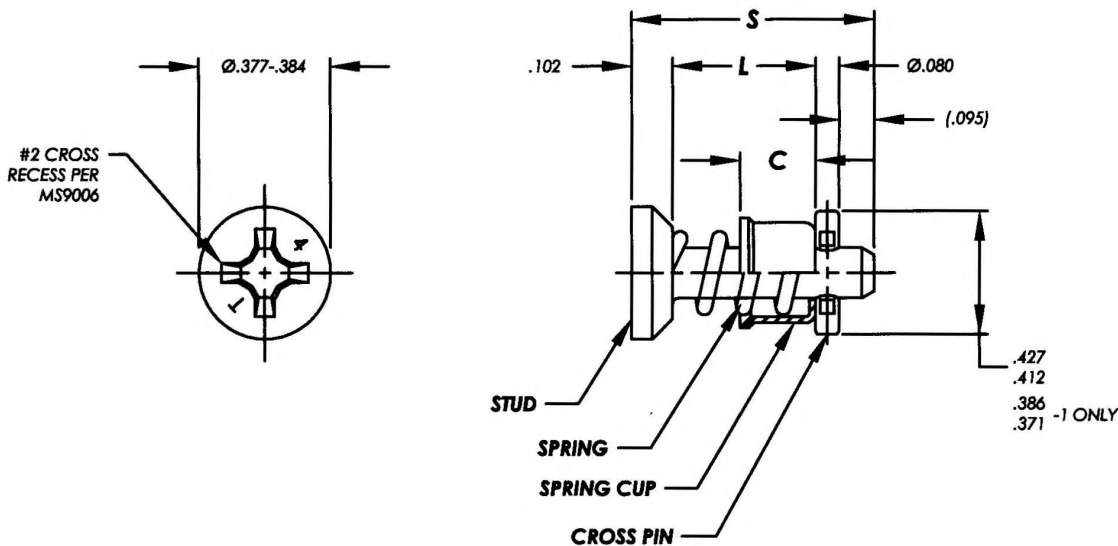


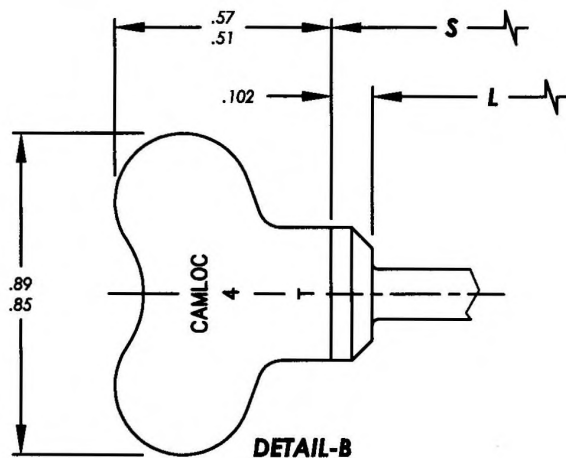
Camloc . Delron . Deutsch . Huck . K-Fast . Kaynar . Microdot . RAM . Rosan . Screwcorp . Tidalr . Vol-Shan

MANUFACTURE OF THE PROPRIETARY PARTS SHOWN HERE WITHOUT WRITTEN CONSENT IS ABSOLUTELY PROHIBITED

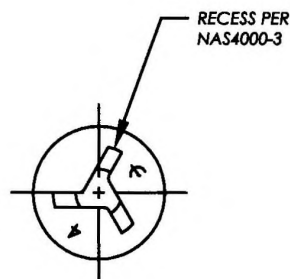
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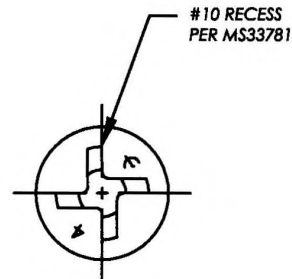
DETAIL-A



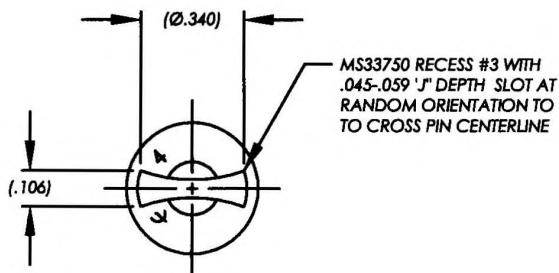
DETAIL-B



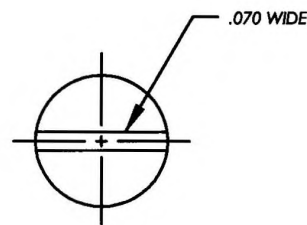
DETAIL-C
(SAME AS DETAIL-A, EXCEPT AS SHOWN)



DETAIL-D
(SAME AS DETAIL-A, EXCEPT AS SHOWN)



DETAIL-E
(SAME AS DETAIL-A, EXCEPT AS SHOWN)



DETAIL-F
(SAME AS DETAIL-A, EXCEPT AS SHOWN)

INTERIM DOCUMENT REVISION		
Rev.	Date	DAF#
Y1	10/8/2018	117431

APPROVED DATE 22 JUL 97
REV LETTER AND DATE Y 14 MAY 13
DAF NUMBER 104411

ARCONIC
Arconic Fastening Systems

CAMLOC PRODUCTS
3012 WEST. LOMITA BLVD.
TORRANCE, CA 90505-5103

TITLE: STUD ASSEMBLY	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & ASME Y14.5M TOLERANCES:	
ANGLES	= ± 1°
FRACTIONS	= ± 1/32
DECIMALS	.XX = ± .02
	.XXX = ± .010

CURRENT DESIGN ACTIVITY CAGE CODE: 71286
SALES DRAWING NO. 40S119
SHEET 1 OF 4

Camloc . Delron . Deutsch . Huck . K-Fast . Kaynar . Microdot . RAM . Rosan . Screwcorp . Tridair . Vol-Shan

MANUFACTURE OF THE PROPRIETARY PARTS SHOWN HERE
WITHOUT WRITTEN CONSENT IS ABSOLUTELY PROHIBITED

TABLE 1

BASIC CATALOG PART NUMBER (SEE EXAMPLE)	L	S	C +.010 -.020
40S119-1	.383-.393	.66	.220
40S119-2	.413-.423	.69	.220
40S119-3	.443-.453	.72	.257
40S119-4	.473-.483	.75	.257
40S119-5	.503-.513	.78	.292
40S119-6	.533-.543	.81	.322
40S119-7	.563-.573	.84	.352
40S119-8	.593-.603	.87	.382
40S119-9	.623-.633	.90	.412
40S119-10	.653-.663	.93	.442
40S119-11	.683-.693	.96	.472
40S119-12	.713-.723	.99	.502
40S119-13	.743-.753	1.02	.532
40S119-14	.773-.783	1.05	.562
40S119-15	.803-.813	1.08	.592


FOR -16 OR GREATER:
L MIN = .353 + (.03 x DASH NO.)
L MAX = L MIN + .010
S = .63 + (.03 x DASH NO.)
C = .257

TABLE 2

SECOND DASH NUMBER	HEAD STYLE
-1	#2 CROSS RECESS PER DETAIL-A <5>
-2	WING HEAD PER DETAIL-B <3>
-3	THREE WING RECESS PER DETAIL-C
-4	OFFSET CROSS RECESS PER DETAIL-D
-6	RECESS PER DETAIL-E
-7	SLOTTED PER DETAIL-F <4>

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APPROVED DATE 22 JUL 97	 ARCONIC Arconic Fastening Systems	TITLE: STUD ASSEMBLY	CURRENT DESIGN ACTIVITY: CAGE CODE: 71286
REV LETTER AND DATE X 14 MAY 13		CAMLOC PRODUCTS 3012 WEST LOMITA BLVD. TORRANCE, CA 90505-5103	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & ASME Y14.5M TOLERANCES:
DAF NUMBER 104411			ANGLES = ± 1° FRACTIONS = ± 1/32 DECIMALS .XX = ± .02 .XXX = ± .010

Camloc . Delron . Deutsch . Huck . K-Fast . Kaynar . Microdot . RAM . Rosan . Screwcorp . Tridair . Vol-Shan

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TABLE 3

SUFFIX	MATERIAL			
	STUD	WING	SPRING CUP	SPRING & CROSS PIN
AA	CRES PER AMS 5731 (A286)	CRES PER AMS 5525 (A286)	A-286 PER AMS 5525, 5731, 5732, 5734 OR 5737	COLBALT ALLOY PER AMS 5833
AD				
AE				
BB	ALLOY STEEL, 4037, PER ASTM A331, ASTM A752 OR ASTM A322	N/A	CARBON STEEL PER ASTM A109 ALT: 1050 PER ASTM A684 OR ASTM A108 1212 PER ASTM A108 OR 12L14 PER ASTM A108	MUSIC WIRE PER ASTM A228
CC	CRES PER AMS 5731 (A286)	CRES PER AMS 5525 (A286)	CRES PER ASTM A240, ASTM A582 OR ASTM A666	COLBALT ALLOY PER AMS 5833

TABLE 3 (CON'T)

SUFFIX	FINISH		
	STUD, WING	SPRING CUP	SPRING & CROSS PIN
AA	CADMIUM PLATE PER AMS-QQ-P-416, CLASS 2, TYPE II		NONE
AD	PASSIVATED PER AMS 2700		
AE	BLACK OXIDE PER MIL-C-13924	BLACK OXIDE PER MIL-F-495	
BB	CADMIUM PLATE PER AMS-QQ-P-416, CLASS 2, TYPE II		
CC	PASSIVATED PER AMS 2700		NONE

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REV LETTER AND DATE 14 MAY 13			SALES DRAWING NO. 40S119
DAF NUMBER 104411			UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & ASME Y14.5M TOLERANCES: ANGLES = ± 1° FRACTIONS = ± 1/32 DECIMALS .XX = ± .02 .XXX = ± .010

TABLE 4

ASSEMBLY TYPE	APPROXIMATE WEIGHT - LB PER 100 PIECES	
	-1 TO -15	-16 OR GREATER
STEEL RECESSED	.86 + .06 X DASH NO.	.914 + .019 X DASH NO.
CRES WING	1.45 x .06 X DASH NO.	1.50 + .019 X DASH NO.
CRES RECESSED	.89 + .06 X DASH NO.	.945 + .019 X DASH NO.

NOTES: UNLESS OTHERWISE SPECIFIED


1. FOR STUD SELECTION AND INSTALLATION DATA, SEE CAMLOC CATALOG, 4002 SERIES.
- <2> CROSS PIN WILL WITHSTAND A 100 LB PUSH-OUT FORCE AND RETAIN SYMMETRY ABOUT CENTERLINE OF STUD WITHIN ± 0.02
- <3> WING HEAD NOT AVAILABLE FOR SUFFIX BB, USE 4002-()W.
- <4> SLOTTED HEAD NOT AVAILABLE FOR SUFFIX BB, USE 4002-().
- <5> CROSS RECESS NOT AVAILABLE FOR SUFFIX BB, USE 40S5-().
- <6> 40S119 - () -1AA AND 40S119 - () -7AA PARTS WILL MEET ALL REQUIREMENTS OF BPS-168.

PART NUMBER EXAMPLE:**40S119-10-4AA**

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REV. LETTER AND DATE Y 14 MAY 13		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & ASME Y14.5M TOLERANCES:	SALES DRAWING NO.
DAF NUMBER 104411		ANGLES = $\pm 1^\circ$ FRACTIONS = $\pm 1/32$ DECIMALS .XX = $\pm .02$.XXX = $\pm .010$	40S119
			SHEET 4 OF 4