UMPCO, INC.



Manufacturing to Strict Standards

Parts produced under numbers that begin with AN, MS and NAS were originally designed for aerospace applications, although many are equally suited for industrial applications. Parts produced under numbers that begin with an "S" are UMPCO designed; some are for a specified application. All parts are produced to MIL-I-45208A inspection standards. UMPCO has received many awards throughout the industry for quality and service.

AN-MS-NAS part numbers, which are manufactured under a rigid quality control system, are under the scrutiny of the DEFENSE PROCUREMENT ORGANIZATION (DPRO, formerly DCASD). All are precisely manufactured to the applicable military standard established to ensure the highest quality parts available anywhere. Refer to the applicable part numbers for exact details, or call us at (714) 897-3531.

Supporting Hardware Solutions

One - off to Millions



Our modern machining facility specializes in all facets of hardware manufacturing from prototype to production. Our professional staff of engineers can assist in every stage of the manufacturing process from initial drawing through layout, process review, programming, tooling design and ultimately, the finished product.

We expedite prototypes and small quantity orders using hand fed power tools designed and built by UMPCO. These tools make custom runs of small quantities possible from a manufacturer normally geared for volume production.



Our assembly and production are skillfully handled by UMPCO employees who are individually and collectively responsible for the parts they produce. Every employee is his or her own most critical inspector. All parts are inspected and re-checked prior to shipment to ensure that UMPCO produces only the finest clamps, clips, brackets and light stampings.



Commercial Support Clamps

General industrial and automotive applications usually require neoprene cushioned S325 and S370 support clamps. If you require a support clamp with additional width or larger mounting holes, consider our product numbers S219, S332, S463, S464, S465, S466, S467 and S468. If you have an application requiring high temperature cushion materials, see S500, S634 or call our friendly sales associates for personal assistance at (714) 897-3531.



• Single Tube Cushioned Loop Clamps

Cushioned "U" Type Support Clamp

Single Tube Plain Loop ClampsCushioned Clamps with Tanglock

Cushioned Loop Clamps

- Saddle Type Center Mount Loop Clamps •
 - Two Bolt Loop Clamps •
- Rectangular Cushioned Loop Clamp •





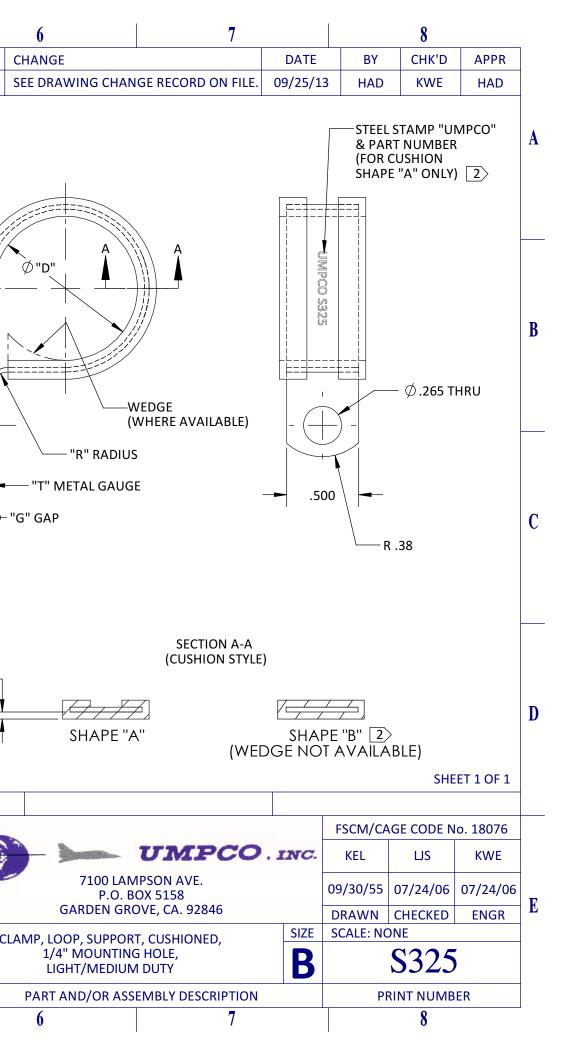


INDEX

(C)	 S228 Cushioned Loop Clamp for 5/16" Mounting Bolt Material: Aluminum, 302/321 CRES, Steel Cushion: EPDM, Neoprene, Silicone Hole: .344 x .438 Width .625
C	 S230 Cushioned Loop Clamp for 1/4" Mounting Bolt Material: Aluminum, 302/316/321 CRES, Steel Cushion: EPDM, Neoprene, Teflon Skydrol Resistant, Conductive, Silicone Wedge Style Available Hole: .281 x .375. Width: .500
	 S250 Cushioned Loop Clamp Material: Aluminum, CRES, 4130 CMS, Steel Cushion: EPDM, Neoprene, Silicone - Wedge Style Available Hole: .204. Width: .500
	 S325 Cushioned Loop Clamp Material: Aluminum, 302/321 CRES, 201,316 & 430 CRES, Steel Cushion: EPDM, Neoprene, Teflon, Silicone - Wedge Style Available Hole: .265. Width: .500
	 S332 Cushioned Loop Clamp Material: Aluminum, 302/321 CRES, Steel Cushion: EPDM, Neoprene, Silicone, Teflon Hole: .531 x .625 Width .750
	 S340 Cushioned Loop Clamp Material: Aluminum, 302/321 CRES, 316 CRES, Steel Cushion: EPDM, Neoprene, Silicone, Teflon Hole: .406 x .500 Width .750
	 S342 Cushioned Loop Clamp, Commercial Material: Aluminum, Steel, 302/321/316 CRES, Steel Cushion: Neoprene, EPDM, Silicone, Nitrile, Teflon Hole: .281 x .375
	 S344 Cushioned Loop Clamps for Two Tubes of Equal Diameter Material: Aluminum, 302/321 CRES, Steel Cushion: EPDM, Neoprene, Silicone Hole: .406 x .500 Width .750

UMPCO, INC.

. г		1		2		0			4		5			0
	DASH NO.	"D" DIA. RANGE	"E" DIMENSION		"G"	"R"		AUGE			2		REV.	CHANGE SEE DRA
	RANGE		ALUMINUM	STEEL	GAP	RADIUS	ALUM.	STEEL		and a second		S		JLL DRA
	-2	1/8"	"D"/2 + .395	"D"/2 + .395		.062	.032					S325		
	-3 THRU -8	3/16" TO 1/2"	"D"/2 + .405	"D"/2 + .405	.062/.078	.002	.052							
	-9 THRU -12	9/16" TO 3/4"	"D"/2 + .471	"D"/2 + .468	2	.109	.050	.032						
-	-13 THRU -17	13/16" TO 1-1/16"	572	"D"/2 + .452							YM			
	-18 THRU -30		+ "D"/2 + 500 ⊢	"D"/2 + .468	-	.125	.062							
	-31 THRU -96	1-15/16" TO 6"	2 72 1000	"D"/2 + .476	.125/.156	1120		.040		$\lesssim 0$			/	
-		FINIS "D" 2024- "DK" 5052- "DL" 6061- FINIS "C" 316 ST "CV" 201 S "SS" 304/3 "SV" 430 S	/1020 LOW CAR H: ZINC PLATE F T42 ALUMINUM H32 1/4 HARD T6 ALUMINUM H: NONE TAINLESS STEEL TAINLESS STEEL 21 STAINLESS S TAINLESS STEEL H: NONE	BRIGHT PER AS ALLOY PER A ALUMINUM A ALLOY PER AN PER AMS 5524 PER ASTM A 6 TEEL PER AMS	5TM B 633, F MS-QQ-A-2 LLOY PER AI AS-QQ-A-25 4 566 5513/AMS	e/Zn 13, 50/5 MS-QQ-A 0/11	TY. III			- 1	JOGGLE	E "E" .218		Ø "D"
CUSHION: "F" NITRILE BUTADIENE PER AMS 3215 COLOR: YELLOW, SHAPES: A, WEDGE AVAILABLE "G" GENERAL PURPOSE EPDM PER SAE J200 M3 BA 710 C12 COLOR: BLACK, SHAPES: A & B "EL" ETHYLENE PROPYLENE PER SAE J200 M3 BA 710 C12 COLOR: WHITE, SHAPES: A & B "H" GENERAL PURPOSE SILICONE PER AMS 3303 WITH 100 PSI MIN. TEAR COLOR: RED/ORANGE, SHAPES: A & B "HL" GENERAL PURPOSE SILICONE PER AMS 3303 & MIL-C-8603 WITH 100 PSI MIN. TEAR COLOR: NATURAL WHITE, SHAPES: A, WEDGE AVAILABLE								┙╵╵ ╸ ┥ ┥ ┥ ╴						
		"H" GENEF WITH COLOI "HL" GENEF WITH	RAL PURPOSE S 100 PSI MIN. T R: RED/ORANG RAL PURPOSE S 100 PSI MIN. T	ILICONE PER A EAR E, SHAPES: A & ILICONE PER A EAR	د B MS 3303 & ۱)3	COLOR: TEFLON FINISH:	WHITE, SHAPES: A ANTI-SLIP PER AM SODIUM TREAT PE	, WEDGE AV S 3652 R AMS 2491				
	ΕΧΔΜΡΙ Γ Ο	"H" GENEF WITH COLOI "HL" GENEF WITH COLOI	RAL PURPOSE S 100 PSI MIN. T R: RED/ORANG RAL PURPOSE S 100 PSI MIN. T	ILICONE PER A EAR E, SHAPES: A & ILICONE PER A EAR	د B MS 3303 & ۱)3	COLOR: TEFLON FINISH:	WHITE, SHAPES: A ANTI-SLIP PER AM SODIUM TREAT PE	, WEDGE AV S 3652 R AMS 2491		.02 (TEFL	.ON)	
		"H" GENEF WITH COLOI "HL" GENEF WITH COLOI	RAL PURPOSE S 100 PSI MIN. T R: RED/ORANG RAL PURPOSE S 100 PSI MIN. T R: NATURAL WI	ILICONE PER A EAR E, SHAPES: A & ILICONE PER A EAR	د B MS 3303 & ۱)3	COLOR: TEFLON FINISH:	WHITE, SHAPES: A ANTI-SLIP PER AM SODIUM TREAT PE	, WEDGE AV S 3652 R AMS 2491		.02 (TEFL .06 (ALL OT		1
		"H" GENEF WITH COLOI "HL" GENEF WITH COLOI F PART CALLOUT : <u>IM. CLAMP W/WEE</u> T R <u>16</u> DIA "D' RECTAI CUSHIC	AL PURPOSE S 100 PSI MIN. T R: RED/ORANG AL PURPOSE S 100 PSI MIN. T R: NATURAL WI DGED TEFLON " IN 1/16" INCR NGULAR CUSHI ON CODE	ILICONE PER A EAR E, SHAPES: A & ILICONE PER A EAR HITE, SHAPES: EMENTS ON (OMIT WH	4 B MS 3303 & I A, WEDGE A EN NOT APP	VAILABLI	03	COLOR: TEFLON FINISH:	WHITE, SHAPES: A ANTI-SLIP PER AM SODIUM TREAT PE	, WEDGE AV S 3652 R AMS 2491		•] ▼
	<u>1" DIA., ALU</u>	"H" GENEF WITH COLOI "HL" GENEF WITH COLOI PF PART CALLOUT: JM. CLAMP W/WEE T R 16 CUSHIC CUSHIC METAL	RAL PURPOSE S 100 PSI MIN. T R: RED/ORANG RAL PURPOSE S 100 PSI MIN. T R: NATURAL WI DGED TEFLON " IN 1/16" INCR NGULAR CUSHI ON CODE . CODE (OMIT F	ILICONE PER A EAR E, SHAPES: A & ILICONE PER A EAR HITE, SHAPES: ON (OMIT WH OR "NO CODE'	« B MS 3303 & I A, WEDGE A EN NOT APF	VAILABLI	03	COLOR: TEFLON FINISH: COLOR:	WHITE, SHAPES: A ANTI-SLIP PER AM SODIUM TREAT PE	, WEDGE AV S 3652 R AMS 2491		•] ♥{ ●
	<u>1" DIA., ALL</u> <u>S325 W D</u>	"H" GENEF WITH COLOI "HL" GENEF WITH COLOI PF PART CALLOUT : JM. CLAMP W/WEE T R 16 DIA "D' RECTAI CUSHIC METAL WEDGI	AL PURPOSE S 100 PSI MIN. T R: RED/ORANG AL PURPOSE S 100 PSI MIN. T R: NATURAL WI DGED TEFLON " IN 1/16" INCR NGULAR CUSHI ON CODE	ILICONE PER A EAR E, SHAPES: A & ILICONE PER A EAR HITE, SHAPES: ON (OMIT WH OR "NO CODE' WHEN NOT AP	« B MS 3303 & I A, WEDGE A EN NOT APF	VAILABLI	03	COLOR: TEFLON FINISH: COLOR: REFE	WHITE, SHAPES: A ANTI-SLIP PER AM SODIUM TREAT PE BROWN, SHAPES:	, WEDGE AV S 3652 R AMS 2491 A, WEDGE A	ANGULAR:	•		
_	1" DIA., ALL S325 W D S325 W D NOTES: 1 OPTION PER AM 2 FOR SH/ IDENTIF 3 CAUSTIC	"H" GENEF WITH COLOI "HL" GENEF WITH COLOI "F PART CALLOUT: WITH IM. CLAMP W/WEE IM. T R 16 DIA "D' CUSHIC RECTAI WEDGI METAL WEDGI BASIC I AL FINISH: CADMIL STYLE CUSH IED IN MULTIPLES C CETCH TO CLEAN A	AL PURPOSE S 100 PSI MIN. T R: RED/ORANG AL PURPOSE S 100 PSI MIN. T R: NATURAL WI DGED TEFLON " IN 1/16" INCR NGULAR CUSHI ON CODE CODE (OMIT F E CODE (OMIT F E CODE (OMIT F DRAWING NUM JM PLATE BRIG CL. 2 IIONS (BOX), PA OF 10, NOT TO I S NEEDED.	ILICONE PER A EAR E, SHAPES: A & ILICONE PER A EAR HITE, SHAPES: ON (OMIT WH OR "NO CODE' WHEN NOT AP IBER HT ARTS SHALL BE EXCEED 100.	A B MS 3303 & I A, WEDGE A EN NOT APF PLICABLE) PACKAGE	VAILABLI PLICABLE)	03	COLOR: TEFLON FINISH: COLOR: REFE LIMI UNL GEN	WHITE, SHAPES: A ANTI-SLIP PER AM SODIUM TREAT PE BROWN, SHAPES: ERENCES: TS ON DIMENSION	, WEDGE AV S 3652 R AMS 2491 A, WEDGE A S ECIFIED: IISHES GEOMETRIC IG PER:	ANGULAR:	X ± 5° XX ± .03 XX ± .015 CONFIDENTIAL CONTAINED IN HE SOLE CO, INC. ANY PART OR AS A THE WRITTEN	HERS) —	CLAMP, LO 1/4
-	<u>1" DIA., ALL</u> <u>S325</u> W D <u>S325</u> W D <u>S</u>	"H" GENEF WITH COLOI "HL" GENEF WITH COLOI "F PART CALLOUT: WITH JM. CLAMP W/WEE T T R 16 DIA "D' RECTAI CUSHIC METAL BASIC I AL FINISH: CADMIL S-QQ-P-416, TY. I, C AL FINISH: CADMIL S-QQ-P-416, TY. I, C APE (B) STYLE CUSH IED IN MULTIPLES C	AL PURPOSE S 100 PSI MIN. T R: RED/ORANG AL PURPOSE S 100 PSI MIN. T R: NATURAL WI DGED TEFLON " IN 1/16" INCR NGULAR CUSHI ON CODE CODE (OMIT N DRAWING NUM JM PLATE BRIG CL. 2 HONS (BOX), PA OF 10, NOT TO I S NEEDED. E NORMAL OPE	ILICONE PER A EAR E, SHAPES: A & ILICONE PER A EAR HITE, SHAPES: ON (OMIT WH OR "NO CODE' WHEN NOT AP IBER HT ARTS SHALL BE EXCEED 100.	A B MS 3303 & I A, WEDGE A EN NOT APF PLICABLE) PACKAGE	VAILABLI PLICABLE)	03	COLOR: TEFLON FINISH: COLOR: REFE LIMI UNL GEN EXCI	ERENCES: ERENCES: ERAL MACHINE FIN EPT AS NOTED: INTERPRET O TOLERANCIN ASME-Y14.5 IOVE ALL BURRS AN	, WEDGE AV S 3652 R AMS 2491 A, WEDGE A S ECIFIED: IISHES SEOMETRIC IG PER: M	VAILABLE ANGULAR: DECIMAL: PROPRIETARY AND THE INFORMATION THIS DRAWING IS TI PROPERTY OF UMPP REPRODUCTION IN WHOLE WITHOUT T PERMISSION OF UM IS PROHIBITED. ACT. WGHT.	.06 (ALL OT X ± 5° XX ± .03 XXX ± .015 CONFIDENTIAL CONTAINED IN HE SOLE CO, INC. ANY PART OR AS A THE WRITTEN APCO, INC	HERS) —	CLAMP, LO 1/4
	<u>1" DIA., ALL</u> <u>S325</u> W D <u>S325</u> W D <u>S</u>	"H" GENEF WITH COLOI "HL" GENEF WITH COLOI "F PART CALLOUT: WITH IM. CLAMP W/WEE IM. T R 16 DIA "D" CUSHIC RECTAI WEDGI METAL WEDGI BASIC I AL FINISH: CADMIL S-QQ-P-416, TY. I, C AL FINISH: CADMIL S-QC-P-416, TY. I, C AL FINISH: CADMIL S-QU-P-416, TY. I, C S-QU-P-416, TY. I, C <tr< td=""><td>AL PURPOSE S 100 PSI MIN. T R: RED/ORANG AL PURPOSE S 100 PSI MIN. T R: NATURAL WI DGED TEFLON " IN 1/16" INCR NGULAR CUSHI ON CODE CODE (OMIT M CODE (OMIT M DRAWING NUM JM PLATE BRIG CL 2 IIONS (BOX), PA OF 10, NOT TO I S NEEDED. E NORMAL OPE LOSURE TEST.</td><td>ILICONE PER A EAR E, SHAPES: A & ILICONE PER A EAR HITE, SHAPES: ON (OMIT WH OR "NO CODE' WHEN NOT AP IBER HT ARTS SHALL BE EXCEED 100.</td><td>A B MS 3303 & I A, WEDGE A EN NOT APF PLICABLE) PACKAGE</td><td>VAILABLI PLICABLE)</td><td>03</td><td>COLOR: TEFLON FINISH: COLOR: REFE LIMI UNL GEN EXCI</td><td>ERENCES: TS ON DIMENSION ERAL MACHINE FIN ERAL FIN E</td><td>, WEDGE AV S 3652 R AMS 2491 A, WEDGE A S ECIFIED: IISHES SEOMETRIC IG PER: M</td><td>VAILABLE ANGULAR: DECIMAL: PROPRIETARY AND THE INFORMATION THIS DRAWING IS TI PROPERTY OF UMP REPRODUCTION IN WHOLE WITHOUT T PERMISSION OF UM IS PROHIBITED.</td><td>.06 (ALL OT X ± 5° XX ± .03 XXX ± .015 CONFIDENTIAL CONTAINED IN HE SOLE CO, INC. ANY PART OR AS A THE WRITTEN APCO, INC</td><td>HERS) —</td><td>1</td></tr<>	AL PURPOSE S 100 PSI MIN. T R: RED/ORANG AL PURPOSE S 100 PSI MIN. T R: NATURAL WI DGED TEFLON " IN 1/16" INCR NGULAR CUSHI ON CODE CODE (OMIT M CODE (OMIT M DRAWING NUM JM PLATE BRIG CL 2 IIONS (BOX), PA OF 10, NOT TO I S NEEDED. E NORMAL OPE LOSURE TEST.	ILICONE PER A EAR E, SHAPES: A & ILICONE PER A EAR HITE, SHAPES: ON (OMIT WH OR "NO CODE' WHEN NOT AP IBER HT ARTS SHALL BE EXCEED 100.	A B MS 3303 & I A, WEDGE A EN NOT APF PLICABLE) PACKAGE	VAILABLI PLICABLE)	03	COLOR: TEFLON FINISH: COLOR: REFE LIMI UNL GEN EXCI	ERENCES: TS ON DIMENSION ERAL MACHINE FIN ERAL FIN E	, WEDGE AV S 3652 R AMS 2491 A, WEDGE A S ECIFIED: IISHES SEOMETRIC IG PER: M	VAILABLE ANGULAR: DECIMAL: PROPRIETARY AND THE INFORMATION THIS DRAWING IS TI PROPERTY OF UMP REPRODUCTION IN WHOLE WITHOUT T PERMISSION OF UM IS PROHIBITED.	.06 (ALL OT X ± 5° XX ± .03 XXX ± .015 CONFIDENTIAL CONTAINED IN HE SOLE CO, INC. ANY PART OR AS A THE WRITTEN APCO, INC	HERS) —	1



BULLETIN 100 UMP-MT METAL MATERIALS 10

CODE	DE MATERIALS SUFFIX SPECIFICATION		TENSILE KSI	YIELD KSI	HARDNESS	ELONGATION	TEMP. RANGE		
D	2024-T42 ALUMINUM CLAD	ALU-001	AMS-QQ-A-250/5	57000 KSI	57000 KSI 34000 KSI		15%		
DK	5052-H32 1/4 HARD ALUMINUM BARE	ALU-002	AMS-QQ-A-250/8, ASTM B209	34000 KSI	28000 KSI		12%		
DL	6061- T6 ALUMINUM BARE	ALU-003	AMS 4025	42000 KSI	35000 KSI	95 HRB	10%	65°F to + 250°F	
	2024-T42 ALUMINUM BARE	ALU-004	AMS-QQ-A-250/4	62000 KSI	38000 KSI		15%	65°F to +250°F	
	2024-T851 ALUMINUM BARE	ALU-005	AMS-QQ-A-250/4	67000 KSI	58000 KSI		5%		
	2024-T4 ALUMINUM CLAD	ALU-006	AMS-QQ-A-250/5	58000 KSI	36000 KSI	57 HRB MIN	15%		
NO-CODE	1008/1020 LOW CARBON STEEL	CRS-001	ASTM A 1008, ASTM A109 QQ-S-698	48000	25000	65 HRB MAX	32%	-65°F to +400°F	
	1065/1-85 SPRING STEEL	CRS-002	A-A-51142						
	1074/1095 SPRING STEEL	CRS-003	QQ-S-700, AMS 5120, ASTM A 682, ASTM A 684						
	302/304 STAINLESS STEEL	STA-001	AMS 5516, AMS 5513, ASTM A 167	75000	36000	92 HRB	40%	-320°F to +1300°F	
с	304 1/4 HARD STAINLESS STEEL	STA-002	AMS 5910	125000	75000	25 HRC	12%		
C	301 FULL HARD STAINLESS STEEL	STA-003	AMS 5519	185000	140000	41 HRC	9%		
	316 STAINLESS STEEL	STA-004	AMS 5524	75000	30000	95 HRB MAX	40%	-320°F to +1600°F	
	321 STAINLESS STEEL	STA-005	AMS 5510	70000	25000	95 HRB MAX	40%	-320°F to +1500°F	
SS	321 1/8 HARD STAINLESS STEEL	STA-006							
	347 STAINLESS STEEL	STA-007	AMS 5512	100000	30000	92 HRB MAX	40%		
CS	4130 CMS ALLOY	4130 CMS ALLOY STA-008 MIL-S-18729, AMS 6350		125000	75000	26HRC MIN	8%		
SS	301 1/4 HARD STAINLESS STEEL	STA-009	AMS 5517	125000	75000	25 HRC	25%		
CV	201 STAINLESS STEEL	STA-010	ASTM-A-666	95000	30000	95	40%		
SV	430 STAINLESS STEEL STA-011 AMS 5503		AMS 5503	65000	35000	86	20%		
CV	A286 STAINLESS STEEL	STA-012	AMS 5525	105000		90 HRB MAX	25%		
Р	17-7 PH STAINLESS STEEL	177-001	AMS 5528	150000		34-39 HRC	6%	-320°F to +1900°F	
	#625 INCONEL	INC-001	AMS 5599	120000	60000		30%	To +2000°F	
					REVISION I		SPECIFICATI	ON NO: UMP-MT	

UMPCO. INC.

MANUFACTURERS OF CLAMPS, CLIPS & BRACKETS BUBINESS (714) 897-3536 · SALES (714) 897-3531 · FAX (714) 897-2611

REVISION: L

SPECIFICATION NO: UMP-MT

BULLETIN 100 UMP-MT