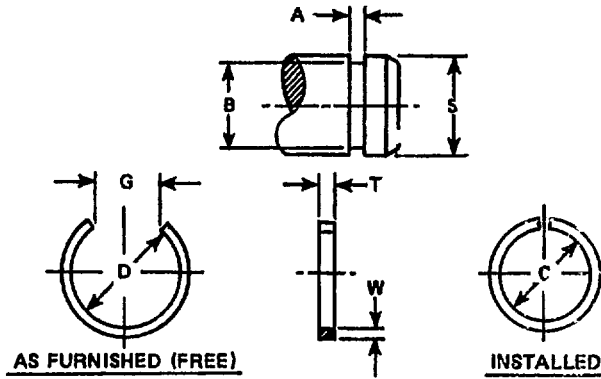


USER ACTIVITIES. WC

FED SUP CLASS
6335



| DASH NO. | SHAFT DIAMETER | | RECOMMENDED GROOVE DIMENSIONS | | RING DIMENSIONS | | | | | | |
|----------|----------------|------------|-------------------------------|------------|--------------------|------------------|------------|----------------|-------------------|------|--|
| | Nominal S | Basic B | Diameter B | Width A | As Furnished (Tnc) | | | | Installed LD C | | |
| | | | | | I.D. D | Gap G | Width W | Thickness T | | | |
| 1 | 3/16 | 0.188 | .125 | .034 | 0.197 | +0.000 -0.005 | .125 | .062 | .031 | .125 | |
| 2 | 7/32 | 0.219 | .173 | .034 | 0.230 | | .143 | .046 | .031 | .175 | |
| 3 | 1/4 | 0.250 | .188 | .034 | 0.266 | +0.000 -0.010 | .182 | .062 | .031 | .188 | |
| 4 | 5/16 | 0.312 | .250 | .043 | 0.328 | | .191 | .079 | .039 | .250 | |
| 5 | 3/8 | 0.375 | .313 | .052 | 0.394 | | .264 | .094 | .047 | .313 | |
| 6 | 7/16 | 0.438 | .376 | .060 | 0.459 | +0.000 | .203 | .109 | .055 | .376 | |
| 7 | 1/2 | 0.500 | .438 | .069 | 0.525 | +0.000 -0.015 | .233 | .125 | .063 | .438 | |
| 8 | 9/16 | 0.562 | .493 | .077 | 0.591 | | .241 | .141 | .070 | .493 | |
| 9 | 5/8 | 0.625 | .547 | .086 | 0.656 | +0.000 -0.020 | .253 | .156 | .078 | .547 | |
| 10 | 11/16 | 0.688 | .602 | .094 | 0.722 | | .278 | .172 | .086 | .602 | |
| 11 | 3/4 | 0.750 | .656 | .103 | 0.788 | +0.000 | .310 | .188 | .094 | .656 | |
| 12 | 13/16 | 0.812 | .711 | .112 | 0.853 | +0.000 -0.025 | .331 | .203 | .102 | .711 | |
| 13 | 7/8 | 0.875 | .765 | .120 | 0.919 | | .357 | .219 | .109 | .765 | |
| 14 | 15/16 | 0.938 | .820 | .129 | 0.984 | +0.000 -0.030 | .387 | .234 | .117 | .820 | |
| 15 | 1 | 1.000 | .874 | .138 | 1.050 | | .423 | .250 | .125 | .874 | |

For NOTES see SHEET 2.

Ⓐ ENTIRE STANDARD REVISED

| | | | |
|-----------------------------------|---|------------------------------------|--|
| P A OS Other Cost | INTERNATIONAL INTEREST | TITLE RING, RETAINING, EXTERNAL | MILITARY STANDARD MS3211(OS) |
| PROCUREMENT SPECIFICATION None | SUPERSEDES: NAVSEA (Code Ident. 10001) Dwg 2533400 | SHEET 1 | GP 2 |

This military standard is approved by the Naval Sea Systems Command, Department of the Navy and shall be used by that activity. All other military activities are required to employ this standard where suitable.

APPROVED 24 April 1967 REVISED 21 March 1970

USER ACTIVITIES: WC

This military standard is approved by the Naval Sea Systems Command, Department of the Navy and shall be used by that activity. All other military activities are required to employ this standard where suitable.

| P.A. OS | | INTERNATIONAL INTEREST | TITLE | MILITARY STANDARD |
|------------------------------------|--|---|---------------------------|-------------------|
| Other Cust | | | RING, RETAINING, EXTERNAL | MS3211(OS) |
| Procurement Specifications None | | SUPERSEDES: NAVSEA (Code Ident 10001) Dwg 2533400 | | SHEET 2 OF 2 |

FED. SUP CLASS
6366

NOTES:

1. **MATERIAL:**

(a) Carbon steel in accordance with FED-STD-66, AISI 1008 thru 1020 inclusive.

(b) Corrosion-resistant steel (CRES) in accordance with QQ-S-763, Class 302 or 304, annealed; QQ-S-766, Class 302 or 304, strip, annealed; or ASTM A 167, Type 302 or 304, strip, annealed.

(c) Phosphor bronze in accordance with ASTM B 159, copper alloy No 510, soft; ASTM B 103, copper alloy No. 510 strip, soft, or QQ-B-750, Composition A, strip or flat wire, soft

(d) Beryllium copper, copper alloy No. 172, in accordance with ASTM B 197, annealed; ASTM B 194 strip, annealed; or QQ-C-533 strip, Temper A

2. **PROTECTIVE COATING:**

(a) Carbon steel rings shall be zinc plated in accordance with QQ-Z-325, Type II, Class 2 or MIL-C-81562, Class 2, Type II

(b) CRES rings shall be passivated in accordance with QQ-P-35.

(c) Beryllium copper rings requiring protective coating shall be cadmium plated in accordance with QQ-P-416, Class 2, Type II or MIL-C-81562, Class 2, Type II.

3. **TOLERANCE:** Tolerances apply before application of protective coating.

4. **PART NUMBER.** The MS part number consists of the MS number, plus the dash number, plus the material designator

| MATERIAL DESIGNATOR | USE AFTER DASH NO. TO SPECIFY |
|---------------------|--------------------------------------|
| -SZ | Zinc Plated Carbon Steel Ring |
| -CR | Corrosion-Resistant Steel Ring |
| -PB | Phosphor Bronze Ring |
| -BX | Beryllium Copper Ring |
| -BC | Cadmium Plated Beryllium Copper Ring |

Example: MS3211-1-SZ is the part number for a zinc plated carbon steel external retaining ring with as furnished I.D. of 0.197 and installed I.D. of 0.125 for use on a 0.188 diameter shaft having a groove diameter of 0.125 and a groove width of 0.034

5. **DIMENSIONS:** All dimensions are in inches.

6. **OTHER NOTES:**

(a) Referenced documents shall be of the issue in effect on the date of invitation for bids

(b) For design feature purposes, this standard takes precedence over procurement documents referenced herein

Ⓐ ENTIRE STANDARD REVISED

APPROVED 24 April 1967
REVISED Ⓐ For changes see Sheet 1,2