TAPPI standards should be addressed to: TAPPI, 15 Technology Parkway South, P.O. Box 105113, Norcross, GA 30092, Telephone: 404-446-1400, Fax: 404-446-6947

The documents referenced in this purchase description shall be the issues in effect on the date of issuance of the invitation for bids or request for proposals. In the event of a conflict between this purchase description and a document referenced herein, this purchase description shall take precedence.

Paper backing. The abrasive paper shall be coated with abrasive material on one surface (side). The breaking strength of the backing shall be tested in accordance with ASTM D828 and meet the minimum requirements specified in Table 1. The coated product shall be tested in accordance with TAPPI Standard T 410.

Abrasive Grain: The abrasive grain shall be crushed and graded in accordance with ANSI B74.18. Shall be evenly dispersed and completely cover the surface of the backing.

Adhesive: Any good quality adhesive is acceptable providing that dislodging of abrasive grain is minimized.

Abrasive Coverage:

Open Coat - 50 to 70% coverage, evenly dispersed

Closed Coat - Complete and uniform coverage

TABLE I

<u>UNCOATED PAPER</u>		<u>COATED PAPER</u>	
BACKING WEIGHT	BACKING WEIGHT (lbs /2880 square ft)	AVERAGE BREAKING STRENGTH	
		MACHINE DIRECTION	CROSS DIRECTION
		(lbs per square inch, minimum)	
A	40-48 lbs	25	12
C	60-80 lbs	45	25
D	90 lbs	55	32

IPDs - TECHNICAL INFORMATION

E	130 lbs	90	45
F	165 lbs	120	60

Workmanship: The abrasive grain shall be evenly dispersed and positively bonded throughout the coated disk. The disk shall be designed to preclude disintegration of the backing and dis-lodging of the grain material during normal usage. Shall meet the requirements as specified in ANSI B7.7.

Unit of issue - RO (125 disks per roll)

48. NSN: 5345-01-074-9405

DISK, ABRASIVE: Shall conform with the listed salient characteristics and manufactured in accordance with the following ANSI and ASTM Industry Specifications:

TYPE - Silicon Carbide

GRIT - 120

BACKING - "A" weight, paper

COATING - Open coat

GRADE - Nonwaterproof

STYLE - Plain flat, no arbor hole with pressure sensitive adhesive backing (PSA)

BOND - Resin over resin

SIZE - 6 inch outside diameter

USAGE DESIGNATION - Metal Working

ANSI B7.7 - Safety Regulations for Abrading Materials With Coated Abrasive Systems

ANSI B74.18 - Specifications For Grading of Certain Abrasive On Coated Abrasive Products

Application for copies of ANSI standards should be addressed to the American National Standards Institute, 11 West 42nd Street, New York, NY 10036.

ASTM D828 - Test Methods for Tensile Breaking Strength of Paper and Paperboard

ASTM E 29 - Standard Practice For Using Digits In Test Data To Determine Conformance With Specifications

Application for copies of ASTM standards should be addressed to ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

TAPPI Standard T 410 - Grammage of paper and paperboard (weight per unit area)

Applications for TAPPI standards should be addressed to: TAPPI, 15 Technology Parkway South, P.O. Box 105113, Norcross, GA 30092, Telephone: 404-446-1400, Fax: 404-446-6947

IPDs - TECHNICAL INFORMATION

The documents referenced in this purchase description shall be the issues in effect on the date of issuance of the invitation for bids or request for proposals. In the event of a conflict between this purchase description and a document referenced herein, this purchase description shall take precedence.

Paper backing: The abrasive paper shall be coated with abrasive material on one surface (side). The breaking strength of the backing shall be tested in accordance with ASTM D828 and meet the minimum requirements specified in Table 1. The coated product shall be tested in accordance with TAPPI Standard T 410.

Abrasive Grain: The abrasive grain shall be crushed and graded in accordance with ANSI B74.18. Shall be evenly dispersed and completely cover the surface of the backing.

Adhesive: Any good quality adhesive is acceptable providing that dislodging of abrasive grain is minimized.

Abrasive Coverage:

Open Coat - 50 to 70% coverage, evenly dispersed

Closed Coat - Complete and uniform coverage

TABLE I

BACKING WEIGHT	UNCOATED PAPER		COATED PAPER	
	BACKING WEIGHT (lbs /2880 square ft)	MACHINE DIRECTION (lbs per square inch, minimum)	CROSS DIRECTION	AVERAGE BREAKING STRENGTH
A	40-48 lbs	25	12	
C	60-80 lbs	45	25	
D	90 lbs	55	32	
E	130 lbs	90	45	
F	165 lbs	120	60	

Workmanship: The abrasive grain shall be evenly dispersed and positively bonded throughout the coated disk. The disk shall be designed to preclude disintegration of the backing and dis-lodging of the grain material during normal usage. Shall meet the requirements as specified in ANSI B7.7.

Unit of issue - RO (125 disks per roll)

IPDs - TECHNICAL INFORMATION

49. NSN: 5345-01-252-8565

DISK, ABRASIVE: Shall be a surface conditioning disk that provides a burr-free surface suitable for painting, coating, light rust removal and oxides. Shall conform with the following characteristics:

ABRASIVE - Aluminum oxide

GRADE - Coarse

COLOR - Brown

STYLE - Plain flat, no arbor hole, shall be functionally compatible with "ROLOC" TR quick change, male threaded mechanical feature back up pads

SIZE - 2 inch diameter

DESIGNED USE - Metal working

ANSI B7.7 - Safety Regulations for Abrading Materials With Coated Abrasive Systems

ANSI B74.18 - Specifications For Grading of Certain Abrasive On Coated Abrasive Products

Application for copies of ANSI standards should be addressed to the American National Standards Institute, 1430 Broadway, New York, NY 10018.

ASTM E 29 - Standard Practice For Using Digits In Test Data To Determine Conformance With Specifications

The documents referenced in this purchase description shall be the issues in effect on the date of issuance of the invitation for bids or request for proposals. In the event of a conflict between this purchase description and a document referenced herein, this purchase description shall take precedence.

Workmanship: The abrasive grain shall be evenly dispersed and positively bonded throughout the coated disk. The disk shall be designed to preclude disintegration of the backing and dis-lodging of the grain material during normal usage. Shall meet the requirements as specified in ANSI B7.7.

Unit of Issue - BX (200 disks per box)

50. NSN: 5345-01-282-0634

DISK, ABRASIVE: Shall be a surface conditioning disk that provides a burr-free surface suitable for painting, coating, light rust removal and oxides. Shall conform with the following characteristics:

ABRASIVE - Aluminum oxide

GRADE - Medium

COLOR - Maroon

STYLE - Plain flat, no arbor hole, shall be functionally compatible with "ROLOC" TR quick change, male threaded mechanical feature back up pads

SIZE - 2 inch diameter

DESIGNED USE - Metal working

ANSI B7.7 - Safety Regulations for Abrading Materials With Coated Abrasive Systems

IPDs - TECHNICAL INFORMATION

ANSI B74.18 - Specifications For Grading of Certain Abrasive On Coated Abrasive Products

Application for copies of ANSI standards should be addressed to the American National Standards Institute, 1430 Broadway, New York, NY 10018.

ASTM E 29 - Standard Practice For Using Digits In Test Data To Determine Conformance With Specifications

Workmanship: The abrasive grain shall be evenly dispersed and positively bonded throughout the coated disk. The disk shall be designed to preclude disintegration of the backing and dis-lodging of the grain material during normal usage. Shall meet the requirements as specified in ANSI B7.7.

Unit of Issue - BX (200 disks per box)

51. NSN: 5345-01-367-7680

DISK, ABRASIVE: Shall be a surface conditioning disk that provides a burr-free surface suitable for painting, coating, light rust removal and oxides. Shall conform with the following characteristics:

TYPE - Aluminum oxide

GRADE - "A" VFN

COLOR - Blue

STYLE - Plain flat, no arbor hole, shall be functionally compatible with "ROLOC" quick change, male threaded mechanical feature back up pads

SIZE - 2 inch diameter

DESIGNED USE - Metal and wood working

ANSI B7.7 - Safety Regulations for Abrading Materials With Coated Abrasive Systems

ANSI B74.18 - Specifications For Grading of Certain Abrasive On Coated Abrasive Products

Application for copies of ANSI standards should be addressed to the American National Standards Institute, 1430 Broadway, New York, NY 10018.

ASTM E 29 - Standard Practice For Using Digits In Test Data To Determine Conformance With Specifications

Workmanship: The abrasive grain shall be evenly dispersed and positively bonded throughout the coated disk. The disk shall be designed to preclude disintegration of the backing and dis-lodging of the grain material during normal usage. Shall meet the requirements as specified in ANSI B7.7.

Unit of Issue - BX (200 disks per box)

52. NSN: 5350-00-192-5047

IPDs - TECHNICAL INFORMATION

POTENTIAL SOURCES:

Norton - P/N - 662611-01838

Sandcap Abrasives - P/N - 3037H4

Union Abrasives - P/N - S9X11AO80J

NOTE: IF IPD DATE OR LAST REVIEW DATE IS OVER 24 MONTHS OLD, REQUEST TECHNICAL REVIEW BEFORE USING IT IN A SOLICITATION			
ITEM PURCHASE DESCRIPTION			
NSN:	5350-00-192-5047	Approved by:	Mark Giesbrecht
PPN:		Issued by:	QSDLCB/607
BPA:		Date Issued:	05/12/2014
DAC:		Supersedes:	02/20/2014
ENAC:			
	Current	Proposed	Effective After:
Acquisition Advice Code:	H		
Method of Purchase:	42		Specification: ANSI
Unit of Issue:	PG		
Quantitative Expression:	50 sheets		
Shelf Life Code:	N/A		QPL Number: N/A
Age on Delivery, MAX:	N/A		
REASON FOR ISSUE:	UPDATED AAC TO "H" IN SUPPORT OF "G" TO "H" STOCK PROGRAM CONVERSION PROJECT.		

NSN: 5350-00-192-5047

CLOTH, ABRASIVE: Shall be Norton Abrasives P/N 662611-01838 or equal and conform with the listed salient characteristics and manufactured in accordance with the following Industry Specifications:

ABRASIVE - Aluminum oxide

GRIT - 80

BACKING MATERIAL - "J" weight jeans cloth

COATING - Closed coat

GRADE - Not included

BOND - Resin or glue

SIZE - 9 inch X 11 inch sheets

Unit of Issue - PG (50 sheets per package)

ANSI B74.18 - Specifications For Grading of Certain Abrasive On Coated Abrasive Products

Application for copies of ANSI standards should be addressed to the American National Standards Institute, 1430 Broadway, New York, NY 10018.

IPDs - TECHNICAL INFORMATION

ASTM D 5035 - Standard Test Methods for Breaking Force and Elongation of Textile Products (Strip Force)
ASTM E 29 - Standard Practice For Using Digits In Test Data To Determine Conformance With Specifications

Application for copies of ASTM standards should be addressed to ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

The documents referenced in this purchase description shall be the issues in effect on the date of issuance of the invitation for bids or request for proposals. In the event of a conflict between this purchase description and a document referenced herein, this purchase description shall take precedence.

PERFORMANCE CRITERIA:

The abrasive cloth shall be constructed to prevent a "sharp edge break" in the resin or glue bond and the backing, when used in radius applications of 0.750 inch.

Abrasive Grain: The abrasive grain shall be crushed and graded in accordance with ANSI B74.18. Shall be evenly dispersed and completely cover the surface of the backing.

Adhesive: Any good quality adhesive is acceptable providing that dislodging of abrasive grain is minimized.

Abrasive Coverage: Open Coat - 50 to 70% coverage, evenly dispersed. Closed Coat - Complete and uniform coverage

Cloth backing material: The treated cloth backing material shall be in accordance with Table 1 and tested in accordance with ASTM D 5035. When waterproof material is specified, the backing material shall be treated to make it impervious to water.

TABLE I

TYPE BACKING	BACKING WEIGHT	COATED CLOTH AVERAGE BREAKING STRENGTH	
		WARP DIRECTION	FILLING DIRECTION
(lbs per square inch minimum)			
Jeans cloth	"J" weight	80 lbs/in	35 lbs/in
Drills cloth	"X" weight	130 lbs/in	50 lbs/in
Heavy drills cloth	"Y" weight	160 lbs/in	65 lbs/in

NOTE: Tolerance plus or minus 15%.

Workmanship: The abrasive grain shall be evenly dispersed and positively bonded throughout the coated sheet. The sheet shall be designed to preclude disintegration of the backing and dis-lodging of the grain material during normal usage. The backing shall comply with the performance criteria as specified herein.

PRODUCT CONFORMANCE: The products provided shall meet the salient characteristics of this description, conform to the producer's own drawings, standards, and quality assurance practices and be the same product offered for sale in the commercial market. The Government reserves the right to require proof of such conformance.

IPDs - TECHNICAL INFORMATION

MARKING: Shipments to GSA and other civilian agencies shall be marked in accordance with FED-STD-123. Shipments to the Department of Defense (DOD) shall be marked in accordance with MIL-STD-129.

DATA SUBMISSION: The material safety data sheet (MSDS) shall be submitted in accordance with the latest revision of Federal Standard No. 313. For shipments to GSA distribution centers or Customer Supply Centers, the contractor shall provide one copy of the MSDS inside or affixed to the outside of each transport package (as defined in paragraph 1 of FED-STD-123), if affixed outside, the MSDS must be placed in a weather-resistant envelope.

PREPARATION FOR DELIVERY: The item(s) shall be packaged and packed to afford adequate protection against physical damage during shipment from the supplier to the first receiving activity. The pack shall comply with the rules and regulations applicable to the mode of transportation. The package shall be the same as that normally provided by the supplier. In the event a pallet or skid is used for shipping, the following notice shall apply:

Notice of special requirements for shipment to all countries that have endorsed the IPPC Guidelines for treatment of non-manufactured wood packaging: The International Plant Protection Convention (IPPC) has approved and published on March 15, 2002, "Guidelines for Regulating Wood Packaging Material in International Trade". Countries endorsing the IPPC Guidelines can be found at the USDA.gov web site. Additionally, shipments delivered to DOD distribution facilities or freight consolidation points for eventual delivery to or through EU/IPPC countries shall comply with applicable DLA Regulations and Procurement Letter PROCLTR 02-17.

53. NSN: 5350-00-221-0872

CLOTH, ABRASIVE: Shall conform with the listed salient characteristics and manufactured in accordance with the following ANSI Industry Specifications:

ABRASIVE - Crocus

BACKING - "J" weight jeans cloth

COATING - Closed coat

GRADE - Non-waterproof

BOND - Resin or glue

SIZE - 9 x 11 inch sheets

DESIGNED USE - Metal working

ANSI B74.18 - Specifications For Grading of Certain Abrasive On Coated Abrasive Products

Application for copies of ANSI standards should be addressed to the American National Standards Institute, 1430 Broadway, New York, NY 10018.

ASTM D 5035 - Standard Test Methods for Breaking Force and Elongation of Textile Products (Strip Force)

ASTM E 29 - Standard Practice For Using Digits In Test Data To Determine Conformance With Specifications

The documents referenced in this purchase description shall be the issues in effect on the date of issuance of the invitation for bids or request for proposals. In the event of a conflict between this purchase description and a document referenced herein, this purchase description shall take precedence.

PERFORMANCE CRITERIA:

IPDs - TECHNICAL INFORMATION

The abrasive cloth shall be constructed to prevent a “sharp edge break” in the resin or glue bond and the backing, when used in radius applications of 0.750 inch.

Abrasive Grain: The abrasive grain shall be crushed and graded in accordance with ANSI B74.18. Shall be evenly dispersed and completely cover the surface of the backing.

Adhesive: Any good quality adhesive is acceptable providing that dislodging of abrasive grain is minimized.

Abrasive Coverage:

Open Coat - 50 to 70% coverage, evenly dispersed

Closed Coat - Complete and uniform coverage

Cloth backing material: The treated cloth backing material shall be in accordance with Table 1 and tested in accordance with ASTM D 5035. When waterproof material is specified, the backing material shall be treated to make it impervious to water.

TABLE I

TYPE BACKING	BACKING WEIGHT	COATED CLOTH AVERAGE BREAKING STRENGTH	
		WARP DIRECTION	FILLING DIRECTION
(lbs per square inch minimum)			
Jeans cloth	“J” weight	80 lbs/in	35 lbs/in
Drills cloth	“X” weight	130 lbs/in	50 lbs/in
Heavy drills cloth	“Y” weight	160 lbs/in	65 lbs/in

NOTE: Tolerance plus or minus 15%

Workmanship: The abrasive grain shall be evenly dispersed and positively bonded throughout the coated sheet. The sheet shall be designed to preclude disintegration of the backing and dis-lodging of the grain material during normal usage. The backing shall comply with the performance criteria as specified herein.

Unit of Issue - PG (50 sheets per package)

IPDs - TECHNICAL INFORMATION

55. **NSN: 5350-00-270-8462**

NOTE: IF IPD DATE OR LAST REVIEW DATE IS OVER 24 MONTHS OLD, REQUEST TECHNICAL REVIEW BEFORE USING IT IN A SOLICITATION				
ITEM PURCHASE DESCRIPTION				
NSN:	5350-00-270-8462		Approved by:	Mark Giesbrecht
PPN:			Issued by:	QSDLCB/607
BPA:			Date Issued:	08/27/2013
DAC:			Supersedes:	07/05/2012
ENAC:				
	Current	Proposed	Effective After:	
Acquisition Advice Code:	H			
Method of Purchase:	42		Specification:	AMS/SAE J827
Unit of Issue:	CO			
Quantitative Expression:	50			
Shelf Life Code:	N/A		QPL Number:	N/A
Age on Delivery, MAX:	N/A			
REASON FOR ISSUE:	PERMANENT SPECIAL PFD FOR CONTAINER, TO FACILITATE SMALL PACKAGE CARRIER SHIPMENTS REVIEWED & UPDATED.			

STEEL SHOT: Shall conform with AMS/SAE J827 and SAE J444 with the following characteristics:

Type - Cast Steel shot for peening

Shot size - S330

Hardness - 40-51 (Rockwell "C" scale)

P/N - HCS S330S

Unit of issue - CO (50 lbs. per container)

EXCEPTIONS TO THE SPECIFICATION:

1) Delete all references to MIL-STD 105 and substitute the ANSI/ASQC Z1.4. Application for copies of ANSI/ASQC Z1.4 are available from the American Society for Quality Control, PO Box 3005, 611 E. Wisconsin Ave, Milwaukee, WI 53201-4606.

2) Delete paragraph 5 and substitute the following:

PRODUCT CONFORMANCE: The products provided shall meet the salient characteristics of this Item Purchase Description, conform to the producer's own drawings, specifications, standards, and quality assurance practices, and be the same product offered for sale in the commercial market. The Government reserves the right to require proof of such conformance.

IPDs - TECHNICAL INFORMATION

MARKING: Shipments to GSA and other civilian agencies shall be marked in accordance with FED-STD-123. Shipments to the Department of Defense (DOD) shall be marked in accordance with MIL-STD-129.

SPECIAL MARKING shall include:

1) Lot Batch number

2) Date of manufacture

3) All items packed in open head pails of 4 to 6 gallon capacity shall have the pails marked with Child Drowning Warning Labels to comply ASTM F 1615. ASTM standards are available from ASTM, 100 Barr Harbor Dr., West Conshohocken, PA 19428.

DATA SUBMISSION: The material safety data sheet (MSDS) shall be submitted in accordance with the latest revision of Federal Standard No. 313. For shipments to GSA distribution centers or Customer Supply Centers, the contractor shall provide one copy of the MSDS inside or affixed to the outside of each transport package (as defined in paragraph 1 of FED-STD-123), if affixed outside, the MSDS must be placed in a weather-resistant envelope.

PREPARATION FOR DELIVERY: All unit packaging and packing will facilitate shipment by small package carrier (for example, fiberboard drums, multiwall kraft paper commercial bags closely fit in fiberboard boxes, high density plastic buckets or plastic pails). The item(s) shall be packaged and packed in accordance with the latest revision of ASTM D 3951, Standard Practice for Commercial Packaging. In addition, the abrasive material shall be packed tightly within the container to provide strength and stability during pallet stacking. The container that is selected shall have sufficient structural strength to prevent any type of edge crush, collapse, breakage, compromise to the container that causes spillage/safety hazard of the load during shipment. Copies of ASTM standards are available from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959. Phone: 610-832-9585, Fax: 610-832-9555, Web site: www.astm.org, e-mail: service@astm.org.

Notice of special requirements for shipment to all countries that have endorsed the IPPC Guidelines for treatment of non-manufactured wood packaging: The International Plant Protection Convention (IPPC) has approved and published on March 15, 2002, "Guidelines for Regulating Wood Packaging Material in International Trade". Countries endorsing the IPPC Guidelines can be found at the USDA.gov web site. Additionally, shipments delivered to DOD distribution facilities or freight consolidation points for eventual delivery to or through EU/IPPC countries shall comply with applicable DLA Regulations and Procurement Letter PROCLTR 02-17.

55. NSN: 5350-01-324-8787

GRAIN, ABRASIVE: Shall conform with the most current revision of Military Specification MIL-P-85891 and be listed as an approved supplier, by the Air Force Corrosion Prevention and Control Office (AFRL/RXSSR) letter (subsequent changes to T.O 1-1-8). Shall comply with the following characteristics and requirements stated herein:

TYPE II - Urea Formaldehyde (Thermoset)

COLOR - Not specified

PARTICLE SIZE - 12-20

PART NUMBER - M85891-2-6-1220

IPDs - TECHNICAL INFORMATION

QUALIFICATION TESTING IS REQUIRED - See "Exceptions to the Specification" and the Qualification Procedures, as outlined in Attachment 1, of this description.

EXCEPTIONS TO THE SPECIFICATION:

1) Delete all references to "MIL-STD-105" and substitute

"ANSI/ASQC Z1.4" Application for copies of ANSI/ASQC standards should be addressed to American Society for Quality Control, Po Box 3005, 611 E. Wisconsin Ave., Milwaukee, WI 53201-4606.

2) Paragraph 6.3 First Article. Delete the entire paragraph and substitute the following:

Paragraph 6.3 QUALIFICATION TESTING: "Prior to contract or purchase order award, Qualification testing is required on all procurements under this specification. It is the responsibility of the supplier to arrange for biannual 1st article testing. Aero-Tech Coatings Removal Inc., (740)862-2615, is the only authorized laboratory for 1st article testing. Upon completion of 1st article testing, the lab will submit the results to AFRL/RXSSR, for approval. Approved suppliers will be added to Air Force Technical Order 1-1-8 and a copy of the "notice of approval" will be forwarded by the Air Force Corrosion Prevention and Control Office (AFRL/RXSSR), to GSA." (SEE ATTACHMENT 1, below)

SPECIAL NOTE: All suppliers are required to be re-qualified for each TYPE of material furnished, per Air Force memo from AFRL/RXSSR, dated April 01, 2011. For more information contact The Air Force Corrosion Office at (478)926-3284. ***IAW this memo, GSA shall not award any small purchase or contract, to any supplier, unless GSA has a copy of "notice of approval", QPL LETTER on file, from the Air Force Corrosion Prevention and Control Office (AFRL/RXSSR), for the type of plastic media qualified by the specific manufacturer, as stated herein.***

Unit of issue - DR (250 pound fiberboard drum)

IPDs - TECHNICAL INFORMATION

QUALIFICATION PROCEDURES
Standard General Requirements for Qualification of Plastic Media
To
Technical Order 1-1-8
Application and Removal of Organic Coatings, Aerospace, and Non-aerospace
Equipment

The application section of the Technical Order (T.O.) 1-1-8 is Section 2, that applies to removal of coatings. The complete copy of this T.O. 1-1-8 can be obtained from the following web sites:
<https://wwwmil.robins.af.mil/logistics/LGE/LGED/LGEDA/Documents/techord.htm> or
<http://www.robins.af.mil/logistics/LGEDA/Documents/techord.htm>

Copies of federal/military specifications, standards, and handbooks are available at:
<http://astimage.daps.dla.mil/online> and <http://astimage.daps.dla.mil/quicksearch/> for MIL-P-85891 and <http://www.dso.dla.mil/> for SD-6, Provisions Governing Qualification (Qualified Products List).

Companies seeking to have their media authorized for military use are required to pass the First Article tests required by MIL-P-85891, Plastic Media, For Removal of Organic Coatings. We will accept data from most independent laboratories. However, media manufacturers should ensure their source of testing will be acceptable by contacting our office, AFRL/MLS-OLR, Robins AFB GA 31098-1639. The following are contact sources we have found that fully meet the testing requirements for plastic media testing.

Aero-Tech Coatings Removal Inc.	• Telephone# (740) 882-2615
Attn: Mr. Ron Galliher	Fax Telephone# (740) 882-2615
9682 Heimerberger Rd.	galliherrd@juno.com
Baltimore, Ohio 43105-9440	

When we receive the laboratory test report indicating that your product passes the requirement in MIL-P-85891, we will review it for completeness and forward copies to other members of the Plastic Blasting ad hoc Committee for their review and approval. The other members include representatives from the Navy and GSA. The submission of the test report should be direct from the testing activity, with the appropriate certifications by laboratory staff. The media manufacturer shall also provide a product data sheet, a one-pound sample of the product under test and report the identification and location of the manufacturing facility to this office. The notice of approval is sent to the company and to GSA, the procuring agency, by letter, and the authorization of the product will be published in Air Force Technical Order 1-1-8, Application and Removal of Organic Coatings, Aerospace, and Non-aerospace Equipment. This technical order currently serves as the source control publication for approved media.

56. NSN: 5350-01-326-9262

GRAIN, ABRASIVE: Shall conform with current Military Specification MIL-P-85891 and amendment and be listed as an approved supplier, by the Air Force Corrosion Prevention and Control Office (AFRL/RXSSR) letter (subsequent changes to T.O 1-1-8). Shall comply with the following characteristics and requirements stated herein:

TYPE V - Virgin Acrylic (Thermoplastic)

NOTICE: Thermoset acrylic plastic is not acceptable

COLOR 5 - White or light grey

PARTICLE SIZE - 20-30

IPDs - TECHNICAL INFORMATION

PART NUMBER - M85891-5-5-2030

QUALIFICATION TESTING IS REQUIRED - See "Exceptions to the Specification" and the Qualification Procedures, as outlined in Attachment 1, of this description.

EXCEPTIONS TO THE SPECIFICATION:

1) Delete all references to "MIL-STD-105" and substitute "ANSI/ASQC Z1.4" Application for copies of ANSI/ASQC standards should be addressed to American Society for Quality Control, Po Box 3005, 611 E. Wisconsin Ave., Milwaukee, WI 53201-4606.

2) Paragraph 6.3 First Article. Delete the entire paragraph and substitute the following:

Paragraph 6.3 QUALIFICATION TESTING: "Prior to contract or purchase order award, Qualification testing is required on all procurements under this specification. It is the responsibility of the supplier to arrange for biannual 1st article testing. Aero-Tech Coatings Removal Inc.,(740)862-2615, is the only authorized laboratory for 1st article testing. Upon completion of 1st article testing, the lab will submit the results to AFRL/RXSSR, for approval. Approved suppliers will be added to Air Force Technical Order 1-1-8 and a copy of the "notice of approval" will be forwarded by the Air Force Corrosion Prevention and Control Office (AFRL/RXSSR), to GSA." (SEE ATTACHMENT 1, below)

SPECIAL NOTE: All suppliers are required to be re-qualified for each TYPE of material furnished, per Air Force memo from AFRL/RXSSR, dated April 01, 2011. For more information contact The Air Force Corrosion Office at (478)926-3284. ***IAW this memo, GSA shall not award any small purchase or contract, to any supplier, unless GSA has a copy of "notice of approval", QPL LETTER on file, from the Air Force Corrosion Prevention and Control Office (AFRL/RXSSR), for the type of plastic media qualified by the specific manufacturer, as stated herein.***

Unit of issue - DR (250 pound drum)

IPDs - TECHNICAL INFORMATION

QUALIFICATION PROCEDURES
Standard General Requirements for Qualification of Plastic Media
To
Technical Order 1-1-8
Application and Removal of Organic Coatings, Aerospace, and Non-aerospace
Equipment

The application section of the Technical Order (T.O.) 1-1-8 is Section 2, that applies to removal of coatings. The complete copy of this T.O. 1-1-8 can be obtained from the following web sites:
<https://wwwmil.robins.af.mil/logistics/LGE/LGED/LGEDA/Documents/techord.htm> or
<http://www.robins.af.mil/logistics/LGEDA/Documents/techord.htm>

Copies of federal/military specifications, standards, and handbooks are available at:
<http://astimage.daps.dla.mil/online> and <http://astimage.daps.dla.mil/quicksearch/> for MIL-P-85891 and <http://www.dso.dla.mil/> for SD-6, Provisions Governing Qualification (Qualified Products List).

Companies seeking to have their media authorized for military use are required to pass the First Article tests required by MIL-P-85891, Plastic Media, For Removal of Organic Coatings. We will accept data from most independent laboratories. However, media manufacturers should ensure their source of testing will be acceptable by contacting our office, AFRL/MLS-OLR, Robins AFB GA 31098-1639. The following are contact sources we have found that fully meet the testing requirements for plastic media testing.

Aero-Tech Coatings Removal Inc. • Telephone# (740) 882-2615
Attn: Mr. Ron Galliher Fax Telephone# (740) 882-2615
9682 Heimbberger Rd. galliherrd@juno.com
Baltimore, Ohio 43105-9440

When we receive the laboratory test report indicating that your product passes the requirement in MIL-P-85891, we will review it for completeness and forward copies to other members of the Plastic Blasting ad hoc Committee for their review and approval. The other members include representatives from the Navy and GSA. The submission of the test report should be direct from the testing activity, with the appropriate certifications by laboratory staff. The media manufacturer shall also provide a product data sheet, a one-pound sample of the product under test and report the identification and location of the manufacturing facility to this office. The notice of approval is sent to the company and to GSA, the procuring agency, by letter, and the authorization of the product will be published in Air Force Technical Order 1-1-8, Application and Removal of Organic Coatings, Aerospace, and Non-aerospace Equipment. This technical order currently serves as the source control publication for approved media.

57. NSN: 5350-01-364-5014

GRAIN, ABRASIVE: Shall conform with Church and Dwight Co. Inc., P/N 69021 or equal with the following characteristics:

Shall be a formulated sodium bicarbonate based mild abrasive, very mild alkali mixture that is soluble in water.

ABRASIVE - Sodium bicarbonate

APPEARANCE - White crystalline

MESH SIEVE SIZE - 100, (150 microns) 55% min.

CLORIDE - less than 50ppm

SULFATE IONS - less than 50ppm

IPDs - TECHNICAL INFORMATION

BULK DENSITY - 60 lbs/ft² (1g/cc)

AKLINE - Very mild

SPECIFIC GRAVITY - 2.2

pH (98% solution)- 8.2

Mohs Hardness - 2.5

WATER SOLUBILITY - See Figure 1

ALCOHOL SOLUBILITY- Insoluble

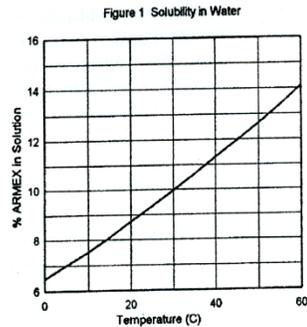


Figure 1

PERFORMANCE REQUIREMENTS:

The material particle shall flow freely and not contain any lumpy, caked or fused clumps that may create clogging scenarios during usage of blasting equipment or operations.

Unit of issue - BG (is a fifty (50) pound bag, 49 BAGS PER PALLET)

58. **NSN: 5350-01-368-6708**

GRAIN, ABRASIVE: Shall be Barton Mines Corp., Part number 80HPX or equal and shall conform to the following requirements and characteristics.

The product shall be an almandine (almandite) and pyrope garnet of the general formula $(Fe, Mg)_3 Al_2(SiO_4)_3$. The individual grains shall be fractured to provide sharp angular irregular edges. The product is designed for use as a media in water jet cutting applications. The material shall contain less than 0.1 % respirable crystalline silicates. The total crystalline silicate shall be determined using NIOSH Method 7500. The product shall also have the following physical properties and contain the materials in the quantities specified.

WEIGHT % ALMANDITE-PYROPE – 94-99.6%

CAS: 1302 - 62-1

MESH SIZE - 80

HARDNESS - 8-9 Mohs scale

STRENGTH - Friable to tough

SHAPE - Sharp, angular, irregular

CLEAVAGE - Pronounced laminations, irregular cleavage

planes

COLOR - Red to pink with white streaks

TRANSPARENCY - Translucent

LUSTRE - Vitreous

SPECIFIC GRAVITY - 3.9 to 4.1

MEAN REFRACTIVE INDEX - 1.83

FACET ANGLES - 37 degrees C and 42 degrees P

CRYSTALLIZATION - Cubic (isometric) system as rhombic

IPDs - TECHNICAL INFORMATION

dodecahedrons or tetragonal trisoctahedron
(trapezohedrons) or in combinations of the
two

- MELTING POINT** – approx 1,315 degrees C or 2,399 degrees F
- MAGNETISM** - Slightly magnetic (volume susceptibility = 9.999375)
- ELECTROSTATIC PROPERTIES** - Mineral conductivity = 18,000 volts non-reversible
- MOISTURE ABSORTION** - Non-hygroscopic, inert
- DISPERSION** - Self-dispersing
- MEASURE** - 4.6lbs/liter
- DRY BULK DENSITY** - 754lbs/in

Unit of issue – BG (55 pounds per bag)

59. NSN: 5920-01-384-8501

SURGE PROTECTOR: Shall be in accordance with the technical characteristics indicated in the following table:

Number of Outlets	6
Cord Length in Feet	6
Maximum Spike Current	4000 amps or better
Energy Absorption, minimum	90 joules
Clamping Voltage, maximum	600V
Response Time	<1 nanosecond
UL 1449 Listing	Included

Unit of Issue – EA (Each)

60. NSN: 5920-01-490-6691

ABSORBER, OVERVOLTAGE: Shall be in accordance with the latest revision of UL 1449, Standard for Surge Protective Devices, and the characteristics listed in the following table:

Outlets, Total	6
Cord Length, feet	15
Protection (minimum), joules	210
Circuit Breaker, amps	15

IPDs - TECHNICAL INFORMATION

LED Surge Indicator	Included
LED Wiring Fault Indicator	Included
Thermal Safety Fuse	Included
Three Conductor Protection	Yes
On/Off Switch	Included



The surge protector depicted in the figure is representative of an acceptable design and is intended only for reference

Unit of Issue - EA (Each)

61. NSN: 6110-01-450-4385

REGULATOR, VOLTAGE: Uninterruptible power supply with fuse and electronic overload protection, two outlets, shall have the following characteristics:

Meets UL 1778

Power Rating - 425 volt-amperes

Input Voltage – 85% to 120% of 115 V

Frequency - 50 Hz or 60 Hz

Output Voltage – 115 V

Voltage Regulation – automatic from $\pm 25\%$

Output Frequency Stability in Battery Mode – 0.5%

Waveform - Simulated sine wave

Transfer Time – 2 to 4 milliseconds

Surge protection – 320 joules

Noise filtering 10 to 50 dB

Recharge Time – 8 hours

Battery Type – sealed lead acid (SLA), 12V, 7 ampere-hours

Back-up time - 10-20 minutes

Remote access port – DB9-RJ232

Through the use of indicator lights or audible alarms, or any combination thereof, the uninterruptible power supply shall indicate the following conditions: Normal, Battery in use, Battery low, Overload

IPDs - TECHNICAL INFORMATION

Unit can be turned on without power
 2-stage battery charging to prolong battery life

Unit of Issue – EA (Each)

62. NSN: 6150-01-435-3919

POWER ADAPTER AND CHARGER: Shall be McDowell Research p/n WKW-7, or equal, in accordance with the characteristics listed in the following table:



DC input range	22 to 30
Size (± 10% for each dimension)	9.125" length x 2.875" width x 5.625" high
Operating temperature	-30°C to 55°C
Storage temperature	-50°C to 65°C
Operating altitude	27,000 feet
Storage altitude	55,000 feet
Humidity	95% relative
Internal battery	MRC-490(V1) sealed lead acid battery, or equivalent
Self-contained operation with these transceivers	AN/PRC-117F AN/PSC-5 Series AN/PRC-150 Series AN/PRC-113 Series AN/PRC-138 Series AN/PUC-200 Series
INPUT POWER CABLE	PCP-120 DC POWER CABLE

Unit of Issue – EA (Each)

63. NSN: 6150-01-503-2025

IPDs - TECHNICAL INFORMATION

CORD, EXTENSION, ELECTRIC: Shall be UL listed as conforming to the requirements of UL 817, Cord Sets and Power-Supply Cords. Shall also be in conformance with the requirements listed in the following table:

Outlets	3 (one 3-way outlet)
Gauge	16 AWG
Conductors	3
Amp Rating	13
Volt Rating (AC)	125
Cord Length (feet)	50
Type	Indoor/Outdoor Heavy-Duty

Unit of Issue - EA (Each)

64. NSN: 6230-00-270-5418

FLASHLIGHT: This Item Purchase Description covers a regular plastic case, tubular flashlight using two D size batteries. The flashlight shall include 1 spot lens, 1 diffused lens, 2 red filters, 1 blackout filter, and 1 blue filter. The flashlight shall be in accordance with the following salient characteristics:

Flashlight case. The exterior surface of the case shall have molded flutes or ribs for ease in handling. The flutes or ribs shall be parallel to the longitudinal axis of the case and shall be raised approximately 1/32 inch from the surface of the case. Not less than five nor more than 20 flutes or ribs shall be provided around the circumference of the case. The flashlight, with batteries inserted, shall not sustain any damage to the base of the lamp, reflector or any internal part which could render the flashlight unserviceable when dropped 5 feet in free fall onto a vinyl tiled concrete floor. The flashlight shall be dropped twice in a horizontal position upon the switch/switch guard assembly, twice in a vertical position upon the head of the flashlight, and twice in a vertical position upon the base of the flashlight (lamp filament or lamp envelope damage shall not be a cause for rejection). The design of the case shall preclude metal parts of the flashlight from creating a closed circuit with the batteries, except with the switch in the "ON" or "FLASHING" position. The design of the case shall also preclude internal parts from abrading or otherwise damaging the batteries. Rivets and conducting metal strips along the inside wall of the flashlight cases shall be prevented from direct contact with the batteries. This may be accomplished by a protective plastic sleeve into which the batteries are inserted, after which the sleeve itself is inserted into the case, or by grooves or slots into which the rivets and conducting metal strips are safely kept away from contact with the batteries, or by some other means at the manufacturer's discretion. The flashlight case shall be fabricated from acrylonitrile-butadiene-styrene.

Lens caps, end caps, retainers, and other plastic parts. Flashlights shall have a means such as threaded lens caps and filter caps for the securing the lenses, reflectors, and filters (where used) in place. The flashlight shall have a means such as threaded end caps and battery retainers for securing the dry cells and providing stowage for the spare lamp. The flashlight shall have a stowage compartment for the stowage of diffusing lens and filters. All flashlights shall be initially fitted

IPDs - TECHNICAL INFORMATION

with the spotlight lens. External surfaces of all caps and retainers shall be fluted, ribbed or knurled for securely gripping. All lens caps, end caps, battery retainers, filter caps and lampholders shall be fabricated from acrylonitrile-butadiene-styrene.

Lamp-head housing. The lamp-head housing shall be constructed of acrylonitrile-butadiene-styrene or a corrosion-resistant metal. The housing shall permit replacement of the lamp. The lamp shall not become loose or displaced during rough handling when dropped as described in the Flashlight case paragraph.

Storage compartment. The flashlight shall have a storage compartment in the end cap for storing one lens and four filters.

Holder for spare lamp. Each flashlight shall be furnished with a spare lamp (see Lamps paragraph). The spare lamp shall be mounted in a holder inside the battery retainer cap in such a manner so as to be accessible, and shall not become loose or displaced when dropped as described in the Flashlight case paragraph.

Gaskets. Gaskets shall be provided on all flashlights, where necessary, to prevent the entrance of moisture into the interior of the flashlight or into the switch contacts. Gaskets shall be fabricated from rubber composition conforming to ASTM D2000, grades M3AA510B13C12F17, M3AA610B13C12F17, or M3AA710B13C12F17.

Switches. Switches shall be mounted on the side of the case and shall be of the push-slide type and shall be operable with one hand. Life expectancy of the switch shall be 25,000 cycles. The switch shall not have internal electrical leakage. The switch shall be guarded to protect it from damage. Switches shall provide locked "OFF", "FLASHING" and positive "ON" positions. The flashlight shall not go off when shaken vigorously while the switch is in either the "ON" or "FLASHING" position.

Threads. Threads on each flashlight shall be tight, when a torque of 30 ± 2 lb-in is applied to mating parts. Threads shall not strip or ride over those of the mating part when a torque of 50 ± 2 lb-in is applied.

Reflector. The reflector shall be made of metal or plastic and the contour shall be essentially parabolic, projecting a beam of light as specified in the Spotlight paragraph. The reflecting surface shall be vacuum plated or electro-plated to assure a coefficient of reflection of at least 75. The reflector shall have sufficient rigidity to prevent distortion when the lamp batteries are in place. The reflecting surface shall be smooth and free from bubbles and pits.

Suspension ring. A suspension ring, made of either phosphor bronze or brass shall be secured to the bottom cap of each flashlight. Each ring shall be of one-piece construction and shall be fastened so that it cannot be readily detached by hand. The ring shall seat firmly to and recess in the bottom cap when not in use, and shall support a weight of 25 pounds without evidence of distortion.

Watertightness. All flashlights shall be watertight and show no evidence of moisture within any case or any attachment with the exception of the storage compartment and filter cap when submerged to a depth of 3 feet in a salt water solution (1.04 specific gravity) at room temperature (77 ± 5°F) for 1 hour. Before submergence a torque of 30 ± 2 lb-in shall be applied to all threaded parts of the flashlight, complete with a lamp and batteries.

Impact. All flashlights shall not be damaged or show evidence of moisture inside the flashlight except as specified in the Watertightness paragraph when subjected to the tests in the following subparagraphs.

Impact test conditions. The flashlight, without batteries installed, shall be placed in a cold chamber at -40 ± 5°F for 2 hours. With the flashlight stabilized at this temperature, immediately subject it to the following low and high impact tests. The point of impact shall be applied to:

- a. The outside of the flashlight case at a point midway between the ends of the case on a side 90° from the switch.

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b. The lens cap or filter cap.

c. The end cap.

Low impact. Subject the flashlight to a 12 in-lb impact using a 1 lb steel ball at each of the points of impact specified above. Provided the flashlight remains intact, next subject the flashlight to the test in the Watertightness paragraph. Evidence of breakage from impact or nonconformance to the Watertightness paragraph shall constitute failure of this test.

High impact. The flashlight, having passed the low-impact test, shall be again placed in the cold chamber and conditioned at $-40 \pm 5^{\circ}\text{F}$ for 2 hours and then immediately subjected to a 20 in-lb impact using a 1 lb steel ball at each of the points of impact specified above. Install fresh batteries and determine whether the flashlight operates as specified herein. Failure of the flashlight to operate as specified herein or damage to the case, the lens or filter cap, or the end cap shall constitute failure of this test.

Battery-contact spring. The battery-contact spring for all flashlights shall have a minimum compression of 3/8 inch and exert a minimum force of 2 lb against the battery. The spring configuration shall be of a design which will not allow damage to the battery when dropped as described in Flashlight case paragraph. The spring shall be of a design wherein no sharp or rough portion may pierce, lacerate, or protrude into the bottom battery while batteries are installed and spring is compressed.

Lamps. Each flashlight shall be supplied with two PR-6 lamps, one installed in the lamp head, the other in the spare lamp holder.

Environmental.

Temperature. All flashlights shall operate as specified herein at a temperature of $150 \pm 5^{\circ}\text{F}$.

Humidity. All flashlights shall operate as specified herein at a temperature of $110 \pm 2^{\circ}\text{F}$ and a relative humidity of $85 \pm 5\%$.

Corrosion resistance. Metals used in the fabrication of flashlights shall be corrosion resistant or treated to resist corrosion. The metals shall be of an alloy with properties to provide the required strength and rigidity. Unless protected against electrolytic corrosion, dissimilar metals shall not be used in contact with each other. All exterior metal surfaces shall be given a durable chemical blackening or black oxide finish. Flashlights shall be capable of withstanding a 200 hour salt spray test specified in ASTM B117 without detrimental effect on any of the performance requirements specified herein.

Light projection.

Spotlight. When using the spotlight lens located 5 feet from a screen, the plane of which is perpendicular to the optical axis of the flashlight, the flashlight shall project a concentrated beam of light not less than 5 nor greater than 11 inches in diameter.

Diffused light. When using the diffusion lens located 4 feet from a screen, the plane of which is perpendicular to the optical axis of the flashlight, the flashlight shall project a distributed beam of light 60 to 80 inches in diameter. The light pattern shall have a uniform distribution of light except at the center where some concentration of light is desirable.

Spotlight and diffusion lenses.

IPDs - TECHNICAL INFORMATION

Spotlight lens. The spotlight lens shall be fabricated from polycarbonate conforming to ASTM D3935. The dimensions for the spotlight lens shall be approximately 1.690 inches in diameter and 0.064 inch thick. The light transmission shall be at least 83 percent.

Diffusion lens. The diffusion lens shall be fabricated from polycarbonate conforming to ASTM D3935 and shall diffuse light as described in the Diffused light paragraph. The light transmission shall be at least 83 percent.

Filters. Filters shall be circular, having a diameter of 1.725 \pm 0.025 inch and a thickness of 0.030 \pm 0.01 inch. Filters shall be fabricated from plastic conforming to ASTM D3935.

Red filter. The filter shall be aviation red, type I, conforming to SAE-AS25050 and shall have the following spectral transmission qualities:

- a. Not over 0.2 percent transmission between wavelengths of 440 to 580 nanometers.
- b. Not over 15 percent transmission at a wavelength of 600 nanometers.
- c. Not under 80 percent transmission at a wavelength of 650 nanometers, as determined by tests specified in SAE-AS25050.

Blackout filter. The filter shall be opaque and shall have a light transmission of from 0.02 to 0.27 percent over the entire visible spectrum when tested using an illuminometer.

Blue filter. The filter shall be aviation blue, type I, conforming to SAE-AS25050.

Color of flashlights. The color of the plastic case, lens cap, end cap, and any exposed plastic switch shall be gray.

Fungus and moisture resistance. The electrical circuitry, including all components and connections, except as specified below, shall be protected from the effects of fungus growth and moisture by an overall treatment with a varnish conforming to ASTM D3955, Grade as applicable:

- a. Components or circuit elements that are inherently fungus and moisture resistant or which are hermetically sealed need not be treated.
- b. Components or circuit elements whose functions will be adversely affected by the varnish coating shall not be treated.

Identification. Flashlights shall be marked in accordance with MIL-STD-130, except that only the nomenclature and contractor's identification shall be included as information and molded on the outside of the flashlight case.

Measurement system. The values stated in inch-pound units are to be regarded as the standard. The metric values stated in parentheses are for informational purposes only.

Metric products. Products manufactured to metric dimensions will be considered on an equal basis with those manufactured using inch-pound units, providing they fall within the tolerances specified and all other requirements of this document are met. If a product is manufactured to metric dimensions and those dimensions exceed the tolerances specified in the inch-pound units, a request should be made to the contracting officer to determine if the product is acceptable.

Workmanship. The finished flashlight shall not contain rough edges, blemishes, or other disfigurements which could affect serviceability or appearance. All parts shall be clean, free from rust, toolmarks, pits and other injurious defects. External surfaces shall be free of burrs, sharp edges and corners except where sharp edges or corners are required or where they are not detrimental to safety.

IPDs - TECHNICAL INFORMATION

REGULATORY REQUIREMENTS

Regulatory requirements. The offeror/contractor is encouraged to use recovered materials to the maximum extent practicable, in accordance with paragraph 23.403 of the Federal Acquisition Regulation (FAR).

QUALITY ASSURANCE PROVISIONS

PRODUCT CONFORMANCE: The products provided shall meet the salient characteristics of this Item Purchase Description, conform to the producer's own drawings, specifications, standards, and quality assurance practices, and be the same product offered for sale in the commercial market. The Government reserves the right to require proof of such conformance.

Unit of Issue – EA (Each)

NOTICE: Packaging and packing requirements in this item purchase description are unique at the request of the U.S. Navy Supply Systems Command. This item is included in the Navy's **PLASTICS REMOVAL IN MARINE ENVIRONMENT (PRIME) PROGRAM** under the U.S. Marine Plastic Pollution Research and Control Act of 1987 (MPPRCA) and the International Convention for the Prevention of Pollution from Ships Treaty (MARPOL) Annex V. Items in the **PRIME** program require biodegradable packing materials. The statement "**PLASTIC PACKING MATERIALS AND PRESSURE SENSITIVE TAPES ARE PROHIBITED**" is included in the packaging and packing requirements for all PRIME program items.

PREPARATION FOR DELIVERY: The item(s) shall be packaged and packed in accordance with the latest revision of ASTM D 3951, Standard Practice for Commercial Packaging. **PLASTIC PACKAGING MATERIALS AND PRESSURE SENSITIVE TAPES ARE PROHIBITED.** Copies of ASTM standards are available from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959. Phone: 610-832-9585, Fax: 610-832-9555, Web site: www.astm.org, e-mail: service@astm.org.

65. NSN: 6230-01-513-2663

NOTES TO BUYER:

Directed Source: Central Association for the Blind and Visually Impaired p/n 6230-00-NIB-0004
507 Kent Street
Utica, NY 13501
(315) 797-2233

IPDs - TECHNICAL INFORMATION

NOTE: IF IPD DATE OR LAST REVIEW DATE IS OVER 24 MONTHS OLD, REQUEST TECHNICAL REVIEW BEFORE USING IT IN A SOLICITATION			
ITEM PURCHASE DESCRIPTION			
NSN: 6230-01-513-2663		Approved by:	JK
PPN or BPA:	N/A	Issued by:	QSDLCB/604
DAC:	N/A	Date Issued:	05/30/2013
		Supersedes:	10/31/2011
	Current	Proposed	EFFECTIVE AFTER:
Acquisition Advice Code:	H		
Method of Purchase:	71		
Unit of Issue:	EA		
Quantitative Expression:	N/A		Specification: IPD
Shelf Life Code:	0		QPL Number: N/A
Age on Delivery, MAX:	N/A		
REASON FOR ISSUE:	PROCUREMENT REQUEST: UPDATE IPPC PHRASE		

NSN: 6230-01-513-2663

FLASHLIGHT: The flashlight shall meet National Industries for the Blind p/n 6230-00-NIB-0004 in accordance with the characteristics listed in the following table:

Color	Black
Voltage	3.0 volts, produced by two AA alkaline batteries (two AA alkaline batteries are included).
Material	Flashlight body shall be constructed of anodized aluminum; head assembly shall incorporate a shatterproof lens
Lamp	LED
Light pattern	Adjustable between spot and flood positions
Environmental ruggedness	Weatherproof and corrosion resistant
Overall diameter	1.0 inch
Overall length	6.25 inches
Accessories	Includes a belt holster

PRODUCT CONFORMANCE: The products provided shall meet the salient characteristics of this Item Purchase Description, conform to the producer's own drawings, specifications, standards, and quality assurance practices, and be the same product offered for sale in the commercial market. The Government reserves the right to require proof of such conformance.

MARKING: Shipments to GSA and other civilian agencies shall be marked in accordance with FED-STD-123. Shipments to the Department of Defense (DOD) shall be marked in accordance with MIL-STD-129.

PREPARATION FOR DELIVERY: The item(s) shall be packaged and packed to afford adequate protection against physical damage during shipment from the supplier to the first receiving activity. The pack shall comply with the rules and

IPDs - TECHNICAL INFORMATION

regulations applicable to the mode of transportation. The package shall be the same as that normally provided by the supplier. In the event a pallet or skid is used for shipping, the following notice shall apply:

Notice of special requirements for shipment to all countries that have endorsed the IPPC Guidelines for treatment of non-manufactured wood packaging: The International Plant Protection Convention (IPPC) has approved and published on March 15, 2002, "Guidelines for Regulating Wood Packaging Material in International Trade". Countries endorsing the IPPC Guidelines can be found at the USDA.gov web site. Additionally, shipments delivered to DOD distribution facilities or freight consolidation points for eventual delivery to or through EU/IPPC countries shall comply with applicable DLA Regulations and Procurement Letter PROCLTR 02-17.

66. NSN: 6260-01-195-9752

LIGHT, CHEMILUMINESCENT: Shall be Cyalume Technologies Inc. p/n 9-97520PF, or equal, in accordance with the following characteristics:

Self-contained
Average life rating upon activation – 3 hours
Color – Infrared (non-visible)
Signal peaks at 800 nm
Shall have no thermal image
Non-toxic
Waterproof

Length - 6"

Shelf Life Code Q: Maximum age on delivery shall not exceed 5 months from manufacture date.
Date of expiration shall be 36 months from date of manufacture.

Unit of Issue - BX (Box of 10)

67. NSN: 6260-01-396-1704

LIGHT, CHEMILUMINESCENT: Shall be Cyalume Technologies Inc. p/n 9-17040PF, or equal, in accordance with the following characteristics:

Self-contained
Average life rating upon activation – 8 hours
Color – Infrared (non-visible)
Signal peaks at 800 nm
Shall have no thermal image
Non-toxic
Waterproof

Length - 6"

Shelf Life Code Q: Maximum age on delivery shall not exceed 5 months from manufacture date.

IPDs - TECHNICAL INFORMATION

Date of expiration shall be 36 months from date of manufacture.

Unit of Issue - BX (Box of 10)

68. NSN: 6625-01-312-2930

MULTIMETER: Shall be Fluke Corp. p/n 87-V, or equal, in accordance with the characteristics listed in the following table:

Voltage DC, maximum voltage	1000V
Voltage DC, accuracy	$\pm(0.05\%+1)$
Voltage DC, maximum resolution	10 μ V
Voltage AC, maximum voltage	1000V
Voltage AC, accuracy	$\pm(0.7\%+2)$ True RMS
Voltage AC, bandwidth	20 kHz
Voltage AC, maximum resolution	0.1 mV
Current DC, maximum amps	10A (20 A for 30 seconds maximum)
Current DC, amps accuracy	$\pm(0.2\%+2)$
Current DC, maximum resolution	0.01 μ A
Current AC, maximum amps	10A (20 A for 30 seconds maximum)
Current AC, amps accuracy	$\pm(1.0\%+2)$ True RMS
Current AC, maximum resolution:	0.1 μ A
Resistance, maximum ohms	50 M Ω
Resistance, ohms accuracy	$\pm(0.2\%+1)$
Resistance, maximum resolution	0.1 Ω
Capacitance, maximum	9,999 μ F
Capacitance, accuracy	$\pm(1\%+2)$
Capacitance, maximum resolution	0.01 nF
Frequency, maximum	200 kHz
Frequency, accuracy	$\pm(0.005\%+1)$

IPDs - TECHNICAL INFORMATION

Frequency, maximum resolution	0.01 Hz
Duty cycle, maximum duty cycle	99.9%
Duty cycle, accuracy	$\pm(0.2\% \text{ per kHz} + 0.1\%)$
Duty cycle, maximum resolution	0.1%
Temperature measurement	-200.0°C - 1090°C, excluding probe
80 BK temperature probe	-40.0°C - 260°C, 2.2°C or 2% whichever is greater
Conductance, maximum	60.00 nS
Conductance, accuracy	$\pm(1.0\% + 10)$
Conductance, maximum resolution	0.01 nS
Diode, range	3 V
Diode, accuracy	$\pm (2 \% + 1)$
Diode, resolution	1 mV
Duty cycle range, accuracy	Within $\pm (0.2\% \text{ per kHz} + 0.1\%)$
Operating temperature	-20°C to +55°C
Storage temperature	-40°C to +60°C
Humidity (Without Condensation)	0% - 90% (0°C - 35°C), 0% - 70% (35°C - 55°C)
Operating Altitude	2000 m
Overvoltage category	EN 61010-1 to 1000 V CAT III, 600V CAT IV
Display, digital	6000 counts updates 4/sec., 19,999 counts in hi-res mode
Display, analog	32 segments, updates 40/sec.
Display, frequency	19,999 counts, updates 3/sec. at > 10 Hz
Battery life	Alkaline: ~400 hours typical, without backlight
Shock	1 meter drop per IEC 61010-1:2001
Vibration	Per MIL-PRF-28800 for a Class 2 instrument

Unit of Issue – EA (each)

IPDs - TECHNICAL INFORMATION

69. NSN: 4510-00-224-8549

DISPENSER, PAPER TOWEL: The dispenser shall be designed for and capable of dispensing single-fold paper towels (for hand drying), and shall have the following characteristics:

- 1) Fabricated of carbon or stainless steel with a minimum thickness of 0.029 inch.
- 2) Minimum capacity of 350 paper towels. The paper towels shall have a basis weight in pounds of 25-30 (24x36-500), smaller dimension of 9-1/4 inches \square 1/2 inch, and a fold depth of 5-1/2 inches \square 1/2 inch.
- 3) Provided with a front opening hinged door panel and lock with one key, minimum, and shall lock automatically when the door is closed, or be provided with a dead bolt keylock, at the manufacturer's option; bottom dispensing slot; fill indicator; and rear panel fastening holes for surface mounting.
- 4) The paint for the finish shall be white dry/powdered or a smooth baked, white gloss enamel, which shall be hard and durable. The exterior and interior finish shall be continuous, free from blisters, pinholes, or other blemishes. Exposed surfaces of the finish shall be smooth and uniform in application and color, free of chips, runs, cracks, or other defects affecting appearance or serviceability.

Unit of issue is each (EA)

70. NSN: 4510-01-521-9870

DISPENSER, HAND SANITIZER: Shall be Travis Association for the Blind Skilcraft p/n 1973-06, GOJO Industries, Inc., p/n 2120-06, or equal, in accordance with the following characteristics:

One-hand push operation and portion control wall hand sanitizer dispenser shall be compatible for use with Gojo 1000-mL hand sanitizer refill pouches, including Gojo Purell Instant Hand Sanitizer with Aloe 2137-08 (8520-01-522-3888), Gojo Purell Instant Hand Sanitizer 2156-08 (8520-01-522-0828 and Gojo Purell Instant Hand Sanitizer 2156-04



(8520-01-539-0840).

(Image is representational and intended only as a guide.)

Unit of Issue – BX (Box containing six dispensers)

IPDs - TECHNICAL INFORMATION

71. NSN: 4510-01-521-9873

DISPENSER, SOAP: Shall be Travis Association for the Blind Skilcraft p/n 1980-08, GOJO Industries, Inc., p/n 2230-08, or equal, in accordance with the following characteristics:

One-hand push operation and portion control wall soap dispenser shall be compatible for use with Gojo 2000-mL lotion soap and shampoo refill pouches, including Gojo Body and Hair Shampoo 2252-04 (8520-01-522-0832) and Gojo Lotion Soap with Moisturizers 2217-04 (8520-01-522-0837).



(Image is representational and intended only as a guide.)

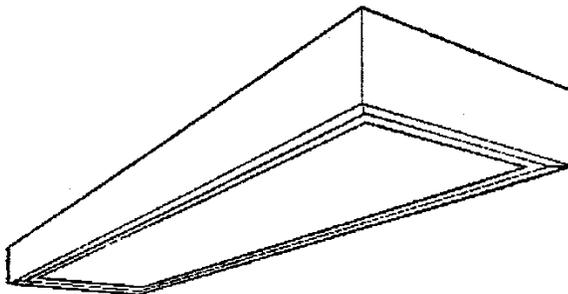
Unit of Issue – BX (Box containing eight dispensers)

72. NSN: 6210-00-727-6418

FIXTURE, LIGHTING, FLUORESCENT, SURFACE-MOUNTED: The fixture shall be designed for individual mounting, and shall have the following characteristics:

The fixture shall be in accordance with UL 1570.

The fixture housing shall be constructed of cold-rolled steel, finished with baked white enamel. The fixture shall have a length of 48 \square 1/2 inch, a width of 12 \square 1/2 inch, and a height of 3-1/2 \square 1/2 inch. The fixture shall be similar in appearance to that shown in the figure below.



The reflective surfaces shall be white and have a minimum reflectance of 86 percent.

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The diffuser shall be constructed of with prismatic-patterned acrylic, and shall swing open on hinges from either side of the fixture. The diffuser shall be housed in a standard flush steel doorframe.

The fixture shall have a single electronic ballast capable of supporting two F32T8 fluorescent lamps (lamps not included). The ballast shall have a total harmonic distortion of less than or equal to 20%. The ballast shall have the UL listing mark.

The fixture shall operate on 120 V, 60 Hz alternating current.

Unit of Issue - EA (each)

73. NSN: 6230-01-615-6035

HEADLAMP: Shall be Pelican Products p/n 2690, or equal, in accordance with the following characteristics:

Construction. The headlamp shall operate on three AAA alkaline batteries (included). The weight of the headlamp, with batteries installed, shall not exceed 4.5 ounces. The headlamp shall incorporate a rotary bezel switch. The headlamp shall have an adjustable cloth strap for use directly on the head, and shall have a heavy-duty rubber strap for use with a helmet. The headlamp shall permit vertical adjustment of the projected light in multiple discrete positions from horizontal (straight ahead) to 30 degrees minimum below horizontal, and shall securely maintain any selected position.

Lamps. The headlamp shall produce light by means of an LED lamp or lamps.

Beam distance. The headlamp, with fresh alkaline batteries installed, shall have a minimum beam distance of 73 meters when tested in accordance with ANSI/NEMA FL 1.

Peak beam intensity. The headlamp, with fresh alkaline batteries installed, shall have a minimum peak beam intensity of 1500 candela when tested in accordance with ANSI/NEMA FL 1.

Light output. The headlamp, with fresh alkaline batteries installed, shall produce a minimum light output of 54 lumens when tested in accordance with ANSI/NEMA FL 1.

Runtime. The headlamp, with fresh alkaline batteries installed, shall have a minimum runtime of 10 hours when tested in accordance with ANSI/NEMA FL 1.

Enclosure protection against water penetration. The headlamp shall have a waterproof rating of IPX7 when tested in accordance with ANSI/NEMA FL 1.

Hazardous location service. The headlamp shall be approved for use in hazardous locations in accordance with National Fire Protection Association Code 70 (National Electrical Code) Class I, II, and III, Division 1, Groups A, B, C, D, E, F and G, Temperature Class T4 conditions.

Unit of Issue - EA (Each)

TOOLS CATEGORY MARKET BASKET ITEMS

1. 5110-00-161-6912 Ver: 19 UI: EA Status: Active AAC: G
SHEARS, STRAIGHT TRIMMERS

KeyFields:

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Overall Length: 9 inches

Cut Length: 4-5/8 inches minimum

Handle Surface Treatment: Japan

Blade Surface Treatment: Chrome-Nickel Plated

Blade End Type: 2 Sharp Pointed

Material: Steel

Coatings: Unless otherwise specified shears and scissors shall be coated with one of the following 2 coatings at the option of the manufacturer:.

(1) The handle coating shall be a Japanning which is glossy lacquer, varnish or enamel paint with chrome-plated over nickel-plated blades

(2) Comfort grip handles made of polymer or rubber or plastic with chrome-plated over nickel-plated blades or nickel-plated blades

2. 5110-00-162-2205 Ver: 22 UI: EA Status: Active AAC: G
KNIFE, POCKET

KeyFields:

1A-A-59100 Ver: 2 IN ACCORDANCE WITH CID A-A-59100

In accordance with Commercial Item Description A-A-59100 dated April 10, 1997.

NSN Description:

Pocket Knife includes:

Pen Knife Blade

Medium Flat Tip Screwdriver

Bottle Opener

Can Opener

Blade Length: 3 inches minimum to 3-1/2 inches maximum

Blade Length Closed: 3-1/2 inches minimum to 3-3/4 inches maximum

Features: Clevis, Leather Punch, Combination Screwdriver and Bottle Cap Lifter Blades

Exceptions to Specifications:

Blade length tolerance listed here (+/- 1/4 inch) is an exception to CID A-A-59100. For this item, the measurement of the blade shall be defined as being from the tip of the blade to the center of the pivot point of the blade (typically the riveting point).

CID A-A-59100 specifies a clevis within the Components section of the CID. The clevis may be replaced by any suitable method of being able to secure the knife to a fixed point by the use of a lanyard line. This is an exception to CID A-A-59100.

3. 5110-00-188-2524 Ver: 14 UI: EA Status: Active AAC: G
CUTTER, BOLT

KeyFields:

1A-A-3047 Ver: 4 A-A-3047, BOLT CUTTER

IPDs - TECHNICAL INFORMATION

In accordance with Commercial Item Description A-A-3047, dated November 6 1996, and Notice 2, dated November 30, 2001.

NSN Description:

Class 3: Clipper Cut (close cutting)
Overall Length: 36 inches
Cutting Capacity: 9/16 inch
Material: Steel
Features: Rubber Hand Grips; Replaceable Jaws

**4. 5110-00-221-1047 Ver: 7 UI: EA Status: Active AAC: G
CUTTER, WIRE ROPE, HAND OPERATED:**

NSN Description:

Compound lever center cut type.
Cutting Capacity: 7/8" soft wire rope.
Features: One extra pair of cutting jaws shall be included.

Cooper Tools Part Number 0591MLXG or equal.

**5. 5110-00-223-6281 Ver: 15 UI: EA Status: Active AAC: G
CUTTER, STEEL STRAPPING (SAFETY TYPE)**

NSN Description:

Strapping Cutter Jaw: Removable upper jaw blade
Overall Length: 24 inches
Jaw Tapered Thickness: 1/16 inch maximum (for inserting under strapping)
Jaw Bottom Surface: Flat
Jaws Hardened to: Rockwell C of 55 to 62 when tested per ASTM-E-18
Handles: Angled and provided with travel stops to prevent pinch points during use
Cutter Weight: 8 pounds maximum
Material, Strapping Cutter: Heavy-duty Steel
Features: Strapping cutter will be capable of cutting 2 inch wide and 0.050 inch steel straps without the operator assisting the material by bending, twisting, or pulling. All bolts, screws, rivets and pins acting as pivots for the cutter's moving parts, will be hardened to Rockwell C of 43 when tested per ASTM-E-18 and constructed in a manner to minimize side motion of the jaws. All parts used in the construction of the cutter will be interchangeable with replacement parts from the same manufacturer.

**6. 5110-00-224-7057 Ver: 13 UI: EA Status: Active AAC: G
CUTTER, BOLT**

KeyFields:

1A-A-3047 Ver: 4 A-A-3047, BOLT CUTTER

In accordance with Commercial Item Description A-A-3047, dated November 6 1996, and Notice 2, dated November 30, 2001.

NSN Description:

Class 1: Angular cut (flush cutting)
Overall Length: 36 inches
Cutting Capacity: 9/16 inch
Material: Steel
Features: Rubber Hand grips; Replaceable Jaws

**7. 5110-00-288-9300 Ver: 15 UI: EA Status: Active AAC: G
CUTTER, CIRCLE**

IPDs - TECHNICAL INFORMATION

NSN Description:

In accordance with GSA Purchase Description 5110-00-288-9300 dated 6 Jan 98.

8. 5110-00-293-9199 Ver: 24 UI: EA Status: Active AAC: G
SHEARS, STRAIGHT TRIMMERS:

NSN Description:

Type: Shears, Straight Trimmers
Overall Length: 7.000 inches
Cut Length: 3 inches minimum
Weight Per Dozen: 1-3/4 pounds minium
Handle Material: Steel
Handle Surface Treatment: Japan
Blade Material: Steel
Blade Surface Treatment: Chrome-Nickel Plated
Blade End Type: 1 Beveled / 1 Sharp Pointed
Left-Hand Operation Feature: Not Provided

Coatings: Unless otherwise specified shears and scissors shall be coated with one of the following 2 coatings at the option of the manufacturer.

(1) The handle coating shall be a Japanning which is glossy lacquer, varnish or enamel paint with chrome-plated over nickel-plated blades

(2) Comfort grip handles made of polymer or rubber or plastic with chrome-plated over nickel-plated blades or nickel-plated blades.

9. 5110-00-526-8740 Ver: 14 UI: EA Status: Active AAC: G
KNIFE, POCKET:

NSN Description:

In accordance with GSA Purchase Description 5110-00-526-8740, dated 4 Dec 97.

Handle Color: Orange

Blade Quantity: 2

Features Provided: Clevis

Closed Length: 4.344 in.

Special Features: Two blades; 3-3/4 in. long snap blade with clip point; 2-3/8 in. lg. hook blade; automatic release button and safety lock for snap blade; day-glo orange color handle; intended for use in emergency survival conditions, including the quick cutting of parachute shroud lines by using the hook blade.

10. 5110-00-595-8229 Ver: 19 UI: EA Status: Active AAC: G
CUTTER, WIRE ROPE, HAND

KeyFields:

1A-A-52207 Ver: 1 IAW CID A-A-52207, DATED AUGUST 12, 1996.**

In accordance with Commercial Item Description A-A-52207, dated August 12, 1996.

NSN Description:

Cutter Type: Hand Operated Compound Lever, Center Cutter

Overall Length: 9 inches

Features: 7/64 inch maximum soft wire rope capacity

Description: Cutter is designed to cut electrically charged barbed wire; handles are insulated to withstand high voltages up to 14,000 Volt RMS; Cuts wire, cable and light chain to 3/16 inch, Soft and Medium Hard Metals to 1/4 inch diameter; cuts Chain Links up to Brinell 300, or Rockwell C31.

Features: Center-Cut Tool with Special Parrot-Break Jaw for ease in grasping wire and staples.

IPDs - TECHNICAL INFORMATION

Exception To CID A-A-52207:

On page 2, paragraph 2.3, change overall length to read "9 inches +/- .25 inches" in lieu of "6 inches +/- .25 inches".

**11. 5110-00-596-9156 Ver: 13 UI: EA Status: Active AAC: G
CUTTER, BOLT**

KeyFields:

1A-A-3047 Ver: 4 A-A-3047, BOLT CUTTER

In accordance with Commercial Item Description A-A-3047, dated November 6 1996, and Notice 2, dated November 30, 2001.

NSN Description:

Class 3: Clipper cut (close cutting)

Overall Length: 24 inches

Cutting Capacity: 3/8 inch

Material: Steel

Features: Rubber Hand Grips; Replacement Jaws

**12. 5110-00-892-5071 Ver: 20 UI: EA Status: Active AAC: G
KNIFE, CRAFTSMAN'S:**

NSN Description:

In accordance with GSA Purchase Description 5110-00-892-5071, dated 23 Apr 2001. The blades for the knife shall be in accordance with the latest version of GSA Purchase Description 5110-00-293-2865.

Overall Length: 5.500 Inches Minimum

Blade Locking Positions: 3

Handle Storage Capacity: 5 Blades

Features: Retractable and Blade Storage in Handle

Includes 5 Blades

Style: Shop removable blade

**13. 5110-01-241-4371 Ver: 13 UI: EA Status: Active AAC: G
SHEARS, BENT TRIMMERS**

NSN Description:

In accordance with GSA Purchase Description 5110-01-241-4371, dated 15 Mar 94.

EXCEPTION(S) TO TECHNICAL DOCUMENT:

Blade hardness, delete "53" and substitute "51".

**14. 5110-01-241-4373 Ver: 17 UI: EA Status: Active AAC: G
SHEARS, STRAIGHT TRIMMERS**

NSN Description:

In accordance with GSA Purchase Description 5110-01-241-4373, dated 15 Mar 94.

**15. 5110-01-279-9332 Ver: 21 UI: EA Status: Active AAC: G
MULTI-TOOL, FOLDING, POCKET**

NSN Description:

Multi-Tool including:

Needle Nose Pliers

Wire Cutter

IPDs - TECHNICAL INFORMATION

Fine Edge Drop Point Knife Blade
Small Flat Tip Screwdriver
Medium Flat Tip Screwdriver
Large Flat Tip Screwdriver
Cross Tip Screwdriver
Metal/Wood File
Punch/AWL
Ruler
Bottle Opener
Can Opener

Closed Length: 4 inches
Sheath: Leather
Material: Steel
Coating: Stainless Steel

Leatherman Tool Group Part Number 61010101; SOG Part Number S44 or Fiskars Brands/Gerber Legendary Blades Part Number 07505G or equal

**16. 5110-01-346-5339 Ver: 18 UI: EA Status: Active AAC: G
MULTI-TOOL, FOLDING, POCKET**

NSN Description:

Multi-Tool including:

Blunt Nose Pliers

Wire Cutters

Wire Crimper

Fine Edge Drop Point Knife Blade (ATS-34; Rc 59-61)

Serrated Sheepfoot Knife Blade (ATS-34; Rc 59-61)

Small Flat Tip Screwdrivers (0-1)

Medium Flat Tip Screwdrivers (5-6)

Large Flat Tip Screwdrivers (12-14)

Cross Tip Screwdriver (Phillips #2)

Metal/Wood File

Ruler with standard and metric (standard 3 inch with 1 inch increments; metric 8 cm in 2mm increments) Bottle Opener

Can Opener

Lanyard Eye/Ring

Open Length: 6-1/4 inches minimum and 6-1/2 inches maximum

Closed Length: 4-3/4 inches minimum to 5 inches maximum

Sheath: Black Synthetic with belt loop and Velcro closure

Material: Stainless Steel

Coating: Non-Glare Satin

Features: One-Hand Opening; Replaceable indexable triangular shaped Carbide Wire Cutter Insert Cutter Bits located in the jaws.

All components will have independent tool rotation to prevent tools clumping together. The components will fold into handles, and when opened, will lock in open position and be released by lock release mechanism on outside of handles.

The pliers will be blunt nose with combination jaws. The pliers will easily extend from handles and automatically lock into place. The pliers will retract and slide into the handles when the lock release mechanisms on handles are pressed. The jaws will have straight gripping surfaces at the outer end of the jaws, scored either straight or diamond pointed suitable for gripping flat surfaces, and curved gripping jaws with pointed teeth at the center of the jaws, suitable for gripping round surfaces. Wire cutters will be located below the curved gripping jaws. The crimper will be located below the wire cutters.

IPDs - TECHNICAL INFORMATION

Fiskars Brands/ Gerber Legendary Blades: Part Number 07500G or equal

**17. 5110-01-346-5340 Ver: 15 UI: EA Status: Active AAC: G
MULTI-TOOL, FOLDING, POCKET**

NSN Description:

Multi-Tool including:

- Blunt Nose Pliers
- Wire Cutter
- Wire Crimper
- Fine Edge Drop Point Knife Blade
- Serrated Sheepsfoot Knife Blade
- Small Flat Tip Screwdriver
- Medium Flat Tip Screwdriver
- Large Flat Tip Screwdriver
- Cross Tip Screwdriver
- Metal/Wood File
- Ruler
- Bottle Opener
- Can Opener
- Lanyard Eye/Ring

Open Length: 6-19/64 inches

Closed Length: 4-1/2 inches

Sheath: Black Leather

Material: Steel

Coating: Stainless Steel

Features: One-hand Opening; Replaceable Carbide Wire Cutter Inserts

**18. 5110-01-346-5341 Ver: 17 UI: EA Status: Active AAC: G
MULTI-TOOL, FOLDING, POCKET**

KeyFields:

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Multi-Tool including:

- Blunt Nose Pliers
- Wire cutters
- Crimper
- Fine Edge Drop Point Knife Blade
- Serrated Sheepsfoot Knife Blade
- Small Flat Tip Screwdrivers
- Medium Flat Tip Screwdrivers
- Large Flat Tip Screwdrivers
- Cross Tip Screwdriver
- Metal/Wood File
- Ruler
- Bottle Opener
- Can Opener
- Lanyard Eye/Ring

Open Length: 4-6/8 inches minimum and 5 inches maximum

Closed Length: 4-7/8 inches

IPDs - TECHNICAL INFORMATION

Sheath: A Black Synthetic Heavy Duty Sheath with Velcro Closure and Belt Loop

Material: Stainless Steel

Coating: Black Oxide

Features: One-Hand Opening; Replaceable, indexable, triangular shaped carbide insert cutter bits located in the jaws; Multipurpose pocket survival tool with Pliers head that will retract and slide into the handle. Other components will fold into the handles, and when opened, will lock in the open position and be released by lock release mechanisms on outside of handles.

Fiskars Brands /Gerber Legendary Blades Part Number 07520G1 or equal

**19. 5110-01-368-3507 Ver: 13 UI: EA Status: Active AAC: G
SCISSOR, SPRING ACTION**

NSN Description:

Multi-purpose, spring-action, flat bottom style scissors.

Scissors shall be sharp and capable of cutting multiple layers of fabric, string, paper, construction paper and cardboard.

Handle Design: The scissors shall have ergonomic oversized cushion grip handles.

Features: The scissors shall have slide-type safety lock capable of keeping the blades closed when not in use. An adjustable screw shall be provided to modify blade tension.

Cut Length: 3".

Overall Length: 10-3/16".

Fiskars Incorporated model 99117097, Wescott part number 14233 or equal.

**20. 5110-01-369-9340 Ver: 20 UI: EA Status: Active AAC: G
KNIFE, POCKET**

NSN Description:

Blade Quantity: 1

Blade Type: Serrated; Smooth Cutting Edge to midpoint with the remainder of the blade being serrated

Blade Length: 3-11/16 inches minimum to 3-13/16 inches maximum

Blade Length; Serrated Portion of Blade: 1-3/8 inches minimum to 1-9/16 inches maximum

Blade, Closed Gripping Area: 6/16 inch minimum to 8/16 inch maximum

Blade Thickness (closest to handle): 1/8 inch +/- 0.015 inches

Blade Material: 420 HC Steel, Corrosion Resisting

Blade Hardness: 57-62 on the Rockwell C scale when tested per ASTM-E-18

Handle Thickness (center of handle): 12/16 inch minimum to 14/16 inch maximum

Knife Length Open: 8-1/2 inches minimum to 8-3/4 inches maximum

Knife Length Closed: 5 inches

Weight: 5 oz. +/-0.5 oz

Features: Blade Lock; Nylon Sheath and meet the following specifications:

The design of the pocket knife will be a single folding hollow ground, clip point blade with 45 false edge on the top of the blade. Knife will have a safety feature that pauses blade halfway through rotation to prevent accidental opening or closing. The knife will be under tension at all times when opening and closing the blade.

The handle will be of a non-slip textured soft rubbery outer core molded onto hard nylon inner core and will have a curved grip area that includes separate contour for index finger to provide for firm and comfortable grip. The blade lock release mechanism will be located at the midpoint on back of handle and will be activated by pushing inward.

IPDs - TECHNICAL INFORMATION

The sheath will be of a pocket design with a flap closure and will be fabricated from a heavy duty synthetic material. The flap closure will be provided with Velcro. The sheath will be provided with a belt loop that allows the sheath to be in the vertical position. Knife will be easily gripped and released from sheath.

Gerber part number 06079 or equal

**21. 5110-01-385-7354 Ver: 17 UI: SE Status: Active AAC: G
TOOL KT, MULTIPURPOSE:**

NSN Description:

A multi-purpose tool set shall contain a multi-purpose tool, accessory screwdriver bits set and a sheath.

The multi-purpose tool shall be fabricated of non-glare satin finish stainless steel. The stainless steel used shall have such properties as to provide for tool capability to withstand abrasive wear, maintain the original shape of its overall structure and components and retain a keen edge on all cutting blades for the entire service-life of the tool.

The multipurpose tool shall contain the following components. A drop point blade, serrated sheepfoot blade, can opener, bottle opener, lanyard eye, wire cutters consisting of replaceable indexable triangular shaped carbide insert cutter bits located in the jaws, crimper and a file. It shall have three flat tip screwdrivers, screw sizes 12-14; 5-6; 0-1, one cross tip Phillips #2 screwdriver, and a ruler with standard and metric; standard 3.00" with " increments; metric 8 cm in 2 mm increments. All components shall have independent tool rotation to prevent tools clumping together. The components shall fold into handles, and when opened, shall lock in open position and be released by lock release mechanism on outside of handles.

The pliers shall be blunt nose with combination jaws. The pliers shall easily extend from handles and automatically lock into place. The pliers shall retract and slide into the handles when the lock release mechanisms on handles are pressed. The jaws shall have straight gripping surfaces at the outer end of the jaws, scored either straight or diamond pointed suitable for gripping flat surfaces, and curved gripping jaws with pointed teeth at the center of the jaws, suitable for gripping round surfaces. Wire cutters shall be located below the curved gripping jaws. The crimper shall be located below the wire cutters.

Multi-purpose tool dimensions: Overall Length: 4-7/8" +/- 1/8" Closed
Weight: 7-9 Ounces

The accessory set shall contain six screwdriver bits and a coupler that fits over the cross tip screwdriver blade on the multipurpose tool. The bits and coupler shall be polished stainless steel. The bits shall be 1.00" +/- 1/16" long. The bits shall be " hex insert bits with 3 Flat Tip bits: 12-14; 5-6; 0-1 and 3 Cross Tip bits: Phillips #3; Phillips #2; Phillips #1.

The coupler shall be 1-1/4" +/- 1/8" long and contain a magnet to hold the bits into the coupler and to the cross-tip screwdriver on the multipurpose tool.

The screwdriver bits and coupler shall be furnished in a rubber bit holder with seven slots or openings, one for the coupler and one for each of the bits. The rubber bit holder shall be furnished with an extended gripping tab to permit easy removal from the sheath.

The sheath shall be provided with two pockets, one for the multipurpose tool and one for rubber bit holder. The sheath shall be provided with a flap closure and shall be fabricated from a heavy duty synthetic material. The flap closure shall be provided with Velcro to contain tool within sheath. The sheath shall be provided with a belt loop that allows the sheath to be in the vertical position. The multipurpose tool and rubber bit holder shall be easily gripped and released from sheath.

Fiskars/Gerber part number 07510G or equal

**22. 5110-01-394-6249 Ver: 16 UI: EA Status: Active AAC: G
KNIFE, POCKET:**

IPDs - TECHNICAL INFORMATION

NSN Description:

Multi-purpose, Multi-plier pocket tool constructed of stainless steel. Overall length 5 1/8 inches closed, plus or minus 1/8 inch; Weight 8 ounces; Non-glare satin finish. Plier head shall retract and slide into the handle. Other components shall fold into the handles, and when opened, shall lock in the open position and be released by lock release mechanisms on outside of handles. Nylon sheath included. Tool shall consist of the following components:

Drop Point Knife Blade, 3 flat tip screwdrivers; file; needle nose pliers; one Phillips tip screwdriver; ruler; serrated sheepsfoot knife blade; lanyard ring; can opener; crimper; wire cutters consisting of replaceable indexable triangular shaped carbide insert cutter bits located in the jaws; bottle opener; scale

Fiskars Brands/Gerber Legendary Blades Part Number 07530G or equal

**23. 5110-01-394-6252 Ver: 23 UI: EA Status: Active AAC: G
MULTI-TOOL, FOLDING, POCKET**

KeyFields:

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Multi-Tool including:

Needle Nose Pliers

Wire Cutters

Wire Crimper

Fine Edge Drop Point Knife Blade

Serrated Sheepsfoot Knife Blade

Small Flat Tip Screwdrivers

Medium Flat Tip Screwdrivers

Large Flat Tip Screwdrivers

Cross Tip Screwdriver

Metal/Wood File

Ruler

Bottle Opener

Can Opener

Lanyard Eye/Ring

Open Length: 6-1/2 inches minimum and 6-3/4 inches maximum

Closed Length: 5 inches minimum and 5-1/4 inches maximum

Sheath: Nylon

Material: Stainless Steel

Coating: Black Oxide

Features: One Hand Opening; Replaceable Carbide Wire Cutter Inserts consisting of replaceable indexable triangular shaped carbide insert cutter bits located in the jaws. Pliers head will retract and slide into the handle and other components will fold into the handles, and when opened, will lock in the open position and be released by lock release mechanisms on outside of handles.

Fiskars Brands /Gerber Legendary Blades Part Number 07550G1 or equal

**24. 5110-01-416-7827 Ver: 27 UI: EA Status: Active AAC: H
AX, SINGLE BIT**

KeyFields:

1B107.42 Ver: 2 HATCHETS AND AXES: SAFETY REQUIREMENTS

In accordance with The American Society of Mechanical Engineers (ASME) B107.42-2008. ASME B107.42-2008 is contained in the ASME B107.400-2008.

IPDs - TECHNICAL INFORMATION

NSN Description:

Type 2: Axes
Style: Hudson Bay
Cutting Edge Length: 4-1/2 inches
Cutting Edge Length Tolerance: 1/4 inch
Head Length: 7-1/4 inches
Head Length Tolerance: 1/8 inch
Head Weight: 3.38 lb
Head Material: Steel
Weight Tolerance: 1/4 lb
Overall Length: 34-3/4 inches
Length Tolerance: 1/2 inch
Handle Material: Molded plastic with fiberglass core

Or Equal SHALL be dimensionally equivalent ensuring compatibility, interchangeability, and fitment with established Forest Tool Items. All dimensional characteristics of the brand name tool and tool offered as equivalent that specifically address the compatibility, interchangeability, and fitment must be provided to establish equivalency.

Forrest Tool p/n 595-010 or equal

**25. 5110-01-416-7830 Ver: 17 UI: EA Status: Active AAC: H
SHEATH, AX, HEAD**

NSN Description:

Sheath, Ax Head, Forrest Tool p/n 595-020 or equal
Length: 6"
Length Tolerance: 1/8"
Width: 3-7/8"
Width Tolerance: 1/8"
Material: Leather, oil treated
Features: Nickel plated steel buckle type fastener with leather strap. All attachment points riveted with zinc plated steel rivets.

Must be dimensionally equivalent to Forrest tool p/n 595-020 to ensure compatibility and integration with the following:
Ax Single Bit 5110-01-416-7827, Forrest tool p/n 595-010 or equal

End Item: Hand, Combination Tool 5120-01-416-8568 Forrest Tool p/n 595 or equal

Or Equal SHALL be dimensionally equivalent ensuring compatibility, interchangeability, and fitment with established Forest Tool Items listed above. All dimensional characteristics of the brand name tool and tool offered as equivalent that specifically address the compatibility, interchangeability, and fitment must be provided to establish equivalency.

**26. 5110-01-425-7570 Ver: 22 UI: EA Status: Active AAC: G
MULTI-TOOL, FOLDING, POCKET:**

NSN Description:

The multi-tool shall be a folding design where the handles rotate about the pliers' head and enclose all components within the handle body.

The multi-tool shall be fabricated from stainless steel and shall have a polished stainless steel finish. The stainless steel used shall have such properties as to provide for tool capability to withstand abrasive wear, maintain the original shape of its overall structure and components, and retain a keen edge on all cutting blades for the entire service-life of the tool.

IPDs - TECHNICAL INFORMATION

The multi-tool shall have a needle nose and curved gripper combination jaw pliers containing wire and hardwire cutters. The needle nose portion shall have gripping surfaces scored either straight or diamond pointed suitable for gripping flat surfaces, and the gripper jaws shall have pointed teeth, suitable for gripping round surfaces. An electrical crimper shall be located below the jaws joint.

The handles of the multi-tool shall be designed to provide adequate space accommodating all components tightly and orderly folded within the handles. The design of the handles shall provide a firm and comfortable grip. An etched, engraved or stamped English/Metric ruler shall be located on either the back or the side of the handles. The ruler shall have a minimum length of nine (9) inches/twenty-three (23) centimeters, graduated in one-eighth (1/8) of an inch /one (1) millimeter increments.

All components shall be positively locked when in open or closed position by a mechanism within the pivoting point. All components shall be easily withdrawn individually from the handles and have an independent tool rotation to prevent tools from clumping together.

The multi-tool shall be furnished, in addition to above, with the following components:

- Clip-point knife blade, overall length 2-1/2 inches +/- 1/4 inch
- Sheep-foot or Drop-point serrated knife blade, overall length 2-1/2 inches +/- 1/4 inch
- Wood/Bone saw, overall length 2-1/2 inches +/- 1/4 inch
- Metal/Wood file, overall length 2-1/2 inches +/- 1/4 inch
- Can/Bottle opener
- Small screwdriver (accommodates #0 flat tip screw size)
- Medium screwdriver (accommodates #4 flat tip screw size)
- Large screwdriver (accommodates #8 flat tip screw size)
- Phillips screwdriver (accommodates #2 through #10 screw sizes)
- Wire stripper
- AWL punch
- Needlenose pliers
- Regular pliers
- Wire cutters
- Electrical crimper
- Ruler
- Lanyard Ring

Multi-tool overall length in closed position: 4-1/2 inches +/-1/4 inch.

The sheath shall be a single pocket design with flap closure to securely contain the multi-tool. Material shall be black heavy-duty synthetic material. The flap closure shall be secured by Velcro. The sheath shall be provided with a belt loop that allows the sheath to be in the vertical position. The multi-tool shall be easily gripped and released from the sheath.

27. 5110-01-430-5039 Ver: 15 UI: EA Status: Active AAC: G
MULTI-TOOL, FOLDING, POCKET:

NSN Description:

The multi-tool shall be a folding design where the handles rotate about the pliers' head and enclose all components within the handle body.

The multi-tool shall be fabricated from stainless steel and shall have a black oxide finish. The stainless steel used shall have such properties as to provide for tool capability to withstand abrasive wear, maintain the original shape of its overall structure and components, and retain a keen edge on all cutting blades for the entire service-life of the tool.

The multi-tool shall have a needle nose and curved gripper combination jaw pliers containing wire and hardwire cutters. The needle nose portion shall have gripping surfaces, scored either straight or diamond pointed suitable for gripping flat

IPDs - TECHNICAL INFORMATION

surfaces, and the gripper jaws shall have pointed teeth, suitable for gripping round surfaces. An electrical crimper shall be located below the jaws joint.

The handles of the multi-tool shall be designed to provide adequate space accommodating all components tightly and orderly folded within the handles. The design of the handles shall provide a firm and comfortable grip. An etched, engraved or stamped English/Metric ruler shall be located on either the back or the side of the handles. The ruler shall have a minimum length of nine (9) inches/twenty-three (23) centimeters, graduated in one-eighth (1/8) of an inch /one (1) millimeter increments.

All components shall be positively locked when in open or closed position by a mechanism within the pivoting point. All components shall be easily withdrawn individually from the handles and have an independent tool rotation to prevent tools from clumping together.

The multi-tool shall be furnished, in addition to above, with the following components:

- Clip-point knife blade, overall length 2-1/2 inches +/- 1/4 inch.
- Sheep-foot or Drop-point serrated knife blade, overall length 2-1/2 inches +/- 1/4 inch.
- Metal/Wood file, overall length 2-1/2 inches +/- 1/4 inch.
- Can/Bottle opener
- Wood/Bone saw
- Small screwdriver (accommodates #0 flat tip screw size)
- Medium screwdriver (accommodates #4 flat tip screw size)
- Large screwdriver (accommodates #8 flat tip screw size)
- Phillips screwdriver (accommodates #2 and #10 screw sizes)
- Wire stripper
- Cap crimper
- Wire Cutters
- Ruler
- Wire crimper
- AWL punch
- Needlenose pliers
- Regular pliers
- Lanyard Ring

Multi-tool overall length in closed position: 4-1/2 inches +/-1/4 inch.

The sheath shall be a single pocket design with flap closure to securely contain the multi-tool. Material shall be black heavy-duty synthetic material. The flap closure shall be secured by Velcro. The sheath shall be provided with a belt loop that allows the sheath to be in the vertical position. The multi-tool shall be easily gripped and released from the sheath.

**28. 5110-01-430-5046 Ver: 18 UI: EA Status: Active AAC: G
MULTI-TOOL, FOLDING, POCKET**

NSN Description:

Multi-Tool including:
Needle Nose Pliers
Regular Pliers
Wire Cutter
Hard-Wire Cutter
Wire Crimper
Fine Edge Clip-Point Knife Blade
Serrated Sheep-Foot Knife Blade
Wood Cutting Saw

IPDs - TECHNICAL INFORMATION

Punch/AWL

Small Flat Tip Screwdriver (Accommodates #0 Flat Tip Screw Size)

Medium Flat Tip Screwdriver (Accommodates #4 Flat Tip Screw Size)

Large Flat Tip Screwdriver (Accommodates #8 Flat Tip Screw Size)

Phillips Screwdriver (Accommodates #2 Through #10 Screw Sizes)

Metal/Wood File

Ruler

Bottle Opener

Can Opener

Wire Stripper

Lanyard Eye/Ring

Open Length: 4-1/2 inches

Closed Length: 4-1/4 inches minimum and 4-3/4 inches maximum

Blade Length: 2-1/4 inches minimum and 2-3/4 inches maximum

Sheath: Leather

Material: Stainless Steel

Coating: Polished Stainless Steel to withstand abrasive wear, maintain the original shape of overall structure and components, and retain a keen edge on all cutting blades for the entire service-life of the tool

Features: Folding design where the handles rotate about the pliers' head and enclose all components within the handle body. Further feature descriptions:

The multi-tool will have a needle nose and curved gripper combination jaw pliers containing wire and hardwire cutters. The needle nose portion will have gripping surfaces scored either straight or diamond pointed suitable for gripping flat surfaces, and the gripper jaws will have pointed teeth, suitable for gripping round surfaces. An electrical crimper will be located below the jaws joint.

The handles of the multi-tool will be designed to provide adequate space accommodating all components tightly and orderly folded within the handles. The design of the handles will provide a firm and comfortable grip. An etched, engraved or stamped English/Metric ruler will be located on either the back or the side of the handles. The ruler will have a minimum length of nine (9) inches/twenty-three (23) centimeters, graduated in one-eighth (1/8) of an inch/one (1) millimeter increments.

All components will be positively locked when in open or closed position by a mechanism within the pivoting point. All components will be easily withdrawn individually from the handles and have an independent tool rotation to prevent tools from clumping together.

The sheath will be of a single pocket design with flap closure to securely contain the multi-tool. Material will be high quality leather. The flap closure will be secured by snap button. The sheath will be provided with a belt loop that allows the sheath to be in the vertical position. The multi-tool will be easily gripped and released from the sheath.

29. 5110-01-432-6191 Ver: 9 UI: EA Status: Active AAC: H

KNIFE,POCKET

NSN Description:

Blade Length: 3.70"

Blade Thickness: 0.120"

Blade Material: 154CM or M2 Tool Steel

Blade Hardness: 58-60 for 154CM or 60-62 for M2

Blade Style: Tanto (long serrated blade)

Weight: 3.80oz.

Clip: Black, Removable, Tip-Down

Lock Mechanism: Modified Locking-Liner

Overall Length: 8.25"

Closed Length: 4.68"

IPDs - TECHNICAL INFORMATION

Sheath Material: Not Included
Handle Material: Black plastic handle with pocket clip, and lanyard hole.

Giga Inc Part Number: 5110-01-432-6191 or equal

**30. 5110-01-436-1548 Ver: 10 UI: EA Status: Active AAC: G
KNIFE, FOLDING, COMBAT**

NSN Description:

Knife Design: Pocket, Single Folding Hollow Ground
Knife Tension: Under tension at all times when opening and closing the blade
Blade Type: Double Bevel Spear Point
Blade Material: 420 HC Stainless Steel
Blade Hardness: 57-62 on the Rockwell C scale when tested per ASTM-E-18
Blade Finish: Non-glare Satin Finish over entire blade
Blade Cutting Edge: Smooth to midpoint with the remaining portion of the blade serrated
Blade Opening/Closing Mechanism: Thumb Stud on each side of the blade to open and close with one hand
Overall length Open: 10-1/4 inches (+/- 1/8 inch)
Closed Blade Length: 5-3/4 inches (+/-1/8 inch)
Overall Blade Length: 4-1/2 inches (+/- 1/16 inch)
Handle Material: Non-slip glass filled nylon
Handle Features: Lanyard hole at the back end
Knife Lock System: A two lock, linear-lock design on the underside of the handle and the second on the top side of the handle and activated by pushing a tab towards the blade.
Features: Removable belt clip and sheath of a pocket design with a flap closure and fabricated from a heavy duty synthetic material. The flap closure will be Velcro. The sheath will have a belt loop that allows the sheath to be in the vertical position. Knife shall be easily gripped and released from sheath.

Fiskars/Gerber part number 05780 or equal to one that is pro

**31. 5110-01-451-0707 Ver: 17 UI: EA Status: Active AAC: G
KNIFE, POCKET**

NSN Description:

Type: Knife, Pocket
Blade Quantity: 1
Blade Length: 3-1/2"
Blade Material: Stainless steel corrosion resisting
Blade Hardness: 59 to 61 HRC
Knife Length Open: 8-1/4"
Features Provided: Blade lock and Belt clip
Knife Length Closed: 4-7/8"
Blade Type: Drop point with opener hole through blade
Knife Handle Material: Plastic
Knife Handle Color: Black
Special Features: Modified sheepsfoot blade; Partially serrated; Satin finish; Textured handle grip; Oval thumb hole thru blade for ease in opening; Lanyard hole thru handle

**32. 5110-01-451-4943 Ver: 10 UI: EA Status: Active AAC: G
KNIFE, POCKET**

NSN Description:

Blade Quantity: 1

IPDs - TECHNICAL INFORMATION

Blade Type: Spear, Double Bevel; 1 Edge: 1/2 Serrated
Blade Length: 3-1/2 inch minimum and 4 inch maximum
Blade Material: 154CM Stainless Steel
Knife Length Open: 8-1/2 inch minimum and 9 inches maximum
Knife Length Closed: 4-1/2 inch minimum and 5 inches maximum
Knife Handle Color: Black
Sheath: Black Nylon
Handle Material: Glass-filled Nylon
Features: Blade lock mechanism, lanyard hole, stainless steel inner frame, single hand opening capability using a thumb stud, reversible stainless steel pocket clip

Fiskars Brands Inc Part Number 05785 or equal

**33. 5110-01-452-2215 Ver: 16 UI: EA Status: Active AAC: G
KNIFE, POCKET**

NSN Description:

Blade Quantity: 1
Blade Length: 3-1/2 inches
Blade Material: Stainless steel corrosion resisting
Blade Hardness: 59 to 61 HRC
Knife Length Open: 8-1/2 inches
Knife Length Closed: 4-7/8 inches
Blade Type: Drop point with opener hole through blade
Knife Handle Material: Grip textured, glass-filled noryl gtx/color valox
Knife Handle Color: Black
Features: Modified sheepsfoot blade; Partially serrated; black finish, Oval thumb hole thru blade for ease in opening; Lanyard hole and Stainless steel carrying clip

**34. 5110-01-456-0578 Ver: 14 UI: EA Status: Active AAC: G
MULTI-TOOL, FOLDING, POCKET**

NSN Description:

Multi-Tool including:
Needle Nose Pliers
Wire Cutter
Hard-Ware Cutter
Fine Edge Clip Point Knife Blade
Serrated Sheepsfoot Knife Blade
Wood Cutting Saw
Scissors
Metal/Wood File
Diamond Coated File
Small Bit Driver
Large Bit Driver
Large Flat Tip Screwdriver (accommodates #8 flat tip screw size)
2 Double End Bits (1 - Phillips #1 and #2 Bits; and 1 - Flat Tip 3/16 inch and Phillips/Flat Tip Eyeglasses Bits)
Ruler (8")
Bottle Opener
Can Opener
Wire Stripper
Lanyard Eye/Ring
Extra small flat tip screwdriver

Open Length: 6 inches minimum and 6-1/2 inches maximum

IPDs - TECHNICAL INFORMATION

Closed Length: 3-3/4 inches minimum to 4-1/4 inches maximum

Sheath: High Quality Leather

Material: 420 Stainless Steel

Coating: Polished Stainless Steel

Features: Include the following:

Handles of a folding design where the handles rotate about the pliers head providing adequate space to accommodate all components tightly within the handles. The design of the handles shall provide a firm and comfortable grip.

Stainless Steel will have the capability to withstand abrasive wear, maintain the original shape of its overall structure and components, and retain a keen edge on all cutting blades for the entire service-life of the tool.

Needle Nose Pliers with a curved gripper combination jaw containing wire and hardware cutters. The needle nose portion will have gripping surfaces scored either straight or diamond pointed suitable for gripping flat surfaces, and the gripper jaws will have pointed teeth, suitable for gripping round surfaces.

All components will be positively locked when in open or closed position by a mechanism within the pivoting point. All components will be easily withdrawn individually from the handles and have an independent tool rotation to prevent tools from clumping together.

The sheath will be a single pocket design with a flap closure secured by a snap button and provided with a belt loop that allows the sheath to be in the vertical position. The multi-tool shall be easily gripped and released from the sheath.

**35. 5110-01-462-3400 Ver: 11 UI: EA Status: Active AAC: G
MULTI-TOOL, FOLDING, POCKET**

KeyFields:

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Multi-Tool including:

Needle Nose Pliers

Cap Crimper

C4 Explosives Punch

Wire Cutter

Wire Crimper

Fine Edge Drop Point Knife

Serrated Sheepsfoot Knife Blade

Large Flat Tip Screwdriver

Cross Point Screwdriver

Metal Cutting Saw

Saw Blade Coupler

Ruler

Bottle Opener

Can Opener

Lanyard Eye/Ring

Open Length: 6.61 inches

Closed Length: 5.04 inches

Sheath: Ballistic Nylon

Material, Handles: Stainless Steel

Handle Color: Black

Coating: Black Oxide

Features: Removable and Replaceable RemGrit (trade marked item) Saw Blade for cable cutting. Pliers head will retract and slide into the handle. Other components will fold into handles, and when opened, will lock in the open position and be

IPDs - TECHNICAL INFORMATION

released by lock release mechanisms on the outside of handles. The jaws of the tool, operating in unison, shall form the blasting cap crimper. The blasting cap crimper shall be capable of crimping by indenting a uniform groove completely around the cap.

Gerber P/N 07400 or equal

36. 5110-01-462-3402 Ver: 7 UI: EA Status: Active AAC: G
TOOL KIT, MULTIPURPOSE PLIERS

NSN Description:

Tool Kit Contains: Multi-Tool, Flashlight, and Case

Multi-Tool, Folding, Pocket

Plier head shall retract and slide into handle. Other components shall fold into handles, and when opened, shall lock in the open position and be released by lock release mechanisms on outside handles. All components shall have independent tool rotation to prevent tools clumping together.

Overall Length: 6.750 in. +/- 0.250 in.)

Closed Length: 5.000 in. (+/- 0.250 in.)

Weight: 9.0 oz. (+/- 0.500 oz.)

Handle material: Stainless Steel, Satin Finish

Sheath material: Ballistic nylon

Components included:

Needle nose pliers

Wire cutter consisting of replaceable indexable triangular shaped carbide insert cutter bits located in the jaw

Wire crimper

Fine edge knife

Cross point screwdriver

Small flat blade screwdriver

Medium flat blade screwdriver

Large flat blade screwdriver

Lanyard ring

Can opener

Bottle opener

File

Ruler

Flashlight

Bulb(s): LED

Power source: Two (2) AA batteries

Weight: 4.500 oz. (+/- 0.500 oz.)

Housing: Anodized Aluminum

Finish: Black

Case furnished with a sheath that has a separate pocket for the multi-tool and the flashlight, and a flap that covers both

Material: Ballistic nylon

Color: Black

Gerber P/N 07570 or equal

37. 5110-01-474-0894 Ver: 16 UI: EA Status: Active AAC: G
MULTI-TOOL, FOLDING, POCKET:

NSN Description:

IPDs - TECHNICAL INFORMATION

The multi-tool shall be a folding design where the handles rotate about the pliers' head and enclose all components within the handle body.

The multi-tool shall be fabricated from stainless steel and shall have a polished stainless steel finish. The stainless steel used shall have such properties as to provide for tool capability to withstand abrasive wear, maintain the original shape of its overall structure and components, and retain a keen edge on all cutting blades for the entire service-life of the tool.

The multi-tool shall have a locking jaw pliers containing wire and hardware cutters. The locking plier jaw shall have gripping surfaces scored either straight or diamond pointed suitable for gripping flat surfaces.

The handles of the multi-tool shall be designed to provide adequate space accommodating all components tightly and orderly folded within the handles. The design of the handles shall provide a firm and comfortable grip. An etched, engraved or stamped English/Metric ruler shall be located on either the back or the side of the handles. The ruler shall have a minimum length of eight (8) inches/twenty-one (21) centimeters, graduated in one-eighth (1/8) of an inch/one (1) millimeter increments.

All components shall be positively locked when in open or closed position by a mechanism within the pivoting point. All components shall be easily withdrawn individually from the handles and have an independent tool rotation to prevent tools from clumping together.

The multi-tool shall be furnished, in addition to above, with the following components:

- Sheep-foot or Drop-point serrated knife blade, overall length 2-1/2 inches +/- 1/4 inch
- Metal/wood file
- Bottle opener
- Small screwdriver (accommodates #2 flat tip screw size)
- Medium screwdriver (accommodates #4 flat tip screw size)
- Large screwdriver (accommodates #10 flat tip screw size)
- Phillips screwdriver (accommodates #2 through #10 screw sizes)
- Hex bit driver
- Wire stripper
- Lanyard attachment

Multi-tool overall length: 4 inches +/-1/4 inch closed position, 5-1/2 inch +/- 1/4 inch open position.

The sheath shall be a single pocket design with flap closure to securely contain the multi-tool. Material shall be black heavy-duty synthetic material. The flap closure shall be secured by Velcro. The sheath shall be provided with a belt loop that allows the sheath to be in the vertical position. The multi-tool shall be easily gripped and released from the sheath.

38. 5110-01-475-2144 Ver: 17 UI: EA Status: Active AAC: G
MULTI-TOOL, FOLDING, POCKET

KeyFields:

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Multi-Tool including:

Spring Loaded Needle Nose Pliers

Wire Cutters consisting of replaceable and indexable triangular shaped carbide insert cutter bits located in the jaws

Bottle opener

Three Flat Tip Screwdrivers

One Phillips Tip Screwdriver

Coarse/Fine File

IPDs - TECHNICAL INFORMATION

Scissors

Half Serrated Drop Point Knife Blade

Replaceable RemGrit Carbide Saw Blade and Universal Jig Saw Coupler

Open Length: 6-5/8 inches

Closed Length: 5-1/8 inches

Sheath: Black, Nylon

Material, Pliers Head and Components (other than saw blade): Stainless Steel

Material, Saw Blade: RemGrit Carbide

Material, Inserts: Tungsten Carbide

Material, Handles: Die Cast Aluminum with black rubber molded inserts

Coating, Handles: Electrolysis Nickel

Coating, Inserts: Nitride Finish

Features: Knife Blade and Scissors capable of one-handed opening; Replaceable Carbide Wire Cutter Inserts; Handles that rotate around the pliers head and all components in the handle that rotate independently. Other components will fold into the handles, and when opened, will lock in the open position and be released by lock release mechanisms on the outside of the handles.

Fiskers/Gerber Part Number 08239G1 or equal.

**39. 5110-01-516-3228 Ver: 17 UI: EA Status: Active AAC: H
KNIFE, POCKET**

NSN Description:

Overall Length: 8.625 inch

Length Closed: 4.800 inch

Length of Blade: 3.750 inch

Dimension Tolerance: 0.125 inch

Locking Mechanism: shall be supplied

Blade Style: combat tactical type; double bevel, one partially serrated edge and thumb stud for one hand opening

Blade Material: steel corrosion resistant

Coating: black titanium nitride (TiN)

Handle Material: plastic; color: black

Includes: shall have a belt clip

Fiskars Brands Inc/DBA Gerber Legendary Blades Div Part Number 05786 or equal.

**40. 5110-01-516-3243 Ver: 19 UI: EA Status: Active AAC: H
KNIFE, POCKET**

KeyFields:

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Blade Quantity: 1

Spring Opening Device: Opens Automatically

Safety Device: Slide Safety when red designator is in an off position

Blade Length: 3-1/2 inches

Overall Length Open: 8-1/2 inches

Overall Length Closed: 4-13/16 inches

Dimension Tolerance: 1/8 inch

Weight: 6.3 ounces

Weight Tolerance: 0.5 ounce

Blade Material: Stainless Steel

IPDs - TECHNICAL INFORMATION

Handle Material: G10 6061-T6 aluminum

Blade Coating: S30V Black Oxide

Handle Coating: Machine Textured Finish - Black

Features: Combination fine/serrated edge, blade, tanto point style blade; with pocket clip and ballistic nylon sheath

Fiskars Brands Inc/DBA Gerber Legendary Blades Div Part Number 30-000193 or equal.

**41. 5110-01-516-3244 Ver: 25 UI: EA Status: Active AAC: H
KNIFE, POCKET**

KeyFields:

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Blade Quantity: 1

Blade Type: Drop Point, Half Serrated Blade

Blade Length: 3-7/16 inches

Blade Material: 154CM Stainless Steel, Corrosion Resisting

Knife Length Open: 8-7/8 inches

Knife Length Closed: 5-17/32 inches

Coating: Black Oxide

Dimension Tolerance: 1/8 inch

Weight: 5.1 ounce

Weight Tolerance: 1/2 ounce

Furnished With: black synthetic heavy duty sheath with belt loop

Lock Mechanism: cross bolt

Handle Material: 6061 T6 aluminum

Features: Automatic Opening; Belt Clip and Nylon Sheath; Tactical Type; Textured Handle

Fiskars Brands Inc/DBA Gerber Legendary Blades Div Part Number 22-07158 or equal

**42. 5110-01-525-6661 Ver: 10 UI: EA Status: Active AAC: J
MULTI-TOOL, FOLDING, POCKET**

NSN Description:

Needle Nose Pliers

Wire Cutter

Hard-wire Cutter

Fine Edge Clip Point Knife Blade

Scissors

Small Flat Tip Screwdriver

Large Flat Tip Screwdriver

Cross Tip Screwdriver

Ruler

Bottle Opener

Can Opener

Wire Stripper

Lanyard Eye/Ring

Blade Lock

Leather Sheath

Stainless Steel Finish

Contoured Handle Grips

Open length: 6.3 Inches

Closed length: 4 Inches

IPDs - TECHNICAL INFORMATION

Leatherman Tool Group Part Number 830023 or equal

43. 5110-01-541-1195 Ver: 7 UI: EA Status: Active AAC: G
MULTI-TOOL, FOLDING, POCKET

KeyFields:

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Multi-Tool including:

Needle Nose Pliers

Cap Crimper

Wire Cutter

Hard-wire Cutters

Fine Edge Clip Point Knife 420HC

Serrated Sheepsfoot Knife 420HC

Wood Cutting Saw

Scissors

Metal/Wood File

Small Bit Driver

Large Bit Driver

Large Flat Tip Screwdriver

Ruler

Bottle Opener

Can Opener

Wire Stripper

Regular Pliers

Lanyard Eye/Ring

File, Diamond-Coated

Two Double-Ended Screwdriver Bits: 1 - Phillips #1 and #2 Bits, and 1 - 3/16 inch Flat Tip Bit and Phillips/Flat Tip

Eyeglasses Bit

Open Length: 6.300 inches

Closed Length: 4 inches

Blade Length: 3 inches

Sheath: Leather or Nylon

Material: Stainless Steel

Coating: Black Oxide Finish

Features: Fixed Layard Ring; Outside-accessible Blades for One-handed Opening; All Locking Blades and Tools

Leatherman Tool Group 830489 or equal

44. 5110-01-541-1201 Ver: 5 UI: EA Status: Active AAC: G
MULTI-TOOL, FOLDING POCKET:

NSN Description:

Needle Nose pliers

Cap Crimper

Wire Crimper

Hard-Wire Cuter

Fine edge Clip Point Knife Blade

Serrated Sheepsfoot Knife Blade

Wood Cutting Saw

IPDs - TECHNICAL INFORMATION

Scissors

Metal/Wood file

Small Bit Driver

Large Bit Driver

Large Flat Tip Screwdriver

Ruler

Bottle Opener

Can Opener

Wire Stripper

Lanyard Eye/Ring

Open Length: 6.300 Inches

Closed Length: 4.000 Inches

Nylon Sheath

Special Features: Stainless Steel Finish; Diamond Coated File included among tools. Furnished with two double-ended screwdriver bits (Phillips No. 1 and 2 and 3/16 inch Flat Tip Bit and Phillips/Flat Tip Eyeglasses Bit)

Leatherman Tool Group Part Number 830485 or equal

**45. 5110-01-541-1202 Ver: 9 UI: EA Status: Active AAC: G
MULTI-TOOL, FOLDING, POCKET**

KeyFields:

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Multi-Tool including:

Needle Nose Pliers

Wire Cutters

Hard-wire Cutters

Wire Crimper

154CM Stainless Steel Clip Point Knife

420HC Sheepsfoot Serrated Knife with Cutting Hook

Wood Cutting Saw

Small Bit Driver

Large Bit Driver

Metal/Wood File, Diamond-Coated

Bottle Opener

Can Opener

Wire Stripper

Lanyard Eye/Ring (Fixed)

Lanyard Eye, Quick Release

Open Length: 6-1/2 inches minimum and 6-3/4 inches maximum

Closed Length: 4 inches

Blade Length: 2.9 inches

Sheath: Leather or Nylon

Material: Stainless Steel

Material; Handles: 6061-T6 Hard-Anodized Aluminum

Handle Color: Black

Coating: Black Oxide

Features: Outside-accessible Blades for One-handed Opening; Removable Pocket Clip; All locking Blades and Tools; 9 double-ended screwdriver bits (1/4 x 3/16 inch Flat Tip; No. 1 x 2 Phillips; 3/32 x 5/64 inch Hex; 5/32 x 9/64 inch Hex; 1/16 x 0.050 Hex; 1/8 x 7/64 inch Hex; No. 2 x 3 Robertson; 1/8 inch Flat Tip x T-15 Torx; and Phillips/Flat Tip Eyeglasses Bit)

IPDs - TECHNICAL INFORMATION

Leatherman Tool Group Part Number 830795 or equal

46. 5110-01-541-1206 Ver: 8 UI: EA Status: Active AAC: G
MULTI-TOOL, FOLDING, POCKET:

NSN Description:

Needle Nose Pliers

Wire Cutter

Hard-Wire Cutter

Wire Crimper

Fine Edge Clip Point Knife Blade

Wood Cutting Saw

Scissors

Large Flat Tip Screwdrivers

Small Bit Driver

Large Bit Driver

Metal/Wood File

Bottle Opener

Can Opener

Wire Stripper

Lanyard Eye/Ring

Lanyard Eye, Quick Release

Open length: 6.300 Inches

Closed length: 4.000 Inches

Leather Sheath

Blade Lock

Titanium Handles

Camouflage Finish

Serrated knife blade with cutting hook and diamond coated file included among tools.

Furnished with 8 double-ended screwdriver bits (No. 1 x 2 Phillips, 3/32 x 5/64 inch hex, 5/32 x 9/64 inch hex, 1/16 x 0.50 inch hex, 1/8 x 7/64 inch hex, No. 2 x 3 Roberson, 1/8 inch flat tip x T-15 Torx and Phillips/Flat Tip eyeglasses Bit. Has removable pocket clip.

Leatherman Tool Group Part Number 830796 or equal

47. 5110-01-541-1455 Ver: 9 UI: EA Status: Active AAC: G
MULTI-TOOL, FOLDING, POCKET

NSN Description:

Multi-Tool including:

Needle Nose Pliers

Wire Cutter

Hard-Wire Cutter

Wire Crimper

Fine Edge Clip Point Knife Blade (420HC)

Serrated Sheepsfoot Knife (420HC)

Scissors

Wood Cutting Saw

Flat Tip Screwdriver

Large Bit Driver

Small Bit Driver

Punch Awl with Thread Loop

Ruler 9 Inch

Metal/Wood File

IPDs - TECHNICAL INFORMATION

Bottle Opener
Can Opener
Wire Stripper
Lanyard Eye/Ring
Two Double-Ended Screwdriver Bits (1 - Phillips #1-2 Bits; and 1 - 3/16 inch Flat Tip Bit and Phillips/Flat Tip Eyeglasses Bit)

Closed Length: 4-1/2 inches
Sheath: Leather or Nylon Sheath
Material: Stainless Steel
Coating: Black Oxide
Coating; File: Diamond
Features: Outside-accessible Blades for One-handed Opening; All Locking Blades and Tools; Stranded-Wire Cutter and Blade Exchanger (for Saw and Diamond/Wood Files)

Leatherman Tool Group Part Number 830278 or equal

48. 5110-01-585-7936 Ver: 5 UI: EA Status: Active AAC: J
MULTI TOOL, FOLDING, POCKET

KeyFields:

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Multi-Tool including:

Needle Nose Pliers
Regular Pliers
154CM Replaceable Wire Cutters
Hard-Wire Cutters
Stranded Wire Cutters
Combo Knife
Saw
Hammer
Cutting Hook
Bolt Override Tool
Firearm Disassembly Punch
Bronze Carbon Scraper
Cleaning Rod/Brush Adapter
Bottle Opener
Bit Driver
Removable Pocket Clip
1/2 inch and 3/8 inch Wrench Accessory
Philips No. 1-2 and 3/16 inch Screwdriver Bits
Phillips No. 2 and 1/4 inch Screwdriver Bits
Torx No. 15 and Hex 7/64 inch bits

Open Length: 7-1/2 inches
Closed Length: 5 inches
Blade Length: 3 inches
Sheath: Coyote Brown Berry compliant Molle Sheath
Material: Stainless Steel
Coating: Black Oxide
Features: One-handed Operation; Locking Components

IPDs - TECHNICAL INFORMATION

49. 5110-01-585-7937 Ver: 5 UI: EA Status: Active AAC: J
MULTI-TOOL,FOLDING,POCKET

NSN Description:

Closed length: 5.000 inches

Special Features:

Tool Type: Needlenose pliers, Cap crimpers, Replaceable fuse-wire cutters, Stranded wire cutters, Combo knife, Saw, Hammer, Replaceable cutting hook, Bolt override tool, Punch, Bronze carbon scraper, Cleaning rod/brush adapter, Bottle opener, Bit driver, Removeable pocket clip, 1/2 inch and 3/8 inch wrench accessory, Philips No.1-2 and 3/16 inch screwdriver bits, Philips No. 2 and 1/4 inch screwdriver bits, Torx No. 15 and Hex 7/64 inch bits; Blackberry compliant molle sheath

Surface Treatment: Black oxide

50. 5120-00-018-0575 Ver: 28 UI: EA Status: Active AAC: G
INSERTER AND REMOVER, ELECTRICAL CONTACT

KeyFields:

1MIL-I-81969 Ver: 9 IAW SPEC MIL-I-81969B, DATED 8/20/82

In accordance with Military Specification MIL-I-81969B, dated August 20, 1982.

QPL QUALIFICATION REQUIRED: QPL transformed to QPD, December 9, 2008. Please go to <http://assist.daps.dla.mil/quicksearch/>, and follow the steps below to view the QPD.

1. Input "81969" in Document Number field and click "Submit"
2. Click on QPL-81969 under "Document ID" column.
3. Click on "Qualification" in the "Overview" section to view the QPD.

NSN Description:

Contact size for which designed: 22D and 22M

Mil-Spec. part number: M81969/14-01

51. 5120-00-061-8546 Ver: 37 UI: EA Status: Active AAC: G
HAMMER, HAND

KeyFields:

1B107.53 Ver: 3 BALL-PEEN HAMMERS

In accordance with American Society of Mechanical Engineers (ASME) B107.53 as contained in ASME B107.400-2008; this document incorporates and includes the revisions of primary standard B107.41, B107.42, B107.53, B107.54, B107.56, and B107.58

NSN Description:

Type: Machinists, ball peen, polished face.

Head Weight: 32 ounces, (+/- 4 ounces)

Length: 15-1/2 inch, +/- 1 inch

Handle: Fiberglass

52. 5120-00-081-2305 Ver: 49 UI: SE Status: Active AAC: G
WRENCH SET, SOCKET

KeyFields:

1AS4283 Ver: 4 SAE AS4283, HANDLES AND ATTACHMENTS FOR HAND SOCKET WRENCHES

IPDs - TECHNICAL INFORMATION

Shall be In Accordance With SAE Aerospace Standard: AS4283B - Handles and Attachments for Hand Socket Wrenches, dated December 2011

1AS954 Ver: 12 AS954, WRENCHES, HAND 12 POINT HIGH STRENGTH, THIN WALL

In accordance with Society of Automotive Engineers Aerospace Standard AS954G, Wrenches, Hand Twelve Point High Strength, Thin Wall, dated 2011

Exception to AS954G dated 2011:

Exception: Paragraph 3.7 Test Proof Loads, the following requirement shall be incorporated:

Torque shall be applied with a suitable torque producing machine. Torque shall be applied at a speed of 15 deg/min to 30deg/min until proof load value is achieved; test load shall be held for 10 seconds, then torque shall be released. This proof load test shall be performed in the clockwise and counter clockwise direction.

1B107.1 Ver: 3 ASME B107.1-2002

In accordance with American Society of Mechanical Engineers (ASME) B107.1-2002.

1B107.10M Ver: 2 ASME B107.10M-1996

In accordance with American Society of Mechanical Engineers(ASME) B107.10 - 2005

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

2SET Ver: 3 SET (ONE MANUFACTURER)

Tools in the set shall be manufactured by only one manufacturer unless otherwise specified.

NSN Description:

Component Quantity: 13

Material: Steel

Coating: Chrome

Features: Plastic Tray

AS954

Type I: Sockets (12-Point)

Class 1: Sockets

Style A: Regular Length

Square Drive Size: 1/4 inch

Wrench Openings: The set shall consist of one (1) each of the following 5 components: 5/16, 11/32, 3/8, 7/16, and 1/2 inches

B107.1

Type I: Sockets, single (6-point)

Class 1: Regular length

Square Drive Size: 1/4 inch

Wrench Openings: The set shall consist of one (1) each of the following 4 components: 3/16, 7/32, 1/4, and 9/32 inches

B107.10

Type 1: Handles

Class 3: Speeder

Style B: Spin Type, Screwdriver Grip

Square Drive Size: 1/4 inch

Overall Length: The set shall include one (1) each of the following 1 component lengths: 4-5/8 inches minimum to 6 inches maximum

IPDs - TECHNICAL INFORMATION

AS4283

Type I: Handles

Class 2: Ratchet, reversible

Style B: Fine action

Square Drive Size: 1/4 inch

Gear Teeth: 36

Features: Sealed Head, knurled handle

Overall Length: The set shall include one (1) each of the following 1 component lengths: 4 inches

Type II Attachments:

Class 1 Universal joint

Square Drive Size: 1/4 inch

Overall Length: The set shall include one (1) each of the following 1 component lengths: 1-3/8

Class 2: Bar, extension, solid

Square Drive Size: 1/4 inch

Overall Length: The set shall include one (1) each of the following 1 component lengths: 2 inches

Features: Knurled Handle

53. 5120-00-081-2307 Ver: 30 UI: SE Status: Active AAC: G

WRENCH SET, SOCKET

KeyFields:

1AS4283 Ver: 4 SAE AS4283, HANDLES AND ATTACHMENTS FOR HAND SOCKET WRENCHES

Shall be In Accordance With SAE Aerospace Standard: AS4283B - Handles and Attachments for Hand Socket Wrenches, dated December 2011

1AS954 Ver: 12 AS954, WRENCHES, HAND 12 POINT HIGH STRENGTH, THIN WALL

In accordance with Society of Automotive Engineers Aerospace

Standard AS954G, Wrenches, Hand Twelve Point High Strength, Thin Wall, dated 2011

Exception to AS954G dated 2011:

Exception: Paragraph 3.7 Test Proof Loads, the following requirement shall be incorporated:

Torque shall be applied with a suitable torque producing machine. Torque shall be applied at a speed of 15 deg/min to 30deg/min until proof load value is achieved; test load shall be held for 10 seconds, then torque shall be released. This proof load test shall be performed in the clockwise and counter clockwise direction.

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

2SET Ver: 3 SET (ONE MANUFACTURER)

Tools in the set shall be manufactured by only one manufacturer unless otherwise specified.

NSN Description:

Component Quantity: 20

Material: Steel

Coating: Chrome

Features: Metal Case

AS954

Type I: Sockets (12-Point)

Class 1: Sockets

Style A: Regular Length

IPDs - TECHNICAL INFORMATION

Square Drive Size: 1/2 inch

Wrench Openings: The set shall consist of one (1) each of the following 13 components:
7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, 1, 1-1/16, 1-1/8 and 1-1/4 inches

AS4283

Type I: Handles:

Class 1: Hinged Handles

Square Drive Size: 1/2 inch

Overall Length: The set shall include one (1) each of the following 2 component lengths: 9 and 14-1/2 inches

Type I: Handles

Class 2: Ratchet, reversible

Style B: Fine action

Square Drive Size: 1/2 inch

Gear Teeth: 45

Features: Sealed Head, knurled handle

Type II Attachments:

Class 1 Universal joint

Square Drive Size: 1/2 inch

Overall Length: The set shall include one (1) each of the following 1 component lengths: 2-11/16 inches

Class 2 Bar, extension, solid

Square Drive Size: 1/2 inch

Overall Length: The set shall include one (1) each of the following 3 component lengths: 2, 5, and 10 inches

Features: Knurled

EXCEPTION TO STANDARD

Ratchet Overall Length: The set shall include one (1) each of the following 1 component lengths:
9-1/2 inches

54. 5120-00-081-2309 Ver: 15 UI: SE Status: Active AAC: G

WRENCH SET, SOCKET

KeyFields:

1AS954 Ver: 12 AS954, WRENCHES, HAND 12 POINT HIGH STRENGTH, THIN WALL

In accordance with Society of Automotive Engineers Aerospace

Standard AS954G, Wrenches, Hand Twelve Point High Strength, Thin Wall, dated 2011

Exception to AS954G dated 2011:

Exception: Paragraph 3.7 Test Proof Loads, the following requirement shall be incorporated:

Torque shall be applied with a suitable torque producing machine. Torque shall be applied at a speed of 15 deg/min to 30deg/min until proof load value is achieved; test load shall be held for 10 seconds, then torque shall be released. This proof load test shall be performed in the clockwise and counter clockwise direction.

1B107.10M Ver: 2 ASME B107.10M-1996

In accordance with American Society of Mechanical Engineers(ASME) B107.10 - 2005

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

2SET Ver: 3 SET (ONE MANUFACTURER)

Tools in the set shall be manufactured by only one manufacturer unless otherwise specified.

IPDs - TECHNICAL INFORMATION

NSN Description:

Component Quantity: 27

Material: Steel

Coating: Chrome

Features: Metal Box or Impact Resistant Plastic Case

AS954

Type I: Sockets (12-Point)

Class 1: Sockets

Style A: Regular Length

Square Drive Size: 1 inch

Wrench Openings: The set shall include one (1) each of the following 22 component sizes: 1-1/2, 1-5/8, 1-11/16, 1-3/4, 1-13/16, 1-7/8, 1-15/16, 2, 2-1/8, 2-3/16, 2-1/4, 2-5/16, 2-3/8, 2-7/16, 2-1/2, 2-9/16, 2-5/8, 2-3/4, 2-13/16, 2-15/16, 3 and 3-1/8 inches

B107.10

Type I: Handles

Class 1: Hinged

Square Drive Size: The set shall include one (1) each of the following component size: 1 inch

Overall Length: 22 inches minimum

Type I: Handles

Class 2: Ratchet, Reversible

Square Drive Size: The set shall include one (1) each of the following component size: 1 inch

Overall Length: 20 inches minimum

Type I: Handles

Class 4: T, Sliding

Square Drive Size: The set shall include one (1) each of the following component size: 1 inch

Overall Length: 20 inch minimum and 32 inch maximum

Type II: Attachments

Class 2: Extension Bar

Style A: Solid

Square Drive Size: 1 inch

Overall Length: The set shall include one (1) each of the following 2 component lengths: 8 and 17 inches

**55. 5120-00-148-7917 Ver: 43 UI: SE Status: Active AAC: G
WRENCH SET, COMBINATION**

KeyFields:

1AS954 Ver: 12 AS954, WRENCHES, HAND 12 POINT HIGH STRENGTH, THIN WALL

In accordance with Society of Automotive Engineers Aerospace

Standard AS954G, Wrenches, Hand Twelve Point High Strength, Thin Wall, dated 2011

Exception to AS954G dated 2011:

Exception: Paragraph 3.7 Test Proof Loads, the following requirement shall be incorporated:

Torque shall be applied with a suitable torque producing machine. Torque shall be applied at a speed of 15 deg/min to 30deg/min until proof load value is achieved; test load shall be held for 10 seconds, then torque shall be released. This proof load test shall be performed in the clockwise and counter clockwise direction.

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

IPDs - TECHNICAL INFORMATION

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

2SET Ver: 3 SET (ONE MANUFACTURER)

Tools in the set shall be manufactured by only one manufacturer unless otherwise specified.

NSN Description:

Type II: Wrenches, Box (12-Point)

Class 4: Combination, Box and Open End Wrench

Style A: Regular Length

Wrench Openings: The set shall consist of one (1) each of the following 12 components: 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16 and 1 inch both ends

Material: Steel

Coating: Chrome

Features: Roll or Wrap

56. 5120-00-165-3910 Ver: 14 UI: EA Status: Active AAC: G CRIMPING TOOL, TERMINAL, HAND:

KeyFields:

1MIL-DTL-22520 Ver: 9 IAW MIL-DTL-22520G & SUPPLEMENT 1

In accordance with Military Detail Specification, MIL-DTL-22520G, dated September 12, 1997 and MIL-DTL-22520G, Supplement 1, dated September 12, 1997.

QPL QUALIFICATION REQUIRED: QPL transformed to QPD, December 9, 2008. Please go to <http://assist.daps.dla.mil/quicksearch/>, and follow the steps below to view the QPD.

1. Input "22520" in Document Number field and click "Submit"
2. Click on QPL-22520 under "Document ID" column.
3. Click on "Qualification" in the "Overview" section to view the QPD.

NSN Description:

Type II: Crimping Tool (positioner not included)

Crimps wire barrel sizes 20 thru 28 AWG

Part Number M22520/2-01

57. 5120-00-169-2986 Ver: 10 UI: EA Status: Active AAC: G WRENCH, TORQUE MULTIPLIER, MECHANICAL:

NSN Description:

Furnished Items:

3/4 In. Male Sq Drive Output Shaft (6 In. Lg); 3/8 In. Male Sq Drive Input Crank Handle; Carrying Case.

Torque Capacity: 0.0 Foot-Pounds thru 1200.0 Foot-Pounds.

Drive Surface Size: 3/4 In. Second End

Drive Surface Size: 3/8 In. First End

Drive End Shape: Square Both Ends Internal

Special Features: Mechanical Dial Scale Or Battery Powered Electronic Display; Accuracy PORM 2 Pct; Operating Temperature Range Of Minus 20 Deg F To Plus 130 Deg F

Material: Steel Overall

58. 5120-00-188-1788 Ver: 17 UI: EA Status: Active AAC: G JACK, HYDRAULIC, HAND

NSN Description:

IPDs - TECHNICAL INFORMATION

Load Capacity: 20 Tons minimum
Collapsed Height: 11-1/4 inches maximum
Extended Height: 16-7/16 inches minimum
Unit Type: Self-Contained
Pump Type: Single

Features: A hydraulic hand operated jack with the pump, ram, and reservoir in an integral unit manually operated with a lever. The Jack will safely raise its rated capacity load to its maximum height and maintain that height for at least ten minutes without lowering more than 1/4 inch. A suitable lever to operate the pump will be furnished. The jack will be legibly and permanently marked with its rated load capacity.

**59. 5120-00-199-7771 Ver: 10 UI: EA Status: Active AAC: H
SOCKET, SOCKET WRENCH**

KeyFields:

1AS954 Ver: 12 AS954, WRENCHES, HAND 12 POINT HIGH STRENGTH, THIN WALL

In accordance with Society of Automotive Engineers Aerospace
Standard AS954G, Wrenches, Hand Twelve Point High Strength, Thin Wall, dated 2011

Exception to AS954G dated 2011:

Exception: Paragraph 3.7 Test Proof Loads, the following requirement shall be incorporated:

Torque shall be applied with a suitable torque producing machine. Torque shall be applied at a speed of 15 deg/min to 30deg/min until proof load value is achieved; test load shall be held for 10 seconds, then torque shall be released. This proof load test shall be performed in the clockwise and counter clockwise direction.

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Type I: Sockets (12-Point)
Class 1: Sockets
Style A: Regular Length
Square Drive Size: 3/4 inch
Wrench Opening: 2-1/4 inches
Material: Steel
Coating: Chrome

**60. 5120-00-204-1999 Ver: 20 UI: SE Status: Active AAC: G
WRENCH SET, SOCKET**

KeyFields:

1AS4283 Ver: 4 SAE AS4283, HANDLES AND ATTACHMENTS FOR HAND SOCKET WRENCHES

Shall be In Accordance With SAE Aerospace Standard: AS4283B - Handles and Attachments for Hand Socket Wrenches, dated December 2011

1AS954 Ver: 12 AS954, WRENCHES, HAND 12 POINT HIGH STRENGTH, THIN WALL

In accordance with Society of Automotive Engineers Aerospace
Standard AS954G, Wrenches, Hand Twelve Point High Strength, Thin Wall, dated 2011

Exception to AS954G dated 2011:

Exception: Paragraph 3.7 Test Proof Loads, the following requirement shall be incorporated:

IPDs - TECHNICAL INFORMATION

Torque shall be applied with a suitable torque producing machine. Torque shall be applied at a speed of 15 deg/min to 30deg/min until proof load value is achieved; test load shall be held for 10 seconds, then torque shall be released. This proof load test shall be performed in the clockwise and counter clockwise direction.

1B107.10M Ver: 2 ASME B107.10M-1996

In accordance with American Society of Mechanical Engineers(ASME) B107.10 - 2005

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

2SET Ver: 3 SET (ONE MANUFACTURER)

Tools in the set shall be manufactured by only one manufacturer unless otherwise specified.

NSN Description:

Component Quantity: 21

Material: Steel

Coating: Chrome

Features: Metal Box

AS954

Type I: Sockets (12-Point)

Class 1: Sockets

Style A: Regular Length

Square Drive Size: 3/4 inch

Wrench Openings: The set shall include one (1) each of the following 14 component sizes: 7/8, 15/16, 1, 1-1/16, 1-1/8, 1-1/4, 1-5/16, 1-7/16, 1-1/2, 1-9/16, 1-5/8, 1-13/16, 1-7/8 and 2 inch

B107.10

Type I: Handles

Class 1: Hinged

Square Drive Size: The set shall include one (1) each of the following component size: 3/4 inch

Overall Length: 17-3/4 inches minimum and 23 inches maximum

Type I: Handles

Class 2: Ratchet, Reversible

Square Drive Size: The set shall include one (1) each of the following component size: 3/4 inch

Type I: Handles

Class 4: T, Sliding

Square Drive Size: The set shall include one (1) each of the following component size: 3/4 inch

Overall Length: 17 inches minimum and 20 inches maximum

AS4283

Type II: Attachments

Class 1: Universal Joint

Square Drive Size: The set shall include one (1) each of the following component size: 3/4

Overall Length: 4-1/4 inches maximum

Type II: Attachments

Class 2: Extension bar

Style A: Solid

Square Drive Size: 3/4 inch

Overall Length: The set shall include one (1) each of the following 3 component lengths: 3, 8 and 16 inches

61. 5120-00-223-7397 Ver: 40 UI: EA Status: Active AAC: G

IPDs - TECHNICAL INFORMATION

PLIERS, SLIP JOINT

KeyFields:

1B107.23 Ver: 6 B107.500-2010 MULTIPLE POSITION, ADJUSTABLE

In accordance with American Society of Mechanical Engineers (ASME) B107.23 as contained in ASME B107.500-2010; this document incorporates and includes the revisions of primary standard B107.11, B107.13, B107.16, B107.18, B107.19, B107.20, B107.22, B107.23, B107.24, B107.25, B107.27 and B107.37.

NSN Description:

Type II: Slip joint, combination jaw

Class 1: Straight nose

Style A: Regular

Size: 7 inches minimum to 9 inches maximum

Features: Cushioned Grip Handles

**62. 5120-00-224-1390 Ver: 35 UI: EA Status: Active AAC: G
CROWBAR**

KeyFields:

1B107.52 Ver: 2 NAIL-PULLER BARS AND PRY BARS

In accordance with American Society of Mechanical Engineers (ASME) B107.52 as contained in ASME B107.410-2008; this document incorporates and includes the revisions of primary standard B107.43, B107.44, B107.46, B107.48, B107.49, B107.50, B107.52 and B107.59

NSN Description:

Type III: Pry Bars

Class 4: Pinch

Overall Length: 60 inches

Width Across Flats: 1-1/4 inches

Material: Steel

Features: The Crowbar's more common form (top to bottom) is a round handle end for approximately the top half of the bar. Near the bar's center it changes form to square sides with beveled corner edges for approximately one-quarter of the bar, and finally to a square form at the lower quarter working end of the bar. The Pinch-Point Bar's work end is formed by a cut at the bar's work end. The top of the cut starts on one bar side approximately three (3) inches from the bar's work end and continues at a single angle flat taper to the bar's opposite side at the bar's end.

**63. 5120-00-224-7330 Ver: 22 UI: EA Status: Active AAC: G
JACK, HYDRAULIC, HAND**

NSN Description:

A hydraulic hand operated jack with the pump, ram, and reservoir in an integral unit manually operated with a lever. The Jack shall safely raise its rated capacity load to its maximum height and maintain that height for at least ten minutes without lowering more than 1/4 inch. A suitable lever to operate the pump shall be furnished. The Jack shall be legibly and permanently marked with its rated load capacity.

Dimensions:

Load capacity: 12 tons, min

Collapsed height: 9-1/8" max

Extended height: 16-1/2" min

Unit Type: Self-Contained

Screw Extension: Included

Pump Type: Single

**64. 5120-00-230-6385 Ver: 32 UI: EA Status: Active AAC: G
HANDLE, SOCKET WRENCH**

IPDs - TECHNICAL INFORMATION

KeyFields:

1AS4283 Ver: 4 SAE AS4283, HANDLES AND ATTACHMENTS FOR HAND SOCKET WRENCHES

Shall be In Accordance With SAE Aerospace Standard: AS4283B - Handles and Attachments for Hand Socket Wrenches, dated December 2011

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Type I: Handles

Class 2: Ratchet, reversible

Style B: Fine action

Drive Size: 1/2 inch

Material: Steel

Coating: Chrome

EXCEPTION TO STANDARD:

Style B: Fine action (45 teeth minimum)

Overall Length: 9-1/2 inches minimum

65. 5120-00-239-8251 Ver: 38 UI: EA Status: Active AAC: G

PLIERS

KeyFields:

1B107.20 Ver: 2 B107.500-2010 LINEMAN'S, IRON WORKERS, GAS, GLASS, FENCE, BATTERY

In accordance with American Society of Mechanical Engineers (ASME) B107.20 as contained in ASME B107.500-2010; this document incorporates and includes the revisions of primary standard B107.11, B107.13, B107.16, B107.18, B107.19, B107.20, B107.22, B107.23, B107.24, B107.25, B107.27 and B107.37.

NSN Description:

Type I: Lineman's

Class 1: Square head

Overall Length: 8.00 inches (+/-1/2 inch)

Cushion grip handles.

66. 5120-00-240-5328 Ver: 50 UI: EA Status: Active AAC: G

WRENCH, ADJUSTABLE

KeyFields:

1B107.8 Ver: 2 B107.100-2010 ADJUSTABLE WRENCHES

In accordance with American Society of Mechanical Engineers (ASME) B107.8 as contained in ASME B107.100-2010; this document incorporates and includes the revisions of primary standard B107.6, B107.8, B107.9, B107.21, B107.39, B107.40, and B107.66.

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Type I: Standard Openings

Wrenching Surface Size: 0 inch minimum and 0.947 inch maximum

Overall Length: 8 inches

Wrenching Surface Shape: Oval

Material: Steel

Coating: Chrome

IPDs - TECHNICAL INFORMATION

**67. 5120-00-243-2395 Ver: 28 UI: EA Status: Expired AAC: G
MATTOCK**

NSN Description:

Type: Mattock (Pick, without handle).

Pointed End Length: 9-3/4" minimum to 10-1/4" maximum.

Flat End Length: 8-3/4" minimum to 9-3/4" maximum.

Flat End Blade Width: 3-3/8" minimum to 3-5/8" maximum.

Overall Length: 18-1/2" minimum to 19-1/2" maximum.

Head Weight: 5.0 lbs.

Eye Size: No. 6.

Material: Forged carbon steel. The mattock shall have a Rockwell hardness of 37-50 on the C scale.

Finish: Paint, oil, or any other rust-resistant material.

Each end, sharp or blunt, of the mattock shall be provided with a protective cover as a safety precaution to depot, shipping, and handling personnel.

**68. 5120-00-243-2419 Ver: 14 UI: EA Status: Expired AAC: G
BAR, SOCKET WRENCH HANDLE**

KeyFields:

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Style: Straight solid bar.

Overall Length: 30" (+ or - 1/2"). Flattened on one end for a distance of 1" (+ or - 1/8") to a width greater than the bar diameter. Thickness of the flattened end shall be 17/32" (+ or - 1/32").

Diameter: 3/4" (+ or - 1/64").

Material: Steel with 100,000 psi minimum yield strength.

Finish: Rust preventive finish.

Test Load: 300 ft-lbs minimum.

Test Method: Clamp bar in a vise for a distance of 6". Apply sufficient load to bar at least 20 inches from vise to develop minimum test load. Repeat 10 times. Bar shall show no permanent deformation.

**69. 5120-00-243-2957 Ver: 25 UI: EA Status: Active AAC: G
HAMMER, HAND**

KeyFields:

1-B107.54 Ver: 1 B107.400-2008 HEAVY STRIKING TOOLS

In accordance with American Society of Mechanical Engineers (ASME) B107.54 as contained in ASME B107.400-2008; this document incorporates and includes the revisions of primary standard B107.41, B107.42, B107.53, B107.54, B107.56, and B107.58

NSN Description:

Type: Blacksmith's Double Faced Sledge

Head weight: 10 lbs. (+/- 8 oz)

Handle Length: 35.000", +/- 0.500"

IPDs - TECHNICAL INFORMATION

Handle: Hickory wood.

70. 5120-00-243-9072 Ver: 14 UI: EA Status: Active AAC: G
WISE, BENCH AND PIPE

NSN Description:

Jaw Width (nominal): 5 inches (+/-1/2 inch)

Jaw opening (nominal): 6 inches (+/-1/2 inch)

Weight: (minimum): 115 pounds cast iron, 90 pounds other materials (above)

Pipe Size accommodated: 1/4 inch (minimum) to 4-1/2 inch (maximum)

Material: Cast iron, malleable iron, steel cast iron, ductile iron, steel casting or steel forging.

Features: Vise consists of a body, sliding member, swivel base plate, vise screw, nut, screw handle, pipe jaws, and a jaw facing for the front jaw. The jaw facing shall be heat treated to an HRC of 52 to 58 and have a serrated jaw facings.

Interchangeability: All parts having the same manufacturer's part number shall be interchangeable with each other with respect to installation and performance.

71. 5120-00-249-1076 Ver: 22 UI: EA Status: Active AAC: G
HANDLE, SOCKET WRENCH

KeyFields:

1AS4283 Ver: 4 SAE AS4283, HANDLES AND ATTACHMENTS FOR HAND SOCKET WRENCHES

Shall be In Accordance With SAE Aerospace Standard: AS4283B - Handles and Attachments for Hand Socket Wrenches, dated December 2011

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Type 1: Handles

Class 2: Ratchet, Reversible

Style B: Fine action

Square Drive Size: 3/4 inch

Overall Length: 19-3/4 inches minimum and 24-1/4 inches maximum

Material: Steel

Coating: Chrome

72. 5120-00-264-3796 Ver: 51 UI: EA Status: Active AAC: G
WRENCH, ADJUSTABLE

KeyFields:

1B107.8 Ver: 2 B107.100-2010 ADJUSTABLE WRENCHES

In accordance with American Society of Mechanical Engineers (ASME) B107.8 as contained in ASME B107.100-2010; this document incorporates and includes the revisions of primary standard B107.6, B107.8, B107.9, B107.21, B107.39, B107.40, and B107.66.

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Type 1: Standard Openings

Jaw Capacity: 1-1/16

Length: 12.00 inch

Material: Steel

Coating: Chrome

IPDs - TECHNICAL INFORMATION

73. 5120-00-288-6529 Ver: 27 UI: EA Status: Active AAC: G
SHOVEL, HAND

NSN Description:

Type: pusher, snow, with long handle
Class: medium weight

Handle: Seasoned SA or SB grade ash or hickory, coated with transparent lacquer or varnish to prevent absorption of water.

Handle Length (Assembled): 48.00" (+/-1.00"), measured from top of blade to end of handle.

Handle Diameter: 1-1/8" (+/-1/8")

Blade: Sheet steel, 18 gage or better

Blade Coating: Coating or paint to prevent rust

Blade Shape: Square point

Blade Socket: Separate preformed piece, welded or riveted to back of blade; two nailing bosses located on either the sides or on the front and back for adequate holding power between grip and stem and to provide adequate torsion loading capability.

Blade Length: 12.00" (+/-1.00")

Blade Width: 24.00" (+/-1.00")

Blade and handle shall be affixed.

74. 5120-00-288-6574 Ver: 22 UI: EA Status: Active AAC: G
HANDLE, MATTOCK-PICK

NSN Description:

Overall Length: 36.0 Inches

Special Features: Hickory; No. 6 Eye; Tolerance(+1/4" or -1/8")

Material: Wood Handle: Grade B

1. Finish. The handles shall have a clear lacquer coating.
 - 1.1 Stain. Handles driven into tool heads by the manufacturer of the heads may be color stained by the manufacturer provided the staining does not conceal the annul rings and the grain of the wood, does not discolor the hand of the user, and is not objectionable to the Government agency making the purchase
 - 1.2 Metric products. Products manufactured to metric dimensions will be considered on an equal basis with those manufactured using inch-pound units, provided they fall within the tolerances specified and all other requirements of this document are met. If a product is manufactured to metric dimensions and those dimensions exceed the tolerances specified in the inch-pound units, a request should be made to the specifications preparing activity for a change to this document.
 - 1.3 Marking. Handles shall be legibly marked by steel stamping or branding with the grade and manufacturer s name, symbol, or trademark of such known character that the source of manufacture may be readily determined. The stamping or branding of the manufacturer s name, symbol, or trademark may be omitted on handles which are driven into heads of tools which are similarly stamped .
2. Definitions. Blemishes (a) and defects (b)
 - (b) Birdpeck: A small break in the fiber of the wood, usually accompanied by a Large streak.

IPDs - TECHNICAL INFORMATION

- (b) Decay: Deterioration due to action of wood-destroying fungi.
- (b) Failure: Area on the handle that failed to turn due to lack of wood.
- (a) Slight failure: (See Failure: Limited to one sixth of the contour of the Handle if it does not affect the fit of the handle in the tool.
- (a) Slight dip grain: Local deviation of the grain from its general direction not In excess of 1/8 inch, in a distance of not over 4 inches.
- (b) Split: Lengthwise separation of the wood extending through the handle.
- (b) Heavy stains: Pronounced discolorations, predominantly blue, occurring
- (a) Light stains: Slight discoloration of any color, other than the natural color of the wood. which do not materially impair the appearance of the handle.
- (b) Large streaks: Discolored lines over 1/23 inch wide extending along the grain.
- (a) Medium streaks: Discolored lines not over 1/32 inch wide extending along the grain more than one-third of the length of the handle.
- (a) Small streaks: Thread like discolored lines extending along the grain not more than one third of the length of the handle.

**75. 5120-00-293-0013 Ver: 29 UI: SE Status: Active AAC: G
WRENCH SET, CROWFOOT RATCHETING**

KeyFields:

1A-A-03042 Ver: 2 IAW CID A-A-3042**

In accordance with Commercial Item Description A-A-3042, dated 08/02/04.

1A-A-3041 Ver: 3 A-A-3041, WRENCH, OPEN END, RATCHET

In accordance with Commercial Item Description A-A-3041A, dated October 21, 2003.

1AS4283 Ver: 4 SAE AS4283, HANDLES AND ATTACHMENTS FOR HAND SOCKET WRENCHES

Shall be In Accordance With SAE Aerospace Standard: AS4283B - Handles and Attachments for Hand Socket Wrenches, dated December 2011

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

2SET Ver: 3 SET (ONE MANUFACTURER)

Tools in the set shall be manufactured by only one manufacturer unless otherwise specified.

NSN Description:

Component Quantity: 29

Provided In: Metal Case with have a compartment or compartments or foam inserts to store the components in an orderly manner, so that they shall not be loose or rattle

Material: Steel

Features: A packing list will be enclosed and attached to inside lid of case with component NSN's included.

Specification/CID: A-A-3041

Style A: Multiple Purpose, Open ratchet

Wrenching Surface Shape: Oval single end internal

Drive End Shape: Square single end internal

Quantity: 1 each for a total of 5 components, various sizes

Overall Length: 2.210 inches minimum

Overall Width: 1.650 inches

Opening Width: 0.645 inch minimum

Head Thickness: 0.520 inch(+.015/-0.005 inch)

Torque Capacity: 1200.00 Inch-Pounds

Drive Surface Size: 0.381 inch single end (+.005/-0.000)

IPDs - TECHNICAL INFORMATION

Overall Length: 3.470 inches minimum
Overall Width: 2.750 inches
Opening Width: 1.400 inches minimum
Head Thickness: 0.644 inch (+.015/-0.005 inch)
Torque Capacity: 2250.00 Inch-Pounds
Drive Surface Size: 0.508 inc single end (+.005/-0.000)

Overall Length: 4.630 inches minimum
Overall Width: 3.900 inches
Opening Width: 2.085 inches minimum
Head Thickness: 0.710 inch (+.015/-0.005 inch)
Torque Capacity: 3400.00 Inch-Pounds
Drive Surface Size: 0.508 inch single end (+.005/-0.000 inch)

Overall Length: 5.380 inches minimum
Overall Width: 4.620 inches
Opening Width: 2.800 inches minimum
Head Thickness: 0.770 inch (+.015/-0.005 inch)
Torque Capacity: 3700.00 Inch-Pounds
Drive Surface Size: 0.508 inch single end (+.005/-0.000 inch)

Overall Length: 2.710 inches minimum
Overall Width: 2.150 inches
Opening Width: 0.900 inch minimum
Head Thickness: 0.644 inch (+.015/-0.005 inch)
Torque Capacity: 1500.00 Inch-Pounds
Drive Surface Size: 0.381 inch single end (+.005/-0.000 inch)
Features: For Tube Fittings, Electrical Cable Terminals, and Stuffing Tube Gland Nuts

Specification/CID: A-A-03042
Type: Socket, Crowfoot Wrench Head
Quantity: 1 each for a total of 20 components, various sizes including:

1 each for a total of 3 components with same OAL and Diameters, but various Wrenching Diameters and Sizes:
Overall Length: 1.020 inches (+/-0.032 inch)
Opening Diameter: 0.656 inch minimum
Drive End Outside Diameter: 0.930 inch (+.000/-0.015 inch)

Wrenching End Outside Diameter: 1.437 inches (+/-0.032 inch)
Wrenching Surface Size: 1.031 inches single end

Wrenching End Outside Diameter: 1.534 inches (+/-0.032 inch)
Wrenching Surface Size: 1.125 inches single end

Wrenching End Outside Diameter: 1.670 inches (+/-0.032 inch)
Wrenching Surface Size: 1.250 inches single end

Quantity: 1 each for a total of 1 component with same OAL and Diameters, Wrenching Diameter and Size:
Overall Length: 1.144 inches (+/-0.032 inch)
Opening Diameter: 0.906 inch minimum
Drive End Outside Diameter: 1.182 inches (+.000/-0.015 inch)
Wrenching End Outside Diameter: 1.805 inches (+/-0.032 inch)
Wrenching Surface Size: 1.375 inches single end

IPDs - TECHNICAL INFORMATION

Quantity: 1 each for a total of 1 component with same OAL and Diameters, Wrenching Diameter and Size:

Overall Length: 1.250 inches (+/- .032 inch)
Opening Diameter: 0.906 inch minimum
Drive End Outside Diameter: 1.182 inches (+.000/- .015 inch)
Wrenching End Outside Diameter: 1.873 inches (+/- .032 inch)
Wrenching Surface Size: 1.437 inches single end

Quantity: 1 each for a total of 2 components with same OAL and Diameters, but various Wrenching Diameters and Sizes:

Overall Length: 1.265 inches (+/- .032)
Opening Diameter: 1.406 inches minimum
Drive End Outside Diameter: 1.710 inches (+.000/- .015 inch)

Wrenching End Outside Diameter: 2.187 inches (+/- .032 inch)
Wrenching Surface Size: 1.656 inches single end

Wrenching End Outside Diameter: 2.312 inches (+/- .032 inch)
Wrenching Surface Size: 1.781 inches single end

Quantity: 1 each for a total of 2 components with same OAL and Diameters, but various Wrenching Diameters and Sizes:

Overall Length: 1.281 inches (+/- .032 inch)
Opening Diameter: 1.406 inches minimum
Drive End Outside Diameter: 1.710 inches (+.000/- .015 inch)

Wrenching End Outside Diameter: 2.437 inches (+/- .032)
Wrenching Surface Size: 1.875 inches single end

Wrenching End Outside Diameter: 2.500 inches (+/- .032 inch)
Wrenching Surface Size: 1.937 inches single end

Quantity: 1 each for a total of 2 components with same OAL and Diameters, but various Wrenching Diameters and Sizes:

Overall Length: 1.359 inches (+/- .032 inch)
Opening Diameter: 2.093 inches minimum
Drive End Outside Diameter: 2.458 inches (+.000/- .015 inch)

Wrenching End Outside Diameter: 3.000 inches (+/- .032 inch)
Wrenching Surface Size: 2.344 inches single end

Wrenching End Outside Diameter: 3.125 inches (+/- .032 inch)
Wrenching Surface Size: 2.468 inches single end

Quantity: 1 each for a total of 1 component with same OAL and Diameters, Wrenching Diameter and Size:

Overall Length: 1.375 inches (+/- .032 inch)
Opening Diameter: 2.093 inches minimum
Drive End Outside Diameter: 2.458 inches (+.000/- .015 inch)
Wrenching End Outside Diameter: 3.500 inches (+/- .032 inch)
Wrenching Surface Size: 2.812 inches single end

Quantity: 1 each for a total of 1 component with same OAL and Diameters, Wrenching Diameter and Size:

Overall Length: 1.453 inches (+/- .032 inch)
Opening Diameter: 2.812 inches minimum
Drive End Outside Diameter: 3.176 inches (+.000/- .015 inch)
Wrenching End Outside Diameter: 4.000 inches (+/- .032 inch)

IPDs - TECHNICAL INFORMATION

Wrenching Surface Size: 3.281 inches single end

Quantity: 1 each for a total of 2 components with same OAL and Diameters, but various Wrenching Diameters and Sizes:

Overall Length: 1.468 inches (+/- .032 inch)

Opening Diameter: 2.812 inches minimum

Drive End Outside Diameter: 3.176 inches (+.000/- .015 inch)

Wrenching End Outside Diameter: 4.312 inches (+/- .032 inch)

Wrenching Surface Size: 3.562 inches single end

Wrenching End Outside Diameter: 4.500 inches (+/- .032 inch)

Wrenching Surface Size: 3.750 inches single end

Type: Socket, Open Detachable

Wall: Standard Wall

Shape: Octagon

Quantity: 1 each for a total of 5 components

Overall Length: 1.281 inches (+/- .032 inch)

Opening Diameter: 1.406 inches minimum

Wrenching End Outside Diameter: 2.812 inches (+/- .032 inch)

Drive End Outside Diameter: 1.710 inches (+.000/- .015 inch)

Wrenching Surface Size: 2.187 inches single end

Overall Length: 1.359 inches (+/- .032 inch)

Opening Diameter: 2.093 inches minimum

Wrenching End Outside Diameter: 2.875 inches (+/- .032 inch)

Drive End Outside Diameter: 2.458 inches (+.000/- .015 inch)

Wrenching Surface Size: 2.250 inches single end

Overall Length: 1.390 inches (+/- .032 inch)

Opening Diameter: 2.093 inches minimum

Wrenching End Outside Diameter: 3.625 inches (+/- .032 inch)

Drive End Outside Diameter: 2.458 inches (+.000/- .015 inch)

Wrenching Surface Size: 2.968 inches single end

Overall Length: 1.453 inches (+/- .032 inch)

Opening Diameter: 2.812 inches minimum

Wrenching End Outside Diameter: 3.750 inches (+/- .032 inch)

Drive End Outside Diameter: 3.176 inches (+.000/- .015 inch)

Wrenching Surface Size: 3.093 inches single end

Overall Length: 1.468 inches (+/- .032 inch)

Opening Diameter: 2.812 inches minimum

Wrenching End Outside Diameter: 4.187 inches (+/- .032 inch)

Drive End Outside Diameter: 3.176 inches (+.000/- .015 inch)

Wrenching Surface Size: 3.437 inches single end

Specification/CID: AS4283

Type II: Attachments

Class 1: Universal Joint

Coating: Chrome

Quantity: 1 each for a total of 2 components sizes:

Drive Size: 3/8 inch both ends

IPDs - TECHNICAL INFORMATION

Drive Size: 1/2 inch both ends

Type I: Handles

Class 1: Hinged - Breaker Bar

Drive End Shape: Square Single End External

Coating: Chrome

Quantity: 1 each for a total of 2 components sizes:

Drive Size: 0.375 inch Single End

Overall length: 7 inches minimum and 10 inches maximum

Drive Size: 0.50 inch

Overall Length: 9 inches minimum and 13-1/2 inches maximum

76. 5120-00-293-3336 Ver: 20 UI: EA Status: Active AAC: G
SHOVEL, HAND

NSN Description:

Type and Style: Round Point, D-Handle, Open Back;

Handle Length; 26 Inches Minimum and 28 Inches Maximum;

Lift: 17 Inches Minimum and 21 Inches Maximum.

Blade Width: 9-1/2 Inches Minimum and 10-1/4 Inches Maximum;

Blade Length: 11-1/2 Inches Minimum and 12-1/2 Inches Maximum;

Handle Material: Tubular Steel/Wood or (No-Break) Polypropylene Equivalent at the Manufacturer's Option;

Shaft Material: Wood, (Ash or Hickory);

Blade Material: Steel

Blade Steel Gage: 14

Blade Steel Hardness: Rockwell C 38 to 47

EXCEPTION TO PALLETIZATION:

A corrugated unit pack on a larger pallet may be used provided the pallet width (depth) is not less than 40 inches, nor more than 48 inches and does not exceed a height of 53 inches.

77. 5120-00-305-2306 Ver: 19 UI: EA Status: Active AAC: G
PLIERS, WIRE TWISTER

KeyFields:

1B107.18 Ver: 4 B107.500-2010 WIRE TWISTER

In accordance with American Society of Mechanical Engineers (ASME) B107.18 as contained in ASME B107.500-2010; this document incorporates and includes the revisions of primary standard B107.11, B107.13, B107.16, B107.18, B107.19, B107.20, B107.22, B107.23, B107.24, B107.25, B107.27 and B107.37.

NSN Description:

Type I: Right-Hand Twist

Class 2: With hand- push, twist rod return

Style A: Serrated wire-clamping jaw surface

Nominal Size: 9 inches

78. 5120-00-316-9217 Ver: 16 UI: EA Status: Active AAC: G
NUTDRIVER

KeyFields:

1GGG-W-00644 Ver: 1 IAW FED SPEC GGG-W-644C, DATED 04/30/92.

IPDs - TECHNICAL INFORMATION

In accordance with Federal Specification GGG-W-644C, dated 04/30/92.

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

2GGG-W-00644 Ver: 1 EXCEPTIONS TO FED. SPEC GGG-W-644C, DATED APRIL 30, 1992

EXCEPTION(S) TO SPECIFICATION:

Table III, Overall Length column, delete 14 inches plus or minus 1/2 inch, and substitute 17 inches minimum, 19 inches maximum.

NSN Description:

Type II: Double-end type wrench

Size: 9

Overall Length: 17 inches minimum and 19 inches maximum

Wrenching Sizes: 1-1/2 inches hexagonal and 13/16 inch square

Feature: Includes Removable handle; Automotive Lug Nut Wrench

79. 5120-00-322-6231 Ver: 31 UI: SE Status: Active AAC: G WRENCH SET, SOCKET

KeyFields:

1AS4283 Ver: 4 SAE AS4283, HANDLES AND ATTACHMENTS FOR HAND SOCKET WRENCHES

Shall be In Accordance With SAE Aerospace Standard: AS4283B - Handles and Attachments for Hand Socket Wrenches, dated December 2011

1AS954 Ver: 12 AS954, WRENCHES, HAND 12 POINT HIGH STRENGTH, THIN WALL

In accordance with Society of Automotive Engineers Aerospace

Standard AS954G, Wrenches, Hand Twelve Point High Strength, Thin Wall, dated 2011

Exception to AS954G dated 2011:

Exception: Paragraph 3.7 Test Proof Loads, the following requirement shall be incorporated:

Torque shall be applied with a suitable torque producing machine. Torque shall be applied at a speed of 15 deg/min to 30deg/min until proof load value is achieved; test load shall be held for 10 seconds, then torque shall be released. This proof load test shall be performed in the clockwise and counter clockwise direction.

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

2SET Ver: 3 SET (ONE MANUFACTURER)

Tools in the set shall be manufactured by only one manufacturer unless otherwise specified.

NSN Description:

Component Quantity: 23

Material: Steel

Coating: Chrome

Features: Metal Box or Impact Resistant Box

AS954

Type I: Sockets (12-Point)

Class 1: Sockets

Style A: Regular Length

Square Drive Size: 3/8 inch

Wrench Openings: The set shall consist of one (1) each of the following 9 components:

IPDs - TECHNICAL INFORMATION

3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, and 7/8 inches

Type I: Sockets (12-Point)

Class 1: Sockets

Style B: Long Length

Square Drive Size: 3/8 inch

Wrench Openings: The set shall consist of one (1) each of the following 6 components:

1/2, 9/16, 5/8, 11/16, 3/4, AND 13/16 inches

Class 2 Universal Sockets (also known as Flexible Sockets)

Square Drive Size: 3/8 inch

Overall Length: The set shall include one (1) each of the following 2 component lengths: 1/2 and 9/16 inches

AS4283

Class 2 Bar, extension, solid

Square Drive Size: 3/8 inch

Overall Length: The set shall include one (1) each of the following 2 component lengths: 6 and 11 inches

Features: Knurled handle

Type 1: Handles

Class 2: Ratchet, reversible

Style B: Fine Action (36 teeth)

Square Drive Size: 3/8 inch

Features: Sealed Head, knurled handle

Overall Length: The set shall include one (1) each of the following 1 component lengths: 5-3/4 inches

Type I: Handles

Class 1: Hinged - Breaker Bar

Square Drive Size: 3/8 inch

Overall Length: The set shall include one (1) each of the following 1 component lengths:

7 inches minimum and 10 inches maximum

Type I: Handles

Class 3: Speeder, brace type

Square Drive Size: 3/8 inch

Overall Length: The set shall include one (1) each of the following 1 component lengths: minimum 14-13/64 inches and 17-1/2 inches maximum

Type II: Attachments

Class 1: Universal Joint

Square Drive Size: 3/8 inch

Overall Length: The set shall include one (1) each of the following 1 component lengths: 3/8 inches

80. 5120-00-337-9652 Ver: 13 UI: EA Status: Active AAC: J

MULTIPLIER, TORQUE

NSN Description:

Overall Length - 19.000 inches maximum

Rated Torque Capacity - 12,000.0 Foot-Pounds

Overall Height - 7.675 inches maximum

Overall Width - 13.000 inches maximum

Input Drive - 0.750 inches nominal both ends

Gear Ratio - 11:1

Drive End Shape - Square Single End Internal

Hardness Rating - 38.0 Rockwell C minimum and 52 Rockwell C maximum

IPDs - TECHNICAL INFORMATION

Hydratight Sweeney Part Number SWE8200 or equal

81. 5120-00-378-4411 Ver: 16 UI: EA Status: Active AAC: G
WRENCH, WHEEL STUDNUT, GEARED SOCKET:

NSN Description:

In accordance with GSA Drawing 5120-378-4411, Revision A, dated 05/01/70.
13/16 inch square socket and 1-1/2 inch hex socket.

82. 5120-00-423-6728 Ver: 17 UI: EA Status: Active AAC: G
WRENCH, OPEN END, ADJUSTABLE:

KeyFields:

1B107.8M Ver: 3 IAW ASME B107.8

In accordance with American Society of Mechanical Engineers (ASME) B107.8-2003.

2COATING Ver: 9 SAE AS 4984 ALTERNATIVE COATINGS:

Alternative coatings may be used and shall be in accordance with Coating Requirements for Aerospace Hand Tools, SAE AS4984 Issued 1999-05.

NSN Description:

Type: I (Standard Openings)

Coating: Nickel-Chromium

Overall Length, plain grip: 15 inches nominal.

Jaw Capacity: 1-11/16:

83. 5120-00-473-6320 Ver: 20 UI: EA Status: Active AAC: H
HANDLE, EXTENSION, WRENCH:

NSN Description:

Style: steel tube. Inside diameter: 1-1/8 inches; Test loads: 14,000 inch-pounds without breaking or permanent deformation.

Handle design: Use on 2-3/8 to 3-1/8 inches box wrenches (stub end type, single head, 12 point) and to fit and engage the locking plunger on the wrenches.

HANDLE DIMENSIONS:

Bore diameter: 1-1/8 inches (+ 1/64 or - 0 inch)

Outside diameter: 1-1/2 inches (+/- 0.05 inch)

Overall length: 36 inches (+/- 1/4 inch)

Hole diameter: 5/16 inch (+ 0.010 or - 0.000 inch). The Hole shall be drilled on both ends 5-1/4 inches (+ 0 or - 1/6 inch) from centerline of hole to handle end.

Snap On Tools Corp Part Number 36B, Keltex Specialty Tool Design & Mfr. Inc., Bar-ES Division Part Number HE-36 or equal.

84. 5120-00-474-7227 Ver: 21 UI: SE Status: Active AAC: G
WRENCH SET, RATCHET

KeyFields:

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

IPDs - TECHNICAL INFORMATION

2SET Ver: 3 SET (ONE MANUFACTURER)

Tools in the set shall be manufactured by only one manufacturer unless otherwise specified.

NSN Description:

In accordance with GSA Purchase Description 5120-00-474-7227, Revision D, Dated 10/25/94.

85. 5120-00-482-2543 Ver: 16 UI: EA Status: Active AAC: G MULTIPLIER, TORQUE

NSN Description:

Overall Length: 6-1/2 inches minimum and 7-1/2 inches maximum

Overall Height: 8-13/32 inches (+/- 1/2 inch)

Overall Width: 10-3/8 inches minimum and 11-3/8 inches maximum

Square Drive Sizes: 3/8 inch and 1 inch

Drive End Shape: Square Both Ends Internal

Torque Capacity: 0 Foot-Pounds minimum and 2500 Foot-Pounds maximum

Material: Steel

Features: 1 inch Male Square Drive Output Shaft (8 inch length); 3/8 inch Male Square Drive Input Crank Handle; Carrying Case; Mechanical Dial Scale Or Battery Powered Electronic Display; Accuracy 2 Pct

86. 5120-00-494-1863 Ver: 21 UI: EA Status: Active AAC: G SHOVEL, HAND

NSN Description:

Shovel Type: Snow

Assembly: At the option of the manufacturer, shovel shall be either of the assembled type or knockdown style

Handle Length (assembled): 34 inches minimum and 36-1/2 inches maximum

Handle Construction (knockdown type): Constructed that when assembled by tamping, or other method without the use of tools, it shall not loosen, turn, slip, or become completely detached from the blade and socket under the most severe snow shoveling conditions

Material, Handle: Seasoned SA or SB grade ash or hickory

Handle Type: D-Handle

D-Handle Material: plastic or tubular steel material

D-Handle Width: 3-5/8 inch, minimum, at widest part of fork

D-Handle Attached By: Two rivets or two nails minimum

Handle Weight Class: Medium

Blade Shape: square point, ribbed or plain

Blade Width: 17 inches minimum

Blade Height: 14 inches minimum

Blade Socket: separate performed piece of steel, welded or riveted to back of blade, 9 inches (+/- 1/4 inch) long, closed 7 inch (+/- 1/4 inch), tapered

Blade Weight: 4.9 minimum pounds and 7 pounds maximum

Material, Blade: Sheet steel, 18 gage or better

Coating, Blade: Teflon, enamel or similar coating to prevent rust

Features: The center portion of the blade at the shoulder end will be arched to form a frog with an open or hollow recess in the back. The shoulder will curve away from the socket and smoothly blend with the curvatures of the blade. The socket will have two nailing bosses located on either the sides or on the front and back for adequate holding power between grip and stem and to provide adequate torsion loading capability.

87. 5120-00-507-0649 Ver: 14 UI: SE Status: Active AAC: G PICK SET, LOCK:

NSN Description:

Contains an assortment of picks, tension wrenches, key extractors and feelers.

IPDs - TECHNICAL INFORMATION

Includes a selection of full, half and three quarter rakes and diamond tips; half, single and double ball picks, light, medium and heavy weight tension wrenches and hook and saw type key extractors.

It also includes letterbox pick/tension tools, as well as variable tension tools.

The set includes dual pronged tension tools that provide even tension on double-sided wafer locks.

Zippered jacket pocket size 4 inch x 6-1/2 inch.

Contains 40 picks, 14 tension tools, and 6 extractors.

HPC Company part number NDPK60 or equal

**88. 5120-00-709-4072 Ver: 21 UI: EA Status: Active AAC: G
HANDLE, SOCKET WRENCH**

KeyFields:

1B107.10M Ver: 2 ASME B107.10M-1996

In accordance with American Society of Mechanical Engineers(ASME) B107.10 - 2005

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Type I: Handles

Class 4: T, sliding

Square Drive Size: 3/4 inch

Overall Length: 17 inches minimum and 20 inches maximum

Material: Steel

Coating: Chrome

**89. 5120-00-781-7891 Ver: 20 UI: EA Status: Active AAC: G
INSTALLATION TOOL, CABLE TIE**

KeyFields:

1AS81306 Ver: 2 WIRING INSTALLATION TOOLS FOR BANDS AND TIEDOWN STRAPS 81306

In accordance with SAE-AS81306, dated May 3, 2011.

QPL QUALIFICATION REQUIRED: QPL transformed to QPD, December 9, 2008. Please go to <http://assist.daps.dla.mil/quicksearch/>, and follow the steps below to view the QPD.

1. Input "81306" in Document Number field and click "Submit"
2. Click on SAE-AS81306 under "Document ID" column.
3. Click on "Qualification" in the "Overview" section to view the QPD.

NSN Description:

Government Designation MS90387-1

**90. 5120-00-878-5932 Ver: 20 UI: EA Status: Active AAC: G
INTRENCHING TOOL, HAND**

KeyFields:

1A-A-59337 Ver: 1 IAW CID A-A-59337 DATED 9/16/98

In accordance with Commercial Item Description (CID) A-A-59337 dated 16 September 1998

2A-A-59337 Ver: 4 EXCEPTIONS TO CID A-A-59337

Paragraph 2.1, Eighth sentence - Replace extended length of the intrenching tool shall be 23-1/4 +/- 1/16 inches with - extended length of the intrenching tool shall be 23-1/8, +/- 1/8 inches. This action is in accordance with deviation

IPDs - TECHNICAL INFORMATION

requested by Justin Wagner/Dave Dyleski, Ames True Temper on 4/3/2002. Army, Natick MA has concurred with this deviation.

Deleted unauthorized exception to paragraph 6.5 of CID A-A-59337.

Paragraph 6.4.1, Drawing 2-2-286, part No. 15 - change thickness specification to read .121 to .131 inches

NSN Description:

Implement Type: Hinged Shovel and Handgrip

Handle Material: Aluminum

Handle Grip Type: D-Type Handle Grip

Features: One Serrated Cutting Blade Edge and One Axe Blade Edge

**91. 5120-00-889-1796 Ver: 27 UI: EA Status: Active AAC: G
TACKER**

NSN Description:

Tacker Type: Heavy Duty, Staple

Tacker Style: Hand, Gun

Staple Holding Capacity: 84 minimum

Staple Type: Heavy Duty

Staple Shape: Flat Top

Staple Width: 1/2 inch

Wire Gage: 0.05 inch (heavy duty staples)

Staple Leg Lengths: 1/4, 5/16, 3/8, and 1/2 inch

Features: A hand held and single hand manually operated compression/squeeze type tacker (without base) designed to drive heavy duty preformed staples to penetrate cloth, composition board, or wood (frequently used to staple materials to walls). The operating handle will automatically return to its starting position after each staple is driven. A staple feeding mechanism automatically feeds each staple beneath a plunger until the last staple on the cemented strip is used.

DUO FAST Model CS5000 or equal

**92. 5120-00-900-6098 Ver: 23 UI: EA Status: Active AAC: G
HAMMER, HAND**

KeyFields:

1-B107.54 Ver: 1 B107.400-2008 HEAVY STRIKING TOOLS

In accordance with American Society of Mechanical Engineers (ASME) B107.54 as contained in ASME B107.400-2008; this document incorporates and includes the revisions of primary standard B107.41, B107.42, B107.53, B107.54, B107.56, and B107.58

NSN Description:

Overall Length: 35-1/2 inches

Handle Length: 34 inches; Tolerance: 2 inches

Head Weight: 12 pounds

Weight Tolerance: 8 ounce

Material, Handle: Fiberglass

Handle Color: Yellow

Style: Blacksmiths' or Engineers' Double Face Sledge

Features: Rubber Overlay Cushion Grip

**93. 5120-00-935-4641 Ver: 30 UI: SE Status: Active AAC: G
KEY SET, SOCKET HEAD SCREW**

KeyFields:

IPDs - TECHNICAL INFORMATION

1B18.3 Ver: 4 IAW ANSI/ASME B18.3-1998; SOCKET CAP, SHOULDER, & SET SCREWS, HEX

In accordance with ASME B18.3-2003, Socket Cap, Shoulder and Set Screws, Hex and Spline Keys.

NSN Description:

Handle Type: L-Style

Container Type: Wrap, roll, envelope or pouch

Key Characteristic: Contains 20 Hex Keys Size - 0.028, 0.035, 0.050, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 3/4 inches.

Special Features: Short Series

List of Components of 5120-00-935-4641 :

**93.1. 5120-00-224-2504 Ver: 37 UI: EA Status: Archived AAC: J
KEY, SOCKET HEAD SCREW**

KeyFields:

1B18.3 Ver: 4 IAW ANSI/ASME B18.3-1998; SOCKET CAP, SHOULDER, & SET SCREWS, HEX

In accordance with ASME B18.3-2003, Socket Cap, Shoulder and Set Screws, Hex and Spline Keys.

NSN Description:

Socket Head Screw Key

Size - 5/64 inch Hexagon Key;

L-type; short series

**93.2. 5120-00-198-5392 Ver: 29 UI: EA Status: Archived AAC: J
KEY, SOCKET HEAD SCREW**

KeyFields:

1B18.3 Ver: 4 IAW ANSI/ASME B18.3-1998; SOCKET CAP, SHOULDER, & SET SCREWS, HEX

In accordance with ASME B18.3-2003, Socket Cap, Shoulder and Set Screws, Hex and Spline Keys.

NSN Description:

Socket Head Screw Key

Size - 5/32 inch, Hexagon key

L-type; short series

Surface Treatment: Oxide

**93.3. 5120-00-240-5274 Ver: 28 UI: EA Status: Archived AAC: J
KEY, SOCKET HEAD SCREW**

KeyFields:

1B18.3 Ver: 4 IAW ANSI/ASME B18.3-1998; SOCKET CAP, SHOULDER, & SET SCREWS, HEX

In accordance with ASME B18.3-2003, Socket Cap, Shoulder and Set Screws, Hex and Spline Keys.

NSN Description:

Socket Head Screw Key

Size - 5/16 inch

L-type; Short series

Surface Treatment: Oxide

**93.4. 5120-00-198-5390 Ver: 35 UI: EA Status: Expired AAC: H
KEY, SOCKET HEAD SCREW**

KeyFields:

1B18.3 Ver: 4 IAW ANSI/ASME B18.3-1998; SOCKET CAP, SHOULDER, & SET SCREWS, HEX

In accordance with ASME B18.3-2003, Socket Cap, Shoulder and Set Screws, Hex and Spline Keys.

NSN Description:

Socket Head Screw Key

Size - 3/8 inch, Hexagon key;

L-type; Short series

IPDs - TECHNICAL INFORMATION

93.5. 5120-00-222-1489 Ver: 26 UI: EA Status: Archived AAC: H
KEY, SOCKET HEAD SCREW

KeyFields:

1B18.3 Ver: 4 IAW ANSI/ASME B18.3-1998; SOCKET CAP, SHOULDER, & SET SCREWS, HEX
In accordance with ASME B18.3-2003, Socket Cap, Shoulder and Set Screws, Hex and Spline Keys.

NSN Description:

Hexagon socket screw key
Overall Length: 7.903 inches thru 8.094 inches
Long Arm Length: 7.156 inches thru 7.344 inches
Short Arm Length: 2.031 inches thru 2.219 inches
Wrenching Surface Size: 0.750 inch both ends
Wrenching Surface Shape: Hexagon both ends external
Material: Steel overall

93.6. 5120-00-224-2510 Ver: 25 UI: EA Status: Archived AAC: H
KEY, SOCKET HEAD SCREW

KeyFields:

1B18.3 Ver: 4 IAW ANSI/ASME B18.3-1998; SOCKET CAP, SHOULDER, & SET SCREWS, HEX
In accordance with ASME B18.3-2003, Socket Cap, Shoulder and Set Screws, Hex and Spline Keys.

NSN Description:

Style: L-handle, short series
Wrenching Size: 5/8 inch
Wrenching Shape: Hexagon
Material: Steel
Finish: Oxide

93.7. 5120-00-240-5277 Ver: 23 UI: EA Status: Archived AAC: J
KEY, SOCKET HEAD SCREW

KeyFields:

1B18.3 Ver: 4 IAW ANSI/ASME B18.3-1998; SOCKET CAP, SHOULDER, & SET SCREWS, HEX
In accordance with ASME B18.3-2003, Socket Cap, Shoulder and Set Screws, Hex and Spline Keys.

NSN Description:

Key, Socket Head Screw
Size - 7/16, Hexagon key;
L-type; Short Series.

93.8. 5120-00-242-7411 Ver: 34 UI: EA Status: Archived AAC: J
KEY, SOCKET HEAD SCREW

KeyFields:

1B18.3 Ver: 4 IAW ANSI/ASME B18.3-1998; SOCKET CAP, SHOULDER, & SET SCREWS, HEX
In accordance with ASME B18.3-2003, Socket Cap, Shoulder and Set Screws, Hex and Spline Keys.

NSN Description:

Size - 7/32 inch, Hexagon key;
L-type; Short series
Surface Treatment: Oxide

93.9. 5120-00-240-5268 Ver: 23 UI: EA Status: Archived AAC: J
KEY, SOCKET HEAD SCREW

KeyFields:

1B18.3 Ver: 4 IAW ANSI/ASME B18.3-1998; SOCKET CAP, SHOULDER, & SET SCREWS, HEX
In accordance with ASME B18.3-2003, Socket Cap, Shoulder and Set Screws, Hex and Spline Keys.

NSN Description:

IPDs - TECHNICAL INFORMATION

Socket Head Screw Key
Size: 9/16 inch; Hexagon Key
L-Type: Short Series
Material: Steel overall
Surface Treatment: Oxide

93.10. 5120-00-889-2163 Ver: 23 UI: EA Status: Active AAC: H
KEY, SOCKET HEAD SCREW

KeyFields:

1B18.3 Ver: 4 IAW ANSI/ASME B18.3-1998; SOCKET CAP, SHOULDER, & SET SCREWS, HEX
In accordance with ASME B18.3-2003, Socket Cap, Shoulder and Set Screws, Hex and Spline Keys.

NSN Description:

Socket Head Screw Key
Size - 9/64 inch, Hexagon key;
L-type; Short series
Material: Steel overall
Surface Treatment: Oxide overall

93.11. 5120-00-224-4659 Ver: 31 UI: EA Status: Archived AAC: J
KEY, SOCKET HEAD SCREW

KeyFields:

1B18.3 Ver: 4 IAW ANSI/ASME B18.3-1998; SOCKET CAP, SHOULDER, & SET SCREWS, HEX
In accordance with ASME B18.3-2003, Socket Cap, Shoulder and Set Screws, Hex and Spline Keys.

NSN Description:

Socket Head Screw Key
Size - 1/4 inch; hexagon key
L-type; Short series
Surface Treatment: Oxide

93.12. 5120-00-555-2639 Ver: 27 UI: EA Status: Active AAC: J
KEY, SOCKET HEAD SCREW

KeyFields:

1B18.3 Ver: 4 IAW ANSI/ASME B18.3-1998; SOCKET CAP, SHOULDER, & SET SCREWS, HEX
In accordance with ASME B18.3-2003, Socket Cap, Shoulder and Set Screws, Hex and Spline Keys.

NSN Description:

Size: 0.028 in. Hexagon Key
L-type; Short Series
Material: Steel
Surface Treatment: Oxide

93.13. 5120-00-198-5400 Ver: 29 UI: EA Status: Archived AAC: H
KEY, SOCKET HEAD SCREW

KeyFields:

1B18.3 Ver: 4 IAW ANSI/ASME B18.3-1998; SOCKET CAP, SHOULDER, & SET SCREWS, HEX
In accordance with ASME B18.3-2003, Socket Cap, Shoulder and Set Screws, Hex and Spline Keys.

NSN Description:

Style: L-handle, short series.
Wrenching Surface Size: 0.035".
Wrenching Surface Shape: Hexagon
Material: Steel
Finish: Oxide.

93.14. 5120-00-198-5401 Ver: 38 UI: EA Status: Archived AAC: H
KEY, SOCKET HEAD SCREW

IPDs - TECHNICAL INFORMATION

KeyFields:

1B18.3 Ver: 4 IAW ANSI/ASME B18.3-1998; SOCKET CAP, SHOULDER, & SET SCREWS, HEX
In accordance with ASME B18.3-2003, Socket Cap, Shoulder and Set Screws, Hex and Spline Keys.

NSN Description:

Socket Head Screw Key
Size: 0.050 in.; Hexagon key;
L-type; short series

93.15. 5120-00-198-5398 Ver: 36 UI: EA Status: Archived AAC: H
KEY, SOCKET HEAD SCREW

KeyFields:

1B18.3 Ver: 4 IAW ANSI/ASME B18.3-1998; SOCKET CAP, SHOULDER, & SET SCREWS, HEX
In accordance with ASME B18.3-2003, Socket Cap, Shoulder and Set Screws, Hex and Spline Keys.

NSN Description:

Socket Head Screw Key
Size: 1/16 inch, Hexagon key;
L-type; short series

93.16. 5120-00-240-5292 Ver: 34 UI: EA Status: Archived AAC: J
KEY, SOCKET HEAD SCREW

KeyFields:

1B18.3 Ver: 4 IAW ANSI/ASME B18.3-1998; SOCKET CAP, SHOULDER, & SET SCREWS, HEX
In accordance with ASME B18.3-2003, Socket Cap, Shoulder and Set Screws, Hex and Spline Keys.

NSN Description:

Key, Socket Head Screw
Size: 1/8 inch, Hexagon key
L-type: Short series
Surface Treatment: Oxide

93.17. 5120-00-240-5300 Ver: 36 UI: EA Status: Archived AAC: H
KEY, SOCKET HEAD SCREW

KeyFields:

1B18.3 Ver: 4 IAW ANSI/ASME B18.3-1998; SOCKET CAP, SHOULDER, & SET SCREWS, HEX
In accordance with ASME B18.3-2003, Socket Cap, Shoulder and Set Screws, Hex and Spline Keys.

NSN Description:

Socket Head Screw Key
Size: 3/16 inch, Hexagon key
L-type; Short series
Surface Treatment: Oxide

93.18. 5120-00-242-7410 Ver: 42 UI: EA Status: Archived AAC: H
KEY, SOCKET HEAD SCREW

KeyFields:

1B18.3 Ver: 4 IAW ANSI/ASME B18.3-1998; SOCKET CAP, SHOULDER, & SET SCREWS, HEX
In accordance with ASME B18.3-2003, Socket Cap, Shoulder and Set Screws, Hex and Spline Keys.

NSN Description:

Socket Head Screw Key
Size - 3/32 inch, Hexagon key;
L-type; short series
Surface Treatment: Oxide

93.19. 5120-00-889-2162 Ver: 21 UI: PG Status: Active AAC: H
KEY, SOCKET HEAD SCREW

IPDs - TECHNICAL INFORMATION

KeyFields:

1B18.3 Ver: 4 IAW ANSI/ASME B18.3-1998; SOCKET CAP, SHOULDER, & SET SCREWS, HEX
In accordance with ASME B18.3-2003, Socket Cap, Shoulder and Set Screws, Hex and Spline Keys.

NSN Description:

Socket Head Screw Key
Size - 7/64, Hexagon key,
L-type; Short series.

93.20. 5120-00-198-5391 Ver: 29 UI: EA Status: Archived AAC: H
KEY, SOCKET HEAD SCREW

KeyFields:

1B18.3 Ver: 4 IAW ANSI/ASME B18.3-1998; SOCKET CAP, SHOULDER, & SET SCREWS, HEX
In accordance with ASME B18.3-2003, Socket Cap, Shoulder and Set Screws, Hex and Spline Keys.

NSN Description:

Table 8 (Short Series).
Style: L-handle.
Wrenching Surface Size: 1/2 inch both ends.
Wrenching Shape: Hexagon both ends external.
Finish: Oxide

End of 5120-00-935-4641 Components List

94. 5120-00-937-5438 Ver: 25 UI: EA Status: Active AAC: G
INSTALLATION TOOL, CABLE TIE

KeyFields:

1AS81306 Ver: 2 WIRING INSTALLATION TOOLS FOR BANDS AND TIEDOWN STRAPS 81306
In accordance with SAE-AS81306, dated May 3, 2011.

QPL QUALIFICATION REQUIRED: QPL transformed to QPD, December 9, 2008. Please go to <http://assist.daps.dla.mil/quicksearch/>, and follow the steps below to view the QPD.

1. Input "81306" in Document Number field and click "Submit"
2. Click on SAE-AS81306 under "Document ID" column.
3. Click on "Qualification" in the "Overview" section to view the QPD.

NSN Description:

Government Designation part number MS90387-2

Features: Pistol Type Grip with Cut Off feature; Adjustable Tension

95. 5120-00-961-9814 Ver: 24 UI: SE Status: Active AAC: H
WRENCH, IMPACT, MANUAL

KeyFields:

1B107.2 Ver: 3 ASME B107.2-2002
In accordance with American Society of Mechanical Engineers (ASME) B107.2 - 2002.

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS
Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

The set shall consist of 1 (one) each of the following 43 items:

IPDs - TECHNICAL INFORMATION

Square Drive Size: 1 inch
Material: Steel
Coating: Black Oxide or Phosphate

Duo-Tang Square Drive Size: 1 inch
Overall length: 26-1/2 inches
Maximum Torque: 2000 Ft-Lbs
Maximum Handle Pressure: 75 pounds
Handle Rotation Range: 10 to 40 degrees

B107.2

Type I: Sockets (6-Point)

Class 1: Regular Length

Wrench Opening: The kit shall contain 1 (One) each of the following 29 sizes:

3/4, 13/16, 7/8, 15/16, 1, 1-1/6, 1-1/8, 1-3/16, 1-1/4, 1-5/16, 1-3/8, 1-7/16, 1-1/2, 1-9/16, 1-5/8, 1-11/16, 1-3/4, 1-13/16, 1-7/8, 1-15/16, 2, 2-1/16, 2-1/8, 2-3/16, 2-1/4, 2-5/16, 2-3/8, 2-7/16, 2-1/2 inches

Type: Box Wrench (6-Point)

Hex Wrenching Sizes: 1 (One) each of the following 2 sizes: 1-1/2 and 2-1/4 inches

Offset links (to extend drive reach)

Center Lengths: 1 (One) each of the following 2 sizes: 1-3/4 inches and 3-1/4 inches

Tubular Extensions

Square Drive Size: 1 inch

Extension Length: 1 (One) each of the following 2 sizes: 7 inches and 14 inches

Tubular Extensions

Square Drive Size Male: 3/4 inch

Square Drive Size Female: 1 inch

Extension Length: 1 (One) each of the following 3 sizes: 7, 11, 19 inches

Features: The wrench shall be hand-operated, with an adjustable spring in handle to produce impact torque load when the handle is rotated 30 degrees plus or minus 10 degrees.

Furnished:

1 1-Inch Drive Tool Kit Box: resin plastic injection molded case with foam inserts.

1 Accessories Kit 1000

1 Maintenance and Parts Manual

1 Parts List

Power Hawk Technologies Part Number 41-00012-00 or equal

96. 5120-00-961-9815 Ver: 27 UI: SE Status: Active AAC: G
WRENCH, IMPACT, MANUAL

KeyFields:

1B107.2 Ver: 3 ASME B107.2-2002

In accordance with American Society of Mechanical Engineers (ASME) B107.2 - 2002.

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

2SET Ver: 3 SET (ONE MANUFACTURER)

Tools in the set shall be manufactured by only one manufacturer unless otherwise specified.

IPDs - TECHNICAL INFORMATION

NSN Description:

The Set Consists of 49 items to include 1 each of the following:

Material: Steel

Coating: Black Oxide or Phosphate

Impact Wrench

Duo-Tang Square Drive Size: 3/4 inch

Maximum Torque: 800 Ft-Lbs on frozen nuts

Head Radius: 2 inches

Handle Length: 16 inches

Head Width: 2 inches

Maximum Pull on Handle: 50 pounds

Bolt Diameter Capacity: 1/2 inch to 1-1/4 inches

Overall Length: 18 inches

Impact Wrench

Duo-Tang Square Drive Size: 1 inch

Maximum Torque: 2000 Ft-Lbs on frozen nuts

Head Radius: 1 inch

Handle Length: 24 inches

Head Width: 2-5/8 inches

Maximum Pull on Handle: 75 pounds

Bolt Diameter Capacity: 3/4 inch to 1-3/4 inches

Overall Length: 26-1/2 inches

ASME B107.2

Type I: Impact Socket (6-Point)

Class 1: Regular Length

Square Drive Size: 3/4 inch

Wrenching Sizes: One each of the following 13 Sizes: 3/4 to 1-1/2 inch, 1/16 inch increments

ASME B107.2

Type I: Impact Socket (6-Point)

Class 1: Regular Length

Square Drive Size: 1 inch

Wrenching Sizes: One each of the following 16 Sizes: 1-9/16 inches to 2-1/2 inches, 1/16 inch increments

Box Wrench

Square Drive Size: 3/4 inch (Single)

Hex Wrenching Sizes: One each of the following 3 Sizes: 1-1/8, 1-1/4, 1-7/16 inch

Box Wrench

Square Drive Size: 1 inch (Single)

Hex Wrenching Sizes: One each of the following 2 Sizes: 1-1/2, 2-1/4 inch

Offset Link

Square Drive Size: 3/4 inch

Center Length: One each of the following 2 Sizes: 1-1/4, and 3-1/4 inch

Offset Link

Square Drive Size: and 1 inch

Center Length: One each of the following 2 Sizes: 1-3/4, 4-1/4 inch

Tubular Extension Bar

IPDs - TECHNICAL INFORMATION

Square Drive Size: 3/4 inch

Extension Lengths: One each of the following 6 Lengths: 6, 7-5/8, 9, 11, 12, and 19 inches

Tubular Extension Bar

Square Drive Size: 1 inch

Extension Lengths: One each of the following 3 Lengths: 7, 8, and 14 inches

Furnished: Tool Box, Accessory Kits for Model 750, and 1000, Handbook: A handbook of instructions on maintenance and operations shall be furnished with each set and a parts list.

Power Hawk Technologies, Inc Part Number: 41-00013-00 or equal.

97. 5120-01-013-1676 Ver: 11 UI: EA Status: Active AAC: G

SLIDE HAMMER, GROUND ROD

KeyFields:

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Tool consists of:

Rod assembly, Impact hammer assembly, and Impact disc

Rod Diameter: 5/8 inch diameter

Rod Length: 36 inches (.50 inches +/-)

Threaded: 5/8-11 UNC-2A 3-1/4 from each end

Hex Nuts with lock washer: two @ 5/8-11 inches

Hammer Diameter: 4 inches (+/- 0.062 inches)

Hammer Length: 5 inches (+/- 0.062 inches)

Drill Through: 11/16 inch x 5 inches

Handles: 2 @ 3/4 inch diameter

Distance between handles 180 degrees apart

Inserted in drilled holes 3/4 inch deep

Handles extend 90 degrees

Handle Length: 6 inches

Special Feature: Cushioned grip

Disc Diameter: 2-1/2 inches (+/- 1/2 inch) x 3/4 inch minimum thickness

Center hole drilled and threaded 5/8-11 UNC-2B

Special feature: Chamfered edges and corners .035 inch x 45 degrees

Material: Steel

Coating: Black Oxide

Furnished: Complete Operating Instructions

SPX: 5120-01-013-1676 or equal

98. 5120-01-070-8386 Ver: 20 UI: EA Status: Active AAC: G

WRENCH, SOCKET:

KeyFields:

1GGG-W-00644 Ver: 1 IAW FED SPEC GGG-W-644C, DATED 04/30/92.

In accordance with Federal Specification GGG-W-644C, dated 04/30/92.

IPDs - TECHNICAL INFORMATION

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Type II - Double-End Type

Size - 10

Overall Length: 29.000 inches +/- 0.500 inches

Hexagon Wrenching Surface Size: 1 3/4 inches

Square Wrenching Surface Size: 31/32 inches Square

Material: Steel

99. 5120-01-146-8096 Ver: 32 UI: EA Status: Active AAC: G JACK, HYDRAULIC, HAND

NSN Description:

Load Capacity: 12 tons

Extended Height: 17-1/8 inches

Retracted Height: 8-1/2 inches

Features: Self-contained jack, capable of being operated in either a vertical or horizontal position, and furnished with a detachable operating lever. The jack will consist essentially of a base, pump, reservoir, cylinder, plunger, and necessary valves to produce the operating pressure required to utilize the jack at its full rated capacity. Component parts of the jack will be capable of withstanding pressure at least 1-1/2 times the maximum working pressure.

Giga Inc Part Number 96AB018 or equal

100. 5120-01-179-8248 Ver: 18 UI: EA Status: Active AAC: H JACK, HYDRAULIC, HAND:

NSN Description:

Lift: 15 Ton Jack

Material: steel

Extended Height: 23-1/8" (+/- 1/4")

Base Length: 10"

Overall length: 13" (+/- 0.25")

Width: 6"

Working Pressure: 0-3250 PSI

101. 5120-01-179-8249 Ver: 17 UI: EA Status: Active AAC: H JACK, HYDRAULIC, HAND (PUMP ASSY):

NSN Description:

Extended Height: 42 In. (+/- 0.25) I

Retracted Height: 10 In. (+/- 0.25 in.)

Unit Type : Self-Contained

Pump Type: Single

Overall Length: 36 In.

Width: 5.250 In.

Working Pressure: 0-3250 PSI

Oshkosh Truck Corp., Part Number: 1380040, Brand Name Or Equal.

102. 5120-01-187-3615 Ver: 20 UI: EA Status: Active AAC: J TIE DOWN, CARGO, VEHICLE

KeyFields:

IPDs - TECHNICAL INFORMATION

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Ratchet Buckle Length Overall: 7.84 inch
Ratchet Buckle Width Overall: 3.2 inch
Ratchet Buckle Height Overall: 2.5 inch
Ratchet Buckle Webbing Size: 2 inch
Dimensional Tolerance: 0.125 inch
Ratchet Buckle Working Load: 3750 pound
Ratchet Buckle Break Strength: 11250 pound
Webbing: Type X
Color: olive drab 7
Strap Assembly Length: 72 inch long; Tolerance: +1.5 inch

Kinedyne Corporation part number 91L0600GOV or equal.

103. 5120-01-242-7218 Ver: 12 UI: EA Status: Active AAC: H HANDLE, SOCKET WRENCH

KeyFields:

1B107.10M Ver: 2 ASME B107.10M-1996

In accordance with American Society of Mechanical Engineers(ASME) B107.10 - 2005

2ASME-B107.10M-TEAR Ver: 2 HARDNESS, INTERNAL, DETENT ALTERNATIVE 1996

Exceptions to ASME B107.10M-1996:

Delete paragraph 3.4 hardness and add:

3.4 Handles and attachments shall have a hardness through out of 40 to 54 HRC.

An acceptable detent alternative for the 3/4 and 1 inch square drives is the provision of an integral lock button located in the cross hole. The alternative cross hole for the 3/4 and 1 inch female drive shall have a minimum diameter of 0.198 inches.

Add to paragraph 3.5 of ANSI B107.10m-96:

"adapters shall be capable of passing all gaging requirements after application of the specified test loads."

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Type I: Handles
Class 4: T, sliding
Square Drive Size: 3/4 inch
Overall Length: 17 inches minimum and 20 inches maximum
Material: Steel
Coating: Oxide

104. 5120-01-276-7016 Ver: 14 UI: EA Status: Active AAC: H WRENCH, TORQUE

KeyFields:

1AS28431 Ver: 3 SAE AS28431-2011 AS HAND TORQUE WRENCHES (MECHANICAL, IMPULSE)

In accordance with Society of Automotive Engineers, Aerospace Hand Torque Wrenches (Mechanical, Impulse) AS28431

IPDs - TECHNICAL INFORMATION

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Type I: Bi-directional

Class 2: Ratchet head (precise clockwise torque)

Overall Length: 22-1/8 inches

Furnished Items: Case

Torque Indicating Mechanism: Micrometer

Torque Capacity: 30 foot-pounds minimum and 250 foot-pounds maximum

Torque Scale Graduation: 1-foot-pounds

Torque Signal Method: Audible

Drive Surface Size: 1/2 inch single end

Drive End Shape: Square single end external

Special Features: Ratchet head

Material: Steel overall

Surface Treatment: Chromium overall

Case: protective compartmented case, either a high impact plastic or a metal; features: a catch or clasp that cannot be opened without disengagement of a positive latch; shall be of sturdy construction sufficient to protect the torque wrench and accessories from damage during shipment, handling, and storage

105. 5120-01-351-2074 Ver: 15 UI: EA Status: Active AAC: H JACK, HYDRAULIC, HAND

NSN Description:

Load Capacity: 20 Tons

Collapsed Height: 10.81 inches

Extended Height: 20.18 inches

Unit Type: Self-Contained

Screw Extension: Included

Pump Type: Single

Handle: 24 inch

Features: 2.12 inch diameter saddle; carrying handles. Safety oil by-pass system prevents the ram from being overextended and causing damage to the cylinder. For use in heavy duty trucks, farm equipment, building construction, construction and mining equipment, mobile home set-up, oil field applications and as original equipment for manufacturers of many products.

106. 5120-01-355-1734 Ver: 19 UI: EA Status: Active AAC: H WRENCH, TORQUE

KeyFields:

1AS28431 Ver: 3 SAE AS28431-2011 AS HAND TORQUE WRENCHES (MECHANICAL, IMPULSE)

In accordance with Society of Automotive Engineers, Aerospace Hand Torque Wrenches (Mechanical, Impulse) AS28431

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Type I: Bi-directional

Class 2: Ratchet head (precise clockwise torque)

Overall length: 15.125 inches

Male Square Drive Size: 3/8 inch

Torque capacity: 5 foot-pounds min and 75 foot-pounds max

Torque scale graduation: 0.5 foot-pounds

IPDs - TECHNICAL INFORMATION

Torque signal Method: Micrometer Audible
Material: Steel
Surface treatment: Chromium
Special Features: Ratchet head (flex), plain steel handle

107. 5120-01-355-1742 Ver: 20 UI: EA Status: Active AAC: H
WRENCH, TORQUE

KeyFields:

1AS28431 Ver: 3 SAE AS28431-2011 AS HAND TORQUE WRENCHES (MECHANICAL, IMPULSE)

In accordance with Society of Automotive Engineers, Aerospace Hand Torque Wrenches (Mechanical, Impulse) AS28431

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Type I: Bi-directional
Class 2: Ratchet head (precise clockwise torque)
Overall length: 42-3/4 inches min. to 43-3/4 inches max.
Male Square Drive Size: 3/4 inch
Torque capacity: 120 foot-pounds min and 600 foot-pounds max
Torque scale graduation: 5.00 foot-pounds
Torque signal Method: Micrometer Audible
Material: Steel
Coating: Chrome

108. 5120-01-375-0215 Ver: 9 UI: EA Status: Active AAC: H
ROD, UNLOCKING

NSN Description:

Oshkosh Truck Corp Part Number 1873040 or equal

109. 5120-01-398-2869 Ver: 25 UI: EA Status: Active AAC: G
EXTRACTOR, SCREW

NSN Description:

Open Length: 17 inches maximum
Closed Length: 14 inches minimum
For Removing Screw Sizes: 8-32 to 1/4 inch screws
Material: Steel
Features: Used To Remove Screws From Aircraft Panels

110. 5120-01-400-0231 Ver: 14 UI: EA Status: Active AAC: H
HANDLE, SOCKET WRENCH

KeyFields:

1AS4283 Ver: 4 SAE AS4283, HANDLES AND ATTACHMENTS FOR HAND SOCKET WRENCHES

Shall be In Accordance With SAE Aerospace Standard: AS4283B - Handles and Attachments for Hand Socket Wrenches, dated December 2011

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Type 1: Handles

IPDs - TECHNICAL INFORMATION

Class 2: Ratchet reversible
Style B: Fine action
Square Drive Size: 1/2 inch
Length: 16 inches
Material: Steel
Coating: Chrome
Features: Standard Head; Straight Round Knurled Steel Handle, Pushbutton Release

EXCEPTION TO SPECIFICATION:
Style B: Fine action (38 Teeth minimum)

111. 5120-01-416-8568 Ver: 21 UI: SE Status: Active AAC: G
COMBINATION TOOL, HAND

KeyFields:

2SET Ver: 3 SET (ONE MANUFACTURER)

Tools in the set shall be manufactured by only one manufacturer unless otherwise specified.

NSN Description:

Components: 10
Material: Steel
Color: #34086 per Fed Std 595C
Overall Weight: 12 pounds

Or Equal SHALL be dimensionally equivalent ensuring compatibility, interchangeability, and fitment with established Forest Tool Items listed above. All dimensional characteristics of the brand name tool and tool offered as equivalent that specifically address the compatibility, interchangeability, and fitment must be provided to establish equivalency.

Forrest Tool p/n 595 or equal

List of Components of 5120-01-416-8568 :

111.1. 5110-01-416-7827 Ver: 27 UI: EA Status: Active AAC: H
AX, SINGLE BIT

KeyFields:

1B107.42 Ver: 2 HATCHETS AND AXES: SAFETY REQUIREMENTS

In accordance with The American Society of Mechanical Engineers (ASME) B107.42-2008. ASME B107.42-2008 is contained in the ASME B107.400-2008.

NSN Description:

Type 2: Axes
Style: Hudson Bay
Cutting Edge Length: 4-1/2 inches
Cutting Edge Length Tolerance: 1/4 inch
Head Length: 7-1/4 inches
Head Length Tolerance: 1/8 inch
Head Weight: 3.38 lb
Head Material: Steel
Weight Tolerance: 1/4 lb
Overall Length: 34-3/4 inches
Length Tolerance: 1/2 inch
Handle Material: Molded plastic with fiberglass core

Or Equal SHALL be dimensionally equivalent ensuring compatibility, interchangeability, and fitment with established Forest Tool Items. All dimensional characteristics of the brand name tool and tool offered as equivalent that specifically address the compatibility, interchangeability, and fitment must be provided to establish equivalency.

IPDs - TECHNICAL INFORMATION

Forrest Tool p/n 595-010 or equal

**111.2. 5110-01-416-7830 Ver: 17 UI: EA Status: Active AAC: H
SHEATH, AX, HEAD**

NSN Description:

Sheath, Ax Head, Forrest Tool p/n 595-020 or equal

Length: 6"

Length Tolerance: 1/8"

Width: 3-7/8"

Width Tolerance: 1/8"

Material: Leather, oil treated

Features: Nickel plated steel buckle type fastener with leather strap. All attachment points riveted with zinc plated steel rivets.

Must be dimensionally equivalent to Forrest tool p/n 595-020 to ensure compatibility and integration with the following:
Ax Single Bit 5110-01-416-7827, Forrest tool p/n 595-010 or equal

End Item: Hand, Combination Tool 5120-01-416-8568 Forrest Tool p/n 595 or equal

Or Equal SHALL be dimensionally equivalent ensuring compatibility, interchangeability, and fitment with established Forest Tool Items listed above. All dimensional characteristics of the brand name tool and tool offered as equivalent that specifically address the compatibility, interchangeability, and fitment must be provided to establish equivalency.

**111.3. 5120-01-416-8570 Ver: 19 UI: EA Status: Active AAC: H
SHOVEL, ATTACHMENT, COMBINATION TOOL**

NSN Description:

Shovel Attachment, Forrest tool p/n 595-040 or equal

Overall Length: 9-1/2"

Overall Length Tolerance: 1/4"

Overall Width: 8-3/4"

Overall Width Tolerance: 1/4"

Overall Weight: 2- 1/4lbs

Overall Weight Tolerance: 1/4lb

Material: Steel

Features: Shape shall be curved and pointed with a drop forged stiffener with dimensionally equivalent tang welded to face of shovel attachment. Tang end shall fit into the beveled socket of the Ax Single Bit, 5110-01-416-7827, Forrest Tool p/n 595-010 or equal, in such a manner as to be secured by way of Locking Pin 5120-01-416-8575 Forrest Tool p/n 595-999 or equal.

End Item: Hand, Combination Tool 5120-01-416-8568 Forrest Tool p/n 595 or equal

Or Equal SHALL be dimensionally equivalent ensuring compatibility, interchangeability, and fitment with established Forest Tool Items listed above. All dimensional characteristics of the brand name tool and tool offered as equivalent that specifically address the compatibility, interchangeability, and fitment must be provided to establish equivalency.

**111.4. 5120-01-416-8571 Ver: 22 UI: EA Status: Active AAC: H
MATTOCK ATTACHMENT, COMBINATION TOOL**

KeyFields:

1B107.42 Ver: 2 HATCHETS AND AXES: SAFETY REQUIREMENTS

In accordance with The American Society of Mechanical Engineers (ASME) B107.42-2008. ASME B107.42-2008 is contained in the ASME B107.400-2008.

NSN Description:

Mattock Attachment, Forrest Tool p/n 595-050 or equal

Type 2

Cutting Edge Width: 3-5/8"

Cutting Edge Width Tolerance: 1/8"

Overall Length: 7-1/8"

Overall Length Tolerance: 1/4"

Thickness: 3/4" measured at 4-1/4" (+/- 1/8") from cutting edge

Thickness Tolerance: 1/16"

Weight: 26 oz

IPDs - TECHNICAL INFORMATION

Weight Tolerance: 2 oz

Material: Steel

Features: Tang end shall fit into the beveled socket of the Ax Single Bit, 5110-01-416-7827, Forrest Tool p/n 595-010 or equal, in such a manner as to be secured by way of head fastening hardware: Locking Pin, 5120-01-416-8575, Forrest Tool p/n 595-999 or equal.

End Item: Hand, Combination Tool 5120-01-416-8568 Forrest Tool p/n 595 or equal

EXCEPTION TO SPECIFICATION: The Ax, single bit and Mattock Attachment shall be two separate pieces.

Or Equal SHALL be dimensionally equivalent ensuring compatibility, interchangeability, and fitment with established Forest Tool Items listed above. All dimensional characteristics of the brand name tool and tool offered as equivalent that specifically address the compatibility, interchangeability, and fitment must be provided to establish equivalency.

111.5. 5120-01-416-8572 Ver:21 UI:EA Status:Active AAC:H BROAD PICK ATTACHMENT, COMBINATION

KeyFields:

1B107.42 Ver:2 HATCHETS AND AXES: SAFETY REQUIREMENTS

In accordance with The American Society of Mechanical Engineers (ASME) B107.42-2008. ASME B107.42-2008 is contained in the ASME B107.400-2008.

NSN Description:

Broad Pick Attachment, Forrest Tool p/n 595-070 or equal

Type 2

Cutting Edge Width: 1"

Cutting Edge Width Tolerance: 1/8"

Tip Type: Chisel, Square

Overall Length: 6"

Overall Length Tolerance: 1/4"

Thickness: 3/4" measured at 3" (+/- 1/8") from cutting edge

Thickness Tolerance: 1/16"

Weight: 11 oz

Weight Tolerance: 1oz

Material: Steel

Features: Tang end shall fit into the beveled socket of the Ax Single Bit, 5110-01-416-7827, Forrest Tool p/n 595-010 or equal, in such a manner as to be secured by way of Locking Pin, 5120-01-416-8575, Forrest Tool p/n 595-999 or equal.

End Item: Hand, Combination Tool 5120-01-416-8568 Forrest Tool p/n 595 or equal

EXCEPTION TO SPECIFICATION: The Ax, single bit and Broad Pick Attachment shall be two separate pieces.

Or Equal SHALL be dimensionally equivalent ensuring compatibility, interchangeability, and fitment with established Forest Tool Items listed above. All dimensional characteristics of the brand name tool and tool offered as equivalent that specifically address the compatibility, interchangeability, and fitment must be provided to establish equivalency.

111.6. 5120-01-416-8573 Ver:25 UI:EA Status:Active AAC:H PICK ATTACHMENT, COMBINATION TOOL

KeyFields:

1B107.42 Ver:2 HATCHETS AND AXES: SAFETY REQUIREMENTS

In accordance with The American Society of Mechanical Engineers (ASME) B107.42-2008. ASME B107.42-2008 is contained in the ASME B107.400-2008.

NSN Description:

Pick Attachment, Forrest Tool p/n 595-060 or equal

Type 2

Overall Length: 7-1/4"

Overall Length Tolerance: 1/4"

Width: 3/4" measured at 4-1/2" (+/- 1/8") from point

Width Tolerance: 1/16"

Thickness: 3/4" measured at 4-1/2" (+/- 1/8") from point

Thickness Tolerance: 1/16"

IPDs - TECHNICAL INFORMATION

Tip Type: Round Tapered Point

Weight: 11oz

Weight Tolerance: 1oz

Material: Steel

Features: Tang end shall fit into the beveled socket of the Ax Single Bit, 5110-01-416-7827, Forrest Tool p/n 595-010 or equal, in such a manner as to be secured by way of Locking Pin, 5120-01-416-8575, Forrest Tool p/n 595-999 or equal.

End Item: Hand, Combination Tool 5120-01-416-8568 Forrest Tool p/n 595 or equal

EXCEPTION TO SPECIFICATION: The Ax, single bit and Pick Attachment shall be two separate pieces.

Or Equal SHALL be dimensionally equivalent ensuring compatibility, interchangeability, and fitment with established Forest Tool Items listed above. All dimensional characteristics of the brand name tool and tool offered as equivalent that specifically address the compatibility, interchangeability, and fitment must be provided to establish equivalency.

111.7. 5120-01-416-8574 Ver: 26 UI: EA Status: Active AAC: H FASTENER, RAKE-HOE ATTACHMENT, COMBINATION TOOL

NSN Description:

Fastener, Rake Hoe Attachment, 5120-01-416-8574 Forrest Tool p/n 595-090 or equal

Overall Length: 3"

Overall Length Tolerance: 1/8"

Thickness: 5/16"

Thickness Tolerance: 1/64"

Width: 9/16"

Width Tolerance: 1/16"

Area Surrounding Bolt Hole: 3/4" square

Area Surrounding Bolt Hole Tolerance: 1/64"

Angle of Bend: 16 degrees

Angle of Bend Tolerance: 3 degrees

Thumb Screw: 3/8"-16UNC

Thumb Screw Length: 1-5/8"

Thumb Screw Head Width: 1" min.

Material: Steel

Features: Beveled end opposite thumbscrew. Fastener will fit through the beveled socket of the Ax Single Bit, 5110-01-416-7827, Forrest Tool p/n 595-010 or equal, in such a manner as to secure the Rake-Hoe Attachment, 5120-01-416-8577, Forrest Tool p/n 595-080 or equal when placed over the beveled socket.

End Item: Hand, Combination Tool 5120-01-416-8568 Forrest Tool p/n 595 or equal

Or Equal SHALL be dimensionally equivalent ensuring compatibility, interchangeability, and fitment with established Forest Tool Items listed above. All dimensional characteristics of the brand name tool and tool offered as equivalent that specifically address the compatibility, interchangeability, and fitment must be provided to establish equivalency.

111.8. 5120-01-416-8575 Ver: 20 UI: SE Status: Active AAC: H LOCK PIN SET, COMBINATION TOOL

KeyFields:

1A-A-55487 Ver: 2 PIN, LOCK (HITCH PIN)**

Item Shall be IAW the latest version of Commercial Item Description (CID) A-A-55487

NSN Description:

Locking Pin, Forrest Tool p/n 595-999 or equal

Eye diameter: 5/8"

Wire Diameter: .093"

Material: Steel

Overall Length: 2"

Overall Length Tolerance: 1/8"

Special Features: Requires set of 6. Must fit into hole in the tang of the components, referenced below, requiring locking pin to secure to beveled socket on the Ax, Single Bit, 5110-01-416-7827, Forrest Tool p/n 595-010 or equal.

Referenced Components:

Shovel Attachment, 5120-01-416-8570 Forrest Tool p/n 595-040 or equal

IPDs - TECHNICAL INFORMATION

Mattock Attachment, 5120-01-416-8571 Forrest Tool p/n 595-050 or equal
Pick Attachment, 5120-01-416-8573 Forrest Tool p/n 595-060 or equal
Broad Pick Attachment, 5120-01-416-8572 Forrest Tool p/n 595-070 or equal

End Item: Hand, Combination Tool 5120-01-416-8568 Forrest Tool p/n 595 or equal

Or Equal SHALL be dimensionally equivalent ensuring compatibility, interchangeability, and fitment with established Forest Tool Items listed above. All dimensional characteristics of the brand name tool and tool offered as equivalent that specifically address the compatibility, interchangeability, and fitment must be provided to establish equivalency.

111.9. 5120-01-416-8577 Ver:22 UI:EA Status:Active AAC:H RAKE-HOE ATTACHMENT, COMBINATION

NSN Description:

Rake Hoe, Attachment, Forrest tool p/n 595-080 or equal

Overall Width: 7-1/8"

Overall Width Tolerance: 1/4"

Overall Length: 9-3/8"

Overall Length Tolerance: 1/4"

Thickness: 1/8"

Weight: 28 oz

Weight Tolerance: 2 oz

Material: Steel

Overall Hardness: 38-47 HRc

Hoe:

Beveled Cutting Edge: 45 degrees

Cutting Edge Width: 6-5/8"

Cutting Edge Width Tolerance: 1/4"

Rake:

There shall be 4 tines of equal length and equally distribution along tool edge and shall have a stiffening ridge 3-1/2" (+/- 1/4") long with a thickness of 7/32" (+/- 1/64").

Tine Length: 3-1/2"

Tine Length Tolerance: 1/4"

Tine Width at Base: 1-1/4"

Tine Width at Base Tolerance: 1/8"

Tine Width at Tip: 1/2"

Tine Width at Tip Tolerance: 3/64"

Tine Tip Type: Round

Features: Reversible to allow use of either tool according to direction of attachment. A rectangular opening measuring 1-1/4" (from side to side) by 1-1/32" (from end to end) both with a tolerance of 1/64" will be placed in the approximate center of the attachment. Tool will be affixed over the beveled socket of the Ax Single Bit, 5110-01-416-7827, Forrest Tool p/n 595-010 or equal, with desired tool edge opposite of Ax blade edge. Tool shall fit in such a manner as to be secured by way of Fastener, 5120-01-416-8574, Forrest Tool p/n 595-090 or equal

End Item: Hand, Combination Tool 5120-01-416-8568 Forrest Tool p/n 595 or equal

Or Equal SHALL be dimensionally equivalent ensuring compatibility, interchangeability, and fitment with established Forest Tool Items listed above. All dimensional characteristics of the brand name tool and tool offered as equivalent that specifically address the compatibility, interchangeability, and fitment must be provided to establish equivalency.

111.10. 5140-01-416-8569 Ver:21 UI:EA Status:Active AAC:H ROLL, TOOL AND ACCESSORIES

NSN Description:

Bag, Carrying: Forrest Tool Company Part Number 595-030 or Equal

Size: 10" x 14" when closed

Size Tolerance: 1/2"

Pockets: 1 large rear pocket 13-1/2" x 9-1/2", 4 sectioned pockets in the middle 3 @ 2-1/2" x 7" 1 @ 5" x 7", 1 medium pocket in the front 13-1/2" x 6-1/2"

Pocket Size Tolerance: 1/4"

Material: Cordura nylon

Closure: Hook and Loop Velcro closure

Color: Olive Drab overall

IPDs - TECHNICAL INFORMATION

Features: Compartmentalized to accommodate all components of Hand, Combination Tool 5120-01-416-8568 Forrest Tool p/n 595 or equal consisting of the following:

Ax, Single Bit 5110-01-416-7827 Forrest Tool p/n 595-010 or equal
Sheath, Ax 5110-01-416-7830 Forrest Tool p/n 595-020 or equal
Shovel 5120-01-416-8570 Forrest Tool p/n 595-040 or equal
Mattock 5120-01-416-8571 Forrest Tool p/n 595-050 or equal
Pick 5120-01-416-8573 Forrest Tool p/n 595-060 or equal
Broad Pick 5120-01-416-8572 Forrest Tool p/n 595-070 or equal
Rake-Hoe 5120-01-416-8577 Forrest Tool p/n 595-080 or equal
Locking Pin (6ea) 5120-01-416-8575 Forrest Tool p/n 595-999 or equal
Fastener 5120-01-416-8574 Forrest Tool p/n 595-090 or equal

End Item: Hand, Combination Tool 5120-01-416-8568 Forrest Tool p/n 595 or equal

Or Equal SHALL be dimensionally equivalent ensuring compatibility with established Forest Tool Items listed above. All dimensional characteristics of the brand name item and item offered as equivalent specifically addressing the compatibility must be provided to establish equivalency.

End of 5120-01-416-8568 Components List

112. 5120-01-416-8570 Ver: 19 UI: EA Status: Active AAC: H
SHOVEL, ATTACHMENT, COMBINATION TOOL

NSN Description:

Shovel Attachment, Forrest tool p/n 595-040 or equal

Overall Length: 9-1/2"

Overall Length Tolerance: 1/4"

Overall Width: 8-3/4"

Overall Width Tolerance: 1/4"

Overall Weight: 2- 1/4lbs

Overall Weight Tolerance: 1/4lb

Material: Steel

Features: Shape shall be curved and pointed with a drop forged stiffener with dimensionally equivalent tang welded to face of shovel attachment. Tang end shall fit into the beveled socket of the Ax Single Bit, 5110-01-416-7827, Forrest Tool p/n 595-010 or equal, in such a manner as to be secured by way of Locking Pin 5120-01-416-8575 Forrest Tool p/n 595-999 or equal.

End Item: Hand, Combination Tool 5120-01-416-8568 Forrest Tool p/n 595 or equal

Or Equal SHALL be dimensionally equivalent ensuring compatibility, interchangeability, and fitment with established Forest Tool Items listed above. All dimensional characteristics of the brand name tool and tool offered as equivalent that specifically address the compatibility, interchangeability, and fitment must be provided to establish equivalency.

113. 5120-01-416-8571 Ver: 22 UI: EA Status: Active AAC: H
MATTOCK ATTACHMENT, COMBINATION TOOL

KeyFields:

1B107.42 Ver: 2 HATCHETS AND AXES: SAFETY REQUIREMENTS

In accordance with The American Society of Mechanical Engineers (ASME) B107.42-2008. ASME B107.42-2008 is contained in the ASME B107.400-2008.

NSN Description:

Mattock Attachment, Forrest Tool p/n 595-050 or equal

Type 2

IPDs - TECHNICAL INFORMATION

Cutting Edge Width: 3-5/8"

Cutting Edge Width Tolerance: 1/8"

Overall Length: 7-1/8"

Overall Length Tolerance: 1/4"

Thickness: 3/4" measured at 4-1/4" (+/- 1/8") from cutting edge

Thickness Tolerance: 1/16"

Weight: 26 oz

Weight Tolerance: 2 oz

Material: Steel

Features: Tang end shall fit into the beveled socket of the Ax Single Bit, 5110-01-416-7827, Forrest Tool p/n 595-010 or equal, in such a manner as to be secured by way of head fastening hardware: Locking Pin, 5120-01-416-8575, Forrest Tool p/n 595-999 or equal.

End Item: Hand, Combination Tool 5120-01-416-8568 Forrest Tool p/n 595 or equal

EXCEPTION TO SPECIFICATION: The Ax, single bit and Mattock Attachment shall be two separate pieces.

Or Equal SHALL be dimensionally equivalent ensuring compatibility, interchangeability, and fitment with established Forest Tool Items listed above. All dimensional characteristics of the brand name tool and tool offered as equivalent that specifically address the compatibility, interchangeability, and fitment must be provided to establish equivalency.

114. 5120-01-416-8572 Ver: 21 UI: EA Status: Active AAC: H
BROAD PICK ATTACHMENT, COMBINATION

KeyFields:

1B107.42 Ver: 2 HATCHETS AND AXES: SAFETY REQUIREMENTS

In accordance with The American Society of Mechanical Engineers (ASME) B107.42-2008. ASME B107.42-2008 is contained in the ASME B107.400-2008.

NSN Description:

Broad Pick Attachment, Forrest Tool p/n 595-070 or equal

Type 2

Cutting Edge Width: 1"

Cutting Edge Width Tolerance: 1/8"

Tip Type: Chisel, Square

Overall Length: 6"

Overall Length Tolerance: 1/4"

Thickness: 3/4" measured at 3" (+/- 1/8") from cutting edge

Thickness Tolerance: 1/16"

Weight: 11 oz

Weight Tolerance: 1oz

Material: Steel

Features: Tang end shall fit into the beveled socket of the Ax Single Bit, 5110-01-416-7827, Forrest Tool p/n 595-010 or equal, in such a manner as to be secured by way of Locking Pin, 5120-01-416-8575, Forrest Tool p/n 595-999 or equal.

End Item: Hand, Combination Tool 5120-01-416-8568 Forrest Tool p/n 595 or equal

EXCEPTION TO SPECIFICATION: The Ax, single bit and Broad Pick Attachment shall be two separate pieces.

Or Equal SHALL be dimensionally equivalent ensuring compatibility, interchangeability, and fitment with established Forest Tool Items listed above. All dimensional characteristics of the brand name tool and tool offered as equivalent that specifically address the compatibility, interchangeability, and fitment must be provided to establish equivalency.

115. 5120-01-416-8573 Ver: 25 UI: EA Status: Active AAC: H
PICK ATTACHMENT, COMBINATION TOOL

IPDs - TECHNICAL INFORMATION

KeyFields:

1B107.42 Ver: 2 HATCHETS AND AXES: SAFETY REQUIREMENTS

In accordance with The American Society of Mechanical Engineers (ASME) B107.42-2008. ASME B107.42-2008 is contained in the ASME B107.400-2008.

NSN Description:

Pick Attachment, Forrest Tool p/n 595-060 or equal

Type 2

Overall Length: 7-1/4"

Overall Length Tolerance: 1/4"

Width: 3/4" measured at 4-1/2" (+/- 1/8") from point

Width Tolerance: 1/16"

Thickness: 3/4" measured at 4-1/2" (+/- 1/8") from point

Thickness Tolerance: 1/16"

Tip Type: Round Tapered Point

Weight: 11oz

Weight Tolerance: 1oz

Material: Steel

Features: Tang end shall fit into the beveled socket of the Ax Single Bit, 5110-01-416-7827, Forrest Tool p/n 595-010 or equal, in such a manner as to be secured by way of Locking Pin, 5120-01-416-8575, Forrest Tool p/n 595-999 or equal.

End Item: Hand, Combination Tool 5120-01-416-8568 Forrest Tool p/n 595 or equal

EXCEPTION TO SPECIFICATION: The Ax, single bit and Pick Attachment shall be two separate pieces.

Or Equal SHALL be dimensionally equivalent ensuring compatibility, interchangeability, and fitment with established Forest Tool Items listed above. All dimensional characteristics of the brand name tool and tool offered as equivalent that specifically address the compatibility, interchangeability, and fitment must be provided to establish equivalency.

116. 5120-01-416-8574 Ver: 26 UI: EA Status: Active AAC: H FASTENER, RAKE-HOE ATTACHMENT, COMBINATION TOOL

NSN Description:

Fastener, Rake Hoe Attachment, 5120-01-416-8574 Forrest Tool p/n 595-090 or equal

Overall Length: 3"

Overall Length Tolerance: 1/8"

Thickness: 5/16"

Thickness Tolerance: 1/64"

Width: 9/16"

Width Tolerance: 1/16"

Area Surrounding Bolt Hole: 3/4" square

Area Surrounding Bolt Hole Tolerance: 1/64"

Angle of Bend: 16 degrees

Angle of Bend Tolerance: 3 degrees

Thumb Screw: 3/8"-16UNC

Thumb Screw Length: 1-5/8"

Thumb Screw Head Width: 1" min.

Material: Steel

Features: Beveled end opposite thumbscrew. Fastener will fit through the beveled socket of the Ax Single Bit, 5110-01-416-7827, Forrest Tool p/n 595-010 or equal, in such a manner as to secure the Rake-Hoe Attachment, 5120-01-416-8577, Forrest Tool p/n 595-080 or equal when placed over the beveled socket.

End Item: Hand, Combination Tool 5120-01-416-8568 Forrest Tool p/n 595 or equal

IPDs - TECHNICAL INFORMATION

Or Equal SHALL be dimensionally equivalent ensuring compatibility, interchangeability, and fitment with established Forest Tool Items listed above. All dimensional characteristics of the brand name tool and tool offered as equivalent that specifically address the compatibility, interchangeability, and fitment must be provided to establish equivalency.

117. 5120-01-416-8575 Ver: 20 UI: SE Status: Active AAC: H
LOCK PIN SET, COMBINATION TOOL

KeyFields:

1A-A-55487 Ver: 2 PIN, LOCK (HITCH PIN)**

Item Shall be IAW the latest version of Commercial Item Description (CID) A-A-55487

NSN Description:

Locking Pin, Forrest Tool p/n 595-999 or equal

Eye diameter: 5/8"

Wire Diameter: .093"

Material: Steel

Overall Length: 2"

Overall Length Tolerance: 1/8"

Special Features: Requires set of 6. Must fit into hole in the tang of the components, referenced below, requiring locking pin to secure to beveled socket on the Ax, Single Bit, 5110-01-416-7827, Forrest Tool p/n 595-010 or equal.

Referenced Components:

Shovel Attachment, 5120-01-416-8570 Forrest Tool p/n 595-040 or equal

Mattock Attachment, 5120-01-416-8571 Forrest Tool p/n 595-050 or equal

Pick Attachment, 5120-01-416-8573 Forrest Tool p/n 595-060 or equal

Broad Pick Attachment, 5120-01-416-8572 Forrest Tool p/n 595-070 or equal

End Item: Hand, Combination Tool 5120-01-416-8568 Forrest Tool p/n 595 or equal

Or Equal SHALL be dimensionally equivalent ensuring compatibility, interchangeability, and fitment with established Forest Tool Items listed above. All dimensional characteristics of the brand name tool and tool offered as equivalent that specifically address the compatibility, interchangeability, and fitment must be provided to establish equivalency.

118. 5120-01-416-8577 Ver: 22 UI: EA Status: Active AAC: H
RAKE-HOE ATTACHMENT, COMBINATION

NSN Description:

Rake Hoe, Attachment, Forrest tool p/n 595-080 or equal

Overall Width: 7-1/8"

Overall Width Tolerance: 1/4"

Overall Length: 9-3/8"

Overall Length Tolerance: 1/4"

Thickness: 1/8"

Weight: 28 oz

Weight Tolerance: 2 oz

Material: Steel

Overall Hardness: 38-47 HRc

Hoe:

Beveled Cutting Edge: 45 degrees

Cutting Edge Width: 6-5/8"

Cutting Edge Width Tolerance: 1/4"

Rake:

There shall be 4 tines of equal length and equally distribution along tool edge and shall have a stiffening ridge 3-1/2" (+/- 1/4") long with a thickness of 7/32" (+/- 1/64").

Tine Length: 3-1/2"

IPDs - TECHNICAL INFORMATION

Tine Length Tolerance: 1/4"
Tine Width at Base: 1-1/4"
Tine Width at Base Tolerance: 1/8"
Tine Width at Tip: 1/2"
Tine Width at Tip Tolerance: 3/64"
Tine Tip Type: Round

Features: Reversible to allow use of either tool according to direction of attachment. A rectangular opening measuring 1-1/4" (from side to side) by 1-1/32" (from end to end) both with a tolerance of 1/64" will be placed in the approximate center of the attachment. Tool will be affixed over the beveled socket of the Ax Single Bit, 5110-01-416-7827, Forrest Tool p/n 595-010 or equal, with desired tool edge opposite of Ax blade edge. Tool shall fit in such a manner as to be secured by way of Fastener, 5120-01-416-8574, Forrest Tool p/n 595-090 or equal

End Item: Hand, Combination Tool 5120-01-416-8568 Forrest Tool p/n 595 or equal

Or Equal SHALL be dimensionally equivalent ensuring compatibility, interchangeability, and fitment with established Forest Tool Items listed above. All dimensional characteristics of the brand name tool and tool offered as equivalent that specifically address the compatibility, interchangeability, and fitment must be provided to establish equivalency.

119. 5120-01-428-8193 Ver: 19 UI: SE Status: Active AAC: J
WRENCH SET, COMBINATION

KeyFields:

1AS954 Ver: 12 AS954, WRENCHES, HAND 12 POINT HIGH STRENGTH, THIN WALL

In accordance with Society of Automotive Engineers Aerospace Standard AS954G, Wrenches, Hand Twelve Point High Strength, Thin Wall, dated 2011

Exception to AS954G dated 2011:

Exception: Paragraph 3.7 Test Proof Loads, the following requirement shall be incorporated:

Torque shall be applied with a suitable torque producing machine. Torque shall be applied at a speed of 15 deg/min to 30deg/min until proof load value is achieved; test load shall be held for 10 seconds, then torque shall be released. This proof load test shall be performed in the clockwise and counter clockwise direction.

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

2SET Ver: 3 SET (ONE MANUFACTURER)

Tools in the set shall be manufactured by only one manufacturer unless otherwise specified.

NSN Description:

Type II: Wrenches, Box (12-Point)

Class 4: Combination, Box and Open End Wrench

Style A: Regular Length

Wrench Openings: The set shall consist of one (1) each of the following 24 components: 1/4, 5/16, 11/32, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, 1, 1-1/16, 1-1/8, 1-3/16, 1-1/4, 1-5/16, 1-3/8, 1-7/16, 1-1/2, 1-9/16 and 1-5/8 inches both ends

Material: Steel

Coating: Chrome

Features: Kit Bag

120. 5120-01-429-3646 Ver: 17 UI: SE Status: Active AAC: H
SOCKET SET, SOCKET WRENCH

IPDs - TECHNICAL INFORMATION

KeyFields:

1AS4283 Ver: 4 SAE AS4283, HANDLES AND ATTACHMENTS FOR HAND SOCKET WRENCHES

Shall be In Accordance With SAE Aerospace Standard: AS4283B - Handles and Attachments for Hand Socket Wrenches, dated December 2011

1AS954 Ver: 12 AS954, WRENCHES, HAND 12 POINT HIGH STRENGTH, THIN WALL

In accordance with Society of Automotive Engineers Aerospace Standard AS954G, Wrenches, Hand Twelve Point High Strength, Thin Wall, dated 2011

Exception to AS954G dated 2011:

Exception: Paragraph 3.7 Test Proof Loads, the following requirement shall be incorporated:

Torque shall be applied with a suitable torque producing machine. Torque shall be applied at a speed of 15 deg/min to 30deg/min until proof load value is achieved; test load shall be held for 10 seconds, then torque shall be released. This proof load test shall be performed in the clockwise and counter clockwise direction.

1B107.10M Ver: 2 ASME B107.10M-1996

In accordance with American Society of Mechanical Engineers(ASME) B107.10 - 2005

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

2SET Ver: 3 SET (ONE MANUFACTURER)

Tools in the set shall be manufactured by only one manufacturer unless otherwise specified.

NSN Description:

Component Quantity:35
Square Drive Size: 3/4 inch
Material: Steel
Coating: Chrome

AS954

Type I: Sockets (12-Point)

Class 1: Sockets

Style B: Long Length

Square Drive Size: 3/4 inch

Wrench Openings: The set shall consist of one (1) each of the following 26 components:

3/4, 13/16, 7/8, 15/16, 31/32, 1, 1-1/16 - 1-1/8, 1-3/16, 1-1/4, 1-5/16, 1-3/8, 1-7/16, 1-1/2, 1-9/16, 1-5/8, 1-11/16, 1-3/4, 1-13/16, 1-7/8, 2, 2-1/16, 2-1/8, 2-3/16, 2-1/4 and 2-3/8 inches

AS4283

Type 1 - Handles

Class 1 - Hinged (breaker bar, head only)

Type 1 - Handles

Class 2 - Ratchet, Reversible (sealed head only)

Type: 2 - Attachments

Class 1 - Universal joint

Type: 2 - Attachments

Class 2 - Bar, Extension, Solid

lengths: 3, 8 and 16 inches (knurled shank)

IPDs - TECHNICAL INFORMATION

B107.10

Type: 2 - Attachments

Class 3 - Adapter

Style 2 - Ratchet adapter.

Type 1 - Handles

Class 4 - Tee, sliding (Head only)

19-1/4 inch Handle, knurled, locking button, for ratchet heads, breaker bar heads and sliding T-head.

Furnished Items: Metal box

121. 5120-01-430-3123 Ver: 26 UI: EA Status: Active AAC: G
JACK, SCISSORS, HAND

NSN Description:

Extended Height: 18 inches

Retracted Height: 6-21/64 inches

Load capacity: 3 Tons

Features: Scissors jack for use on Hummer vehicles

A M General Part Number 5939822L; Autoline Industries Indiana LLC Part Number 006762, or equal

122. 5120-01-476-7556 Ver: 22 UI: EA Status: Active AAC: H
INTRENCHING TOOL, HAND

KeyFields:

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Entrenching Shovel w/Closed End Handgrip

Open Length: 23-1/4 inch (+/- 1/4 inch)

Closed Length: 9-3/8 inch (+/- 1/8 inch)

Blade: 8-7/16 inches x 6 inches with 3-3/4 inches serration on one edge

Weight: 38 oz (+/- 1 oz)

Materials: Powder coated boron carbon steel spade and bracket, anodized 7020 aluminum inner handle shaft, PBT glass reinforced outer handle shaft and tightening collet

Material, Handle: Glass Filled Nylon

Fiskars Inc. part number 05942 (shovel only) or equal

123. 5120-01-495-7712 Ver: 12 UI: SE Status: Active AAC: G
WRENCH SET, COMBINATION

KeyFields:

1B107.66 Ver: 1 B107.100-2010 RATCHETING BOX WRENCHES

In accordance with American Society of Mechanical Engineers (ASME) B107.66 as contained in ASME B107.100-2010; this document incorporates and includes the revisions of primary standard B107.6, B107.8, B107.9, B107.21, B107.39, B107.40, and B107.66.

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

2SET Ver: 3 SET (ONE MANUFACTURER)

IPDs - TECHNICAL INFORMATION

Tools in the set shall be manufactured by only one manufacturer unless otherwise specified.

NSN Description:

Type II: Non-laminated construction

Wrench Openings: The set shall consist of one (1) each of the following 10 components: 1/4, 5/16, 11/32, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16 and 3/4 inch

Material: Steel

Coating: Chrome

Features: Vinyl Roll; Combination Ratcheting (72 teeth)

124. 5120-01-520-8743 Ver: 7 UI: EA Status: Active AAC: H
MIRROR, INSPECTION:

NSN Description:

Series 600 Mirrors

Features:

Straight extension pole with rubber grip handle and arm rest for counterbalance

Extends to approximately 75 inches

Complete with 8 inch convex acrylic mirror

Extension pole is of fiberglass/aluminum construction

Complete with flashlight clip

Optional hook available instead of flashlight clip

Tactical & Survival Specialties Inc Part Number 082-SM600 or equal

125. 5120-01-573-3382 Ver: 5 UI: EA Status: Active AAC: J
JACK, LEVELING-SUPPORT

NSN Description:

4.25 Ton Hydraulic Jack

includes:

Model 30M HMMWV Jack w/BMI P40A Hydraulic Pump

Hose Assembly

Hydraulic Couplers

Swivel Fitting

Instructions and storage bag

Capable of lifting fully loaded up Armor HMMWVs equipped with the improved armor package

Maximum operating GVWR capacities up to 17,200 lbs, including a 10,100 lbs axle weight

Lifting Height (range): 5.75 inches minimum to 20.75 inches maximum

Bogert International, Inc. Part Number 30M-HVBMI or equal.

126. 5120-01-573-5935 Ver: 11 UI: EA Status: Active AAC: H
JACK , HYDRAULIC, HAND

NSN Description:

The jack has an 8 inch stroke and another 3-1/4 inches of height adjustment with the extension screw. The ram and the pump piston are electroless nickel plated and the release has a black oxide coating, all of which are intended to extend the operational life of the jack.

Extended Height: 22.640 inches

Retracted Height: 11.300 inches

Unit Type: Self-Contained

IPDs - TECHNICAL INFORMATION

Load Capacity: 12.0 Tons
Features Provided: W/Handle

IAW TACOM Source Drawing 12505970

U.S. Jack Co. Model Number: D-51014 or equal

127. 5120-01-578-4888 Ver: 10 UI: EA Status: Active AAC: H
CLEANING TOOL, WEAPONS

NSN Description:

Field Expedient Cleaning Tool (eFECT) for the M4/M16 weapons system

Cleaning Tools consists of:

Replaceable 4 prong front sight post adjustment tool for the M4/M16 weapons system

Carbon Scraper

Pin Punch

Flat Driver/Scraper

Nylon Brush

Curved Pick

Closed Dimensions: 3-1/2 inch length; 1-1/4 inch width

Weight: 4.1 ounce without sheath, 5.5 ounce with sheath

Sheath: 100% U.S. made Berry Compliant, Black

Material: Stainless Steel

Coating: Black Finish

Features: The 4 prong front sight adjustment component is magnetically attached for ease of removal and replacement.

The nylon brush and curved pick will be removable and interchangeable with Otis Technology threaded components. The nylon brush and curved pick can be unscrewed and an Otis Technology component such as a rod, brush, scraper or pick can be screwed into the female threaded component receptacle on the eFECT.

Saf.T.Plus locking system allows each tool to be unfolded out of the closed position and then locked into place for use. The Saf.T.Plus locking system prevents the tool from closing during use, but allows for easy release and folding back into the tool body.

Gerber Legendary Blades part number 30-000030 or equal.

128. 5130-00-184-1426 Ver: 32 UI: EA Status: Active AAC: G
WRENCH, IMPACT, PNEUMATIC (CLOSED GRIP):

KeyFields:

1A-A-2691A Ver: 1 WRENCH, IMPACT, PNEUMATIC, PORTABLE (CLOSED GRIP)

In accordance with Commercial Item Description A-A-2691A, Notice 2 dated August 9, 2005.

1ERGO Ver: 4 PNEUMATIC LOW VIBRATION

Vibration Level (VL): VL<5 m/s/s when measured in accordance with the applicable part of ISO 8662 or ISO 28927. The Supplier shall provide a written report detailing the testing method, testing agency and results.

Where this VL requirement is not obtainable, given the nature of the tool (pavement breakers, for example), priority shall be given to the conforming tool having the lowest VL.

Provided the rest of the requirements in this description are met, priority will be given to items having a vibration level (VL) less than 5 m/s/s when measured in accordance with the applicable part of ISO 8662 or ISO 28927.

IPDs - TECHNICAL INFORMATION

- >The Manufacturer / Supplier SHALL submit certification detailing method of vibration testing used and level measured.
- >The Manufacturer / Supplier SHALL provide a life cycle analysis for their item of supply
- >The Manufacturer / Supplier SHALL label the tool and box with the Vibration Level and Noise Level of the tool provided under standard working conditions

2A-A-2691A Ver: 1 REMOVAL OF 2.11 FROM CID

Exception to Document.

Paragraph 2.11 shall be removed from the document. This requirement is no longer valid.

NSN Description:

Wrench, Impact, Pneumatic

Reversible, for extra heavy duty tool for high-volume, heavy production work

Bolt Capacity: Standard 1-1/4 inch bolt capacity;

Handle: Closed grip handle

Spindle square drive size: 1 inch;

Spindle offset: 2-1/2 inches maximum

Operating air pressure: 80 to 100 psig;

Air consumption during use: 65 cfm maximum at 100 psig

Air inlet thread: 1/2" NPTF;

Clutch type: 3-jaw clutch

Adjustable/removeable support handle, socket pin with retaining ring, and manufacturer's technical manual containing standard commercial operating and maintenance instructions and parts list

129. 5130-00-340-0719 Ver: 17 UI: EA Status: Active AAC: G

SANDER, DISK, PNEUMATIC, PORTABLE

KeyFields:

1ERGO Ver: 5 PNEUMATIC LOW VIBRATION

Vibration Level (VL): VL should be less than five-(5) m/s² (meters per second squared) when measured in accordance with the applicable part of ISO 28927. The Supplier shall provide a written report detailing the testing method, testing agency and results.

Where this VL requirement is not obtainable, given the nature of the tool (pavement breakers, for example), priority shall be given to the conforming tool having the lowest VL.

Provided the rest of the requirements in this description are met, priority will be given to items having a vibration level (VL) less than 5 m/s² when measured in accordance with the applicable part of ISO 28927.

The Manufacturer / Supplier SHALL submit certification detailing method of vibration testing used and level measured.

The Manufacturer / Supplier SHALL label the tool and box with the Vibration Level and Noise Level of the tool provided under standard working conditions

NSN Description:

This technical description covers right angle heavy-duty portable pneumatic compact disk sanders used for contour sanding and for finishing in limited access areas.

Salient Characteristics:

Sander Capacity: 80 and 100 pounds of compressed air per square inch gauge.

Throttle Style: Lever type throttle with automatic air shut off

The Compact Pneumatic Right Angle Disc Sander shall comply with the following performance and design characteristics:

Sanding disk capacity: 3 inches maximum

No-load speed:20,000 RPM, plus or minus 2,000 RPM.

IPDs - TECHNICAL INFORMATION

Exhaust location: Front or rear.
Overall length: 6 inches maximum.
Weight (excluding pad): 1-1/2 pounds maximum.
Speed Regulator: Built-in
Spindle Type: Collet shaft.
Collet Size: 1/4 inch.
Angle Head Height: 3 inches maximum.
Air Consumption at no-load: 18 SCFM maximum
Sander Speed: 1/4 horsepower minimum at a speed of not less than 9,000 RPM with an air consumption of not more than 16 SCFM
Air Inlet Connection: 1/4 inch NPTF
Bearings: Rolling contact bearings throughout
Sound Level: 85dB(A) per the Compressed Air and Gas Institute's, CAGI-PNEUROP Test Code for the Measurement of Sound from Pneumatic Equipment.
Material: All components shall be new and unused. Repaired or reconditioned components shall not be acceptable.

General construction - The sanders shall be of rugged construction so as to withstand, without failure, treatment likely to be encountered under general service conditions. The sanders shall be self-contained, readily accessible for adjustment, or replacement parts. Parts which require lubrication shall be properly enclosed so as to prevent entrance of foreign particles and leakage of lubricant. Working parts exposed to wear shall be of sufficient hardness to withstand the service required. Parts shall be properly finished by machining or grinding to dimensions within limits established by good commercial practice. Similar parts shall be interchangeable and of good fit when assembled with relative parts of the same size, type, and make.

When the manufacturer's tool design utilizes lubricant fittings, a grease gun and lubricant shall be provided. When closed housing or sealed bearing construction is utilized, a grease gun and lubricant need not be provided.
Sander shall be furnished with a back-up pad, operating and maintenance instructions, Collet wrench(es), parts list and manufacturer's standard equipment.

130. 5130-00-345-1179 Ver: 16 UI: EA Status: Active AAC: G
GUN, SEALANT INJECTION:

NSN Description:

This technical description is for an air operated production aircraft sealant gun capable of dispensing aircraft fuel tank and wing sealant compounds, filleting mastics, and other similar materials. The tool is portable, hand held and self contained.

Salient Characteristics:

The sealant injection gun shall comply with the following design and performance characteristics:

Tool Weight: 14 lbs. maximum

Operating pressure: 75 to 125 psig maximum

Air motor type: 3 inch bore by 1-3/4 inch stroke

Pressure ratio: 70 to 1

Material cylinder: Steel with brass air inlet, Teflon coated

Follower piston and pump rod packing material: Teflon

Sealant volume capacity: 12 fluid ounce refillable sealant container

Special Features: Sealant can be hand or power loaded. Gun is single shot trigger operated with automatic air retraction

Accessories: The gun shall be furnished with all accessories as normally provided commercially. In addition the gun shall be furnished with operating and maintenance instructions, parts list, accessories parts list and manufacturer's standard equipment.

131. 5130-00-494-1132 Ver: 23 UI: SE Status: Active AAC: G
ROTARY TOOL KIT, ELECTRIC:

IPDs - TECHNICAL INFORMATION

NSN Description:

Electric Rotary Tool Kit

Salient Characteristics:

Universal Type Motor

115 Volts AC or DC

No load Speed - 25,000 minimum

Full load Speed - 14,000 minimum

Rated Horsepower - 1/4

Chuck Capacity - 1/8 inch and 1/4 inch shank

Body Diameter - 3 inches maximum

Weight - 4-1/2 pounds maximum

The following items, components, and spare parts shall be supplied with the electric rotary tool. These components are not supplied separately on GSA schedule. Replacements maybe obtained by contacting the vendor supplier of the subject kit.

Electrical Contact Brushes - 6

Dressing Stone - 1

Abrasive Wheels - 32

Hand File - 1

Rotary Files - 20

Flexible Drive Shaft - 1

Parallel Grip Collet - 1

Collet Type Chuck, 1/8 in. - 1

Collet Type Chuck, 1/4 in. - 1

3 Conductor Electric Cord - 1

Motor Overload Fuse - 1

Quill Assy. - 1

Universal Tool Mount - 1

Wrench Set - 1.

Carrying Case - 1

Instruction and Safety Manual - 1

132. 5130-00-596-1176 Ver: 15 UI: EA Status: Active AAC: G

SANDER, DISC, PNEUMATIC, PORTABLE

KeyFields:

1ERGO Ver: 5 PNEUMATIC LOW VIBRATION

Vibration Level (VL): VL should be less than five-(5) m/s² (meters per second squared) when measured in accordance with the applicable part of ISO 28927. The Supplier shall provide a written report detailing the testing method, testing agency and results.

Where this VL requirement is not obtainable, given the nature of the tool (pavement breakers, for example), priority shall be given to the conforming tool having the lowest VL.

Provided the rest of the requirements in this description are met, priority will be given to items having a vibration level (VL) less than 5 m/s² when measured in accordance with the applicable part of ISO 28927.

The Manufacturer / Supplier SHALL submit certification detailing method of vibration testing used and level measured.

The Manufacturer / Supplier SHALL label the tool and box with the Vibration Level and Noise Level of the tool provided under standard working conditions

NSN Description:

This technical description covers right angle pneumatic sanders used for medium and heavy-duty sanding, polishing, de-burring, blending, and smoothing.

IPDs - TECHNICAL INFORMATION

Salient Characteristics:

The sander shall comply with the following design and performance requirements:

No Load Speed: 5400 to 6000 RPM

Air Consumption at No Load: 35 CFM maximum

Horsepower: 3/4 HP minimum

Pad size diameter: 7 inches minimum

Angle height over spindle: 4-1/2 inches maximum

Design: The sander shall be the rotary motion type, shall be equipped with a flexible rubber-sanding pad with pad nut, wrench and spacer. The motor axis shall be at a right angle to the sander spindle. The gear reduction spindle head and the motor shall be designed as an integral unit, not an accessory to a motor. The spindle shall have a 5/8-11 UNC-2A thread for mounting the sanding pad. The sander shall be furnished with a removable side handle mounted at 90 degrees to 120 degrees from the centerline of the motor. The sander shall operate properly at air supply pressures between 80 to 100 psig.

The sander shall be equipped with a rotary vane-type pneumatic motor. All components shall be new and unused. Repaired or reconditioned components shall be not acceptable. A metal or composite housing is required. Cadmium is not an acceptable coating. The sander shall be equipped with a manually operated lever throttle that shall automatically close the air inlet valve when actuating hand pressure is removed. Provisions shall be made for lubrication to be supplied to the motor, cylinder, and other moving parts in the path of the air stream. The oil may be applied manually into the motor or supplied automatically through the air supply line. Other suitable means shall be provided for supplying lubrication to gears and other moving parts not in the air-stream.

Air inlet connection - The sander shall have a female, 1/4 inch size, and NPT or NPTF air inlet connection. The inlet shall be equipped with air filter of 20 mesh or finer which shall be effective in preventing solid particles in the compressed air supply from entering the tool. The filter shall be easy to remove, clean, and replace.

One copy of a technical manual consisting of the manufacturer's standard commercial instruction and parts list shall be furnished with each tool.

133. 5130-00-712-4855 Ver: 11 UI: EA Status: Active AAC: G

SWAGING TOOL, FLEXIBLE CABLE TERMINAL:

NSN Description:

The portable swaging tool covered by this technical description is intended to be used for cutting aircraft cable and for swaging terminals to aircraft cable.

Salient Characteristics:

Design and construction - The swaging tool shall be designed for portable, hand operation. The tool shall consist essentially of a cylinder and yoke assembly, hose assembly, foot control valve assembly, and the swaging and cutting dies. The tool shall operate on an air pressure of 80 to 100 psig. The complete tool, minus the dies, shall weigh not more than 20 pounds. All components of the tool shall be new. All tool components shall be free from defects and imperfections that would affect the operation, safety, serviceability or durability of the tool. Reconditioned or repaired components are not acceptable.

Cylinder and yoke assembly - The cylinder and yoke assembly shall be mounted on a cover and cushion to facilitate bench mounting. The expose surfaces of the cylinder and yoke shall be plated in accordance with ASTM B650 to prevent corrosion. The yoke shall hold the dies in position while swaging and cutting and be constructed to permit rapid changing of the dies without the use of tools. The yoke shall be equipped with a guard which covers the die opening and protects the operator from accidental injury. The guard shall not interfere with the swaging or cutting operation.

Air Hose Assembly - The air hose assembly shall be approximately 5 feet in overall length and shall include a shut-off valve. The hose shall comply with the specification testing of ASTMS: D380, D412, D413, D471, D518, D573, and D1149

IPDs - TECHNICAL INFORMATION

for 3/8 inch inside diameter rubber hose (yarn or fabric reinforced). One end of the hose shall be fitted with a 1/4 inch threaded pipe fitting for securing hose to the cylinder and the other end fitted with a quick operating coupling conforming to MIL-C-4109 for attaching hose to foot control valve.

Foot control valve assembly - The foot control valve shall be the single action, on-off type for control of the supply of air to the cylinder. The valve shall be enclosed in a heavy duty steel frame designed to prevent inadvertent activation of the valve. The valve assembly shall include a lubricator end and an air filter. The lubricator shall be the automatic feed type capable of supplying lubricant to the cylinder and yoke and have a reservoir of sufficient capacity so that one filling will last for a minimum of eight hours operation of the swaging tool. The air filter, located at the air inlet of the foot control valve shall be capable of retaining solid particles, 80 microns and larger in size, and shall contain a removable, reusable filter cartridge. All exposed metal parts of this assembly shall be plated to prevent corrosion in accordance with ASTM B696.

Swaging and cutting dies - The swaging and cutting dies shall be furnished as matched pairs and designed so that they can be readily and quickly installed in and removed from the yoke without the use of tools. The swaging and cutting dies shall be made of tool steel in accordance with ASTM A681 and hardened to Rockwell "C" 57 to 60. All functional surfaces of the dies shall have a 10 micro-inch, maximum surface roughness and shall be highly polished. They shall be marked in a legible and permanent manner to indicate the type and size of terminal to be swaged or the size cable to be cut, as applicable, and to insure their use in matched pairs. All swaging dies, cutting dies and yokes on all tools supplied shall be subjected to wet magnetic-particle inspection test as specified in ASTM E709-80.

Swaging dies - Twenty pairs of swaging dies shall be furnished the type and size as follows: one pair for each type of terminal shown on MS20663 and MS20664 in the 5 cable sizes 1/16 thru 3/16 inch (10 pairs); one pair for all 5 types of terminals shown on MS21260, MS20658, MS20677, MS20668, and MS21259 in the 7 cable sizes 1/16 thru 1/4 inch (7 pairs); and one pair for a commercial plain ball type terminal in the cable sizes of 1/16, 3/32, and 1/8 inch (3 pairs).

Cutting dies - Seven pairs of cutting dies shall be furnished, one pair for each of the following cable diameter sizes 1/16, 3/32, 1/8, 5/32, 3/16, 7/32, and 1/4 inch.

Gages - The gages shall be furnished as a set consisting of a minimum of 17 gages contained in a metal holder. The gages shall be flat and straight and the "Go" type for use in determining the acceptability of swaged terminals. They shall be made of tool steel, hardened to Rockwell "C" 60 to 62. The dimension of the gage opening shall conform to the basic "after swaging" dimension shown on the applicable MS drawing with a tolerance of plus .0000 minus .0002 inch. Each gage shall be marked in a legible permanent manner to indicate the type and size terminal and the dimension to be gaged as follows: on one side of the gage the marking shall include the applicable MS part number of the terminal and the words "ball only" or "shank only" as applicable; the other side of the gage shall have the same marking except the AN part number shall be used in lieu of the MS part number. (i.e., AN663-2, AN664-2 SHANK ONLY and MS20663-2, MS20664-2 SHANK ONLY) The opening dimension of the gages for the plain ball type terminals shall conform to the "spherical diameter" dimension shown on MS20663 and the gage shall be marked with the same commercial designation as shown in the instruction manual. Gages are not required to be marked with an "AN" part number.

Performance Testing:

Cutting test - The swaging tool shall be assembled following the manufacturer's procedure and connected to an air supply of 90 psig. One pair of cutting dies shall be installed in the yoke and 100 cuts shall be made using the appropriate size cable conforming to MIL-C-1511. The last 5 pieces of cut cable shall be examined and inserted into a sample MS terminal. The tool shall cut the cable without distorting, unraveling or otherwise make additional operations necessary prior to inserting the cable in the terminal. Any nonconformance to the stated requirements shall be cause for rejecting the tool. Each pair of cutting dies shall be subjected to the same kind of test, examination, and acceptance.

Swaging test - The swaging tool shall be assembled following the manufacturer's procedure and connected to an air supply of 90 psig. One pair of swaging dies shall be installed in the yoke. The terminal, with the cable inserted, shall be placed between the dies and while swaging, rotated 180 degrees, axially, to assure uniform swaging. The swaging time shall not exceed the time specified in Table I by more than 10 percent. Swaged terminals shall have a smooth surface free from die marks and rapid dimensional changes in cross-section, and shall be free from

IPDs - TECHNICAL INFORMATION

Performance Testing:

Cutting test - The swaging tool shall be assembled following the manufacturer's procedure and connected to an air supply of 90 psig. One pair of cutting dies shall be installed in the yoke and 100 cuts shall be made using the appropriate size cable conforming to MIL-C-1511. The last 5 pieces of cut cable shall be examined and inserted into a sample MS terminal. The tool shall cut the cable without distorting, unraveling or otherwise make additional operations necessary prior to inserting the cable in the terminal. Any nonconformance to the stated requirements shall be cause for rejecting the tool. Each pair of cutting dies shall be subjected to the same kind of test, examination, and acceptance.

Swaging test - The swaging tool shall be assembled following the manufacturer's procedure and connected to an air supply of 90 psig. One pair of swaging dies shall be installed in the yoke. The terminal, with the cable inserted, shall be placed between the dies and while swaging, rotated 180 degrees, axially, to assure uniform swaging. The swaging time shall not exceed the time specified in Table I by more than 10 percent. Swaged terminals shall have a smooth surface free from die marks and rapid dimensional changes in cross-section, and shall be free from splits, cracks, or other defects. The swaged terminal shall be measured with the appropriate gage or gages as applicable. Any terminal failing to pass thru the gage, with a minimum effort, or shows any evidence of the above mentioned defects shall be classified as defective and be cause for rejecting the swaging tool.

Table I. Terminal Sizes and Swaging Times:

Terminal	*Dash Nos.	Nom. Cable Size (inches)	Swaging Time (secs.)
-2	1/16	15	
MS 20658-3	3/32	15	
MS 20667-4	1/8	20	
MS 20668-5	5/32	35	
MS 21259-6	3/16	45	
MS 21260-7	7/32	60	
-8	1/4	100	
-2	1/16	6	
MS 20663-3	3/32	8	
-4	1/8	10	
MS 20664-5	5/32	30	
-6	3/16	100	
Pain-	1/16	5	
Ball-	3/32	6	
-	1/8	8	

* - Denotes dash numbers included in each MS.

Swaging test (Continued) - The same test shall be conducted on 5 terminals using each of the 20 pairs of dies provided with the tool and cable conforming to MIL-W-5693 and MIL-W-83420. Each swaged terminal shall be gaged and classified as stated above. If the swaged terminals are acceptable, they shall then be subjected to the following pull test:

The terminal shall be secured to a stable fixture and a load, equal to the minimum breaking strength specified on the applicable MS drawing, shall be applied to the cable. Prior to applying the load, the cable shall be marked at the point where it enters the swaged terminal. While the load is applied, the cable marking shall be examined to determine if any slippage has occurred. Any evidence of slippage between the cable and terminal on any sample being tested shall be cause for rejecting the swaging tool.

Upon completion of the above cutting and swaging tests, the swaging tool shall be disassembled and the various parts examined. Any evidence of the following shall be cause for rejecting the swaging tool: 1. Malfunction of component part.

IPDs - TECHNICAL INFORMATION

2. Improper lubrication. 3. Nicked, cracked, or deformed component. 4. Evidence of wear on dies. 5. Pitted or scratched areas on the polished surface of swaging dies. 6. Leaking of oil or air.

Carrying Case - The carrying case shall be made of 20 gage, minimum, sheet steel. The case shall be large enough to contain the complete swaging tool and other specified equipment and shall be painted in accordance with the manufacturer's standard practice. A separate compartment for each die shall be provided to retain the die when case is in transit. The case shall have a carrying handle on each end and latch to hold the case lid in a closed position. The case shall have an identification plate secured to the inside of the lid. The plate shall contain the manufacturer's name, address, and model or serial number of the swaging tool. Identification plate secured to the outside in lieu of the inside of the lid is acceptable.

134. 5130-00-890-5503 Ver: 12 UI: EA Status: Active AAC: H
NUT RUNNER AND SCREWDRIVER, PNEUMATIC:

KeyFields:

1ERGO Ver: 4 PNEUMATIC LOW VIBRATION

Vibration Level (VL): VL<5 m/s/s when measured in accordance with the applicable part of ISO 8662 or ISO 28927. The Supplier shall provide a written report detailing the testing method, testing agency and results.

Where this VL requirement is not obtainable, given the nature of the tool (pavement breakers, for example), priority shall be given to the conforming tool having the lowest VL.

Provided the rest of the requirements in this description are met, priority will be given to items having a vibration level (VL) less than 5 m/s/s when measured in accordance with the applicable part of ISO 8662 or ISO 28927.

- >The Manufacturer / Supplier SHALL submit certification detailing method of vibration testing used and level measured.
- >The Manufacturer / Supplier SHALL provide a life cycle analysis for their item of supply
- >The Manufacturer / Supplier SHALL label the tool and box with the Vibration Level and Noise Level of the tool provided under standard working conditions

NSN Description:

Nut Runner and Screwdriver, Pneumatic
Drive End Type - Male Spindle
Width Across Flats - 0.500 inches nominal
Capacity Rating - 0.375 inches nominal
Drive End Shape - Square
No Load Speed In RPM - 375.0 Nominal
Drive for Which Designed - Angular
Angle in Degrees - 90.0
Handle Type - Body Grip
Reversible Feature - Not Included
Drive Type - Direct
Air Volume Regulator - Included

Ingersoll-Rand angle wrench Model 8SQ53G2 conforming to General Electric drawing 157D3317.

Ingersoll-Rand (CAGE 4P412) part number 8SQ53G2 or equal

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135. 5130-01-014-6856 Ver: 21 UI: EA Status: Active AAC: G
ROTARY TOOL KIT, ELECTRIC:

NSN Description:

IPDs - TECHNICAL INFORMATION

Rotary electric tool with accessories for light duty grinding, sanding and polishing. The kit shall be furnished with a set of operating and maintenance instructions containing an illustrated parts breakdown. The kit shall be furnished in a metal or plastic carrying case.

ROTARY TOOL REQUIREMENTS:

Speed - Variable 5,000 RPM (minimum) to 35,000 RPM (maximum).

Bearings - Ball thrust/oil impregnated sleeve.

Collet - 1/8 inch furnished.

Drive type - keyless chuck or collet nut.

Motor ratings - 120VAC, 60 Hz.

Diameter - 2-1/4 inches maximum.

Drive type - keyless chuck or collet nut

Length - 8 inches maximum.

Weight - 20 ounces maximum.

Certification - UL 745 listed or certified conforming to UL 745.

ACCESSORIES REQUIRED: Mandrels and accessory shanks shall be 1/8 inch unless otherwise specified. The accessories provided shall be those as normally provided commercially with the rotary electric tool kit. Additionally the accessories shall include:

1. Collet: 1/8 inch size, Qty 1
2. Collet wrench, Qty. 1
3. 5/8 inch cylinder wheel, Qty. 1
4. Mandrel - screwpoint, Qty. 1
5. Mandrel - with internal threads, Qty. 1
5. 1/2 inch sanding drum, Qty. 1
6. 15/16 inch cutting wheels, Qty. 2
7. 1/2 inch diameter felt polishers, Qty. 2
8. 1/8 inch drill bit, Qty. 1
9. 7/8 inch polishing wheel, Qty. 1

136. 5130-01-178-6338 Ver: 10 UI: EA Status: Active AAC: H
HAMMER DRILL, HYDRAULIC

NSN Description:

Type: Hammer-Drill, Hydraulic, Portable

Overall Length: 22-1/2"

Overall Width: 14"

Handle Type: Straight Side

Hole Drilling Capacity: 1/2" to 2" diameter X 30" deep

RPM: 0 to 300

PSI Pressure: 1500 to 2000

Flow Rate: 7 to 9 GPM

Motor Type: Internal

Pipe Hose End Connection: 3/8" male

Functional Description: Used for drilling gas and water utility test holes and for setting anchor bolts

General Characteristics: Open center; Uses Skil 736 type carbide tipped fluted drills; Includes hose whips

Unpackaged Unit Weight: 45 lbs

137. 5130-01-284-3063 Ver: 37 UI: EA Status: Active AAC: G
DRILL-DRIVER, ELECTRIC, PORTABLE

NSN Description:

IPDs - TECHNICAL INFORMATION

This technical description covers a 12 volt, 3/8 inch cordless, keyed chuck, electric driver/drill kit. The kit shall include driver/drill, a battery charger, two battery packs, operating manual(s), and a carrying case, as follows:

I. DRIVER/DRILL

The driver/drill shall be variable speed reversible (VSR) with two speed ranges (low and high gear), have an electric brake to stop rotation when the trigger is released and an adjustable torque clutch as follows:

Low gear no load speed shall be from 0-500 rpm maximum. High gear no load speed shall be from 0-1500 rpm maximum. The adjustable torque clutch shall have at least 16 pre-selected torque settings and one full lock-up maximum torque setting. At low gear speed the lowest pre-selected torque setting shall deliver a minimum of 5 inch-lbs and the highest pre-selected torque setting shall deliver a minimum of 25 inch-lbs. Torque values shall increase between the lowest and the highest pre-selected torque settings in approximately equal increments. The full lock-up maximum torque setting at low gear speed shall deliver a minimum of 250 inch-lbs.

The driver/drill shall be UL listed conforming to UL 745. UL listed items shall bear a UL label with the UL listing mark and all other markings in accordance with UL 745. For customer information, it is desirable (not mandatory) that in addition to any marking requirements specified, the state or country of manufacture shall be specified on the UL label(s); or shall be engraved, etched, molded or indented (stamped) directly on the surface of the item(s) including accessories having the UL label(s) in such a manner that it remains clearly legible throughout the life of the item(s).

The driver/drill shall include the following features:

Handle style: Pistol style hand grip.

Size: 3/8 inch size geared jaw chuck with key and key holding provision or a keyless chuck configuration.

Speed adjustments: Variable speed trigger switch with forward/reverse and lock-off capability.

Torque settings: Torque setting selector (at least 16 pre-selected and one full lock-up).

Special features: Two-speed (low and high gear) selector switch; insert/release capability for battery replacement.

II. BATTERY CHARGER.

The battery charger shall operate on 115 VAC and shall be capable of charging a completely discharged battery pack to full capacity in a maximum of 75 minutes; The battery charger shall have an automatic on/shut-off capability with a charge indicator light on the charger.

The battery charger shall be UL listed conforming to UL 745. UL listed items shall bear a UL label with the UL listing mark and all other markings in accordance with UL 745.

III. BATTERY PACK

Two battery packs shall be furnished with each kit. The battery packs shall be removable, rechargeable, and compatible with the driver/drill and battery charger; The battery pack shall have 12 volt DC capacity. For optimum run time performance of the drill, the charge life capacity of the 12 VDC battery shall be a minimum of 1.5 amp-hours.

IV. OPERATING MANUAL(S).

Operating manual(s) shall be provided delineating operating, safety and maintenance instructions for the driver/drill, battery charger, and battery pack.

V. CARRYING CASE.

The drill-driver shall be provided within a metal or plastic carrying case capable of protecting the driver/drill, battery charger, and battery packs during transportation and storage, as follows:

Metal - steel, 22 gage minimum, compartmented to contain all kit components.

IPDs - TECHNICAL INFORMATION

Plastic - thermoplastic, molded compartments with formed cutouts to contain all kit components.

Accessories - The drill shall be supplied with maintenance tools, extra parts, accessories, attachments, and complete operating and maintenance instructions as normally furnished commercially.

**138. 5130-01-317-2453 Ver: 20 UI: EA Status: Active AAC: G
SCALER, PNEUMATIC, PORTABLE**

KeyFields:

1ERGO Ver: 5 PNEUMATIC LOW VIBRATION

Vibration Level (VL): VL should be less than five-(5) m/s² (meters per second squared) when measured in accordance with the applicable part of ISO 28927. The Supplier shall provide a written report detailing the testing method, testing agency and results.

Where this VL requirement is not obtainable, given the nature of the tool (pavement breakers, for example), priority shall be given to the conforming tool having the lowest VL.

Provided the rest of the requirements in this description are met, priority will be given to items having a vibration level (VL) less than 5 m/s² when measured in accordance with the applicable part of ISO 28927.

The Manufacturer / Supplier SHALL submit certification detailing method of vibration testing used and level measured.

The Manufacturer / Supplier SHALL label the tool and box with the Vibration Level and Noise Level of the tool provided under standard working conditions

NSN Description:

Scaler shall be of heavy-duty construction designed for continuous duty in an industrial ship repair environment.

Scaler Air Capacity: 80 and 90 pounds per square inch gage (psig)

Scaler Vibration Cushion: 19 3mm diameter needles

Scaler Adaptability: Self-contained and adjustable

Scaler Replacement Parts and Repair: Yes without requiring special tools

Interchangeability: The dimensions and configuration of parts shall be standardized to permit their interchange between needle scalers with the same model number without degradation of the tool's effectiveness.

Scaler Parts which require lubrication: Properly enclosed to prevent entrance of foreign particles and leakage of lubricant.

Throttles: Hand-operable and shall automatically shut-off the air supply when released.

Throttle Mechanism: Includes "O" rings or gaskets to limit air leakage in both the open and closed throttle position.

Sound Pressure Levels: 98 dbA maximum when the needle scaler is tested in accordance with the application provisions of ANSI S5.1.

The needle scaler shall comply with the following design and performance characteristics:

Handle Type: Pistol grip

Throttle Type: Lever

Strokes (Blows) per minute: 3,800 plus or minus 400.

Removable Auxiliary side handles: 360-degree rotation.

Operating Pressures: 80 psig minimum and 90 psig maximum

Air Consumption: 3.5 CFM maximum.

Weight of tool: 6.0 pounds maximum.

Length: 13 inches maximum.

Air Inlet Connection: 3/8 inch NPT.

Designed for: Continuous Heavy Duty

Vibration Cushion Capabilities: Clean weld seams, remove paint and rust and dress concrete and masonry.

Vibration Damping: Two-spring configuration that reduces return piston vibration.

IPDs - TECHNICAL INFORMATION

Accessories - The needle scaler shall be furnished with one (1) steel bushing (3/8" NPT X 1/4" NPT), one (1) tube of lubricant, two (2) O-Rings, operating and maintenance instructions, parts lists and one (1) compartmented plastic, metal or wood carrying case.

139. 5130-01-334-7693 Ver: 9 UI: EA Status: Active AAC: H
WRENCH, IMPACT, PNEUMATIC

KeyFields:

1ERGO Ver: 5 PNEUMATIC LOW VIBRATION

Vibration Level (VL): VL should be less than five-(5) m/s² (meters per second squared) when measured in accordance with the applicable part of ISO 28927. The Supplier shall provide a written report detailing the testing method, testing agency and results.

Where this VL requirement is not obtainable, given the nature of the tool (pavement breakers, for example), priority shall be given to the conforming tool having the lowest VL.

Provided the rest of the requirements in this description are met, priority will be given to items having a vibration level (VL) less than 5 m/s² when measured in accordance with the applicable part of ISO 28927.

The Manufacturer / Supplier SHALL submit certification detailing method of vibration testing used and level measured.

The Manufacturer / Supplier SHALL label the tool and box with the Vibration Level and Noise Level of the tool provided under standard working conditions

NSN Description:

Handle Type: Pistol Grip

Drive Size: 1/2"

Drive End Shape - Square

Drive End Type: Male spindle

Socket Retainer Type: Pin

No Load Speed - 5,000 RPM nom.

Impacts Per Minute - 1200 BPM nom.

Torque Range (Soft Draw) - 40-350 ft-lbs

Length - 7" nom.

Air Inlet Size (NPT) - 1/4"

Recommended Hose Size - 3/8"

Features:

Steel hammer case

2 piece motor housing

Integral Muffler

Built in lubricator: This internal chamber is used when an inline lubrication system is not available. The chamber is to be filled with an air tool lubricant every 8 hrs of tool use.

140. 5130-01-341-4504 Ver: 15 UI: EA Status: Expired AAC: H
WRENCH, IMPACT, PNEUMATIC:

NSN Description:

Drive Design: Straight.

Drive: 3/4" square.

Drive End Type: Male spindle.

Handle Type: Pistol.

Air Volume Regulator: Not provided.

Overall Length: 9.60 inches

Unpackaged Unit Weight: 10-1/2 lbs.

IPDs - TECHNICAL INFORMATION

Salient Characteristics:

Working Torque Range: 150-700 ft-lbs.

Maximum Torque: 1000 ft-lbs.

Air Consumption: 24 cfm.

Air Inlet Thread Size: 3/8" NPT.

Minimum Hose Size: 1/2".

Sound Level: 100 dBA maximum.

Special Features: Friction ring socket retainer.

Chicago Pneumatic Tool Company model RP9560 or equal.

141. 5130-01-400-0129 Ver: 17 UI: EA Status: Active AAC: H
EXTENSION, SOCKET WRENCH

KeyFields:

1B107.2 Ver: 3 ASME B107.2-2002

In accordance with American Society of Mechanical Engineers (ASME) B107.2 - 2002.

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Type IV: Bars, extension

Square Drive Size: 3/4 inch

Overall Length: 13 inches

Material: Steel

Coating: Black Oxide

Features: Rigid

142. 5130-01-428-3751 Ver: 15 UI: EA Status: Active AAC: G
WRENCH, IMPACT, PNEUMATIC

KeyFields:

1B107.4 Ver: 1 B107.4 DRIVING AND SPINDLE ENDS PORTABLE HAND

In accordance with The American Society of Mechanical Engineers (ASME) B107.4 2005.

1ERGO Ver: 5 PNEUMATIC LOW VIBRATION

Vibration Level (VL): VL should be less than five-(5) m/s² (meters per second squared) when measured in accordance with the applicable part of ISO 28927. The Supplier shall provide a written report detailing the testing method, testing agency and results.

Where this VL requirement is not obtainable, given the nature of the tool (pavement breakers, for example), priority shall be given to the conforming tool having the lowest VL.

Provided the rest of the requirements in this description are met, priority will be given to items having a vibration level (VL) less than 5 m/s² when measured in accordance with the applicable part of ISO 28927.

The Manufacturer / Supplier SHALL submit certification detailing method of vibration testing used and level measured.

The Manufacturer / Supplier SHALL label the tool and box with the Vibration Level and Noise Level of the tool provided under standard working conditions

NSN Description:

Square Drive Size: 3/4 inch

Handle Type: Pistol Grip

IPDs - TECHNICAL INFORMATION

Capacity: 700 foot-pounds minimum

Special Features:

Working Torque Range - 100 to 500 foot-pounds

Average Air Consumption - 7.5 CFM

Overall Length - 10 inches maximum

Drive for Which Designed - Straight

Accessory Components and Quantity: Male Coupling, Quick-disconnect type, 0.38 inch-18NPTF, 300psi maximum operating pressure. Hex Nipple (0.38 NPTF X 0.25 NPTF).

**143. 5130-01-444-4662 Ver: 21 UI: EA Status: Active AAC: G
DRILL-DRIVER, ELECTRIC, PORTABLE:**

NSN Description:

This technical description covers a 18 VDC cordless electric drill driver, The Drill-Driver shall comply with the following performance and design requirements:

Heavy Duty, Variable Speed Reversible (VSR), Cordless

Handle Style - Pistol Grip

Voltage - 18.0 Volts DC

Chuck Size - 1/2 inch Keyless Chuck

Number of Gear Speed Settings - 2 minimum

Number of Adjustable Clutch Settings - 16 minimum

No Load Speed - 2000 RPM maximum

The maximum torque that the drill-driver is capable producing (capacity) during operation, may exceed, but shall not be below 400 inch-pounds.

Accessories - The drill shall include all accessories as normally supplied commercially with the drill. Additionally, the accessories shall include:

Two(2) (Qty.) Battery packs - 2.0 amp-hours each, minimum

One(1) (Qty.) Battery Charger - 1.0 hour charge cycle minimum

Side Handle

Screw-driver bit

Plastic Case - The drill shall be supplied within a sturdy, solid plastic case capable of safely securing and transporting the drill and all its accessories.

**144. 5130-01-445-4442 Ver: 7 UI: EA Status: Active AAC: H
SAW, MITER, ELECTRIC, PORTABLE**

NSN Description:

Saw, Miter, Electric, Portable

Current: AC

Alternating current rating in AMPs: 15 AMP

Frequency rating: 60 Hz

Voltage rating: 120 VAC

Blade speed in RPMs: 3600 RPM

Blade size: 12 inches

Arbor hole size: 1 inch or 5/8 inch

Special features: Has a stainless steel detent plate with an extra-tall sliding fence, which allows to 6-1/2 in. base - to the left with the ability to bevel to 48-degrees, and miter (left and right) for greater versatility. Bevels 0-48 deg. left and right 60 deg left and 50 deg right miter for versatility.

IPDs - TECHNICAL INFORMATION

145. 5130-01-445-4865 Ver: 9 UI: EA Status: Active AAC: H
SAW, TABLE, ELECTRIC, PORTABLE

NSN Description:

Saw, Table, Electric Portable

Current type: AC

Alternating current rating in AMPS: 13 AMP

Frequency rating: 60 Hz

Voltage rating: 120 VAC

Arbor hole size: 1 inch

Blace size: 10 inches

Table surface: 26-1/2 X 19-1/4 inches

Special features: Cut depth at 90 degrees - 3-1/8 inches; cut depth at 45 degrees - 2-1/4 inches; maximum rip to left of blade - 15-1/2 inches; maximum rif to the right of blade - 24-1/2 inches

Features included: Telescoping fence with rack and pinion design; 24 tooth carbide blade.

146. 5130-01-449-9225 Ver: 5 UI: SE Status: Active AAC: H
RIVETER, BLIND, ELECTRIC

NSN Description:

Component quantity: 21

General Characteristics item description: Blind cordless riveter; battery charger (120V, 60Hz or 220V, 50Hz); 2 x 12 V battery pack; adapter sleeve(flats); adapter puller shaft; adapter sleeve, Olympic Lok; adapter shaft, Olympic Lok; nosepiece, 5/31-3/16 inch Cherry Max; nosepiece, 1/4 inch Cherry Max; nosepiece, 1/4 Monobolt; 5/32 inch Maxibolt nose (shift cap); 3/16 inch Maxibolt nose (shift cap); 5/32 inch, MS 90353/54-S/U, BB; 3/16 inch, MS 90353/54-S/U, BB; jaw set, 3 pc, 5/32 blind bolt; jaw set, 3 pc, 3/16 blind bolt; jaw holder, blind bolts; jaw follower, blind bolts/CM; jaw set, 3 pc., Cherry Max; spare parts canister; metal carrying case.

Fastening Systems International, Inc. Part Number - PT-4000-MIL-1 or equal

147. 5130-01-453-8305 Ver: 11 UI: EA Status: Active AAC: J
SCALER, PNEUMATIC, PORTABLE

KeyFields:

1ERGO Ver: 5 PNEUMATIC LOW VIBRATION

Vibration Level (VL): VL should be less than five-(5) m/s² (meters per second squared) when measured in accordance with the applicable part of ISO 28927. The Supplier shall provide a written report detailing the testing method, testing agency and results.

Where this VL requirement is not obtainable, given the nature of the tool (pavement breakers, for example), priority shall be given to the conforming tool having the lowest VL.

Provided the rest of the requirements in this description are met, priority will be given to items having a vibration level (VL) less than 5 m/s² when measured in accordance with the applicable part of ISO 28927.

The Manufacturer / Supplier SHALL submit certification detailing method of vibration testing used and level measured.

The Manufacturer / Supplier SHALL label the tool and box with the Vibration Level and Noise Level of the tool provided under standard working conditions

NSN Description:

Components Supplied: 1 Each of the following 5 items:

Hammer Hub Assembly

Cutter Hub Assembly

Whip Assembly

Mini-Flush Plate

IPDs - TECHNICAL INFORMATION

Oil Bottle

Features: Dust attachment

Furnished Item: Case

Functional Description: The Mini-Flushplate Rotary Peening Tool is designed for surface preparations and the removal of coatings on vertical and overhead surfaces. The tool is capable of being outfitted with a variety of interchangeable abrasive heads, depending upon substrate and coating to be removed. The Mini-Flushplate is capable of achieving SSPC SP-11 cleanliness and is NAVSEA approved for use on steel and aluminum surfaces. When outfitted with an appropriate HEPA vacuum, the tool is capable of surface preparation and cleaning while staying well below OSHA Permissible Exposure Limits (PEL).

148. 5130-01-459-6046 Ver: 11 UI: EA Status: Active AAC: J

TOOL KIT, PORTABLE POWER TOOL

KeyFields:

1ERGO Ver: 5 PNEUMATIC LOW VIBRATION

Vibration Level (VL): VL should be less than five-(5) m/s² (meters per second squared) when measured in accordance with the applicable part of ISO 28927. The Supplier shall provide a written report detailing the testing method, testing agency and results.

Where this VL requirement is not obtainable, given the nature of the tool (pavement breakers, for example), priority shall be given to the conforming tool having the lowest VL.

Provided the rest of the requirements in this description are met, priority will be given to items having a vibration level (VL) less than 5 m/s² when measured in accordance with the applicable part of ISO 28927.

The Manufacturer / Supplier SHALL submit certification detailing method of vibration testing used and level measured.

The Manufacturer / Supplier SHALL label the tool and box with the Vibration Level and Noise Level of the tool provided under standard working conditions

NSN Description:

Voltage rating: 18 VDC

Hammerdrill/drill/driver

Chuck: 1/2" ratcheting chuck

3 Speed: 0-500 / 0-1,250 / 0-2,000 RPM; BPM - 0-8,500 / 0-21,250 / 0-34,000,

LED Worklight

Weight: 3.9 lbs (tool only)

Circular Saw:

Blade: 6-1/2"

RPM: 3,700

Arbor: 1-5/8"

Weight: 6.3lbs (tool only)

Reciprocating Saw:

keyless blade clamp,

Strokes/min: 0-3000 spm

Stroke length: 1-1/8"

Weight: 5.8 lbs (tool only)

Flexible Floodlight

Flexible Neck

Weight: 0.5lbs

Features: 1 hour charger, 2 (18V) batteries, 360 degree side handle, 16-tooth carbide tipped circular saw blade, circular saw rip fence, heavy-duty kit box.

Dewalt Part Number: DCK450X or equal.

IPDs - TECHNICAL INFORMATION

149. 5130-01-486-2261 Ver: 17 UI: EA Status: Active AAC: H
WRENCH, IMPACT, PNEUMATIC

KeyFields:

1B107.4 Ver: 1 B107.4 DRIVING AND SPINDLE ENDS PORTABLE HAND

In accordance with The American Society of Mechanical Engineers (ASME) B107.4 2005.

1ERGO Ver: 5 PNEUMATIC LOW VIBRATION

Vibration Level (VL): VL should be less than five-(5) m/s² (meters per second squared) when measured in accordance with the applicable part of ISO 28927. The Supplier shall provide a written report detailing the testing method, testing agency and results.

Where this VL requirement is not obtainable, given the nature of the tool (pavement breakers, for example), priority shall be given to the conforming tool having the lowest VL.

Provided the rest of the requirements in this description are met, priority will be given to items having a vibration level (VL) less than 5 m/s² when measured in accordance with the applicable part of ISO 28927.

The Manufacturer / Supplier SHALL submit certification detailing method of vibration testing used and level measured.

The Manufacturer / Supplier SHALL label the tool and box with the Vibration Level and Noise Level of the tool provided under standard working conditions

NSN Description:

Overall Length: 8-7/8 inches

Handle Type: Pistol Grip

Torque Capacity: 1450.0 Foot-Pounds Maximum

Hose Inside Diameter: 1/2 inch

Impact Blows per Minute: 1050.0

Square Drive Size: 3/4 inch

No Load Speed: 5200 RPM Nominal

Special Features: Twin Hammer Impact Mechanism

150. 5130-01-490-6444 Ver: 9 UI: EA Status: Active AAC: H
WRENCH, IMPACT, PNEUMATIC

KeyFields:

1ERGO Ver: 4 PNEUMATIC LOW VIBRATION

Vibration Level (VL): VL<5 m/s/s when measured in accordance with the applicable part of ISO 8662 or ISO 28927. The Supplier shall provide a written report detailing the testing method, testing agency and results.

Where this VL requirement is not obtainable, given the nature of the tool (pavement breakers, for example), priority shall be given to the conforming tool having the lowest VL.

Provided the rest of the requirements in this description are met, priority will be given to items having a vibration level (VL) less than 5 m/s/s when measured in accordance with the applicable part of ISO 8662 or ISO 28927.

->The Manufacturer / Supplier SHALL submit certification detailing method of vibration testing used and level measured.

->The Manufacturer / Supplier SHALL provide a life cycle analysis for their item of supply

->The Manufacturer / Supplier SHALL label the tool and box with the Vibration Level and Noise Level of the tool provided under standard working conditions

NSN Description:

Type: Wrench, Impact, Pneumatic

Body Material: Titanium Duty

Operation Methods: Forward and Reversible

IPDs - TECHNICAL INFORMATION

Size Designator - 1/2 inch
Torque Capacity - 700 ft-lbs minimum reverse and 625 ft-lbs minimum forward
Working Torque Range Capacity - 50 to 600 ft-lbs minimum
Blows per Minute Capacity - 1250 BPM minimum
Air Consumption Capacity - 24 CFM at load
Noise Level - 100 dBa maximum
No Load Speed - 9500 RPM maximum
Air Inlet: 1/4 inch
Max. Operating Pressure - 90PSI
Minimum Hose Size: 3/8"
Overall Length: 7.00 inch maximum
Tool Weight - 4.00 pounds maximum
Maximum Bolt Capacity 9/16 inch
Handle Design - Pistol Grip

151. 5130-01-508-1221 Ver: 10 UI: EA Status: Active AAC: H
SCREWDRIVER, BATTERY POWERED

KeyFields:

1AS4786 Ver: 1 DRIVER DRILLS, BATTERY POWERED

Item Shall be In Accordance with SAE Aerospace Standard - AS4786A - Driver Drills, Battery Powered

1ERGO Ver: 5 PNEUMATIC LOW VIBRATION

Vibration Level (VL): VL should be less than five-(5) m/s² (meters per second squared) when measured in accordance with the applicable part of ISO 28927. The Supplier shall provide a written report detailing the testing method, testing agency and results.

Where this VL requirement is not obtainable, given the nature of the tool (pavement breakers, for example), priority shall be given to the conforming tool having the lowest VL.

Provided the rest of the requirements in this description are met, priority will be given to items having a vibration level (VL) less than 5 m/s² when measured in accordance with the applicable part of ISO 28927.

The Manufacturer / Supplier SHALL submit certification detailing method of vibration testing used and level measured.

The Manufacturer / Supplier SHALL label the tool and box with the Vibration Level and Noise Level of the tool provided under standard working conditions

NSN Description:

Voltage - 12 Volts DC
Motor - 12 VDC Brushless
Drive Size - 1/4 inch Hexagon
Drive Type - Quick Release
Maximum No Load Speed - 400 RPM nominal
Fastening Torque Range: 7 to 40 inch-lbs
Torque Settings - Adjustable throughout full torque range in increments no greater than 1 inch-lb
Drive Style - Straight
Handle Design - Pistol Grip
Length (with battery pack) - 7.5 inches maximum
Weight with battery pack - 4.1 lbs maximum
Rated for use in Class I Division 2 locations for maximum 50 degrees C.

Accessories: Plastic or Metal case, 2 Batteries, 1 Charger

Tool shall comply with all applicable industry standards for manufacture and testing.

IPDs - TECHNICAL INFORMATION

152. 5130-01-508-1222 Ver: 10 Ul: EA Status: Active AAC: H
SCREWDRIVER, ELECTRIC:

NSN Description:

This technical description covers Direct Current (DC) brushless motor (for spark limiting), variable speed, reversible, hex drive, battery powered screwdrivers with torque adjustment used for general maintenance and construction.

This screwdriver shall be rated for use in Class I Division 2 Locations for maximum 50 degrees C ambient.

Material - All materials used in the fabrication of the battery operated screwdrivers shall be new and of the quality necessary to produce battery powered screwdrivers to meet the requirements specified herein.

Design - All parts of the battery powered screwdriver shall be designed and constructed to the requirements listed herein. All parts subject to wear shall be easily accessible for adjustment, replacement, or repair.

Safety - The battery powered screwdriver shall provide safe and convenient operation when used in accordance with its intended design. However, the tool may involve use with hazardous materials, operations, and equipment. It is the responsibility of the user of this tool to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to its use. Users are cautioned to read all manufacturer's instructions prior to using the tool. In addition, the power screwdriver shall comply with the following safety requirements: Electrical components and motor shall be completely enclosed except for ventilation openings conforming to UL45, UL745, and UL60745. The tool shall be marked with a signal word "DANGER" followed by "This tool should only be used as a screwdriver. The use of this tool in any other way may result in the ignition of a flammable atmosphere."

Interchangeability - All parts having the same manufacturer's number shall be manufactured to such standards that will permit replacement or adjustment without modification of the battery powered screwdriver or its parts.

Construction - The battery powered screwdriver shall be completed so that when connected to the battery power source it can be used for its designed operation. Construction shall be free of any characteristics or defects that will prevent the screwdriver from passing any of the test specified herein this technical description.

The battery powered screwdriver shall conform to the following design and performance requirements:

Voltage: 12 Volts DC.

Motor: 12 VDC Brushless.

Drive Size: 1/4" Hexagon.

Drive Type: Quick Release.

Maximum No Load Speed: 450 RPM.

Fastening Torque Range: 30 to 80 inch-lbs.

Drive Style: Straight

Handle Design: Pistol Grip

Length (with battery pack): 7-15/32".

Height (with battery pack): 10-15/32".

Width (with battery pack): 2-13/16".

Weight (with battery pack): 3.6 lbs.

Features: When the fastening torque is preset, the driver shall shut off when the setting is reached. Battery shut off shall occur when capacity is less than 20 percent of full.

Power Actuation Switch - The switch shall allow for operation in both forward and reverse directions. A safety setting to lock the switch in the off position to prevent accidental starts shall be provided. The switch shall be provided with an interlocking means that will prevent the switch from actuating the motor while the battery is being installed or removed from the tool.

Clutch - The tool shall be provided with a clutch that can be adjusted throughout the full torque range in increments no greater than 1 inch-lb. The torque output at any given setting shall have a repeatability tolerance of +/-10% at +/-3 sigma. The clutch shall be provided with a device that automatically turns the tool off once the desired torque is reached while

IPDs - TECHNICAL INFORMATION

tightening the fastener. In addition the tool shall remain in the off position once the desired torque is reached for a minimum 0.5 seconds even if the power actuation switch is operated.

Lubrication - The screwdrivers shall be pre-lubricated by the manufacturer so that the bearings and gears will be constantly lubricated when in operation. Bearings and gears that require subsequent lubrication shall be arranged so that the proper lubricant can be applied. Pressure lubricant fittings shall not be used. The gear housing shall be enclosed to prevent any leakage of the lubricant.

Accessories - The screwdriver shall include the following accessories:

Batteries - The screwdriver shall include two batteries each rated 2.0 ampere-hours. The battery pack shall be removable from the power driver for recharging. Each battery shall be capable of being fully discharged and recharged a minimum of 400 times. In addition a locking mechanism to prevent accidental disengagement of the battery pack shall be provided. Each battery shall also be provided with an interlocking means that will prevent the power actuation switch from operating the motor while the battery is being installed or removed from the tool.

Charging Unit - The screwdriver shall be provided with one charging unit that shall comply with UL1012 or UL1310 as applicable. The charging unit shall include a light indicating a fully charged condition. The charger shall be capable of fully charging the battery pack in accordance with the manufacturer's instructions.

Operating instructions and carrying case - The screwdriver shall be provided with one copy of the manufacturer's standard operating and maintenance instructions along with a sturdy metal or plastic carrying case, compartmentalized to prevent damage to the screwdriver and its components. Weight measurements shall include the screwdriver and battery pack.

Test Requirements:

Qualification - To qualify the design and processes a sample screwdriver shall be subjected to all requirements contained herein this technical description, including all tests contained in the referenced UL standards. The manufacturer shall maintain a record of compliance, with actual test data, for all units qualified. The manufacturer shall also perform testing to verify compliance with ratings and capacities listed herein this technical description and in catalog data sheets. A re-qualification shall be required whenever a change in design or manufacture affects qualification results.

Acceptance:

The battery powered screwdrivers shall be operationally checked for all functional characteristics including operation of the forward/reverse switch, trigger and locking mechanism, clutch mechanism, battery engagement and retention, battery and power actuation interlock system, and charger operation and weight.

The charging units shall be tested in accordance with UL1012 or UL1310.

Process Requirements - The manufacturing processes shall be monitored periodically to assure compliance with the following:

Torque - The torque output at any given setting shall have a repeatability tolerance of +/-10% at 3 sigma. The screwdriver shall also provide a fastening torque range from 30 to 80 inch-pounds. The clutch used for various torque settings, shall be provided with a device that automatically turns the tool off once the desired torque is reached while tightening the fastener. In addition the tool shall remain in the off position once the desired torque is reached for a minimum 0.5 seconds even if the power actuation switch is operated.

**153. 5130-01-522-1379 Ver: 11 UI: EA Status: Active AAC: H
WELDER, ARC, PORTABLE**

NSN Description:

Battery operated

Operating Voltage: 18 to 36 VDC

IPDs - TECHNICAL INFORMATION

Amperage @ 24 VDC: 275 Amps.
Amperage @ 36 VDC: 350 - 400 Amps.
Duty Cycle with Gas @ 24 VDC: 100%.
Duty Cycle with Flux-Core Wire: 70%.
Thumb Wheel Wire Speed Adjustment: 50 - 900 inches per minute.
Amperage Range: 0 to 350 Amps.
Uses 4 inch spool with wire size 0.023 inch to 0.0467 inch
Uses standard No. 2 TWECO consumables.
Integrated Cold Switch

Features: Light weight, high impact body. Built-in gas flow control valve and stitch mode for thin metal.
Provided with two (2) rolls of flux core wire and two (2) rolls of aluminum wire; 15 foot cable with quick disconnects and two (2) twenty foot extensions; fifty extra feet of gas hose, and customized NATO slave plug.
Furnished with in an airtight and waterproof case.

154. 5130-01-535-1215 Ver: 14 UI: SE Status: Active AAC: H
POWER TOOL SET, ELECTRIC, PORTABLE

KeyFields:

1AS4784 Ver: 1 AS4784 DRIVER DRILLS BATTERY POWERED

Shall be in accordance with Society of Automotive Engineers (SAE) Aerospace Standard AS4784-Reaffirmed 2009

2SET Ver: 3 SET (ONE MANUFACTURER)

Tools in the set shall be manufactured by only one manufacturer unless otherwise specified.

NSN Description:

Set contains 6 pieces, Heavy Duty XRP 18 volt cordless power tools.

One each of the following:

DCD950 XRP 1/2 inch 18V hammer drill/drill/driver

Voltage: 18 V

Max Power: 450 UWO

of Speed Settings: 3

Max RPM: 0-500/0-1,250/0-2,000

Max BPM: 0-8,500/0-21,250/0-34,000

Clutch Settings: 22

Chuck Size: 1/2 inch

Chuck Type: Metal, self-tightening

LED work light provides increased visibility in confined spaces

DC390 XRP 18V circular saw

Voltage: 18 V

No Load Speed: 3,700 rpm

Blade Diameter: 6-1/2 inches

Bevel Capacity: 0-50

Depth Of Cut At 45: 1-5/8 inches

Depth Of Cut At 90: 2-1/4 inches

DC385 XRP 18V reciprocating saw

Voltage: 18 V

Keyless Blade Clamp: Yes

Strokes/Min: 0, 3000 spm

IPDs - TECHNICAL INFORMATION

Stroke Length: 1-1/8 inches
Electric Brake: Yes

DC825 18V impact driver

Voltage: 18 V
Square Drive Size: 1/4 inch hex shank quick release
No Load Speed: 0-2,400 rpm
Impacts/Min: 0-2,700 ipm
Max. Torque: 1,330 in-lbs
Max. Torque: 111 ft-lbs
Tool Length: 5-3/4 inches

DC411 18V cut-off tool

Voltage: 18 V
No Load Speed: 6,500 rpm
Spindle Lock: Yes
Spindle Thread: 5/8 inch to 11 inches
Tool Weight: 4.6 (tool only) lbs
Use Wheels RPM Above: 10,000 rpm

DW919 18V flexible floodlight

Voltage: 18 V
Bulb: Xenon bulb
Run-Time: 3 hrs

Furnished Accessories: Set also includes 1 (one) each of the following:

1-hour charger; 360 side-handles; Carbide tipped blade; Type 1 and Type 27 guards; Wrench; Backing Flange; Type 27 wheel; 2-position side-handle; Contractor bag.
Also furnished: 2 -18V XRP batteries;

Black and Decker Part Number DCK655X or equal

**155. 5130-01-535-1217 Ver: 4 UI: SE Status: Active AAC: H
WRENCH, IMPACT, ELECTRIC**

KeyFields:

1AS4784 Ver: 1 AS4784 DRIVER DRILLS BATTERY POWERED

Shall be in accordance with Society of Automotive Engineers (SAE) Aerospace Standard AS4784-Reaffirmed 2009

NSN Description:

Wrench, Impact, Electric
Overall Length: 6.500 Inches maximum
Current Type: DC
Torque Capacity: 98.0 Foot-Pounds
Impact Blows Per Minute: 3000.0 +/- 300
Accessory Components And Quantity: Two Batteries, Battery Charger And Kit Box
Handle Style: AR2 Pistol Grip Handle
Voltage Rating: 18.0 Volts DC
Size: 0.250 In.
No Load Speed In RPM: 2400.0
Drive For Which Designed: Straight
Special Features: Quick Release 1/4 In. Female Hex Drive

156. 5130-01-536-6492 Ver: 3 UI: EA Status: Active AAC: H

IPDs - TECHNICAL INFORMATION

WRENCH, IMPACT ELECTRIC

NSN Description:

Impact Wrench:

Total Weight: 8.5 pounds

Drive Size: 1/2"

Drive Shape: Square

Maximum Output Torque: 450 ft pounds (removing), 425 ft pounds (tightening)

Power Rating: 12 volt

Power Cord Length: 6 ft

Tool Housing Material: Nylon 6

Onboard Light: Xenon gas filled

Battery Pack:

Total Weight of Power Pack: 21 pounds

Power Pack Housing Material: Polypropylene

Battery Material: Absorbed Glass Mat (AGM)

Onboard battery charger is a 3-stage automatic, which provides the longest lasting battery life possible.

Features: Power cord jacket is oil resistant, 1/8 inch thick polyurethane, sealed switches

DC Power Impact Equipment p/n: 151700692 or equal

157. 5130-01-543-5846 Ver: 10 UI: SE Status: Active AAC: H

WRENCH, IMPACT, ELECTRIC

KeyFields:

1AS4784 Ver: 1 AS4784 DRIVER DRILLS BATTERY POWERED

Shall be in accordance with Society of Automotive Engineers (SAE) Aerospace Standard AS4784-Reaffirmed 2009

NSN Description:

Wrench, Impact, Electric

Drive Size: 1/2 in. square

Voltage Rating: 18.0 volts D.C.

Pistol Grip Handle

Variable speed switch

RPMs: 0-1400 +/-50

BPM: 0-2200 +/- 25

Torque capacity: 2,880 in-lbs/240ft-lbs

Carrying Case: includes two 2.4 AMP-HR. 18V batteries, carrying case, universal charger.

158. 5130-01-545-0769 Ver: 5 UI: SE Status: Active AAC: H

WRENCH SET, IMPACT

NSN Description:

Type: Wrench Set Impact (Cordless)

Variable No Load RPM: 0-2,400

Maximum Torque (inch/pounds): 1,740 / 145

Impacts per Minute: 0-2,700

Voltage: 18V

Includes:

1 hour charger

IPDs - TECHNICAL INFORMATION

(2) 18V XRP batteries
Heavy-duty kit box

159. 5130-01-574-8728 Ver: 11 UI: EA Status: Active AAC: H
SCALER, PNEUMATIC, PORTABLE

KeyFields:

1ERGO Ver: 5 PNEUMATIC LOW VIBRATION

Vibration Level (VL): VL should be less than five-(5) m/s² (meters per second squared) when measured in accordance with the applicable part of ISO 28927. The Supplier shall provide a written report detailing the testing method, testing agency and results.

Where this VL requirement is not obtainable, given the nature of the tool (pavement breakers, for example), priority shall be given to the conforming tool having the lowest VL.

Provided the rest of the requirements in this description are met, priority will be given to items having a vibration level (VL) less than 5 m/s² when measured in accordance with the applicable part of ISO 28927.

The Manufacturer / Supplier SHALL submit certification detailing method of vibration testing used and level measured.

The Manufacturer / Supplier SHALL label the tool and box with the Vibration Level and Noise Level of the tool provided under standard working conditions

NSN Description:

Needle Diameter: 3mm holder/needles

Weight: 8 lbs. maximum

Length: 14 inches maximum

Stroke: 5/8 inches

Stroke Tolerance: 1/16 inches

No Load Speed: 4000 BPM

No Load Speed Tolerance: 500 BPM

Air pressure: 85 to 90 psi

Air Consumption: 9.5 cfm

Special features: Motor shall have a maximum of 3 moving parts. Moving parts shall be made of steel. Holder/Needles shall be interchangeable, allowing scaler to operate with 2 mm, 3mm or 4mm diameter needles. Scaler shall accommodate interchangeable dust shrouds (not included).

160. 5133-01-477-9534 Ver: 11 UI: SE Status: Active AAC: J
DRILL SET, TWIST

KeyFields:

1NAS-907 Ver: 7 IAW NAS 907, DRILLS, HSS/COBALT, SZS 1/16 TO 1.00" REV. 11,

In accordance with National Aerospace Standard NAS 907, DRILLS, HIGH SPEED STEEL (& COBALT) 1/16 inch thru 1.00 inch, Revision 11, List of Current Sheets, dated 10 February 2006.

NSN Description:

Type J: Straight Shank - Jobber & Aircraft Extension Lengths

Component Quantity: 29

Component Set Contains: Type J, 1 each fractional sizes 1/16 to 1/2 inch in 1/64 inch increments

Special Features: Cobalt high speed steel; jobbers length; straight round shank, 135 deg., split point

161. 5133-01-551-1094 Ver: 6 UI: SE Status: Active AAC: H
DRILL SET, TWIST

KeyFields:

IPDs - TECHNICAL INFORMATION

1B94.11M Ver: 1 B94.11M TWIST DRILLS

In accordance with American Society of Mechanical Engineers (ASME) B94.11M-1993.

NSN Description:

Furnished Items: Metal Case

Cobalt jobber-length drill set contains 115 pieces. Sizes include the following: 1/16 to 1/2 inch in 1/64th increments; letter sizes A-Z; wire gage sizes: 1 thru 60; 135 degree split point

Special Features: Colbalt High Speed Steel, straight round shank

162. 5136-00-357-7494 Ver: 18 UI: SE Status: Active AAC: G DIE AND TAP SET, THREAD CUTTING

KeyFields:

1ASTM E18 Ver: 1 ASTM E18 ROCKWELL HARDNESS METHODS

In accordance with American Society for Testing and Materials specification E 18, Standard Test Methods for Rockwell Hardness and Rockwell Superficial Hardness of Metallic Materials.

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

2SET-1 Ver: 2 SET (ONE OR MORE MANUFACTURERS)

Tools in the set shall be manufactured by by no more than two manufacturers unless otherwise specified.

NSN Description:

Adjustable, round split die with American National or Unified National threads.

Design: Dies shall be cylindrical in shape with a split (slot) from the threads to the periphery. One side of the slot shall be tapped and furnished with an adjustment setscrew. Two dimples on the periphery to be located no closer than 25 degrees to the slot and 180 degrees apart, shall be provided for retaining the die in the die stock. Threads shall be right-hand unless otherwise specified.

Material: Carbon tool or High Speed Steel.

Hardness: Rockwell C57 to 63 for Carbon Tool Steel, Rockwell C61 to 65 for High Speed Steel. The cutting lands of the die threads shall show no evidence of partial or total de-carbonization.

Threads: Thread form shall be American National or Unified National. Threads on the front face shall be chamfered approximately 2 to 3 threads and 1 to 1-1/2 threads on the back face.

Marking: The dies shall be marked on the front face in a legible and permanent manner with the manufacturer's name or trademark, the thread size, and "HS", "HSS", or "High Speed" to indicate High Speed Steel, if applicable.

Case: sturdy and durable wood, plastic, or metal case which shall be capable of protecting the tools throughout the life of the tool set. The case shall have a separate compartment or slot for each tool. Each tool compartment shall be legibly and permanently marked with the tool size or a listing shall be permanently affixed to the inside of the case lid. The listing (including pictorials) shall identify and correlate the compartments and tool sizes. If the case lid is too small to accommodate the listing, the listing shall be folded and enclosed in the case. Similar tools having different tool sizes shall be in compartments in ascending or descending order. If tool size is not applicable, another differentiating characteristic applicable to the tool shall be identified. With the tools in the compartments, the permanent markings or listing affixed to the case lid shall remain clearly visible. In addition, each tool compartment shall provide a safe, compact, and secure method of storing the tool, shall provide for convenient tool selection, and shall prevent damage to the tool during handling, shipment, and storage. With the case secured in a closed position, tools shall not be displaced from their individual compartments by any orientation of the case. The case shall have at least one shutter hook, snap-type latch, or similar hardware to secure the case in a closed position. Cases shall be fitted with at least two hinges or a continuous hinge.

IPDs - TECHNICAL INFORMATION

Wood cases shall have a protective interior and exterior coating (e.g., varnish, shellac, paint). Plastic cases shall be constructed of a double layer, impact resistant material. Metal cases shall be corrosion resistant or have a corrosion resistant coating (e.g., plating, paint) on interior and exterior surfaces. Metal hardware (e.g., hinges, hinge pins, latches, screws) on cases shall be corrosion resistant or have a corrosion resistant plating; paint shall not be the primary corrosion resistant coating on metal hardware.

Set shall include the following:

- (a) One taper, one plug, and one bottoming tap for each of the National Coarse Thread series shown in table below.
- (b) One round split die for each of the National Coarse Thread series sizes and outside diameters as shown in table below.
- (c) One taper, one plug and one bottoming tap for National Special Thread series size 11/16 inch, 11 threads per inch, (see below).
- (d) One 2-1/2 inch outside diameter round split die for National Special Thread series size 11/16 inch, 11 threads per inch.
Dies not standard in 2-1/2 inch outside diameter.
- (e) Die stocks and tap wrenches not furnished.
- (f) Case.

One (1) each of the following sizes:

THREAD SIZE - DIAMETER - THICKNESS
AND SERIES INCHES INCHES

No. 1-64 NC (1) -	13/16 -	1/4
No. 2-56 NC (1) -	13/16 -	1/4
No. 3-48 NC (1) -	13/16 -	1/4
No. 4-40 NC (1) -	13/16 -	1/4
No. 5-40 NC -	13/16 -	1/4
No. 6-32 NC -	13/16 -	1/4
No. 8-32 NC -	13/16 -	1/4
No. 10-24 NC -	13/16 -	1/4
No. 12-24 NC -	13/16 -	1/4
1/4-20 NC -	1-1/2 -	1/2
5/16-18 NC -	1-1/2 -	1/2
3/8-16 NC -	1-1/2 -	1/2
7/16-14 NC -	1-1/2 -	1/2
1/2-13 NC -	1-1/2 -	1/2
9/16-12 NC -	1-1/2 -	1/2
5/8-11 NC (1) -	2-1/2 -	3/4
11/16-11 NS (2) -	2-1/2 -	3/4
3/4-10 NC (1) -	2-1/2 -	3/4
7/8-9 NC (1) -	2-1/2 -	3/4
1-8 NC (1) -	2-1/2 -	3/4

(1) Dies not standard in "HSS".

(2) National Special Thread Series.

Tap material: HSS, Ground Thread.

Pitch diameter limits for taps shall be as follows:

Number 1 and Number 2 thread sizes H1
Number 3 through Number 10 thread sizes H2
Number 12 through 3/4 inch thread sizes H3
7/8 inch through 1 inch thread sizes H4

163. 5136-00-357-7504 Ver: 20 UI: SE Status: Active AAC: G

IPDs - TECHNICAL INFORMATION

DIE AND TAP SET, THREAD CUTTING

KeyFields:

1A-A-410 Ver: 1 DIE, THREAD CUTTING (ROUND, SPLIT, INCH SERIES)

In accordance with Commercial Item Description A-A-410 Notice 2, dated August 9, 2005.

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

2SET-1 Ver: 2 SET (ONE OR MORE MANUFACTURERS)

Tools in the set shall be manufactured by by no more than two manufacturers unless otherwise specified.

NSN Description:

Adjustable, round split die with American National or Unified National threads.

Design: Dies shall be cylindrical in shape with a split (slot) from the threads to the periphery. One side of the slot shall be tapped and furnished with an adjustment setscrew. Two dimples in the periphery, 180 degree apart and 90 degrees to the slot, and midway between the die's faces, shall be provided for retaining the die in the die stock. Threads shall be right-hand unless otherwise specified.

Die Material: Carbon Tool or High Speed Steel.

Die Hardness: Rockwell C57 to 63 for Carbon Tool Steel, Rockwell C61 to 65 for High Speed Steel. The cutting lands of the die threads shall show no evidence of partial or total de-carbonization.

Threads: Thread form shall be American National or Unified National. Threads on the front face shall be chamfered approximately 2 to 3 threads and 1 to 1-1/2 threads on the back face.

Set shall include the following:

- (a) One taper, one plug, and one bottoming tap for each of the National Fine Thread Series shown in table below.
- (b) One round split die for each of the National Fine Thread series sizes and outside diameters as shown in table below.
- (c) One taper, one plug and one bottoming tap for National Special Thread series size 11/16-16 in table below.
- (d) One 2-1/2" outside diameter round split die for National Special Thread series size 11/16-16. Dies not standard in 2-1/2" outside diameter.
- (e) Diestocks and tap wrenches not included.
- (f) Case.

Sizes contained within set:

No. 0-80 NF, 1-72 NF, 2-64 NF, 3-56 NF, 4-48 NF, 5-44 NF, 6-40 NF, 8-36 NF, 10-32 NF, 12-28 NF, 1/4-28 NF, 5/16-24 NF, 3/8-24 NF, 7/16-20 NF, 1/2-20 NF, 9/16-18 NF, 5/8-18 NF, 11/16-16 NS , 3/4-16 NF, 7/8-14 NF and 1-14-NS (2)(1),

(1) Dies not standard in "HSS".

(2) National Special Thread Series.

NO NSNs AVAILABLE FOR THE FOLLOWING:

Taper Tap-

Type: Standard Straight Thread

Thread Size and Series: 2-64NF

Thread Pitch Diameter: (H2) 0.0764/ 0.0769 inch

Chamfer Type: Taper

Thread Forming Method: Ground

Style Designator: Straight flute

IPDs - TECHNICAL INFORMATION

Thread Direction: Right-hand
Flute Quantity: 3
Material: High Speed Steel

Type: Standard Straight Thread
Thread Size and Series: 12-28NF
Thread Pitch Diameter: (H4) 0.1943/ 0.1948 inch
Chamfer Type: Taper
Thread Forming Method: Ground
Style Designator: Straight flute
Thread Direction: Right-hand
Flute Quantity: 4
Material: High Speed Steel

Type: Standard Straight Thread
Thread Size-Series: 1-14 UNS (National Special Thread series)
Pitch Diameter Limits: (H4) 0.0990/ 0.0995 inch
Chamfer Type: Taper
Thread Form Method: Ground
Style Designator: Straight flute
Thread Direction: Right-Hand
Flute Quantity: 4
Material: High Speed Steel

Plug Tap-

Type: Standard Straight Thread
Thread Size and Series: 2-64NF
Thread Pitch Diameter: (H2) 0.0764/ 0.0769 inch
Chamfer Type: Plug
Thread Forming Method: Ground
Style Designator: Straight flute
Thread Direction: Right-hand
Flute Quantity: 3
Material: High Speed Steel

Type: Standard Straight Thread
Thread Size-Series: 5-44 UNF
Pitch Diameter Limits: (H2) 0.1107/ 0.1112 inch
Chamfer Type: Plug
Thread Form Method: Ground
Style Designator: Straight flute
Thread Direction: Right-Hand
Flute Quantity: 3
Material: High Speed Steel

Type: Standard Straight Thread
Thread Size-Series: 3/4-16 UNF
Pitch Diameter Limits: (H3) 0.7104/ 0.7109 inches
Chamfer Type: Plug
Thread Form Method: Ground
Style Designator: Straight flute
Thread Direction: Right-Hand
Flute Quantity: 4
Material: High Speed Steel

IPDs - TECHNICAL INFORMATION

Type: Standard Straight Thread
Thread Size-Series: 11/16-16 UNS
Pitch Diameter: (H3) 0.6479/ 0.6484 inch
Chamfer Type: Plug
Thread Form: Ground.
Style Designator: Straight flute
Thread Direction: Right-Hand.
Flute Quantity: 4
Material: High Speed Steel

Bottoming Tap-

Type: Standard Straight Thread
Thread Size and Series: 12-28NF
Thread Pitch Diameter: (H3) 0.1943/ 0.1948 inch
Chamfer Type: Bottoming
Thread Forming Method: Ground
Style Designator: Straight flute
Thread Direction: Right-hand
Flute Quantity: 4
Material: High Speed Steel

Type: Standard Straight Thread
Thread Size and Series: 11/16-16 UNS
Thread Pitch Diameter: (H3) 0.6479/ 0.6484 inch
Thread Forming Method: Ground
Chamfer Type: Bottoming
Style Designator: Straight flute
Thread Direction: Right-hand
Flute Quantity: 4
Material: High Speed Steel

Type: Standard Straight Thread
Nominal Thread Size: 1-14 UNS
Thread Pitch Diameter: 0.9551/ 0.9556 inch
Chamfer Type: Bottoming
Thread Forming Method: Ground
Style Designator: Straight flute
Thread Direction: Right-hand
Flute Quantity: 4
Material: High Speed Steel

Dies-

Style Designator: Round split with internal adjusting screw.
Thread Size and Series Type Designator: 0-80 UNF
Thread Pitch Diameters: 0.0496 inch to 0.0519 inch
Outside Diameter: 13/16 inch (-1/64 inch)
Thickness: 1/4 inch (+/- 1/64 inch)
Thread Direction: Right-hand
Material: High Speed Steel

Style Designator: Round split with internal adjusting screw.
Thread Size and Series Type Designator: 1/4-28 UNF

IPDs - TECHNICAL INFORMATION

Thread Pitch Diameters: 0.2208/ 0.2268 inch
Outside Diameter: 2 inches (-1/64 inch)
Thickness: 5/8 inch (+/- 1/32 inch)
Thread Direction: Right-hand
Material: High Speed Steel

Style Designator: Round split with internal adjusting screw.
Thread Size and Series Type Designator: 9/16-18 UNF
Thread Pitch Diameters: 0.5182/ 0.5264 inch
Outside Diameter: 1-1/2 inch (-1/64 inch)
Thickness: 1/2 inch (+/- 1/32 inch)
Thread Direction: Right-hand
Material: High Speed Steel

Style Designator: Round split with internal adjusting screw.
Thread Size and Series Type Designator: 5/16-24 UNF
Thread Pitch Diameters: 0.2788/ 0.2854 inch
Outside Diameter: 2 inches (- 1/64 inch)
Thickness: 5/8 inch (+/- 1/32 inch)
Thread Direction: Right-hand
Material: High Speed Steel

List of Components of 5136-00-357-7504 :

163.1. 5136-00-189-7824 Ver: 15 UI: EA Status: Active AAC: H
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 0-80 UNF
Pitch Diameter: (H1) 0.0519/ 0.0524 inch
Chamfer Type: Taper
Thread Forming Method: Ground
Style Designator: Straight flute
Thread Direction: Right-hand
Flute Quantity: 2
Material: High Speed Steel

163.2. 5136-00-189-7825 Ver: 16 UI: EA Status: Active AAC: H
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 1-72 UNF
Pitch Diameter: (H1) 0.0640/ 0.0645 inch
Chamfer Type: Taper
Thread Forming Method: Ground
Style Designator: Straight flute
Thread Direction: Right-hand

IPDs - TECHNICAL INFORMATION

Flute Quantity: 2
Material: High Speed Steel

163.3. 5136-00-729-5677 Ver: 15 UI: EA Status: Active AAC: H
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 3-56 UNF
Pitch Diameter Limits: (H2) 0.0879/ 0.0884 inch
Chamfer Type: Taper
Thread Form Method: Ground
Style Designator: Straight flute
Thread Direction: Right-Hand
Flute Quantity: 3
Material: High Speed Steel

163.4. 5136-00-729-5678 Ver: 17 UI: EA Status: Active AAC: H
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 4-48 UNF
Pitch Diameter Limits: (H2) 0.0990/ 0.0995 inch
Chamfer Type: Taper
Thread Form Method: Ground
Style Designator: Straight flute
Thread Direction: Right-Hand
Flute Quantity: 3
Material: High Speed Steel

163.5. 5136-00-228-0989 Ver: 16 UI: EA Status: Active AAC: H
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread.
Thread Size-Series: 5-44 UNF
Thread Pitch Diameter: (H2) 0.1107/ 0.1112 inch
Chamfer Type: Taper
Thread Form: Ground
Style Designator: Straight flute
Thread Direction: Right-Hand.
Flute Quantity: 3
Material: High Speed Steel.

163.6. 5136-00-729-5675 Ver: 17 UI: EA Status: Active AAC: J
TAP, THREAD CUTTING

IPDs - TECHNICAL INFORMATION

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 6-40 UNF
Pitch Diameter Limits: 0.1223/+0.1228 inch (H2)
Style Designator: Straight Flute
Material: High Speed Steel
Thread Form: Ground
Chamfer Type: Taper
Thread direction: Right-Hand
Flute Quantity: 3
Material: High Speed Steel

163.7. 5136-00-729-5698 Ver: 14 UI: EA Status: Active AAC: H
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread,
Thread Size-Series: 8-36 UNF
Pitch Diameter: 0.1465/+0.1470 inch - H2
Style: Straight flute
Material: High Speed Steel
Thread Form: Ground
Chamfer Type: Taper
Thread Direction: Right-hand
Flute Quantity: 4

163.8. 5136-00-821-1029 Ver: 17 UI: EA Status: Active AAC: H
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 0.190-32 UNF
Pitch Diameter Limits: (H2) 0.1702/0.1707 inches
Chamfer Type: Taper
Thread Form Method: Ground
Style Designator: Straight flute
Thread Direction: Right-Hand
Flute Quantity: 4
Material: High Speed Steel

163.9. 5136-00-580-7365 Ver: 24 UI: EA Status: Active AAC: H
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

IPDs - TECHNICAL INFORMATION

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 1/4-28 UNF
Pitch Diameter: (H3) 0.2278/ 0.2283 inch
Chamfer Type: Taper
Thread Forming Method: Ground
Style Designator: Straight flute
Thread Direction: Right-hand
Flute Quantity: 4
Material: High Speed Steel

163.10. 5136-00-580-7364 Ver: 26 UI: EA Status: Active AAC: H
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 5/16-24 UNF
Pitch Diameter Limits: (H3) 0.2864/ 0.2869 inch
Chamfer Type: Taper
Thread Forming Method: Ground
Style Designator: Straight Flute
Thread Direction: Right-Hand
Flute Quantity: 4.
Material: High Speed Steel

163.11. 5136-00-555-9203 Ver: 23 UI: EA Status: Active AAC: J
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 3/8-24 UNF
Pitch Diameter Limits: (H3), 0.3489/ 0.3494 inch
Chamfer Type: Taper
Thread Forming Method: Ground
Style Designator: Straight Flute
Thread Direction: Right-Hand
Flute Quantity: 4
Material: High Speed Steel

163.12. 5136-00-228-0995 Ver: 25 UI: EA Status: Active AAC: H
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 7/16-20 UNF
Thread Pitch Diameter: (H3) 0.4060/ 0.1465 inch
Chamfer Type: Taper
Thread Form Method: Ground

IPDs - TECHNICAL INFORMATION

Style Designator: Straight Flute
Thread Direction: Right-Hand
Flute Quantity: 4
Material: High Speed Steel

163.13. 5136-00-228-0996 Ver: 22 UI: EA Status: Active AAC: J
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 1/2-20 UNF
Thread Pitch Diameter: (H3) 0.4685/ 0.4690 inch
Chamfer Type: Taper
Thread Form Method: Ground
Style Designator: Straight Flute
Thread Direction: Right-Hand
Flute Quantity: 4
Material: High Speed Steel

163.14. 5136-00-580-7170 Ver: 16 UI: EA Status: Active AAC: J
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 9/16-18 UNF
Thread Pitch Diameter: (H3) 0.5274/ 0.5279 inch
Chamfer Type: Taper
Thread Form Method: Ground
Style Designator: Straight Flute
Thread Direction: Right-Hand
Flute Quantity: 4
Material: High Speed Steel

163.15. 5136-00-228-0998 Ver: 18 UI: EA Status: Active AAC: J
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size and Series: 5/8-18 UNF
Thread Pitch Diameter: (H3) 0.5899/ 0.5904 inch
Chamfer Type: Taper
Thread Forming Method: Ground
Style Designator: Straight flute
Thread Direction: Right-hand
Flute Quantity: 4
Material: High Speed Steel

163.16. 5136-00-889-6973 Ver: 13 UI: EA Status: Active AAC: J

IPDs - TECHNICAL INFORMATION

TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size and Series: 11/16-16 UNS
Thread Pitch Diameter: (H3) 0.6479/ 0.6484 inch
Thread Forming Method: Ground
Chamfer Type: Taper
Style Designator: Straight flute
Thread Direction: Right-hand
Flute Quantity: 4
Material: High Speed Steel

163.17. 5136-00-228-0999 Ver: 20 Ul: EA Status: Active AAC: H
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 3/4-16 UNF
Pitch Diameter: (H3) 0.7104/0.7109 inch
Chamfer Type: Taper
Thread Form: Ground
Thread Structure: Regular
Thread Direction: Right-hand
Flute Quantity: 4
Style: Straight flute
Material: High Speed Steel

163.18. 5136-00-580-7175 Ver: 16 Ul: EA Status: Active AAC: J
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 7/8-14 UNF
Pitch Diameter Limits: (H4) 0.8301/ 0.8306 inches
Chamfer Type: Taper
Thread Form Method: Ground
Style Designator: Straight flute
Thread Direction: Right-Hand
Flute Quantity: 4
Material: High Speed Steel

163.19. 5136-00-272-9760 Ver: 13 Ul: EA Status: Active AAC: H
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

IPDs - TECHNICAL INFORMATION

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 0-80 UNF
Pitch Diameter Limits: (H1) 0.0519\ 0.0524 inch
Chamfer Type: Plug
Thread Forming Method: Ground
Style Designator: Straight Flute
Thread Direction: Right-Hand
Flute Quantity: 2
Material: High Speed Steel.

163.20. 5136-00-272-9761 Ver: 15 UI: EA Status: Active AAC: H
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 1-72 UNF
Pitch Diameter Limits: (H1) 0.0519/ 0.0524 inch
Chamfer Type: Plug
Thread Form Method: Ground
Style Designator: Straight flute
Thread Direction: Right-Hand
Flute Quantity: 2
Material: High Speed Steel

163.21. 5136-00-580-7323 Ver: 11 UI: EA Status: Active AAC: H
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 3-56 UNC
Pitch Diameter Limits: (H2) 0.0879/ 0.0884 inch
Chamfer Type: Plug
Thread Form Method: Ground
Style Designator: Straight flute
Thread Direction: Right-Hand
Flute Quantity: 3
Material: High Speed Steel

163.22. 5136-00-228-1004 Ver: 11 UI: EA Status: Active AAC: H
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 4-48 UNF

IPDs - TECHNICAL INFORMATION

Pitch Diameter Limits: (H2) 0.0990/ 0.0995 inch
Chamfer Type: Plug
Thread Form Method: Ground
Style Designator: Straight flute
Thread Direction: Right-Hand
Flute Quantity: 3
Material: High Speed Steel

163.23. 5136-00-228-1006 Ver: 10 UI: EA Status: Active AAC: H
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 6-40 UNF
Pitch Diameter: (H2) 0.1223/ 0.11228 inch
Chamfer Type: Plug
Thread Form: Ground
Style: Straight flute
Thread Direction: Right-hand
Flute Quantity: 3
Material: High Speed Steel

163.24. 5136-00-228-1007 Ver: 11 UI: EA Status: Active AAC: H
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread.
Style: Straight Flute.
Thread Size-Series: 8-36 UNF
Pitch Diameter: 0.1465/+0.1470, H2.
Thread Form: Ground.
Thread Direction: Right-Hand.
Chamfer Type: Plug.
Flute Quantity: 4.
Material: High Speed Steel.

163.25. 5136-00-228-1008 Ver: 22 UI: EA Status: Active AAC: H
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 10-32 UNF
Pitch Diameter Limits: (H2) 0.1702/ 0.1707 inch
Chamfer Type: Plug
Thread Form Method: Ground
Style Designator: Straight Flute
Thread Direction: Right-Hand
Flute Quantity: 4

IPDs - TECHNICAL INFORMATION

Material: High Speed Steel

163.26. 5136-00-966-5977 Ver:7 UI: EA Status: Active AAC: J
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 12-28 UNF
Pitch Diameter Limits: (H3) 0.1938/ 0.1943 inch
Chamfer Type: Plug
Thread Form Method: Ground
Style Designator: Straight Flute
Thread Direction: Right-Hand
Flute Quantity: 4
Material: High Speed Steel

163.27. 5136-00-580-7360 Ver: 32 UI: EA Status: Active AAC: H
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 1/4-28 UNF
Pitch Diameter Limits: (H3) 0.2278/ 0.2283 inch
Chamfer Type: Plug
Thread Form Method: Ground
Style Designator: Straight flute
Thread Direction: Right-Hand
Flute Quantity: 4
Material: High Speed Steel

163.28. 5136-00-580-7359 Ver: 28 UI: EA Status: Active AAC: H
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series/Type Designator: 0.312-24 UNF
Thread Pitch Diameter: (H3), 0.2864/ 0.2869 inch
Chamfer Type: Plug
Thread Form: Ground
Thread Direction: Right-Hand
Flute Quantity: 4
Style: Straight Flute
Material: High Speed Steel

163.29. 5136-00-555-8910 Ver: 33 UI: EA Status: Active AAC: H
TAP, THREAD CUTTING

KeyFields:

IPDs - TECHNICAL INFORMATION

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series/Type Designator: 0.375-24 UNF
Thread Pitch Diameter: (H3), 0.3489/0.3494 inch
Chamfer Type: Plug
Thread Form: Ground
Thread Structure: Regular
Thread Direction: Right-hand
Flute Quantity: 4
Style: Straight flute
Material: High Speed Steel

**163.30. 5136-00-580-7182 Ver: 31 UI: EA Status: Active AAC: H
TAP, THREAD CUTTING**

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread.
Thread Size-Series/Type Designator: 7/16-20 UNF
Thread Pitch Diameter: (H3), 0.4060/ 0.4065 inch
Chamfer Type: Plug
Thread Form: Ground
Thread Structure: Regular
Thread Direction: Right-Hand
Flute Quantity: 4
Style: Straight Flute.
Material: High Speed Steel.

**163.31. 5136-00-580-7184 Ver: 26 UI: EA Status: Active AAC: H
TAP, THREAD CUTTING**

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series/Type Designator: 0.500-20 UNF
Thread Pitch Diameter: (H3) 0.4685/ 0.4690 inches
Chamfer Type: Plug
Thread Form: Ground
Thread Direction: Right-Hand
Flute Quantity: 4
Style: Straight Flute
Material: High Speed Steel

**163.32. 5136-00-580-7186 Ver: 22 UI: EA Status: Active AAC: J
TAP, THREAD CUTTING**

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

IPDs - TECHNICAL INFORMATION

NSN Description:

Type: Standard Straight Thread
Thread Size-Series/Type Designator: 0.562-18 UNF
Thread Pitch Diameter: 0.5274/ 0.5279 inches
Chamfer Type: Plug
Thread Form: Ground
Thread Direction: Right-Hand
Flute Quantity: 4
Style: Straight Flute
Material: High Speed Steel

163.33. 5136-00-254-4518 Ver: 24 UI: EA Status: Active AAC: H
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 5/8-18 UNF
Pitch Diameter Limits: (H3) 0.5899/ 0.5904 inch
Chamfer Type: Plug
Thread Form Method: Ground
Style Designator: Straight Flute
Thread Direction: Right-Hand
Flute Quantity: 4
Material: High Speed Steel

163.34. 5136-00-580-7188 Ver: 22 UI: EA Status: Active AAC: H
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 7/8-14 UNF
Pitch Diameter Limits: (H4) 0.8301/ 0.8306 inches
Chamfer Type: Plug
Thread Form Method: Ground
Style Designator: Straight flute
Thread Direction: Right-Hand
Flute Quantity: 4
Material: High Speed Steel

163.35. 5136-00-580-7343 Ver: 20 UI: EA Status: Active AAC: J
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series/Type Designator: 1.0-14 UNS
Thread Pitch Diameter: 0.9551/ 0.9556 inch
Chamfer Type: Plug
Thread Form: Ground

IPDs - TECHNICAL INFORMATION

Thread Direction: Right-Hand
Flute Quantity: 4
Style: Straight Flute
Material: High Speed Steel

163.36. 5136-00-189-7818 Ver: 18 UI: EA Status: Active AAC: H
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Nominal Thread Size: 0-80 UNF
Thread Pitch Diameter: (H1) 0.0519/ 0.0524 inch
Chamfer Type: Bottoming
Thread Forming Method: Ground
Style Designator: Straight flute
Thread Direction: Right-hand
Flute Quantity: 2
Material: High Speed Steel

163.37. 5136-00-189-7819 Ver: 13 UI: EA Status: Active AAC: H
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 1-72 UNF
Thread Pitch Diameter: (H1) 0.0640/ 0.0645 inch
Chamfer Type: Bottoming
Thread Form Method: Ground
Style Designator: Straight Flute
Thread Direction: Right-Hand
Flute Quantity: 2
Material: High Speed Steel

163.38. 5136-00-262-1484 Ver: 16 UI: EA Status: Active AAC: H
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 2-64 UNF
Thread Pitch Diameter: (H2) 0.0764/ 0.0769 inch
Chamfer Type: Bottoming
Thread Form Method: Ground
Style Designator: Straight Flute
Thread Direction: Right-Hand
Flute Quantity: 3
Material: High Speed Steel

163.39. 5136-00-729-5711 Ver: 12 UI: EA Status: Active AAC: H

IPDs - TECHNICAL INFORMATION

TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread.
Thread Size-Series: 3-56 UNF
Thread Pitch Diameter: (H2) 0.0879/ 0.0884 inches
Chamfer Type: Bottoming
Thread Form: Ground
Style Designator: Straight flute
Thread Direction: Right-Hand.
Flute Quantity: 3
Material: High Speed Steel.

163.40. 5136-00-580-7330 Ver: 15 UI: EA Status: Active AAC: H TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 4-48 UNF
Pitch Diameter Limits: (H2) 0.0990/+0.0995 inches
Chamfer Type: Bottoming
Thread Form: Ground
Thread Direction: Right-Hand
Style Designator: Straight Flute
Flute Quantity: 3
Material: High Speed Steel

163.41. 5136-00-580-7154 Ver: 14 UI: EA Status: Active AAC: H TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size/Series: 5-44UNF
Thread Pitch Diameters: (H2), 0.1107/+0.1112 inch
Starting Chamfer Type: Bottoming
Thread Forming Method: Ground
Thread Direction: Right-hand
Style Designator: Straight flute
Flute Quantity: 3
Material: High Speed Steel

163.42. 5136-00-580-7331 Ver: 15 UI: EA Status: Active AAC: J TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

IPDs - TECHNICAL INFORMATION

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 6-40 UNF
Thread Pitch Diameter: (H2) 0.1223/ 0.1228 inch
Chamfer Type: Bottoming
Thread Form Method: Ground
Style Designator: Straight Flute
Thread Direction: Right-Hand
Flute Quantity: 3
Material: High Speed Steel

163.43. 5136-00-580-7332 Ver: 16 UI: EA Status: Active AAC: J
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 8-36 UNF
Thread Pitch Diameter: (H2) 0.1465/ 0.1470 inch
Chamfer Type: Bottoming
Thread Form Method: Ground
Style Designator: Straight Flute
Thread Direction: Right-Hand
Flute Quantity: 4
Material: High Speed Steel

163.44. 5136-00-555-8906 Ver: 12 UI: EA Status: Active AAC: H
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 10-32 UNF
Pitch Diameter: (H2) 0.1702/+0.1707 inch
Chamfer Type: Bottoming
Thread Form: Ground
Style: Straight flute
Thread Direction: Right-hand
Flute Quantity: 4
Material: High Speed Steel

163.45. 5136-00-580-7354 Ver: 22 UI: EA Status: Active AAC: H
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 1/4-28 UNF
Pitch Diameter: (H3) 0.2278/ 0.2283 inch
Chamfer Type: Bottoming

IPDs - TECHNICAL INFORMATION

Thread Forming Method: Ground
Style Designator: Straight flute
Thread Direction: Right-hand
Flute Quantity: 4
Material: High Speed Steel

163.46. 5136-00-580-7355 Ver: 24 UI: EA Status: Active AAC: H
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 5/16-24 UNF
Pitch Diameter: (H3) 0.2864/ 0.2869 inch
Chamfer Type: Bottoming
Thread Forming Method: Ground
Style Designator: Straight flute
Thread Direction: Right-hand
Flute Quantity: 4
Material: High Speed Steel

163.47. 5136-00-729-5710 Ver: 22 UI: EA Status: Active AAC: J
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 3/8-24 UNF
Pitch Diameter: (H3) 0.3489/ 0.3494 inch
Chamfer Type: Bottoming
Thread Forming Method: Ground
Style Designator: Straight flute
Thread Direction: Right-hand
Flute Quantity: 4
Material: High Speed Steel

163.48. 5136-00-580-7156 Ver: 19 UI: EA Status: Active AAC: J
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 7/16"-20 UNF
Overall Length: 3-5/32"
Pitch Diameter: (H3) 0.4060/ 0.4065 inch
Chamfer Type: Bottoming
Thread Forming Method: Ground
Style Designator: Straight flute
Thread Direction: Right-hand
Flute Quantity: 4
Material: High Speed Steel

IPDs - TECHNICAL INFORMATION

163.49. 5136-00-580-7356 Ver: 22 UI: EA Status: Active AAC: J
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 1/2"-20 UNF
Pitch Diameter: (H3) 0.4685/ 0.4690 inch
Chamfer Type: Bottoming
Overall Length: 3-3/8"
Thread Forming Method: Ground
Style Designator: Straight flute
Thread Direction: Right-hand
Flute Quantity: 4
Material: High Speed Steel

163.50. 5136-00-580-7158 Ver: 17 UI: EA Status: Active AAC: H
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size-Series: 9/16-18 UNF
Pitch Diameter: (H3) 0.5274/+0.5279 inch
Chamfer Type: Bottoming
Thread Form: Ground
Style: Straight flute
Thread Direction: Right-hand
Flute Quantity: 4
Material: High Speed Steel

163.51. 5136-00-262-2195 Ver: 21 UI: EA Status: Active AAC: J
TAP, THREAD CUTTING

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size and Series: 5/8-18 UNF
Thread Pitch Diameter: (H2) 0.5899/ 0.5904 inch
Thread Forming Method: Ground
Chamfer Type: Bottoming
Style Designator: Straight flute
Thread Direction: Right-hand
Flute Quantity: 4
Material: High Speed Steel

163.52. 5136-00-228-1023 Ver: 11 UI: EA Status: Active AAC: J
TAP, THREAD CUTTING

KeyFields:

IPDs - TECHNICAL INFORMATION

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread
Thread Size and Series: 3/4-16 UNF
Thread Pitch Diameter: (H3) 0.7104/ 0.7109 inch
Chamfer Type: Bottoming
Thread Forming Method: Ground
Style Designator: Straight flute
Thread Direction: Right-hand
Flute Quantity: 4
Material: High Speed Steel

**163.53. 5136-00-580-7163 Ver: 15 UI: EA Status: Active AAC: J
TAP, THREAD CUTTING**

KeyFields:

1B94.9 Ver: 2 TAPS: GROUND & CUT THREADS (INCH & METRIC SIZES)

In accordance with American Society of Mechanical Engineer (ASME) B94.9-2008, "Taps: Ground Thread with Cut Thread Appendix (Inch and Metric Sizes)".

NSN Description:

Type: Standard Straight Thread.
Thread Size-Series: 7/8-14 UNF
Thread Pitch Diameter: (H4) 0.8301/ 0.8306 inches
Chamfer Type: Bottoming
Thread Form: Ground.
Style Designator: Straight flute
Thread Direction: Right-Hand.
Flute Quantity: 4
Material: High Speed Steel.

**163.54. 5136-00-239-2763 Ver: 15 UI: EA Status: Active AAC: H
DIE, THREAD CUTTING**

KeyFields:

1A-A-410 Ver: 1 DIE, THREAD CUTTING (ROUND, SPLIT, INCH SERIES)

In accordance with Commercial Item Description A-A-410 Notice 2, dated August 9, 2005.

NSN Description:

Style Designator: Round split with internal adjusting screw.
Thread Size and Series: 1-72 UNF
Thread Pitch Diameters: 0.0615 inch to 0.064 inch
Outside Diameter: 13/16 inch
Thickness: 1/4 inch
Thread Direction: Right-hand
Material: High Speed Steel

**163.55. 5136-00-239-2764 Ver: 13 UI: EA Status: Active AAC: J
DIE, THREAD CUTTING**

KeyFields:

1A-A-410 Ver: 1 DIE, THREAD CUTTING (ROUND, SPLIT, INCH SERIES)

In accordance with Commercial Item Description A-A-410 Notice 2, dated August 9, 2005.

NSN Description:

Style Designator: Round split with internal adjusting screw.
Thread Size and Series: 2-64 UNF
Thread Pitch Diameters: 0.0733 inch to 0.0759 inch
Outside Diameter: 13/16 inch
Thickness: 1/4 inch

IPDs - TECHNICAL INFORMATION

Thread Direction: Right-hand
Material: High Speed Steel

163.56. 5136-00-237-8263 Ver: 12 UI: EA Status: Active AAC: J
DIE, THREAD CUTTING

KeyFields:

1A-A-410 Ver: 1 DIE, THREAD CUTTING (ROUND, SPLIT, INCH SERIES)

In accordance with Commercial Item Description A-A-410 Notice 2, dated August 9, 2005.

NSN Description:

Style Designator: Round split with internal adjusting screw.

Thread Size and Series: 3-56 UNF

Thread Pitch Diameters: 0.0845 inch to 0.0874 inch

Outside Diameter: 13/16 inch

Thickness: 1/4 inch

Thread Direction: Right-hand

Material: High Speed Steel

163.57. 5136-00-239-2765 Ver: 14 UI: EA Status: Active AAC: J
DIE, THREAD CUTTING

KeyFields:

1A-A-410 Ver: 1 DIE, THREAD CUTTING (ROUND, SPLIT, INCH SERIES)

In accordance with Commercial Item Description A-A-410 Notice 2, dated August 9, 2005.

NSN Description:

Style Designator: Round split with internal adjusting screw.

Thread Size and Series: 4-48 UNF

Thread Pitch Diameters: 0.0954 inch to 0.0985 inch

Outside Diameter: 13/16 inch

Thickness: 1/4 inch

Thread Direction: Right-hand

Material: High Speed Steel

163.58. 5136-00-239-2766 Ver: 15 UI: EA Status: Active AAC: J
DIE, THREAD CUTTING

KeyFields:

1A-A-410 Ver: 1 DIE, THREAD CUTTING (ROUND, SPLIT, INCH SERIES)

In accordance with Commercial Item Description A-A-410 Notice 2, dated August 9, 2005.

NSN Description:

Style Designator: Round split with internal adjusting screw

Thread Pitch Diameters: 0.1070 inch to 0.1102 inch

Thread size and Series/Type Designator: 5-44 UNF

Diameter: 13/16 inch

Thickness: 1/4 inch

Thread Direction: Right-hand

Material: High Speed Steel

163.59. 5136-00-239-2767 Ver: 15 UI: EA Status: Active AAC: H
DIE, THREAD CUTTING

KeyFields:

1A-A-410 Ver: 1 DIE, THREAD CUTTING (ROUND, SPLIT, INCH SERIES)

In accordance with Commercial Item Description A-A-410 Notice 2, dated August 9, 2005.

NSN Description:

Style: Split round adjustable die

Thread Size and Series: 6-40 UNF

Thread Pitch Diameters: 0.1184 inch to 0.1218 inch

Thread Direction: Right-hand

IPDs - TECHNICAL INFORMATION

Outside Diameter: 2 inches
Thickness: 5/8 inch
Material: High Speed Steel

163.60. 5136-00-239-2768 Ver: 14 UI: EA Status: Active AAC: J
DIE, THREAD CUTTING

KeyFields:

1A-A-410 Ver: 1 DIE, THREAD CUTTING (ROUND, SPLIT, INCH SERIES)

In accordance with Commercial Item Description A-A-410 Notice 2, dated August 9, 2005.

NSN Description:

Style Designator: Round split with internal adjusting screw
Thread Size and Series: 8-36 UNF
Thread Pitch Diameters: 0.1424 to 0.1460 inches
Outside Diameter: 13/16 inch
Thickness: 1/4 inch
Thread Direction: Right-hand
Material: High Speed Steel

163.61. 5136-00-239-2769 Ver: 18 UI: EA Status: Active AAC: J
DIE, THREAD CUTTING

KeyFields:

1A-A-410 Ver: 1 DIE, THREAD CUTTING (ROUND, SPLIT, INCH SERIES)

In accordance with Commercial Item Description A-A-410 Notice 2, dated August 9, 2005.

NSN Description:

Style Designator: Round split with internal adjusting screw.
Thread Size and Series: 10-32 UNF
Thread Pitch Diameters: 0.1658 inches to 0.1697 inches
Outside Diameter: 13/16 inch
Thickness: 1/4 inch
Thread Direction: Right-hand
Material: High Speed Steel

163.62. 5136-00-239-2770 Ver: 16 UI: EA Status: Active AAC: J
DIE, THREAD CUTTING

KeyFields:

1A-A-410 Ver: 1 DIE, THREAD CUTTING (ROUND, SPLIT, INCH SERIES)

In accordance with Commercial Item Description A-A-410 Notice 2, dated August 9, 2005.

NSN Description:

Style: Round split with internal adjusting screw.
Thread Size and Series: 12-28 UNF.
Thread Pitch Diameters: 0.1886 inch to 0.1928 inch
Outside Diameter: 13/16 inch
Thickness: 1/4 inch
Thread Direction: Right-hand
Material: High Speed Steel

163.63. 5136-00-197-9302 Ver: 17 UI: EA Status: Active AAC: J
DIE, THREAD CUTTING

KeyFields:

1A-A-410 Ver: 1 DIE, THREAD CUTTING (ROUND, SPLIT, INCH SERIES)

In accordance with Commercial Item Description A-A-410 Notice 2, dated August 9, 2005.

NSN Description:

Style Designator: Round split with internal adjusting screw.
Thread Size and Series: 3/8-24 UNF.
Thread Pitch Diameters: 0.3411 inch to 0.3479 inch

IPDs - TECHNICAL INFORMATION

Thread Direction: Right-hand.
Outside Diameter: 2 inches
Thickness: 5/8 inch
Material: High Speed Steel.

**163.64. 5136-00-189-3197 Ver: 28 UI: EA Status: Active AAC: J
DIE, THREAD CUTTING**

KeyFields:

1A-A-410 Ver: 1 DIE, THREAD CUTTING (ROUND, SPLIT, INCH SERIES)

In accordance with Commercial Item Description A-A-410 Notice 2, dated August 9, 2005.

NSN Description:

Style Designator: Round split with internal adjusting screw.
Thread Pitch Diameters: 0.3975 inch to 0.4050 inch
Thread Size and Series: 7/16"-20 UNF
Outside Diameter: 1-1/2 inches
Thickness: 1/2 inch
Thread Direction: Right-hand
Material: High Speed Steel

**163.65. 5136-00-189-3198 Ver: 36 UI: EA Status: Active AAC: H
DIE, THREAD CUTTING**

KeyFields:

1A-A-410 Ver: 1 DIE, THREAD CUTTING (ROUND, SPLIT, INCH SERIES)

In accordance with Commercial Item Description A-A-410 Notice 2, dated August 9, 2005.

NSN Description:

Style: Round Split With Internal Adjustable Screw
Thread Size and Series: 1/2-20 UNF
Thread Pitch Diameter: 0.4598 inch to 0.4675 inch
Thread Direction: Right-hand
Outside Diameter: 1-1/2 inches
Thickness: 1/2 inch
Material: Carbon Tool Steel or High Speed Steel

**163.66. 5136-00-189-3200 Ver: 23 UI: EA Status: Active AAC: J
DIE, THREAD CUTTING**

KeyFields:

1A-A-410 Ver: 1 DIE, THREAD CUTTING (ROUND, SPLIT, INCH SERIES)

In accordance with Commercial Item Description A-A-410 Notice 2, dated August 9, 2005.

NSN Description:

Style Designator: Round split with internal adjusting screw.
Thread Size And Series: 5/8"-18 UNF.
Thread Pitch Diameters: 0.5805/ 0.5889 inch
Outside Diameter: 2-1/2 inches
Thickness: 3/4 inch
Thread Direction: Right-hand
Material: Carbon Tool Steel or High Speed Steel

**163.67. 5136-00-189-3201 Ver: 21 UI: EA Status: Active AAC: H
DIE, THREAD CUTTING**

KeyFields:

1A-A-410 Ver: 1 DIE, THREAD CUTTING (ROUND, SPLIT, INCH SERIES)

In accordance with Commercial Item Description A-A-410 Notice 2, dated August 9, 2005.

NSN Description:

Style Designator: Round split with internal adjusting screw.
Thread Pitch Diameters: 0.7004/ 0.7094 inch.

IPDs - TECHNICAL INFORMATION

Thread Size and Series: 3/4-16 UNF.
Outside Diameter: 2-1/2 inches nom.
Thickness: 3/4 inch nom.
Thread Direction: Right-hand
Material: High Speed Steel

**163.68. 5136-00-189-3238 Ver: 24 UI: EA Status: Active AAC: H
DIE, THREAD CUTTING**

KeyFields:

1A-A-410 Ver: 1 DIE, THREAD CUTTING (ROUND, SPLIT, INCH SERIES)

In accordance with Commercial Item Description A-A-410 Notice 2, dated August 9, 2005.

NSN Description:

Style: Round Split With Internal Adjustable Screw
Thread Size and Series: 7/8-14 UNF
Thread Pitch Diameter: 0.8189 inch to 0.8286 inch
Thread Direction: Right-hand
Outside Diameter: 2-1/2 inches
Thickness: 3/4 inch
Material: Carbon Tool Steel or High Speed Steel

**163.69. 5136-00-189-3239 Ver: 20 UI: EA Status: Active AAC: H
DIE, THREAD CUTTING**

KeyFields:

1A-A-410 Ver: 1 DIE, THREAD CUTTING (ROUND, SPLIT, INCH SERIES)

In accordance with Commercial Item Description A-A-410 Notice 2, dated August 9, 2005.

NSN Description:

Style: Round Split With Internal Adjustable Screw
Thread Size and Series: 1.000-14 UNS
Thread Pitch Diameters: 0.9546/+0.9571 in.
Thread Direction: Right-hand
Outside Diameter: 2-1/2 inches
Thickness: 3/4 inch
Material: Carbon Tool Steel or High Speed Steel

End of 5136-00-357-7504 Components List

**164. 5140-00-226-9018 Ver: 21 UI: EA Status: Active AAC: G
TOOL BOX, PORTABLE**

NSN Description:

In accordance with GSA Purchase Description 5140-00-226-9018 dated 24 Nov 98. Salient features are:

Type: Tool Box
Overall Length: 24.00 in. (+/- 1.0")
Overall Height: 12.000 in. (+/- 1.0")
Overall Width: 12.000 in. (+/- 1.0")
Out of parallel or out of square +/- 0.125"
Handle Quantity: 2
Handle Location: 1 located on each end
Top Till: Not provided
Panel Front: Not provided
Closing Facility Type and Quantity: HASP and Staple for Padlock 1
Color: Red
Material: Steel

IPDs - TECHNICAL INFORMATION

EXCEPTION TO TECHNICAL DOCUMENT:

Color. Box bodies, lids, trays, and drawers, excluding hardware, shall have a durable red baked finish in accordance with good commercial practice. Hardware shall be finished either the same as the box bodies or plated as furnished commercially.

Hardware. Disregard hinges shall be of the chest type with 90 degree stop to prevent being raised above their horizontal position. Should read: The handles shall be of the chest type with 90 degree stop to prevent being raised above their horizontal position.

165. 5140-00-226-9019 Ver: 22 UI: EA Status: Active AAC: G
TOOL BOX, PORTABLE

KeyFields:

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

2WORKMANSHIP Ver: 4 DETAILS OF WORKMANSHIP SHALL BE IAW THE BEST COMMERCIAL STANDARDS

Details of workmanship shall be in accordance with the best commercial standards and practices. Paints, coatings, plating, and finishes shall be smooth, dry, adherent, continuous, and not stained or discolored. Fasteners shall be firmly secured and show no evidence of deformation, cross threading, or hazardous burrs. Adhesives and lubricants adequate for their intended purpose shall be properly and neatly applied. Adhesives shall be adequately cured. Wires and cables shall be neatly dressed and shall not be frayed or in contact with sharp edges. Wire and cable insulation shall show no evidence of burns, abrading, or pinch marks. There shall be no interference, binding, or galling of parts. External and bearing surfaces shall be free of tool and gouge marks, nicks, or other surface imperfections. The item shall be clean and free of corrosion and debris (e.g., chips, shavings, slivers) or other foreign material. The item shall be free from manufacturing workmanship defects (e.g., loose, missing, binding or misaligned parts, sharp or rough external edges, corners or surfaces) and material workmanship defects (e.g., pits, rips, fins, burrs, tears, nodules, cracks, blisters) which may adversely impact the item's serviceability, durability, safety, or appearance.

NSN Description:

In accordance with GSA Purchase Description 5140-00-226-9019 dated November 25, 1998.

Salient features:

Overall Length: 33 inches

Overall Height: 12 inches

Overall Width: 14 inches

Out of parallel or out of square 1/8 inch

Handle Quantity: 2

Handle Location: 1 on each end

Closing Facility Type: Hasp and Staple for Padlock

Closing Facility Quantity: 1 each

Color: Red

Material: Steel

EXCEPTION TO SPECIFICATION:

Color. Box bodies, lids, trays, and drawers, excluding hardware, shall have a durable red baked finish in accordance with good commercial practice. Hardware shall be finished either the same as the box bodies or plated as furnished commercially.

Hardware. Disregard hinges shall be of the chest type with 90 degree stop to prevent being raised above their horizontal position. Should read: The handles shall be of the chest type with 90 degree stop to prevent being raised above their horizontal position.

IPDs - TECHNICAL INFORMATION

166. 5140-00-226-9021 Ver: 16 UI: EA Status: Active AAC: G
TOOL BOX, PORTABLE

KeyFields:

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

In accordance with GSA Purchase Description 5140-00-226-9021 dated 26 Apr 99.

Overall Length: 38 inches
Overall Height: 17 inches
Overall Width: 12 inches
Out of Parallel or Out of Square: 1/8 inch
Handle Quantity: 2
Handle Location: 1 Each End
Facility Quantity 1
Top Till: Not Provided
Panel Front: Not Provided
Closing Facility Type: Hasp and Staple for Padlock
Color: Red
Material: Steel
Coating: Paint

EXCEPTION TO TECHNICAL DOCUMENT:

Color. Box bodies, lids, trays, and drawers, excluding hardware, shall have a durable red baked finish in accordance with good commercial practice. Hardware shall be finished either the same as the box bodies or plated as furnished commercially.

Hardware. Disregard hinges shall be of the chest type with 90 degree stop to prevent being raised above their horizontal position. Should read: The handles shall be of the chest type with 90 degree stop to prevent being raised above their horizontal position.

167. 5140-00-319-5079 Ver: 24 UI: EA Status: Active AAC: G
TOOL BOX, PORTABLE

NSN Description:

In accordance with GSA Purchase Description 5140-00-319-5079 dated 5 Jan 99.

Overall Length: 20 inches minimum and 20-3/4 inches maximum
Overall Height: 13 inches minimum and 14-1/4 inches maximum
Overall Width: 8-1/2 inches minimum and 9-1/4 inches maximum
Handle Quantity: 1
Drawer Quantity: 7
Compartmented Drawer Quantity: 6
Compartment Quantity Per Drawer: 2
Locking Device Type: Integral
Compartment: Included
Handle Location: Top
Closing Facility Type & Quantity: Luggage catch 2
Lock Type: Key
Material: Steel
Coating: Enamel
Color: Red

IPDs - TECHNICAL INFORMATION

Provided: Top Till, and Panel Front

EXCEPTION TO SPECIFICATION:

GGG-T-558: General Specification, paragraph 4.3 Testing methods, delete the last sentence of the paragraph and substitute "one sample box shall be used for testing:"

**168. 5140-00-473-6256 Ver: 8 UI: EA Status: Active AAC: G
BAG, TOOL**

NSN Description:

Overall Length: 19-1/2 inches

Overall Height: 8-1/2 inches

Overall Width: 6 inches

Material: Nylon Duck

Features: 2 pockets, slide fastener closure, 2 nylon webbing handles

NIB/NISH P/N 5140-00-473-6256 or equal

**169. 5140-01-010-4775 Ver: 29 UI: EA Status: Active AAC: G
CABINET, TOOL, MOBILE**

KeyFields:

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Overall Depth: 20 inches

Overall Height:35.inches

Overall Width: 29 inches

Rolling Element Type: Caster

Drawer Quantity: 7

Material: Steel

Coating: Painted

Color: Brown and Red

Kennedy Mfg Co Part Number 297B, Stack-On P/N GSA-4775 or equal

**170. 5140-01-318-0865 Ver: 17 UI: EA Status: Active AAC: J
CABINET, TOOL, MOBILE**

KeyFields:

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

In accordance with GSA Purchase Description PD-5140-01-318-0865A October 26, 1993.

Overall Depth: 27.750 inches

Overall Height:38 inches

Overall Width: 30 inches

Rolling Element Type: Caster

Drawer Quantity: 6

Material: Steel

IPDs - TECHNICAL INFORMATION

Coating: Enameled

171. 5140-01-408-3832 Ver: 8 UI: EA Status: Active AAC: J
CABINET, TOOL, MOBILE

KeyFields:

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Overall Depth: 18 inches

Overall Height: 35 inches

Overall Width: 27 inches

Drawer Quantity: 7

Rolling Element Type: Caster

Handle Type: Side Push

Handle Size: 5 x 1-1/4 inches

Locking Device Type: Integral Key Lock

Material: Steel

Coating: Baked Enamel

Color: Red

Features: Includes four aluminum drawer dividers

172. 5140-01-416-8569 Ver: 21 UI: EA Status: Active AAC: H
ROLL, TOOL AND ACCESSORIES

NSN Description:

Bag, Carrying: Forrest Tool Company Part Number 595-030 or Equal

Size: 10" x 14" when closed

Size Tolerance: 1/2"

Pockets: 1 large rear pocket 13-1/2" x 9-1/2", 4 sectioned pockets in the middle 3 @ 2-1/2" x 7" 1@ 5" x 7", 1 medium pocket in the front 13-1/2" x 6-1/2"

Pocket Size Tolerance: 1/4"

Material: Cordura nylon

Closure: Hook and Loop Velcro closure

Color: Olive Drab overall

Features: Compartmentalized to accommodate all components of Hand, Combination Tool 5120-01-416-8568 Forrest Tool p/n 595 or equal consisting of the following:

Ax, Single Bit 5110-01-416-7827 Forrest Tool p/n 595-010 or equal

Sheath, Ax 5110-01-416-7830 Forrest Tool p/n 595-020 or equal

Shovel 5120-01-416-8570 Forrest Tool p/n 595-040 or equal

Mattock 5120-01-416-8571 Forrest Tool p/n 595-050 or equal

Pick 5120-01-416-8573 Forrest Tool p/n 595-060 or equal

Broad Pick 5120-01-416-8572 Forrest Tool p/n 595-070 or equal

Rake-Hoe 5120-01-416-8577 Forrest Tool p/n 595-080 or equal

Locking Pin (6ea) 5120-01-416-8575 Forrest Tool p/n 595-999 or equal

Fastener 5120-01-416-8574 Forrest Tool p/n 595-090 or equal

End Item: Hand, Combination Tool 5120-01-416-8568 Forrest Tool p/n 595 or equal

Or Equal SHALL be dimensionally equivalent ensuring compatibility with established Forest Tool Items listed above. All dimensional characteristics of the brand name item and item offered as equivalent specifically addressing the compatibility must be provided to establish equivalency.

IPDs - TECHNICAL INFORMATION

173. 5140-01-420-0438 Ver: 24 UI: EA Status: Active AAC: G
CARRIER, TOOL

KeyFields:

2WORKMANSHIP Ver: 4 DETAILS OF WORKMANSHIP SHALL BE IAW THE BEST COMMERCIAL STANDARDS

Details of workmanship shall be in accordance with the best commercial standards and practices. Paints, coatings, plating, and finishes shall be smooth, dry, adherent, continuous, and not stained or discolored. Fasteners shall be firmly secured and show no evidence of deformation, cross threading, or hazardous burrs. Adhesives and lubricants adequate for their intended purpose shall be properly and neatly applied. Adhesives shall be adequately cured. Wires and cables shall be neatly dressed and shall not be frayed or in contact with sharp edges. Wire and cable insulation shall show no evidence of burns, abrading, or pinch marks. There shall be no interference, binding, or galling of parts. External and bearing surfaces shall be free of tool and gouge marks, nicks, or other surface imperfections. The item shall be clean and free of corrosion and debris (e.g., chips, shavings, slivers) or other foreign material. The item shall be free from manufacturing workmanship defects (e.g., loose, missing, binding or misaligned parts, sharp or rough external edges, corners or surfaces) and material workmanship defects (e.g., pits, rips, fins, burrs, tears, nodules, cracks, blisters) which may adversely impact the item's serviceability, durability, safety, or appearance.

NSN Description:

Backpack

Material-Black 1000 denier DuPont Plus or (nylon). Holds over 100 tools in 5 to 7 Panels; one of the panels is a large document panel; two outer pockets; padded ergonomically curved shoulder straps with adjustable buckles and two padded handles to carry the pack like a bag.

Velcro, nylon webbing, or other securing means as flaps to hold tools in place; Zipper closure.

All panel shells are sewn together with 90d thread, and joints are seamed-taped with nylon seam tape.

Tool holder divisions are sewn with 90d thread and back sewn at the terminating ends.

Holder pleated dimensions are made from attachment point-to-attachment point.

Panel dimensions are, length - 18 inches (+/- 2 inches), width - 14 inches (+/- 2 inches).

Each panel has nylon seamed-taped radius edges to form a cup shaped enclosure.

Each pocket is sewn independently, allowing holders in one panel to be altered without affecting the holders in the adjacent panel.

Zipper chain is sewn around the outside edge on all sides of the backpack, except 8 inches on the bottom side.

Panel is to be attached to the inside of backpack so as to facilitate easy access to the tools and so panels do not come loose from backpack.

Except as otherwise specified all tolerances are standard commercial tolerances for material and product manufacturing.

Top outer pocket: Designed to hold large tools such as cordless drill, and accessories.

Pocket dimensions: Length - 16 inches maximum, 12 inches minimum, Width - 2 inches, Depth - 10 inches.

Pocket has Quick-Release clip trouble light loop to hold cans, flashlights, or other odd shaped items.

Bottom pocket: Designed to hold items, which need to be readily available.

Pocket dimensions: Length - 16 inches maximum, 12 inches minimum, Width - 2 inches, Depth - 7 inches.

The backpack shall be so designed as to include at a minimum the following:

A document pocket, designed to accommodate large bulky items.

Panel has seamed-taped edge 12 inches from bottom.

A screwdriver panel/panels, designed for long and thin shaped tools.

Flap that completely covers the lower set of holders, securing tools in place.

Flap is sewn so that 18 inches long tools may be held in the center of the top set of holders, passing under the flap. Thirty (30) open end-holders allowing pointed ends of tools to protrude out of bottom of holders, fifteen (15) upper holders and fifteen (15) lower holders.

IPDs - TECHNICAL INFORMATION

Upper Holders: Three holders, 1-1/4 inches by 5 inches, pleated; One holder, 1-1/2 inches by 5 inches, pleated; Eight holders, 3/4 inch by 5 inches; Two holders 7/8 inch by 5 inches; One holder 1 inch by 5 inches.

Lower Holders: Two holders, 1/2 inch by 4 inches; Five holders, 1 inch by 4 inches; Eight holders, 3/4 inch by 4 inches.

A utility panel/panels, designed to accommodate a variety of tools.

Flap to partially cover the lower set of holders, securing tools in place. Sixteen (16) tool holders, nine (9) upper holders and seven (7) lower holders.

Holders are sewn shut at the bottom of each pocket.

Upper holders taper in length from 5-1/4 inches to 4 inches and bottom holders taper in length from 7 inches to 5-1/2 inches.

Width of upper holders: One - 3-1/4 inches, pleated; One - 2-1/2 inches, pleated; One - 2 inches; Two - 1-1/2 inches; One - 1-1/4 inches; One - 1 inch; Two - 3/4 inch.

Width of bottom holders: One - 3 inches, pleated; One - 3 inches; One - 2 inches; One - 2-1/4 inches; Two - 1-1/4 inches; One - 1 inch.

Pliers panel/panels, designed to accommodate a variety of pliers-like tools flap with two enclosures.

Flap to partially cover the lower set of holders, securing tools in place, allowing large tools to be held, and overlapping the top set on right hand side of panel.

Ten (10) holders sewn shut at bottom of each pocket, six (6) top holders and four (4) bottom holders.

Length of top holders is 4 inches. Length of bottom holders taper from 3-3/4 inches to 7-3/4 inches.

Width of upper holders: Four - 2-1/2 inches; two - 2 inches holders.

Width of lower holders: Two - 3 inches; One - 3-1/4 inches; One - 4 inches.

Wrench panel/panels, designed to accommodate wrench shaped tools.

Twenty-one (21) holders, fourteen (14) upper holders and seven (7) lower holders.

All holders are sewn shut at the bottom of each pocket.

Length of upper holders taper from 3-1/2 inches to 5 inches. Length of lower holders taper from 6-1/2 inches to 11-1/2 inches.

Width of upper holders: One - 1-3/4 inches; Two - 1-1/2 inches, One - 1 inch; Three - 3/4 inch; Seven - 1/2 inch.

Width of lower holders: One - 2-1/4 inches; Two - 2 inches; Four - 1-3/4 inches.

Socket panel/panels, designed to accommodate socket shaped tools.

The pleated closed-bottom holders, sewn shut at the bottom of the pocket, are designed for socket bars. The eighteen (18) open-bottom upper holders hold the tools while allowing the pointed end to protrude out the bottom.

A flap with closure, to partially cover the lower holders, securing the tools in place, overlapping on the left hand side.

twenty-seven (27) holders, eighteen (18) upper holders and nine (9) lower holders.

The length of the bottom holders taper down from the longest length of 7 inches.

Width of upper holders: Eighteen - 1 inch, pleated.

Width of lower holders: One - 2-3/4 inches, pleated; Two - 1-3/4 inches, pleated; One - 1-1/2 inches, pleated; Two - 1-1/4 inches, pleated; Three - 1-1/4 inches.

Paktek Inc Part Number 90650, C.H. Ellis Part Number 03-5964 or equal.

**174. 5140-01-429-6945 Ver: 17 UI: EA Status: Active AAC: G
BAG, TOOL**

IPDs - TECHNICAL INFORMATION

KeyFields:

1DWG-12447043 Ver: 1 DWG ATTACHMENT

2FEDDWG Ver: 2 MARK EACH TOOL IN A PERMANENT AND LEGIBLE MANNER WITH DRAWING

Mark each tool in a permanent and legible manner with drawing number, manufacturer's name or identifying symbol, and country of origin

NSN Description:

Overall Length: 22-3/4 inches

Overall Width: 26 inches

Material: Polyamide or polyester

Features: For Storage of Vehicle Jack

175. 5140-01-434-5818 Ver: 17 UI: EA Status: Active AAC: J

CABINET, TOOL, MOBILE

KeyFields:

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Overall Depth: 19-13/16 inches

Overall Height: 39-7/64 inches

Overall Width: 40 inches

Dimension Tolerance: 0.5 inch

Drawer Quantity: 7

Drawer Bank: 1

Drawer Capacity: 120 pound

Load Capacity: 2400 pound

Load Capacity Tolerance: 50 pound

Rolling Element Type: Caster, 2 Swivel with Brake, 2 Rigid; 6 X 2 inch Monoprene

Material: Steel

Coating: Enamel

Color: Red

Locking Device Type: Integral Key Lock

Special Features: Ball Bearing Drawer Slides; Interchangeable Drawers; Includes Top Mat and Drawer Liners; Aluminum Trim on Drawer Pulls

Snap-On Tool part number KRA4107FPBO or equal.

176. 5140-01-434-5822 Ver: 11 UI: EA Status: Active AAC: J

CABINET, TOOL, MOBILE

NSN Description:

Overall Depth: 29.125 inch

Overall Height: 45.875 inch

Overall Width: 72.875 inch

Dimension Tolerance: 1 inch

Locking Device Type: integral key lock

Drawer Banks: 3

Drawer Quantity: 22

Widest Drawer: 50 inch, Quantity: 2

Drawer Slides: ball bearing, Capacity: 227 pound

Rolling Element Type: caster, Size: 6 x 2 inch, 2 swivel with lock, 2 rigid

Special Features: 2 sliding trays, 1 tote tray; writing and separate work surfaces; work surface rubber mat

IPDs - TECHNICAL INFORMATION

Color: cranberry
Material: steel
Surface Treatment: baked enamel
Load Capacity: 6,800 pound

**177. 5140-01-445-1446 Ver: 11 UI: EA Status: Active AAC: J
CABINET, TOOL, MOBILE**

NSN Description:

Overall Depth: 18 inch
Overall Height: 37 inch
Overall Width: 41 inch
Dimension Tolerance: 1.0 inch
Locking Device Type: integral key lock
Drawer Quantity: 11
Rolling Element Type: 5 x 2 in caster
Special Features: fiberboard worktop surface, ball bearing drawers
Surface Treatment: enameled
Color: red
Material: steel

Waterloo Industries part number WCA-4111RD-C or equal.

**178. 5140-01-474-5202 Ver: 10 UI: EA Status: Active AAC: J
CABINET, TOOL, MOBILE**

NSN Description:

Overall Depth: 29.125 inch
Overall Height: 41.375 inch
Overall Width: 72.875 inch
Dimension Tolerance: 0.325 inch
Locking Device Type: integral key lock
Drawer Quantity: 19
Drawer Banks: 3
Widest Drawer: 50 inch; quantity 2
Caster Size: 6 x 2 inch; 4 total
Load Capacity: 6,800 pound
Special Features: ball bearing drawer slides; interchangeable drawers; 2 sliding trays; tote tray and drawer liners; sliding work surface with non-direction rubber liner
Color: red
Material: steel
Surface Treatment: enamel

**179. 5140-01-502-7546 Ver: 5 UI: KT Status: Active AAC: J
POUCH, EXPLOSIVE ORDNANCE DISPOSAL TOOLS:**

NSN Description:

An item designed for carrying special tools utilized by explosive ordnance disposal personnel to conduct render-safe procedures. It is used with decontamination suits.

**180. 5140-01-586-3669 Ver: 9 UI: EA Status: Active AAC: H
CABINET, TOOL MOBILE**

KeyFields:

IPDs - TECHNICAL INFORMATION

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Overall Depth: 26 inches

Overall Height: 42 inches

Overall Width: 32 inches

Drawer Quantity: 2

Drawer 1 Depth: 1 inch

Drawer 2 Depth: two inches

Drawer Capacity: 70 pounds

Load Capacity: 1000 pounds

Foldable Shelf: 12x12 inches

Shelf Tolerance: 50 pounds

Rolling Element Type: 4 8-inch pneumatic or semi-pneumatic wheels (two fix and two swivel)

Material: Steel

Coating: Painted

Color: Black

Locking Device Type: Padlock

Apex Tool Group LLC (formerly Danaher Tool Group), Armstrong Part No. MCAT09000 or equal.

**181. 5210-00-221-1886 Ver: 27 UI: EA Status: Active AAC: G
TAPE, MEASURING**

KeyFields:

1A-A-52216 Ver: 2 IAW CID A-A-52216 DATED FEBRUARY 28, 1997

In accordance with Commercial Item Description A-A-52216 dated February 28, 1997. (Tapes, Measuring: Tank Gauging Type, with reel and Plumb Bob).

2COATING Ver: 10 SAE AS 4984 COATING REQUIREMENT FOR AEROSPACE HAND TOOLS

Coatings: Shall be in accordance with SAE AS4984-2011; Coating Requirements for Aerospace Hand Tools.

NSN Description:

Type 1: Plumb Bob for Measuring Liquids

Size 2: 50 feet

Finish 1: Light Background

Tape Width: 1/2 inch

Measuring Capacity: 50 feet

Smallest Tape Graduation Unit: 1/8 inch

Design Type: Tank Gauging

Reading Direction: Right to Left

Enclosure Type: Reel

Winding Method: Hand Crank

Material: Steel

Material Handle: Plastic

Tape Coating: Nickel and Chrome

Features: Instantaneous Graduated Increments for Readings

**182. 5210-00-221-1887 Ver: 22 UI: EA Status: Active AAC: G
TAPE, MEASURING:**

KeyFields:

1A-A-52216 Ver: 2 IAW CID A-A-52216 DATED FEBRUARY 28, 1997

IPDs - TECHNICAL INFORMATION

In accordance with Commercial Item Description A-A-52216 dated February 28, 1997. (Tapes, Measuring: Tank Gauging Type, with reel and Plumb Bob).

2A-A-52216 Ver: 1 EXCEPTION TO CID A-A-52216

Paragraph 3.1.5, first sentence, delete "68°F + 2°F" and substitute " 63 to 83 degrees F."

NSN Description:

Type: I (Plumb bob for measuring liquids)

Size: 3 (75 feet)

Finish: I (Light background)

This measuring tape may be used in tanks which contain hazardous (flammable) liquids. For safety, a grounding strap for 'spark-proofing' along with instructions for usage shall be included.

183. 5210-00-222-4565 Ver: 13 UI: EA Status: Active AAC: H CALIPER, VERNIER

NSN Description:

Minimum Vernier Graduation Unit: 0.001 Inches

Jaw Depth: 2-3/4 inches

Outside Measurement Range: 0 inches minimum and 36 inches maximum

Inside Measurement Range: 0 inches minimum and 36 inches maximum

Vernier Scale Usage Location: Inside and Outside

Vernier Scale Location: Front and Back

Fine Adjustment Feature: Included

NIB Closed Position Width: 1/2 inches

Accuracy: .0005 inches per foot

Inside Measurement Reading Method: Direct Reading

Features: Screw-type nut allows for measuring adjustments and lock nut holds measurements

Provided: Finished Wood Carrying Case

L S Starrett Part Number: 123Z-36 or equal

184. 5210-00-293-2913 Ver: 15 UI: EA Status: Active AAC: G CALIPER, VERNIER

NSN Description:

Minimum Vernier Graduation Unit: .001 inches

Jaw Depth: 2-1/4 inches

Outside Measurement Range: 0 inches minimum and 12 inches maximum

Inside Measurement Range: 0 inches minimum and 12 inches maximum

Vernier Scale Usage Location: Inside and Outside

Vernier Scale Location: Front and Back

Fine Adjustment Feature: Included

NIB Closed Position Width: 0.3 inches

Accuracy: .0005 inches per foot

Inside Measurement Reading Method: Direct Reading

Features: Screw-type nut allows for measuring adjustments and lock nut holds measurements

Provided: Finished Wood Carrying Case

185. 5210-00-293-3511 Ver: 15 UI: EA Status: Active AAC: G RULE, MULTIPLE FOLDING:

NSN Description:

Heavy duty, outside reading, multiple folding wood ruler with 6 inch slide rule

IPDs - TECHNICAL INFORMATION

Joints - Metal plated joints and tempered inner springs every 6 inches to hold the ruler open or closed
Length - 72 inches (6 feet +/- 3/32 inch)
Width - 5/8 inch
Thickness - 0.120 prior to finishing
Graduations - 1/16 inch
Scale error - Any graduated edge at any 2 foot interval shall be no more than 1/32 inch
Finish - Enamel or lacquer finish and shall be yellow or white
Outside Reading - Numbering and figures shall commence on the outside of the folds
Steel slide - 6 inch slide, graduated (16ths) and numbered (inches) entire length, stops provided to retain slide in first fold.

186. 5210-00-554-7085 Ver: 12 UI: EA Status: Active AAC: G
TAPE, MEASURING:

NSN Description:

This Technical Description covers 50 foot length, woven (fiber) or unwoven fiberglass measuring tape suitable for all general measuring work. The tapes shall consist of a reel, handle, and case.

Salient Characteristics:

Ribbon - The ribbon shall be woven with either a linen fiber or synthetic fiber, or shall be unwoven fiberglass, polyvinyl coated. The ribbon shall be not less than 1/2 and not more than 7/8 inch wide, and woven tapes shall have a selvage at each edge. The ribbon shall be completely covered with a moisture-resistant plastic coating, and shall have a minimum breaking strength of 80 pounds for linen fiber and 150 pounds for synthetic fiber and unwoven fiberglass, polyvinyl coated. Synthetic fiber ribbons shall have a minimum tearing resistance of 18 pounds. There shall be a stainless steel or plated steel ring attached to the outer end of the ribbon, the ring being fastened to the ribbon by a stainless steel, plated steel or plated brass strip of the same width as the ribbon. The thread used in the fabrication of the ribbon shall have a minimum breaking strength of 8-1/2 pounds. The reinforcement shall pass around the ring and under the clip. The ribbon shall be removable from the reel without damage to the ribbon, case, or winding reel by means of an ordinary hand tool such as a screwdriver.

Reel - The reel shall be of nickel plated steel, nickel plated brass, die cast zinc, aluminum, or plastic, and, shall rotate freely.

Handle - The handle shall be suitable for winding the ribbon on the reel, fold against the reel, and shall have a crank of not less than 1 inch. The handle shall be of stainless steel, nickel plated steel, or nickel plated brass, or aluminum, or a combination of these metals, or die cast zinc.

Graduations - The ribbon shall be graduated on one side in feet, inches, and one-quarter inches. The ribbon may have additional graduations of 1/8 inch. The graduation lines and inch indication numerals shall be in black, and the foot indication numerals shall be in red.

First foot of ribbon - Each graduation shall be numbered to indicate inches, up to and including 11 inches and the twelfth graduation numbered to indicate feet.

Second and each successive foot of ribbon - First graduations shall be numbered to indicate inches only, second to eleventh graduations numbered to indicate feet and inches, twelfth graduation numbered to indicate feet.

Accuracy - The error in the length of the ribbon on a horizontal surface with a tension of 2 pounds at a temperature of 68 degrees F or 20 degrees C shall not exceed 2 inches per 100 feet. The error due to change in humidity shall not exceed 0.75 percent for linen fiber or 0.25 percent for synthetic fiber and unwoven fiberglass, polyvinyl coated.

Case - The case shall be vinyl coated cloth. A stainless steel or plated steel furling ring shall be used to cover and securely hold the edges of the vinyl coated cloth to the case.

IPDs - TECHNICAL INFORMATION

187. 5210-00-554-7087 Ver: 13 UI: EA Status: Active AAC: G
TAPE, MEASURING:

NSN Description:

This Technical Description covers 100 foot length, woven (fiber) or unwoven fiberglass measuring tape suitable for all general measuring work. The tapes shall consist of a reel, handle, and case.

Salient Characteristics:

Ribbon - The ribbon shall be woven with either a linen fiber or synthetic fiber, or shall be unwoven fiberglass, polyvinyl coated. The ribbon shall be not less than 1/2 and not more than 7/8 inch wide, and woven tapes shall have a selvage at each edge. The ribbon shall be completely covered with a moisture resistant coating, and shall have a minimum breaking strength of 80 pounds for linen fiber and 150 pounds for synthetic fiber and unwoven fiberglass, polyvinyl coated. When specified by the order the ribbon shall have a moisture-resistant plastic coating. Synthetic fiber ribbons shall have a minimum tearing resistance of 18 pounds. There shall be a stainless steel or plated steel ring attached to the outer end of the ribbon, the ring being fastened to the ribbon by a stainless steel, plated steel or plated brass strip of the same width as the ribbon. The thread used in the fabrication of the ribbon shall have a minimum breaking strength of 8-1/2 pounds. The reinforcement shall pass around the ring and under the clip. The ribbon shall be removable from the reel without damage to the ribbon, case, or winding reel by means of an ordinary hand tool such as a screwdriver.

Reel - The reel shall be of nickel plated steel, nickel plated brass, die cast zinc, aluminum, or plastic, and, shall rotate freely.

Handle - The handle shall be suitable for winding the ribbon on the reel, fold against the reel, and shall have a crank of not less than 1 inch. The handle shall be of stainless steel, nickel plated steel, or nickel plated brass, or aluminum, or a combination of these metals, or die cast zinc.

Graduations - The ribbon shall be graduated on one side in feet, inches, and one-quarter inches. The ribbon may have additional graduations of 1/8 inch. The graduation lines and inch indication numerals shall be in black, and the foot indication numerals shall be in red.

First foot of ribbon - Each graduation shall be numbered to indicate inches, up to and including 11 inches and the twelfth graduation numbered to indicate feet.

Second and each successive foot of ribbon - First graduations shall be numbered to indicate inches only, second to eleventh graduations numbered to indicate feet and inches, twelfth graduation numbered to indicate feet.

Accuracy - The error in the length of the ribbon on a horizontal surface with a tension of 2 pounds at a temperature of 68 degrees F or 20 degrees C shall not exceed 2 inches per 100 feet. The error due to change in humidity shall not exceed 0.75 percent for linen fiber or 0.25 percent for synthetic fiber and unwoven fiberglass, polyvinyl coated.

Case - The case shall be vinyl coated cloth. A stainless steel or plated steel furling ring shall be used to cover and securely hold the edges of the vinyl coated cloth to the case.

188. 5210-00-554-7134 Ver: 15 UI: SE Status: Active AAC: G
CALIPER SET, MICROMETER, OUTSIDE:

NSN Description:

The set shall consist of six outside micrometer calipers sizes 1, 2, 3, 4, 5, and 6 inch, enameled (finished) frame with solid anvils. The caliper set shall include a fitted case. Caliper size and measurement dimensions are as follows:

List of Components of 5210-00-554-7134 :

188.1. 5210-00-540-2973 Ver: 14 UI: EA Status: Active AAC: G

IPDs - TECHNICAL INFORMATION

CALIPER, MICROMETER, OUTSIDE:

NSN Description:

Outside micrometer caliper, enameled (finished) frame with a solid anvil.

Maximum measurement, which can be obtained - 1.000 inches

Measurement Range - 0" to 1.000"

Units of Graduation - 0.001" maximum

Permissible flexure - 0.0001 inches maximum

Flatness (maximum error) - 0.00005 inches

Parallelism (maximum error) - 0.00005 inches

Error in indicated measurement (maximum) - 0.0001 inch

Error in spindle and anvil alignment (maximum) - 0.002 inch

Features - Spindle lock, ratchet or friction stop, disk standard, fitted case.

188.2. 5210-00-243-2933 Ver: 12 UI: EA Status: Active AAC: J

CALIPER, MICROMETER, OUTSIDE

NSN Description:

Outside micrometer caliper, enameled (finished) frame with a solid anvil

Measurement range - 1"- 2"

Graduation - 0.001" maximum

Permissible flexure (maximum) - .0001"

Flatness (maximum error) - 0.00005"

Parallelism (maximum error) - .00010"

Error in indicated measurement (maximum) - 0.00015"

Error in spindle & anvil alignment (maximum) - 0.003"

Features - Spindle lock, ratchet or friction stop, rod and disk standard, hard plastic case.

188.3. 5210-00-221-1945 Ver: 13 UI: EA Status: Archived AAC: H

CALIPER, MICROMETER, OUTSIDE

NSN Description:

Outside micrometer caliper, enameled (finished) frame with a solid anvil

Maximum measurement that can be obtained - 3.000 inches

Measurement range - 2"- 3"

Graduations - 0.001" maximum

Permissible flexure (maximum) - .0001 inch

Flatness (maximum error) - 0.00005 inch

Parallelism (maximum error) - .00015 inch

Error in indicated measurement (maximum) - 0.00015 inch

Error in spindle & anvil alignment (maximum) - 0.0045 inch

Features - Spindle lock, ratchet or friction stop, fitted case, and rod standard.

188.4. 5210-00-221-1934 Ver: 15 UI: EA Status: Archived AAC: H

CALIPER, MICROMETER, OUTSIDE:

NSN Description:

Outside Caliper Micrometer

Style: Enameled (I-beam or hollow tubular) frame with solid anvil.

Measuring Range: 3.000" to 4.000".

Measuring Graduations: 0.001".

Features: Provided with spindle lock and ratchet or friction stop.

L.S. Starrett part number T436XRL-4, Brown & Sharpe part number 599-4-44, S-T Industries part number 02-0854-9700 or equal.

188.5. 5210-00-255-7564 Ver: 16 UI: EA Status: Active AAC: H

CALIPER, MICROMETER, OUTSIDE:

IPDs - TECHNICAL INFORMATION

NSN Description:

Outside micrometer caliper, enameled (finished) frame with a solid anvil.

Maximum measurement, which can be obtained - 5.000 inches

Measurement Range - 0" to 1.000"

Units of Graduation - 0.001" maximum

Permissible flexure -0.0015 inches maximum

Flatness (maximum error) - 0.00008 inches

Parallelism (maximum error) - 0.0002 inches

Error in indicated measurement (maximum) - 0.0002 inch

Error in spindle and anvil alignment (maximum) - 0.0075 inch

Features - Spindle lock, ratchet or friction stop, disk standard, fitted case.

**188.6. 5210-00-221-1948 Ver: 12 UI: EA Status: Active AAC: H
CALIPER, MICROMETER, OUTSIDE:**

NSN Description:

Outside micrometer caliper, enameled (finished) frame with a solid anvil

Maximum measurement that can be obtained: 6.000 inches

Measurement Range: 5 to 6 inches

Graduation: 0.001 inch, maximum

Permissible Flexure: 0.00015 inch, maximum

Flatness Error: 0.00008 inch, maximum

Parallelism Error: 0.0002 inch, maximum

Error in indicated measurement: 0.0002 inch, maximum

Error in spindle & anvil alignment: 0.009 inch, maximum

Features - spindle lock, ratchet or friction stop, disk standard, fitted case, with rod standard.

End of 5210-00-554-7134 Components List

**189. 5210-01-010-4522 Ver: 16 UI: EA Status: Active AAC: G
CALIPER, DIAL**

NSN Description:

Minimum Dial Graduation Unit: .001 inch

Inside Jaw Depth: 5/8 inch

Outside Jaw Depth: 1-1/2 inches

Measurement Range: 0 inches minimum and 6 inches maximum

Fine Adjustment Feature: Included

NIB Closed Position Width: 0.3 inches

Accuracy: .001 inches per foot

Inside Measurement Reading Method: Direct Reading

Provided: Finished Fitted Plastic Carrying Case

Material: Steel

Dial Color: White

L.S. Starrett Company part number 120A-6; Brown and Sharpe Part Number 599-579-4 or equal.

**190. 5210-01-139-7444 Ver: 29 UI: EA Status: Active AAC: G
TAPE, MEASURING**

NSN Description:

Type: Steel, Self Supporting

Class: Butt-End Case

IPDs - TECHNICAL INFORMATION

Style: Automatic Winding
Design Type: General Purpose Distance Measuring
Smallest Graduation Unit: 1/16 inch
Measuring Capacity: 25 feet
Tape Width: 1 inch, 1/64 inch
Tape Thickness: 0.0045 inch
Tape Material: Spring Tempered Steel
Finish Tape: Yellow Enamel, Both Sides;
Figures And Graduations: Black Enamel; Mylar Coated
Graduation Units: Inch and Feet
Collapsing Capability: Tape Supports Itself When Extending Horizontally 42 inch
Enclosure Type: Case, Impact Resistant Plastic
Reading Direction: Left to Right
Accuracy: Scale Error of Any Graduated Edge Having Inch Graduations Shall Not Exceed 1/32 inch

191. 8020-00-559-0389 Ver: 11 UI: EA Status: Active AAC: G
BRUSH, PAINT, SASH AND TRIM:

KeyFields:

1A-A-3193 Ver: 1 IAW CID A-A-3193 BRUSHES, PAINT, SASH, & TRIM

In accordance with Commercial Item Description A-A-3193 dated June 16, 2003, Brushes, Paint, Sash, and Trim

NSN Description:

Type: 2 (Angular)
Class: 1 (Bristle)
Size: 9

192. 8020-00-689-5379 Ver: 13 UI: KT Status: Pending AAC: G
ROLLER KIT, PAINT:

KeyFields:

1A-A-2851 Ver: 3 IAW CID A-A-2851C DATED JUNE 29, 2005

In accordance with Commercial Item Description A-A-2851C, dated June 29, 2005 and Notice 1, dated June 13, 2012.

NSN Description:

Type: VI
Length: 9.000"
Pile Height: 3/8"

193. 8020-00-753-4915 Ver: 19 UI: EA Status: Active AAC: G
ROLLER, PAINT

KeyFields:

1A-A-2851 Ver: 3 IAW CID A-A-2851C DATED JUNE 29, 2005

In accordance with Commercial Item Description A-A-2851C, dated June 29, 2005 and Notice 1, dated June 13, 2012.

NSN Description:

Type 1: Paint Roller
Size 3: 9 inches

The paint roller shall come installed with a paint roller cover with the following requirements:

Type II: Paint Roller Cover
Class 2: Synthetic
Style A: Knitted Polyester
Pile Height: 0.375 inches

IPDs - TECHNICAL INFORMATION

Overall Length: 9 inches

ATTACHMENT 7

GSA Class Deviation — Prohibition Against Contracting with Corporations that have an Unpaid Delinquent Federal Tax Liability or a Felony Conviction Under Federal Law

As required by this Acquisition Letter, insert the following representation:

552.203-72 Representation by Corporations Regarding an Unpaid Delinquent Federal Tax Liability or a Felony Conviction under any Federal Law (DEVIATION) (APR 2012)

(a) In accordance with Sections 630 and 631 of Division of the Consolidated Appropriations Act, 2012 (Pub. L. 112-74), none of the funds made available by that Act may be used to enter into a contract action with any corporation that--

(1) Has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability, where the awarding agency is aware of the unpaid tax liability, unless the agency has considered suspension or debarment of the corporation and made a determination that this further action is not necessary to protect the interests of the Government, or

(2) Was convicted, or had an officer or agent of such corporation acting on behalf of the corporation convicted of a felony criminal violation under any Federal law within the preceding 24 months, where the awarding agency is aware of the conviction, unless the agency has considered suspension or debarment of the corporation or such officer or agent and made a determination that this action is not necessary to protect the interests of the Government.

(b) The Contractor represents that--

(1) It is [] is not [] a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

(2) It is [] is not [] a corporation that was convicted, or had an officer or agent of the corporation acting on behalf of the corporation, convicted of a felony criminal violation under any Federal law within the preceding 24 months.

(End of Provision)

CONTRACTOR COVER SHEET

Vital Statistics

1. Category(ies) offered:
2. Years in business:
3. Ownership structure:
4. Business size:
5. DUNS No.:
6. Annual revenue (total for most recent three fiscal years):
7. Total number of employees:
8. Total number of locations:
9. Website address:
10. Is your company publicly traded? If yes, what is the ticker symbol? _____

Socioeconomic Overview

10. Please indicate (with yes/no) whether your company is classified as:
 - Small Business (SB)
 - Small Disadvantaged Business (SDB)
 - 8(a) Certified Small Business
 - HUB Zone Small Business (HUBZ)
 - Woman-owned Small Business (WOSB)
 - Service-Disabled Veteran-Owned Small Business (SDVOSB)
 - Veteran-owned Small Business (VOSB)

Operations Overview

11. Does your company own distribution assets? If yes, please describe.
12. Does your company carry inventory? If yes, please list your inventory locations.
13. Please list the primary geographic areas served (cities/states/regions).
14. Please provide the number of current customers served annually.
15. Please provide the number of orders filled annually and the average number of lines on each order.

16. Please provide the dollar value of the average order.

Sales Overview

17. Total revenue percentage from:

- a. Federal Government _____%
- b. State Government _____%
- c. Local Government _____%

18. Please list the Government agencies you currently supply and the percentage of current revenues each agency represents.

19. Please list the 5 largest suppliers your company resells.

Company	% of 2012 Revenue

20. Please list your 3 primary competitors in MRO supplies.

Financial Overview

Please provide the following income statement data for Year 2012, or the most recent full year of reported financial performance:

Financial Data for Year	(\$M)	(% of Revenue)
Revenues		100%
Cost of goods sold		
Operating costs, including depreciation and amortization		
Operating income		
Interest expense		
Taxes		
Net income		

MRO ATTACHMENT-SUBCONTRACTING BPA GOALS

THIS DOES NOT REPLACE YOUR SCHEDULE SUBCONTRACTING PLAN BUT IS PROVIDED AS A TEMPLATE IN PROPOSING SUBCONTRACTING GOALS UNDER THE MRO BPA THAT EXCEED YOUR CURRENT SCHEDULE GOALS.

COVER PAGE TO MODEL SUBCONTRACTING PLAN

Notice to Offerors: GSA provides this model plan as a tool. You must adapt this model plan to fit your subcontracting situation. The plan is NOT a fill-in-the-blank form and you must remove instructional language. This model does not establish minimum requirements for an acceptable plan. The model reflects objectives GSA encourages contractors to adopt. GSA expects offerors to thoroughly review the requirements set forth in FAR 19.704, Subcontracting Plan Requirements and FAR clause 52.219-9, Small Business Subcontracting Plan before submitting their subcontracting plans.

Definitions of Types of Plans:

COMMERCIAL PLAN: Covers the offeror's fiscal year and applies to the entire production of commercial items sold by either the entire company or a portion thereof (e.g., division, plant, or product line.) Note that this type of plan shall relate to the offeror's planned subcontracting generally, **for both commercial and government business, rather than solely to the government contract.** Per FAR 19.704(d) and clause 52.219-9(g), this is the preferred type of plan for contractors furnishing commercial items. Once a contractor's commercial plan has been approved, the Government shall not require another subcontracting plan from the same contractor while the plan remains in effect, as long as the product or service being provided by the contractor continues to meet the definition of a commercial item. The contractor shall— (1) Submit the commercial plan to either the first contracting officer awarding a contract subject to the plan during the contractor's fiscal year, or, if the contractor has ongoing contracts with commercial plans, to the contracting officer responsible for the contract with the latest completion date. The contracting officer shall negotiate the commercial plan for the Government. **The approved commercial plan shall remain in effect during the contractor's fiscal year for all Government contracts in effect during that period;** (2) Submit a new commercial plan, 30 working days before the end of the Contractor's fiscal year, to the contracting officer responsible for the uncompleted Government contract with the latest completion date. The contractor must provide to each contracting officer responsible for an ongoing contract subject to the plan, the identity of the contracting officer that will be negotiating the new plan; (3) **When the new commercial plan is approved, provide a copy of the approved plan to each contracting officer responsible for an ongoing contract that is subject to the plan;** and (4) Comply with the reporting requirements stated in paragraph (a)(10) of this section by submitting one SSR in eSRS, for all contracts covered by its commercial plan. This report will be acknowledged or rejected in eSRS by the contracting officer who approved the plan. The report shall be submitted within 30 days after the end of the Government's fiscal year.

INDIVIDUAL CONTRACT PLAN: Covers the entire contract period, applies to a specific contract, and has goals that are based on the offeror's planned **subcontracting (and purchasing) in support of the specific contract**, except that indirect costs incurred for common or joint purposes may be allocated on a prorated basis to the contract. **For contracts with option periods**, the plan will include **separate goals and estimated value (or sales) for the base period with separate goals and estimated value for each option period.** Per FAR 52.219-9(c) this type of plan **must separately address subcontracting** with small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business concerns, small disadvantaged business (including ANCs and Indian Tribes), and women-owned small business concerns, **with a separate part for the basic contract and separate parts for each option** (if any). The plan shall be included in and made a part of the resultant contract. The subcontracting plan shall be negotiated within the time specified by the Contracting Officer. Failure to submit and negotiate the

subcontracting plan shall make the offeror ineligible for award of a contract. The Contractor shall submit the Individual Subcontract Report (ISR), and the Summary Subcontract Report (SSR) using the Electronic Subcontracting Reporting System (eSRS) (<http://www.esrs.gov>), **following the instructions in the eSRS and in accordance with FAR clause 52.219-9.**

MASTER PLAN: Contains all the required elements of an individual contract plan, except goals, and may be incorporated into individual contract plans, provided the master plan has been approved. A master plan on a plant or division-wide basis that contains all the elements, except goals, may be incorporated by reference as a part of the subcontracting plan required of the offeror by the clause 52.219-9; provided (1) The master plan has been approved; (2) The offeror ensures that the master plan is updated as necessary and provides copies of the approved master plan, including evidence of its approval, to the Contracting Officer; and (3) Goals and any deviations from the master plan deemed necessary by the Contracting Officer to satisfy the requirements of this contract are set forth in the individual subcontracting plan. **A contract may have no more than one plan.** When a modification meets the criteria in FAR 19.702 for a plan, or an option is exercised, the **goals associated with the modification or option shall be added to those in the existing subcontracting plan.** The failure of the Contractor or subcontractor to comply in good faith with the clause at FAR 52.219-8 or an approved plan required by FAR 52.219-9 shall be a material breach of the contract. The Contractor shall submit the Individual Subcontract Report (ISR), and the Summary Subcontract Report (SSR) using the Electronic Subcontracting Reporting System (eSRS) (<http://www.esrs.gov>), **following the instructions in the eSRS and in accordance with FAR clause 52.219-9.**

GSA SUBCONTRACTING GOALS (How to do the math tips)

Subcontracting goals are subject to change, based on recent achievement levels and as negotiated with the Small Business Administration (SBA). SBA is responsible for the Federal Government Goaling Program and their website at www.sba.gov includes details and background on the goaling process.

- Total estimated subcontracting dollars (or spend) planned to all types of business concerns must be provided, then separately state the dollars that will be subcontracted to each category. All percents for each category will be expressed as a percentage of the **total** subcontracting dollars to all concerns (both large and small)*.
- The **Small** business dollar amount must include all sub-group category amounts; i.e., HUBZone, SDB, WOSB, VOSB, SDVOSB (plus any "other small" businesses that do not fall within one of these specified subgroups). Again note that Alaskan Native Corporations (ANCs) and Indian tribes will be included in the SDB and total small amounts.

*Only the large plus all small should equal the total in both dollars and percents. Do **not** add together subgroups to reach the total Small figure, as the same dollars can be double and triple counted for each group as applicable to the company receiving the order.

	<u>Sample Dollars</u>	<u>GSA Goal (FY 2012-13)</u>
Total dollars to be subcontracted (to both Large and Small Businesses)	\$1,000,000	100%
To Large Businesses	\$ 700,000	*70%
To all Small Businesses (includes HUBZone Small, Small Disadvantaged, Women-Owned Small, Veteran-Owned Small, Service-Disabled Veteran-Owned Small, and Other Small Business Concerns)	\$ 300,000	*30%
To HUBZone Small Businesses	\$ 30,000	3%
To Small Disadvantaged Businesses	\$ 50,000	5%
To Women-Owned Small Businesses	\$ 50,000	5%
To Veteran-Owned Small Businesses (includes SDVOSB below in this total)	\$ 30,000	3%
To Service-Disabled Veteran-Owned Small Businesses	\$ 30,000	3%

NOTE: The total \$300,000 to all Small businesses already includes each subgroup (HUBZone, SDB, ANCs, WOSB, VOSB, and SDVOSB), plus other small businesses that are only small and do not fall into a specified category.

**PLEASE REMOVE THE COVER PAGES BEFORE SUBMITTING
THE SUBCONTRACTING PLAN TO GSA THEY ARE ONLY FOR YOUR INFORMATION AND
CONVENIENCE.**

SMALL BUSINESS SUBCONTRACTING PLAN (MODEL)

I. IDENTIFICATION DATA:

Address: _____

Date Prepared: _____

Description of Supplies/Services: _____

Solicitation Number: *(Completed for Individual Plans; N/A for commercial plans)*

Contract Number: *(Completed for Individual Plans during option period; N/A for commercial plans)*

If submitting an Individual Contract Plan, insert dates below for the contract duration, if known (or insert N/A if the contract does not include specified option period).

Individual Plan Period: Base: *(Date of Award thru ?? years)* Option 1: *(1 year, 5 years, etc.)*
Option 2: *(1 year, 5 years, etc.)* Option 3: *(1 year, 5 years, etc.)* Option 4: *(1 year, 5 years, etc.)*

Estimated Contract Value *(Provide separate estimate for base contract period and each option)*
Base Period: \$ _____ Option Period 1: \$ _____ Option Period 2: \$ _____
Option Period 3: \$ _____ Option Period 4: \$ _____ *(if applicable/Not used for MAS)*

Place of Performance: _____

DUNS Number: *(under the contract awarded or pending award)*

If submitting a Commercial Plan, insert dates below:

Commercial Plan Period: *(insert 12 month fiscal year date for contractor/offeror)*

Projected annual sales (Company-wide): \$ _____

II. TYPE OF PLAN – FAR 19.701 (For definitions, see Cover Page and FAR clause 52.219-9):

_____ **Commercial Plan**

_____ **Individual Plan**

_____ **Master Plan (incorporated into Individual Plan)**

III. GOALS:

*A. The FAR clause at 52.219-9(d) states that the subcontracting plan shall include (1) goals, expressed in terms of percentages of total planned subcontracting dollars, for the use of small business concerns as subcontractors; and (2) A statement of total dollars planned to be subcontracted for an individual contract plan; or the offeror’s total projected sales, expressed in dollars, and the total value of projected subcontracts to support the sales for a commercial plan. FAR 19.704(a)(1) requires separate percentage goals for using small business (including Alaskan Native Corporations (ANCs) and Indian tribes), veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business (including ANCs and Indian tribes) and women-owned small business concerns as subcontractors; and (3) A statement of the total dollars planned to be subcontracted and a statement of the total dollars planned to be subcontracted to small business (including ANCs and Indian tribes), veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business (including ANCs and Indian tribes) and women-owned small business concerns. **Commercial plans will always reflect annual company-wide goals. Individual plans will reflect contract-specific goals and shall contain separate statements and goals for the basic contract (period) and separately for each option (period). Note that dollars and percentages to large and total small businesses (all inclusive) must equal the total subcontracted to all categories in both dollars and percentages. EACH CONTRACTOR IS EXPECTED TO OFFER THE MAXIMUM PRACTICABLE OPPORTUNITIES TO EACH TYPE OF SMALL BUSINESS CONCERN CONSISTENT WITH THEIR BEST FAITH EFFORTS AND SUPPORTED BY THEIR REPORTS AND RECORDS.***

COMPLETE FORMAT BELOW IF SUBMITTING AN INDIVIDUAL PLAN and note that a separate part is required for the base contract period and for each option period, if any. (Please remove this section and following page if submitting a commercial plan.)

[**Company Name**] provides the following separate dollar and percentage goals, which are a percentage of the total subcontracting dollars for each business category:

BASE GOALS are expressed in dollars and percentages of the total dollars planned to be subcontracted.		
PLANNED SUBCONTRACTING TO:	DOLLARS	PERCENT
1. Total Dollars to be Subcontracted (2 + 3 = 1) large and all small businesses must equal total amount to be subcontracted (both \$ and %)		100%
2. Large Businesses (Other than Small)		
3. All Small Businesses (including ANCs & Indian tribes)		
4. Veteran-Owned Small Businesses (VOSB)		
5. Service-Disabled Veteran-Owned Small Businesses (SDVOSB)		
6. HUBZone Small Business (HUBZone)		
7. Small Disadvantaged Businesses (SDB) (including ANCs & Indian tribes)		
8. Women-Owned Small Businesses (WOSB)		

If applicable:

1 ST OPTION GOALS are expressed in dollars and percentages of total dollars planned to be subcontracted.

PLANNED SUBCONTRACTING TO:	DOLLARS	PERCENT
1. Total Dollars to be Subcontracted (2 + 3 = 1) large and all small businesses must equal total amount to be subcontracted (both \$ and %)		100%
2. Large Businesses (Other than Small)		
3. All Small Businesses (including ANCs & Indian tribes)		
4. Veteran-Owned Small Businesses (VOSB)		
5. Service-Disabled Veteran-Owned Small Businesses (SDVOSB)		
6. HUBZone Small Business (HUBZone)		
7. Small Disadvantaged Businesses (SDB) (including ANCs & Indian tribes)		
8. Women-Owned Small Businesses (WOSB)		

If applicable:

2ND OPTION GOALS are expressed in dollars and percentages of total dollars planned to be subcontracted.		
PLANNED SUBCONTRACTING TO:	DOLLARS	PERCENT
1. Total Dollars to be Subcontracted (2 + 3 = 1) large and all small businesses must equal total amount to be subcontracted (both \$ and %)		100%
2. Large Businesses (Other than Small)		
3. All Small Businesses (including ANCs & Indian tribes)		
4. Veteran-Owned Small Businesses (VOSB)		
5. Service-Disabled Veteran-Owned Small Businesses (SDVOSB)		
6. HUBZone Small Business (HUBZone)		
7. Small Disadvantaged Businesses (SDB) (including ANCs & Indian tribes)		
8. Women-Owned Small Businesses (WOSB)		

If applicable:

3ND OPTION GOALS are expressed in dollars and percentages of total dollars planned to be subcontracted.		
PLANNED SUBCONTRACTING TO:	DOLLARS	PERCENT
1. Total Dollars to be Subcontracted (2 + 3 = 1) large and all small businesses must equal total amount to be subcontracted (both \$ and %)		<u>100%</u>

2. Large Businesses (Other than Small)		
3. All Small Businesses (including ANCs & Indian tribes)		
4. Veteran-Owned Small Businesses (VOSB)		
5. Service-Disabled Veteran-Owned Small Businesses (SDVOSB)		
6. HUBZone Small Business (HUBZone)		
7. Small Disadvantaged Businesses (SDB) (including ANCs & Indian tribes)		
8. Women-Owned Small Businesses (WOSB)		

If applicable: (*LEAVE BLANK FOR MAS*)

<p>4TH OPTION GOALS are expressed in dollars and percentages of total dollars planned to be subcontracted.</p>		
PLANNED SUBCONTRACTING TO:	DOLLARS	PERCENT
1. Total Dollars to be Subcontracted (<i>2 + 3 = 1</i>) <i>large and all small businesses must equal total amount to be subcontracted (both \$ and %)</i>		<u>100%</u>
2. Large Businesses (Other than Small)		
3. All Small Businesses (including ANCs & Indian tribes)		
4. Veteran-Owned Small Businesses (VOSB)		
5. Service-Disabled Veteran-Owned Small Businesses (SDVOSB)		
6. HUBZone Small Business (HUBZone)		
7. Small Disadvantaged Businesses (SDB) (including ANCs & Indian tribes)		
8. Women-Owned Small Businesses (WOSB)		

COMPLETE FORMAT BELOW IF SUBMITTING A COMMERCIAL PLAN *(please remove this page/section if submitting an individual plan).*

1. Estimated **TOTAL** dollars planned to be subcontracted to **all types of concerns** (generally for both commercial and government business, in support of commercial items sold during company fiscal year):

Annual Commercial Purchases/Spend: \$ _____ = 100% subcontracted

2. Total dollars planned to be subcontracted to **large** business concerns (or classified as other than small):

Annual Commercial Purchases/Spend: \$ _____ = ___ % of Total

3. Total dollars planned to be subcontracted to **all small** business concerns (including ANCs and Indian tribes), VOSB, SDVOSB, HUBZone, SDB (including ANCs and Indian tribes), and WOSB small business concerns:

Annual Commercial Purchases/Spend: \$ _____ = ___ % of Total

4. Total dollars planned to be subcontracted to **veteran-owned small** business concerns (including service-disabled veteran-owned small businesses):

Annual Commercial Purchases/Spend: \$ _____ = ___ % of Total

5. Total dollars planned to be subcontracted to **service-disabled veteran-owned small** business concerns (subset of VOSB above and cannot be higher than #4 above):

Annual Commercial Purchases/Spend: \$ _____ = ___ % of Total

6. Total dollars planned to be subcontracted to **HUBZone small** business concerns:

Annual Commercial Purchases/Spend: \$ _____ = ___ % of Total

7. Total dollars planned to be subcontracted to **small disadvantaged** business concerns (including ANCs and Indian tribes):

Annual Commercial Purchases/Spend: \$ _____ = ___ % of Total

8. Total dollars planned to be subcontracted to **women-owned small** business concerns:

Annual Commercial Purchases/Spend: \$ _____ = ___ % of Total

B. FAR 19.704(a)(3) and the clause at 52.219-9(d)(3) requires a description of the principal types of supplies and services to be subcontracted and an identification of types planned for subcontracting to SB (including ANCs and Indian tribes), VOSB, SDVOSB, HUBZone, SDB (including ANCs and Indian tribes), and WOSB concerns. **Check all that apply below, ensuring that at least one item is indicated for each column.** If assistance is needed to locate small business sources, contact your local Small Business Administration Commercial Market Representative via www.sba.gov/localresources, or access the Dynamic Small Business Search database at http://dsbs.sba.gov/dsbs/search/dsp_dsbs.cfm. You may also post solicitations for small business opportunities on SBA's SUB-Net at <https://eweb1.sba.gov/subnet/search/index.cfm>.

The principal types of supplies and/or services that [**Company Name**] anticipates to be subcontracted and the identification of the type of business concern planned are as follows:

Business Category or Size

Supplies/Services	Large	Small	VOSB	SDVOSB	HUBZone	SDB	WOSB

ATTACH ADDITIONAL SHEETS IF NECESSARY (OR REMOVE LINES IF NOT NEEDED)

C. FAR 19.704(a)(4) and the clause at 52.219-9(d)(4) require a description of the method used to develop the subcontracting goals. Explain or state the basis for establishing your proposed goals (i.e. based on historical data and experience, market research, etc.); and provide justification for any low goal(s).

[Company Name] used the following method to develop the subcontracting goals:

D. FAR 19.704(a)(5) and clause 52.219-9(d)(5) require a description of the method used to identify potential sources for solicitation purposes (e.g., existing company source lists, the System for Award Management (SAM), veterans service organizations, the National Minority Purchasing Council Vendor Information Service, the Research and Information Division of the Minority Business Development Agency in the Department of Commerce, or small, HUBZone, small disadvantaged, and women-owned small business trade associations). A firm may rely on the information contained in SAM as an accurate representation of a concern's size and ownership characteristics for the purposes of maintaining SB, VOSB, SDVOSB, HUBZone, SDB, and WOSB source list. **Use of SAM as its source list does not relieve a firm of its responsibilities (e.g., outreach, assistance, counseling, or publicizing subcontracting opportunities) in this clause.**

[Company Name] identifies potential subcontractors using the following source lists and organizations:

*E. FAR 19.704(a)(6) and clause 52.219-9(d)(6) require a statement as to whether or not the offeror included indirect costs in establishing subcontracting goals, and a description of the method used to determine the proportionate share of indirect costs to be incurred with SB (including ANCs and Indian tribes), VOSB, SDVOSB, HUBZone, SDB (including ANCs and Indian tribes), and WOSB concerns. **NOTE: indirect costs represent the expenses of doing business that are NOT easily identified with a specific project (i.e. contract or grant) but are generally recognized as ordinary and necessary for the general operation of the contractor's organization and the conduct of activities it performs. Types of indirect costs include overhead (e.g. facility/utility & supplies cost), general and administrative (G&A), and fringe benefits (e.g. services or benefits provided to employees such as health insurance, payroll taxes, pension contribution, etc).***

Indirect costs _____ HAVE BEEN (or) _____ HAVE NOT BEEN included in the dollar and percentage subcontracting goals stated above.

*If indirect costs **HAVE** been included, the method used to determine the proportionate share of indirect costs to be incurred with small business concerns was as follows:*

IV. PROGRAM ADMINISTRATOR:

FAR 19.704(a)(7) and clause 52.219-9(d)(7) require the name of an individual employed by the offeror who will administer the offeror's subcontracting program, and a description of the duties of the individual. Please add the contact information for this person (telephone number, fax number and/or email address), in case of questions and provide an alternate point of contact if applicable.

Name: _____
Title/Position: _____
Address: _____
City/State/Zip Code: _____
Telephone number: _____
Fax number: _____
Email Address: _____

Alternate POC with contact information: _____

Duties: In accordance with clause 52.219-9(d)(11)(e), in order to effectively implement this plan to the extent consistent with efficient contract performance, the contractor shall perform the following functions:

1. Assist SB, VOSB, SDVOSB, HUBZone, SDB and WOSB concerns by arranging solicitations, time for the preparation of bids, quantities, specifications, and delivery schedules so as to facilitate the participation by such concerns. Where the Contractor's lists of potential SB, VOSB, SDVOSB, HUBZone, SDB and WOSB subcontractors are excessively long, reasonable effort shall be made to give all such small business concerns an opportunity to compete over a period of time.
2. Provide adequate and timely consideration of the potentialities of SB, VOSB, SDVOSB, HUBZone, SDB and WOSB concerns in all "make-or-buy" decisions.

3. Counsel and discuss subcontracting opportunities with representatives of SB, VOSB, SDVOSB, HUBZone, SDB and WOSB firms.
4. Confirm that a subcontractor representing itself as a HUBZone small business concern is identified as a certified HUBZone small business concern by accessing the System For Award Management (SAM) database or by contacting SBA.
5. Provide notice to subcontractors concerning penalties and remedies for misrepresentations of business status as SB, VOSB, SDVOSB, HUBZone, SDB and WOSB for the purpose of obtaining a subcontract that is to be included as part or all of a goal contained in the Contractor's subcontracting plan.
6. Develop and promote company/division policy statements that demonstrate the company's/division's support for awarding contracts and subcontracts to SB, VOSB, SDVOSB, HUBZone, SDB and WOSB concerns.
7. Develop and maintain bidders' lists of SB, VOSB, SDVOSB, HUBZone, SDB and WOSB concerns from all possible sources.
8. Ensure periodic rotation of potential subcontractors on bidders' lists.
9. Ensure that SB, VOSB, SDVOSB, HUBZone, SDB and WOSB concerns are included on the bidders' list for every subcontract solicitation for products and services they are capable of providing.
10. Ensure that subcontract procurement "packages" are designed to permit the maximum possible participation of SB, VOSB, SDVOSB, HUBZone, SDB and WOSB concerns
11. Review subcontract solicitations to remove statements, clauses, etc., which might tend to restrict or prohibit SB, VOSB, SDVOSB, HUBZone, SDB and WOSB concerns.
12. Ensure that the subcontract bid proposal review board documents its reasons for not selecting any low bids submitted by SB, VOSB, SDVOSB, HUBZone, SDB and WOSB concerns.
13. Oversee the establishment and maintenance of contract and subcontract award records.
14. Attend or arrange for the attendance of company counselors at Business Opportunity Workshops, Minority Business Enterprise Seminars, Trade Fairs, etc.
15. Directly or indirectly counsel SB, VOSB, SDVOSB, HUBZone, SDB and WOSB concerns on subcontracting opportunities and how to prepare bids to the company.
16. Conduct or arrange training for purchasing personnel regarding the intent and impact of Section 8(d) of the Small Business Act on purchasing procedures.
17. Develop and maintain an incentive program for buyers that support the subcontracting program.
18. Monitor the company's performance and make any adjustments necessary to achieve the subcontract plan goals.
19. Prepare and submit timely reports.
20. Coordinate the company's activities during compliance reviews by Federal agencies.

IF YOUR PROGRAM ADMINISTRATOR WILL PERFORM ADDITIONAL SUBCONTRACTING DUTIES NOT SHOWN ABOVE, PLEASE IDENTIFY THEM HERE:

21. Additional Duties:

V. EQUITABLE OPPORTUNITY:

FAR 19.704(a)(8) and clause 52.219-9(d)(8) require a description of the efforts the offeror will make to assure that SB, VOSB, SDVOSB, HUBZone, SDB and WOSB concerns have an equitable opportunity to compete for subcontracts.

[Company Name] will make every effort to ensure that all small business concerns have an equitable opportunity to compete for subcontracts. These efforts may include one or more of the following activities: *(please indicate which of the following apply or adapt list to fit your company's efforts)*

A. Outreach efforts to obtain sources:

- Contacting minority and small business trade associations
- Contacting business development organizations
- Requesting sources from the Dynamic Small Business Search, which integrated data from the SBA PRO-Net database
- Attending small and minority business trade fairs and procurement conferences

B. Internal efforts to guide and encourage purchasing personnel:

- Presenting workshops, seminars and training programs
- Establishing, maintaining and using small, hubzone small, small disadvantaged, women-owned small, veteran-owned small, and service-disabled veteran-owned small business source lists, guides, and other data for soliciting subcontracts
- Monitoring activities to evaluate compliance with the subcontracting plan

C. Other Additional efforts: *(Please describe below.)*

VI. ASSURANCES OF CLAUSE INCLUSION AND FLOW DOWN:

FAR 19.704(a)(9) and clause 52.219-9(d)(9) require assurances that the offeror will include the clause at 52.219-8, Utilization of Small Business Concerns (see 19.708(a)), in all subcontracts that offer further subcontracting opportunities, and that the offeror will require all subcontractors (except small business concerns) that receive subcontracts in excess of \$650,000 (\$1,500,000 for construction) to adopt a plan that complies with the requirements of this clause (see 19.708(b)).

[Company Name] agrees to include the FAR Clause 52.219-8, "Utilization of Small Business Concerns" in all subcontracts that offer further subcontracting opportunities, and will require all subcontractors *(except small business concerns)* that receive subcontracts in excess of \$650,000 (\$1,500,000 for construction) to adopt a plan that complies with the requirements of the clause at 52.219-9, Small Business Subcontracting Plan.

VII. REPORTING AND COOPERATION:

FAR 19.704(a)(10) and clause 52.219-9(d)(10) require assurances that the offeror will do the following:

[Company Name] agrees to:

- (10)(i) Cooperate in any studies or surveys as may be required;
- (ii) Submit periodic reports so that the Government can determine the extent of compliance by the offeror with the subcontracting plan;
- (iii) Submit the Individual Subcontract Report (ISR), and the Summary Subcontract Report (SSR) using the Electronic Subcontracting Reporting System (eSRS) (<http://www.esrs.gov>), following the instructions in the eSRS;
- (iv) Ensure that its subcontractors with subcontracting plans agree to submit the ISR and/or the SSR using the eSRS;
- (v) Provide its prime contract number and its DUNS number and the e-mail address of the Government or Contractor official responsible for acknowledging or rejecting the reports, to all first-tier subcontractors with subcontracting plans so they can enter this information into the eSRS when submitting their reports; and
- (vi) Require that each subcontractor with a subcontracting plan provide the prime contract number and its own DUNS number, and the e-mail address of the Government or Contractor official responsible for acknowledging or rejecting the reports, to its subcontractors with subcontracting plans.

Reports are to be submitted within 30 days after the close of each calendar period as indicated in the following chart:

<u>Calendar Period</u>	<u>Report Due</u>	<u>Date Due</u>	<u>Submit Reports to eSRS with email address for:</u>
10/01--03/31	ISR	04/30	(Administrative) Contracting Officer/SBTA
04/01--09/30	ISR	10/30	(Administrative) Contracting Officer/SBTA
10/01--09/30	SSR	10/30	(Administrative) Contracting Officer/SBTA

THE eSRS WEB-BASED REPORTING REQUIREMENT INSTRUCTIONS CAN BE FOUND IN THE ATTACHMENT TO SUBCONTRACTING PLAN TAKEN FROM FAR CLAUSE 52-219-9.

VIII. RECORDKEEPING:

FAR 19.704(a)(11) and clause 52.219-9(d)(11) require a description of the types of records that will be maintained concerning procedures that have been adopted to comply with the requirements and goals in the plan, including establishing source lists; and a description of the efforts to locate SB (including ANCs and Indian tribes), VOSB, SDVOSB, HUBZone, SDB (including ANCs and Indian tribes), and WOSB concerns and award subcontracts to them.

[Company Name] will maintain records concerning procedures that have been adopted to comply with the requirements and goals in the plan, including establishing source lists; and a description of efforts to locate SB (including ANCs and Indian tribes), VOSB, SDVOSB, HUBZone, SDB (including ANCs and Indian tribes), and WOSB concerns and award subcontracts to them. The records shall include at least the following (on a plant-wide or company-wide basis, unless otherwise indicated):

1. Source lists (e.g., SAM), guides, and other data that identify SB (including ANCs and Indian tribes), VOSB, SDVOSB, HUBZone, SDB (including ANCs and Indian tribes), and WOSB concerns.
2. Organizations contacted in an attempt to locate sources that are SB (including ANCs and Indian tribes), VOSB, SDVOSB, HUBZone, SDB (including ANCs and Indian tribes), and WOSB concerns.
3. Records on each subcontract solicitation resulting in an award of more than \$150,000, indicating:
 - (A) Whether small business concerns were solicited and, if not, why not;

- (B) Whether veteran-owned small business concerns were solicited and, if not, why not;
- (C) Whether service-disabled veteran-owned small business concerns were solicited and, if not, why not;
- (D) Whether HUBZone small business concerns were solicited and, if not, why not;
- (E) Whether small disadvantaged business concerns were solicited and, if not, why not;
- (F) Whether women-owned small business concerns were solicited and, if not, why not; and
- (G) If applicable, the reason award was not made to a small business concern.

4. Records of any outreach efforts to contact

- (A) Trade associations;
- (B) Business development organizations;
- (C) Conferences and trade fairs to locate small, HUBZone small, small disadvantaged, and women-owned small business sources; and
- (D) Veterans service organizations.

5. Records of internal guidance and encouragement provided to buyers through

- (A) Workshops, seminars, training, etc.; and
- (B) Monitoring performance to evaluate compliance with the program’s requirements.

6. On a contract-by-contract basis, records to support award data submitted by the offeror to the Government, including the name, address, and business size of each subcontractor. ***Contractors having commercial plans need not comply with this requirement.***

7. Other records to support your compliance with the subcontracting plan: *(Please describe below.)*

IX. STATUTORY REQUIREMENTS (Found at FAR 19.702)

- Any contractor receiving a contract for more than the simplified acquisition threshold must agree in the contract that SB (including ANCs and Indian tribes), VOSB, SDVOSB, HUBZone, SDB (including ANCs and Indian tribes), and WOSB concerns will have the maximum practicable opportunity to participate in contract performance consistent with its efficient performance.
- It is further the policy of the United States that its prime contractors establish procedures to ensure the timely payment of amounts due pursuant to the terms of their subcontracts with SB (including ANCs and Indian tribes), VOSB, SDVOSB, HUBZone, SDB (including ANCs and Indian tribes), and WOSB concerns.
- See 19.702(a)(1) for requirements that are imposed in negotiated acquisitions, and (a)(2) for requirements that are imposed in sealed bidding acquisitions.
- As stated in [15 U.S.C. 637\(d\)\(8\)](#), any contractor or subcontractor failing to comply in good faith with the requirements of the subcontracting plan is in **material breach of its contract**. Further, [15 U.S.C. 637\(d\)\(4\)\(F\)](#) directs that a contractor’s **failure to make a good faith effort** to comply with the requirements of the subcontracting plan shall result in the imposition of liquidated damages (see 19.702(c) and 19.705-7).

X. DESCRIPTION OF GOOD FAITH EFFORT *(Also refer to 13 CFR 125.3(d), Determination of Good Faith Effort)*

In order to demonstrate your compliance with a good faith effort to achieve the small business subcontracting goals, outline the steps below that your company plans to take.

[Company Name] will take the following steps to demonstrate compliance with a good faith effort in achieving small business subcontracting goals:

The above requirements will be negotiated with the contracting officer prior to approval. The contracting officer must ensure per FAR 19.705-5(a)(5) that an acceptable plan is incorporated into and made a material part of the contract.

SIGNATURE REQUIRED: *Plan must be signed and dated by a company official.*

This subcontracting plan was SUBMITTED by:

Signature: _____

Typed Name: _____

Company Title: _____

Date Signed: _____

Government Contracting Officer APPROVAL:

Signature: _____

Printed Name: _____

Agency: _____

Date Signed: _____

REPORTING INSTRUCTIONS FOR CONTRACTORS

Electronic Subcontracting Reporting System web-based reporting requirements found at FAR clause 52.219-9(l):

The Contractor shall submit ISRs and SSRs using the web-based eSRS at <http://www.esrs.gov>. Purchases from a corporation, company, or subdivision that is an affiliate of the prime Contractor or subcontractor are not included in these reports. Subcontract award data reported by prime Contractors and subcontractors shall be limited to awards made to their immediate next-tier subcontractors. Credit cannot be taken for awards made to lower tier subcontractors, unless the Contractor or subcontractor has been designated to receive a small business or small disadvantaged business credit from an ANC or Indian tribe.

(1) ISR. This report is not required for commercial plans. The report is required for each contract containing an individual subcontract plan and shall be submitted to the Administrative Contracting Officer (ACO) or Contracting Officer, if no ACO is assigned.

(i) The report shall be submitted semi-annually during contract performance for the periods ending March 31 and September 30. A report is also required for each contract within 30 days of contract completion. Reports are due 30 days after the close of each reporting period, unless otherwise directed by the Contracting Officer. Reports are required when due, regardless of whether there has been any subcontracting activity since the inception of the contract or the previous reporting period.

(ii) When a subcontracting plan contains separate goals for the basic contract and each option, as prescribed by FAR [19.704\(c\)](#), the dollar goal inserted on this report shall be the sum of the base period through the current option; for example, for a report submitted after the second option is exercised, the dollar goal would be the sum of the goals for the basic contract, the first option, and the second option.

(iii) The authority to acknowledge receipt or reject the ISR resides—

(A) In the case of the prime Contractor, with the Contracting Officer; and

(B) In the case of a subcontract with a subcontracting plan, with the entity that awarded the subcontract.

(2) SSR.

(i) Reports submitted under individual contract plans—

(A) This report encompasses all subcontracting under prime contracts and subcontracts with the awarding agency, regardless of the dollar value of the subcontracts.

(B) The report may be submitted on a corporate, company or subdivision (*e.g.* plant or division operating as a separate profit center) basis, unless otherwise directed by the agency.

(C) If a prime Contractor and/or subcontractor is performing work for more than one executive agency, a separate report shall be submitted to each executive agency covering only that agency's contracts, provided at least one of that agency's contracts is over \$650,000 (over \$1,500,000 for construction of a public facility) and contains a subcontracting plan. For DoD, a consolidated report shall be submitted for all contracts awarded by military departments/agencies and/or subcontracts awarded by DoD prime Contractors. However, for construction and related maintenance and repair, a separate report shall be submitted for each DoD component.

(D) For DoD and NASA, the report shall be submitted semi-annually for the six months ending March 31 and the twelve months ending September 30. For civilian agencies, except NASA, it shall be submitted annually for the twelve month period ending September 30. Reports are due 30 days after the close of each reporting period.

(E) Subcontract awards that are related to work for more than one executive agency shall be appropriately allocated.

(F) The authority to acknowledge or reject SSRs in eSRS, including SSRs submitted by subcontractors with subcontracting plans, resides with the Government agency awarding the prime contracts.

(ii) Reports submitted under a commercial plan—

(A) The report shall include all subcontract awards under the commercial plan in effect during the Government's fiscal year.

(B) The report shall be submitted annually, within thirty days after the end of the Government's fiscal year.

(C) If a Contractor has a commercial plan and is performing work for more than one executive agency, the Contractor shall specify the percentage of dollars attributable to each agency from which contracts for commercial items were received.

(D) The authority to acknowledge or reject SSRs for commercial plans resides with the Contracting Officer who approved the commercial plan.

(iii) All reports submitted at the close of each fiscal year (both individual and commercial plans) shall include a Year-End Supplementary Report for Small Disadvantaged Businesses. The report shall include subcontract awards, in whole dollars, to small disadvantaged business concerns by North American Industry Classification System (NAICS) Industry Subsector. If the data are not available when the year-end SSR is submitted, the prime Contractor and/or subcontractor shall submit the Year-End Supplementary Report for Small Disadvantaged Businesses within 90 days of submitting the year-end SSR. For a commercial plan, the Contractor may obtain from each of its subcontractors a

predominant NAICS Industry Subsector and report all awards to that subcontractor under its predominant NAICS Industry Subsector.

Contracting Officer	(insert e-mail addresses)
Small Business Technical Advisor	(email address for specific office/service/agency)
Subcontracting Manager, Office of Small Business Utilization	(janice.keys@gsa.gov or applicable alternate agency)
Small Business Administration Representative (found at www.sba.gov and enter business zip code to find local resources/POC for contractor's location)	

Attachment 1 - Transportation and Delivery for Acquisition

Criteria. There are three primary areas of consideration when determining the transportation and delivery options and responsibilities. These are noted below:

- Destination/location of the consignee. There are three elements within this criterion:
 - Continental/Contiguous United States (CONUS) – these locations consist of the forty-eight contiguous states and the District of Columbia
 - Non-contiguous states and territories – these locations consist of Alaska, Hawaii, and Puerto Rico
 - Outside CONUS (OCONUS/Export) – these locations include foreign countries and any locations not described above
- Delivery terms. There are two elements, Free/Freight On Board (FOB) Origin and FOB Destination. These terms define responsibility for transportation and delivery arrangements as well as transfer of title to the goods.
 - FOB Origin means that responsibility and title pass to the customer at the beginning of the shipment, usually as the materiel crosses from the outbound loading area into the conveyance. The customer is responsible for all transportation, delivery and charges associated with the movement, unless otherwise agreed upon.
 - FOB Destination means that responsibility and title pass to the customer at delivery. The shipper (vendor) is responsible for all transportation, delivery and charges associated with the movement, unless otherwise agreed upon. These responsibilities do not change even if the transportation is directed to a specific mode or carrier by the government.
- Mode of shipment. There are three primary categories, air, surface, and mail/postal. While mail/postal is not usually defined as a differing mode, laws and regulations govern the movement of materiel dependent upon the mode. Vendors must be able to comply with all requirements regardless of the mode selected.
 - Air mode includes movement by commercial aircraft, military aircraft and small package carriers. Vendors should be thoroughly familiar with commercial practices and the GSA Domestic Delivery Services (DDS) contract and the U.S. Transportation Command's World Wide Express (WWX) contract.
 - Surface mode includes movement by truck, rail, and water borne carriers. Each of which may involve small package carriers. Vendors should be thoroughly familiar with commercial practices, the GSA Domestic Delivery Services (DDS) contract and have a working knowledge of the U.S. Transportation Command's Universal Services (USC) contract.

- Postal service/mail is the introduction of shipments into the U.S. Postal Service and the follow-on movement via the Military Postal Service for OCONUS shipments.

Governance. In addition to all laws, regulations and recognized practices, vendors should be thoroughly knowledgeable in the following government documents, and any documents incorporated by reference:

- Federal Standard 123 (FED-STD-123), Marking for Shipment (Civil Agencies). This document establishes requirements for marking unit, intermediate and transport packages, and unit loads.
- Military Standard 129 (MIL-STD-129), Department of Defense Standard Practice, Military Marking for Shipment and Storage. This document provides the minimum requirements for uniform military marking for shipment and storage.
- Department of Defense Regulation 4500.9-R (DoD 4500.9-R), Defense Transportation Regulation. This document prescribes procedures and guidance for performing traffic management functions associated with movement of materiel destined for, or moving under the guise of the Department of Defense. This regulation also prescribes standard data elements, codes, formats, documents, forms, rules, methods, and procedures required by DoD.
- 49 CFR - Transportation. Identifies requirements for the domestic movement of hazardous materials.
- International Air Transport Agency (IATA) Dangerous Goods Regulation (DGR). Identifies requirements for the movement of dangerous goods internationally via air.
- International Maritime Dangerous Goods Code (IMDG). Identifies requirements for the movement of dangerous goods internationally via water.

Deliveries within CONUS. Vendors must be able to arrange for and verify deliveries to locations throughout CONUS. The costs associated with these deliveries are the responsibility of the vendor, unless otherwise directed. Additional requirements are noted below:

- Packing, Marking and Labeling.
 - For deliveries to DoD customers all shipments must be prepared in accordance with MIL-STD-129. Additionally, shipments must be organized by consignee.
 - For deliveries to non- DoD customers all shipments must be prepared in accordance with FED-STD-123 unless otherwise noted in the purchase/delivery order. Additionally, shipments must be organized by consignee.
- Mode of shipment. The vendor will select the mode of shipment that supports the delivery requirements with consideration for the item characteristics.

- Delivery terms. Most CONUS shipments will be FOB Destination, unless otherwise noted. The purchase/delivery order will identify when this is not the case.

Shipments destined for OCONUS Customer. This category is also termed export. However, in most cases the vendors will be responsible only for the movement to the port of export/embarkation or consolidation point, but shipments should be prepared for the ultimate export movement. Many of the same principles that apply for CONUS shipments apply for export, but there are differences. For export orders packing, marking and labeling are essential to ensure the continuous movement of the materiel.

The Contractor shall include in their proposal capabilities for delivery to Alaska and Hawaii.

The Contractor shall include in their proposal capabilities for delivery to U.S. Territories.

The Contractor shall include in their proposal capabilities for delivery to foreign countries.

Vendors must be able to arrange for and verify deliveries to locations to CONUS consolidation points. The costs associated with these deliveries are the responsibility of the vendor, unless otherwise directed. All deliveries for CONUS destinations should be made in accordance with the time frames as defined in the attached matrix.

- Packing, Marking and Labeling.
 - For deliveries to DoD customers all shipments must be prepared in accordance with MIL-STD-129. Additionally, for orders that require more than a single pallet, and are destined for multiple consignees, shipments must be organized by consignee.
 - For deliveries to non- DoD customers all shipments must be prepared in accordance with FED-STD-123 unless otherwise noted in the purchase/delivery order. Additionally, for orders that require more than a single pallet, and are destined for multiple consignees, shipments must be organized by consignee.
- Mode of shipment. The vendor will select the mode of shipment that supports the delivery requirements with consideration for the item characteristics.
- Delivery terms. The movement to the port of Most CONUS shipments will be FOB Destination, unless otherwise noted. The purchase/delivery order will identify when this is not the case.

General Mode Descriptions. These descriptions are designed to provide an overview of how transportation modes will be determined by the GSA routing authorities. These descriptions apply to OCONUS shipments.

- United States Postal Service (USPS). These shipments will move to the appropriate Army/Air Force Post Office (APO) or Fleet Post Office (FPO). Deliveries to the APO/FPO will be made via USPS. In essence the vendor will just mail the shipment.
 - Package must weigh less than 70 pounds.
 - Maximum size is 130 inches in combined length and girth (distance around the thickest part).
- Worldwide Express (WWX). This is a government contract for international commercial express package service.
 - Packages cannot exceed 300 pounds
 - Maximum length is 119 inches with a maximum combined length and girth of 300 inches
- Military Airlift. Vendors may be directed to route shipments for movement via military air lift either directly to the aerial port, or to a consolidation point.
 - No single piece may be more than 9600 pounds
 - Maximum dimensions are 84 inches by 104 inches length and width, and no more than 96 inches high
- Surface (ocean) movement. Vendors may have international shipping containers delivered to their facility for stuffing, or shipments may be directed to a consolidation point. Consolidation points include: the carrier location at a water port, a consolidation point, or a third party.
 - Maximum weight of any single piece is 10,000 pounds
 - Maximum dimensions are 228 inches by 85 inches by 85 inches
- Consolidation points. GSA will make extensive use of consolidation points in order to achieve efficiency in movement. These consolidation points will all be CONUS and may include aerial or water ports, government facilities or third party facilities. In each case the shipments should be packaged, marked, labeled and segregated as if the delivery was being made to the consignee.

Wood Packaging Materials (WPM). WPM means wood pallets, skids, load boards, pallet collars, wooden boxes, reels, dunnage, crates, frame and cleats. The definition excludes materials that have undergone a manufacturing process, such as corrugated fiberboard, plywood, particleboard, veneer, and oriented strand board (OSD).

- All OCONUS shipments that require use of WPM must meet requirements of International Standards for Phytosanitary Measures (ISPM) 15, "Guidelines for Regulating Wood Packaging Materials in International Trade."
- All WPM shall include certification/quality markings in accordance with the ALSC standard. Markings shall be placed in an unobstructed area that will be readily visible to inspectors. Pallet markings shall be applied to the stringer or block on diagonally opposite sides of the pallet and be contrasting and clearly visible. All containers shall be

marked on a side other than the top or bottom, contrasting and clearly visible. All dunnage used in configuring and/or securing the load shall also comply with ISPM 15 and be marked with an ASLC approved DUNNAGE stamp.

Attachment 2 – Delivery Timelines for CONUS Shipments with no special provisions

If the shipment is	And	Then the delivery timeline is:
Less than 151 pounds and less than 108 inches in length, or 165 inches in length plus girth	Is not defined as a hazardous material	4 days after receipt of order
Between 151 and 10,000 pounds and no single piece exceeds 228" X 85" X 85"	Is not defined as a hazardous material	8 days after receipt of order
Exceeds 10,000 pounds or any single piece exceeds 228" X 85" X 85"	Is not defined as a hazardous material	16 days after receipt or order
Less than 151 pounds and less than 108 inches in length, or 165 inches in length plus girth	Is defined as a hazardous material	6 days after receipt of order
Between 151 and 10,000 pounds and no single piece exceeds 228" X 85" X 85"	Is defined as a hazardous material	10 days after receipt of order
Exceeds 10,000 pounds or any single piece exceeds 228" X 85" X 85"	Is defined as a hazardous material	18 days after receipt or order

Attachment 3 – Delivery Timelines for OCONUS Shipments with no special provisions

If the shipment is	And	And	Then the delivery timeline is:
Less than 70 pounds and no more than 130 inches in combined girth	Is not defined as a hazardous material	Is destined for an APO or FPO	4 days after receipt of order
Less than 300 pounds	Is not defined as a hazardous material	Is specified for Worldwide Express (WWX) movement	4 days after receipt of order
Has no single piece greater than 9600 pounds and the dimensions do not exceed 84" X 104" X 96"	Is not defined as a hazardous material	Is specified for movement via military airlift	10 days after receipt or order
Less than 300 pounds and no single item dimensions exceed 84" X 104" X 96"	Is not defined as a hazardous material	Is specified for movement to a consolidation point	4 days after receipt of order
More than 300 and less than 10,000 pounds, and no single item dimensions exceed 84" X 104" X 96"	Is not defined as a hazardous material	Is specified for movement to a consolidation point	10 days after receipt of order
Less than 300 pounds and no single item dimensions exceed 84" X 104" X 96"	Is defined as a hazardous material	Is specified for movement to a consolidation point	6 days after receipt of order
Between 151 and 10,000 pounds and no single piece exceeds 228" X 85" X 85"	Is defined as a hazardous material	Is specified for movement to a consolidation point	10 days after receipt of order
Exceeds 10,000 pounds or any single piece exceeds 228" X 85" X 85"	Is defined as a hazardous material	Is specified for movement to a consolidation point	18 days after receipt or order

Attachment 4 – Use of the Military Postal System

Current Guidelines. Vendors should be fully familiar with the USPS regulations as they relate to use of the APO and FPO. Shipments through the Military Postal System must conform to standard domestic mail addressing. To meet this need the USPS has created military city and state equivalents to be used in the normal addressing.

- Military “Cities”
 - APO – Army/Army Force Post Office
 - FPO - Fleet Post Office
 - DPO - Diplomatic Post Office
- Military “States”
 - AA – to be used for Armed Forces, (the) Americas
 - AE – to be used for Armed Forces, Europe
 - AP – to be used for Armed Forces, Pacific

Example: a typical overseas Military Mail address includes a name (or title), the postal service center + identifier, the military city and state, and the zip code, and may look like:

**Commanding Officer
USS Neversail
FPO AE, 01XXX**

There are additional restrictions based on content, preparation for shipment and handling, as well as size and weight. Current general restrictions for size and weight are a maximum of 108 inches in length, 130 inches combined length and girth, and 70 pounds.

Attachment 5 – OCONUS Shipments

Customers. This section discusses shipments destined for overseas customers that will move via other than postal and small package arrangements. GSA overseas customers include both non-DoD and DoD. Each group has somewhat differing requirements, but the vast majority of OCONUS shipments will be destined for DoD customers. Vendors must be thoroughly familiar with the Defense Transportation Regulation, Chapter 202 and 203 to fully comprehend these requirements. For delivery timelines see Attachment 3.

- A. Non-DoD (Civilian) Agencies.** Contractors will not ship directly overseas. A GSA transportation office will issue routing instructions and a government bill of lading.
- B. DoD Customers.** Contractors will not ship directly overseas. Shipments to DoD customers must move via the Defense Transportation System (DTS).
- C. Export Procedures.** Contractors will be expected to meet all provisions required to ensure efficient and effective movement of materiel from origin to consignee. While air and surface shipments have differing characteristics, the primary requirements for each mode are the same.
 - a. Routing Instructions.** Contractors will be provided specific instructions from GSA either by interfacing with the acquisition center or via one of the available automated systems. For shipments over 800 cubic feet or 10,000 pounds coordination with the acquisition center transportation office will be required. These shipments are defined as a container load (CL)
 - i. System registration.** At time of award Contractors will register with the GSA Value Added Network System (VANS) and the DLA Vendor Shipment Module (VSM) unless otherwise directed. These systems provide automated interface to data that is important to ensuring transportation accuracy.
 - ii. Routing.** For shipments that do not meet the definition of container load, shipments will be routed to a consolidation point within CONUS, unless it is more economically advantageous to the government to move the shipment as a container load. For container load shipments the contractor will be provided a shipping container(s).
 - b. Packaging, Marking and Labeling.** For non-DoD customers packaging, marking and labeling shall be in accordance with FED-STD 123. For DoD customers packaging, marking and labeling shall be in accordance with Mil-STD 129. For assistance with customer identity contact the acquisition center or National Customer Service Center.
 - c. Container load Shipments.** If a shipment is determined to meet the definition of container load the servicing acquisition center will arrange for the booking, delivery and pick-up of the required container(s). Contractors will be

responsible for the proper stowage of the materiel within the container to include all packing, dunnage and other materials necessary to ensure safe passage of the shipment. Any delays in meeting the established booking will be reported immediately to the servicing acquisition center.

i. Radio Frequency Identification (RFID) Tags. Shipments destined for DoD customers require RFID tags. For shipments to consolidation points to include aerial ports, the vendor is not responsible for any RFID requirements. For Container Load shipments, stuffed at the vendor location GSA will provide the RFID tag via express delivery. Contractors will be responsible for attaching the RFID tag to the container in a manner that will allow continuous monitoring of the container movement.

ii. U.S. Central Command (CENTCOM) Containers. Containers destined for the CENTCOM AOR require additional security measures. These measures consist of cable seals (minimum 72 inches) and bolt seals (minimum ¼ inch). The contractor will be responsible for the procurement of these items and to ensure the requirements are met.

d. Documentation. Contractors will be provided all appropriate documentation for each shipment.