

REQUIREMENTS:

1. MATERIAL:

- BAND** - ALUMINUM ALLOY, 2024-O HEAT TREATED TO T42 CONDITION IN ACCORDANCE WITH MIL-H-6088 CORROSION-RESISTANT STEEL, TYPE 302 IN ACCORDANCE WITH MIL-S-5059 OR TYPE 321 IN ACCORDANCE WITH AMS 5510-78.
- CUSHION** - CHLOROPRENE RUBBER, 65-75 DUROMETER "A", IN ACCORDANCE WITH AMS 3209-81, AND PROCUREMENT SPECIFICATION, 1.6 mm THICK.
SILICON RUBBER, 55-65 DUROMETER "A", IN ACCORDANCE WITH AMS 3303-75, 1.6 mm THICK.
POLYTETRAFLUOROETHYLENE (PTFE) IN ACCORDANCE WITH ASTM-D1457-81, TYPE I, 0.6 mm THICK.
FLUOROSILICONE RUBBER IN ACCORDANCE WITH MIL-R-25968, 1.6 mm THICK.
NITRILE RUBBER, 65-75 DUROMETER "A", IN ACCORDANCE WITH AMS 3215-78, AND PROCUREMENT SPECIFICATION, 1.6 mm THICK.
ETHYLENE PROPYLENE IN ACCORDANCE WITH PROCUREMENT SPECIFICATION, 1.6 mm THICK.

2. FINISH:

- CRES - PASSIVATE IN ACCORDANCE WITH ASTM-A380-78.
- ALUMINUM ALLOY - CHEMICAL FILM PER MIL-C-5541, CLASS 1A.

3. SURFACE TREATMENT:

- CUSHIONS FABRICATED FROM PTFE SHALL BE SODIUM TREATED IN ACCORDANCE WITH THE SURFACE TREATMENT PARAGRAPHS OF AMS 2491-81 TO REDUCE THE MATERIAL'S LUBRICITY. ALL OTHER PARAGRAPHS OF AMS 2491-81 SHALL NOT APPLY.

4. CUSHION SELECTION GUIDE:

- CHLOROPRENE** - RECOMMENDED FOR GENERAL PURPOSE USE IN AREAS CONTAMINATED WITH PETROLEUM BASE HYDRAULIC FLUID AND OCCASIONAL FUEL SPLASH. EXCELLENT OZONE RESISTANCE. NOT RESISTANT TO PHOSPHATE ESTER BASED FLUIDS. NOT FOR USE WITH TITANIUM TUBING. COLOR SHALL BE BLACK WITH A BLUE IDENTIFIER IN ACCORDANCE WITH PROCUREMENT SPECIFICATION.
- SILICONE** - RECOMMENDED FOR USE AT ELEVATED TEMPERATURE IN PHOSPHATE ESTER BASED FLUID AND OTHER SYNTHETIC FLUID CONTAMINATED AREAS. EXCELLENT OZONE RESISTANCE. NOT RESISTANT TO PETROLEUM BASED FLUIDS. COLOR SHALL BE SOLID (PIGMENTED) WHITE.
- POLYTETRAFLUOROETHYLENE (PTFE)** - RECOMMENDED FOR USE AT ELEVATED TEMPERATURES IN HYDROCARBON FUEL CONTAMINATED AREAS. ALSO RECOMMENDED FOR USE IN AREAS CONTAMINATED WITH PHOSPHATE TYPE HYDRAULIC FLUIDS AND OTHER SYNTHETIC LUBRICANTS. EXCELLENT OZONE RESISTANCE. COLOR SHALL BE SOLID BROWN.
- FLUOROSILICONE** - RECOMMENDED FOR USE AT ELEVATED TEMPERATURES IN PETROLEUM BASED FLUID CONTAMINATED AREAS. EXCELLENT OZONE RESISTANCE. NOT RESISTANT TO PHOSPHATE ESTER BASED FLUIDS. COLOR SHALL BE SOLID BLUE.
- NITRILE** - RECOMMENDED FOR USE PRIMARILY IN FUEL IMMERSION AND FUEL VAPORS. GOOD OZONE RESISTANCE. NOT RESISTANT TO PHOSPHATE ESTER BASED FLUIDS. NOT FOR USE WITH TITANIUM TUBING. COLOR SHALL BE SOLID YELLOW.
- ETHYLENE PROPYLENE** - RECOMMENDED FOR USE IN AREAS CONTAMINATED WITH PHOSPHATE ESTER HYDRAULIC FLUID AND OTHER SYNTHETIC FLUIDS. EXCELLENT OZONE RESISTANCE. NOT RESISTANT TO PETROLEUM BASED FLUIDS. COLOR SHALL BE SOLID PURPLE.

METRIC

USER ACTIVITIES:
ARMY - MI

REVIEWER ACTIVITIES:
ARMY - AT, AV, EA, SM
NAVY - EC, MC
AIR FORCE - II
DLA - IS

This military standard is approved for use by all Departments and Agencies of the Department of Defense. Selection for all new engineering and design applications and for repetitive use shall be made from this document when applicable.

APPROVED 23 Apr 1984 REVISED

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| P. A. Other Cust | AS AR 99 | INTERNATIONAL INTEREST | TITLE STRAP, RETAINING, CUSHIONED, RECTANGULAR, TWO-PIECE, METRIC | MILITARY STANDARD DS14289 |
| PROCUREMENT SPECIFICATION MIL-C-8603 | | | SUPERSEDES: | PAGE 1 OF 2 |

USER ACTIVITIES:
ARMY - MI

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ARMY - AT, AV, EA, SM
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AIR FORCE - II
DLA - IS

5. MATERIAL CODES:

CODES INDICATE BAND AND CUSHION MATERIALS. DO NOT SPECIFY BAND AND CUSHION COMBINATIONS NOT LISTED. MAXIMUM RECOMMENDED TEMPERATURE IS INDICATED IN PARENTHESES.

- CE = CRES BAND WITH ETHYLENE PROPYLENE CUSHION (135°C)
- CF = CRES BAND WITH NITRILE CUSHION (100°C)
- CG = CRES BAND WITH CHLOROPRENE CUSHION (100°C)
- CH = CRES BAND WITH SILICONE CUSHION (204°C)
- CJ = CRES BAND WITH FLUOROSILICONE CUSHION (232°C)
- CT = CRES BAND WITH PTFE CUSHION (260°C)
- DE = ALUMINUM BAND WITH ETHYLENE PROPYLENE CUSHION (100°C)
- DF = ALUMINUM BAND WITH NITRILE CUSHION (100°C)
- DG = ALUMINUM BAND WITH CHLOROPRENE CUSHION (100°C)

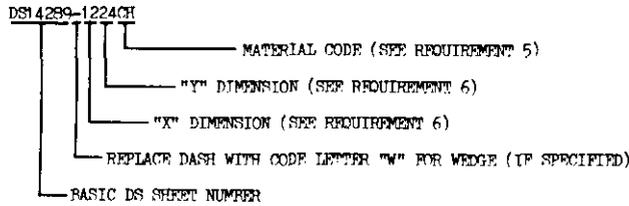
6. STRAP SIZES:

- "X" DIMENSION - 12 TO 26 (IN 2 mm INCREMENTS)
- "Y" DIMENSION - 12 TO 52 (IN 2 mm INCREMENTS)

LARGER SIZES MAY BE SPECIFIED, IF REQUIRED, BY USING APPROPRIATE CODE IN PART NUMBER.

7. PART NUMBER: THE PART NUMBER SHALL CONSIST OF THE BASIC DS SHEET NUMBER, FOLLOWED BY A CODE LETTER "W" FOR WEDGE (IF SPECIFIED), FOLLOWED BY THE "X" AND "Y" DIMENSION, FOLLOWED BY THE MATERIAL CODE LETTER.

EXAMPLE:



- DSI4289-1224CH INDICATES - STRAP, RETAINING, CUSHIONED, RECTANGULAR TWO-PIECE, METRIC, FOR RECTANGULAR TUBING WITH CLAMPING DIMENSIONS OF 12 mm BY 24 mm, CRES BAND WITH SILICONE CUSHION.
- DSI4289W1224CH INDICATES - STRAP, RETAINING, CUSHIONED, WITH WEDGE, RECTANGULAR TWO-PIECE, METRIC, FOR RECTANGULAR TUBING WITH CLAMPING DIMENSIONS OF 12 mm BY 24 mm, CRES BAND WITH SILICONE CUSHION.

NOTES:

1. DIMENSIONS ARE IN MILLIMETERS.
2. UNLESS OTHERWISE SPECIFIED TOLERANCE SHALL BE ± 0.4 mm.
3. TOLERANCE ON THICKNESS OF BAND MATERIAL SHALL BE AS FOLLOWS:
CRES - IN ACCORDANCE WITH ANSI/ASTM A109M-77
ALUMINUM ALLOY - IN ACCORDANCE WITH ANSI H35.2M-R2
4. THE WEDGE SHALL BE INTEGRALLY MOLDED TO CUSHION OR VULCANIZED USING PRESSURE AND HEAT TO ACCOMPLISH A BOND BETWEEN CUSHION AND WEDGE.
5. CLAMP AND SADDLE SHALL BE JOINED BY SUITABLE MEANS, AT ONE HOLE, FOR SHIPPING AND STOCKING PURPOSES, AS AN OPTION THE CLAMP AND SADDLE MAY BE PLACED IN A HEAT SEALABLE BAG.
6. METAL BAND SHALL BE FREE OF BURRS AND SHARP EDGES.
7. EACH STRAP SHALL BE PERMANENTLY AND LEGIBLY MARKED ON THE BAND WITH THE MANUFACTURER'S NAME OR TRADEMARK AND THE COMPLETE DS PART NUMBER.
8. IF "X" AND "Y" DIMENSIONS DO NOT EXCEED 16 mm BY 16 mm, THE WEDGE SIZE SHALL BE 3 mm BY 3 mm. SIZES GREATER THAN 16 mm BY 16 mm SHALL HAVE A 5 mm BY 5 mm WEDGE.
9. REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON THE DATE OF INVITATIONS FOR BIDS, OR REQUEST FOR PROPOSAL, EXCEPT THAT REFERENCED ADOPTED INDUSTRY DOCUMENTS SHALL GIVE THE DATE OF THE ISSUE ADOPTED.
10. FOR DESIGN FEATURE PURPOSES, THIS STANDARD TAKES PRECEDENCE OVER PROCUREMENT DOCUMENTS REFERENCED HEREIN.

APPROVED 23 Apr 1984 REVISED

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| P. A. Other Cost | AS | INTERNATIONAL INTEREST | TITLE STRAP, RETAINING, CUSHIONED, RECTANGULAR, TWO-PIECE, METRIC | MILITARY STANDARD | |
| | AR 99 | | | DSI4289 | |
| PROCUREMENT SPECIFICATION MIL-C-8603 | | | SUPERSEDES: | PAGE 2 OF 2 | |

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