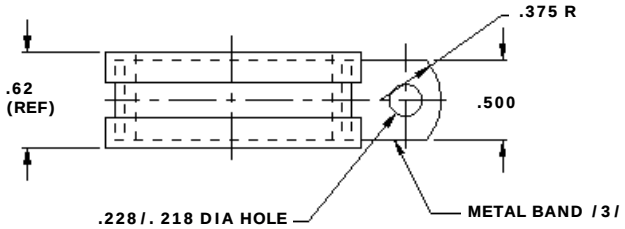
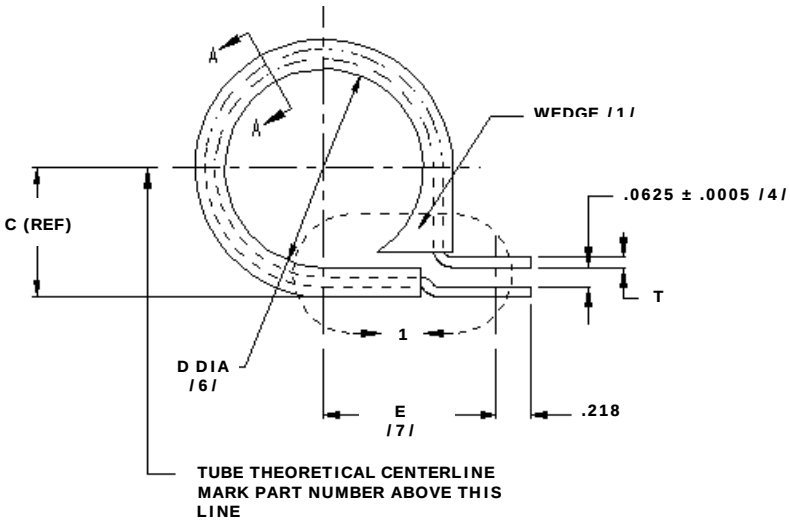
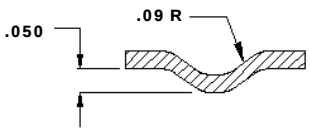
CLAMP, LOOP, TUBE-17-7 PH CRES, 275 °F, PHOSPHATE ESTER FLUID RESISTANT

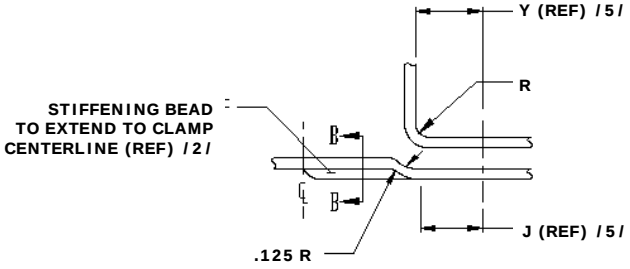




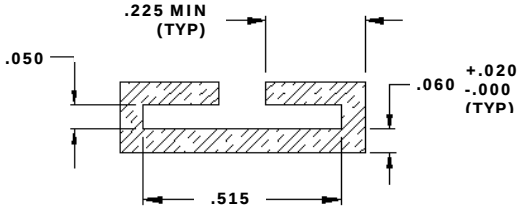




SECTION B-B



DETAIL 1
CUSHION REMOVED



SECTION A-A
(CUSHION ONLY)

FIGURE 1
CLAMP DESIGN AND CONSTRUCTION

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UMPCO, INC CAGE CODE No. 18076	REV N/C 01/29/09	M85052/2
CLAMP, LOOP, CUSHIONED		PART NUMBER

NOTES:

/1/ WEDGE SHALL BE REQUIRED ON SIZE -6 AND LARGER. THE WEDGE SHALL BE MOLDED AS AN INTEGRAL PART OF THE CUSHION AND CONTOURED TO FIT D DIAMETER.

/2/ STIFFENING BEAD SHALL BE REQUIRED ON SIZE -4 AND LARGER. ALL RADII ON THE STIFFENING BEAD SHALL BE SMOOTH AND BLENDED. NO SHARP TOOL MARKS ARE ALLOWED.

/3/ METAL BAND SHALL HAVE ALL BURRS, SHARP EDGES, AND SCALE REMOVED.

/4/ WEDGE SHALL TOUCH CUSHION ON LOWER FOOT WITH CLAMP INSTALLED ON MANDREL WITHOUT SPACER.

/5/ REFERENCE DIMENSIONS Y AND J ARE PROVIDED TO GAIN MAXIMUM SUPPORT FOR THE LOWER FOOT BY CLOSELY FITTING THE UPPER FOOT BEND RADIUS TO THE STIFFENING BEAD BLEND RADIUS WHEN CLOSED AGAINST EACH OTHER.

/6/ DIAMETER D IS THE NOMINAL DIAMETER FOR WHICH A CLAMP SIZE IS INTENDED FOR USE. DIAMETER D SHALL BE VERIFIED BY THE DIAMETRAL RETENTION TEST SPECIFIED IN THE GENERAL SPECIFICATION (SEE MIL-DTL-85052 4.4.4.1).

/7/ DIMENSION E SHALL BE MEASURED WITH THE CLAMP INSTALLED ON A MANDREL OF D DIAMETER + .001, AND .0625 + .0005 SPACER BETWEEN THE UPPER AND LOWER FOOT AS SHOWN.

8 UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES, TOLERANCES + .03 FOR TWO DECIMALS AND + .010 FOR THREE DECIMALS.

Table I. Clamp dimensions. /8/

Dash No.	C (Ref)	D Dia /6/	E ±.032 /7/	J (Ref) /5/	R ±.010	T	Y (Ref) /5/
2	0.192	0.125	0.468	-	0.090	.020 ± .002	0.325
3	0.224	0.188	0.499				
4	0.255	0.250	0.530	0.235			
5	0.286	0.312	0.561				
6	0.318	0.375	0.592				
7	0.349	0.438	0.624				
8	0.380	0.500	0.655				
9	0.423	0.562	0.741	0.256	0.125	.032 ±.002	0.368
10	0.454	0.625	0.772				
11	0.486	0.688	0.804				
12	0.517	0.750	0.835				
13	0.548	0.812	0.866				
14	0.580	0.875	0.898				
15	0.611	0.938	0.929				
16	0.642	1.000	0.960				
17	0.681	1.062	1.001	0.262		.040 ±.003	0.370
18	0.712	1.125	1.032				
19	0.744	1.188	1.064				
20	0.775	1.250	1.095				
21	0.806	1.312	1.126				
22	0.838	1.375	1.158				
23	0.869	1.438	1.189				
24	0.900	1.500	1.220				

REQUIREMENTS:

MARKING

BAND. THE COMPLETE STANDARD PART NUMBER AND MANUFACTURE'S NAME, TRADEMARK, OR CONTRACTOR AND GOVERNMENT ENTITY (CAGE) CODE SHALL BE IMPRESSION STAMPED ON THE BAND IN AN AREA NOT COVERED BY THE CUSHION. ALL MARKING SHALL BE ABOVE TUBE THEORETICAL CENTERLINE. CLAMP BANDS OF - 2, -3, - 4 SIZES MAY BE MARKED WITH THE MANUFACTURER'S IDENTIFICATION, THE SIZE, AND THE SPECIFICATION SHEET NUMBER ACCORDING TO SPACE LIMITATIONS.

CUSHION. NONE

MATERIALS

METAL BAND. 17-7PH CORROSION RESISTANT STEEL IN ACCORDANCE WITH SAE-AMS5528 OR SAE-AMS5529, ANNEALED, STRESS RELIEVED, AND HEAT-TREATED TO TH1100 CONDITION IN ACCORDANCE WITH SAE-AMS-H-6875 AFTER FORMING.

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REQUIREMENTS (CONTINUED)

CUSHION. ETHYLENE PROPYLENE RUBBER, 65-75 DUROMETER, COLOR PURPLE PER MIL-DTL-85052/2.

FINISH

METAL BAND. PASSIVATE IN ACCORDANCE WITH SAE-AMS-QQ-P-35, TYPE II

CUSHION. NONE

CUSHION REQUIREMENTS:

1. PHYSICAL PROPERTIES. PHYSICAL PROPERTIES SHALL BE AS SPECIFIED IN TABLE II. UNLESS OTHERWISE SPECIFIED, RESULTS ARE AN AVERAGE OF 5 SPECIMENS AND TOLERANCE ON TEMPERATURE + 5 °F.

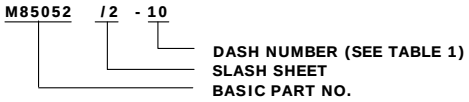
2. COMPRESSION SET. SEE MIL-DTL-85052.
   - AIR AGE AT 212 °F.
   - NOT TO EXCEED 30 PERCENT AVERAGE OF 3 SPECIMENS.

3. FLAMMABILITY. SEE MIL-DTL-85052.
   - SPECIMENS STANDARD ASTM TEST LAB VERTICAL BURN TEST.

TABLE II. PHYSICAL PROPERTIES

Test	Test Method	Required Original Properties	Allowable change from actual original properties after:	
			Immersion Hydraulic Fluid Fluid (Skydrol) - 500B, 22 hrs at +275 °F /1/	Heat Aging 70 hrs at +275 °F
Hardness durometer "A"	ASTM-D2240	65-75	- 20 Max	+ 10 Max
Tensile strength (PSI)	ASTM-D412	2000 Min	- 50% Max	-20% Max
Elongation (%)	ASTM-D412	400 Min	- 25% Max	-40% Max
Tear strength (PPI)	ASTM-D624 DIE "B"	200 Min	- 40% Max	-40% Max
Specific gravity	ASTM-D297	Report	-	±2%
Volume change (%)	ASTM-D471	-	+30% Max	-10% Max

EXAMPLE OF THE PART CALLOUT:



1/ Unless otherwise specified, property measurements shall be performed immediately after removal from immersion bath.

INTENDED USE:
THESE CLAMPS ARE INTENDED FOR USE AS FOLLOWS:
TEMPERATURE RANGE: - 65 TO + 275 °F (FOR HIGHER TEMPERATURE RATED CLAMPS, SEE MIL-DTL-85052/3).

SYSTEMS:
1. ALL AROMATIC FUEL SYSTEM APPLICATIONS REQUIRING A HIGH DEGREE OF CUSHION EXPOSURE TO SYSTEM FLUID.

2. ALL FLUID AND ELECTRICAL SYSTEMS ON AIRCRAFT AND AEROSPACE VEHICLES USING PETROLEUM BASED HYDRAULIC SYSTEMS.

VIBRATION RATING. CLAMPS ARE USED AT LOW, MEDIUM, AND HIGH VIBRATION AREAS DEPENDING ON MOUNTING METHODS. THE RECOMMENDED MOUNTING METHODS FOR VARIOUS VIBRATION AREAS ARE SPECIFIED IN 6.4 OF MIL-DTL-85052.

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