

A-A-51127A  
 January 12, 1990  
 SUPERSEDING  
 A-A-51127  
 June 29, 1984

## COMMERCIAL ITEM DESCRIPTION

### HOLDER, KNURLING TOOL, LATHE

The General Services Administration has authorized the use of this commercial item description.

#### 1. SCOPE

1.1 Scope. This description covers tool holders that are designed to hold and support knurling tools that are used on bench and engine lathes.

1.2 Classification. Tool holders shall be of the following types and sizes. The type and size to be furnished shall be as specified (see 6.1).

Type I - Holder, knurling tool, single, lathe .  
 Size - Sizes shall be selected from table I.

Type II - Holder, knurling tool, multiple, lathe.  
 Size - Sizes shall be selected from table II.

TABLE I. Type I - Single knurling tool holder.

Tool holder size	Thickness of shank; inches	Height of shank; inches	Length of shank; inches, min.	Knurl dimensions		
				Outside diameter inches	Thickness of knurl; inches	Hole diameter inches
4	5/16	3/4	2-15/16	5/8	5/16	7/32
10	3/8	7/8	3-1/4	5/8	5/16	7/32
11	1/2	1-1/8	3-3/4	3/4	3/8	1/4
12	5/8	1-3/8	5	3/4	3/8	1/4
13	7/8	1-3/4	5-3/4	1	3/8	5/16

AMSC N/A

FSC 3460

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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TABLE II. Type II - Multiple knurling tool holder.

Tool holder size	Thickness of shank; inches	Height of shank; inches	Length of shank; inches, min.	Knurl dimensions		
				Outside diameter; inches	Thickness of knurl; inches	Hole diameter; inches
20	3/8	7/8	2-1/2	5/8	5/16	7/32
21	1/2	1-1/8	3-1/8	3/4	3/8	1/4
22	5/8	1-3/8	3-1/8	3/4	3/8	1/4

## 2. APPLICABLE DOCUMENTS

2.1 Documents. The following documents of the issue in effect on the date of invitation for bids or request for proposals form a part of this description to the extent specified herein.

Federal Specification PPP-P-40	- Preservation and Packing of Hand Tools and Tool Accessories for Power Driven, Metal and Woodworking Machinery.
Federal Standard FED-STD-376	- Preferred Metric Units for General Use by the Federal Government.
American National Standards Institute - ANSI B94.6	- Knurling.
American Society for Testing and Materials ASTM D 3951	- Standard Practice for Commercial Packaging.

## 3. SALIENT CHARACTERISTICS

3.1 Design. The holder shall be new and of the manufacturer's commercial design in effect on the date of the solicitation. The holder shall meet the requirements specified herein and conform to current industrial practice.

3.2 Materials and hardness. The holder shall be of drop-forged steel, heat treated to a Rockwell "C" 40 to 48 hardness or case-hardened steel to a Rockwell "C" 50 to 55 hardness, resistant to wearing action of knurls and have means for the mounting and replacement of the knurls.

3.3 Support pins. The support pins shall be of steel, heat treated and finished to properly support and permit free rotation of knurls or rotating heads.

3.4 Knurls. The knurls shall be of tool steel hardened to a Rockwell "C" 63 to 67. Knurls shall be furnished in pairs in either diamond or straight line pattern, either coarse (14 teeth per inch), medium (21 teeth per inch), or fine (33 teeth per inch), either 45 degree bevel to depth of teeth or full face conforming to ANSI B94.6 with the styles in accordance with table III this description. One pair of style K-21-A knurls of the proper size in accordance with table I will be furnished with each type I tool holder unless otherwise specified in the contract. One pair of each style K-14-A, K-21-A, K-21-A and K-33-A of the proper size in accordance with table II shall be furnished with each type II tool holder unless otherwise specified in the contract.

TABLE III. Knurl styles available.

Knurl style	Teeth per inch	Bevel degree/ full face	Knurl pattern
K-14-A	14	45 degs.	diamond
K-14-B	14	45 degs.	straight line
K-14-C	14	full face	diamond
K-14-D	14	full face	straight line
K-21-A	21	45 degs.	diamond
K-21-B	21	45 degs.	straight line
K-21-C	21	full face	diamond
K-21-D	21	full face	straight line
K-33-A	33	45 degs.	diamond
K-33-B	33	45 degs.	straight line
K-33-C	33	full face	diamond
K-33-D	33	full face	straight line

3.5 Measurement system. All dimensions in this description are given in US units. These dimensions may be converted to SI units through the use of conversion factors and methods specified in FED-STD-376.

3.6 Regulatory requirements. In accordance with section 23.403 of the Federal Acquisition Regulations, the Government's policy is to acquire items composed of the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition without adversely affecting performance requirements or exposing suppliers' employees to undue hazards from the recovered materials.

3.7 Workmanship. Workmanship of the holder shall be of a quality equal to that of comparable products furnished to the commercial market.

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#### 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection, examination, and test requirements specified herein. Except as otherwise specified in the contract or purchase order, the contractor may use his own or any other facilities suitable for the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections, examinations, or tests set forth in this description where such inspections, examinations, and tests are deemed necessary to assure supplies and services conform to prescribed requirements.

4.1.1 Responsibility for compliance. All items shall meet all requirements of sections 3 and 5. The inspection set forth in this description shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the description shall not relieve the contractor of the responsibility of ensuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling inspection, as part of manufacturing operations, is an acceptance practice to ascertain conformance to requirements, however, this does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to accept defective material.

4.2 Sample inspection. As a minimum sampling inspection, the supplier shall randomly select the number of samples in table IV that is applicable to the quantity of items being purchased. Each sample item shall be inspected to determine conformance with the examination in 4.3 and the dimensional inspection in 4.4. Should any of the samples fail to meet either the examination or inspection below, the entire lot shall be considered defective and unsuitable for acceptance. A lot is defined as all items of the same type, style, size, and class presented at one time for acceptance.

TABLE IV. Sampling plan.

Quantity of items being purchased	Sample size	Quantity of items being purchased	Sample size
2 to 8	2	91 to 150	20
9 to 15	3	151 to 280	32
16 to 25	5	281 to 500	50
26 to 50	8	501 to 1200	80
51 to 90	13		

4.3 Examination. Each holder submitted for sample inspection shall be visually examined to determine conformance with all requirements of this description except for the hardness tests.

4.4 Dimensional inspection. Each holder submitted for sample inspection shall be inspected to assure conformance with all dimensional and tolerance requirements specified herein.

4.5 Hardness test. After the sample inspection has been completed, a hardness test shall be performed on 10 percent of the sample holders. If any of the test samples fail to meet the applicable hardness specified herein, the total lot from which the samples were selected shall be rejected.

4.6 Packaging inspection. Packaging shall be inspected for conformance with section 5.

## 5. PACKAGING

5.1 Preservation, packing, and marking. Unless otherwise specified in the contract or purchase order preservation, packing, and marking shall be in accordance with ASTM D 3951. When specified (see 6.1) preservation, packing, and marking shall be in accordance with PPP-P-40, level as specified.

## 6. NOTES

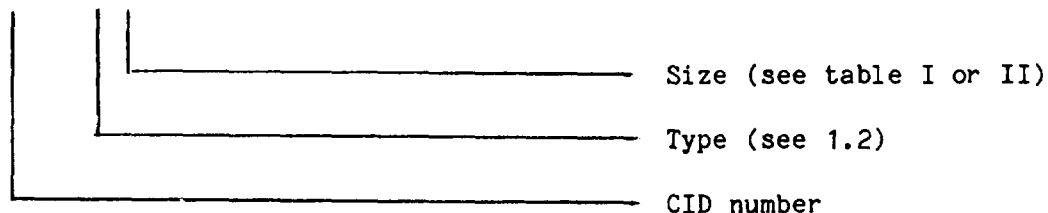
6.1 Ordering data. Purchasers should select the preferred options permitted herein, and include the following information in procurement documents:

- a. Title, number, and date of this commercial item description.
- b. Type, size, and quantity required (see 1.2).
- c. Packaging in accordance with PPP-P-40 if required, specify level (see 5.1).

6.2 Cross reference data. The tool holder numbers in tables I and II were changed to tool holder sizes. This was done to make the tables compatible to the PIN numbers. Table IV, the sampling plan, was condensed and modified to comply with quality requirements.

6.3 CID based part identification number. The following part identification numbering procedure is for Government purposes and does not constitute a requirement for the contractor. Where applicable Arabic numbers shall be substituted for Roman numerals.

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MILITARY INTEREST:

Custodians

Army - AL  
Navy - SH  
Air Force - 99

Review Activities

Air Force - 84  
DLA - GS

User Activity

Navy - MC

CIVIL AGENCY COORDINATION ACTIVITY:

GSA - FSS

PREPARING ACTIVITY:

DLA - IP

Project 3460-0143

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**NOTE:** This form may not be used to request copies of documents, nor to request waivers, deviations, or clarification of specification requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

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UNITED STATES

## STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

(See Instructions - Reverse Side)

1. DOCUMENT NUMBER

A-A-51127A

2. DOCUMENT TITLE

Holder, Knurling Tool, Lathe

3a. NAME OF SUBMITTING ORGANIZATION

4. TYPE OF ORGANIZATION (Mark one)

☐

VENDOR

☐

USER

☐

MANUFACTURER

☐

OTHER (Specify): \_\_\_\_\_

b. ADDRESS (Street, City, State, ZIP Code)

## 5. PROBLEM AREAS

a. Paragraph Number and Wording:

b. Recommended Wording:

c. Reason/Rationale for Recommendation:

## 6. REMARKS

7a. NAME OF SUBMITTER (Last, First, MI) - Optional

b. WORK TELEPHONE NUMBER (Include Area Code) - Optional

c. MAILING ADDRESS (Street, City, State, ZIP Code) - Optional

8. DATE OF SUBMISSION (YY.MM.DD)