

TABLE I. DASH NUMBERS AND DIMENSIONS.

DASH NO	RIGID TUBE NOMINAL OD (REF)	ØD ±0.4	THICKNESS (T)		E ±0.4	G +0.8 -0	R ±0.4	F ±0.3
			AL 1/ ALLOY	1/ CRES				
06	6	6.0	0.80	0.80	13.3	1.6	1.6	5.8
08	8	8.0	0.80	0.80	14.3	1.6	1.6	5.8
10	10	10.0	0.80	0.80	15.3	1.6	1.6	5.8
12	12	12.0	0.80	0.80	16.3	1.6	1.6	5.8
14	14	14.0	1.00	1.00	17.5	1.6	1.6	5.8
16	16	16.0	1.00	1.00	18.5	1.6	1.6	5.8
18	18	18.0	1.00	1.00	19.5	1.6	1.6	5.8
20	20	20.0	1.00	1.00	20.5	1.6	1.6	5.8
22	22	22.0	1.00	1.00	21.5	1.6	1.6	5.8
25	25	25.0	1.00	1.00	23.0	1.6	1.6	5.8
28	28	28.0	1.40	1.40	26.5	3.2	3.5	6.6
32	32	32.0	1.40	1.40	28.5	3.2	3.5	6.6
40	40	40.0	1.40	1.40	32.5	3.2	3.5	6.6
45	45	45.0	1.40	1.40	35.0	3.2	3.5	6.6
50	50	50.0	1.40	1.40	37.5	3.2	3.5	6.6

1/ SEE NOTE 4

(A) DENOTES CHANGES

METRIC

User activities:

Review activities:
ARMY-AR, MI
NAVY-YD
AIR FORCE-II
DLA-IS

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P. A. AS Other Cust.	International interest	TITLE CLAMP, LOOP, CUSHIONED, CENTER MOUNTING, METRIC	MILITARY STANDARD DS14242
PROCUREMENT SPECIFICATION MIL-C-8603		SUPERSEDES:	PAGE OF 3

REQUIREMENTS:

1. MATERIAL:

BAND - ALUMINUM ALLOY, 2024-O HEAT TREATED TO T42 CONDITION IN ACCORDANCE WITH MIL-H-6093. CORROSION RESISTANT STEEL, 302 IN ACCORDANCE WITH MIL-S-9099 OR 321 IN ACCORDANCE WITH AMS 5510-73.

- (A) CUSHION - CHLOROPRENE RUBBER, 65-75 DUROMETER "A" IN ACCORDANCE WITH AMS 3209-31 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 D1457-31 TYPE I, 0.6 mm THICK.
FLUOROSILICONE RUBBER IN ACCORDANCE WITH MIL-B-29933, TYPE II, CLASS 1, GRADE 60, 1.6 mm THICK.
NITRILE RUBBER 65-75 IN ACCORDANCE WITH AMS 321 5-73 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-A380-73.
ALUMINUM ALLOY - CHEMICAL FILM PER MIL-C-5541, CLASS 1A.

- (A) 3. CUSHIONS FABRICATED FROM PTFE SHALL BE SODIUM TREATED IN ACCORDANCE WITH THE SURFACE TREATMENT PARAGRAPHS OF AMS 2491-31 TO REDUCE THE MATERIAL'S LUBRICITY. ALL OTHER PARAGRAPHS OF AMS 2491-31 SHALL NOT APPLY.

4. CUSHION SELECTION GUIDE:

CHLOROPRENE - RECOMMENDED FOR GENERAL PURPOSE USE IN AREAS CONTAMINATED WITH PETROLEUM BASE HYDRAULIC FLUIDS 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.

- (A) 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.

- (A) 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.

- (A) NITRILE - RECOMMENDED FOR USE PRIMARILY IN FUEL IMERSION AND FUEL VAPORS. GOOD OZONE RESISTANCE. NOT RESISTANT TO PHOSPHATE ESTER BASED FLUIDS. NOT FOR USE WITH TITANIUM TUBING. COLOR SHALL BE SOLID YELLOW.

- (A) 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.

5. MATERIAL CODES:

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

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).

CI = CRES BAND WITH FLUOROSILICONE CUSHION (232°C).

- (A) 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).

USER ACTIVITIES:

REVIEWER ACTIVITIES:
ARMY - AR, MI
NAVY - YD
AIR FORCE - II
DLA - IS

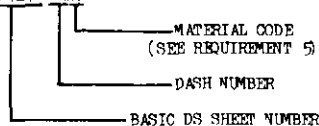
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APPROVED 14 OCT 1983 REVISED (A) FOR CHANGES SEE PAGES 1, 2 AND 3

P. A. AS Other Cast	INTERNATIONAL INTEREST	TITLE CLAMP, LOOP, CUSHIONED, CENTER MOUNTING, METRIC	MILITARY STANDARD
			DS 14242
PROCUREMENT SPECIFICATION MIL-C-8603	SUPERSEDES:		PAGE 2 OF 3

6. PART NUMBER: THE PART NUMBER SHALL CONSIST OF THE BASIC DS SHEET NUMBER FOLLOWED BY A DASH NUMBER TAKEN FROM TABLE I, FOLLOWED BY A MATERIAL CODE LETTER.

EXAMPLE: DSI 4242-12CJ



DSI 4242-12CJ INDICATES CLAMP, LOOP, CUSHIONED, CENTER MOUNTING, METRIC; RIGID TUBE, NOMINAL OD 12 mm, 0.80 mm THICK CRES BAND WITH FLUOROSILICONE CUSHION (232°C).

NOTES:

- DIMENSIONS ARE IN MILLIMETERS.
- CLAMP SHALL CHECK TO DIMENSIONS INDICATED WITH ENDS HELD IN POSITION SHOWN.
- CLAMPS SHALL BE FURNISHED IN THE OPEN POSITION. CLAMPS SHALL BE FORMED THROUGH A MINIMUM OF 270 DEGREES OF MANDREL CIRCUMFERENCE. NORMAL SPRING BACK OF THE CLAMP FROM THIS FINISHED CONDITION WILL BE ACCEPTABLE.
- TOLERANCE ON THICKNESS OF CLAMP MATERIAL SHALL BE AS FOLLOWS:
 - CRES - IN ACCORDANCE WITH ANSI/ASTM A109M-77.
 - ALUMINUM ALLOY - IN ACCORDANCE WITH ANSI H35.2M-73.
- CUSHION THICKNESS:
 - Ⓐ SIZES THRU DASH NO. 08, EXCEPT POLYTETRAFLUOROETHYLENE (PTFE), 1.20 \pm 0.25 mm.
 - Ⓐ SIZES DASH NO. 09 THRU 25, EXCEPT POLYTETRAFLUOROETHYLENE (PTFE), 1.60 \pm 0.25 mm.
 - Ⓐ ALL DASH NUMBERS FOR POLYTETRAFLUOROETHYLENE (PTFE), 0.50 $\begin{matrix} +0.20 \\ -0.10 \end{matrix}$.
- METAL BAND SHALL BE FREE OF BURRS AND SHARP EDGES.
- EACH CLAMP SHALL BE PERMANENTLY AND LEGIBLY MARKED WITH THE MANUFACTURER'S NAME OR TRADEMARK AND THE COMPLETE DS PART NUMBER.
- 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.
- FOR DESIGN FEATURE PURPOSES, THIS STANDARD TAKES PRECEDENCE OVER PROCUREMENT DOCUMENTS REFERENCED HEREIN.

USER ACTIVITIES:

REVIEWER ACTIVITIES:
ARMY - AR, MI
NAVY - YD
AIR FORCE - II
DLA - IS

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PROCUREMENT SPECIFICATION MIL-C-8603	SUPERSEDES:		PAGE 3 OF 3