

Esterline

Engineered Materials

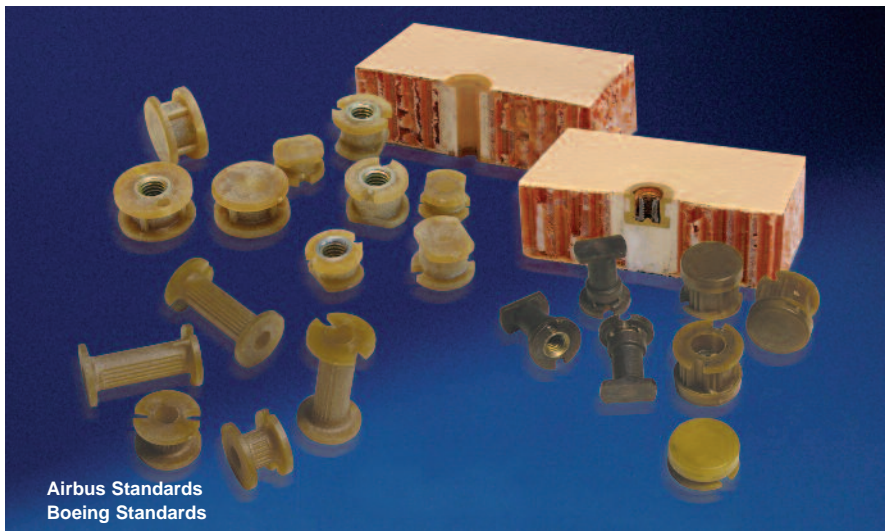
NMC Aerospace Product Guide

- *Aerospace Clamps*
- *Grommets - Bushings*
- *Wire Routing Devices*
- *Insulation Fasteners*
- *Standoffs*
- *Adhesive Bonded Fasteners*
- *Ultra-Light Honeycomb Panel Fasteners*

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HONEYCOMB PANEL FASTENERS



NMC Aerospace honeycomb panel fasteners reduce weight and cost while providing the strength and durability required for today's demanding aerospace applications.

NMC honeycomb panel fasteners are corrosion resistant, resist heat to 350°F and perform as well as, or better, than metallic counterparts. Potting compounds have excellent adhesion to these panel fasteners, yielding higher pull out strength.

Each panel fastener comes with an installation tab.

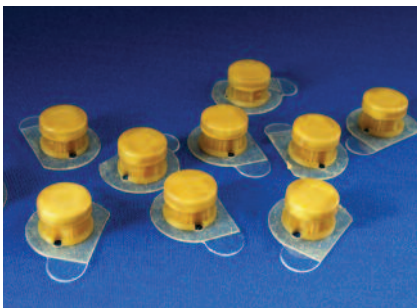
Conforms to:
BACI12AG, BACI12AH, BACI12AK,
ABS1005, ABS1006, ABS1007, and
ABS1008



NMC 1834 – honeycomb panel fasteners, available with straight-thru or counter-sunk clearance hole. Available in lengths to fit panels from 0.245 to 1.305" thick. Inserts are available in 6 popular clearance hole sizes from #06 thru .375" diameter.

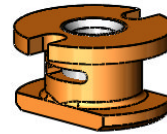
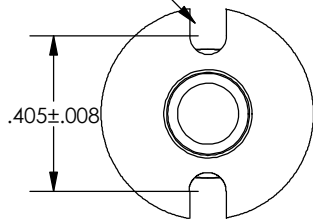


NMC 1836 – similar to the NAS 1836 metallic insert while providing superior performance at reduced weight. Blind, fixed, self-locking thread panel fasteners, available in thread sizes from #06 thru .250" in .062" increments.

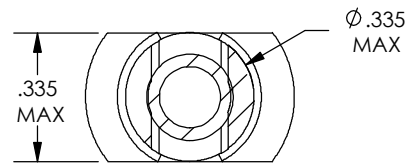
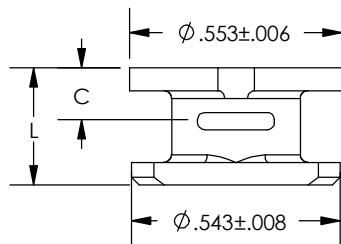


NMC 2334 – honeycomb panel fasteners with a floating nut element that can accommodate panel thicknesses from 0.200" to 1.185". Available in 7 screw sizes from #04 thru .375".

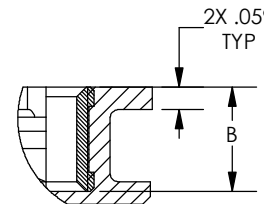
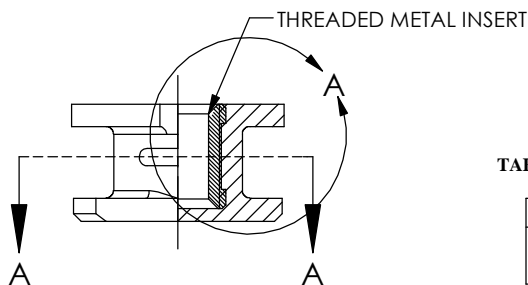
2X .096±.002.
POTTING AND
VENT HOLES



ISO VIEW



SECTION A-A



DETAIL A

TABLE III

INSERT CODE	MATERIAL	FINISH
C	CRES 303 PER ASTM A582 AND 1.4305 PER EN10099-3	PASSIVATE PER AMS2700 TYPE 2

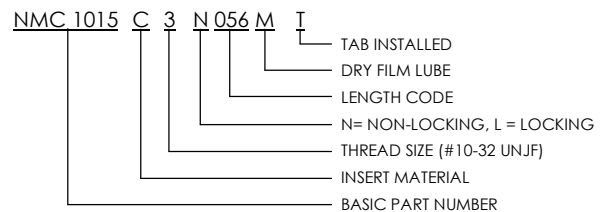
TABLE I

LENGTH CODE	B REF	C	L ±.002
056	.193	.098	.218
078	.272	.138	.305

TABLE II

SIZE CODE	THREAD
06	6-32UNJC-3B
08	8-32UNJC-3B
3	10-32UNJF-3B

SAMPLE PART NUMBER



NOTES:

- MATERIAL: ULTEM 2300 OR EQUIVALENT. FINISH: NONE.
- LOCKING TORQUE PER NASM25027.
PROCESS 5 CYCLES
- SOLID FILM LUBE PER AS5272 TYPE 1 STANDARD ON ALL SIZES



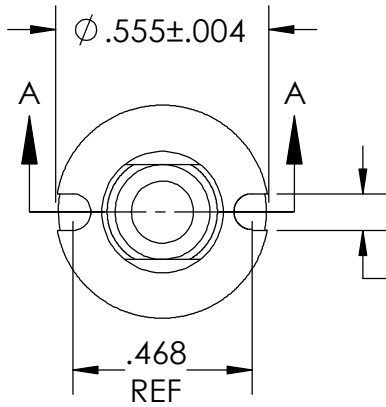
NMC AEROSPACE 2755 THOMPSON CREEK
POMONA, CA 91767-1861
www.esterline.com 909-451-2290

DWG. NO.

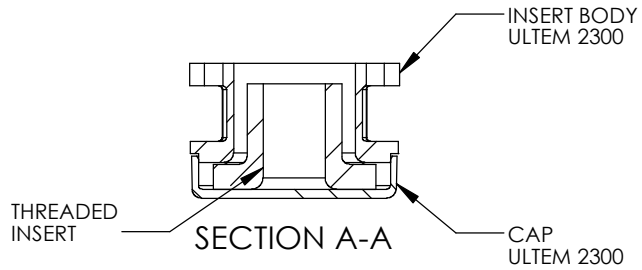
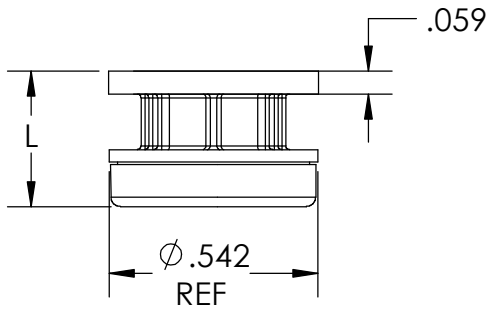
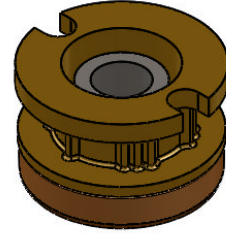
NMC 1015

**INSERT, MOLDED,
POTTED-IN**

MATERIAL: SEE NOTES			
TOLERANCES	DECIMAL		ANGULAR
		.XX ±.030	.XXX ±.010



2x .094
POTTING AND
VENTING SLOTS



LENGTH CODE	L ($\pm .002$)
060	0.234
090	0.352

NMC 1016 C 3 N 060 M I
 TAB INSTALLED
 DRY FILM LUBE
 LENGTH CODE
 N=NON-LOCKING, L=LOCKING
 THREAD SIZE (#10-32 UNJF)
 INSERT MATERIAL
 BASIC PART NUMBER

SIZE CODE	THREAD
06	6-32 UNJC-3B
08	8-32 UNJC-3B
3	10-32 UNJF-3B

INSERT CODE	MATERIAL	FINISH
C	CRES PER EN10088-3	PASSIVATE PER AMS2700 TYPE 2

NOTES:

- MATERIAL: ULTEM 2300 OR EQUIVALENT FINISH: NONE
- LOCK TORQUE PER NASM25027
PROCESS 5 CYCLES
- SOLID FILM LUBE PER AS5272 TYPE 1; STANDARD ON ALL SIZES

PATENT NUMBERS
 US 7195436
 DE 102005035200A1

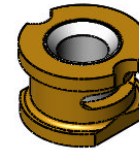
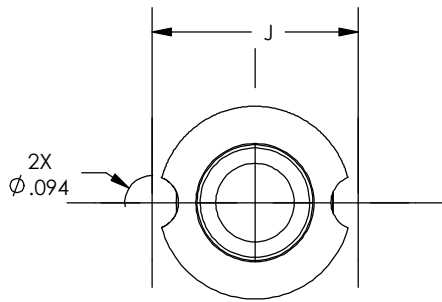


NMC AEROSPACE 2755 THOMPSON CREEK
 POMONA, CA 91767-1861
 www.esterline.com 909-451-2290

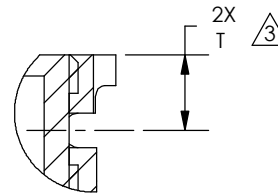
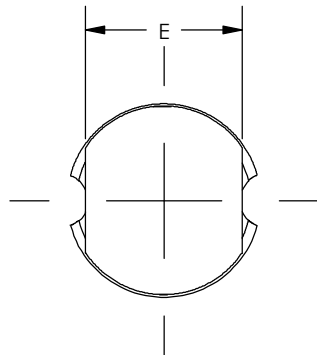
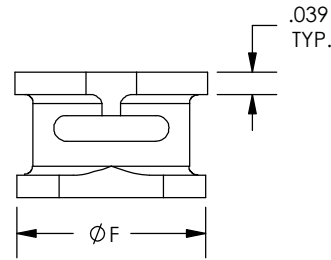
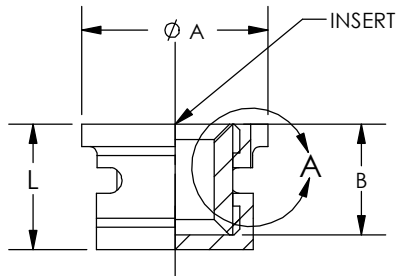
DWG. NO.
NMC 1016

**INSERT, FLOATING NUT
 ELEMENT, POTTED-IN**

MATERIAL: SEE NOTES			
TOLERANCES	DECIMAL		ANGULAR
		.XX $\pm .030$.XXX $\pm .010$



ISO VIEW



DETAIL A

TABLE III

THREAD SIZE	LENGTH CODE	Ø A ±.006	B	E	Ø F	J	L ±.002	T
06	056	.304	.193	.248	.295	.327	.2185	.098
06	078		.272				.305	.138
08	056	.335	.193	.272	.327	.358	.2185	.098
08	078		.272				.305	.138
3	056	.384	.193	.295	.374	.367	.2185	.098
3	078		.272				.305	.138

TABLE I

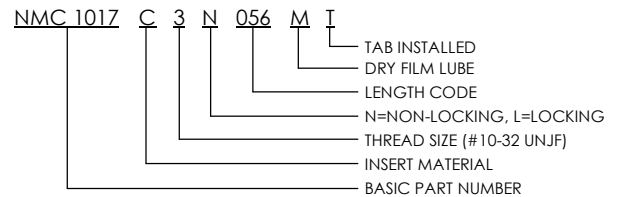
INSERT CODE	MATERIAL	FINISH
C	CRES 303 PER ASTM A582 AND 1.4305 PER EN 10099-3	PASSIVATE PER AMS2700 TYPE 2

TABLE II

SIZE CODE	THREAD
06	6-32 UNJC-3B
08	8-32 UNJC-3B
3	10-32 UNJF-3B

NOTES:

1. MATERIAL: ULTEM 2300 OR EQUIVALENT. FINISH: NONE.
2. LOCK TORQUE PER NASM25027. PROCESS 5 CYCLES
3. SOLID FILM LUBE PER AS5272 TYPE 1; STANDARD ON ALL SIZES



NMC AEROSPACE 2755 THOMPSON CREEK
POMONA, CA 91767-1861
www.esterline.com 909-451-2290

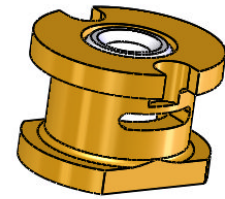
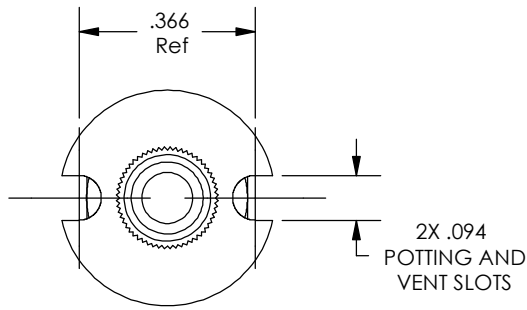
DWG. NO.

NMC 1017

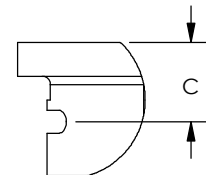
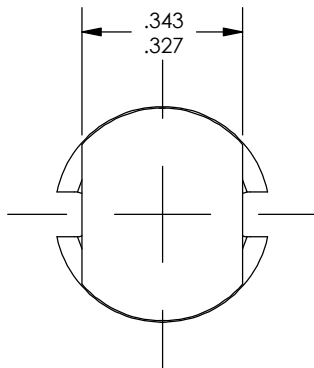
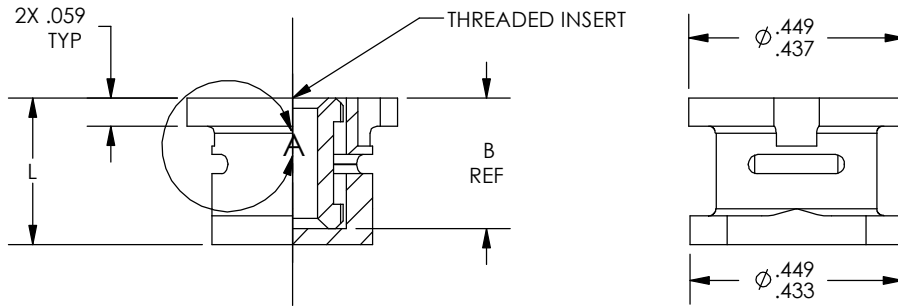
**INSERT, MOLDED,
POTTED-IN**

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



ISO VIEW



DETAIL A

TABLE I

LENGTH CODE	B REF	C	L \pm .002
056	.193	.098	.2185
078	.272	.138	.305

SAMPLE PART NUMBER

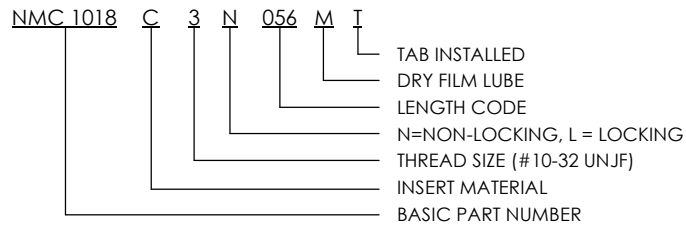


TABLE II

SIZE CODE	THREAD
06	6-32 UNJC-3B
08	8-32 UNJC-3B
3	10-32 UNJF-3B

TABLE III

INSERT CODE	MATERIAL	FINISH
C	CRES 303 PER ASTM A582 AND 1.4305 PER EN10099-3	PASSIVATE PER AMS2700

NOTES:

1. MATERIAL: ULTEM 2300 OR EQUIVALENT. FINISH: NONE
2. LOCKING TORQUE PER NASM25027
PROCESS 5 CYCLES
3. SOLID FILM LUBE PER AS5272 TYPE 1; STANDARD ON ALL SIZES



NMC AEROSPACE 2755 THOMPSON CREEK
POMONA, CA 91767-1861
www.esterline.com 909-451-2290

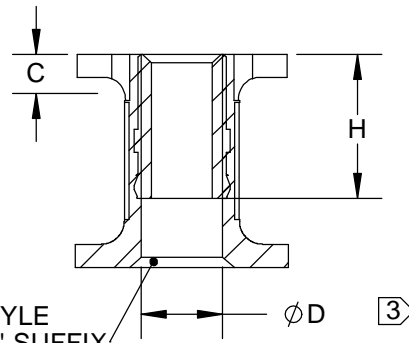
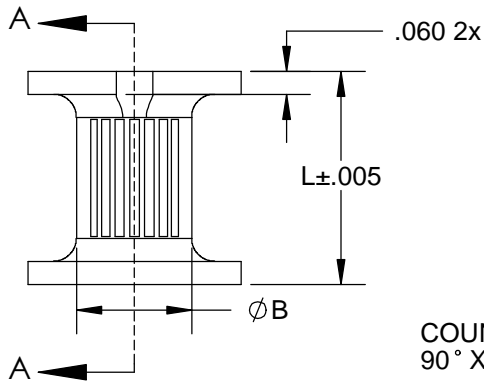
DWG. NO.

NMC 1018

INSERT, MOLDED,
POTTED-IN

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX \pm .030	.XXX \pm .010	\pm 5°



COUNTERSUNK STYLE
90° X C Ø . USE "K" SUFFIX

SECTION A-A

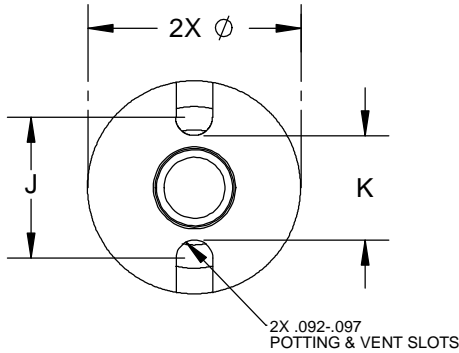


TABLE 1

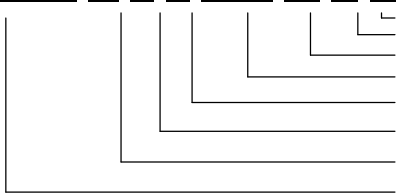
INSERT CODE	MATERIAL	FINISH
C	CRES 302,303, 303SE, 304 OR A286 PER ASTM A582, ASTM A240, AMS 5513, AMS 5516, AMS 5525, AMS 5636, AMS 5637, AMS 5638, AMS 5639, AMS 5640, AMS 5641, AMS 5727, AMS 5731, AMS 5732, AMS 5734, AMS 5737	PASSIVATE PER AMS2700 TYPE 2 SOLID FILM LUBE PER AS5272 TYPE 1
S	12L14 OR 1215 CARBON STEEL PER ASTM A108	CADMIUM PLATE PER AMS-QQ-P-416 TYPE 2, CLASS 3

FIRST DASH #	THREAD	A +.000 -.010	B	C	D CLEARANCE HOLE	C'SINK DIAMETER	H MIN	J BASIC	K	L MIN	INSTALLATION HOLE SIZE
-06	.1380-32 UNJC	.560	.30	.12	.139-.145	.162	.276	.367	.260	.255	.561-.566
-08	.1640-32 UNJC				.168-.174	.210	.328				
-3	.1900-32 UNJF				.195-.201	.250	.380				
-4	.2500-28 UNJF	.685	.37	.14	.256-.263	.312	.500	.467	.360	.315	.686-.691
-5	.3125-24 UNJF				.315-.322	.625					
-6	.3750-24 UNJF				.376-.383	.750					

- ① EACH INSERT FURNISHED WITH PLASTIC INSTALLATION TAB UNLESS OTHERWISE SPECIFIED
- ② MINIMUM LENGTH (IN .010 INCREMENTS) OF INSERT THAT MAY BE ORDERED FOR THE CORRESPONDING DIAMETER
- ③ MIN THREAD LENGTH "H" WHERE LENGTH PERMITS WILL BE 2X DIAM OF THREAD. LENGTHS SHORTER THAN 2X SHALL BE THREADED THE ENTIRE LENGTH
- ④ SOLID FILM LUBE PER AS5272 TYPE 1 STANDARD ON ALL CRES INSERTS

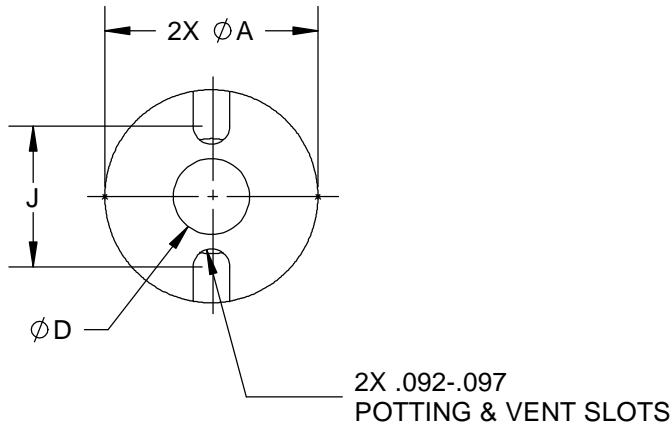
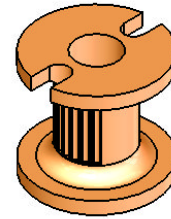
EXAMPLE OF PART NUMBER:

NMC 1833 C 3 L 375 M T K

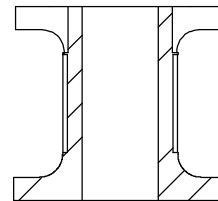
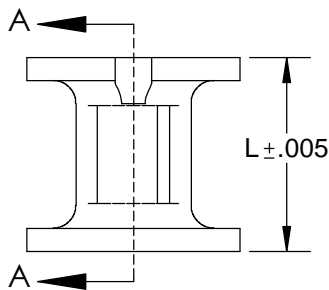


COUNTERSUNK STYLE
TAB INSTALLED
DRY FILM LUBE
LENGTH (.010 INCREMENTS)
N= NON LOCKED L= LOCK
THREAD SIZE
SEE TABLE I
BASIC PART NUMBER

	NMC AEROSPACE www.esterline.com 2755 THOMPSON CREEK POMONA, CA 91767-1861 909-451-2290	DWG. NO. NMC 1833			
	INSERT, THREADED & THRU	MATERIAL: ULTEM 2300			
		TOLERANCES	<table border="1"> <thead> <tr> <th>DECIMAL</th> <th>ANGULAR</th> </tr> </thead> <tbody> <tr> <td>.XX ±.030</td> <td>.XXX ±.010</td> </tr> </tbody> </table>	DECIMAL	ANGULAR
DECIMAL	ANGULAR				
.XX ±.030	.XXX ±.010				

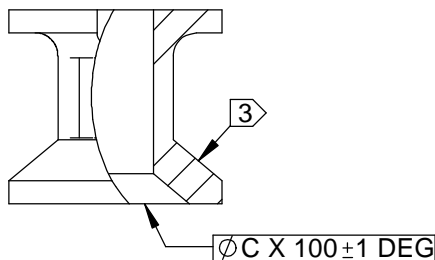


- 1 EACH INSERT FURNISHED WITH PLASTIC INSTALLATION TAB UNLESS OTHERWISE SPECIFIED
- 2 MINIMUM LENGTH (IN .010 INCREMENTS) OF INSERT THAT MAY BE ORDERED FOR THE CORRESPONDING DIAMETER
* -5 LENGTHS UNDER .305 DO NOT HAVE ANTI-ROTATION RIB FEATURE
- 3 EXTERNAL CONFIGURATION OPTIONAL IN THIS AREA FOR SHORT LENGTHS THROUGH 0.375



THRU CLEARANCE HOLE STYLE

SECTION A-A

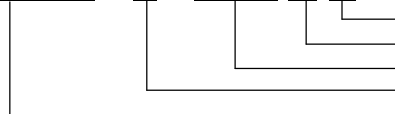


COUNTERSUNK CLEARANCE HOLE STYLE (K CODE)

FIRST DASH #	A +.000 -.010	C	D CLEARANCE HOLE	J BASIC	L MIN	INSTALLATION HOLE SIZE
-04	.560	.280	.116-.122	.367	2 .235	.561-.566
-06			.139-.145			
-08		.332	.168-.174			
-3		.385	.195-.201			
-4	.685	.507	.256-.263	.467	.305 .255*	.686-.691
-5			.625			
-6	.841	.750	.376-.383	.591	.365	.842-.847

EXAMPLE OF PART NUMBER:

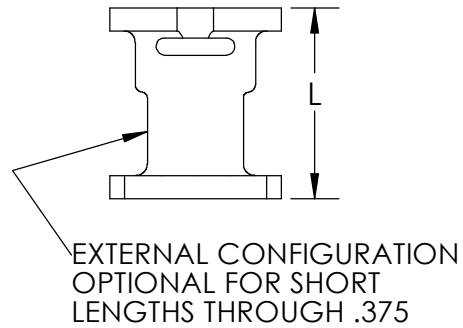
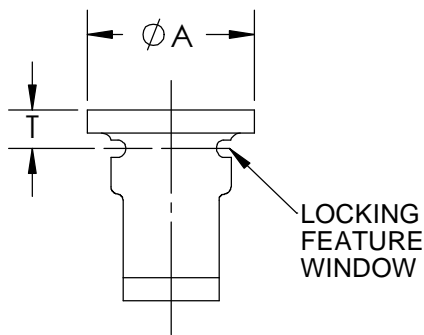
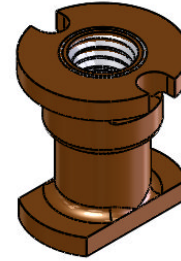
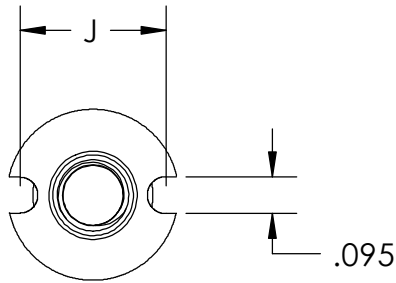
NMC 1834 - 3 - 375 K I



TAB INSTALLED
COUNTERSUNK STYLE
LENGTH (.001 INCREMENTS)
SEE TABLE I
BASIC PART NUMBER

EST. WEIGHT 1g - 2g

	NMC AEROSPACE www.esterline.com	2755 THOMPSON CREEK POMONA, CA 91767-1861 909-451-2290	DWG. NO. NMC 1834
	INSERT, CSK & THRU		MATERIAL: ULTEM 2300
			TOLERANCES
		DECIMAL .XX $\pm .030$	ANGULAR .XXX $\pm .010$
		$\pm 5^\circ$	

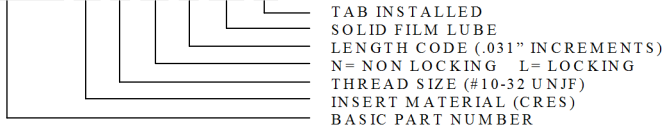


FIRST DASH NO	THREAD	DIA A +.000 -.010	J REF	L MIN	T	INSTALLATION HOLE SIZE
-06	.1380-32 UNJC	0.451	0.358	0.217	0.1	.452 - .457
-08	.1640-32 UNJC					
-3	.1900-32 UNJF	0.498	0.467	0.279	0.14	.499 - .504
-4	.2500-28 UNJF					

THREAD	L CODE	APPROXIMATE WEIGHT
.1900-32 UNJF	-12	0.96 GRAMS
.1900-32 UNJF	-16	1.04 GRAMS
.1900-32 UNJF	-24	1.18 GRAMS

SAMPLE PART NUMBER

NMC 1836 C 3 N 7 M T



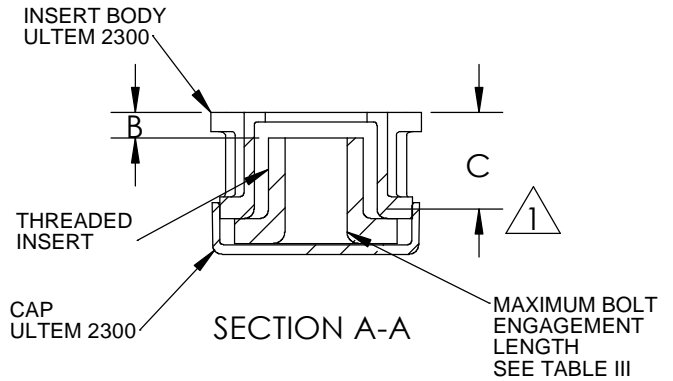
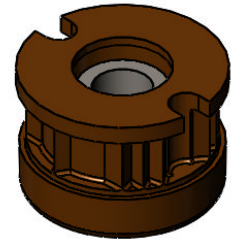
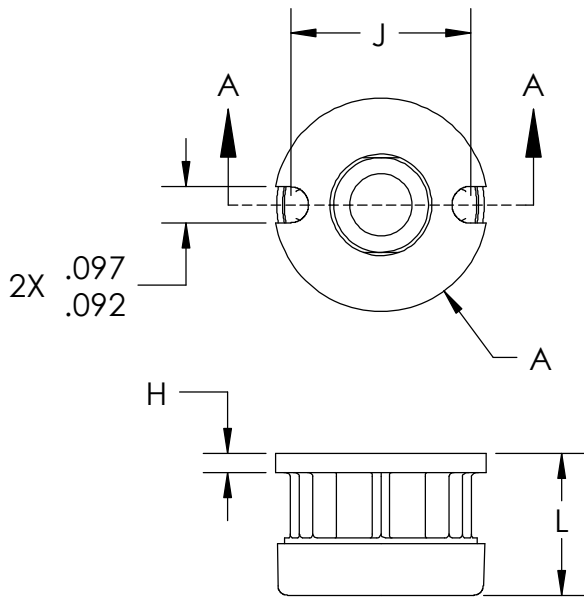
INSERT CODE	MATERIAL	FINISH
C	CRES 302,303, 303SE, 304 OR A286 PER ASTM A582, ASTM A240, AMS 5513, AMS 5516, AMS 5525, AMS 5636, AMS 5637, AMS 5638, AMS 5639, AMS 5640, AMS 5641, AMS 5727, AMS 5731, AMS 5732, AMS 5734, AMS 5737	PASSIVATE PER AMS2700 TYPE 2, SOLID FILM LUBE PER AS5272 TYPE 1
S	12L14 OR 1215 CARBON STEEL PER ASTM A108	CADMIUM PLATE PER AMS-QQ-P-416 TYPE 2, CLASS 3

NOTES:

- SOLID FILM LUBE PER AS5272 TYPE 1 STANDARD ON ALL CRES INSERTS

PATENT # 7802953

	NMC AEROSPACE www.esterline.com 2755 THOMPSON CREEK POMONA, CA 91767-1861 909-451-2290	DWG. NO. NMC 1836								
	PANEL INSERT, LIGHTWEIGHT	MATERIAL: ULTEM 2300 OR EQUIVALENT <table border="1"> <thead> <tr> <th>TOLERANCES</th> <th>DECIMAL</th> <th>ANGULAR</th> </tr> </thead> <tbody> <tr> <td></td> <td>.XX ±.030</td> <td>.XXX ±.010</td> </tr> <tr> <td></td> <td></td> <td>±5°</td> </tr> </tbody> </table>	TOLERANCES	DECIMAL	ANGULAR		.XX ±.030	.XXX ±.010		
TOLERANCES	DECIMAL	ANGULAR								
	.XX ±.030	.XXX ±.010								
		±5°								



NOTES:

- 1) THREAD LOCK -TORQUE PER NASM 25027
- 2) INSTALLATION TAB FURNISHED WITH EACH INSERT
- 3) MAXIMUM THREAD GRIP LENGTH - SEE SHEET II

TABLE I

SIZE CODE	T NOMINAL THREAD SIZE	ϕA <small>+0.000 -0.010</small>	J BASIC
04	.1120-40	0.561	0.467
06	.1380-32		
08	.1640-32		
3	.1900-32		
4	.2500-28		
5	.3125-24		
6	.3750-24	0.937	0.75

TABLE II

PANEL THICKNESS CODE	H ± 0.010	L MAX	B REF	C REF THREAD LOCK
1	0.040	0.200	0.02	0.10
2		0.240	0.06	0.14
3	0.050	0.310	0.04	0.12
4		0.350	0.08	0.18
5		0.375	0.10	0.20
6		0.455	0.05	0.15
7		0.565		
8		0.690		
9		0.815		
10		0.935		
11		1.060		
12		1.185		

MATERIAL CODE	DESCRIPTION
-	CAD PLATED CARBON STEEL, SELF-LOCKING
N	CAD PLATED CARBON STEEL, NON-LOCKING
CN	PASSIVATED CRES NUT, NON-LOCKING
CM	PASSIVATED CRES NUT, SOLID FILM LUBE, SELF-LOCKING
CMN	PASSIVATED CRES NUT, SOLID FILM LUBE, NON-LOCKING

SAMPLE PART #

NMC 2334 C 3 2 T
 ↳ TAB INSTALLED (OPTIONAL)
 ↳ PANEL THICKNESS CODE
 ↳ SIZE CODE
 ↳ INSERT MATERIAL CODE
 ↳ BASIC PART #

PATENT #'s
 US 7195436
 DE 102005035200A1

	NMC AEROSPACE 2755 THOMPSON CREEK POMONA, CA 91767-1861 909-451-2290 www.esterline.com	DWG. NO. NMC 2334				
	PANEL INSERT, FLOATING NUT ELEMENT					
	MATERIAL: ULTEM 2300					
TOLERANCES	<table border="1" style="margin: auto;"> <thead> <tr> <th>DECIMAL</th> <th>ANGULAR</th> </tr> </thead> <tbody> <tr> <td>.XX ± 0.030</td> <td>.XXX ± 0.010</td> </tr> </tbody> </table>	DECIMAL	ANGULAR	.XX ± 0.030	.XXX ± 0.010	$\pm 5^\circ$
DECIMAL	ANGULAR					
.XX ± 0.030	.XXX ± 0.010					

TABLE III	MAXIMUM BOLT ENGAGEMENT LENGTH							
LENGTH CODE	SIZE CODE							
	04	06	08	3	4	5	6	
1	0.140				---	---	---	
2	0.180				---	---	---	
3	0.250					---	---	
4	0.281							
5	0.281			0.312				
6	0.312							
7	0.437							
8	0.250	0.281		0.312	0.532			
9		0.281	0.312		0.375	0.500	0.625	0.718
10								
11								
12	0.718							



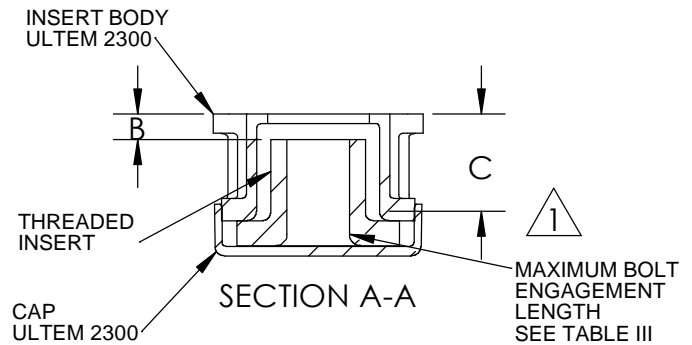
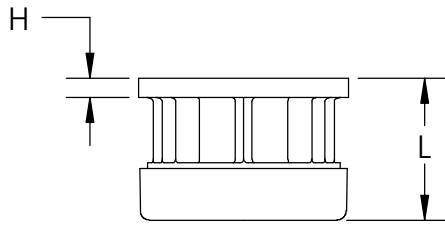
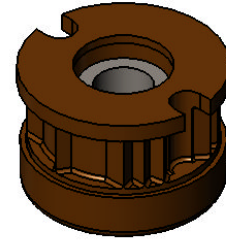
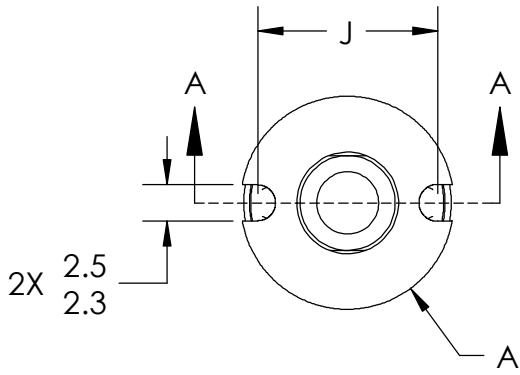
NMC AEROSPACE 2755 THOMPSON CREEK
 POMONA, CA 91767-1861
 www.esterline.com 909-451-2290

DWG. NO.
NMC 2334

**PANEL INSERT,
 FLOATING NUT ELEMENT**

MATERIAL: ULTEM 2300

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



- NOTES:
- 1) THREADS PER ISO 5855/1, ISO 5855/2, or ASME B1.21M
 - 2) THREAD LOCK -TORQUE PER NASM 25027
 - 3) INSTALLATION TAB FURNISHED WITH EACH INSERT
 - 4) MAXIMUM THREAD GRIP LENGTH - SEE SHEET II TABLE III

TABLE I

SIZE CODE	T NOMINAL THREAD SIZE	ϕA ^{+0.00} _{-0.25}	ϕJ BASIC
M4	MJ4 X 0.7 4H6H	14.25	11.8
M5	MJ5 X 0.8 4H6H		

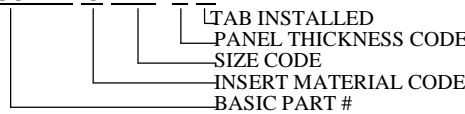
MATERIAL CODE	DESCRIPTION
-	CAD PLATED CARBON STEEL, SELF-LOCKING
N	CAD PLATED CARBON STEEL, NON-LOCKING
CM	PASSIVATED CRES NUT, SOLID FILM LUBE, SELF-LOCKING
CMN	PASSIVATED CRES NUT, SOLID FILM LUBE, NON-LOCKING

TABLE II

PANEL THICKNESS CODE	H \pm .25	L MAX	B REF	C REF THREAD LOCK
1	1.0	5.1	0.5	2.5
2		6.1	1.5	3.6
3	1.3	7.9	1.0	3.1
4		8.9	2.0	4.6
5		9.5	2.5	5.1
6		11.6	1.3	3.8
7		14.4		
8		17.5		
9		20.7		
10		23.7		
11		26.9		
12		30.1		

SAMPLE PART #

NMC 2334M C M4 2 T



PATENT NUMBERS
 US 7195436
 DE 102005035200A1

	NMC AEROSPACE www.esterline.com 2755 THOMPSON CREEK POMONA, CA 91767-1861 909-451-2290	DWG. NO. NMC 2334M						
	PANEL INSERT, FLOATING NUT ELEMENT, METRIC							
	MATERIAL: NOTED TOLERANCES							
	<table border="1" style="font-size: small;"> <tr> <td></td> <td>DECIMAL</td> <td>ANGULAR</td> </tr> <tr> <td>.XX \pm.030</td> <td>.XXX \pm.010</td> <td>$\pm 5^\circ$</td> </tr> </table>		DECIMAL	ANGULAR	.XX \pm .030	.XXX \pm .010	$\pm 5^\circ$	
	DECIMAL	ANGULAR						
.XX \pm .030	.XXX \pm .010	$\pm 5^\circ$						

TABLE III	MAXIMUM BOLT ENGAGEMENT LENGTH (mm)						
LENGTH CODE	SIZE CODE						
	04	06	08	3	4	5	6
1	3.6			---	---	---	---
2	4.6			---	---	---	---
3	6.4				---	---	---
4	7.1						
5	7.1			7.9			
6	6.4	7.1	7.9	9.5	11.1		
7					13.5		
8					12.7	15.9	18.2
9							
10							
11							
12							



NMC AEROSPACE 2755 THOMPSON CREEK
 POMONA, CA 91767-1861
 www.esterline.com 909-451-2290

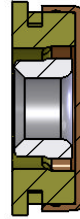
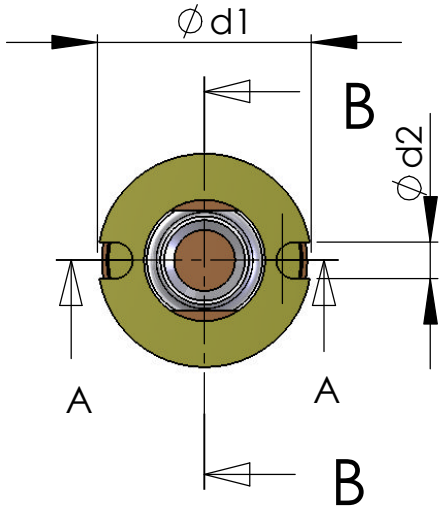
DWG. NO.

NMC 2334M

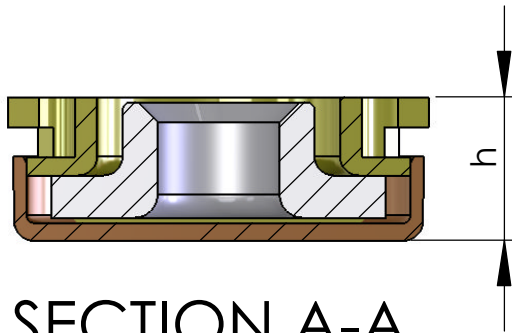
**PANEL INSERT, FLOATING NUT
 ELEMENT, METRIC**

MATERIAL: NOTED

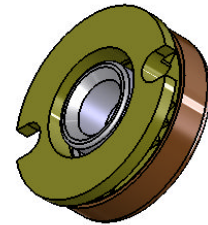
TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



SECTION B-B



SECTION A-A
SCALE 4 : 1



NOTES:

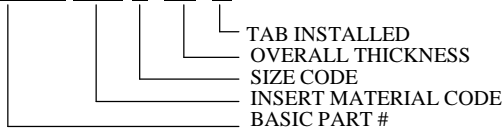
- 1) LOCKING TORQUE PER NASM 25027
- 2) INSTALLATION TAB FURNISHED WITH EACH INSERT
- 3) THREADED INSERT
MATERIAL 303 CRES PER ATSM A 582
DRY FILM LUBE PER MIL-PRF-46010F
PASSIVATE PER LN9368-1200
- 4) MATERIAL ULTEM 2300
BODY AND CAP

TABLE

DASH No.	THREAD	Ød1 +0 -0 .008	Ød2	h +0 -0.004
-48	1900-32UNJF-3B	.559	.094	.189

SAMPLE PART #

NMC 2335 CM 3 48 T



PATENT NUMBERS
US 7195436
DE 102005035200A1



NMC AEROSPACE 2755 THOMPSON CREEK
POMONA, CA 91767-1861
www.esterline.com 909-451-2290

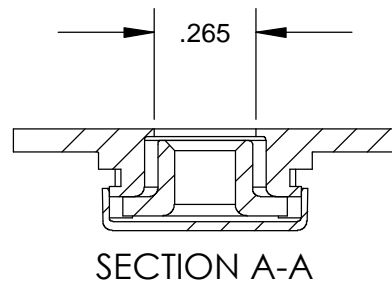
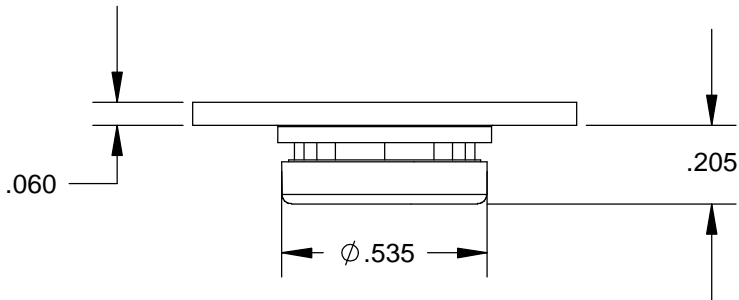
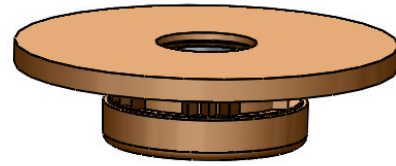
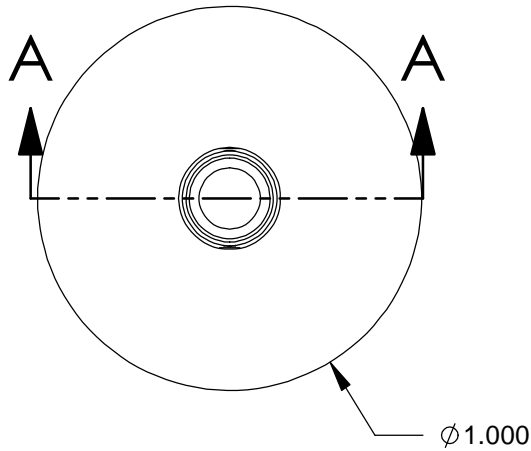
DWG. NO.

NMC 2335

**PANEL, INSERT FLOATING
NUT ELEMENT 4.8mm**

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

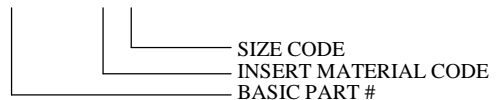


MATERIAL CODE	DESCRIPTION
-	CAD PLATED CARBON STEEL, SELF-LOCKING
N	CAD PLATED CARBON STEEL, NON-LOCKING
CM	PASSIVATED CRES NUT, SOLID FILM LUBE, SELF-LOCKING
CMN	PASSIVATED CRES NUT, SOLID FILM LUBE, NON-LOCKING

SIZE CODE	T NOMINAL THREAD SIZE
06	.1380-32
08	.1640-32
3	.1900-32

SAMPLE PART #

NMC 3338 CN 3



NOTES:

- RECOMMENDED INSTALLATION HOLE DIAMETER: 0.562"-0.565"

MATERIAL: BODY - ULTEM 2300 OR EQUIVALENT

ESTIMATED WEIGHT: 2.7 g

PATENT NUMBERS
US 7195436
DE 102005035200A1

	NMC AEROSPACE www.esterline.com 2755 THOMPSON CREEK POMONA, CA 91767-1861 909-451-2290	DWG. NO. <h1>NMC 3338</h1>			
	<h2>INSERT, FLOATING THIN POTTED PANELS</h2>	MATERIAL: SEE NOTES			
		TOLERANCES	<table border="1"> <thead> <tr> <th>DECIMAL</th> <th>ANGULAR</th> </tr> </thead> <tbody> <tr> <td>.XX ±.030</td> <td>.XXX ±.010 ±5°</td> </tr> </tbody> </table>	DECIMAL	ANGULAR
DECIMAL	ANGULAR				
.XX ±.030	.XXX ±.010 ±5°				

LIGHTWEIGHT FASTENER SYSTEM



Push-In, Screw-Out Fasteners

Push-In, Screw-Out Fasteners

The Push-In, Screw-Out Fastener NMC-JG is the key to this family of fasteners. The components are made of engineered thermoplastics—approved and used for years by major aircraft manufacturers.

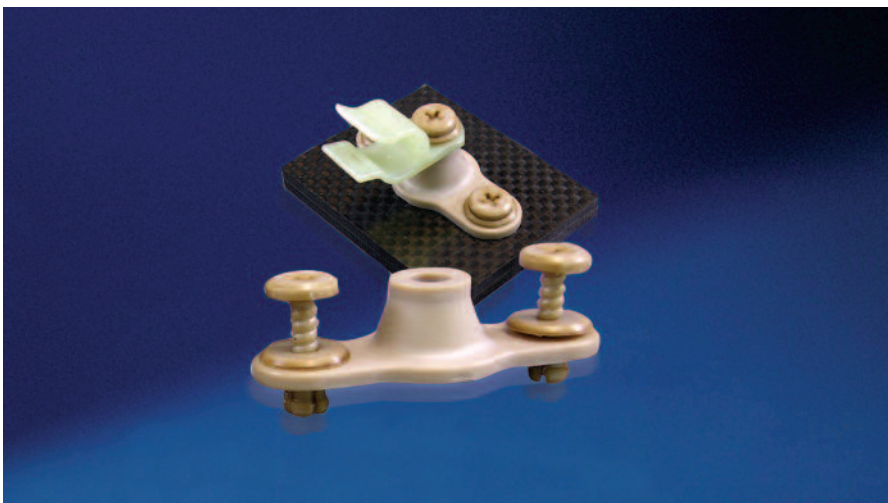


NMC JG Assembly



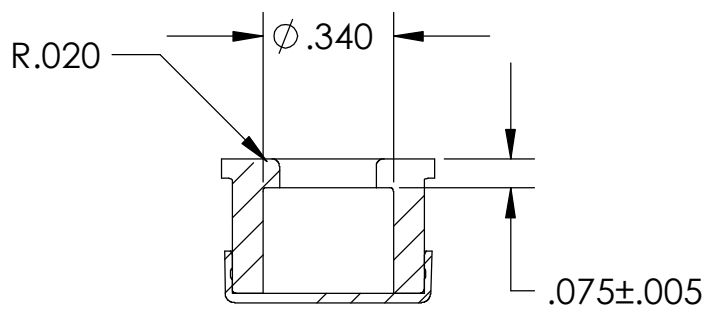
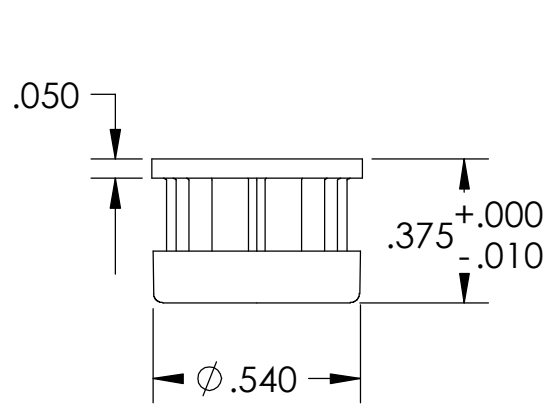
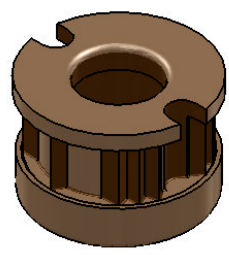
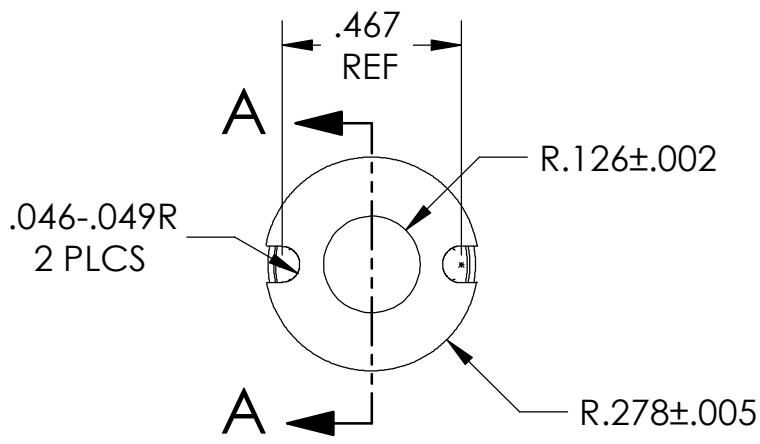
NMC 3334 and NMC 3335

Panel Fasteners – Developed for attaching to Honeycomb Panels and use with the NMC Push-In, Screw-Out fastener.



NMC AC Special Standoff

Designed for use with the Push-In, Screw-Out fastener.



SECTION A-A

NOTES:

1. INSTALLATION TAB WILL BE INSTALLED WITH EACH INSERT
2. RECOMMENDED INSTALLATION HOLE DIAMETER: 0.562" - 0.565"
3. TO ORDER PART WITH NO INSTALLATION TAB, PART CODE IS:

NMC 3334NT

MATERIAL:

ULTEM 2300 OR EQUIVALENT

EST. WEIGHT .95g

PATENT NUMBERS
 US 7195436
 DE 102005035200A1



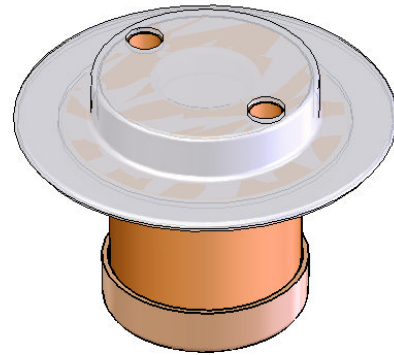
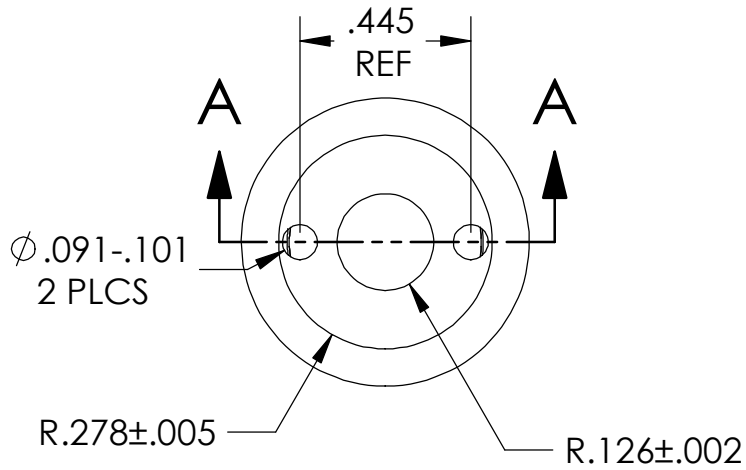
NMC AEROSPACE 2755 THOMPSON CREEK
 POMONA, CA 91767-1861
 www.esterline.com 909-451-2290

DWG. NO.
NMC 3334

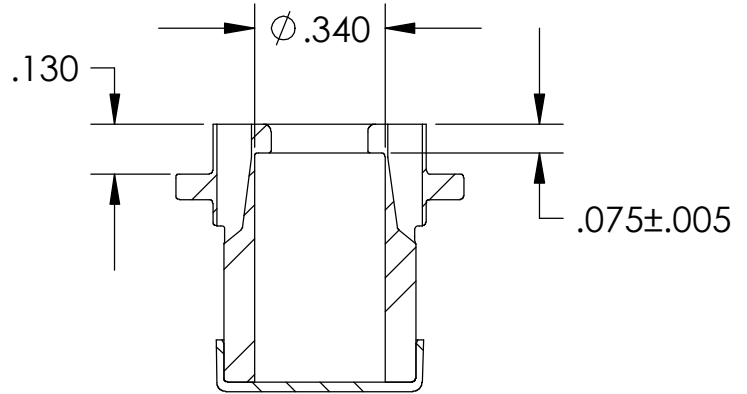
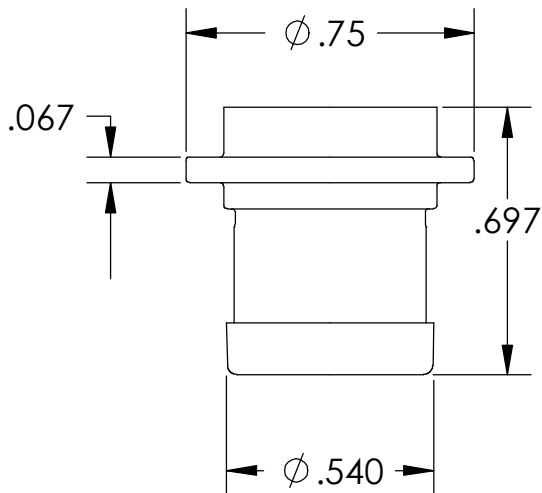
**PANEL FASTENER,
 POTTED PANEL**

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



SHOWN WITH
INSTALLATION TAB



SECTION A-A

NOTES:

1. INSTALLATION TAB WILL BE INSTALLED WITH EACH INSERT
2. RECOMMENDED INSTALLATION HOLE DIAMETER: 0.562" - 0.565"
3. TO ORDER PART WITH NO INSTALLATION TAB, PART CODE IS:

NMC 3335NT

MATERIAL:

ULTEM 2300 OR EQUIVALENT

EST. WEIGHT 2.6g

PATENT NUMBERS
US 7195436
DE 102005035200A1



NMC AEROSPACE
www.esterline.com
2755 THOMPSON CREEK
POMONA, CA 91767-1861
909-451-2290

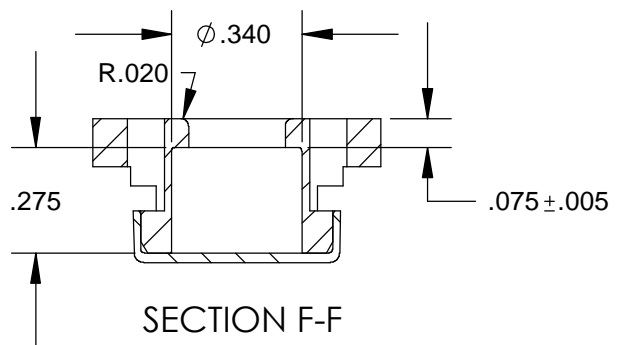
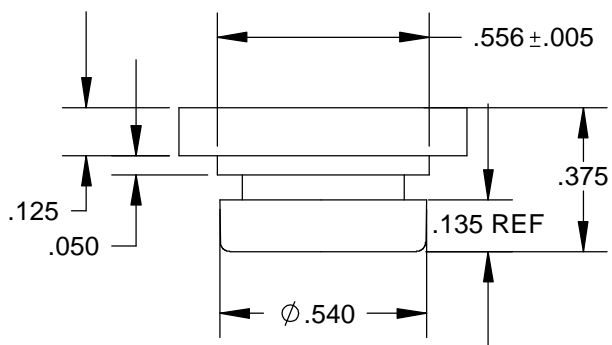
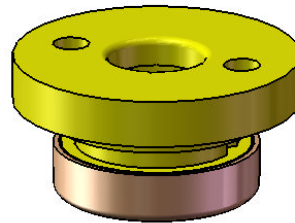
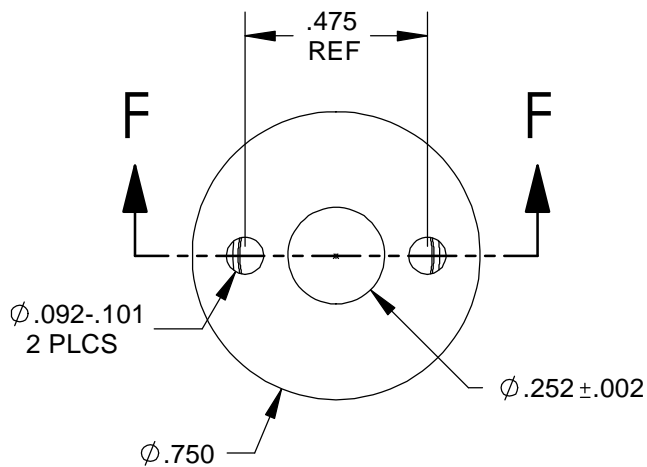
DWG. NO.

NMC 3335

**PANEL FASTENER,
POTTED PANEL**

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



NOTES:

1. INSTALLATION TAB WILL BE INSTALLED WITH EACH INSERT
2. RECOMMENDED INSTALLATION HOLE DIAMETER: 0.562"-0.565"
3. TO ORDER PART WITH NO INSTALLATION TAB, PART CODE IS:
NMC 3336NT

MATERIAL:

ULTEM 2300 OR EQUIVALENT

PATENT NUMBERS
US 7195436
DE 102005035200A1



NMC AEROSPACE 2755 THOMPSON CREEK
POMONA, CA 91767-1861
www.esterline.com 909-451-2290

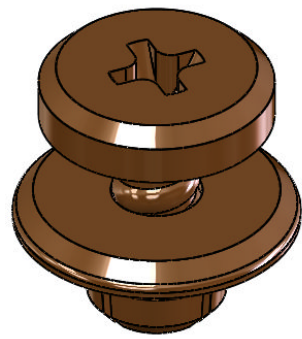
DWG. NO.

NMC 3336

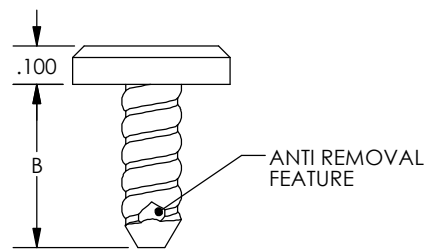
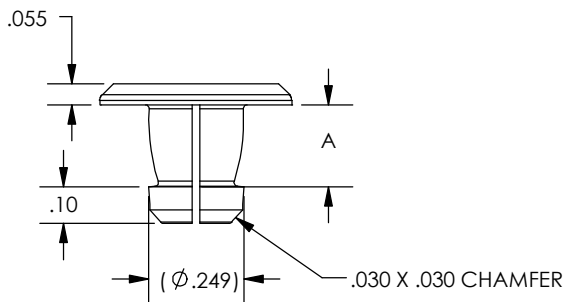
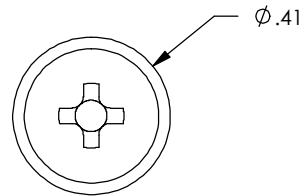
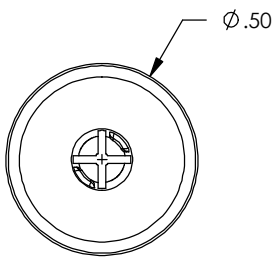
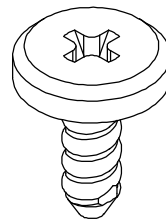
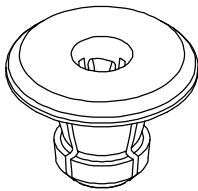
**INSERT BODY, THIN
POTTED PANELS**

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



PUSH IN SCREW OUT ASSEMBLY



PUSH IN SCREW OUT INSERT

PUSH IN SCREW OUT SCREW



NMC AEROSPACE 2755 THOMPSON CREEK
POMONA, CA 91767-1861
www.esterline.com 909-451-2290

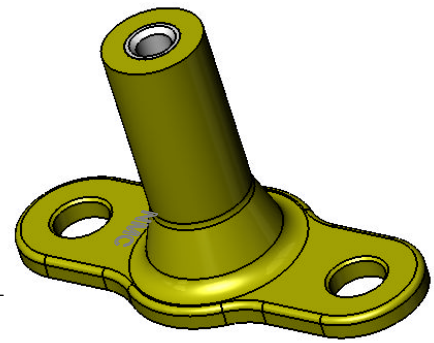
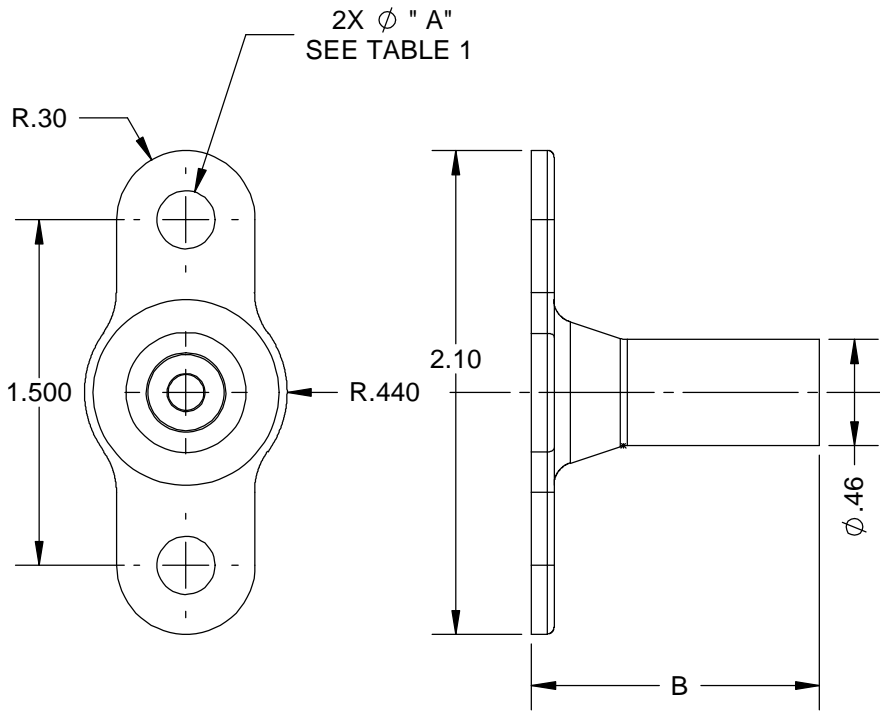
DWG. NO.

NMCS12JG

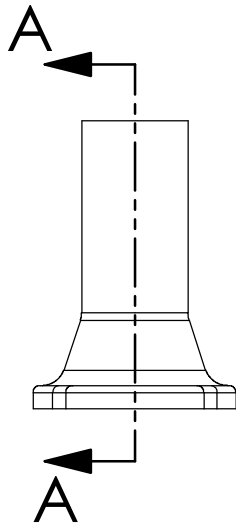
**SCREW ASSEMBLY, PUSH
IN - SCREW OUT**

MATERIAL: SEE NOTES

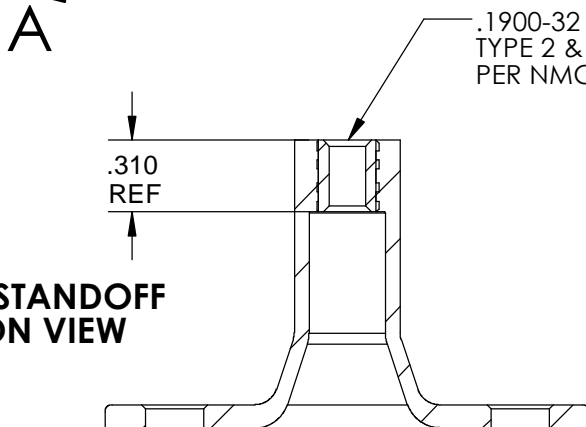
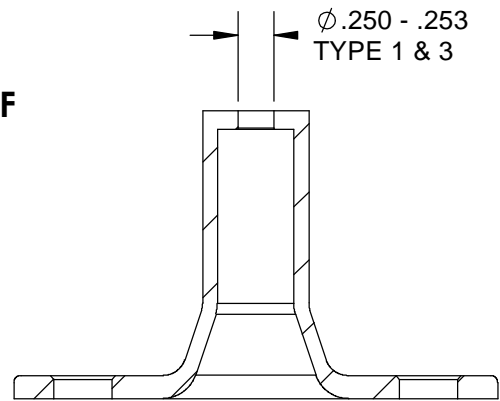
TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



COMMON DIMENSIONS



TYPE 1 & 3 STANDOFF SECTION VIEW



TYPE 2 STANDOFF SECTION VIEW

.1900-32 UNJF-3B THREAD INSERT
TYPE 2 & 4
PER NMCIS6003C3L310M



NMC AEROSPACE 2755 THOMPSON CREEK
POMONA, CA 91767-1861
www.esterline.com 909-451-2290

DWG. NO.

NMCS31AC

**SUPPORT, STANDOFF
SUB-SYSTEM ATTACHMENT,
VERTICAL**

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

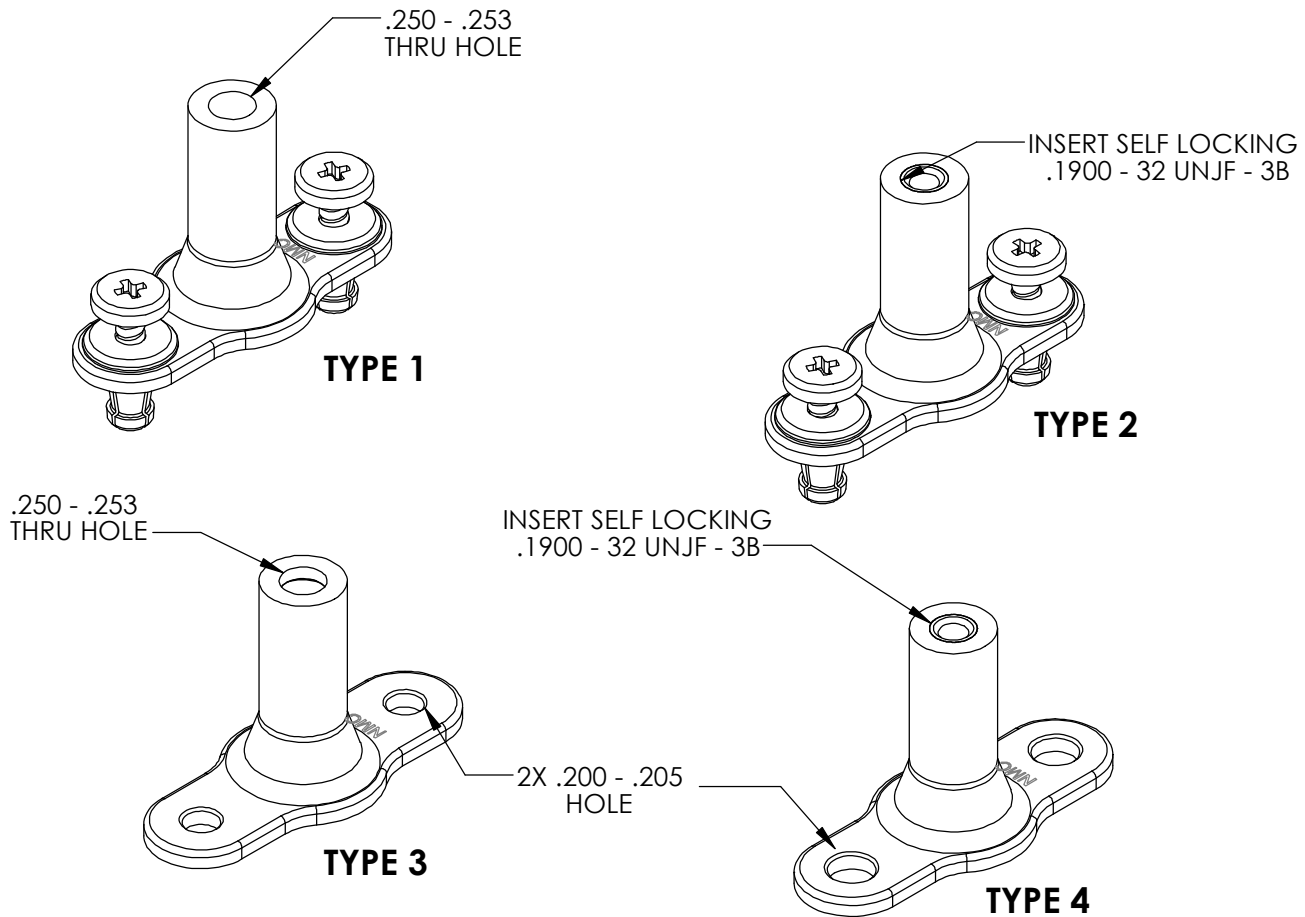


FIGURE II: STANDOFF TYPES

TABLE I: NMCS31AC TYPES

MODEL TYPES	A MOUNTING HOLE (INCH)	NMCS12JG with ASSY
1	.254-.257 THRU HOLE	YES
2	.254-.257 THRU HOLE	YES
3	.200-.205 THRU HOLE	NO
4	.200-.205 THRU HOLE	NO

TABLE II: NMCS31AC BOSS HEIGHT

B NMC AC BOSS HEIGHT	H BOSS HEIGHT,
A	.50
B	.75
C	1.00
D	1.25



NMC AEROSPACE 2755 THOMPSON CREEK
POMONA, CA 91767-1861
www.esterline.com 909-451-2290

DWG. NO.

NMCS31AC

SUPPORT, STANDOFF
SUB-SYSTEM ATTACHMENT,
VERTICAL

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

TABLE III

NMCS31AC TYPE 1 AND 2 WITH CORRESPONDING FASTENER			
CODE	GRIP	STRUCTURAL GAGE RANGE	CORRESPONDING NMCS12JG
080	0.080	.065 - .085	NMCS12JG180P
100	0.100	.085 - .105	NMCS12JG200P
120	0.120	.105 - .125	NMCS12JG220P
140	0.140	.120 - .145	NMCS12JG240P
160	0.160	.145 - .165	NMCS12JG260P
180	0.180	.165 - .185	NMCS12JG280P
200	0.200	.185 - .205	NMCS12JG300P
220	0.220	.205 - .225	NMCS12JG320P
240	0.240	.225 - .245	NMCS12JG340P
260	0.260	.245 - .265	NMCS12JG360P
280	0.280	.265 - .285	NMCS12JG380P

MATERIAL:

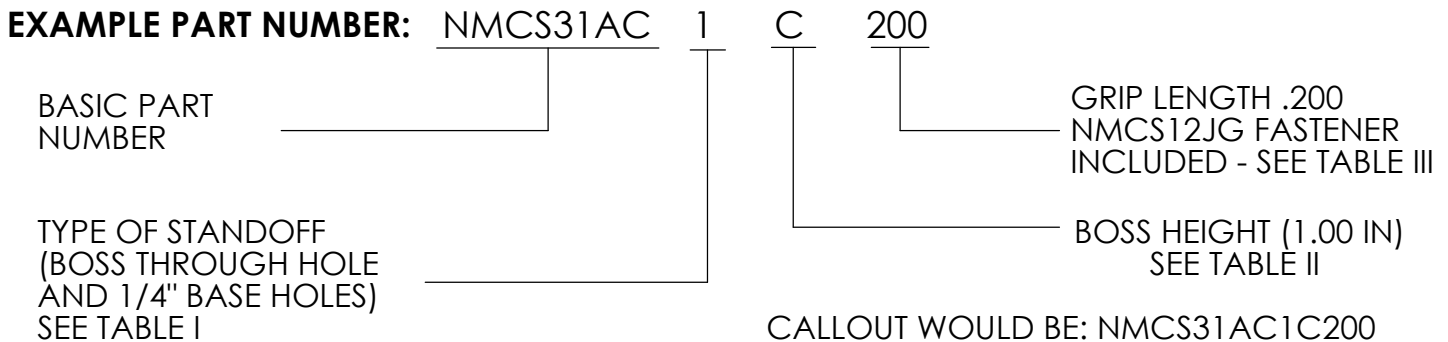
STANDOFF: POLYETHERETHERKETONE (PEEK) PER BMS8-317, TYPE III, CLASS 1, FORM A

INSERT: 302 CRES PER AMS 5516, AMS 5636 OR AMS 5637
 303 CRES PER AMS 5640
 304 CRES PER AMS 5513 OR AMS 5639

LUBE: PER AS5272 TYPE 1

FINISH:

CRES: PASSIVATE PER AMS2700, METHOD 1, TYPE 6, 7 OR 8; OR METHOD 2



	NMC AEROSPACE www.esterline.com 2755 THOMPSON CREEK POMONA, CA 91767-1861 909-451-2290	DWG. NO. NMCS31AC							
	SUPPORT, STANDOFF SUB-SYSTEM ATTACHMENT, VERTICAL	MATERIAL: SEE NOTES							
		<table border="1"> <tr> <th>TOLERANCES</th> <th>DECIMAL</th> <th>ANGULAR</th> </tr> <tr> <td></td> <td>.XX ±.030</td> <td>.XXX ±.010</td> </tr> <tr> <td></td> <td></td> <td>±5°</td> </tr> </table>	TOLERANCES	DECIMAL	ANGULAR		.XX ±.030	.XXX ±.010	
TOLERANCES	DECIMAL	ANGULAR							
	.XX ±.030	.XXX ±.010							
		±5°							



NMC Swiftbond™ Adhesive Bonded Fasteners

NMC has expanded its line of wire and cable management products with the introduction of Swiftbond adhesive bonded fasteners and cable supports.

The Swiftbond line consists of a wide range of standoffs, angle brackets, cable tie mounts, mounts with clamps, stud mounts, nut plates, and threaded insert attachments.

Swiftbond products feature an integrated clamping fixture. For ease of installation and reduced installation labor, a structural adhesive is applied to the attachment assembly. Acrylic or epoxy adhesives can be used, depending on the application's requirements. Protective film is removed from the pressure sensitive adhesive on the clamping fixture. The assembly is then pressed onto the structure surface. The clamping fixture is actuated applying uniform pressure to the structural adhesive while it cures. The clamping fixture is removed after cure is achieved.

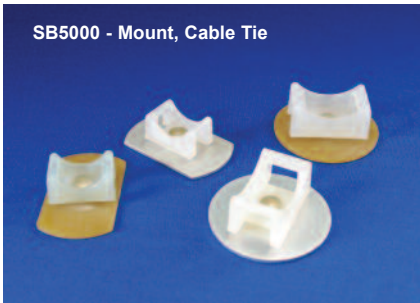
The result is an attachment point that has been reliably secured to the structure without drilling holes. Structural integrity is not compromised and labor is reduced.

Components are available in carbon /fiber/epoxy, glass fiber/epoxy, steel, or aluminum.



**NMC SB3000 Series
Bond Insulation Fastener**

Base is made of Ultem 2300 and retainer is made of Ultem 1000. Available in round or trimmed base and three different lengths.

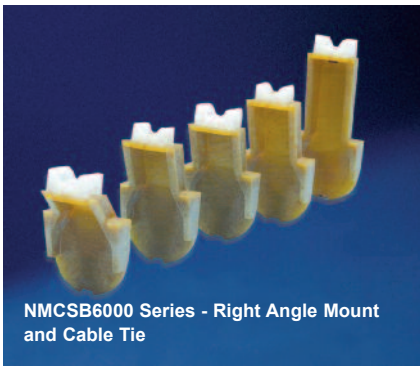


SB5000 - Mount, Cable Tie

**NMC SB5000 Mount
Cable Tie**

Base is made of Ultem 2300. Cable tie mount is available in Nylon 6/6 or Ultem 1000. Cable tie mount swivels 360° and is available in three sizes. BACM14L

Baseplates are available in carbon fiber/epoxy, glass fiber/epoxy, steel, aluminum.



NMCSB6000 Series - Right Angle Mount and Cable Tie

**NMC SB6000 Series
Right Angle Mount**

Made of Ultem 2300 capable of 350°F operating environments. Available in five lengths, trimmed or untrimmed. Cable tie mount is available in Nylon 6/6 or Ultem 1000.



NMCSB6010 - Right Angle Mount

**NMC SB6010
Right Angle Mount**

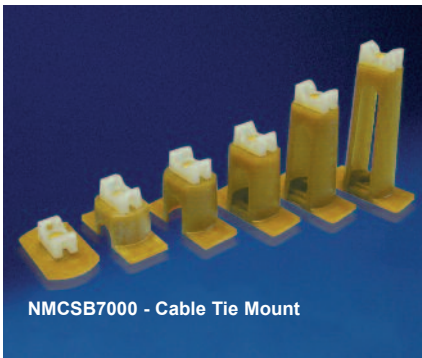
Self-locking floating nut plate. Available in #8-32 or #10-32 threads. Conforms to: BACM14H, ABS1545



NMCSB6030 - Right Angle Mount

**NMC SB6030
Right Angle Mount**

Available in #8-32 or #10-32 threads. Self-locking clip nut.



NMCSB7000 - Cable Tie Mount

**NMCSB7000
Standoff Cable Tie Mount**

Cable tie mount is available in nylon 6/6 or Ultem 1000. Cable tie mount swivels 360° and is available in three sizes. Conforms to: BACM14K



NMCSB7010 - Standoff Self-Locking Floating Nut Plate

**NMC SB7010
Standoff Self-Locking Floating Nut Plate**

Made of Ultem 2300. Available in 5 different lengths from .500"-2.00" and #8-32 or #10-32 threads.



NMCSB8000 Series - Standoff Spacer with Insert

**NMC SB8000 Series
Standoff Spacer with Insert**

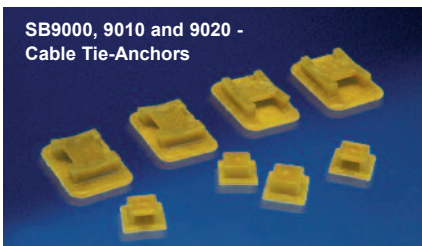
Available in 18 lengths, trimmed or untrimmed. #6-32, #8-32, #10-32 threads are available. Conforms to: BACS2IDZ, ABS1546



NMCSB8110 - Stud Bonded Threaded

**NMC SB8110
Stud Bonded Threaded**

Base options include locating pin, trimmed or untrimmed. Studs are available in length increments of .0625". #6-32, #8-32, #10-32 threads in Stainless Steel. Conforms to: BACS21DY, ABS1717



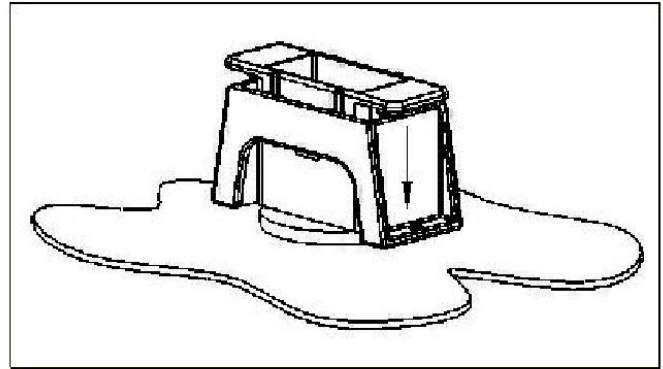
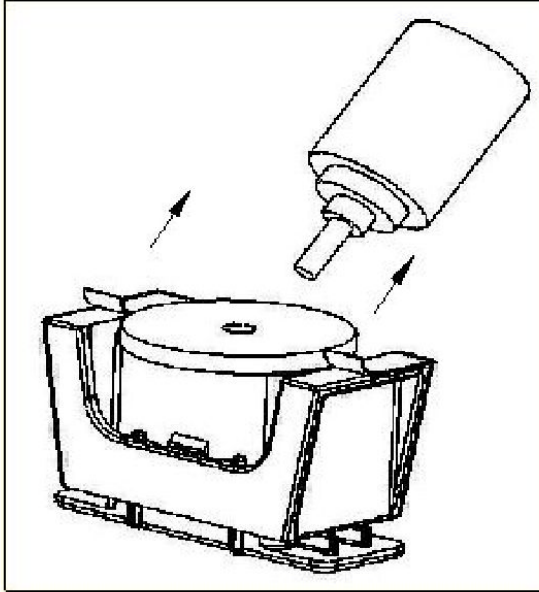
SB9000, 9010 and 9020 - Cable Tie-Anchors

**NMC SB9000 Anchor
NMC SB9010 Transverse Anchor
NMC SB9020 Small Anchor**

Made from Ultem.

SWIFTBOND BY NMC

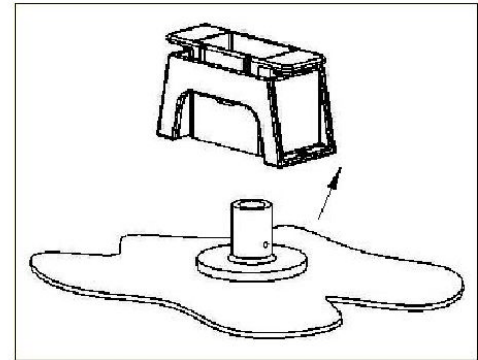
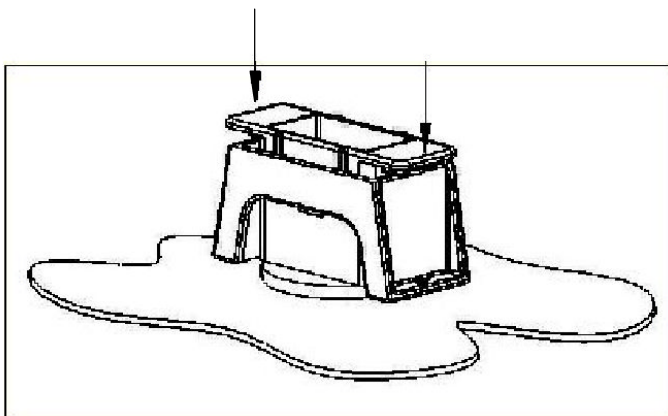
1. PREPARE SURFACE OF STRUCTURE. MAKE SURE THE SURFACE IS CLEAN AND DOES NOT HAVE ANY DUST
2. PLACE THE FIXTURE ON ITS TOP AND REMOVE TAPE FROM PRESSURE SENSITIVE PADS. APPLY ADHESIVE TO BASE OF FASTENER
3. LOCATE THE FIXTURE ON STRUCTURE USING ALIGNMENT CROSS. ONCE ALIGNED PRESS DOWN ON OUTER FIXTURE TO ADHERE TO STRUCTURE



SWIFTBOND BY NMC

4. PRESS DOWN ON INNER FIXTURE PADS TO ENGAGE. (DO NOT PRESS THE FASTENER) ONCE ENGAGED THE EXCESS ADHESIVE WILL BE SQUEEZED OUT AND THE FIXTURE WILL HOLD THE FASTENER IN PLACE WHILE THE ADHESIVE CURES.

5. ONCE THE ADHESIVE HAS CURED, REMOVE THE FIXTURE WITH PLIERS PULLING IT OFF THE STRUCTURE. DISCARD THE FIXTURE.



PATENT # 7294385



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SWIFTBOND INSTALLATION INSTRUCTIONS

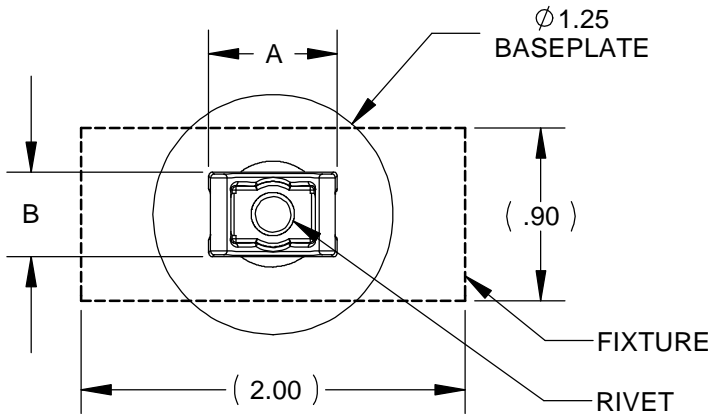
ASSEMBLY INSTRUCTIONS

MATERIAL: SEE NOTES

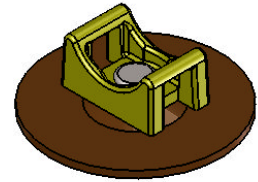
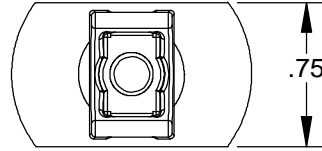
DWG. NO. TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

SWIFTBOND BY NMC

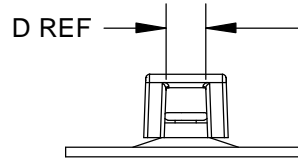
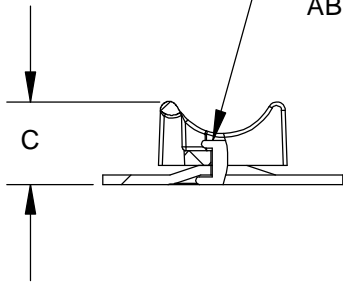
STANDARD BASE



OPTIONAL TRIMMED BASE



MOUNT SWIVELS 360° ABOUT RIVET AXIS

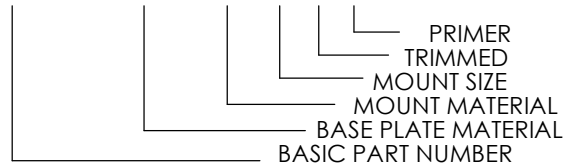


OPTIONAL PRIMER THIS SURFACE

SWIFTBOND BY NMC

MOUNT SIZE				
ID	A REF	B REF	C REF	D REF
1	.560	.340	.37	.115
2	.668	.440	.43	.205
3	.925	.562	.52	.326

NMC SB5000 AA UM 1 I P



BASE PLATE MATERIAL		
ID	MATERIAL	FINISH
AA	5052 OR 6061 ALUMINUM	ANODIZE
UG	PEI	N/A
C	302,303,304 CRES	PASSIVATE

MOUNT MATERIAL		
ID	MATERIAL	SPEC
NY	NYLON	PA111 - ASTM D4066
NH	NYLON 66 HS	PA121 - ASTM D4066
UM	PEI	ULTEM 1000 OR EQUIVALENT

PATENT # 7294385

EST. WEIGHT 2.7g



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DWG. NO.

NMC SB5000

MOUNT, CABLE TIE

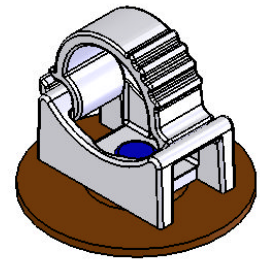
MATERIAL: SEE CHART

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

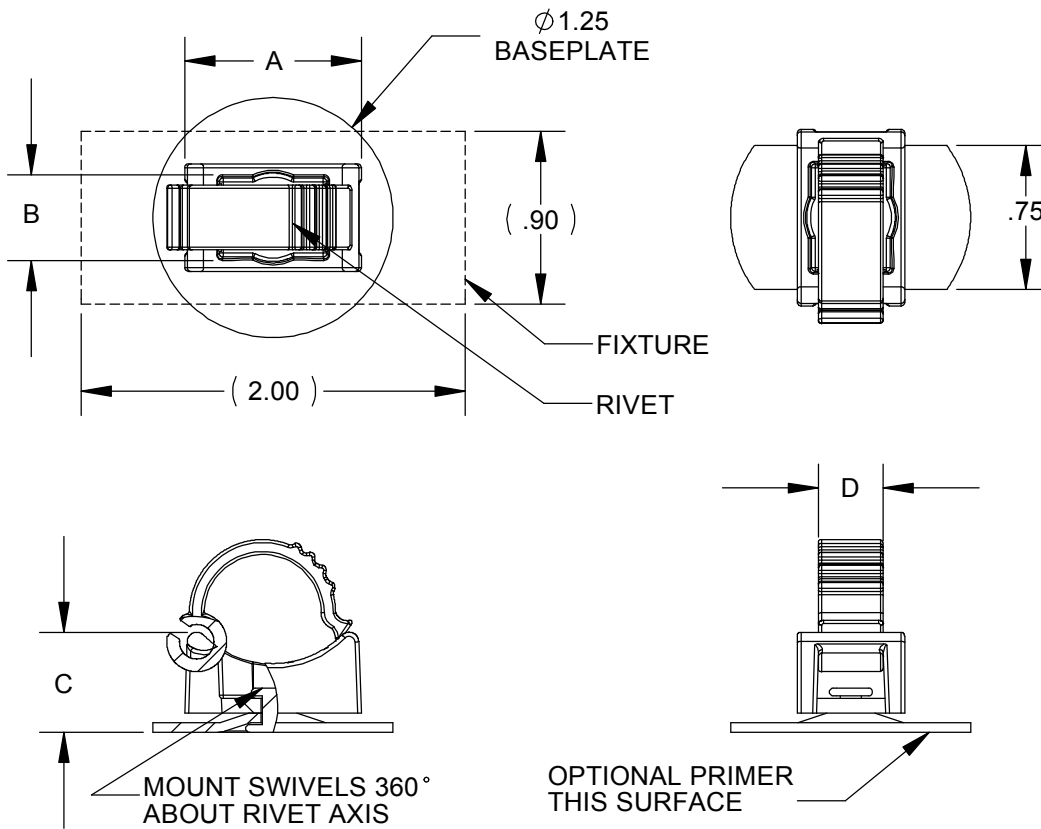
SWIFTBOND BY NMC

STANDARD BASE

OPTIONAL TRIMMED BASE



ISO VIEW



SWIFTBOND BY NMC

MOUNT SIZE

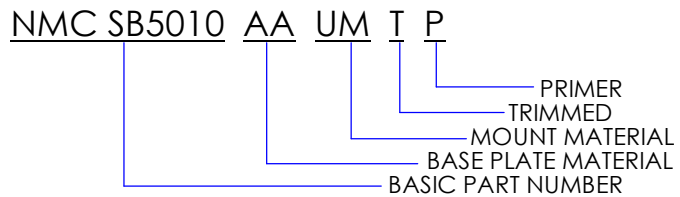
A REF	B REF	C REF	D REF
.925	.562	.428	.326

MOUNT MATERIAL

ID	MATERIAL	SPEC
NY	NYLON	PA111 - ASTM D4066
NH	NYLON 66 HS	PA121 - ASTM D4066
UM	PEI	ULTEM 1000 OR EQUIVALENT

BASEPLATE MATERIAL

ID	MATERIAL	SPEC	FINISH	SPEC
AA	5052 OR 6061 ALUMINUM		ANODIZE	MIL-Q-8625, TYPE 1, CLASS 1
UG	PEI	ULTEM 2300 OR EQUIVALENT		



NOTES:

RIVET MATERIAL - 305 CRES PER MC 5686.
 RIVET FINISH - PASSIVATE PER QQ-P-35, TYPE OPTIONAL

MANUFACTURER'S OPTION: 300 SERIES CRES TRIM WASHER UNDER RIVET HEAD.

P-PRIMER PER MIL-P-85582 (EPOXY PRIMER)

PATENT # 7294385



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DWG. NO.

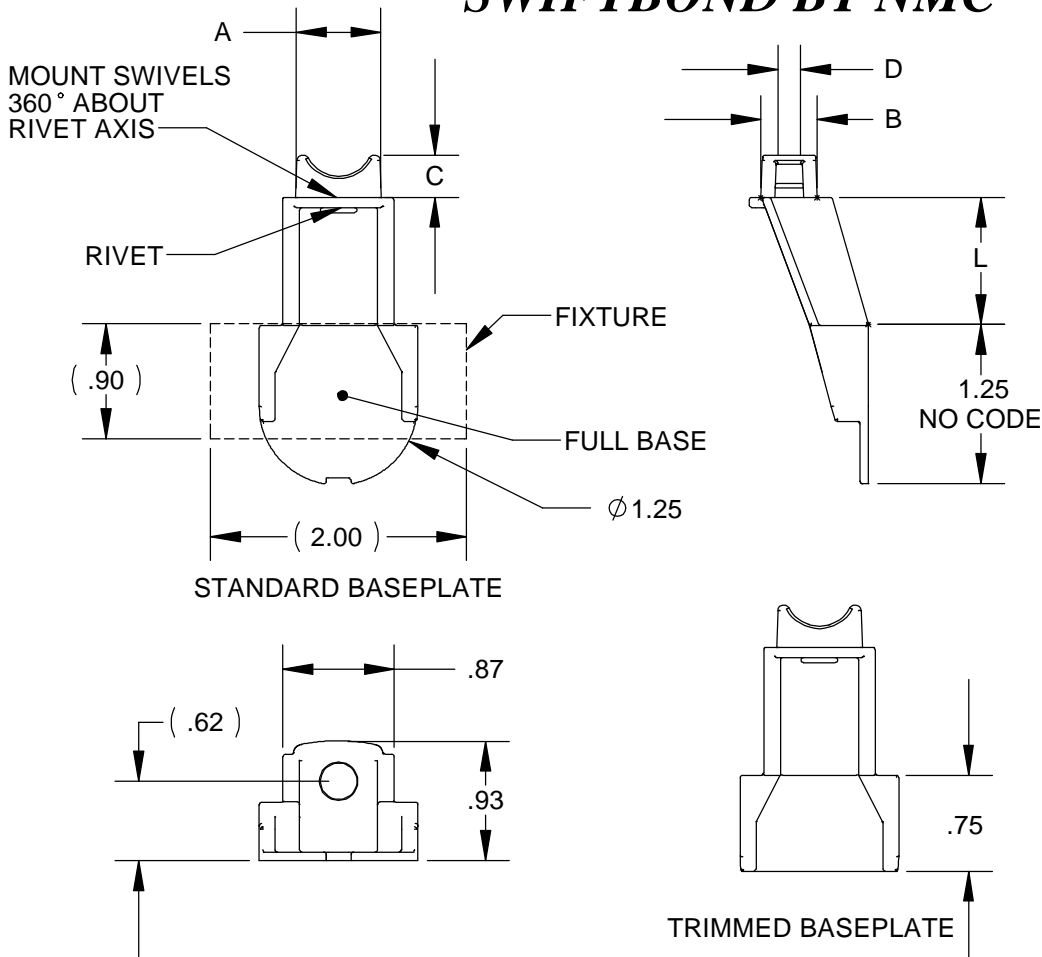
NMC SB5010

MOUNT, W/ CLAMP

MATERIAL: SEE CHART

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

SWIFTBOND BY NMC

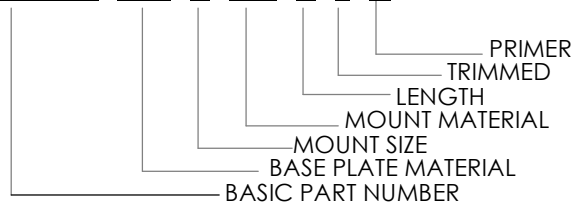


SWIFTBOND BY NMC

ANGLE MOUNT MATERIAL	
ID	MATERIAL
UG	PEI

MOUNT MATERIAL	
ID	MATERIAL
NY	NYLON
NH	NYLON 66 HS
UM	PEI

NMC SB6000 UG 2 NY 1 I P



LENGTH	
ID	L ±.03
1	.375
2	.500
3	.750
4	1.000
5	1.500

MOUNT SIZE				
ID	A REF	B REF	C REF	D REF
1	.560	.340	.27	.115
2	.668	.440	.33	.205
3	.925	.562	.42	.326

PATENT # 7294385

EST. WEIGHT 6.5g - 9g



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DWG. NO.

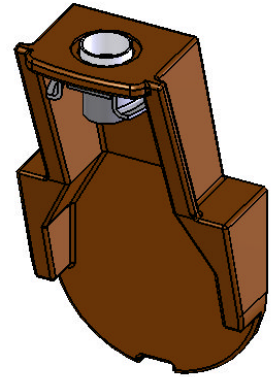
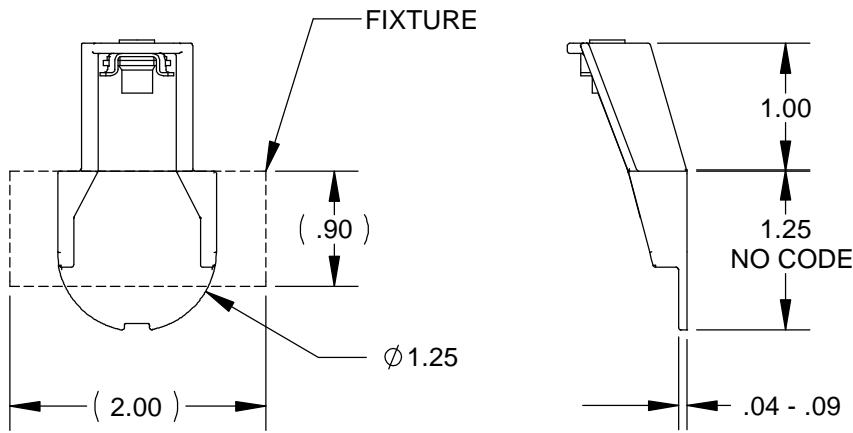
NMC SB6000

RIGHT ANGLE MOUNT

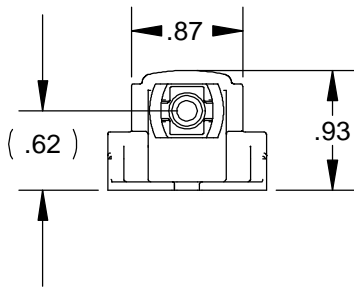
MATERIAL: SEE CHART

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

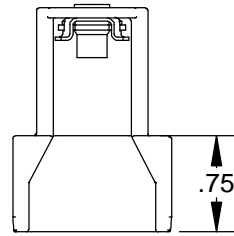
SWIFTBOND BY NMC



STANDARD BASEPLATE



TRIMMED BASEPLATE



SWIFTBOND BY NMC

ANGLE MOUNT MATERIAL

ID	MATERIAL
UG	ULTEM 2300 OR EQUIVALENT
UH	ULTEM 2400 OR EQUIVALENT

LENGTH

ID	L ±.03
1	.375
2	.500
3	.750
4	1.000
5	1.500

NMC SB6010 UG 08 1 I P

PRIMER
TRIMMED
LENGTH
NUT PLATE SIZE
BASE PLATE MATERIAL
BASIC PART NUMBER

NUT THREAD SIZE

ID	A	THREAD TYPE
08	.1640-32	UNJC-3B
10	.1900-32	UNJF-3B

NOTES:

NUT MATERIAL - CRES

RETAINER MATERIAL - CRES

NUT & RETAINER FINISH - PASSIVATE

EST WEIGHT: 6.5g - 9g

PRIMER CODES:

P = MIL-PRF-85582 Type 1, Class 2.

P1 = MIL-PRF-85582 Type 1, Class N

PATENT # 7294385



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DWG. NO.

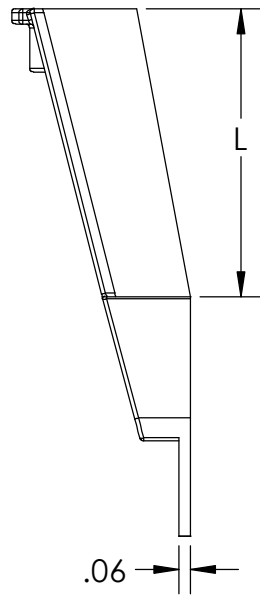
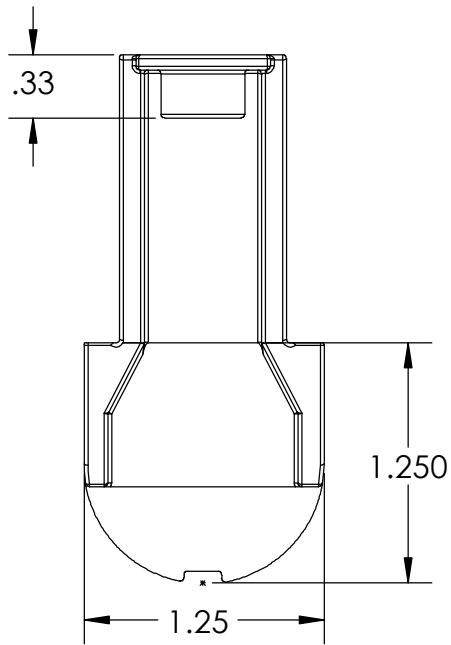
NMC SB6010

**RIGHT ANGLE MOUNT, SELF
LOCKING, FLOATING NUT
ELEMENT**

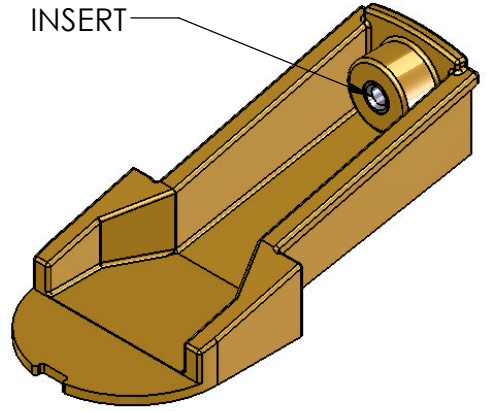
MATERIAL: SEE CHART

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

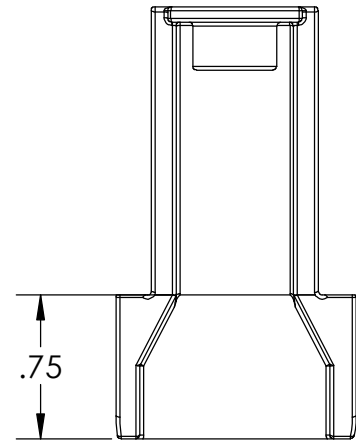
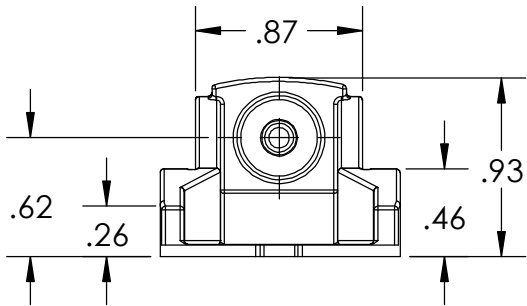
SWIFTBOND BY NMC



STEEL THREADED INSERT



STANDARD BASE



TRIMMED BASE

SWIFTBOND BY NMC

BASEPLATE	
ID	MATERIAL
UG	ULTEM 2300 OR EQUIVALENT

INSERT THREAD SIZE	
ID	THREAD SIZE
08	.1640-23 UNJF-3B
10	.1900-32 UNJF-3B

NOTES:

INSERT MATERIAL - STEEL

INSERT FINISH - CADMIUM PLATE PER QQ-P-416, TYPE II, CLASS 3

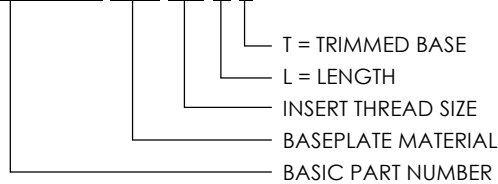
LOCKING - PER NASM25027

MARKING - "NMC" AND "L" ID WILL BE MARKED ON PART

BASEPLATE LENGTH	
ID	L ±.03
1	.375
2	.500
3	.750
4	1.000
5	1.500

EXAMPLE PART NUMBER:

NMC SB6020 UG 08 1 T



PATENT #7294385



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DWG. NO.

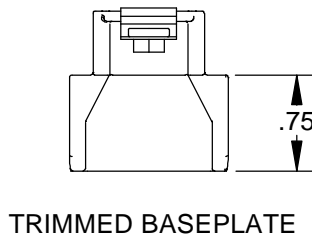
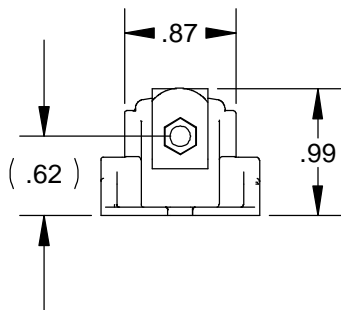
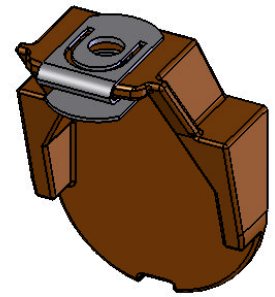
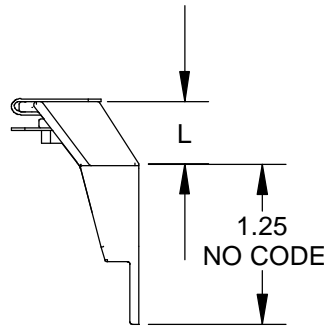
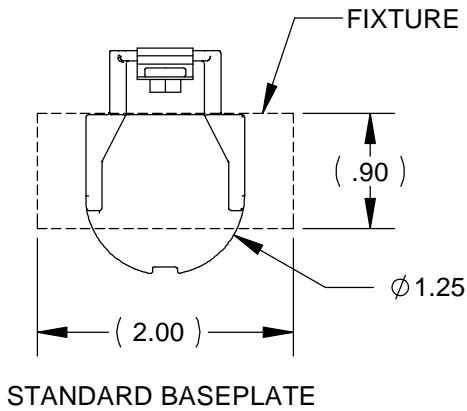
NMC SB6020

**RIGHT ANGLE MOUNT,
THREADED INSERT**

MATERIAL: SEE TABLE

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

SWIFTBOND BY NMC



SWIFTBOND BY NMC

NUT THREAD SIZE

ID	A	THREAD TYPE
08	.1640-32	UNJC-3B
10	.1900-32	UNJF-3B

NMC SB6030 UG 08 1 T P

PRIMER
TRIMMED
LENGTH "L"
NUT THREAD SIZE
BASE PLATE MATERIAL
BASIC PART NUMBER

LENGTH

ID	L ±.03
1	.375
2	.500
3	.750
4	1.000
5	1.500

ANGLE MOUNT MATERIAL

ID	MATERIAL
UG	ULTEM 2300 OR EQUIVALENT

NOTES:

MATERIAL:
CLIP - STEEL
NUT ELEMENT - STEEL

FINISH:
NUT ELEMENT - CADMIUM
PLATE
CLIP - CADMIUM PLATE

EST. WEIGHT 6.5g - 7g

PATENT # 7294385



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DWG. NO.

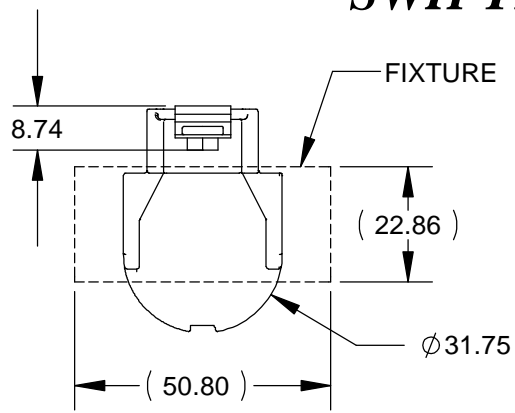
NMC SB6030

**RIGHT ANGLE MOUNT, SELF
LOCKING, FLOATING
NUTPLATE**

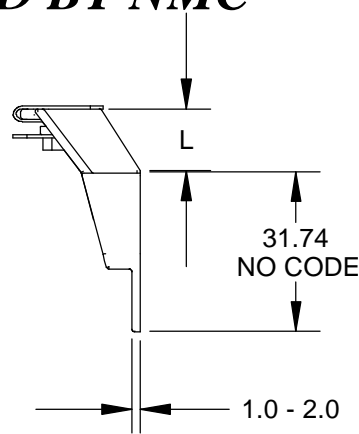
MATERIAL: SEE CHART

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

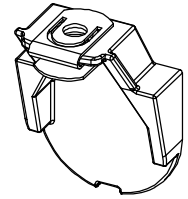
SWIFTBOND BY NMC



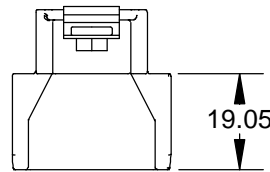
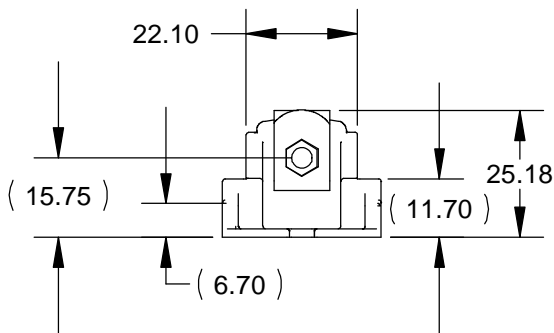
STANDARD BASEPLATE



TRIMMED BASEPLATE



ISO VIEW

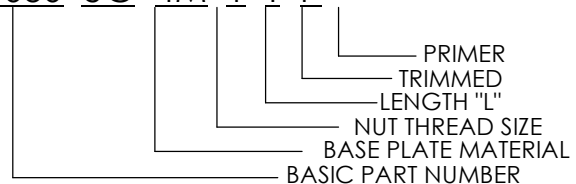


SWIFTBOND BY NMC

NMC SB6030 UG 4M 1 T P

ANGLE MOUNT MATERIAL

ID	MATERIAL	SPECIFICATION
UG	PEI	ULTEM 2300 - OR EQUIVALENT



NUT THREAD SIZE

ID	A	THREAD TYPE
4M	M4 X .7	4H5H
5M	M5 X .8	4H5H

LENGTH

ID	L ± .76
1	9.5
2	12.7
3	19.1
4	25.4
5	38.1

NOTES:

MATERIAL:
 CLIP - 1050 STEEL PER AMS 5085 OR ASTM A 684/A 684M.
 NUT ELEMENT - CARBON STEEL PER ASTM A108 OR MATERIAL COMPOSITION PER FED-STD-66 WITH A UTS OF 85 KSI.

FINISH:
 NUT ELEMENT - CADMIUM PLATE PER QQ-P-416, TYPE II, CLASS 2,
 CLIP - CADMIUM PLATE PER QQ-P-416, TYPE II, CLASS 1

NUT LUBRICATION - MIL-L-46010, TYPE 1 (INACTIVE FOR PROCUREMENT, SEE MIL-L-46010SUP) OR AS5272, TYPE 1. AS5272 SHALL BE IN ACCORDANCE WITH AS5272SUP. LUBRICATION OF RETAINER IS OPTIONAL

P-PRIMER PER MIL-P-85582 (EPOXY PRIMER)

LOCKING - PER NA 0009, MIN TORQUE OUT 45 INCH LBS

PATENT # 7294385



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DWG. NO.

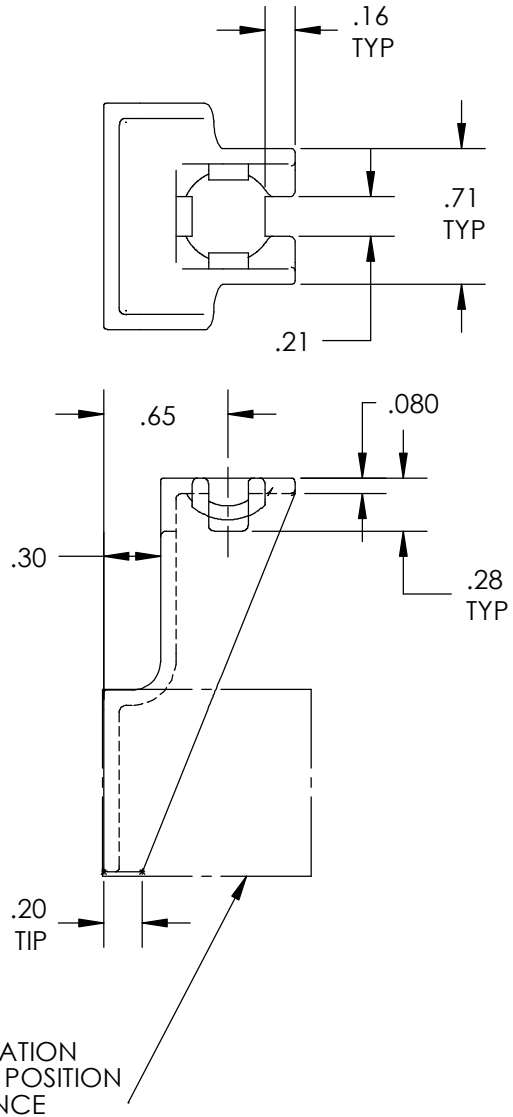
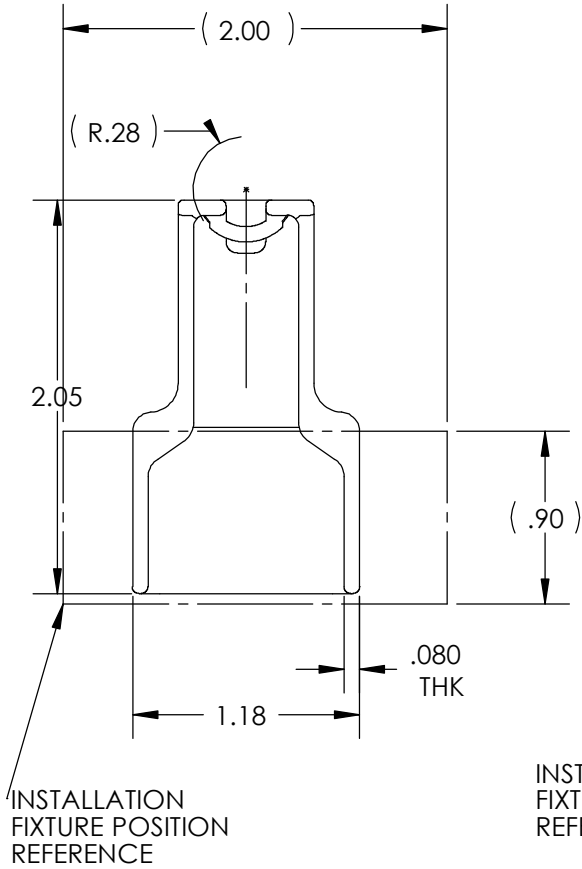
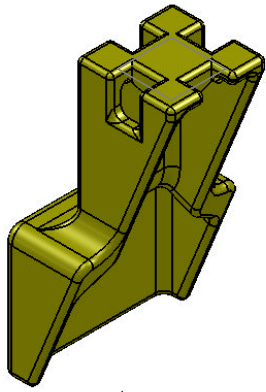
NMC SB6030M

**RIGHT ANGLE MOUNT, SELF
 LOCKING FLOATING
 NUT PLATE**

MATERIAL: SEE CHART

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

SWIFTBOND BY NMC



SWIFTBOND BY NMC

NMC SB6031 P

PRIMER OPTION CODE

BASIC PART NUMBER

NOTES:

MATERIAL:

ULTEM 2400 OR EQUIVALENT

FINISH:

P-OPTIONAL PRIMER PER MIL-PRF-85582 (EPOXY PRIMER)

ESTIMATED WEIGHT: 8.0 GRAMS EACH, NOT INCLUDING THE INSTALLATION FIXTURE.

PATENT # 7294385



NMC AEROSPACE 2755 THOMPSON CREEK
POMONA, CA 91767-1861
www.esterline.com 909-451-2290

DWG. NO.

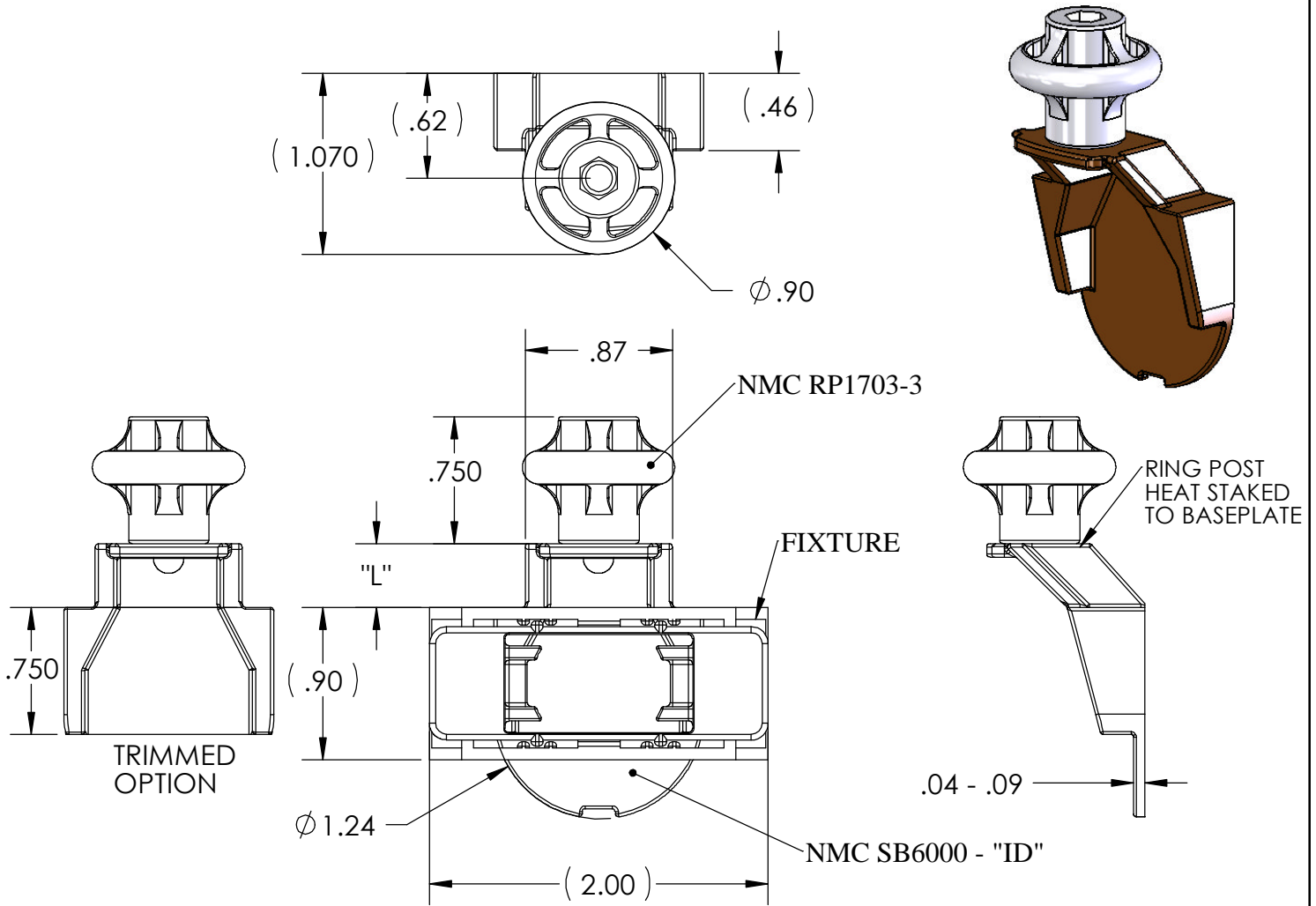
NMC SB6031

**ANGLE BRACKET,
BOND ON**

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

SWIFTBOND BY NMC



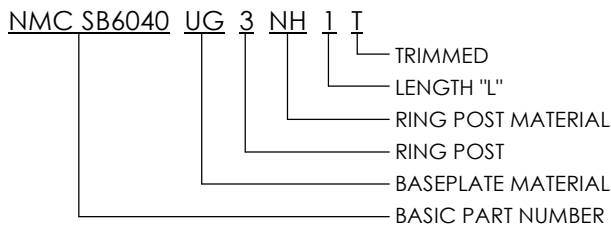
SWIFTBOND BY NMC

RING POST MATERIAL		
ID	MATERIAL	SPECIFICATION
NH	NYLON 6/6	ASTM D4066
UM	PEI	ULTEM 1000-OR EQUIVALENT

BASEPLATE MATERIAL		
ID	MATERIAL	SPECIFICATION
UG	PEI	ULTEM 2300-OR EQUIVALENT

BASEPLATE LENGTH	
ID	L +/- .030 IN/MM
1	0.375 / 9.5
2	0.5 / 12.7
3	0.75 / 19.1
4	1.00 / 25.4
5	1.5 / 38.1

EXAMPLE PART NUMBER:



MARKING - "NMC" AND "-L" ID WILL BE MARKED ON PART

PATENT # 7294385



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DWG. NO.

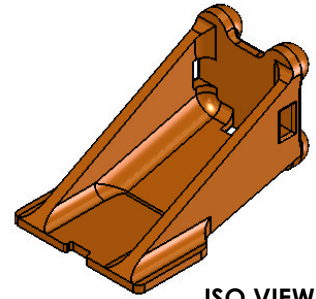
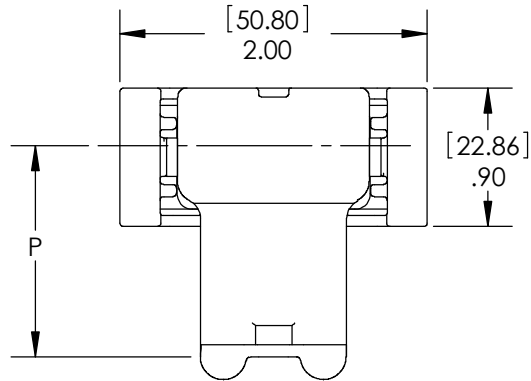
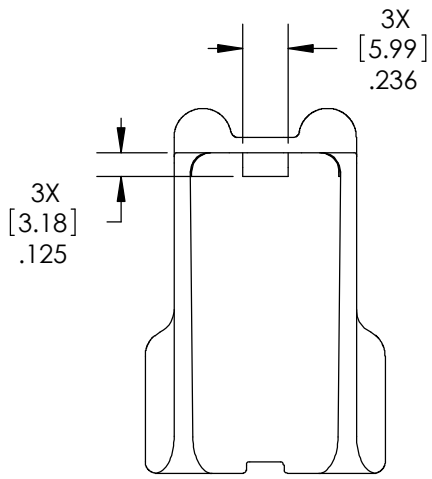
NMC SB6040

RIGHT ANGLE MOUNT

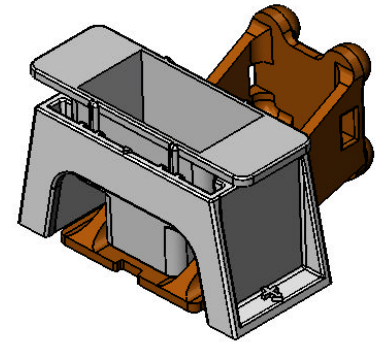
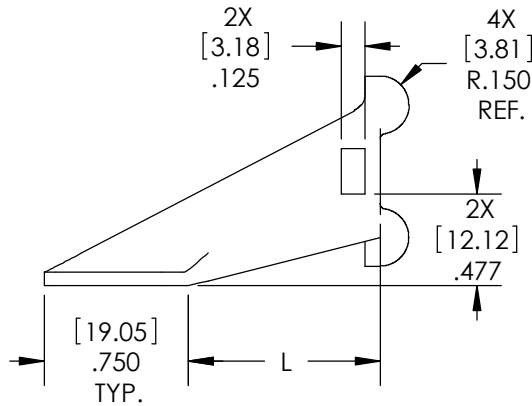
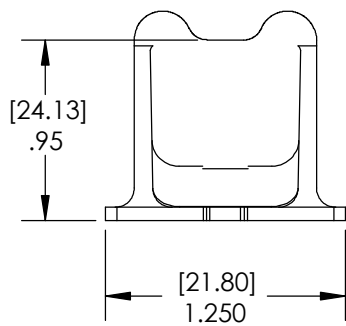
MATERIAL: SEE TABLES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

SWIFTBOND BY NMC



ISO VIEW



MOUNT WITH INSTALLATION FIXTURE

SWIFTBOND BY NMC

TABLE III

MATL CODE	BASEPLATE MATERIAL
UG	ULTEM 2300
UH	ULTEM 2400

TABLE II

LENGTH CODE	-1	-2	-3	-4	-5
L ±.030	[9.52] .375	[12.70] .500	[19.05] .750	[25.4] 1.000	[38.10] 1.500
P ±.030	[19.04] .750	[22.21] .875	[28.55] 1.125	[34.90] 1.375	[47.59] 1.875
UG (2300 ULTEM)	3.38	5.58	7.78	9.98	12.18
UF (2400 ULTEM)	4.04	6.24	8.44	10.64	12.84

EXAMPLE OF PART CODING:

NMCSB6050 UG 5 A P

NMCSB6050: BASIC PART NUMBER
 UG: BASE MATERIAL (SEE TABLE I)
 5: "L" LENGTH CODE (SEE TABLE II)
 A: INSTALLATION FIXTURE CODE
 P: PRIMER CODE \triangle
 (SEE MIL-PRF-85582 TO ALL OUTER SURFACES)

NOTES:

- INSTALLATION FIXTURE SHALL BE PROVIDED WITH EACH MOUNT.
- \triangle SUFFIX P AFTER SECON DASH NUMBER INDICATES PRIMER PER MIL-PRF-85582 TO ALL OUTER SURFACES.
- INSTALLATION FIXTURE WITH NON RESIDUE PRESSURE SENSITIVE TAPE SHALL BE PROVIDED WITH EACH STUD. INNER FIXTURE SHALL BE COLOR PINK.

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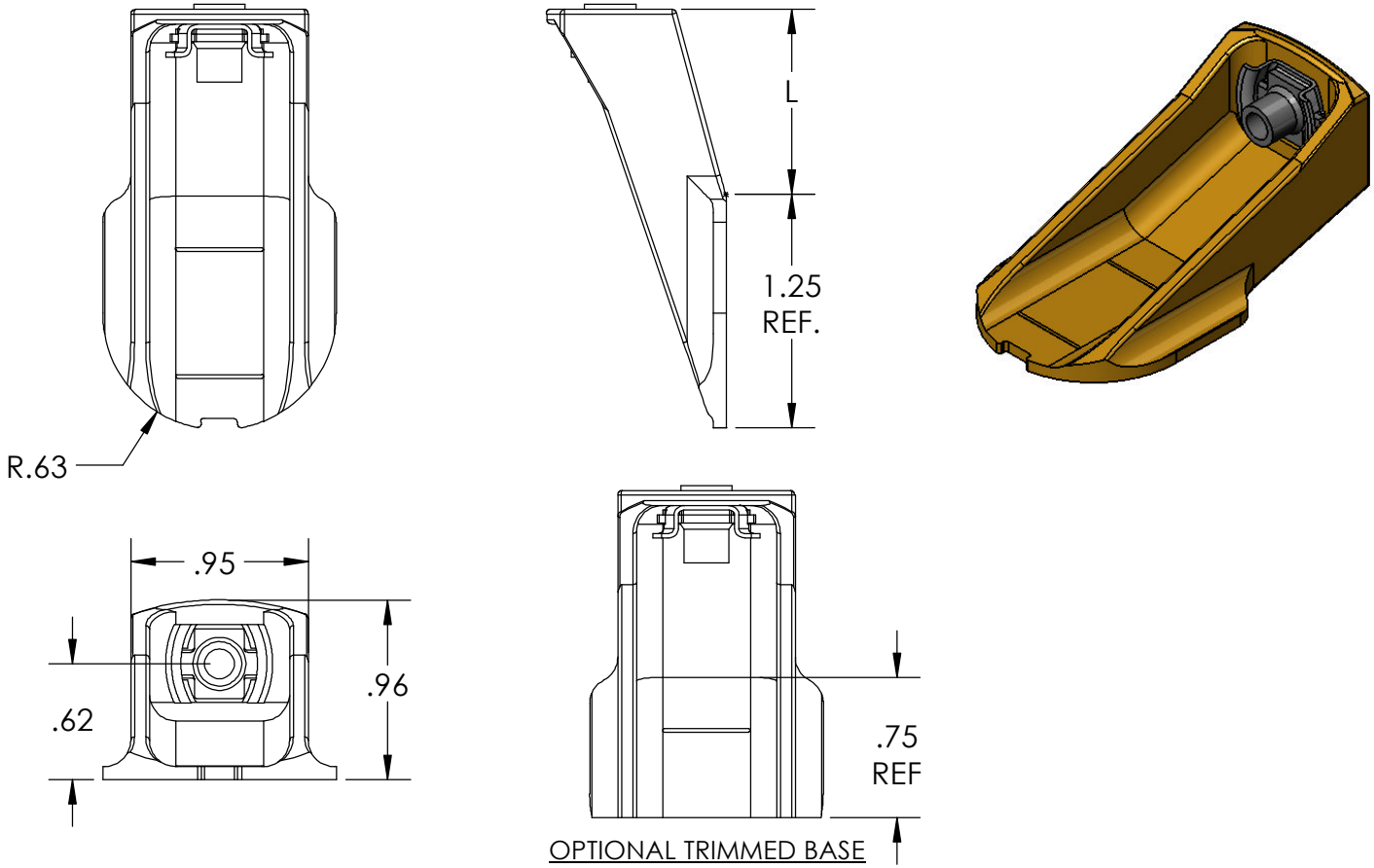
DWG. NO.

NMC SB6050

MOUNT, CABLE TIE
 RIGHT ANGLE
 TWO WAY

MATERIAL: SEE TABLE III			
TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

SWIFTBOND BY NMC



SWIFTBOND BY NMC

TABLE III

MATERIAL CODE	BASEPLATE MATERIAL
UG	ULTEM 2300 OR EQUIVALENT
UH	ULTEM 2400 OR EQUIVALENT

TABLE II

LENGTH CODE	"L" ± .02	CALC. WT. (gr)	"P" ± .02
-1	.375	3.4	1.000
-2	.500	4.5	1.125
-3	.750	6.8	1.375
-4	1.000	9.0	1.625
-5	1.500	13.4	2.125

EXAMPLE OF PART CODING

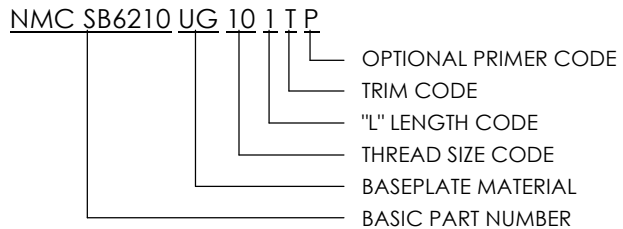


TABLE I

SIZE CODE	INSERT "T" THREAD
06	.1380-32 UNJC-3B
08	.1640-32 UNJC-3B
10	.1900-32 UNJF-3B
12	.2500-28 UNJF-3B

NOTES:

1. INSTALLATION FIXTURE SHALL BE PROVIDED WITH EACH BRACKET.
2. NUT/BASEPLATE MATERIAL/FINISH: CRES A286 PER AMS5525
3. RETAINER MATERIAL/FINISH: CRES 304 PER AMS5639
4. NUT SPECIAL FINISH: SOLID-FILM LUBRICATE PER AS5272 TYPE I.
5. LOCKING TORQUE PER NASM25027
6. LETTER "T" FOLLOWING SECOND DASH NUMBER DESIGNATES .75" TRIMMED BASEPLATE
7. SUFFIX AFTER LENGTH CODE INDICATES PRIMER PER MIL-PRF-85582 TO ALL OUTER SURFACE.

PATENT # 7294385



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DWG. NO.

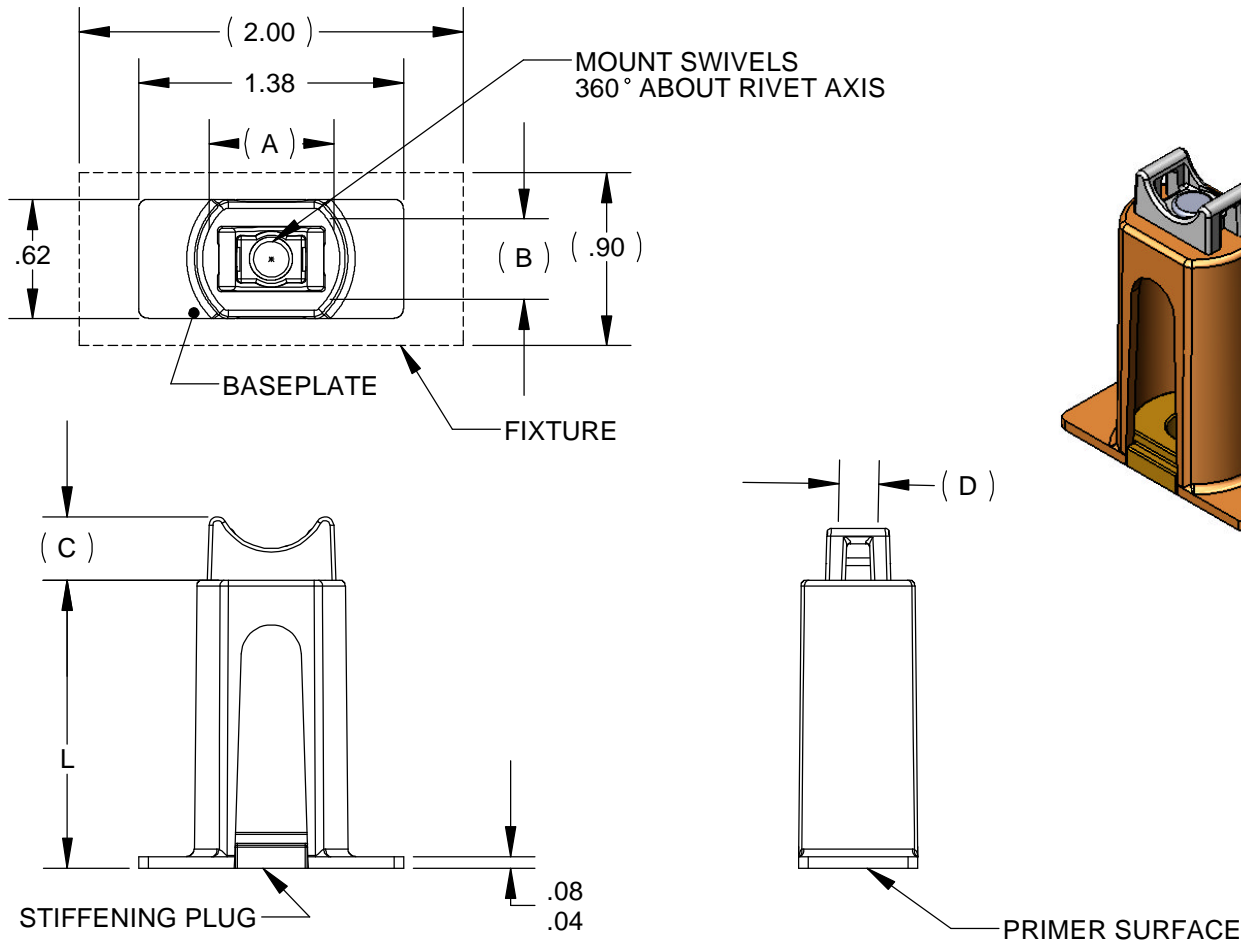
NMC SB6210

**RIGHT-ANGLE BRACKET, FLOATING
NUTPLATE, SELF-LOCKING**

MATERIAL: SEE NOTES

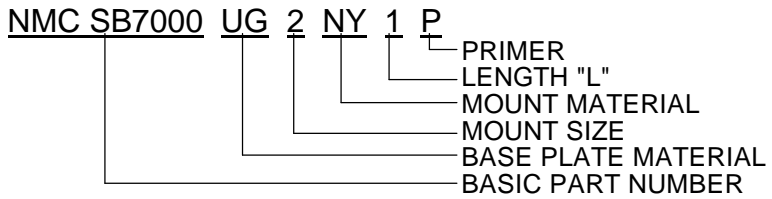
TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

SWIFTBOND BY NMC



SWIFTBOND BY NMC

STANDOFF MATERIAL	
ID	MATERIAL
UG	ULTEM 2300 OR EQUIVALENT
UH	ULTEM 2400 OR EQUIVALENT



MOUNT MATERIAL	
ID	MATERIAL
NY	NYLON
NH	NYLON 66 H/S
UM	PEI

MOUNT SIZE				
ID	A	B	C	D
1	.500 REF	.340 REF	.265 REF	.115 REF
2	.668 REF	.440 REF	.330 REF	.205 REF

STANDOFF LENGTH	
ID	L ±.03
1	.500
2	.750
3	1.000
4	1.500
5	2.000

PATENT # 7294385

EST. WEIGHT 4g - 7g



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DWG. NO.

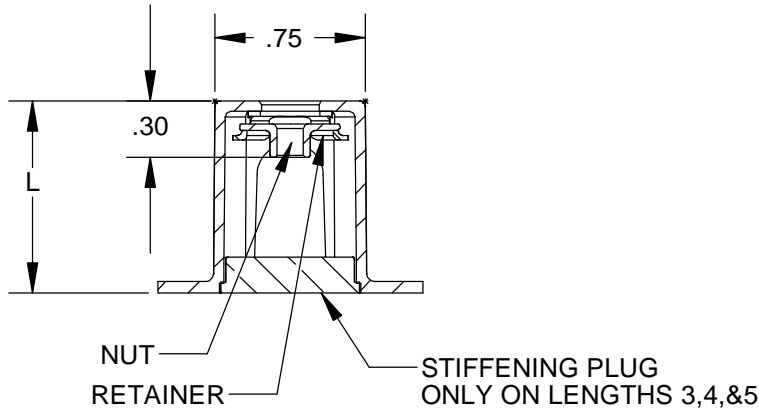
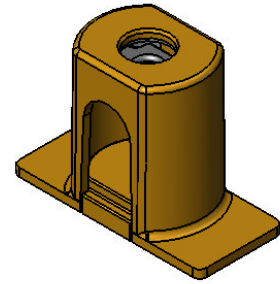
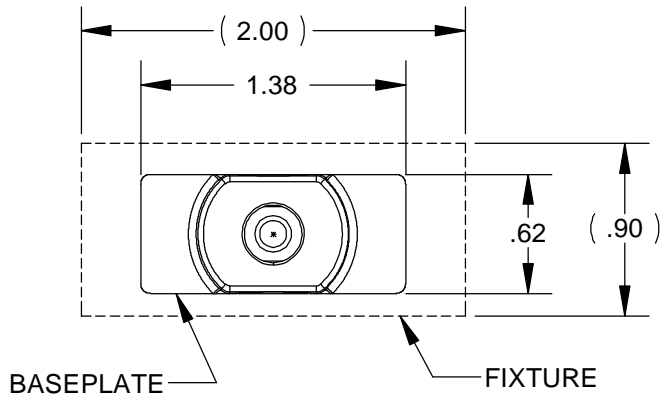
NMC SB7000

**STANDOFF, CABLE
MOUNT**

MATERIAL: SEE CHART

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

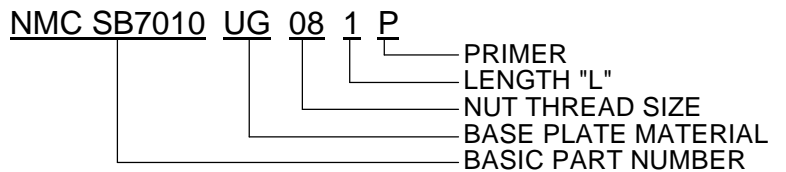
SWIFTBOND BY NMC



SWIFTBOND BY NMC

STANDOFF MATERIAL	
ID	MATERIAL
UG	ULTEM 2300 OR EQUIVALENT

STANDOFF LENGTH	
ID	L ±.03
1	.500
2	.750
3	1.000
4	1.500
5	2.000



NUT THREAD SIZE		
ID	A	THREAD TYPE
08	.1640 - 32	UNJC-3B
10	.1900 - 32	UNJF-3B

NOTES:

NUT MATERIAL - CRES

RETAINER MATERIAL -CRES

NUT & RETAINER FINISH - PASSIVATE

EST. WEIGHT 4g - 7g

PATENT # 7294385



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DWG. NO.

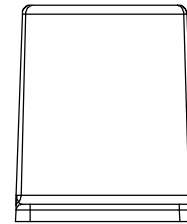
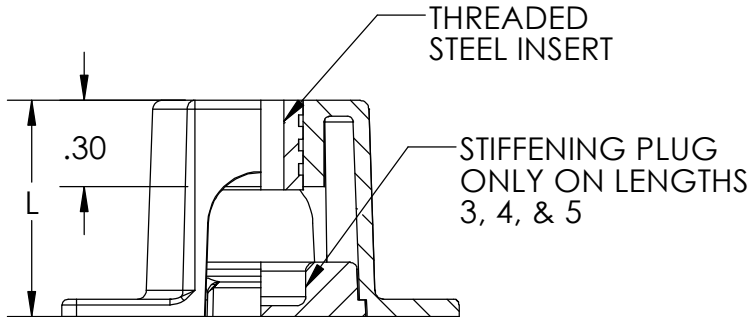
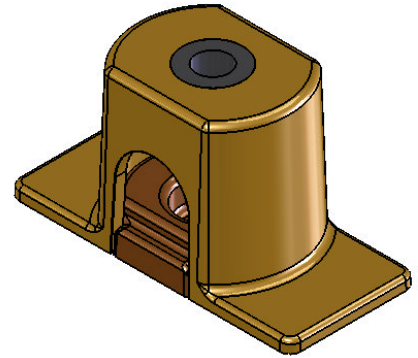
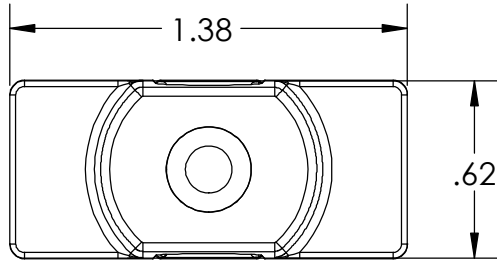
NMC SB7010

**STANDOFF, SELF LOCKING,
FLOATING NUT PLATE**

MATERIAL: SEE CHART

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

SWIFTBOND BY NMC



SWIFTBOND BY NMC

NOTES:

INSERT MATERIAL - STEEL

INSERT FINISH - CAD PLATED
PER QQ-P-416,
TYPE II, CLASS 3

LOCKING - PER NASM25027

MARKING - "NMC" AND "L" ID
WILL BE MARKED
ON PART

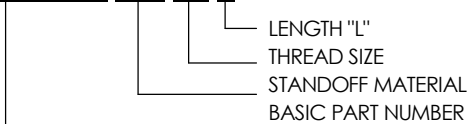
STANDOFF MATERIAL	
ID	MATERIAL
UG	ULTEM 2300 OR EQUIVALENT

INSERT THREAD SIZE	
ID	THREAD SIZE
08	.1640-32 UNJF-3B
10	.1900-32 UNJF-3B

STANDOFF LENGTH	
ID	L ±.030
1	.500
2	.750
3	1.000
4	1.500
5	2.000

EXAMPLE PART NUMBER:

NMC SB7020 UG 08 1



PATENT # 7294385



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DWG. NO.

NMC SB7020

**STANDOFF, THREADED
INSERT**

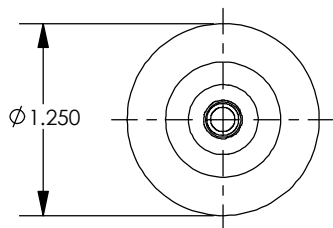
MATERIAL: SEE TABLE

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

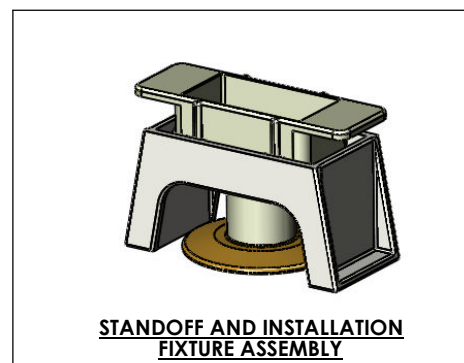
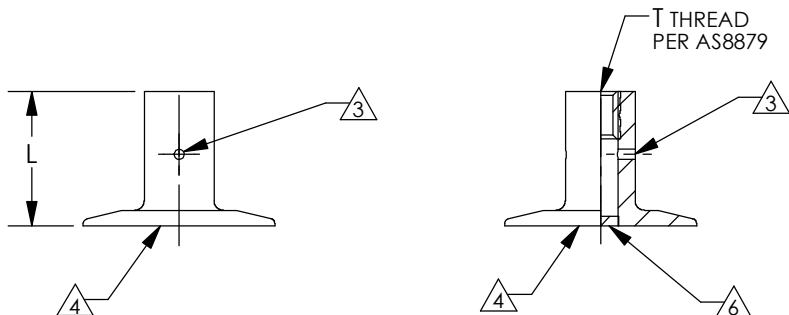
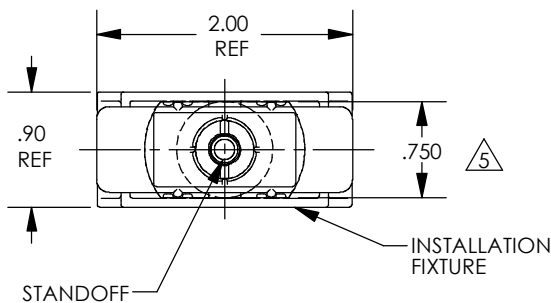
SWIFTBOND BY NMC



STANDARD BASE



OPTIONAL TRIMMED BASE



SWIFTBOND BY NMC

TABLE I

LENGTH CODE	2	4	5	6	7	8	9	10	11	12	13	14	15	16	20	22	25	26
"L" ± .02	.375	.500	.625	.750	.875	1.000	1.125	1.250	1.375	1.500	1.625	1.750	1.875	2.000	2.500	2.750	3.125	3.250
Est. WT. (gr)	4.2	4.6	5	5.3	5.7	6	6.4	6.6	7	7.4	7.8	8.2	8.4	8.8	10.1	10.6	11.1	11.5

TABLE II

SIZE CODE	T THREAD
06	.1380-32 UNJC-3B
08	.1640-32 UNJC-3B
10	.1900-32 UNJF-3B

EXAMPLE OF PART CODING:

NMC SB8000 UG 10 8 A P T C

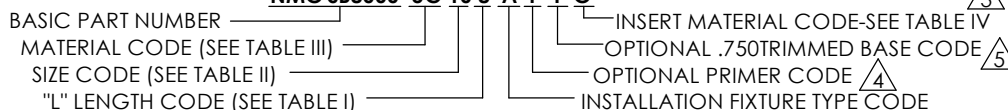


TABLE III

MAT'L CODE	MATERIAL
UG	ULTEM 2300
UH	ULTEM 2400
PK	30% GLASS FILLED PEKK

TABLE IV

CODE	MATERIAL
NO CODE	CARBON STEEL
C	CRES

NOTES:

1. LOCKING TORQUE AND TORQUE-OUT PER NASM25027
2. MARKING: "NMC" WILL BE MARKED ON PART.

3 CODE "H" SHALL HAVE $\phi .062 - .070$ INSPECTION HOLE LOCATED A MIN 2 THREAD PITCH BELOW INSERT.

4 CODE "P" INDICATES PRIMER

5 CODE "T" SHALL HAVE .750 TRIMMED FLATS ON BASE.

6 NO LETTER AFTER LENGTH CODE INDICATE STANDARD INSTALLATION FIXTURE.
LETTER "A" INDICATES DOUBLE INSTALLATION FIXTURE.
LETTER "B" INDICATES DUAL INSTALLATION FIXTURE.

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DWG. NO.

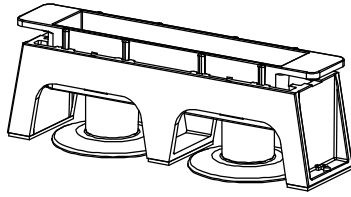
NMC SB8000

**STANDOFF, INTERNAL
THREAD, STANDARD**

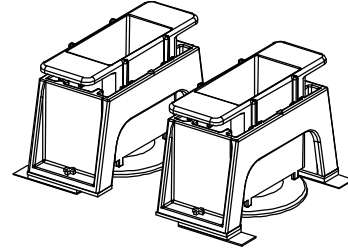
MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

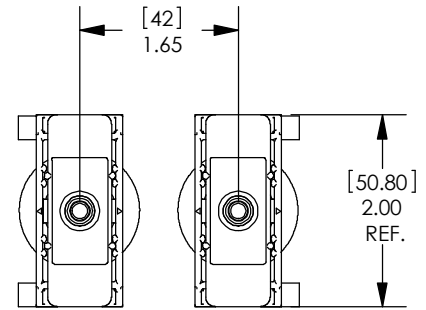
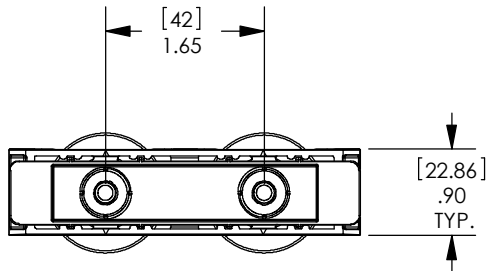
SWIFTBOND BY NMC



TYPE "A"
ISO VIEW

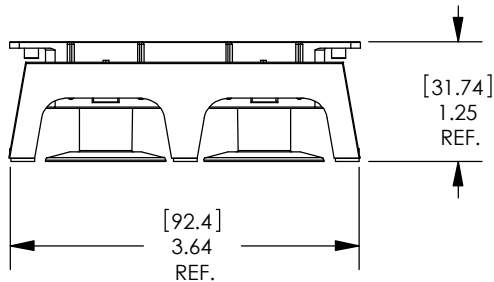


TYPE "B"
ISO VIEW

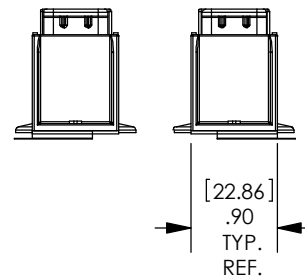


PATENT # 7294385

SWIFTBOND BY NMC



TYPE "A"
DUAL FIXTURE



TYPE "B"
DUAL FIXTURE

PATENT # 7294385



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DWG. NO.

NMC SB8000

**STANDOFF, INTERNAL
THREAD, STANDARD**

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

SWIFTBOND BY NMC

TABLE I

LENGTH CODE	2	4	5	6	7	8	9	10	11	12	13	14	15	16	20	22	25	26
"L" ±0.51	9.52	12.7	15.88	19.05	22.23	25.4	28.57	31.75	34.92	38.1	41.28	44.45	47.63	50.8	63.5	69.85	79.37	82.55
CALC. WT. (gr)	5.3	5.7	6.1	6.5	6.9	7.3	7.7	8.1	8.5	8.9	9.3	9.7	10.1	10.5	12.5	13.3	14.5	14.9

TABLE II

SIZE CODE	T THREAD
M3	M3 X 0.5 4H6H
M4	M4 X 0.7 4H6H
M5	M5 X 0.8 4H6H
M3N	M3 X 0.5 4H6H (NO LOCKING FEATURE)
M4N	M4 X 0.7 4H6H (NO LOCKING FEATURE)
M5N	M5 X 0.8 4H6H (NO LOCKING FEATURE)

TABLE III

MAT'L CODE	MATERIAL
UG	ULTEM 2300 OR EQUIVALENT
UH	ULTEM 2400 OR EQUIVALENT
PK	30% GLASS FILLED PEKK

TABLE IV

MAT'L CODE	MATERIAL	FINISH
NO CODE	CRES 303 PER ASTM A582 OR 1.4305 PER EN 10088-3	CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CL 2
C	CRES 303 PER ASTM A582 AND 1.4305 PER EN 10088-3	PASSIVATE PER AMS2700 TYPE 2
D	CRES	CADMIUM PLATE WITH DRY FILM LUBE
S	12L14 OR 1215 CARBON STEEL PER ASTM A108	CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CL 2

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DWG. NO.

NMC SB8000M

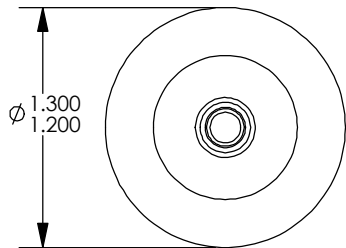
**STANDOFF, INTERNAL
THREAD, METRIC**

MATERIAL: SEE TABLE

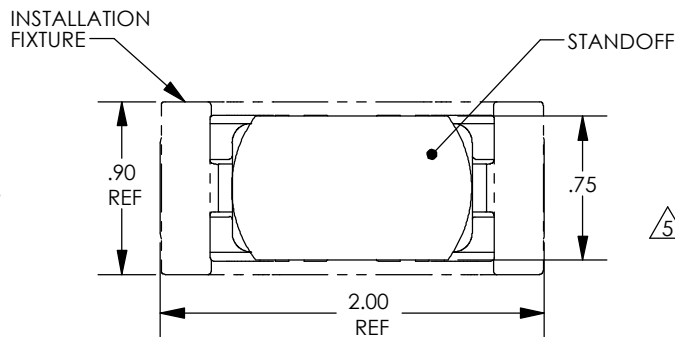
TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

SWIFTBOND BY NMC

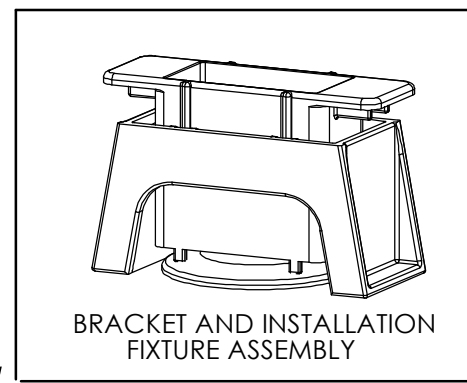
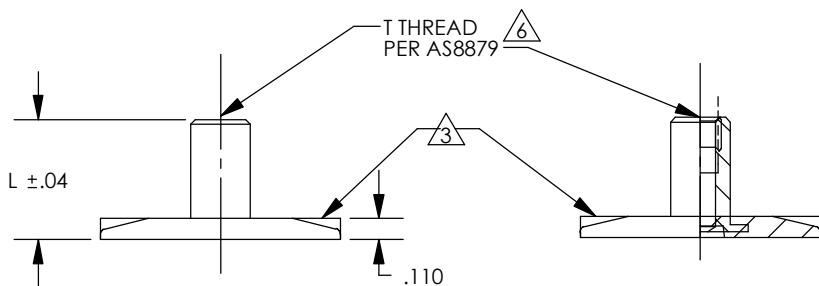
STANDARD BASE



OPTIONAL TRIMMED BASE



ISO VIEW

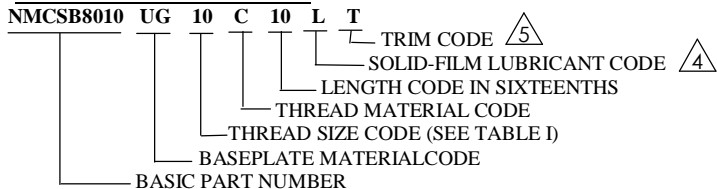


SWIFTBOND BY NMC

TABLE I

SIZE CODE	T THREAD
06	6-32UNJC-3B
08	8-32UNJC-3B
10	10-32UNJF-3B

EXAMPLE OF PART CODING:



LENGTH CODE	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
L	[6.35] .250	[9.52] .375	[12.7] .500	[15.88] .625	[19.05] .750	[22.23] .875	[25.4] 1.000	[28.57] 1.125	[31.75] 1.250	[34.92] 1.375	[38.1] 1.500	[41.28] 1.625	[44.45] 1.750	[47.63] 1.875	[50.8] 2.000
D MIN	[7.49] .295	[10.16] .400	[11.99] .472												
CALC. WT. (gr)	4.1	4.8	5.4	6.1	6.8	7.4	8.1	8.8	9.4	10.1	10.8	11.4	12.1	12.8	13.4

NOTES:

- INSTALLATION FIXTURE SHALL BE PROVIDED WITH EACH STUD.
- THREADED STANDOFF MATERIAL: "C" = CRES 302, 303 OR 304 PER AMS5513, 5516, 5637, 5638, 5639, 5640, 5641 OR 5747 OR A-286 PER AMS5525, 5726, 5732, 5734, OR 5737. FINISH: PASSIVATE PER AMS2700, TYPE 2.
- BASEPLATE MATERIAL: ULTEM 2300 OR EQUIVALENT. FINISH: NONE
- LETTER "L" FOLLOWING SECOND DASH NUMBER DESIGNATES SOLID-FILM LUBRICANT PER AS5272, TYPE MANUFACTURES OPTION.
- LETTER "T" FOLLOWING SECOND DASH NUMBER DESIGNATES .750 TRIMMED BASEPLATE.
- THREAD LOCK PER NASM25027.

PATENT # 7294385



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DWG. NO.

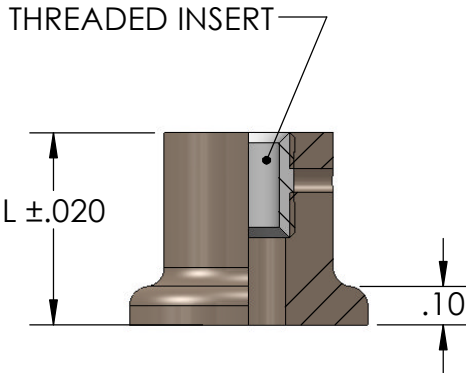
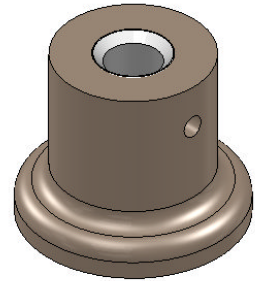
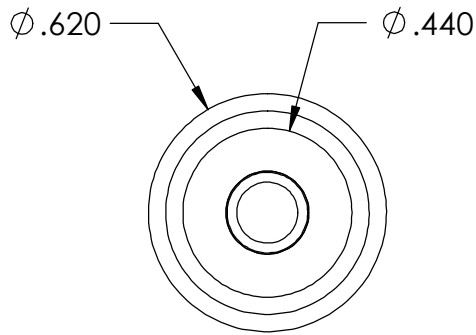
NMCSB8010

STANDOFF, THREADED

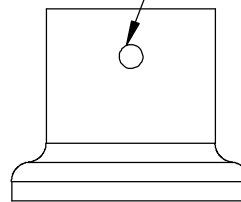
MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

SWIFTBOND BY NMC



OPTIONAL INSPECTION HOLE .062"-.070" DIA LOCATED 2 THD PITCHES BELOW INSERT ON -8 AND LONGER PARTS ONLY



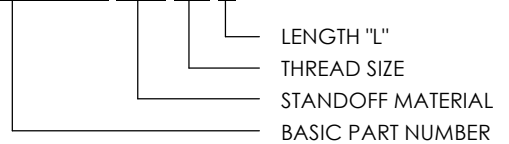
SWIFTBOND BY NMC

DASH NUMBER	-4	-6	-8	-9	-10	-11	-12	-13	-14	-16	-20	-22	-25	-26
L	.500	.750	1.000	1.125	1.250	1.375	1.500	1.625	1.750	2.000	2.500	2.750	3.125	3.250

THREAD DATA	
ID	THREAD SIZE
06	.1380-32 UNC-3B
08	.1640-32 UNC-3B
10	.190-32 UNC-3B

EXAMPLE PART NUMBER:

NMC SB8020 UG 08 8



STANDOFF MATERIAL	
ID	MATERIAL
UG	ULTEM 2300 OR EQUIVALENT

NOTES:

- INSERT MATERIAL - STEEL
- INSERT FINISH - CADMIUM PLATED PER QQ-P-416, TYPE II, CLASS 3
- LOCKING - PER NASM 25027
- MARKING - "NMC" AND "L" ID WILL BE MARKED ON PART

PATENT # 7294385



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POMONA, CA 91767-1861
www.esterline.com 909-451-2290

DWG. NO.

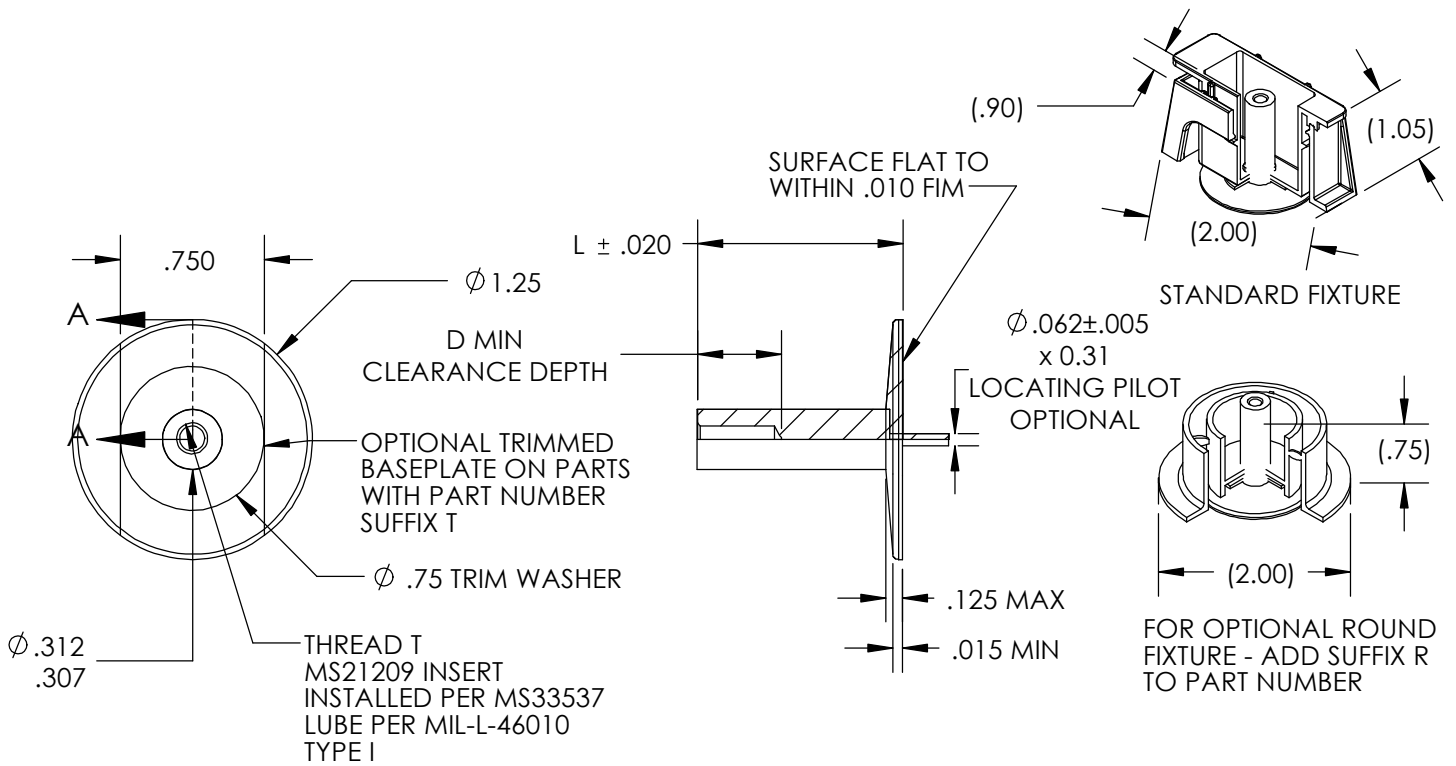
NMC SB8020

**STANDOFF, LOCKING
THREAD, SMALL BASE**

MATERIAL: SEE TABLE

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

SWIFTBOND BY NMC



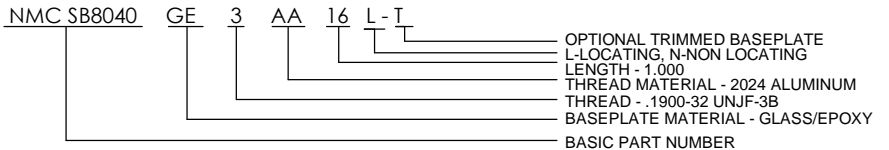
SWIFTBOND BY NMC

LENGTH L DATA																	
CODE	6	7	8	9	10	11	12	13	14	15	16	17	18	20	22	24	32
L	0.375	0.437	0.500	0.562	0.625	0.687	0.750	0.812	0.875	0.937	1.000	1.062	1.125	1.250	1.375	1.500	2.000
D MIN	0.187		0.25									0.31					

MATERIAL DATA		THREAD SHANK AND HEAD ONE PIECE CONSTRUCTION		
CODE	THREAD MATL	SPEC	FINISH	SPEC
A	2024 ALUMINUM	QQ-A-200, OR QQ-A-225	NONE	
AA			ANODIZED	MIL-A-8625
CRA	A-286 CRES	AMS 5726, 5731, 5732, 5734, OR 5737	PASSIVATE	QQ-P-35
T	6AL-4V TITANIUM	AMS 4928, 4965, OR 4967	NONE	

TRIM WASHER MATERIAL: 304 CRES PER MIL-S-5059 OR AMS 5513
 TRIM WASHER FINISH: PASSIVATE PER QQ-P-35

EXAMPLE PART NUMBER:



CODE	BASEPLATE MATL
CE	CARBON/EPOXY 350 DEG F
GE	GLASS/EPOXY 250 DEG F
GEH	GLASS/EPOXY 350 DEG F

THREAD DATA

CODE	THREAD T
08	.164-32 UNJC-3B
3	.1900-32 UNJF-3B

PATENT # 7294385



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DWG. NO.

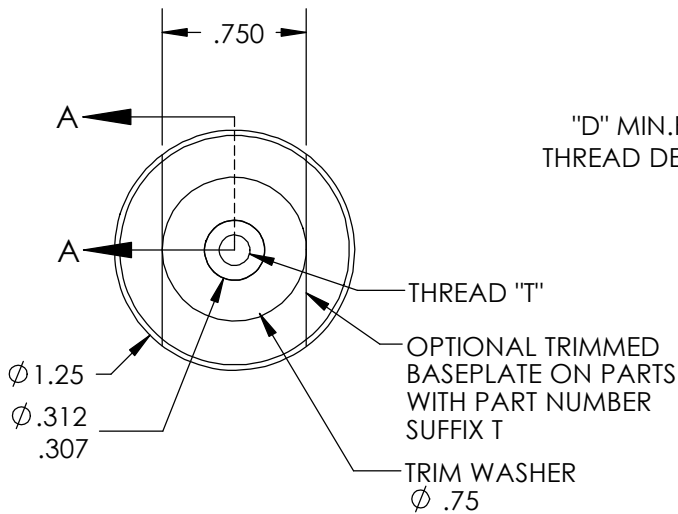
NMC SB8040

**STUD, FEMALE THREAD, LOCKING,
 COMPOSITE BASE, PILOTED**

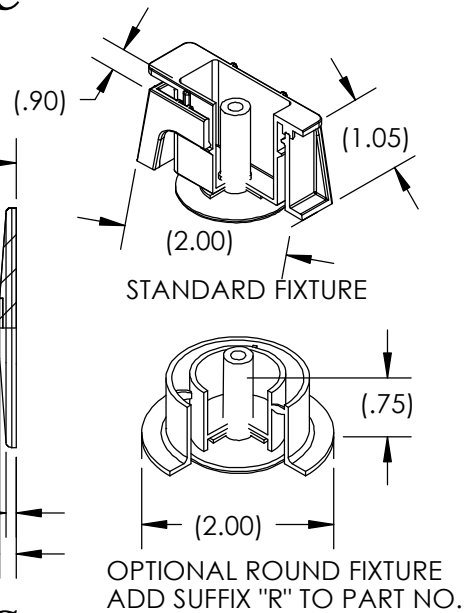
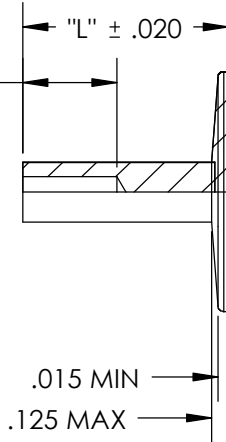
MATERIAL: SEE CHARTS

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

SWIFTBOND BY NMC



"D" MIN. FULL
THREAD DEPTH



SWIFTBOND BY NMC

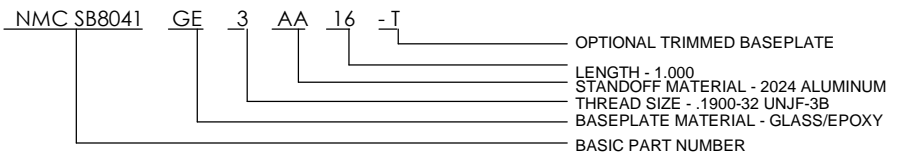
		LENGTH L DATA																
CODE		6	7	8	9	10	11	12	13	14	15	16	17	18	20	22	24	32
L		0.375	0.437	0.500	0.562	0.625	0.687	0.750	0.812	0.875	0.937	1.000	1.062	1.125	1.250	1.375	1.500	2.000
D MIN		0.187			0.25								0.31					

STANDOFF MATERIAL DATA TABLE					
CODE	STANDOFF MATL	SPEC		FINISH	SPEC
A	2024 ALUMINUM	QQ-A-200, OR QQ-A-225		NONE	
AA				ANODIZED	MIL-A-8625
CRA	CRES 302, 303, 304 or A-286	AMS 5513, 5516, 5525, 5636, 5637, 5638, 5639, 5640, 5641, 5647, 55726, 5731, 5732, 5734, OR 5737		PASSIVATE	AMS 2700
T	6AL-4V TITANIUM	AMS 4928, 4965, OR 4967		NONE	

TRIM WASHER MATERIAL: 304 CRES PER MIL-S-5059 OR AMS 5513
TRIM WASHER FINISH: PASSIVATE PER AMS 2700

EXAMPLE PART NUMBER:

CODE	BASEPLATE MATL
CE	CARBON/EPOXY 350 DEG F
GE	GLASS/EPOXY 250 DEG F
GEH	GLASS/EPOXY 350 DEG F



NOTES:

1. STUD STRAIGHT WITHIN .004 INCH PER INCH OF LENGTH. THREAD MAJOR DIA. CONCENTRIC WITH BASE O.D. WITHIN .020 FIM. AND PERPENDICULAR TO THE BASE WITHIN +/- 1 DEG
2. DISPOSABLE PRESSURE SENSITIVE ADHESIVE FIXTURE HOLDS STUD WHILE ADHESIVE CURES
3. APPROXIMATE PART WEIGHT IS 8.0 GRAMS EACH, NOT INCLUDING INSTALLATION FIXTURE.

THREAD SIZE TABLE

CODE	THREAD T
08	.1640-32 UNJC-3B
3	.1900-32 UNJF-3B

* HELICAL COIL INSERT MAY BE USED OPTIONALLY

PATENT # 7294385



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DWG. NO.

NMC SB8041

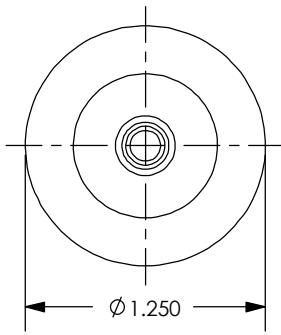
**STUD, FEMALE THREAD,
COMPOSITE BASE**

MATERIAL: SEE CHARTS

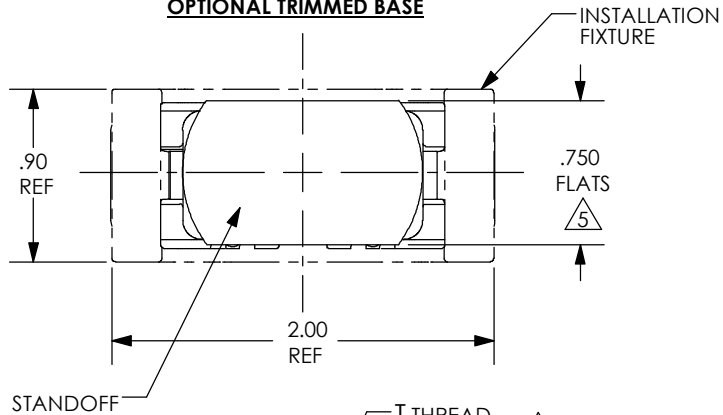
TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

SWIFTBOND BY NMC

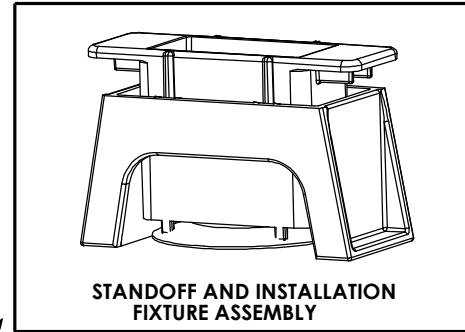
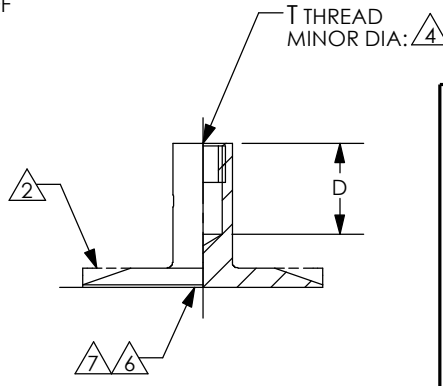
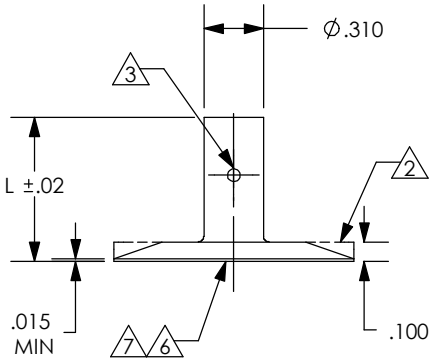
STANDARD BASE



OPTIONAL TRIMMED BASE



ISO VIEW



STANDOFF AND INSTALLATION FIXTURE ASSEMBLY

SWIFTBOND BY NMC

NOTES:

1. INSTALLATION FIXTURE SHALL BE PROVIDED WITH EACH STANDOFF.
2. PROFILE OF SURFACE MAY VARY WITH SIZE LIMITS.
3. SUFFIX "H" TO PART NUMBER = .064 OPTIONAL INSPECTION HOLE LOCATED 2 THD PITCHES BELOW INSERT ON -8 AND LONGER PART'S ONLY.
4. HELICAL COIL PER NAS1130 THREAD LOCKED PER NASM25027 AND SOLID-FILM LUBRICATED PER MIL-PRF-46010, TYPE 1 OR AS5272, TYPE 1.
5. CODE "T" SHALL HAVE .750 TRIMMED FLATS ON BASE.
6. CODE "P" SHALL HAVE PRIMER AND FILM-ADHESIVE APPLIED TO THIS SURFACE. PEEL-PLY FRABRIC SHALL BE APPLIED TO ADHESIVE FOR PROTECTION.
7. CODE "W" SHALL HAVE FILM-ADHESIVE ONLY APPLIED TO THIS SURFACE. PEEL-PLY FABRIC SHALL BE APPLIED TO ADHESIVE FOR PROTECTION.

TABLE I

SIZE CODE	MATERIAL	FINISH
A	AL ALLOY 2024 OR 7075 PER AMS-QQ-A200, AMS-QQ-A-225 OR AMS-QQ-A-250	NONE
AA		ANODIZE PER AMS-A-8625 TYPE 1 OR TYPE 2, CLASS OPTIONAL
CR	CRES 302, 303 OR 304 PER AMS5513, 5516, 5636, 5637, 5638, 5640 OR 5737. A-286 PER AMS5525, 5726, 5731, 5734 OR 5737	PASSIVATE PER AMS2700 TYPE 2
CRA	A-286 PER AMS5525, 5726, 5731, 5734 OR 5737	

TABLE II

SIZE CODE	T THREAD
6	6-32UNJC-3B
8	8-32UNJC-3B
10	10-32UNJC-3B

EXAMPLE OF PART CODING:

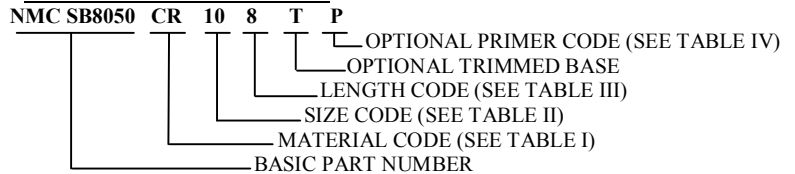


TABLE IV

FINISH CODE	SPECIAL FINISH
P	APPLY AND CURE EC9324B EPOXY PRIMER PER MIL-PRF-85582 AND AF-163-2K
W	APPLY AF-163-2K TO BASE

TABLE III

LENGTH CODE	5	6	7	8	9	10	12	14	16	18	20	22	24
L	.312	.375	.437	.500	.562	.625	.750	.875	1.000	1.125	1.250	1.375	1.500
D MIN	.218	.295		.400						.472			

PATENT # 7294385



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DWG. NO.

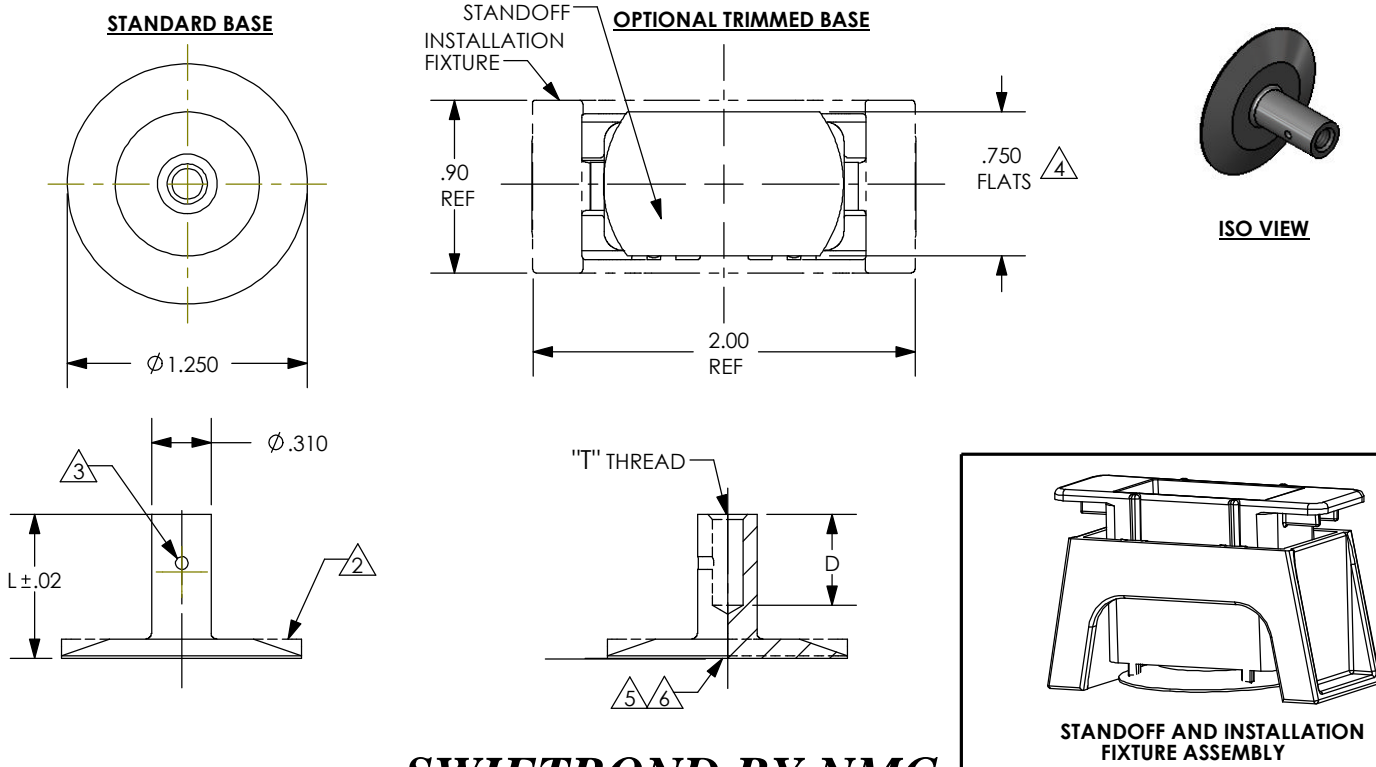
NMC SB8050

**STANDOFF, HELICAL-COIL,
SELF-LOCKING BONDED**

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

SWIFTBOND BY NMC

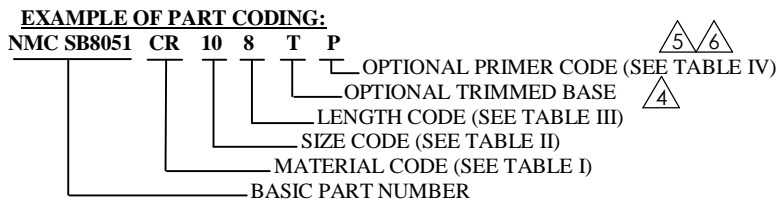


SWIFTBOND BY NMC

LENGTH CODE	5	6	7	8	9	10	12	14	16	18	20	22	24
L	.312	.375	.437	.500	.562	.625	.750	.875	1.000	1.125	1.250	1.375	1.500
D MIN	.218	.295		.400						.472			

SIZE CODE	MATERIAL	FINISH
A	AL ALLOY 2024 OR 7075 PER AMS-QQ-A200, AMS-QQ-A-225 OR AMS-QQ-A-250	NONE
AA	AL ALLOY 2024 OR 7075 PER AMS-QQ-A200, AMS-QQ-A-225 OR AMS-QQ-A-250	ANODIZE PER AMS-A-8625 TYPE 1 OR TYPE 2, CLASS OPTIONAL
CR	CRES 302, 303 OR 304 PER AMS5513, 5516, 5636, 5637, 5638, 5640 OR 5737. A-286 PER AMS5525, 5726, 5731, 5734 OR 5737	PASSIVATE PER AMS2700 TYPE 2
CRA	A-286 PER AMS5525, 5726, 5731, 5734 OR 5737	

FINISH CODE	SPECIAL FINISH
P	APPLY AND CURE EC9324B EPOXY PRIMER PER MIL-PRF-85582 AND AF-163-2K
W	APPLY AF-163-2K TO BASE



NOTES:
 1. INSTALLATION FIXTURE SHALL BE PROVIDED WITH EACH STANDOFF.

- 2. PROFILE OF SURFACE MAY VARY WITH SIZE LIMITS.
- 3. SUFFIX "H" TO PART NUMBER = .064 OPTIONAL INSPECTION HOLE LOCATED 2 THD PITCHES BELOW INSERT ON -8 AND LONGER PARTS ONLY.
- 4. CODE "T" SHALL HAVE .750 TRIMMED FLATS ON BASE.
- 5. CODE "P" SHALL HAVE PRIMER AND FILM-ADHESIVE APPLIED TO THIS SURFACE. PEEL-PLY FRABRIC SHALL BE APPLIED TO ADHESIVE FOR PROTECTION.
- 6. CODE "W" SHALL HAVE FILM-ADHESIVE ONLY APPLIED TO THIS SURFACE. PEEL-PLY FABRIC SHALL BE APPLIED TO ADHESIVE FOR PROTECTION.

SIZE CODE	T THREAD
6	6-32UNJC-3B
8	8-32UNJC-3B
10	10-32UNJC-3B

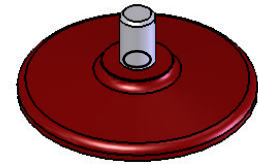
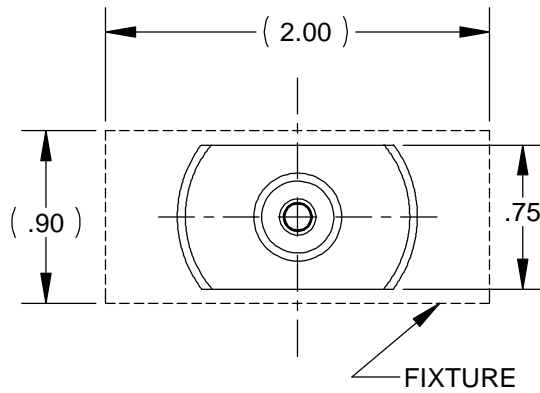
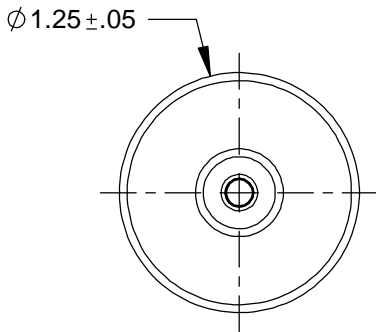
PATENT # 7294385

	NMC AEROSPACE 2755 THOMPSON CREEK POMONA, CA 91767-1861 909-451-2290 www.esterline.com	DWG. NO. <h2>NMC SB8051</h2>			
	<h3>STANDOFF, THREADED, BONDED</h3>	MATERIAL: SEE TABLE I TOLERANCES <table border="1"> <tr> <td>DECIMAL</td> <td>ANGULAR</td> </tr> <tr> <td>.XX ±.030</td> <td>.XXX ±.010 ±5°</td> </tr> </table>	DECIMAL	ANGULAR	.XX ±.030
DECIMAL	ANGULAR				
.XX ±.030	.XXX ±.010 ±5°				

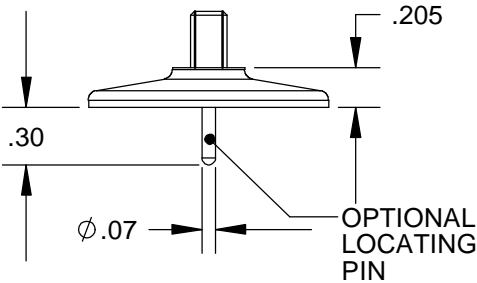
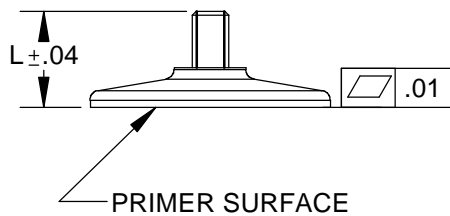
SWIFTBOND BY NMC

STANDARD BASE

TRIMMED BASE

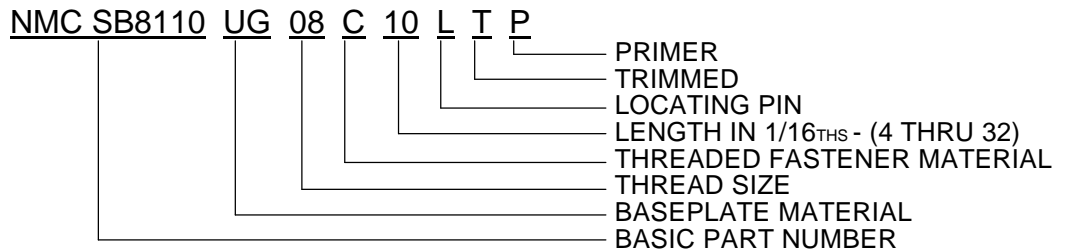


ISO VIEW



SWIFTBOND BY NMC

DASH NO.	T THREAD MIL-S-8879
06	.1380-32 UNJC-3A
08	.1640-32 UNJC-3A
10	.1900-32 UNJF-3A
12	.2500-28 UNJF-3A



NOTES:

MATERIAL

THREADED FASTENER - "C" - CRES 302,303, OR 304 FINISH - PASSIVATED
 "T" - 6Al-4V TITANIUM ALLOY FINISH - ALUMINUM PIGMENTED COATING
 PHOSPHATE FLUORIDE TREAT

SURFACE TEXTURE: ROOT RADIUS AND THREAD FLANKS 32, OTHER SURFACES 125 MICRINCHES Ra MAX

BASEPLATE - "UG" ULTEM 2300 OR EQUIVALENT

LOCATING PIN - NO CODE - WITHOUT LOCATING PIN
 L - WITH LOCATING PIN

FINISH - NO CODE - NO PRIMER
 P - PRIMER

PATENT # 7294385



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DWG. NO.

NMC SB8110

**STUD, BONDED,
 THREADED**

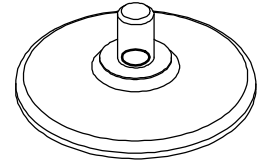
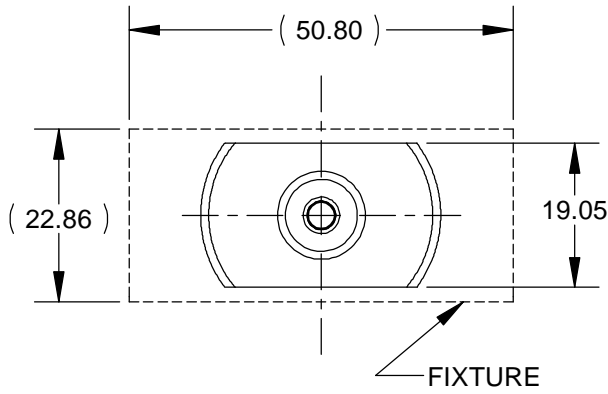
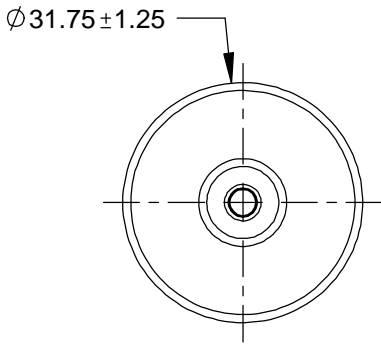
MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

SWIFTBOND BY NMC

STANDARD BASE

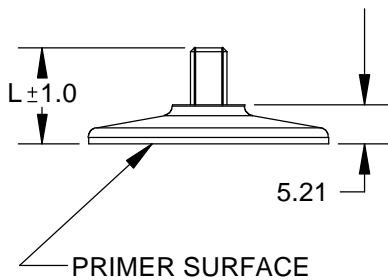
TRIMMED BASE



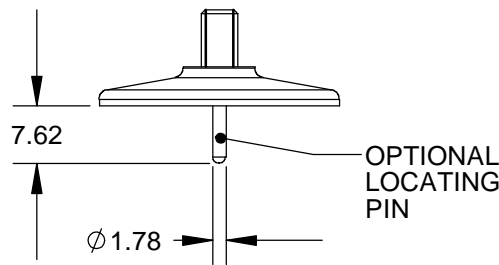
ISO VIEW

STANDARD BASEPLATE

TRIMMED BASEPLATE



PRIMER SURFACE



OPTIONAL LOCATING PIN

SWIFTBOND BY NMC

DASH NO.	T THREAD FED-STD-H28
3M	MJ3 X 0.8 4h6h
4M	MJ4 X 0.8 4h6h
5M	MJ5 X 0.8 4h6h
6M	MJ6 X 0.8 4h6h
8M	MJ8 X 0.8 4h6h

NMC SB8110 UG 3M C 10 L T P

PRIMER
TRIMMED
LOCATING PIN
LENGTH IN MILLIMETERS
(10, 12, 15, 20, 25, 30, 35MM)
THREADED FASTENER MATERIAL
THREAD SIZE
BASEPLATE MATERIAL
BASIC PART NUMBER

NOTES:

THREADED FASTENER - "C" - CRES 302,303, OR 304 PERAMS5513, 5516, 5636, 5637, 5638, 5639, 5640, 5641, OR 5647 OR A-286 CRES PER AMS 5525, 5726, 5731, 5732, 5734M IR 5737.- PASSIVATE PER AMS2700, TYPE 2 (FINISH - PASSIVATE PER AMS2700 TYPE 2)

"T" - 6Al-4V TITANIUM ALLOY (UNS R56400) PER AMS 4928 OR AMS 4967, (FINISH - ALUMINUM PIGMENTED COATING PER BMS10-85, TYPE I, PHOSPHATE FLUORIDE TREAT PER BAC5861.)

SURFACE TEXTURE: ROOT RADIUS AND THREAD FLANKS 32, OTHER SURFACES 125 MICROINCHES Ra MAX PER ANSI B46.1-1978

BASEPLATE - "UG" ULTEM 2300 OR EQUIVALENT

LOCATING PIN - NO CODE - WITHOUT LOCATING PIN
L - WITH LOCATING PIN

FINISH - NO CODE - NO PRIMER
P -PRIMER PER MIL-P-85582

PATENT # 7294385



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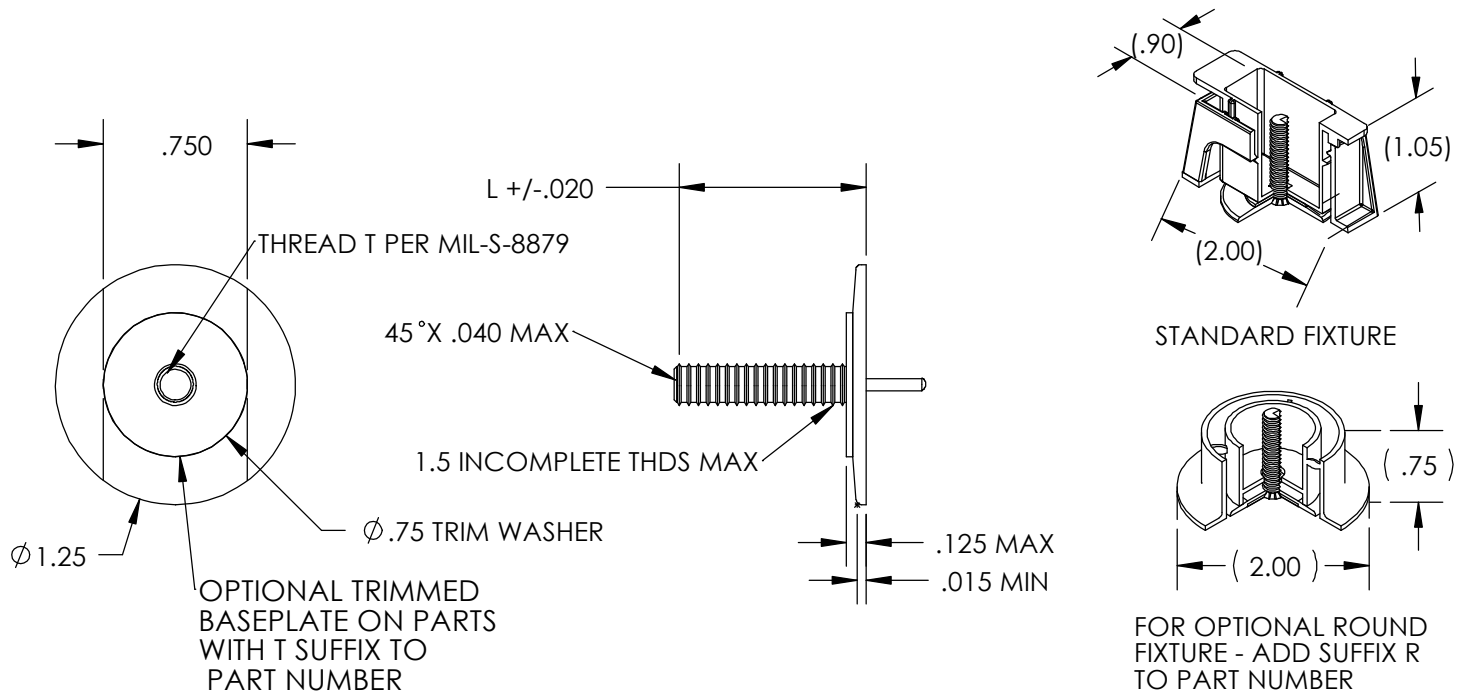
NMC SB8110M

STUD, BONDED, THREADED

MATERIAL: ULTEM 2300 OR EQUIVALENT

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

SWIFTBOND BY NMC



SWIFTBOND BY NMC

LENGTH DATA (LENGTH "L" IN SIXTEENTHS OF AN INCH)

CODE	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
L	0.250	0.375	0.500	0.625	0.750	0.875	1.000	1.125	1.250	1.375	1.500	1.625	1.750	1.875	2.000

MATERIAL AND FINISH DATA

CODE	THREAD MATL	SPEC	FINISH	SPEC
A	2024 OR 7075	QQ-A-200, QQ-A-225, OR QQ-A-250	NONE	
AA	ALUMINUM		ANODIZED	MIL-A-8625
CR	302, 303, 304 CRES	AMS 5513, 5516, 5636, 5637, 5638, 5639, 5640, 5641, OR 5647	PASSIVATE	QQ-P-35
CRA	A-286 CRES	AMS 5525, 5726, 5731, 5732, 5734, OR 5737 (CHEMISTRY ONLY)	PASSIVATE	QQ-P-35
T	6AL-4V TITANIUM	AMS 4911, 4928, 4965, OR 4967	NONE	

TRIM WASHER MATERIAL 304 CRES PER MIL-S-5059 OR AMS 5513
TRIM WASHER FINISH: PASSIVATE PER QQ-P-35

THREAD DATA

CODE	THREAD T
08	.164-32 UNJC-3A
3	.1900-32 UNJF-3A
4	.2500-28 UNJF-3A

EXAMPLE PART NUMBER

NMC SB8120 GE 3 AA 16 - T

OPTIONAL TRIMMED BASEPLATE
LENGTH - 1.000
THREAD MATERIAL - 2024 ALUMINUM
THREAD - .1900-32 UNJF-3A
BASEPLATE MATERIAL - GLASS/EPOXY
BASIC PART NUMBER

CODE	BASEPLATE MATL
CE	CARBON/EPOXY 350 DEG F
GE	GLASS/EPOXY 250 DEG F
GEH	GLASS/EPOXY 350 DEG F

PATENT # 7294385



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DWG. NO.

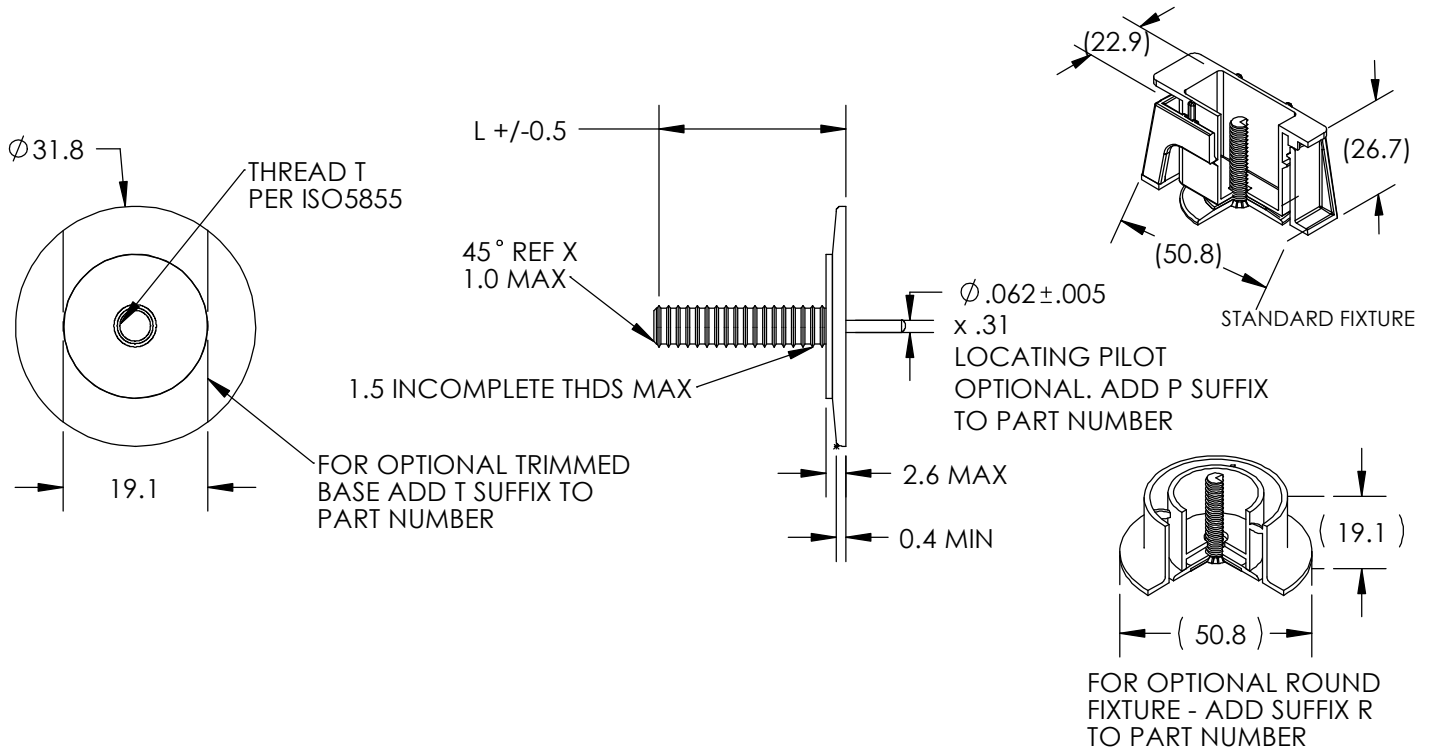
NMC SB8120

STUD, COMPOSITE BASE

MATERIAL: SEE CHARTS

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

SWIFTBOND BY NMC



SWIFTBOND BY NMC

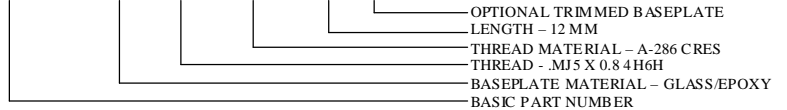
LENGTH DATA (LENGTH "L" IN MILLIMETERS)										
CODE	6M	8M	10M	12M	15M	20M	25M	30M	35M	38M
L	6	8	10	12	15	20	25	30	35	38

MATERIAL AND FINISH DATA				
CODE	THREAD MATL	SPEC	FINISH	SPEC
A	2024 OR 7075	QQ-A-200, QQ-A-225, OR QQ-A-250	NONE	
AA	ALUMINUM		ANODIZED	MIL-A-8625
CR	302, 303, 304 CRES	AMS 5513, 5516, 5636, 5637, 5638, 5639, 5640, 5641, OR 5647	PASSIVATE	QQ-P-35
CRA	A-286 CRES	AMS 5525, 5726, 5731, 5732, 5734, OR 5737 (CHEMISTRY ONLY)	PASSIVATE	QQ-P-35
T	6AL-4V TITANIUM	AMS 4911, 4928, 4965, OR 4967	NONE	

THREAD DATA	
CODE	THREAD T
3M	MJ3 X 0.5 4H6H
4M	MJ4 X 0.7 4H6H
5M	MJ5 X 0.8 4H6H
6M	MJ6 X 1.0 4H6H
8M	MJ8 X 1.0 4H6H

EXAMPLE PART NUMBER

NMC SB8120M GE 5M CRA 12M T



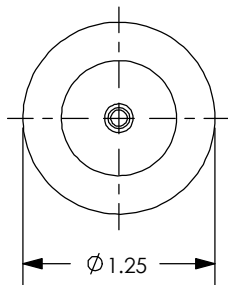
CODE	BASEPLATE MATL
CE	CARBON/EPOXY 177 DEG C
GE	GLASS/EPOXY 121 DEG C
GEH	GLASS/EPOXY 177 DEG C

PATENT # 7294385

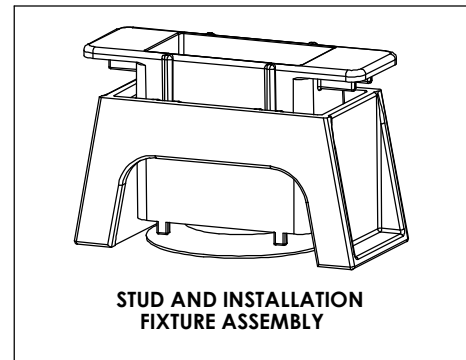
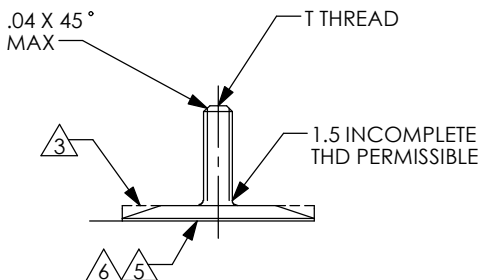
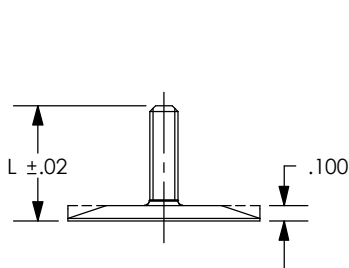
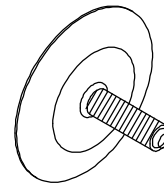
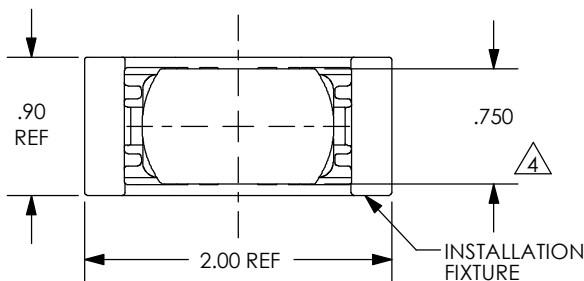
	NMC AEROSPACE 2755 THOMPSON CREEK POMONA, CA 91767-1861 www.esterline.com 909-451-2290	DWG. NO. <h2>NMC SB8120M</h2>			
	<h3>STUD, COMPOSITE BASE</h3>	MATERIAL: SEE CHARTS			
	TOLERANCES	<table border="1"> <thead> <tr> <th>DECIMAL</th> <th>ANGULAR</th> </tr> </thead> <tbody> <tr> <td>.XX ±.030</td> <td>.XXX ±.010 ±5°</td> </tr> </tbody> </table>	DECIMAL	ANGULAR	.XX ±.030
DECIMAL	ANGULAR				
.XX ±.030	.XXX ±.010 ±5°				

SWIFTBOND BY NMC

STANDARD BASE



OPTIONAL TRIMMED BASE



SWIFTBOND BY NMC

LENGTH CODE	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
L	.250	.375	.500	.625	.750	.875	1.000	1.125	1.250	1.375	1.500	1.625	1.750	1.875	2.000

TABLE II

SIZE CODE	MATERIAL	FINISH
A	AL ALLOY 2024 OR 7075 PER AMS-QQ-A-200, AMS-QQ-A-225 OR AMS-QQ-A-250	NONE
AA		ANODIZE PER AMS-A-8625
CR	CRES 302, 303, 304 OR A-286 PER AMS5513, 5516, 5636, 5637, 5638, 5639, 5640, OR 5647 (CHEMISTRY ONLY)	PASSIVATE PER AMS2700 TYPE 2.
	A-286 CRES PER AMS5525, 5726, 5731, 5732, 5734 OR 5737 (CHEMISTRY ONLY)	

TABLE III

FINISH CODE	SPECIAL FINISH
P	APPLY AND CURE EC9324B EPOXY PRIMER PER MIL-PRF-85562 AND AF-163-2K FILM-ADHESIVE
W	AF163-2K FILM-ADHESIVE

EXAMPLE OF PART CODING:

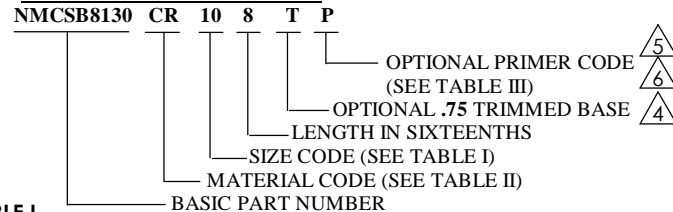


TABLE I

SIZE CODE	T THREAD
06	6-32UNJC-3A
08	8-32UNJC-3A
10	10-32UNJF-3A

NOTES:

- INSTALLATION FIXTURE TO BE PROVIDED WITH EACH STUD.
- SURFACE TEXTURE: ROOT RADIUS AND THREAD FLANKS 32 MICROINCHES, OTHER SURFACES 125 MICROINCHES. GRIT BLAST BOND SURFACE OF BASE 125-250 MICROINCHES.
- PROFILE OF SURFACE MAY VARY WITHIN SIZE LIMITS.
- CODE "T" SHALL HAVE .750 TRIMMED FLATS ON BASE.
- CODE "P" SHALL HAVE PRIMER AND FILM-ADHESIVE APPLIED TO THIS SURFACE. PEEL-PLY FABRIC SHALL BE APPLIED FOR ADHESIVE PROTECTION.
- CODE "W" SHALL HAVE FILM-ADHESIVE ONLY, APPLIED TO THIS SURFACE. PEEL-PLY FABRIC SHALL BE APPLIED TO ADHESIVE FOR PROTECTION.

PATENT # 7294385



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DWG. NO.

NMC SB8130

**STUD, THREADED,
BONDED**

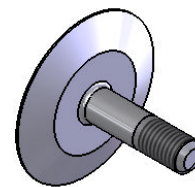
MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

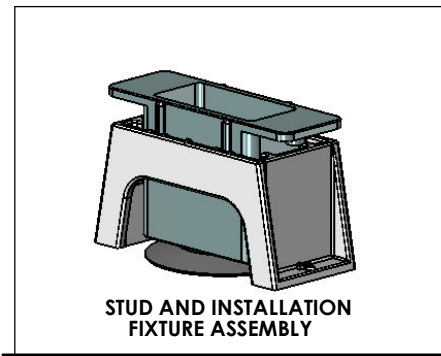
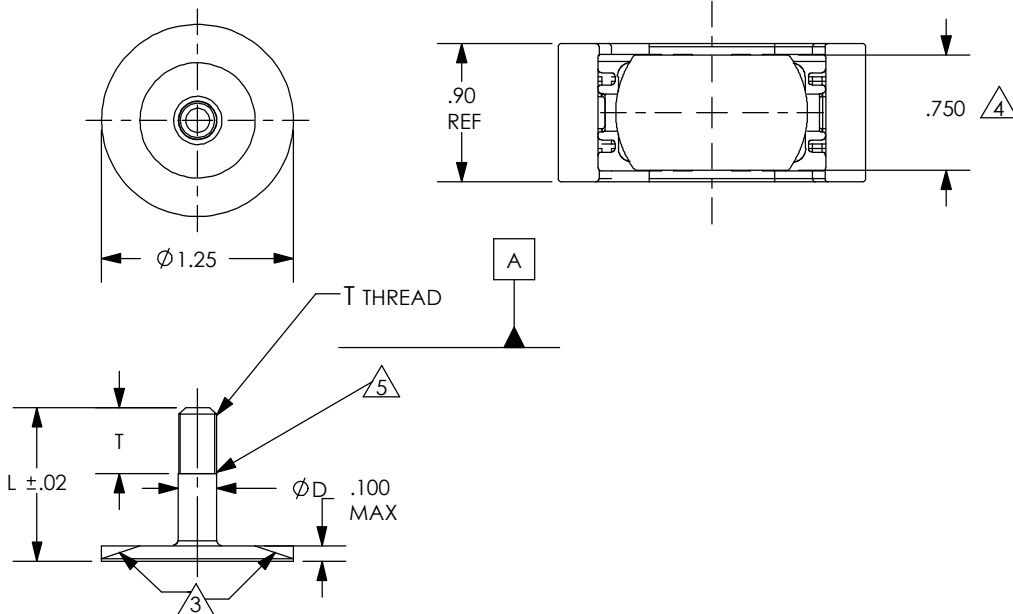
SWIFTBOND BY NMC

STANDARD BASE

OPTIONAL TRIMMED BASE



ISO VIEW



STUD AND INSTALLATION
FIXTURE ASSEMBLY

SWIFTBOND BY NMC

TABLE III

LENGTH CODE	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
L	.750	.875	1.000	1.125	1.250	1.375	1.500	1.625	1.750	1.875	2.000	2.125	2.250	2.375	2.500

NOTES:

- INSTALLATION FIXTURE TO BE PROVIDED WITH EACH STUD.
- SURFACE TEXTURE: ROOT RADIUS AND THREAD FLANKS 32 MICROINCHES, OTHER SURFACES 125 MICROINCHES. GRIT BLAST BOND SURFACE OF BASE 125-250 MICROINCHES.

- 3 PROFILE OF SURFACE MAY VARY WITHIN SIZE LIMITS.
- 4 CODE "T" SHALL HAVE .750 TRIMMED FLATS ON BASE.
- 5 1.5 INCOMPLETE THREADS PERMISSIBLE.

TABLE II

SIZE CODE	T THREAD	C MAX	D ±.002	T
3	.1900-32UNJF-3A	.039	.188	.35
4	.2500-28UNJF-3A	.045	.248	.43
5	.3125-24UNJF-3A	.052	.310	.47
6	.3750-24UNJF-3A	.052	.373	.58

EXAMPLE OF PART CODING:

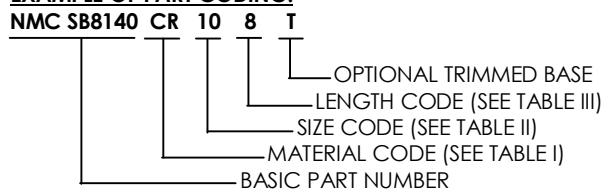


TABLE I

MATL CODE	MATERIAL	FINISH
A	AL ALLOY 2024 OR 7075 PER AMS-QQ-Q-200, AMS-QQ-A-225	NONE
AA	OR AMS-QQ-A-250	ANODIZE PER AMS-A-8625
CR	CRES 302, 303 OR 304 PER AMS5513, 5516, 5637, 5638, 5640 OR 5647	PASSIVATE PER AMS2700 TYPE 2
	CRES A-286 PER AMS5525, 5726, 5731, 5732, 5734 OR 5737	
CRA	CRES A-286 PER AMS5525, 5726, 5731, 5732, 5734 OR 5737	

PATENT # 7294385



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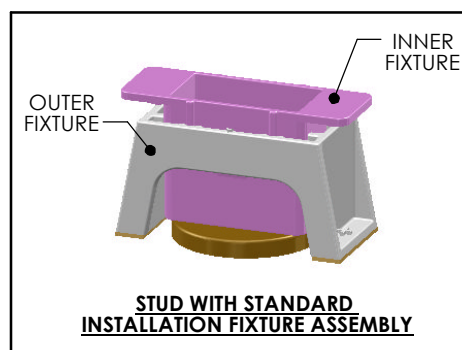
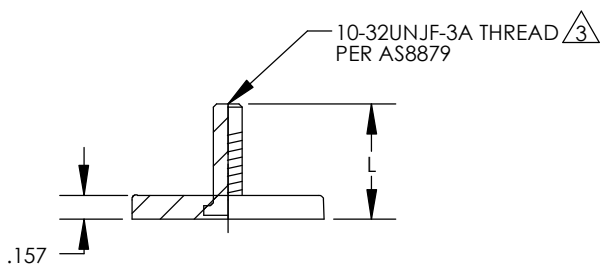
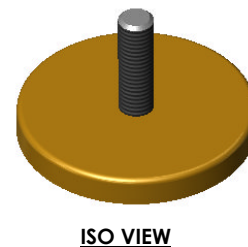
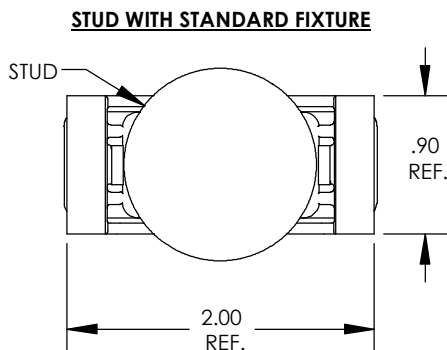
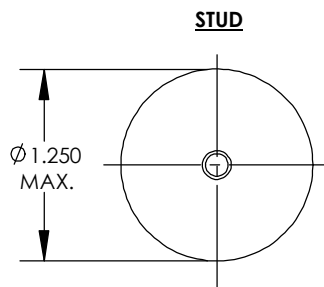
DWG. NO.

NMC SB8140

**STUD, THREADED,
BONDED**

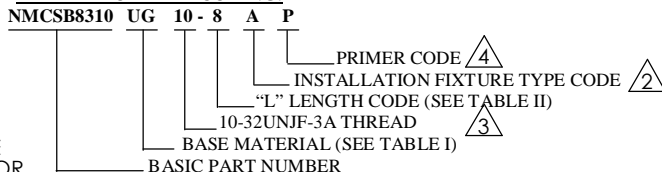
TOLERANCES	MATERIAL: SEE TABLES	
	DECIMAL	ANGULAR
	.XX ±.030	.XXX ±.010 ±5°

SWIFTBOND BY NMC



SWIFTBOND BY NMC

EXAMPLE OF PART CODING:



NOTES:

1. INSTALLATION FIXTURE WITH NON RESIDUE PRESSURE SENSITIVE TAPE SHALL BE PROVIDED WITH EACH STUD. INNER FIXTURE SHALL BE COLOR PINK.

² NO LETTER AFTER SECOND DASH NUMBER INDICATES STANDARD INSTALLATION FIXTURE.
 LETTER "A" AFTER SECOND DASH NUMBER INDICATES DOUBLE INSTALLATION FIXTURE.
 LETTER "B" AFTER SECOND DASH NUMBER INDICATES DUAL INSTALLATION FIXTURE.
 LETTER "C" AFTER SECOND DASH NUMBER INDICATES QUAD INSTALLATION FIXTURE

³ THREADED STUD MATERIAL: CRES 302.303 OR 304 PER AMS5513, 5516, 5637, 5638, 5639, 5640, 5641, 5647 OR A-286 PER AMS5525, 5726, 5731, 5732, 5734 OR 5737. FINISH: PASSIVATE PER AS2700 TYPE 2.

⁴ SUFFIX P AFTER SECOND DASH NUMBER INDICATES PRIMER.
 P = MIL-PRF-85582 Type 1, Class 2

P1 = MIL-PRF-85582 Type 1, Class N
 TO ALL EXPOSED SURFACES (BOND SURFACE MFG OPTION).

5. OPERATING TEMPERATURE RANGE IS: -55 °TO +85 °C.

PATENT # 7294385



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DWG. NO.

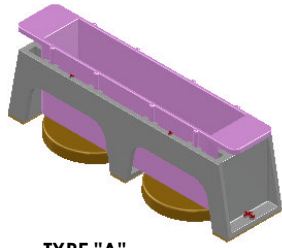
NMC SB8310

**STUD, THREADED
 ADHESIVE BONDED**

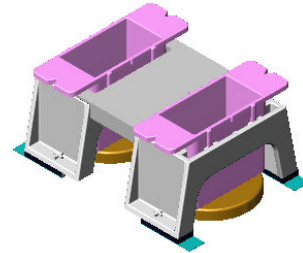
MATERIAL: SEE NOTES AND TABLE I

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

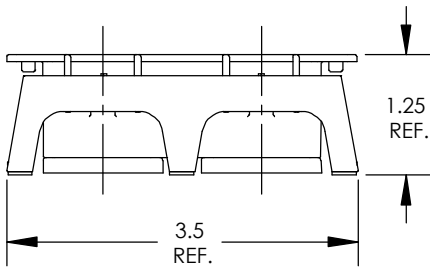
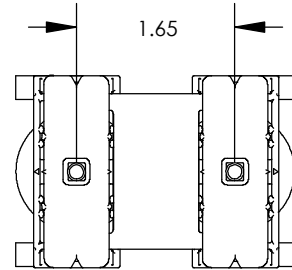
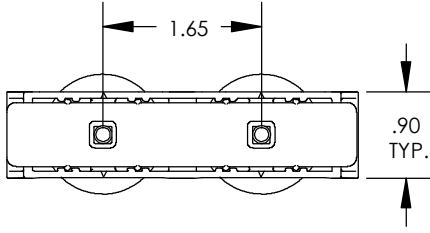
SWIFTBOND BY NMC



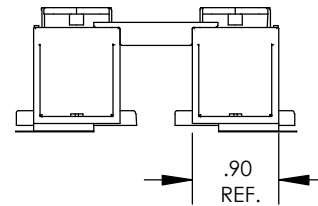
**TYPE "A"
ISO VIEW**



**TYPE "B"
ISO VIEW**



**TYPE "A"
DOUBLE FIXTURE**



**TYPE "B"
DUAL FIXTURE**

SWIFTBOND BY NMC

TABLE II

LENGTH CODE	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
L ±.02	[6.35] .250	[9.52] .375	[12.7] .500	[15.88] .625	[19.05] .750	[22.23] .875	[25.4] 1.000	[28.57] 1.125	[31.75] 1.250	[34.92] 1.375	[38.1] 1.500	[41.28] 1.625	[44.45] 1.750	[47.63] 1.875	[50.8] 2.000
CALCULATED WEIGHT (Grams)															
ULTEM 2300	5.75	6.19	6.63	7.07	7.51	7.95	8.39	8.83	9.27	9.71	10.15	10.59	11.03	11.47	11.91
ULTEM 2400	6.06	6.5	6.94	7.38	7.82	8.26	8.7	9.14	9.58	10.02	10.46	10.9	11.34	11.78	12.22

TABLE I

MATL CODE	BASEPLATE MATERIAL
UG	ULTEM 2300
UF	ULTEM 2400

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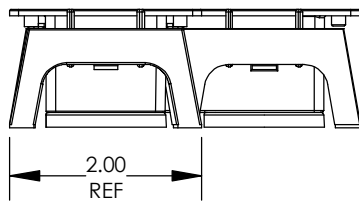
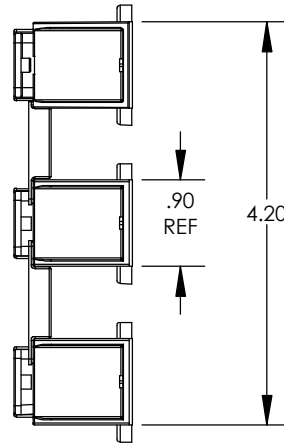
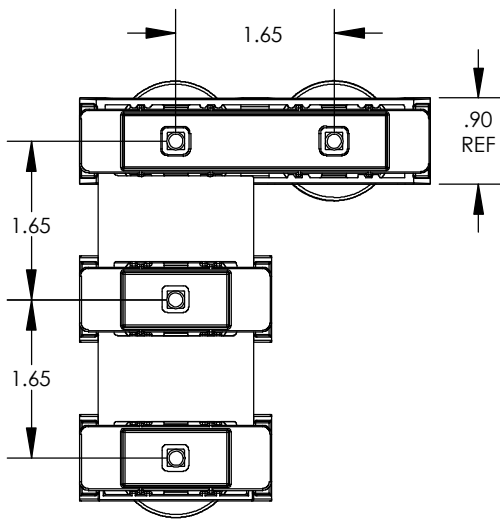
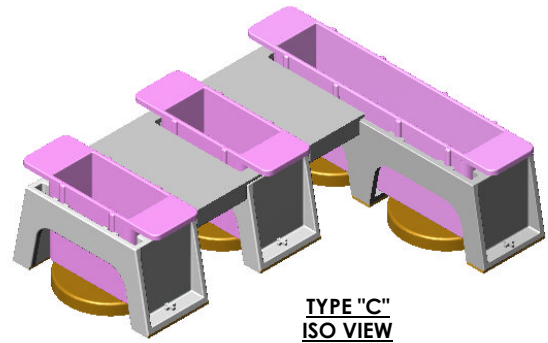
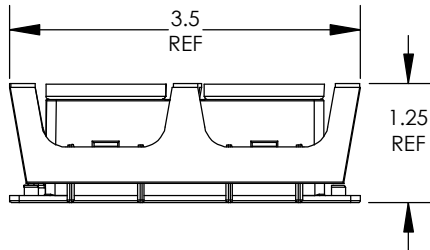
DWG. NO.

NMC SB8310

**STUD, THREADED
ADHESIVE BONDED**

MATERIAL: SEE NOTES AND TABLE I			
TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

SWIFTBOND BY NMC



TYPE "C"
QUAD FIXTURE

PATENT # 7294385



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DWG. NO.

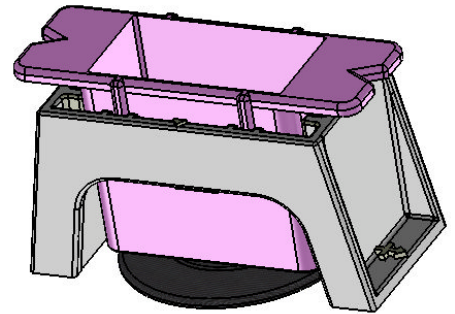
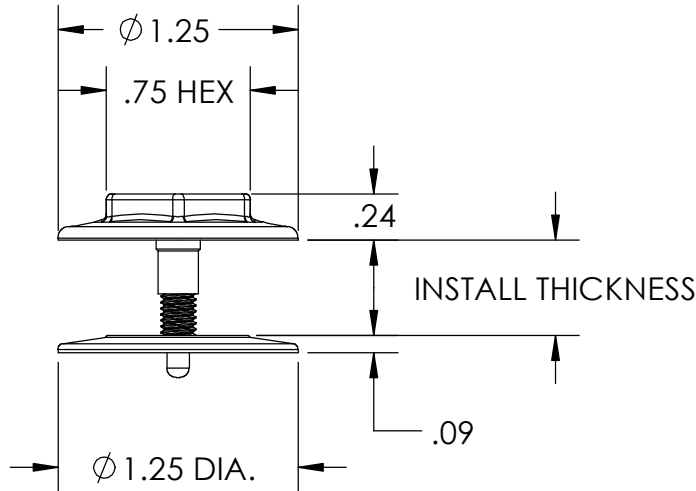
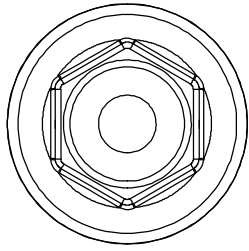
NMC 8310

**STUD, THREADED
ADHESIVE BONDED**

MATERIAL: SEE NOTES AND TABLE I

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

SWIFTBOND BY NMC



SWIFTBOND BY NMC

OTHER LENGTH CODES AVAILABLE UPON REQUEST

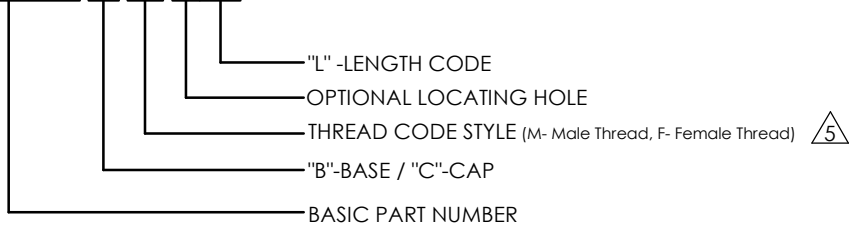
"L"	.150	.460
INSTALL THICKNESS	.250-.500	.500-750

NOTES:

- 1: MATERIAL:
INSERT AND STUD TO BE MADE OF CRES 302.303,304 PER AMS 5513, 6516, 5636 THRU 5639, 5640, 5614 AND 5647
- 2: CAP AND BASE MATERIAL: WOVEN POLYIMIDE PREPREG.
- 3: CRES STUD AND INSERT TO BE MOLDED IN PLACE DURING MANUFACTURING PROCESS.
- 4: PRESSURE APPLICATOR INCLUDED.
- 5: **NMC SB8500BM()** MATES WITH **NMC SB8500CF()**
NMC SB8500BF() MATES WITH **NMC SB8500CM()**

EXAMPLE OF PART NUMBER:

NMC SB8500 -B -M -L .150



PATENT PENDING



NMC AEROSPACE
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 POMONA, CA 91767-1861
 909-451-2290

DWG. NO.

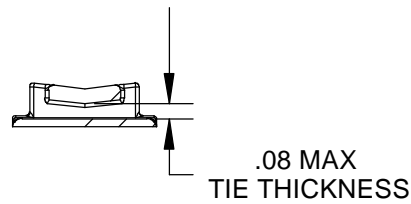
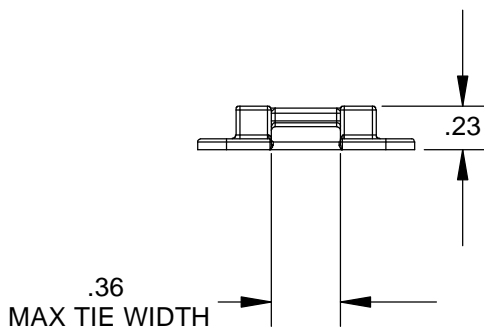
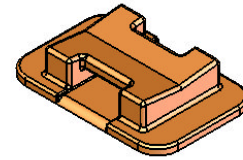
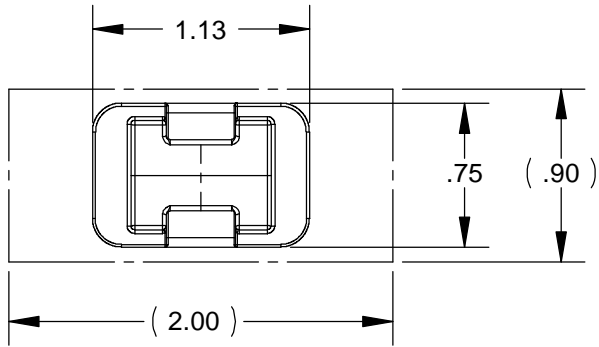
NMC SB8500

HIGH TEMP FASTENER

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX $\pm .030$.XXX $\pm .010$	$\pm 5^\circ$

SWIFTBOND BY NMC



SWIFTBOND BY NMC

MOUNT MATERIAL	
ID	MATERIAL
UG	ULTEM 2300 OR EQUIVALENT

NMC SB9000

BASIC PART NUMBER

EST. WEIGHT: 2g

PATENT # 7294385



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DWG. NO.

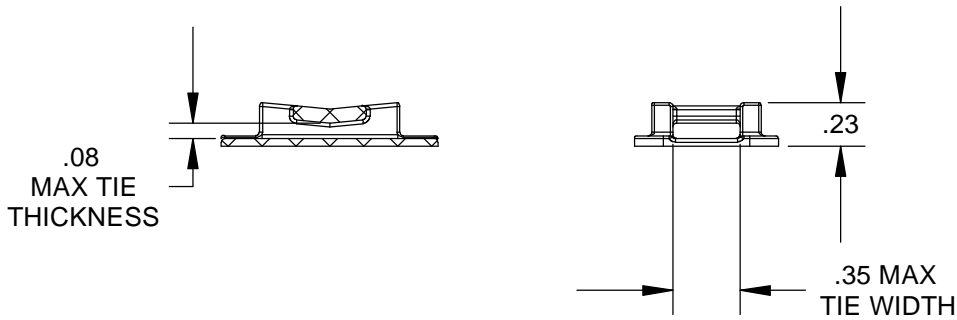
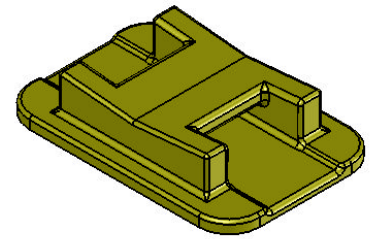
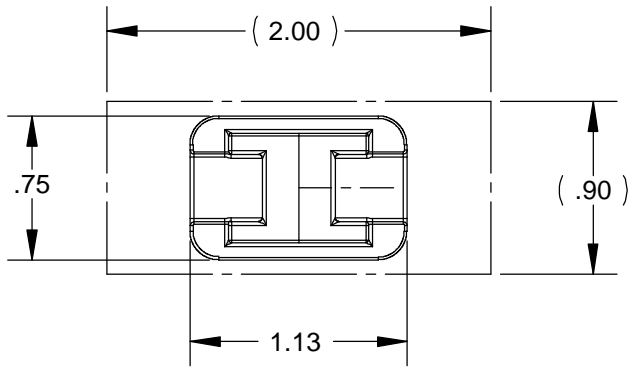
NMC SB9000

**MOUNT, CABLE TIE
ANCHOR**

MATERIAL: ULTEM 2300 OR EQUIV

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

SWIFTBOND BY NMC

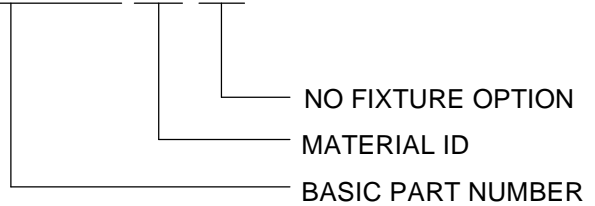


SWIFTBOND BY NMC

MOUNT MATERIAL	
ID	MATERIAL
NO CODE	ULTEM 2300 OR EQUIVALENT
NY	NYLON 6/6

EXAMPLE PART CALLOUT:

NMC SB9010 NY-NF



EST. WEIGHT 1.5g

PATENT # 7294385

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DWG. NO.

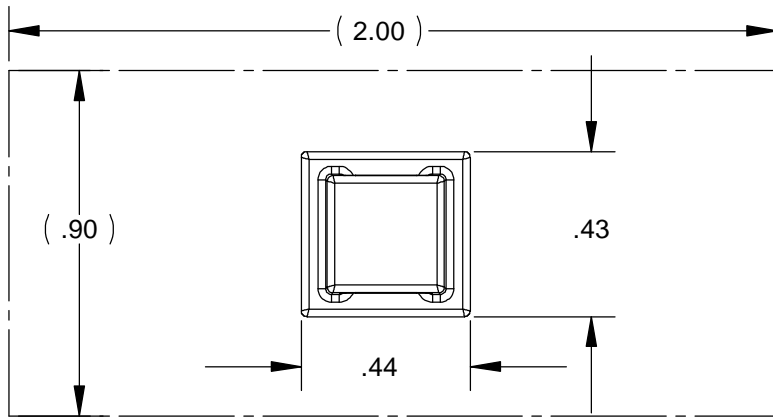
NMC SB9010

MOUNT, CABLE ANCHOR

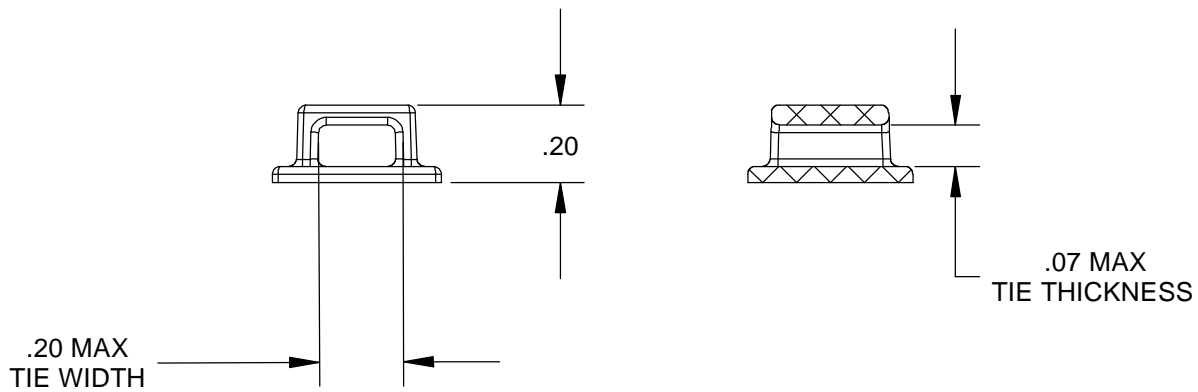
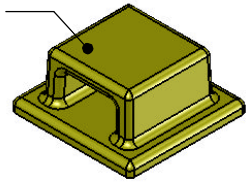
MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

SWIFTBOND BY NMC



TOP SURFACE SHALL BE SMOOTH



SWIFTBOND BY NMC

EXAMPLE PART CALLOUT:

NMC SB9020 NY-NF

MOUNT MATERIAL	
ID	MATERIAL
NO CODE	ULTEM 2300 OR EQUIVALENT
NY	NYLON 6/6

NO FIXTURE OPTION
MATERIAL ID
BASIC PART NUMBER

EST. WEIGHT 1g

PATENT # 7294385



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POMONA, CA 91767-1861
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DWG. NO.

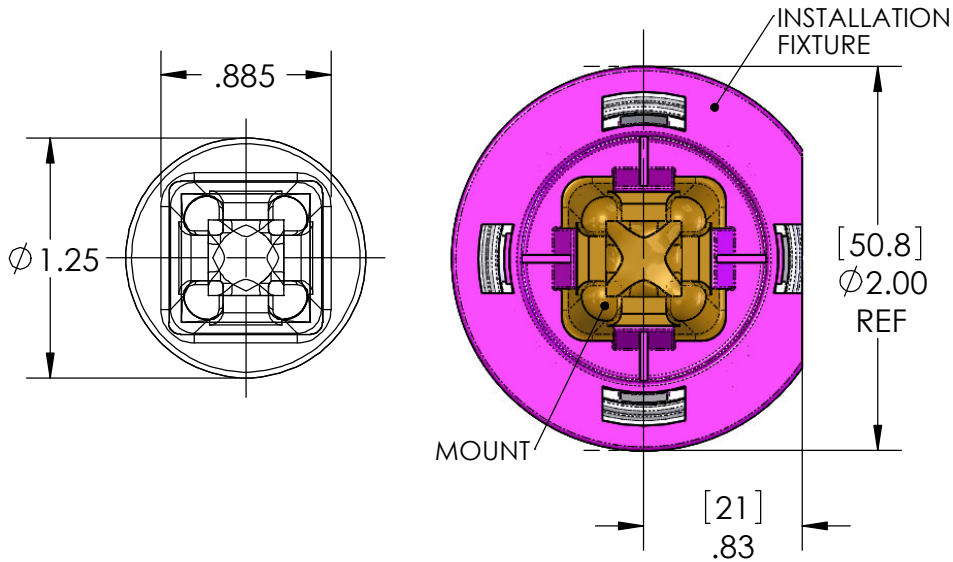
NMC SB9020

MOUNT, CABLE TIE ANCHOR

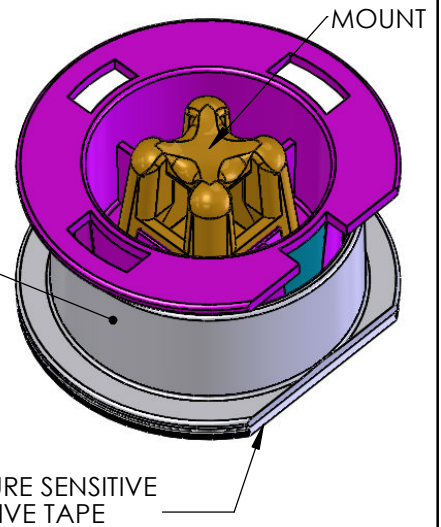
MATERIAL: SEE NOTES

TOLERANCES	DECIMAL	ANGULAR
	.XX ±.030	.XXX ±.010

SWIFTBOND BY NMC



**MOUNT WITH
INSTALLATION FIXTURE**



SWIFTBOND BY NMC

TABLE I

MATERIAL CODE	MOUNT MATERIAL	CALCULATED WEIGHT (GRAMS)
UG	ULTEM 2300	8.0
UF	ULTEM 2400	8.0

EXAMPLE OF PART CODING:

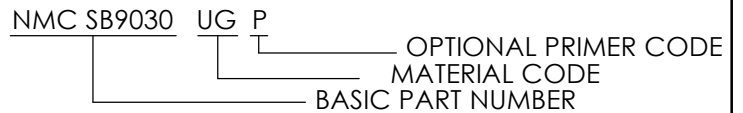


TABLE II

FINISH CODE	SPECIAL FINISH
P	APPLY PRIMER PER MIL-PRF-85582, TYPE 1, CLASS 2. TO ALL OUTER SURFACES.
P1	APPLY PRIMER PER MIL-PRF-85582, TYPE 1, CLASS N. TO ALL OUTER SURFACES.

NOTES:

- INSTALLATION FIXTURE SHALL BE PROVIDED WITH EACH MOUNT.

PATENT # 7294385



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DWG. NO.

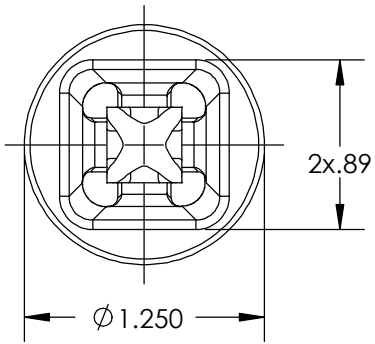
NMC SB9030

**MOUNT, CABLE-TIE, TWO
WAY**

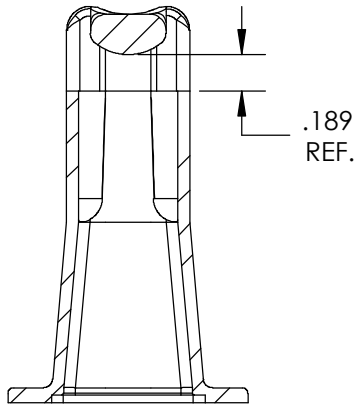
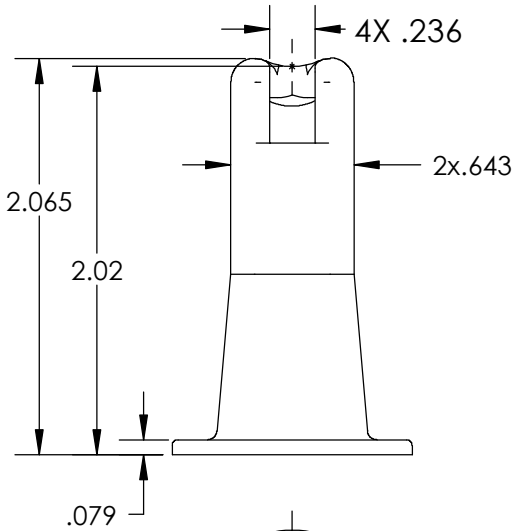
MATERIAL: SEE TABLE I

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

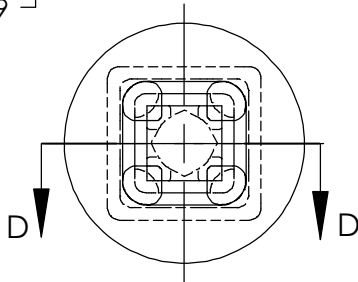
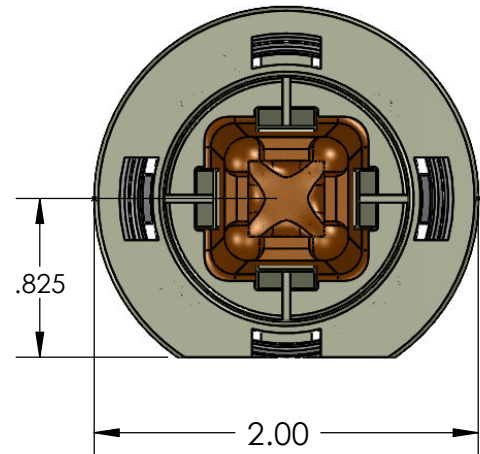
SWIFTBOND BY NMC



ROUND INSTALLATION
FIXTURE WITH TRIMMED
EDGE



SECTION D-D



SWIFTBOND BY NMC

NOTES:

MATERIAL:

ULTEM 2400 OR EQUIVALENT

FINISH:

SUFFIX CODE: P = MIL-PRF-85582 Type 1, Class 2

P1 = MIL-PRF-85582 Type 1, Class N

APPROXIMATE PART WEIGHT = 8.2 GRAMS NOT INCLUDING
INSTALLATION FIXTURE

NMC SB9031 P

PRIMER OPTION CODE

BASIC PART NUMBER

PATENT # 7294385



NMC AEROSPACE 2755 THOMPSON CREEK
POMONA, CA 91767-1861
www.esterline.com 909-451-2290

DWG. NO.

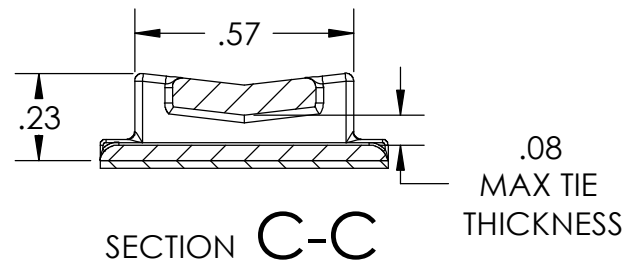
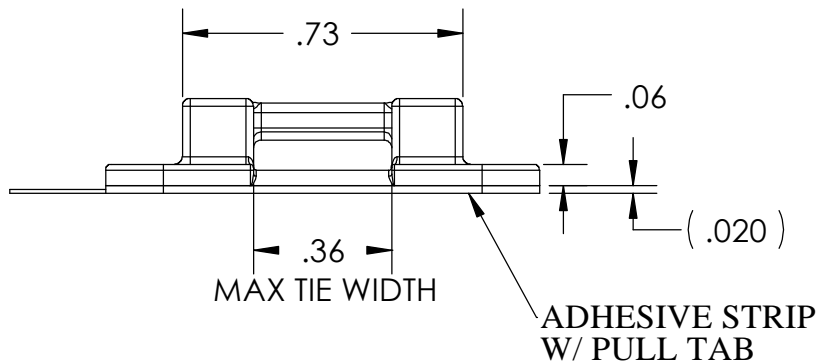
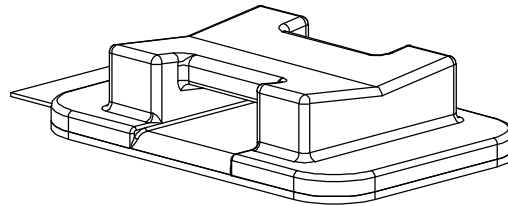
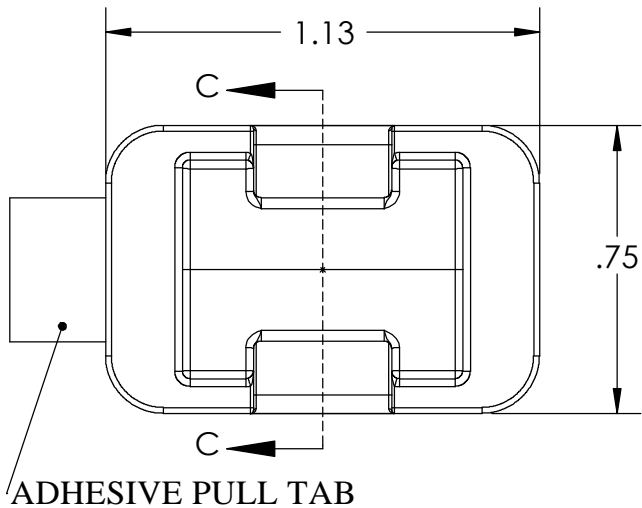
NMC SB9031

**MOUNT, CABLE TIE
2 INCH, TWO WAY**

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

SWIFTBOND BY NMC



SWIFTBOND BY NMC

MOUNT MATERIAL		
ID	MATERIAL	SPECIFICATION
UG	PEI	ULTEM 2300-OR EQUIVALENT

NMC SB9100

BASIC PART NUMBER

ADHESIVE STRIP - TAPE, 3M SCOTCH MOUNT NO 4930 WITH PAPER LINER OR EQUIVALENT

PATENT # 7294385



NMC AEROSPACE 2755 THOMPSON CREEK
POMONA, CA 91767-1861
www.esterline.com 909-451-2290

DWG. NO.

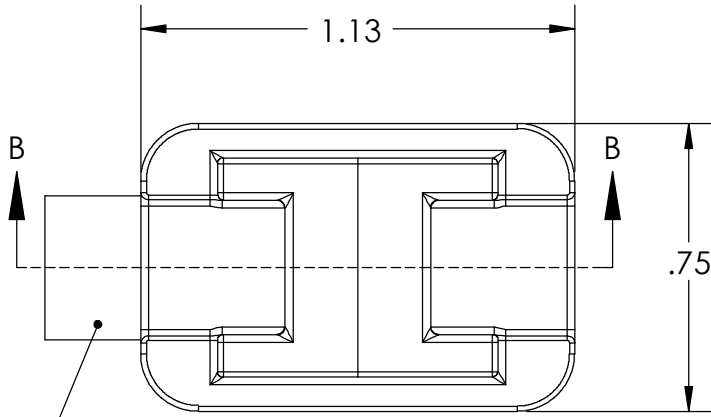
NMC SB9100

MOUNT, CABLE TIE ANCHOR, VHB

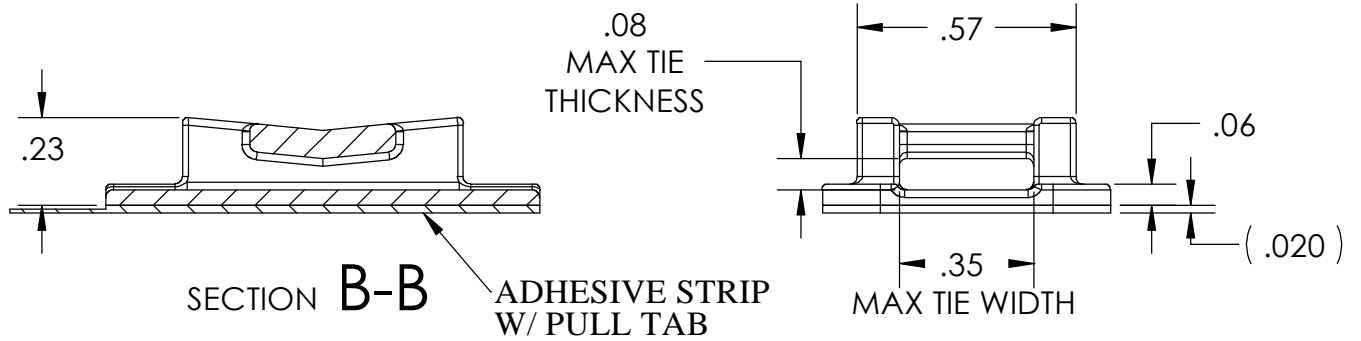
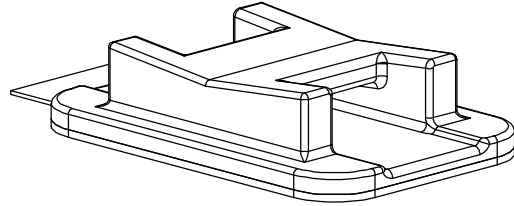
MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

SWIFTBOND BY NMC



ADHESIVE PULL TAB



SWIFTBOND BY NMC

MOUNT MATERIAL		
ID	MATERIAL	SPECIFICATION
UG	PEI	ULTEM 2300-OR EQUIVALENT

NMC SB9110

BASIC PART NUMBER

PATENT # 7294385



NMC AEROSPACE 2755 THOMPSON CREEK
POMONA, CA 91767-1861
www.esterline.com 909-451-2290

DWG. NO.

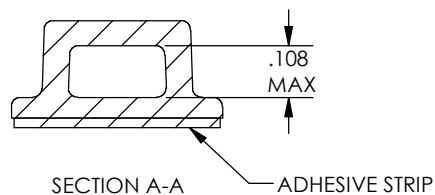
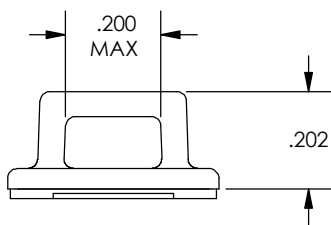
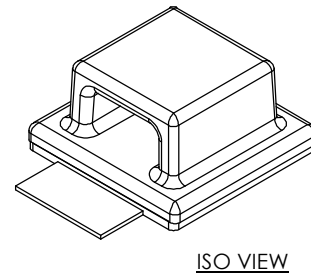
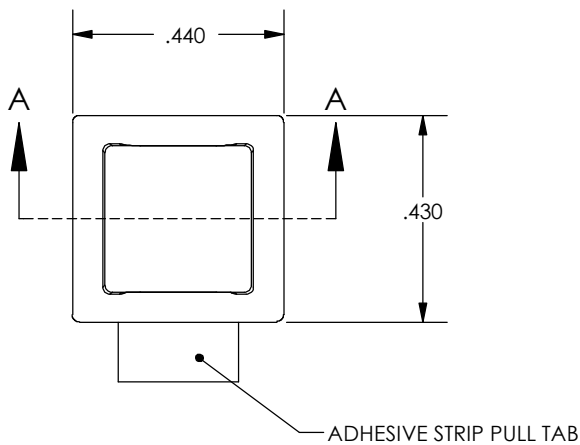
NMC SB9110

MOUNT, CABLE TIE
ANCHOR, TRANSVERSE
BASE, VHB

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

SWIFTBOND BY NMC



SWIFTBOND BY NMC

MOUNT MATERIAL		
ID	MATERIAL	SPECIFICATION
UG	PEI	ULTEM 2300-OR EQUIVALENT

NMC SB9120

BASIC PART NUMBER

PATENT # 7294385



NMC AEROSPACE 2755 THOMPSON CREEK
POMONA, CA 91767-1861
www.esterline.com 909-451-2290

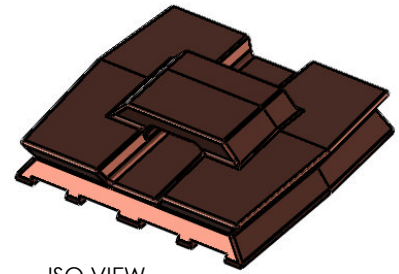
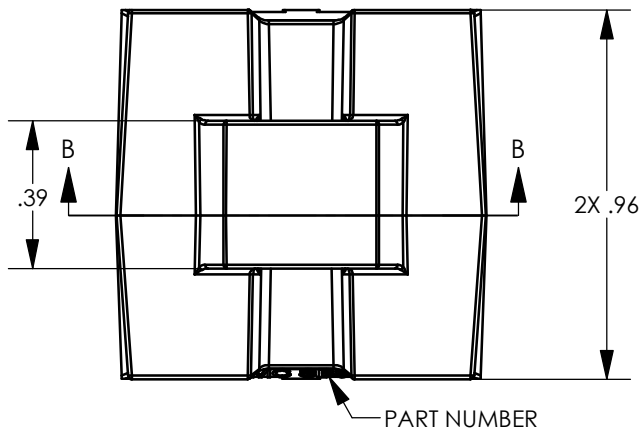
DWG. NO.

NMC SB9120

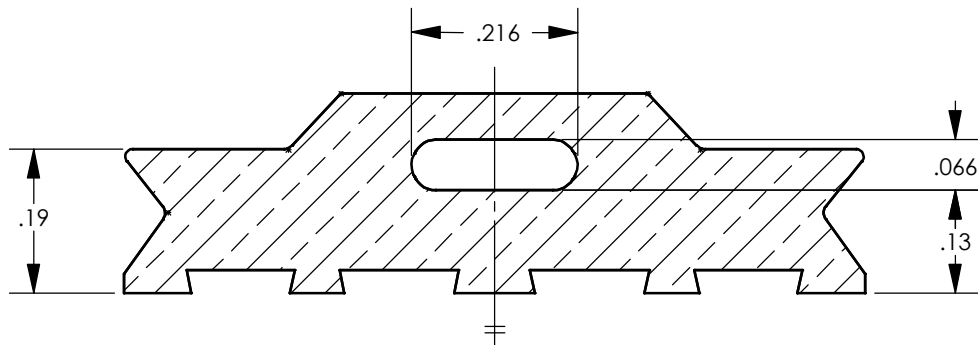
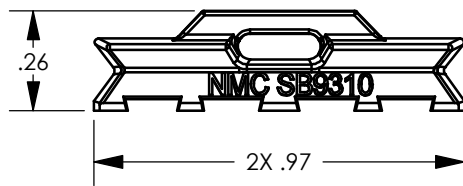
**MOUNT, CABLE TIE
ANCHOR, VHB**

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



ISO VIEW



SECTION B-B
SCALE 4 : 1

NOTE: (UNLESS OTHERWISE SPECIFIED)

1. ALL FILLET AND RADIUS TO BE .030
2. EACH PART SHALL BE MARKED PART NUMBER AS LISTED ON THE DRAWING.
3. PART TO MOUNTED WITH EXPOXY ADHESIVE, AND USED WITH CABLE TIE.

PATENT #7294385



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POMONA, CA 91767-1861
909-451-2290

DWG. NO.

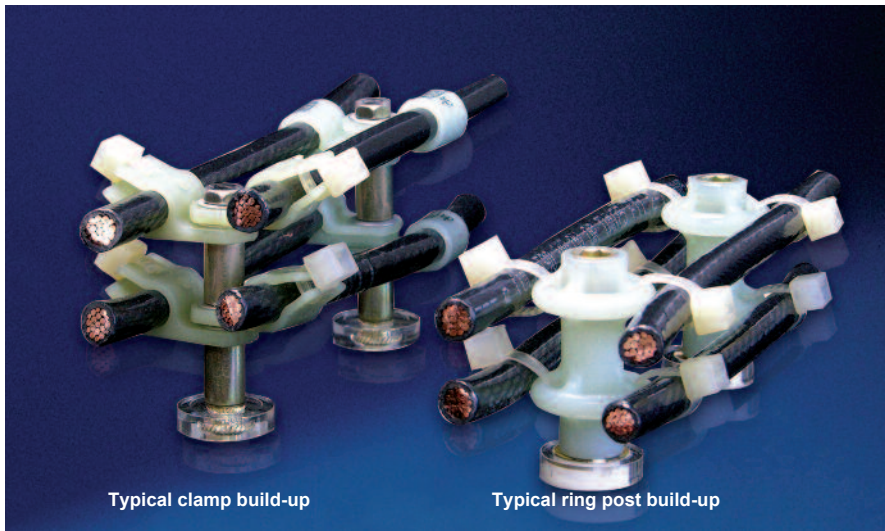
NMC SB9310

MATERIAL: NYLON 6/6 BLACK

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

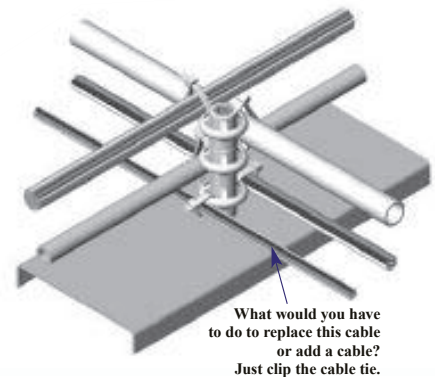
MOUNT, CABLE TIE

RINGPOSTS™



NMC RP Series Ring Posts™ for Wire Bundle Management in Aircraft, Marine, Automotive and other Electronic Products

NMC Ring Post™, is a unique wire management system that can provide one to six levels of wiring by screwing one Ring Post into another, and can accommodate bundles up to 1.25" in diameter. Wire separation is automatically achieved.



NMC RP1700

Single Ringpost, made from heat stabilized Nylon 6/6 with a clearance hole for a #10 fastener.



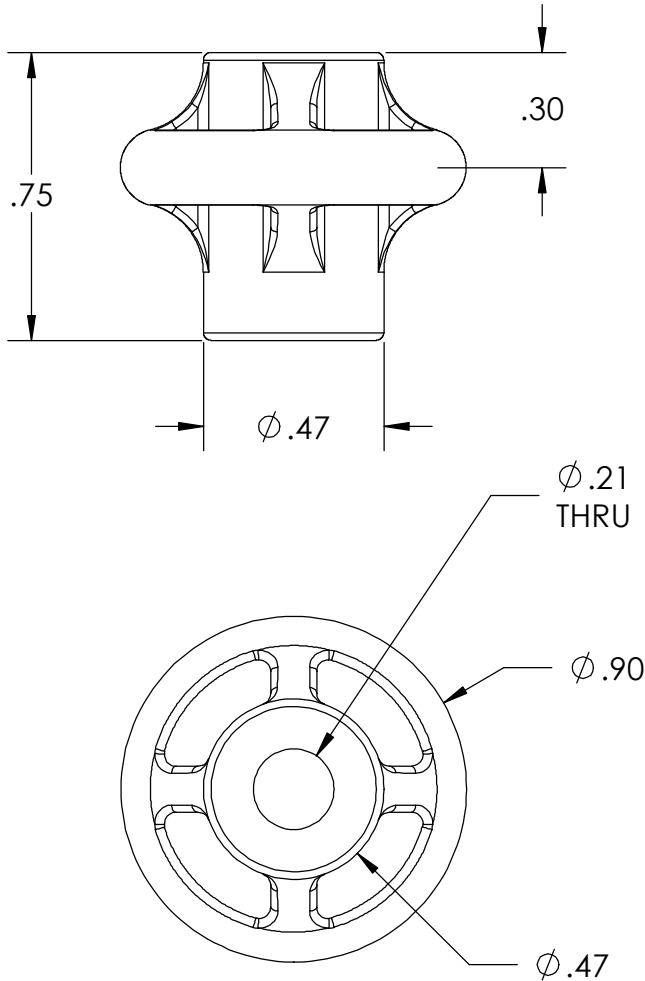
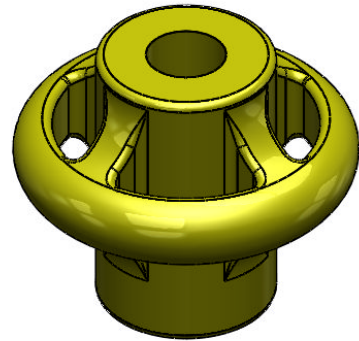
NMC RP1703

Single Ringpost, made from heat stabilized Nylon 6/6 with #10-32 titanium male stud and #10-32 carbon steel female insert.



NMC RP1704

Double Ringpost, made from heat stabilized Nylon 6/6 with #10-32 titanium male stud and #10-32 carbon steel female insert.



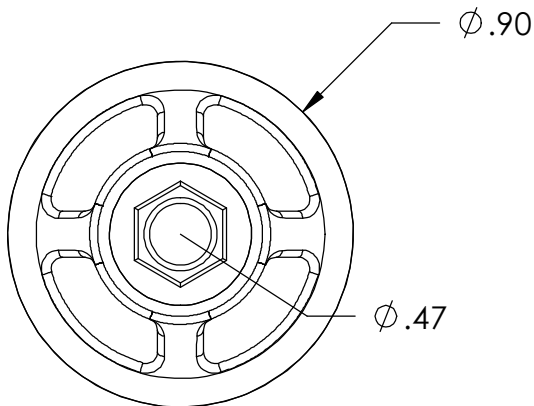
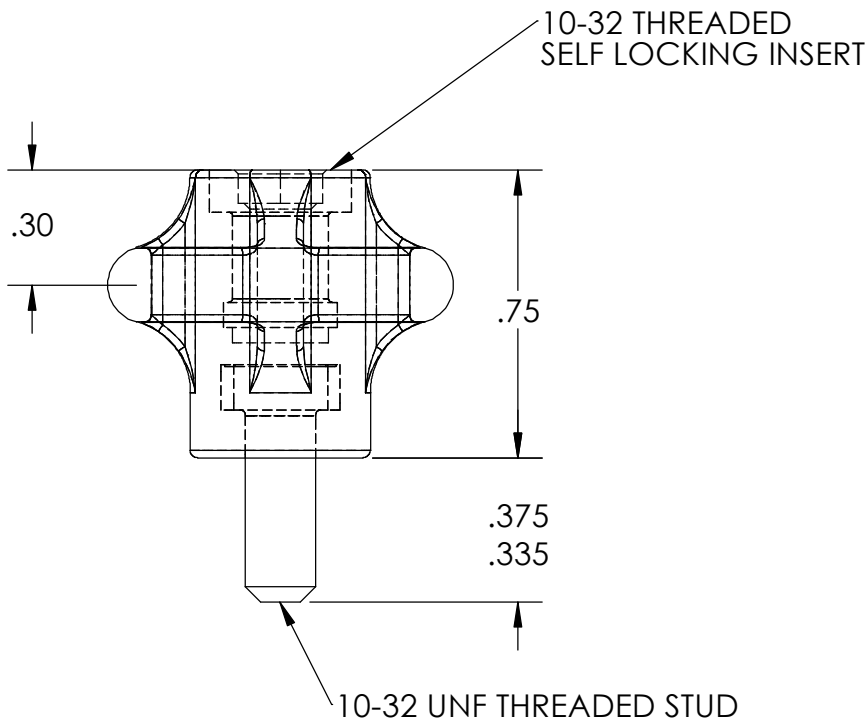
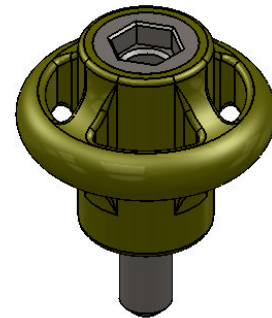
MATERIAL

NYLON 6/6
 COLOR: NATURAL

EST. WEIGHT - 3g

PATENT #'s 6880787, 6880788
 D497100, D496851

 NMC Aerospace	NMC AEROSPACE www.esterline.com 2755 THOMPSON CREEK POMONA, CA 91767-1861 909-451-2290	DWG. NO. NMC RP1700							
	SINGLE RINGPOST WITHOUT INSERT	MATERIAL: NYLON 6/6							
		<table border="1"> <tr> <th>TOLERANCES</th> <th>DECIMAL</th> <th>ANGULAR</th> </tr> <tr> <td></td> <td>.XX ±.030</td> <td>.XXX ±.010</td> </tr> <tr> <td></td> <td></td> <td>±5°</td> </tr> </table>	TOLERANCES	DECIMAL	ANGULAR		.XX ±.030	.XXX ±.010	
TOLERANCES	DECIMAL	ANGULAR							
	.XX ±.030	.XXX ±.010							
		±5°							



MATERIAL:
 INSERT - CARBON STEEL
 STUD - TITANIUM

FINISH:
 INSERT - CAD PLATE
 STUD - ALUMINUM PIGMENT COAT

THREAD LOCK PER NASM 25027

EST. WEIGHT - 9.5g

PATENT #'s 6880787, 6880788
 D497100, D496851



NMC AEROSPACE 2755 THOMPSON CREEK
 POMONA, CA 91767-1861
 www.esterline.com 909-451-2290

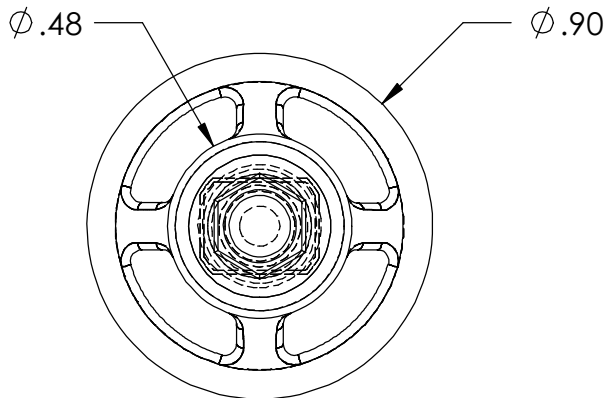
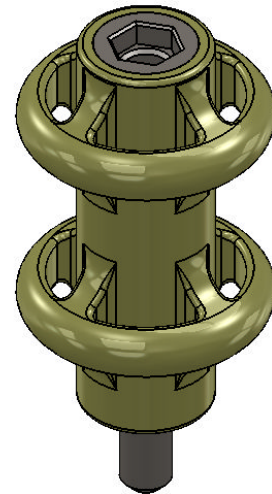
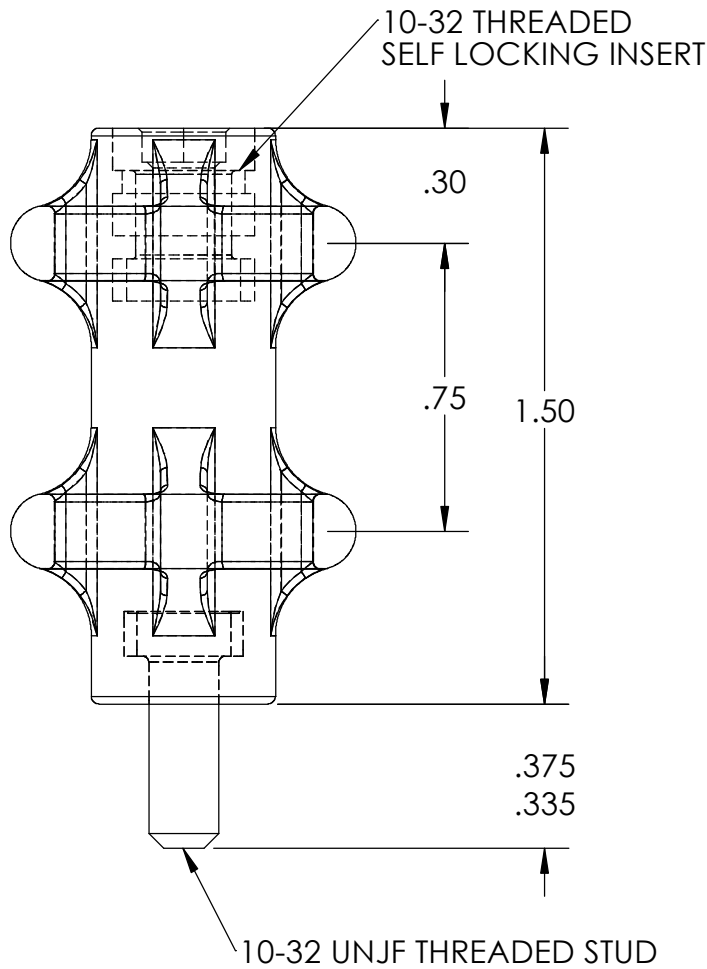
DWG. NO.

NMC RP1703

**SINGLE RINGPOST W/
 SELF-LOCKING INSERT**

MATERIAL: NYLON 6/6

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



MATERIAL:
INSERT - CARBON STEEL
STUD - 6AL-4V TITANIUM ALLOY

FINISH:
INSERT - CAD PLATE
STUD - AL PIGMENTED

THREAD LOCK PER NASM 25027

EST. WEIGHT - 13g

PATENT #'s 6880787, 6880788
D497100, D496851



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DWG. NO.

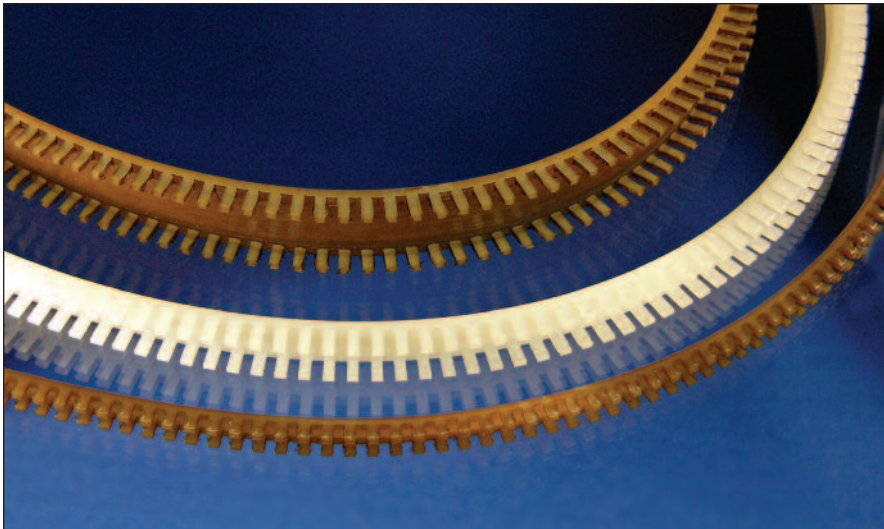
NMC RP1704

**DOUBLE RINGPOST W/
SELF-LOCKING INSERT**

MATERIAL: NYLON 6/6

TOLERANCES	DECIMAL		ANGULAR
	.XX $\pm .030$.XXX $\pm .010$	$\pm 5^\circ$

GROMMETS



Caterpillar Style Grommets For Chafe Protection

**For use in Aircraft, Marine, Electronic,
Automotive and other applications**

Made of flexible straight lengths that can be easily shaped to line and grip odd-shaped holes of various thicknesses. The benefits include the protection of cables and tubing from damage caused by sharp edged holes.

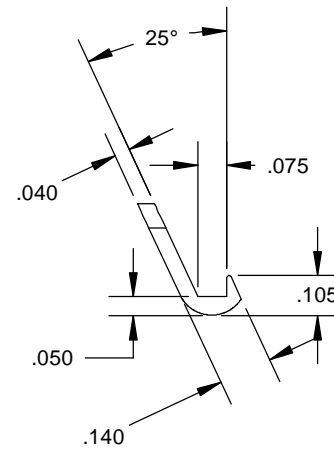
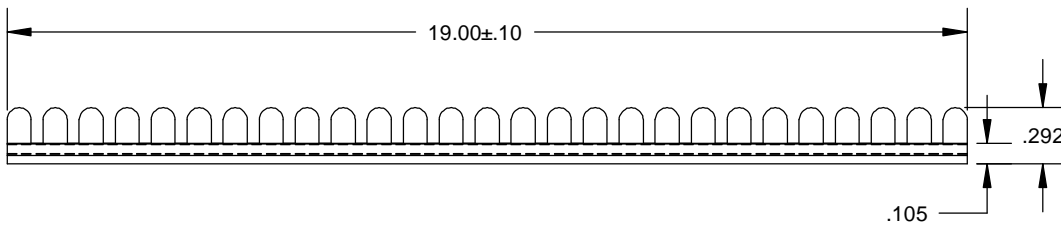
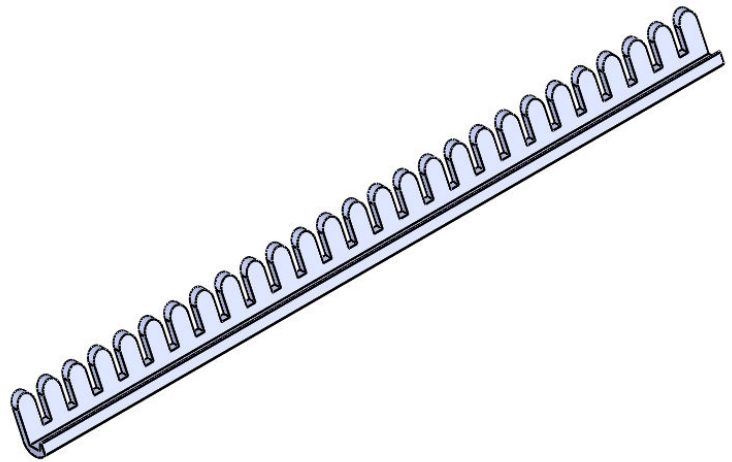
Caterpillar Grommet is available in Nylon 6/6 and Polytetrafluoroethylene (PTFE) materials in pre-cut lengths.



Flanged Hole Grommet for Irregular, Odd Shaped and Large Opening Chafe Protection

**For use in Aircraft, Marine, Electronic,
Automotive and other applications**

Flanged hole grommets are available in Nylon 6/6 material for flexibility and durability. The standard stock length is 19.00" which can fit holes up to 6" in diameter.



NOTES:

MATERIALS:
 CODE -N
 HEAT STABILIZED NYLON 6/6
 FOR APPLICATIONS TO 275 ° F

CODE -P
 NYLON 6
 FOR GREATER FLEXIBILITY

TEMPERATURE:
 UP TO 275 °F

EXAMPLE PART NUMBER
 NMC G24 N

MATERIAL CODE
 BASIC PART NUMBER



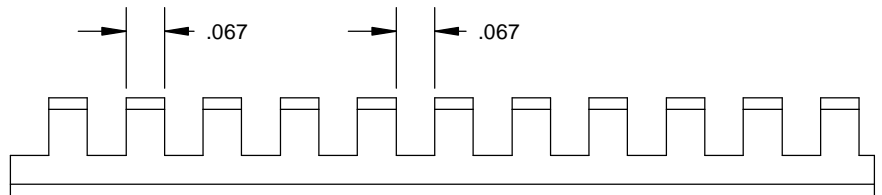
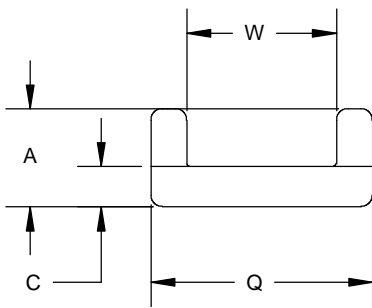
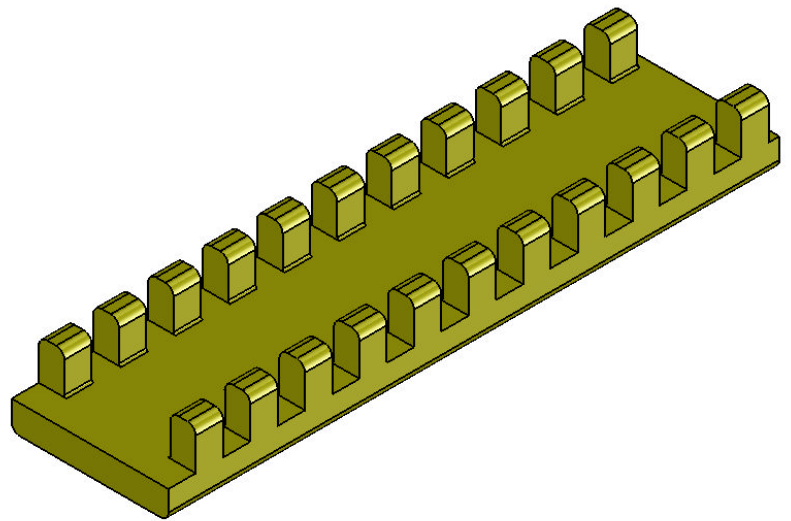
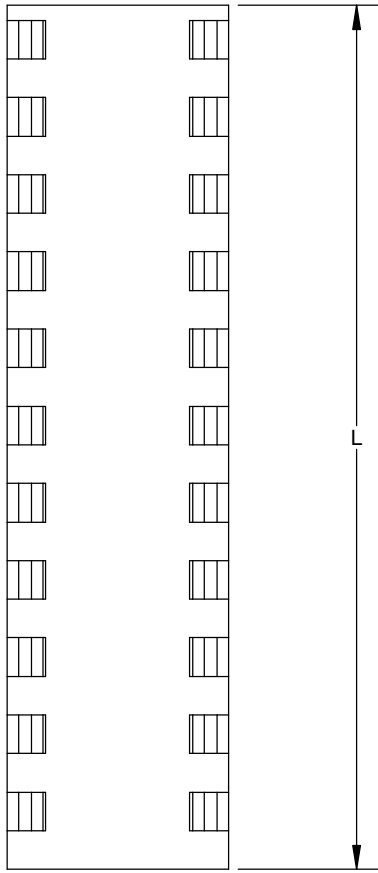
NMC AEROSPACE 2755 THOMPSON CREEK
 POMONA, CA 91767-1861
 www.esterline.com 909-451-2290

DWG. NO.
NMC G24

**CATERPILLAR GROMMET
 - FLANGED HOLE**

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



NMC AEROSPACE 2755 THOMPSON CREEK
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DWG. NO.

NMC G51

CATERPILLAR GROMMET

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

TABLE I DIMENSIONS OF NMC G51

PART NUMBER NMC G51/P/T-	W +.010 -.005	A ±.010	Q +.010 -.005	C +.010 -.005	FOR MATERIAL THICKNESS
1 AA	.036	.155	.115	.055	.010 -.034
A	.056	.155	.150	.055	.015 -.052
B	.090	.155	.175	.055	.052 -.085
C	.131	.155	.220	.055	.085 -.128
D	.195	.230	.325	.070	.128 -.192
E	.260	.240	.385	.070	.192 -.255
F	.320	.255	.445	.075	.255 -.318
G	.390	.255	.515	.075	.318 -.380
H	.515	.255	.640	.075	.380 -.510
1 I	.640	.255	.765	.075	.510 -.635
1 J	.765	.255	.890	.075	.635 -.760
1 K	.890	.255	1.015	.075	.760 -.885
1 L	1.015	.255	1.140	.075	1.010 -1.130

1. AVAILABLE IN TEFLON MATERIAL ONLY.

TEFLON: ALL SIZES
PT. NO. SAMPLE: NMC G51T-B X COIL
NMC G51TE-B X COIL

2. PART CALLOUT:

SAMPLE: NMC G51 H - E x L



LENGTH IN INCHES, e.g. (XX.XX) = 6.00 IN.
(06.00)
SIZE
MATERIAL
BASIC PART NUMBER

3. L - STANDARD STRIP LENGTH:
NYLON - 12.75"
TOLERANCE 12.620" - 12.750"

TEFLON: 19.00"
TOLERANCE: +/- .030"

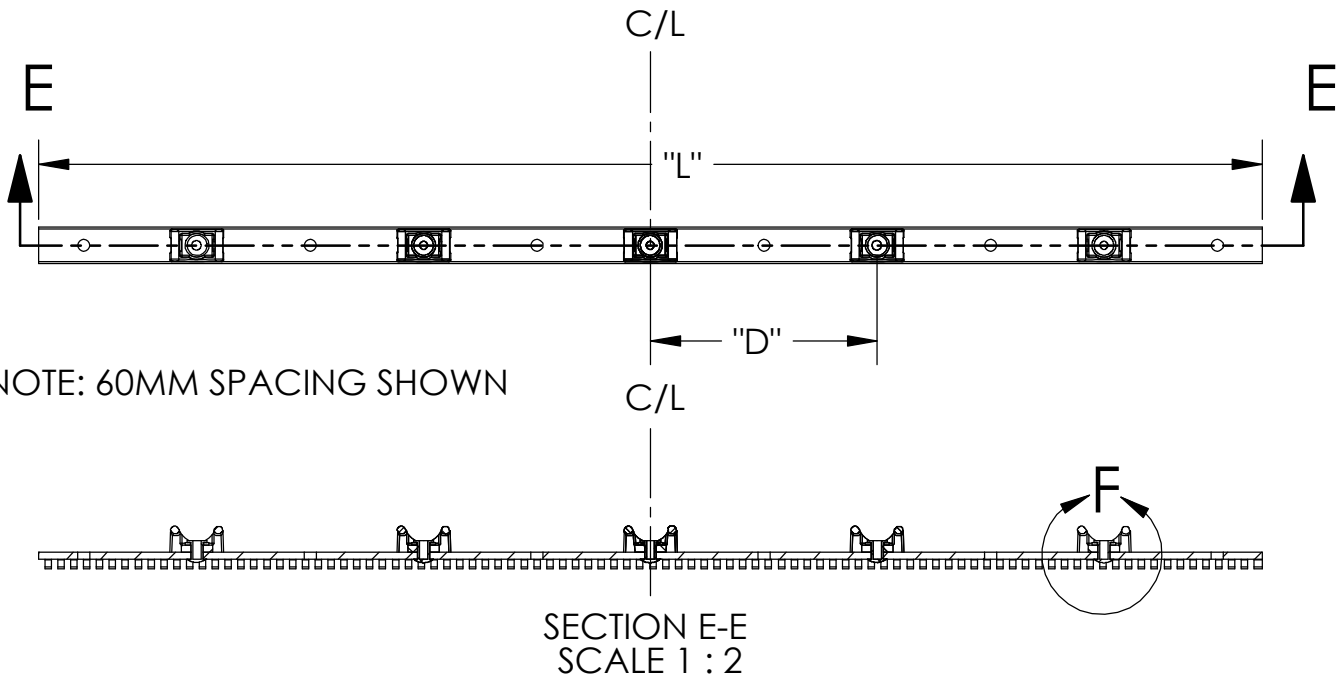
ALL OTHER CUT LENGTH TOLERANCES:
FOR L LESS THAN 3.00" +/- .015
FOR L 3.00" TO 19.00" +/- .030

NOTES: UNLESS OTHERWISE SPECIFIED

4. T - POLYTETRAFLUOROETHYLENE (PTFE) FOR APPLICATIONS TO 500 DEGREES F.

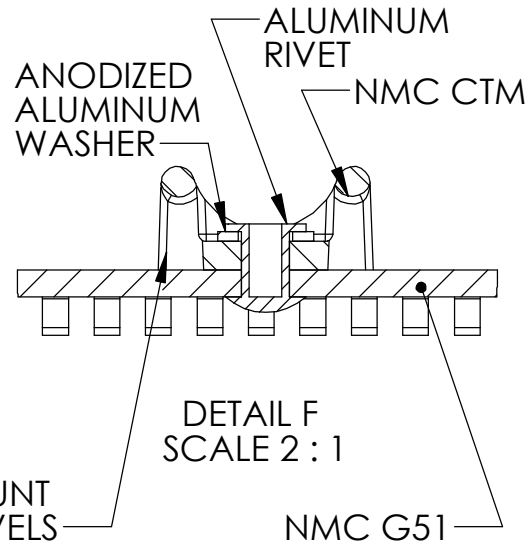
2 MATERIAL
H - NYLON 6/6
T - POLYTETRAFLUOROETHYLENE (PTFE)
TE - SAME AS "T" PLUS ETCHING.

	NMC AEROSPACE www.esterline.com	2755 THOMPSON CREEK POMONA, CA 91767-1861 909-451-2290	DWG. NO. NMC G51			
	CATERPILLAR GROMMET		MATERIAL: SEE NOTES			
	TOLERANCES	<table border="1"> <tr> <th>DECIMAL</th> <th>ANGULAR</th> </tr> <tr> <td>.XX ±.030</td> <td>.XXX ±.010</td> </tr> </table>	DECIMAL	ANGULAR	.XX ±.030	.XXX ±.010
DECIMAL	ANGULAR					
.XX ±.030	.XXX ±.010					



NOTE: 60MM SPACING SHOWN

SECTION E-E
SCALE 1 : 2



DETAIL F
SCALE 2 : 1

"D"	
30	30 MM / 1.18 IN
45	45 MM / 1.77 IN
60	60 MM / 2.36 IN

Note: 30 MM size has 11 cable tie mounts
45 MM size has 7 cable tie mounts
60 MM size has 5 cable tie mounts

CATERPILLAR GROMMET		MATERIAL	
			+ .000
			- .130
5	NMC G51H - E	NYLON 6/6	12.75 IN
6	NMC G51H - F	NYLON 6/6	12.75 IN
7	NMC G51H - G	NYLON 6/6	12.75 IN
8	NMC G51H - H	NYLON 6/6	12.75 IN

CABLE TIE MOUNT		MATERIAL
1	NMC CTM100	NYLON 6/6
2	NMC CTM101	NYLON 6/6
3	NMC CTM102	NYLON 6/6



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909-451-2290

DWG. NO.
NMC G51CM

CAT GROMMET WITH MOUNT

MATERIAL: SEE TABLE			
TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

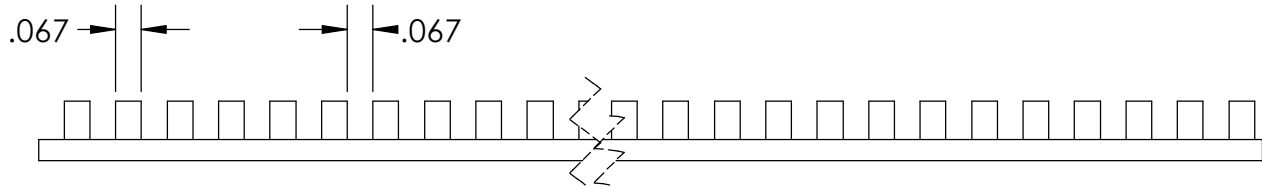
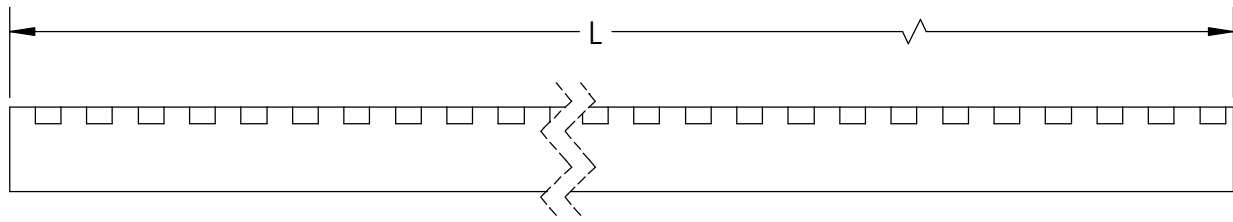
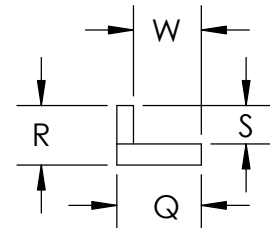


TABLE I

PART NUMBER	DIMENSIONS (INCHES)			
	W +.015 -.005	Q +.015 -.005	R +.015 -.005	S +.020 -.005
NMC GR2120-0	0.090	0.132	0.155	0.100
NMC GR2120-1	0.103	0.150	0.155	0.100
NMC GR2120-2	0.133	0.175	0.155	0.100
NMC GR2120-3	0.176	0.220	0.155	0.100
NMC GR2120-4	0.260	0.325	0.230	0.160
NMC GR2120-5	0.323	0.385	0.240	0.170
NMC GR2120-6	0.383	0.445	0.255	0.180
NMC GR2120-7	0.453	0.515	0.255	0.180
NMC GR2120-8	0.578	0.640	0.255	0.180



EXAMPLE PART NUMBER:

NMC GR2120 - 0 - L

LENGTH (SEE NOTE 2)
CHANNEL SIZE (SEE TABLE I)
BASIC PART NUMBER

NOTES:

- MATERIAL: NYLON 6/6 PER ASTM D4066 OR 6779
- L = LENGTH
STANDARD LENGTH IS 12.620"-12.750"



NMC AEROSPACE 2755 THOMPSON CREEK
POMONA, CA 91767-1861
www.esterline.com 909-451-2290

DWG. NO.

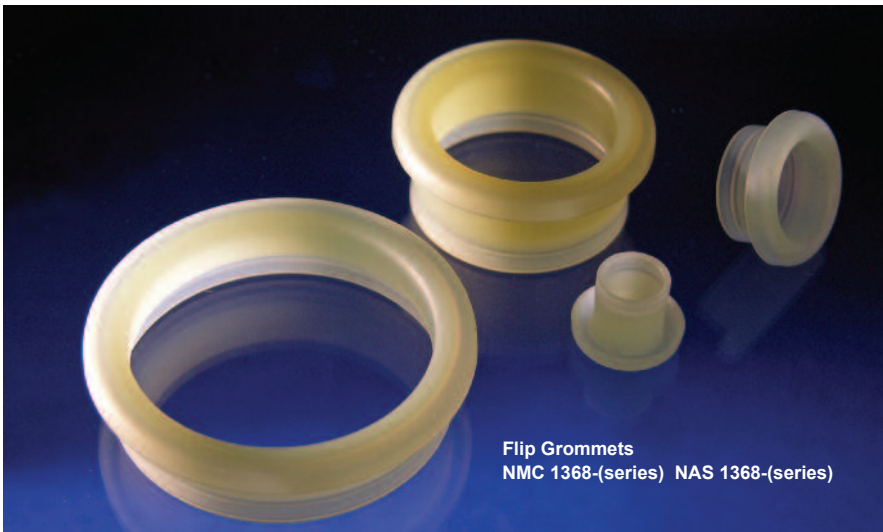
NMC G2120

GROMMET, ONE LEG

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

GROMMETS



Flip Grommets
NMC 1368-(series) NAS 1368-(series)

NMC Flip Grommet

Protects wire, cable and tubing passing through holes in bulkheads, frames and other structures. Used in a variety of aerospace, industrial and automotive industry applications. Easily installed, economical chafe protection with lower labor costs. Grommet's skirt "flips" over creating two-sided flange.



Split Plastic Grommets
NMC 557-(series) NAS 557-(series)

NMC Split Plastic Grommet for Round Holes

Split plastic grommets are precision molded to offer easy installation in round holes, producing resultant hole sizes of .375" to 3" diameter. Benefits include excellent insulation as well as scuff protection on smooth inner surfaces for wire bundles, cable or tubing. They protect cables from damage by sharp-edged holes, thus eliminating costly repairs. Split plastic grommets from NMC are available in sizes to fit firmly in normal bulkhead material thicknesses (.025 - .125).

X-X
Y-Y
Z-Z

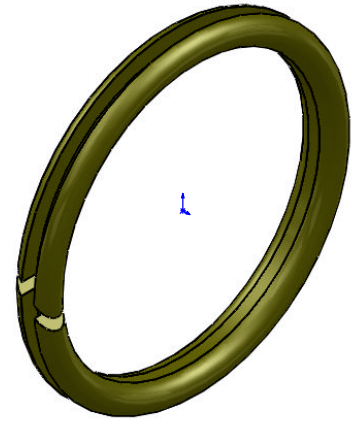
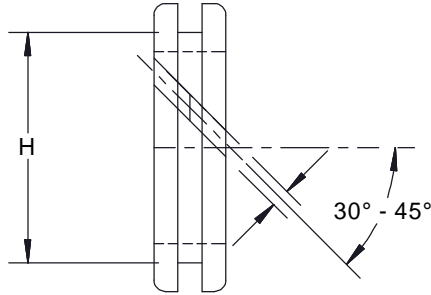
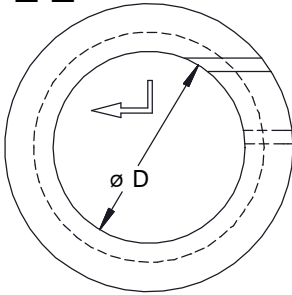
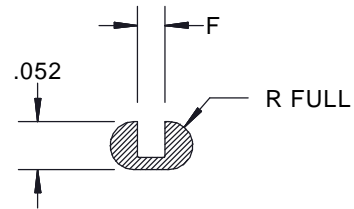
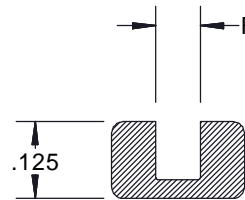


TABLE 1

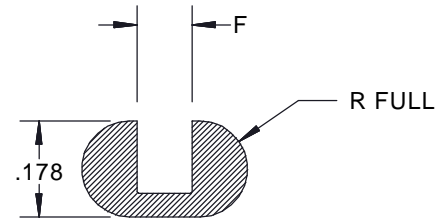
PART NUMBER NMC 557-()	D INSTALLED DIA.	STRUCTURAL HOLE DIA (REF)	H DIA	SECTION
3	.188	.234	.241	X-X
4	.250	.296	.303	X-X
6	.375	.422	.429	X-X
8	.500	.594	.601	Y-Y
10	.625	.719	.726	Y-Y
12	.750	.844	.851	Y-Y
14	.875	.969	.976	Y-Y
16	1.000	1.094	1.101	Y-Y
18	1.125	1.219	1.226	Y-Y
20	1.250	1.344	1.351	Y-Y
22	1.375	1.500	1.507	Z-Z
24	1.500	1.625	1.632	Z-Z
28	1.750	1.875	1.882	Z-Z
32	2.000	2.125	2.132	Z-Z
36	2.250	2.375	2.382	Z-Z
40	2.500	2.625	2.632	Z-Z
44	2.750	2.875	2.882	Z-Z
46	2.875	3.000	3.007	Z-Z
48	3.000	3.125	3.132	Z-Z



SECTION X-X -NOS. 3 TO 6



SECTION Y-Y -NOS. 8 THRU 20



SECTION Z-Z -NOS. 22 THRU 48

TABLE 2

STYLE	F	SHEET THICKNESS (REF)	W		
			X-X	Y-Y	Z-Z
A	.060 - .070	.025 -.051	.135	.215	.230
B	.090 - .100	.064 - .081	.150	.240	.260
C	.134 - .144	.091 - .125	.177	.240	.300

EXAMPLE PART NUMBER

NMC 557 - 20

SIZE CODE (SEE TABLE 1)
BASIC PART NUMBER



NMC AEROSPACE
www.esterline.com
2755 THOMPSON CREEK
POMONA, CA 91767-1861
909-451-2290

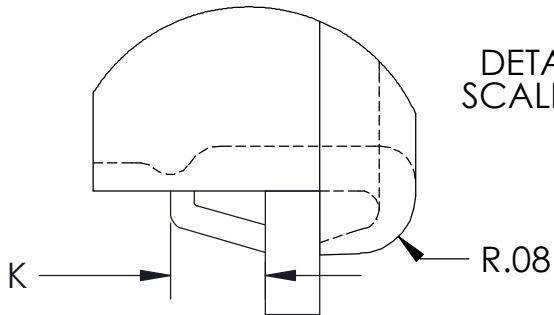
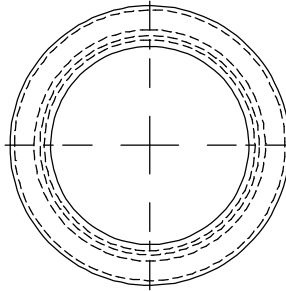
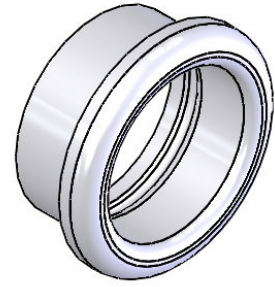
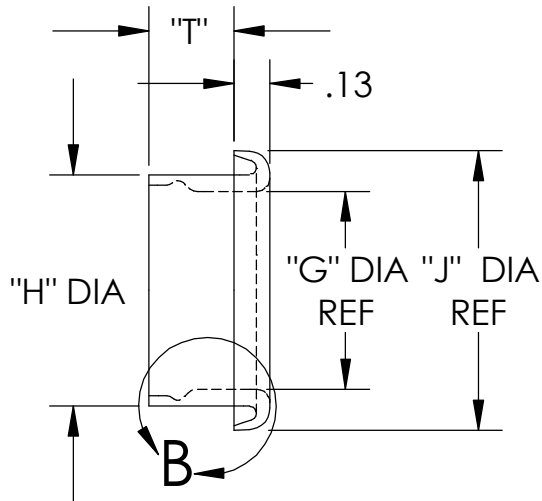
DWG. NO.

NMC 557

GROMMET, PLASTIC,
SPLIT

MATERIAL: NYLON 6/6

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



DETAIL B
SCALE 4 : 1

INSTALLATION VIEW

TABLE 1

LENGTH CODE LETTER	T	NOMINAL STRUCTURE THICKNESS
-A	T _A	.025 TO .080
-B	T _B	.081 TO .140
-C	T _C	.141 TO .200
-D	T _D	.201 TO .250
-F	T _F	.025 TO .040
-H	T _H	.041 TO .091
-K	T _K	.092 TO .160
-L	T _L	.161 TO .220

ID UP TO 1 1/4 INCHES										
Dash No	G DIA REF	STRUCTURAL HOLE DIA. +.010 -.005 REF	H DIA		J DIA ±.005	K APPROX	LENGTH			
							T _A	T _B	T _C	T _D
-3	0.188	0.313	0.305	±.003	0.505	0.100	0.235	0.295	0.360	0.420
-4	0.250	0.375	0.367	0.567						
-6	0.375	0.500	0.492	0.692						
-8	0.500	0.625	0.615	0.815						
-10	0.625	0.781	0.771	0.971						
-12	0.750	0.906	0.896	1.096	0.120	0.275	0.335	0.400	0.460	
-14	0.875	1.031	1.021	1.221						
-16	1.000	1.188	1.178	1.378						
-18	1.125	1.313	1.303	1.503						

ID 1 1/4 INCHES AND LARGER										
Dash No	G DIA REF	STRUCTURAL HOLE DIA. +.010 -.005 REF	H DIA		J DIA ±.005	K APPROX	LENGTH			
							T _F	T _H	T _K	T _L
-20	1.250	1.438	1.428	±.005	1.628	0.120	0.275	0.335	0.400	0.460
-22	1.375	1.563	1.548	1.748						
-24	1.500	1.688	1.673	1.873						
-28	1.750	1.938	1.923	2.123						
-32	2.000	2.188	2.173	2.373						

BASIC PART NUMBER

NMC 1368 N -3 A



NOTES:
MATERIAL- NYLON 6/6 PER FED SPEC L-P-410
SELF EXTINGUISHING WITHOUT FILLERS



NMC AEROSPACE 2755 THOMPSON CREEK
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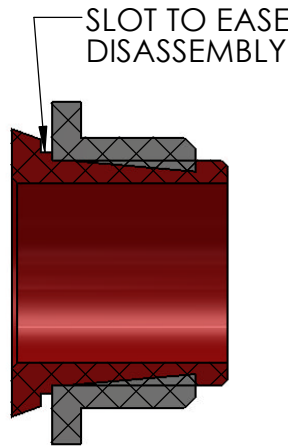
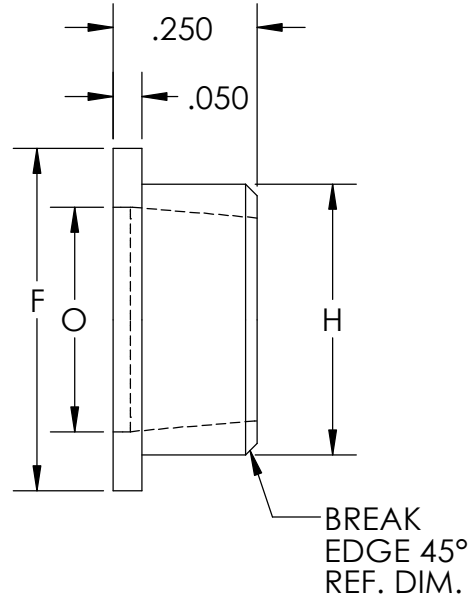
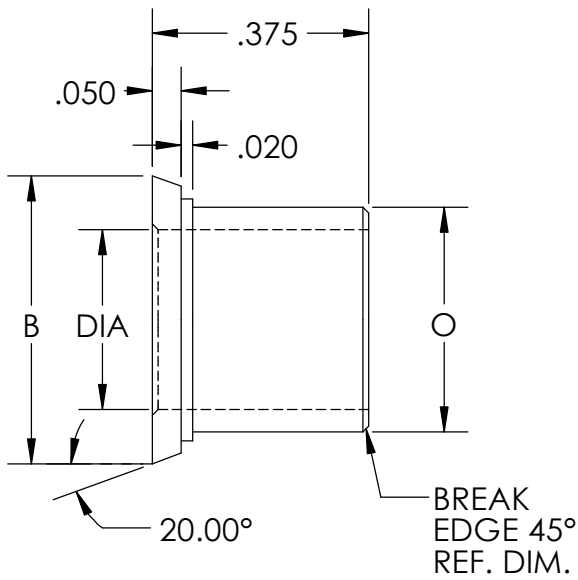
DWG. NO.

NMC 1368

FLIP TYPE GROMMET

MATERIAL: NYLON 6/6 HEAT STABILIZED

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



NOTES:

MATERIAL:
 NYLON 6/6 PER ASTM D4066 OR 6779
 PART 1 - NATURAL
 PART 2 - RED

TEFLON PER AMS 3651

CALLOUT FOR NYLON NMC G57NB-()
 CALLOUT FOR TEFLON NMC G57T-()

PART NO.	DIA.	O	B	H	F
G57 -					
-2	1/8	.187	5/16	.250	11/32
-3	3/16	.265	3/8	.344	7/16
-4	1/4	.345	15/32	.438	9/16
-5	5/16	.390	1/2	.470	19/32
-6	3/8	.437	9/16	.500	5/8
-7	7/16	.500	39/64	.562	11/16
-8	1/2	.563	11/16	.625	3/4
-9	9/16	.625	3/4	.688	13/16
-10	5/8	.688	13/16	.750	7/8
-11	11/16	.750	57/64	.815	15/16
-12	3/4	.813	15/16	.875	1



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DWG. NO.

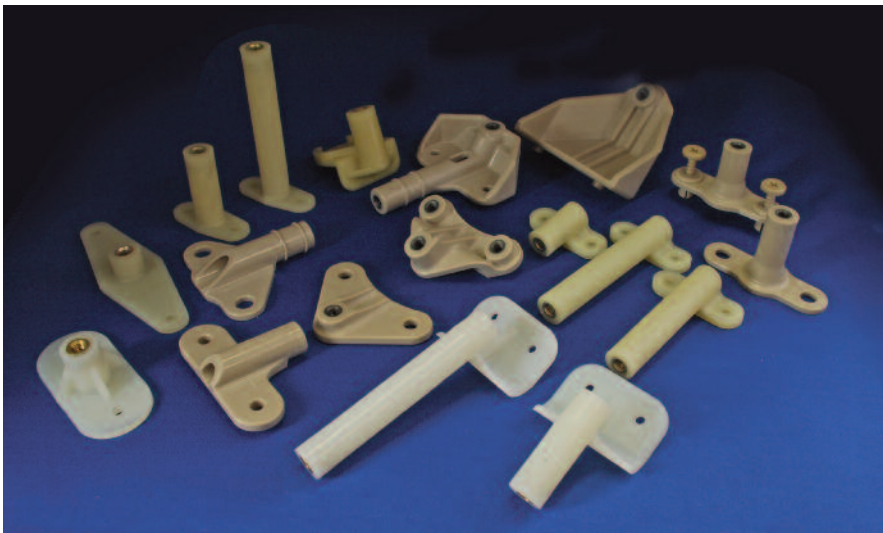
NMC G57

BLIND GROMMET

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.015	±1/2°

STANDOFFS



Standoffs

NMC has a range of standoffs for various applications.

Materials range from Nylon 6/6 to Polyetheretherketon with glass reinforcement.

Sizes are available in 1/16" increments up to 2.500".



NMC 650



NMC SNX6703



NMC 660



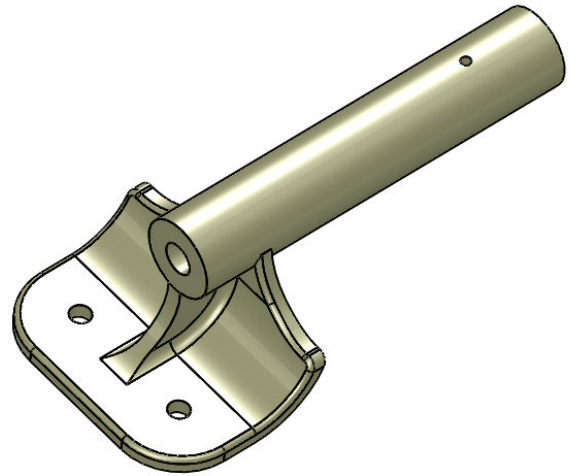
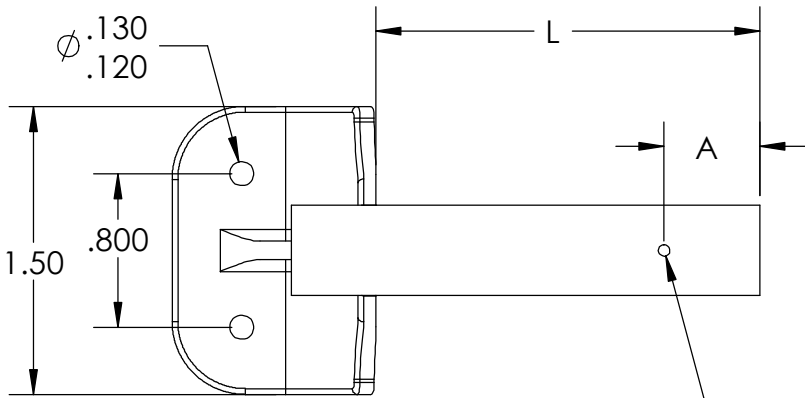
NMC SNX6732



NMC 670

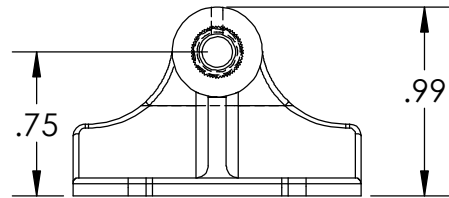
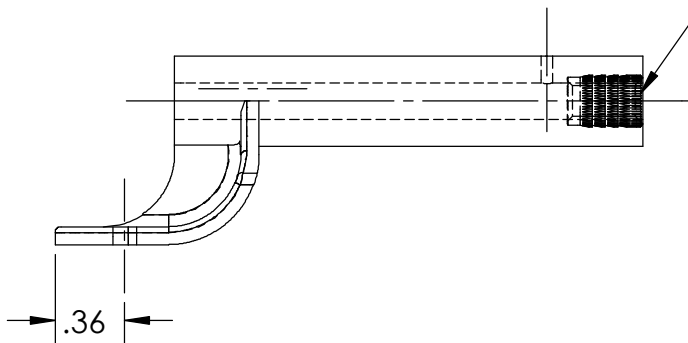


NMC STS6503



$\phi .060 \pm .010$
 REQUIRED ON
 -12 THRU -40 ONLY

BRASS INSERT WITH NYLON
 LOCKING FEATURE
 INTERNAL THREAD, SELF-LOCKING



NOTES:

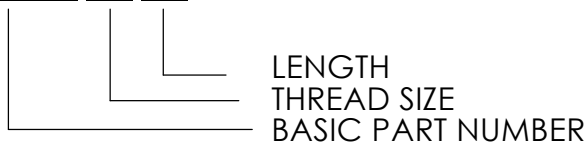
1) LENGTH (L DIM) IN 1/16ths INCH 0 THRU 40)

MATERIAL:
 NYLON 6/6
 INSERT: BRASS

A	THREAD
.40	8-32 UNC
.50	10-32 UNC

EST. WEIGHT 5.6g - 12.6g

NMC 650 -10 -12



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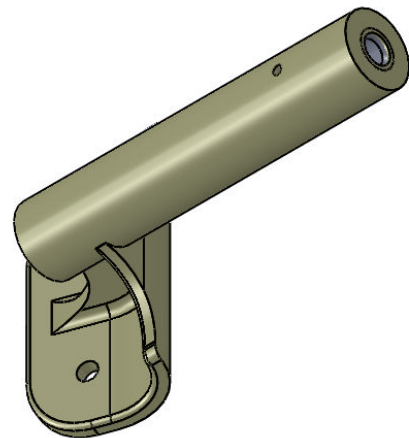
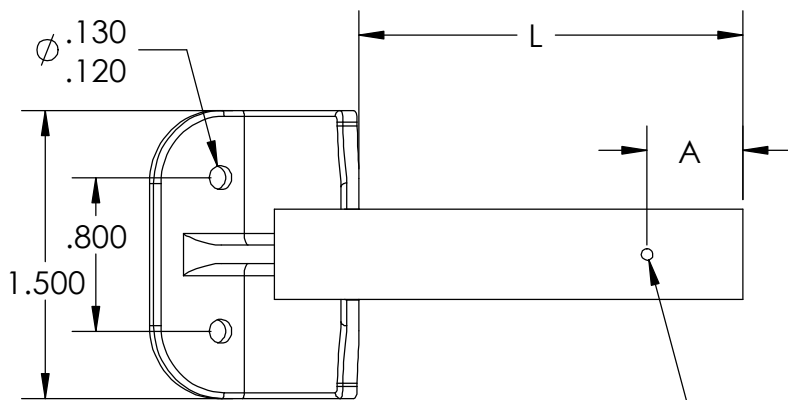
DWG. NO.

NMC 650

STAND-OFF INSULATOR

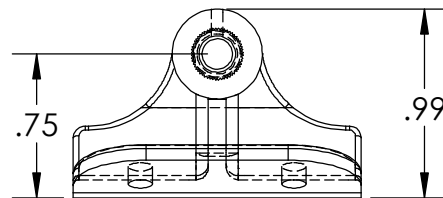
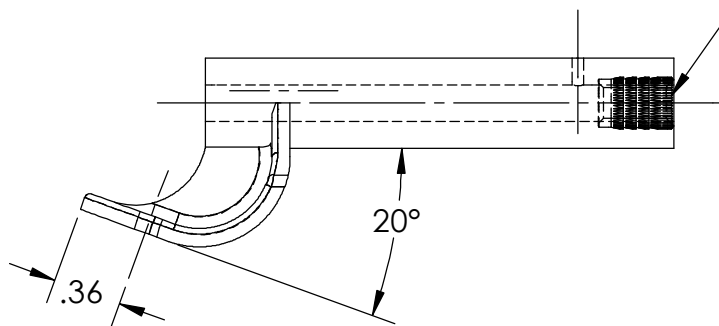
MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX $\pm .030$.XXX $\pm .010$	$\pm 5^\circ$



$\phi .060 \pm .010$
 REQUIRED ON
 -12 THRU -40 ONLY

BRASS INSERT WITH NYLON
 LOCKING FEATURE
 INTERNAL THREAD, SELF-LOCKING



NOTES:

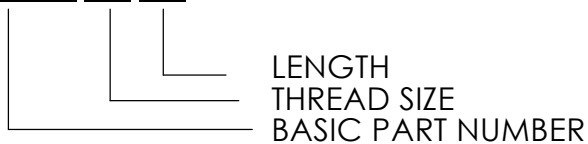
1) LENGTH (L DIM) IN 1/16ths INCH 0 THRU 40)

MATERIAL:
 NYLON 6/6
 INSERT: BRASS

EST. WEIGHT 5.6g - 12.6g

A	THREAD
.40	8-32 UNC
.50	10-32 UNC

NMC 660 -10 -12



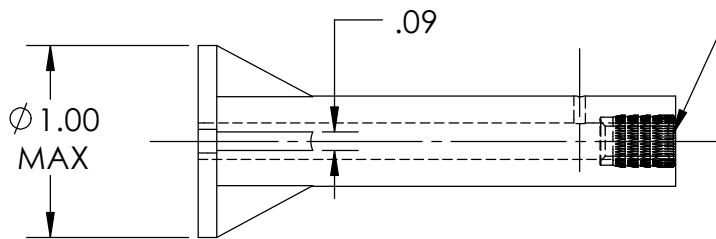
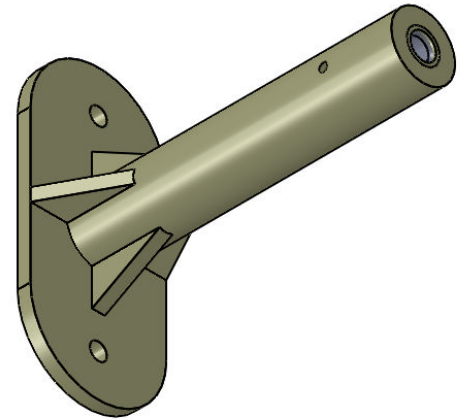
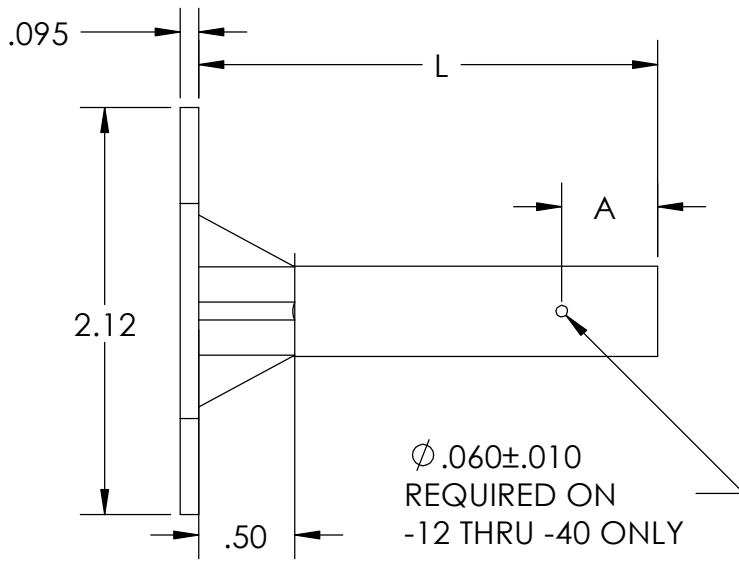
NMC AEROSPACE 2755 THOMPSON CREEK
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DWG. NO.
NMC 660

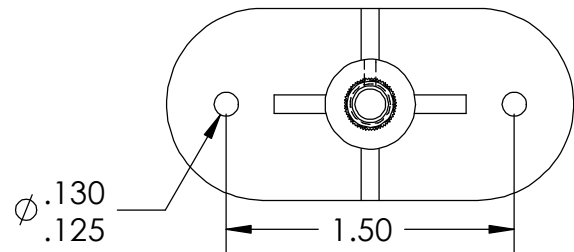
STAND-OFF INSULATOR

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



BRASS INSERT WITH NYLON
LOCKING FEATURE
INTERNAL THREAD, SELF-LOCKING



A	THREAD
.40	8-32 UNC
.50	10-32 UNC

NOTES:

1) LENGTH (L DIM) IN 1/16ths INCH 8 THRU 40

MATERIAL:
NYLON 6/6 PER ASTM D4066
INSERT: BRASS PER ASTM B-16

EST. WEIGHT 5.7g - 9.7g

NMC 670 -10 -12

LENGTH
THREAD SIZE
BASIC PART NUMBER



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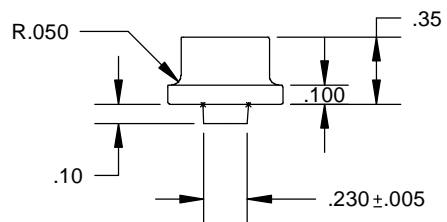
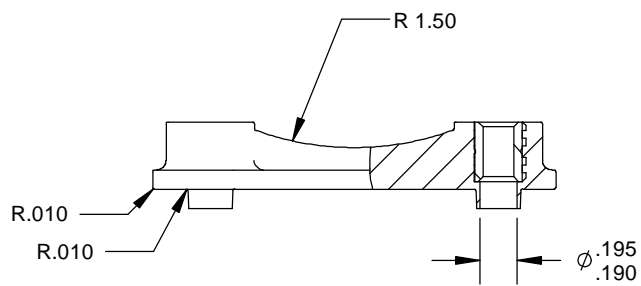
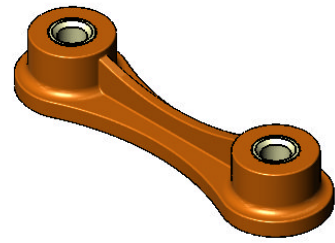
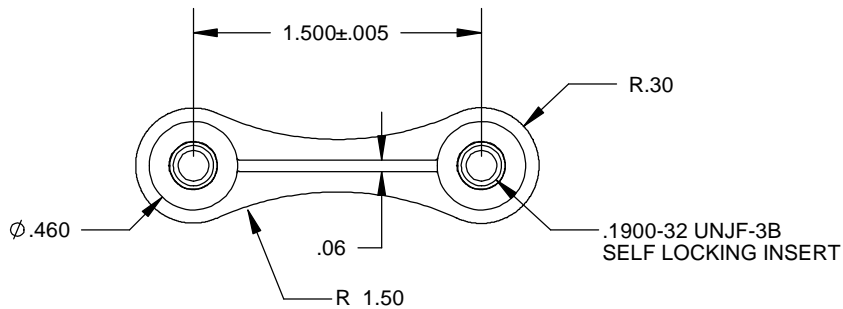
DWG. NO.

NMC 670

STAND-OFF INSULATOR

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL	ANGULAR
	.XX ±.030	.XXX ±.010



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DWG. NO.
NMC 07155

**SELF LOCKING, NUT
 SUPPORT BRACKET**

MATERIAL: NYLON 66

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

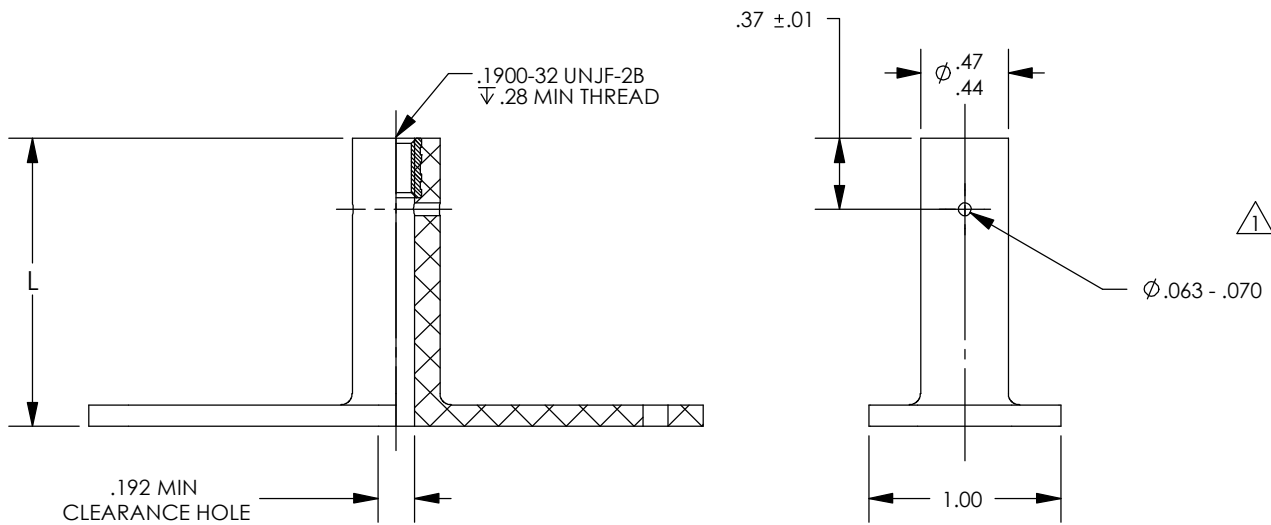
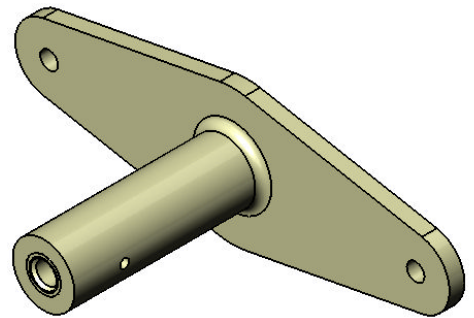
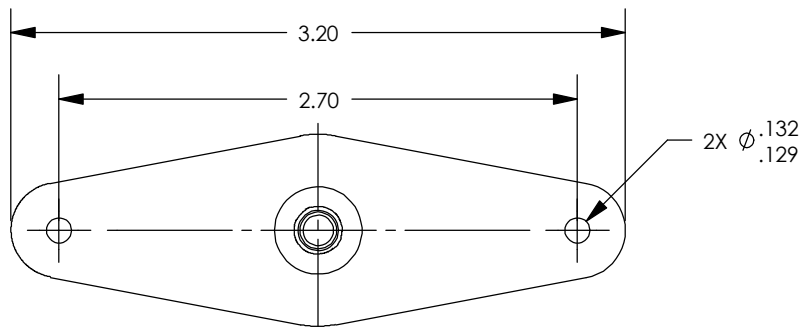


TABLE I

LENGTH CODE	L ±.03
4	.500
6	.750
8	1.000
9	1.125
10	1.250
11	1.375
12	1.500
13	1.625
14	1.750
16	2.000
20	2.500
22	2.750
25	3.125
26	3.250

EXAMPLE OF PART CODING:

NMC SNX6703 - 8
 _____ LENGTH CODE (SEE TABLE I)
 _____ BASIC PART NUMBER

NOTES:

1. INSPECTION HOLE IS NOT REQUIRED ON .500 (-4) LENGTH ONLY
2. THREADED INSERT MATERIAL SHALL BE CARBON STEEL
FINISH: CADMIUM PLATE
3. STANDOFF MATERIAL: NYLON 6/6

EST. WEIGHT - 6.8g - 13.7g



NMC AEROSPACE 2755 THOMPSON CREEK
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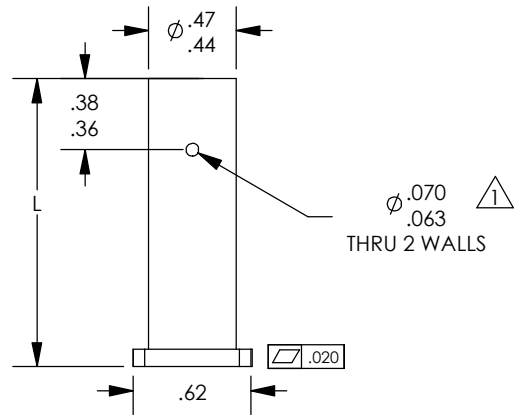
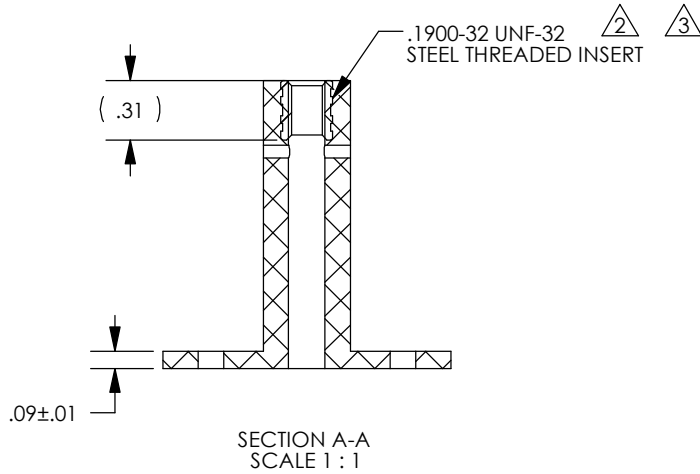
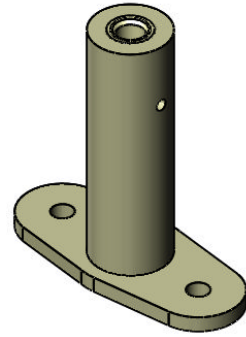
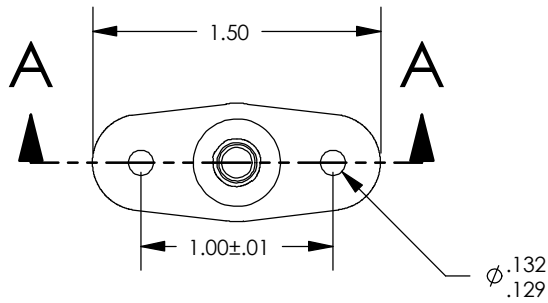
DWG. NO.

NMC SNX6703

NUT, STANDOFF - SPACER

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



LENGTH CODE	L ±.03
4	.500
6	.750
8	1.000
9	1.125
10	1.250
11	1.375
12	1.500
13	1.625
14	1.750
16	2.000
20	2.500
22	2.750
25	3.125
26	3.250

EXAMPLE OF PART CODING:

NMC SNX6732 - 8
 _____ LENGTH CODE (SEE TABLE I)
 _____ BASIC PART NUMBER

NOTES:

- ① INSPECTION HOLE IS NOT REQUIRED ON .500 (-4) LENGTH ONLY
- ② THREADED INSERT SHALL BE MOLDED IN PLACE
THREADED INSERT SHALL NOT ROTATE WHEN 60 IN-LB MIN OF TORQUE IS APPLIED
- ③ INTERNAL THREADS PER FED-STD-H28/2 OR AS8879.
- 4. THREADED INSERT MATERIAL SHALL BE CARBON STEEL
FINISH: CADMIUM PLATE
- 5. STANDOFF MATERIAL: POLYAMIDE (NYLON 6/6)

EST. WEIGHT 3.5g - 10.5g



NMC AEROSPACE 2755 THOMPSON CREEK
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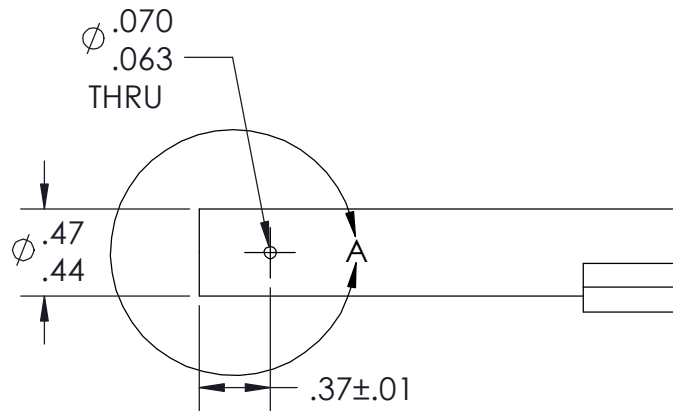
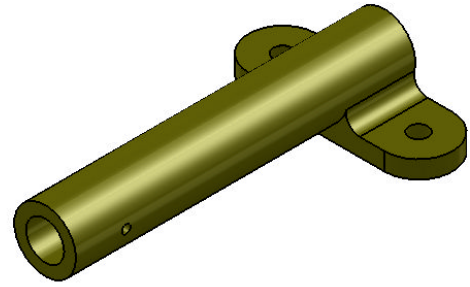
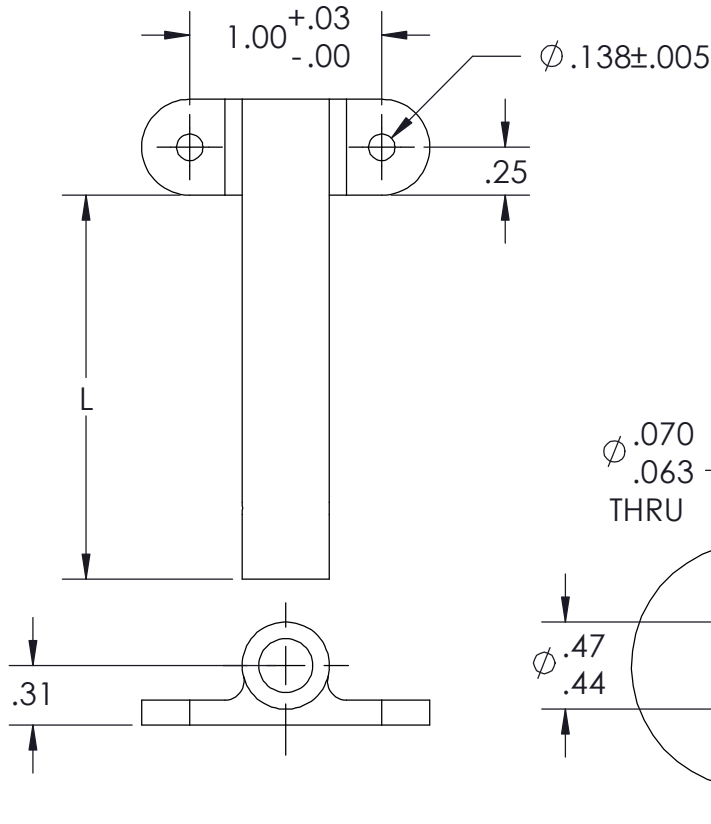
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NMC SNX6732

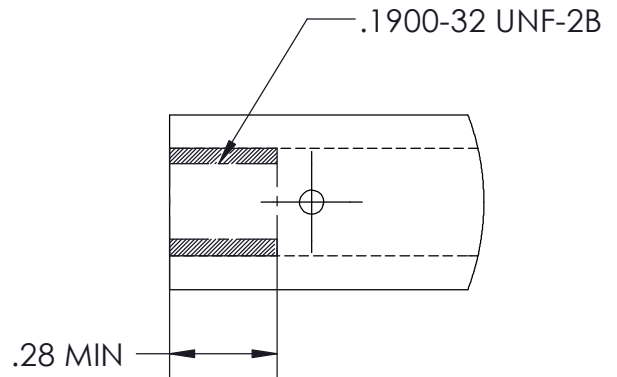
**NUT, STANDOFF -
 INSULATOR**

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



PART NUMBER NMC STS 6503(-)	LENGTH "L" ±.03	EST. WEIGHT g.
2	.20	2.6
4	.40	3
6	.60	3.4
8	.80	3.8
10	1.00	4
12	1.20	4.5
14	1.40	5
16	1.60	5.4
18	1.80	5.7
20	2.00	6
22	2.20	6.4
24	2.40	6.8



DETAIL A
SCALE 2 : 1

MATERIAL:

STANDOFF- NYLON 6/6 GLASS FILLED
INSERT - STEEL



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DWG. NO.

NMC STS 6503

NUT, STANDOFF

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

CLAMPS

Adjustable Clamps 90°
NMC-1001-(series)
M23190/1-(series)



Premountable Clamps for Varied Wire Bundle Installations

Designed for cable harness and wire support applications for cable bundles of .125" to 2.1875" diameters. Firmly clamps varying sizes of wire bundles secured with plastic cable ties (MS3367). Also available with a metal eyelet to help distribute loads.

Adjustable Clamps 30°
NMC CA2030-(series)



Premountable, Adjustable Clamps for Varied Wire Bundle or Hydraulic Line Installations

Opens at a 30° angle for use in stacked installations. Firmly clamps varying sizes of wire bundles, secured with plastic cable ties (MS3367). Adjustable, eliminating need for clamp removal. To service wire bundle or hydraulic line, cut off the cable then re-secure load with a new cable. Available in five sizes, from .250" to 1.250".

Support Clamp w/Eyelet
NMC CL141N-R (series)
MS 25281-R (series)



Wire Management Clamps with Eyelet

For Heavy-Duty Wire Management Applications

- Metal eyelet on the mounting hole helps distribute loads.
- Eyelet relieves stress concentration; gives continuous circular support.

CLAMPS



NMC 3650- (Series)
Qualified to: MS 25281-F
(Series)

Nylon Support Clamp (-F) with Eyelet For Heavy-Duty, Multiple Type Applications

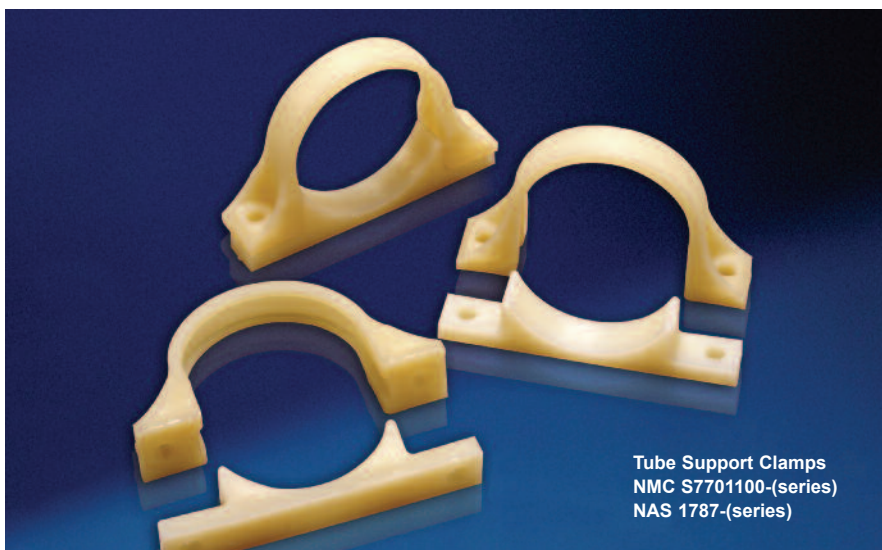
Lightweight yet designed for heavy-duty support clamp application. Nylon 6/6. Available in .125" to 1.25" diameters.



Support Clamp, Flat
Color Coded
NMC 3625- (Series)

NMC 3625 Series Clamps for Multiple Type Applications and Easy Color Coded Identification

Save time and reduce errors in installation and inspection by only having to glance at the final assembly for correct sizing. Available in nineteen different sizes of clamps and come in a series of seven colors. Sizes from .125" to 1.5".

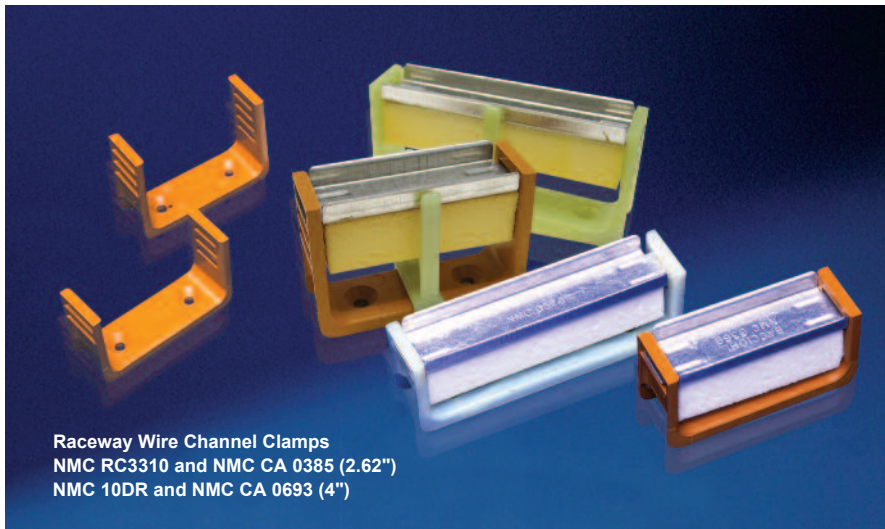


Tube Support Clamps
NMC S7701100-(series)
NAS 1787-(series)

Tube Support/Mounting

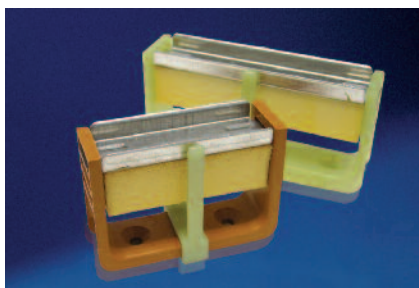
Clamps For Fuel Lines, Hydraulic Lines, Environmental Control Lines, Other Air and Fluid Lines.

CLAMPS



Raceway Channel Clamps

Raceway wire channel clamps offer wire management flexibility for ease of clamp installation and removal. They feature a lightweight, rugged design that has good chemical and heat resistance as well as strength and durability. Raceway clamps are available in two lengths – 2.62” and 4.00” – and can be configured to various heights. These wire bundle channels are used extensively in commercial aircraft design for multiple applications of wire design and tube support. Additional clips can be added to ensure wire separation when necessary.

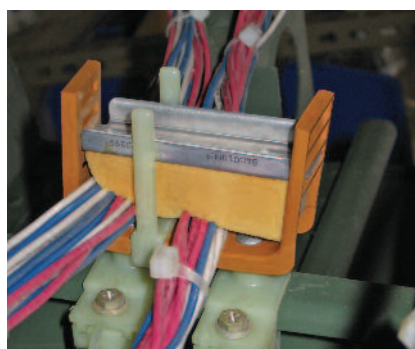
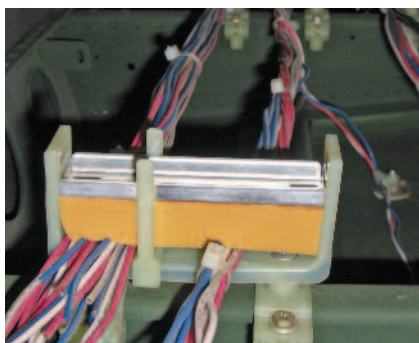


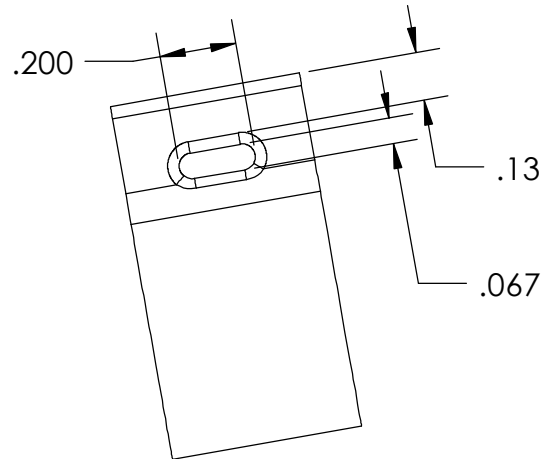
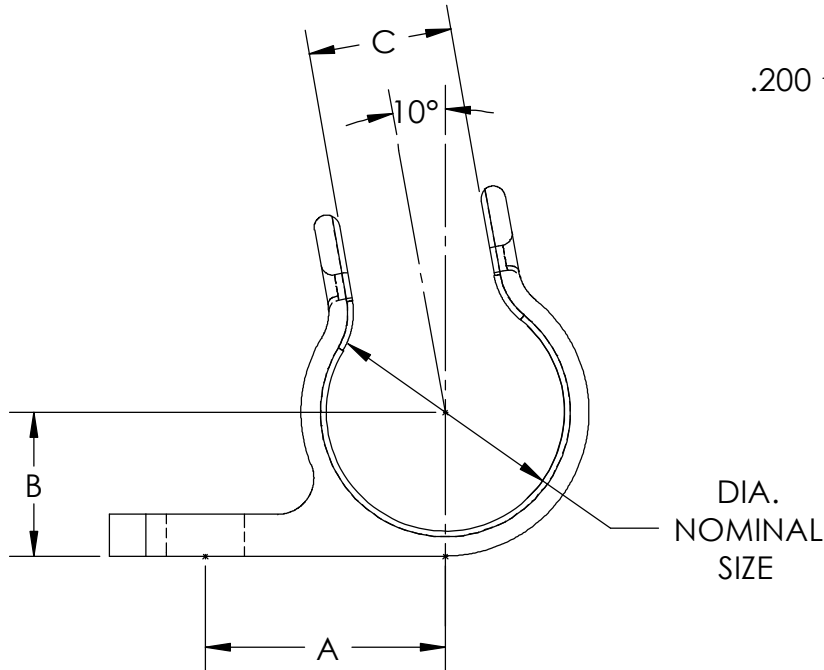
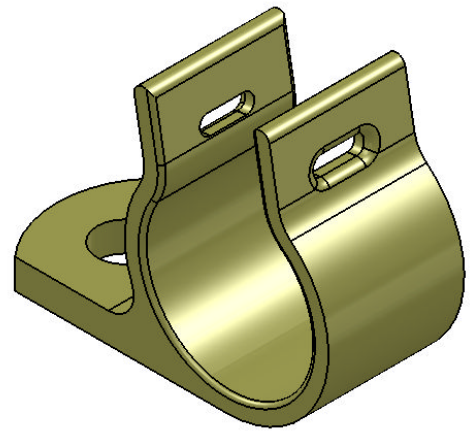
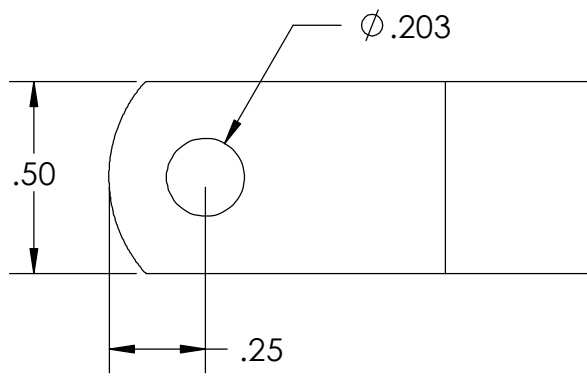
**NMC RC3310 and
NMC CA0385 (2.62” wide)**

Both designs of the Raceway Channel are made from Nylon 6/6 materials which offer maximum flexibility and durability. The material conforms to industry specification ASTM D4066. The bracket material is a combination of aluminum and foam, offering firm support for wiring and tubing. The foam has low to no smoke and toxicity features.



**NMC 10DR and
NMC CA0693 (4.00” wide)**





PART NUMBER NMC 1001-()	NOMINAL SIZE	SIZE RANGE	A DIM	B DIM	C DIM	EST. PART WEIGHT
0	3/16	1/8 TO 1/4	7/16	5/32	1/8	1.0 g
1	5/16	1/4 TO 3/8	1/2	7/32	3/16	1.4 g
2	5/8	3/8 TO 1/2	9/16	9/32	1/4	1.7 g
3	7/16	1/2 TO 11/16	5/8	3/8	3/8	1.9 g
4	7/8	11/16 TO 15/16	13/16	1/2	1/2	2.9 g
5	1-1/8	7/8 TO 1-1/4	15/16	5/8	3/4	3.9 g
6	1-1/2	1-3/8 TO 1-5/8	1-1/8	27/32	1	6.0 g
7	2	1-9/16 TO 2-3/16	1-3/8	1-3/32	1-1/4	7.0 g



NMC AEROSPACE 2755 THOMPSON CREEK
POMONA, CA 91767-1861
909-451-2290
www.esterline.com

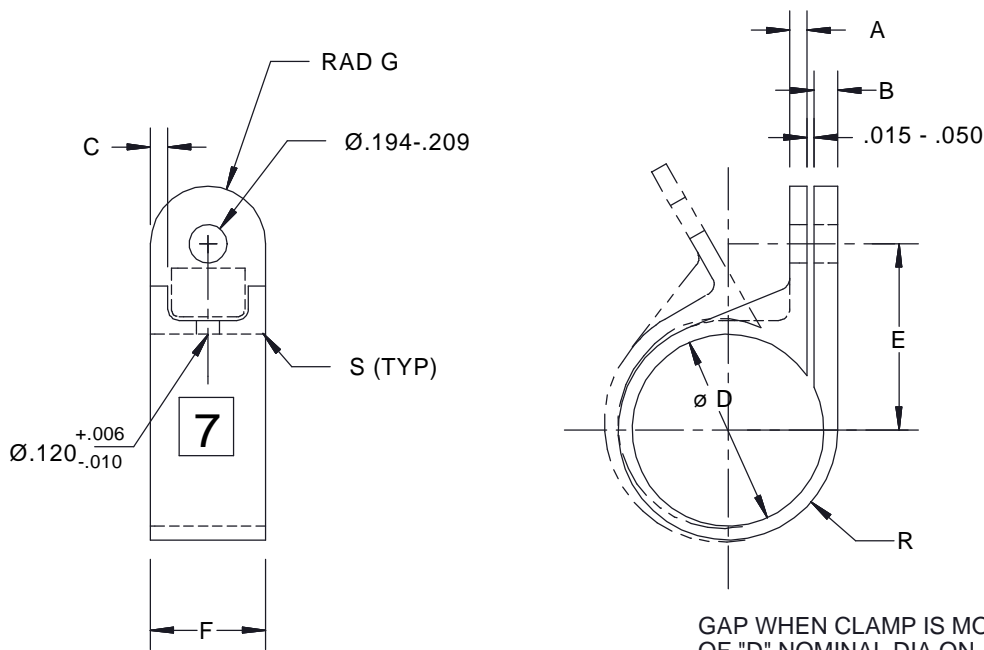
DWG. NO.

NMC 1001

ADJUSTABLE CLAMP

MATERIAL: NYLON 6/6

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



GAP WHEN CLAMP IS MOUNTED CLOSED AROUND A MANDREL OF "D" NOMINAL DIA ON A PLATE PER INSPECTION REQUIREMENTS

SURFACE TEXTURE SHALL BE 125 MICROINCHES Ra

MARKING

SIZES 2, 3, AND 4 - SIZE DASH NUMBER AND "DK"

SIZES 5 AND LARGER - SIZE DASH NUMBER AND "C10DK"

COLOR:

SEE TABLE I FOR COLORS OF INDIVIDUAL CLAMP SIZES

TABLE I

PART NUMBER	COLORS	A +0.010 -0.005	B +0.010 -0.005	C	D	E	F	G	T +0.010 -0.005	R +0.010 -0.005	S
2	BROWN	0.065	0.065	0.060	0.125	0.457	0.50	0.25	0.24	0.102	0.02
3	ORANGE				0.187	0.498				0.139	
4	PINK				0.25	0.529				0.165	
5	NATURAL				0.312	0.56				0.206	
6	GREY	0.065	0.095	0.060	0.375	0.592	0.50	0.25	0.24	0.25	0.03
7	BLUE				0.437	0.623				0.281	
8	YELLOW				0.5	0.654				0.312	
9	BROWN				0.562	0.752				0.343	
8A	YELLOW	0.075	0.125	0.090	0.5	0.654	0.60	0.30	0.22	0.385	0.03
9A	BROWN				0.562	0.752				0.415	
10	ORANGE				0.625	0.783				0.447	
11	PINK				0.687	0.814				0.478	
12	NATURAL	0.075	0.125	0.090	0.75	0.845	0.60	0.30	0.22	0.509	0.03
13	GREY				0.812	0.877				0.54	
14	BLUE				0.875	0.908				0.572	
15	YELLOW				0.937	0.939				0.603	
16	BROWN	0.125	0.125	0.090	1	0.97	0.60	0.30	0.22	0.634	0.03
17	ORANGE				1.062	1.002				0.665	
18	PINK				1.125	1.062				0.697	
19	NATURAL				1.187	1.093				0.322	
20	GREY	0.125	0.125	0.090	1.25	1.124	0.60	0.30	0.22	0.353	0.03
24	BLUE				1.5	1.248					



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POMONA, CA 91767-1861
www.esterline.com 909-451-2290

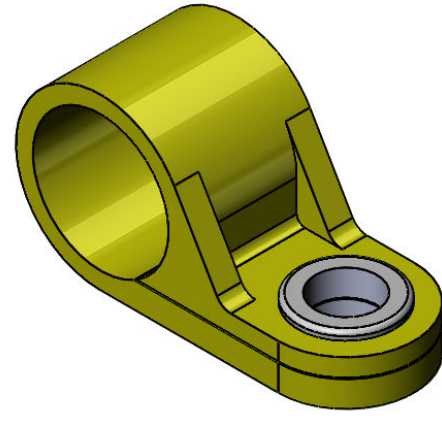
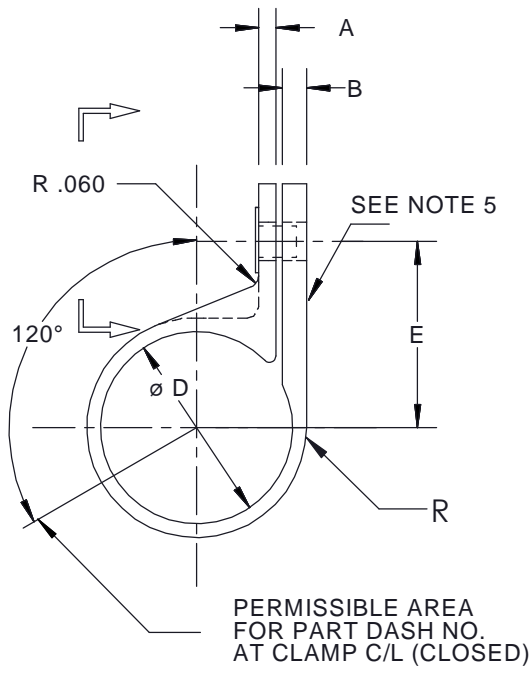
DWG. NO.

NMC 3625

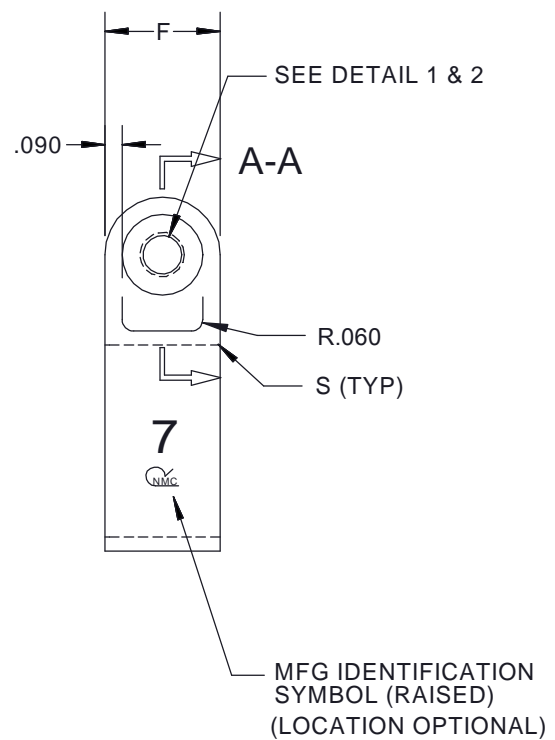
MATERIAL: NYLON 6/6 HEAT RESISTANT

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

**SUPPORT CLAMP
ELECTRICAL**



PART NUMBER	A +.010 -.005	B +.010 -.005	D ±.005	E ±.015	F ±.010	R REF.
F2	.065	.065	.125	.457	.500	.102
F3			.187	.498		.139
F4			.250	.529		.165
F5		.095	.312	.560		.206
F6			.375	.592		.250
F7			.437	.623		.281
F8			.500	.654		.312
F9			.562	.752		.343
F10			.075	.125		.625
F11	.687	.814			.415	
F12	.750	.845			.447	
F13	.812	.877			.478	
F14	.875	.908			.509	
F15	.937	.939			.540	
F16	1.000	.970			.572	
F17	1.062	1.002			.603	
F18	1.125	1.062			.634	
F19	1.187	1.093			.665	
F20	1.250	1.124	.697			



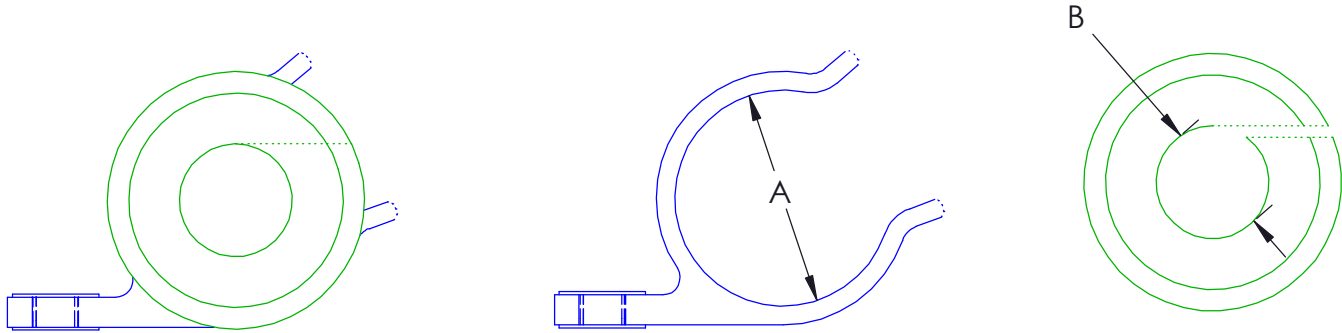
EXAMPLE PART NUMBER
NMC 3650 - F20

MATERIAL: _____
 _____ SIZE CODE
 _____ BASIC PART NUMBER

CLAMP: NYLON 6/6 HEAT STABILIZED

	NMC AEROSPACE www.esterline.com	2755 THOMPSON CREEK POMONA, CA 91767-1861 909-451-2290	DWG. NO. NMC 3650						
	SUPPORT CLAMP, ELECTRICAL		MATERIAL: SEE NOTES						
			TOLERANCES						
			<table border="1"> <tr> <th>DECIMAL</th> <th>ANGULAR</th> </tr> <tr> <td>.XX ±.030</td> <td>.XXX ±.010</td> </tr> <tr> <td></td> <td>±5°</td> </tr> </table>	DECIMAL	ANGULAR	.XX ±.030	.XXX ±.010		±5°
DECIMAL	ANGULAR								
.XX ±.030	.XXX ±.010								
	±5°								

Adjustable Clamp Insert Assembly



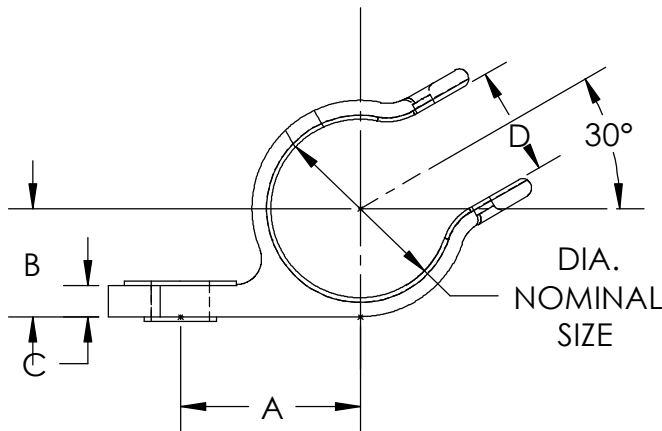
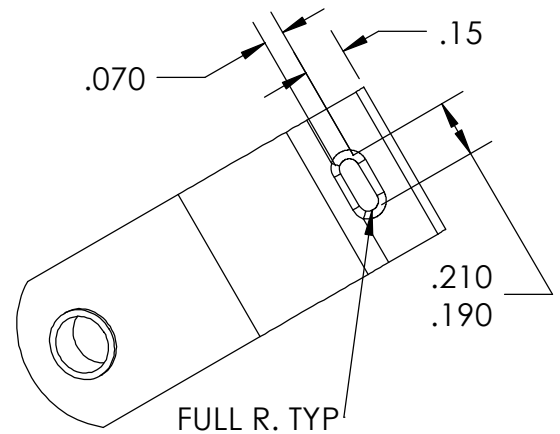
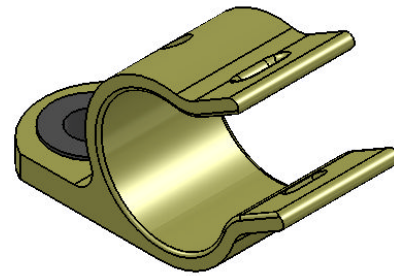
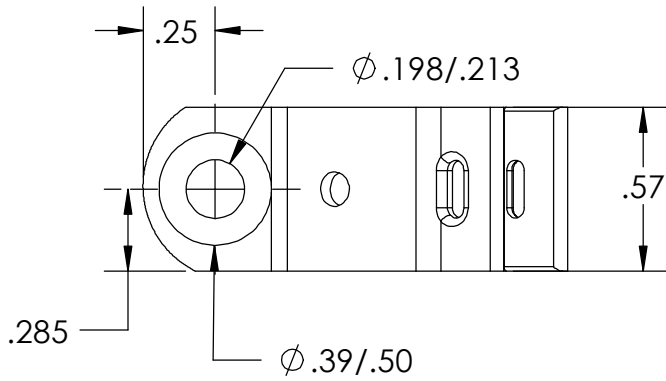
ADJUSTABLE CLAMP ASSEMBLY PART NUMBER	CLAMP PART NUMBER	DIAMETER A (CLAMP I.D.)	INSERT PART NUMBER	DIAMETER B (INSERT I.D.)
NMC - AC 9681-1	NMC CA 2030-1	1/4 to 3/8	NMC CM 0250-00720	0.0720
NMC - AC 9681-2	NMC CA 2030-1	1/4 to 3/8	NMC CM 0250-01205	0.1205
NMC - AC 9681-3	NMC CA 2030-1	1/4 to 3/8	NMC CM 0250-01438	0.1438
NMC - AC 9681-4	NMC CA 2030-2	3/8 to 1/2	NMC CM 0500-01830	0.1830
NMC - AC 9681-5	NMC CA 2030-2	3/8 to 1/2	NMC CM 0500-01920	0.1920
NMC - AC 9681-6	NMC CA 2030-2	3/8 to 1/2	NMC CM 0500-02625	0.2625
NMC - AC 9681-7	NMC CA 2030-2	3/8 to 1/2	NMC CM 0500-02830	0.2830
NMC - AC 9681-8	NMC CA 2030-3	1/2 to 11/16	NMC CM 0500-01830	0.1830
NMC - AC 9681-9	NMC CA 2030-3	1/2 to 11/16	NMC CM 0500-01920	0.1920
NMC - AC 9681-10	NMC CA 2030-3	1/2 to 11/16	NMC CM 0500-02625	0.2625
NMC - AC 9681-11	NMC CA 2030-3	1/2 to 11/16	NMC CM 0500-02830	0.2830
NMC - AC 9681-12	NMC CA 2030-4	11/16 to 15/16	NMC CM 0750-03065	0.3065
NMC - AC 9681-13	NMC CA 2030-4	11/16 to 15/16	NMC CM 0750-03310	0.3310
NMC - AC 9681-14	NMC CA 2030-4	11/16 to 15/16	NMC CM 0750-03625	0.3625
NMC - AC 9681-15	NMC CA 2030-4	11/16 to 15/16	NMC CM 0750-05000	0.5000
NMC - AC 9681-16	NMC CA 2030-5	7/8 to 1-1/4	NMC CM 1000-05250	0.5250
NMC - AC 9681-17	NMC CA 2030-5	7/8 to 1-1/4	NMC CM 1000-05710	0.5710
NMC - AC 9681-18	NMC CA 2030-5	7/8 to 1-1/4	NMC CM 1000-06139	0.6139
NMC - AC 9681-19	NMC CA 2030-5	7/8 to 1-1/4	NMC CM 1000-06580	0.6580

MATERIAL:

CLAMP - NYLON 6/6

INSERT - SILICONE RUBBER

	NMC AEROSPACE 2755 THOMPSON CREEK POMONA, CA 91767-1861 909-451-2290 www.esterline.com	DWG. NO. NMC AC9681		
	ADJUSTABLE CLAMP INSERT ASSEMBLY	MATERIAL: SEE NOTES		
		TOLERANCES	DECIMAL .XX ±.030	.XXX ±.010



PART NUMBER NMC CA2030-()	NOMINAL SIZE	SIZE RANGE	A DIM +/- .030	B DIM +/- .030	C DIM +.010 - .005	D DIM +/- .030	EST. PART WEIGHT
1	5/16	1/4 TO 3/8	.50	.22	.109	.19	1.7 g
2	7/16	3/8 TO 1/2	.56	.28	.109	.25	2.1 g
3	5/8	1/2 TO 11/16	.63	.38	.109	.38	2.4 g
4	7/8	11/16 TO 15/16	.81	.50	.109	.50	3.5 g
5	1-1/8	7/8 TO 1-1/4	.94	.65	.156	.50	4.6 g



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POMONA, CA 91767-1861
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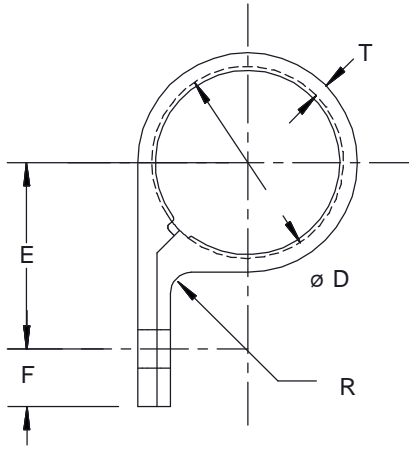
DWG. NO.

NMC CA2030

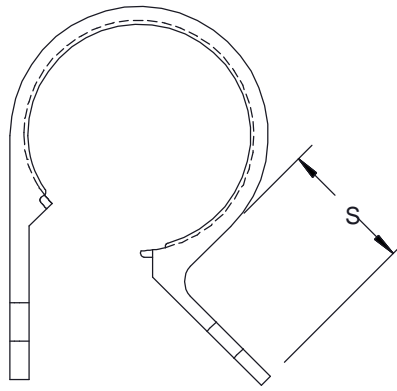
ADJUSTABLE CLAMP

MATERIAL: NYLON 6/6

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



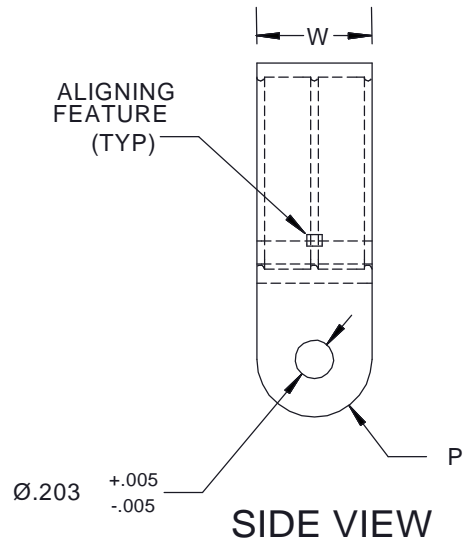
CLOSED



OPEN



DASH NO. NMC CL141N	APPROX. CABLE BUNDLE DIA ±1/64	DIMENSIONS							
		D	E	F	P	R	W		
		±.020	±.025		MIN RAD		MIN	MAX	
2	1/8	.125	.440						
3	3/16	.188	.485						
4	1/4	.250	.510						
5	5/16	.312	.546	.260					
6	3/8	.375	.578	.240	.250	.062		.510	
7	7/16	.348	.608						
8	1/2	.500	.639						
9	9/16	.562	.615						
10	5/8	.625	.706						
11	11/16	.688	.785						
12	3/4	.750	.816						
13	13/16	.812	.827				.499		
14	7/8	.875	.878						
15	15/16	.938	.910						
16	1	1.000	.941						
17	1-1/16	1.063	.972	.330				.610	
18	1-1/8	1.125	.983	.240	.300				
20	1-1/4	1.250	1.066			.109			
22	1-3/8	1.375	1.110						
24	1-1/2	1.500	1.170						
26	1-5/8	1.625	1.250						
28	1-3/4	1.750	1.300						
30	1-7/8	1.875	1.355						
32	2	2.000	1.420						
36	2-1/4	2.250	1.580						



EXAMPLE OF PART NUMBER

NMC CL141N -10

SIZE NUMBER CODE (SEE TABLE)

BASIC PART NUMBER



NMC AEROSPACE
www.esterline.com

2755 THOMPSON CREEK
POMONA, CA 91767-1861
909-451-2290

DWG. NO.

NMC CL141N

MATERIAL: NYLON 6/6

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

TABLE 1

NO	DIA	A RAD	B	C	D	E	F	G	H	EST. WEIGHT -g.		J	K	L	M	N
										STRAP	BASE					
16	1	0.500	0.906	1.934	2 1/2	0.500	13/32	0.625		6.5	4.3	1/2	3/4	0.190	0.125	0.125
18	1 1/8	0.562	1.046	2.058	2 5/8	0.562	17/32	0.750		9.7	6.5					
20	1 1/4	0.625	1.172	2.184	2 3/4	0.625	1/2	0.812		10.0	7.3					
24	1 1/2	0.750	1.407	2.434	3 1/64	0.750	9/16	0.937		10.5	3.0					
26	1 5/8	0.812	1.547	2.559	3 1/8	0.812	11/16	1.000		11.3	9.0					
32	2	1.000	1.908	2.934	3 1/2	1.000	25/32	1.187		12.5	10.6					
40	2 1/2	1.250	2.407	3.434	4	1.250	7/8	1.437		14.0	12.5					
48	3	1.500	2.907	3.934	4 1/2	1.500	1 3/16	1.687		15.5	16.5					
52	3 1/4	1.625	3.172	4.184	4 3/4	1.625	1 9/32	1.812		17.0	16.3					
56	3 1/2	1.750	3.405	4.434	5	1.750	1 11/32	1.937		17.0	19.3					
60	3 3/4	1.875	3.672	4.684	5 1/4	1.875	1 13/32	2.062		19.0	21.5					
64	4	2.000	3.905	4.934	5 1/2	2.000	1 17/32	2.187		18.3	22.5					
68	4 1/4	2.125	4.172	5.184	5 3/4	2.125	1 5/16	2.312	11.087	19.5	23.3	1 1/2	1 1/4	1/4	1/4	3/16
72	4 1/2	2.250	4.422	5.434	6	2.250	1 3/8	2.437	11.730	20.0	24.0					
80	5	2.500	4.922	5.934	6 1/2	2.500	1 1/2	2.687	13.015	21.5	28.0					
88	5 1/2	2.750	5.422	6.434	7	2.750	1 5/8	2.938	13.983							
92	5 3/4	2.875	5.672	6.684	7 1/4	2.875	1 21/32	3.062	14.943	23.5	33.5					
100	6 1/4	3.125	6.172	7.184	7 3/4	3.125	1 55/64	3.312	16.228	24.5	38.3					
104	6 1/2	3.250	6.422	7.434	8	3.250	1 61/64	3.437	16.571							
108	6 3/4	3.375	6.672	7.684	8 1/4	3.375	2 1/64	3.562	17.514							
120	7 1/2	3.750	7.422	8.434	9	3.750	2 21/64	3.937	19.442	28.0	50.0					
132	8 1/4	4.125	8.172	9.184	9 3/4	4.125	2 37/64	4.312	21.370							
136	8 1/2	4.250	8.422	9.434	10	4.250	2 47/64	4.437	22.013							
144	9	4.500	8.922	9.934	10 1/2	4.500	2 57/64	4.687	23.298							



NMC AEROSPACE 2755 THOMPSON CREEK
POMONA, CA 91767-1861
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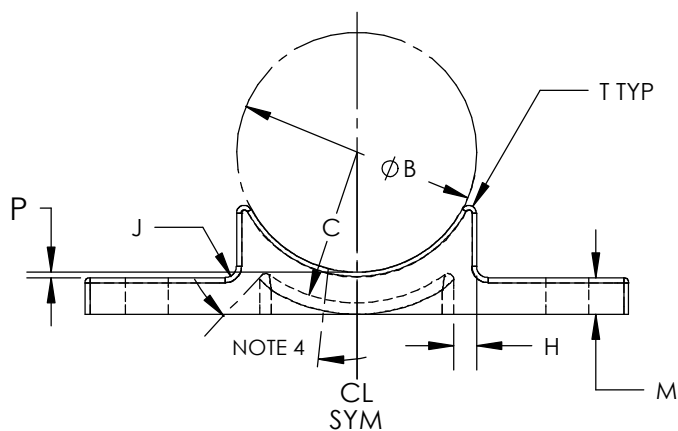
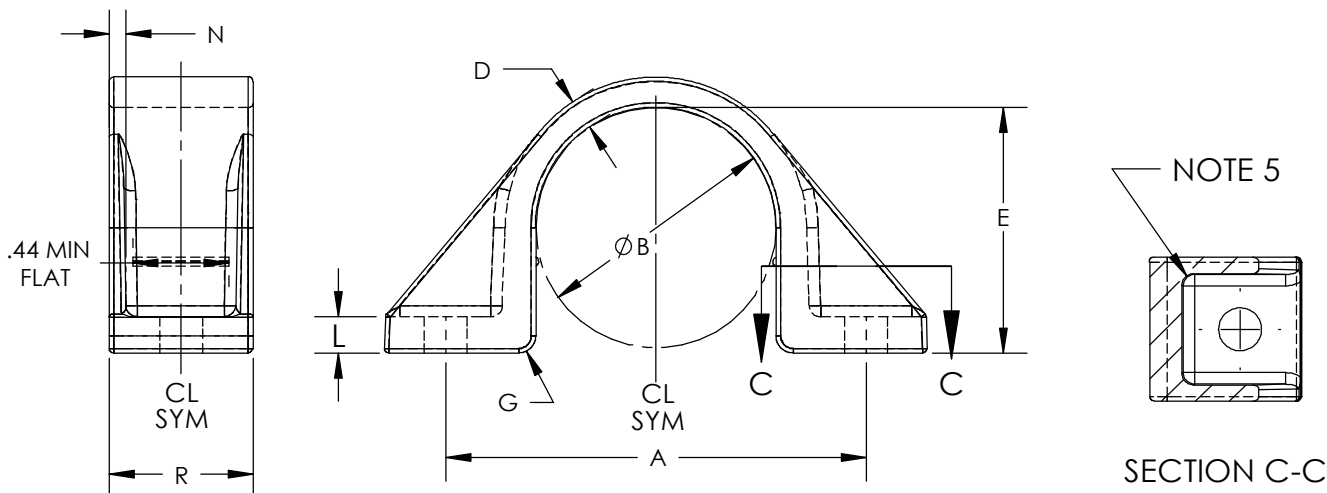
DWG. NO.
S7701100

**CLAMP - TUBE SUPPORT, STRAP
-S, BASE -B, BASE GROUNDED**

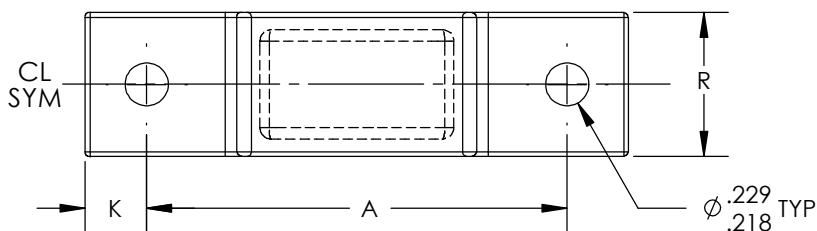
MATERIAL: NYLON 6/6

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

CLAMP STRAP



CLAMP SADDLE



NOTES:

1. MATERIAL:
6/6 HEAT STABILIZED NYLON
2. FINISH:
ALL SURFACES SHALL BE 125 RA PER MIL-STD-101, EXCEPT AS NOTED. WHERE GATES OR FLASH ARE REMOVED. THE SURFACE MAY BE GROUND OR FILED (MEDIUM OR FINE CUT) WITHOUT SUBSEQUENT BUFFING OR POLISHING. MOLDED PARTS HAVING NOTICEABLE FLOW LINES OR WELD LINES IN THE AREA WHERE MOLTEN MATERIAL HAS JOINED ARE ACCEPTABLE.
3. COLOR:
NATURAL
4. MARKING AREA:
THE PREFIX "C10EW" FOLLOWED BY THE VENDOR DASH NUMBER MAY BE EMBOSSED IN THIS AREA. EXAMPLE: C10EW-124
5. INSPECTION REQUIREMENTS:
DIMENSIONS ARE TO BE MEASURED WHEN CLAMP AND SADDLE ARE HELD AGAINST A FLAT SURFACE.

ENGINEERING INFORMATION:

THIS PART IS INTENDED FOR USE AS A TUBE SUPPORT AND IS SUITABLE FOR IMMERSION IN AIRCRAFT FUEL..



NMC AEROSPACE 2755 THOMPSON CREEK
POMONA, CA 91767-1861
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DWG. NO.

NMC 7500

CLAMP U-TYPE WITH SADDLE

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

TABLE 1 - CLAMP STRAP

PART NUMBER	TUBE SIZE	A ±.020	B DIA ±.025	D	E +.020 -.000	G RAD	K	L	N	R	S RAD
NMC 7500-16A	1.00	1.940	1.000	0.16	1.030	0.09	0.32	0.19	0.09	0.75	0.06
NMC 7500-20A	1.25	2.190	1.250		1.280						
NMC 7500-24A	1.50	2.440	1.500		1.530						
NMC 7500-26A	1.63	2.690	1.625		1.655						
NMC 7500-28A	1.75	2.690	1.750		1.780						
NMC 7500-30A	1.88	2.690	1.875		1.905						
NMC 7500-32A	2.00	2.940	2.000		2.030						
NMC 7500-34A	2.13	3.125	2.125		2.155						
NMC 7500-36A	2.25	3.310	2.250		2.280						
NMC 7500-40A	2.50	3.560	2.500		2.530						
NMC 7500-42A	2.63	3.685	2.625	2.655	0.15	0.35	0.25	0.09	0.75	0.09	
NMC 7500-44A	2.75	3.810	2.750	2.780							
NMC 7500-48A	3.00	4.060	3.000	3.060							
NMC 7500-52A	3.25	4.310	3.250	3.310							
NMC 7500-56A	3.50	4.560	3.500	3.560							
NMC 7500-58A	3.63	4.690	3.625	3.685							
NMC 7500-60A	3.75	4.810	3.750	3.810							
NMC 7500-64A	4.00	5.060	4.000	4.060							
NMC 7500-72A	4.50	5.560	4.500	4.560							
NMC 7500-80A	5.00	6.250	5.000	0.25							5.060
NMC 7500-82A	5.13	6.410	5.125	0.27	5.185						
NMC 7500-88A	5.50	6.875	5.500	0.32	5.560						
NMC 7500-96A	6.00	7.500	6.000	0.38	6.120						

TABLE 2 - CLAMP STRADDLE

PART NUMBER	TUBE SIZE	A ±.020	B DIA ±.025	C RAD	H	J RAD	K	M	P	R	T RAD
NMC 7500-16B	1.00	1.940	1.000	0.660	0.120	0.06	0.32	0.12	0.03	0.75	0.04
NMC 7500-20B	1.25	2.190	1.250	0.783							
NMC 7500-24B	1.50	2.440	1.500	0.910							
NMC 7500-26B	1.63	2.690	1.625	0.960							
NMC 7500-28B	1.75	2.690	1.750	0.995							
NMC 7500-30B	1.88	2.690	1.875	1.080							
NMC 7500-32B	2.00	2.940	2.000	1.160							
NMC 7500-34B	2.13	3.125	2.125	1.210							
NMC 7500-36B	2.25	3.310	2.250	1.290							
NMC 7500-40B	2.50	3.560	2.500	1.430							
NMC 7500-42B	2.63	3.685	2.625	1.470	0.140	0.35	0.19	0.06	0.75	0.06	
NMC 7500-44B	2.75	3.810	2.750	1.530							
NMC 7500-48B	3.00	4.060	3.000	1.680							
NMC 7500-52B	3.25	4.310	3.250	1.880							
NMC 7500-56B	3.50	4.560	3.500	1.900							
NMC 7500-58B	3.63	4.690	3.625	1.975							
NMC 7500-60B	3.75	4.810	3.750	2.090							
NMC 7500-64B	4.00	5.060	4.000	2.200							
NMC 7500-72B	4.50	5.560	4.500	2.450							0.160
NMC 7500-80B	5.00	6.250	5.000	2.750							0.250
NMC 7500-82B	5.13	6.410	5.125	2.825	0.260	0.20	0.08				
NMC 7500-88B	5.50	6.875	5.500	3.050	0.300	0.22	0.125				
NMC 7500-96B	6.00	7.500	6.000	3.380	0.350	0.38	0.12	±.003	0.80		



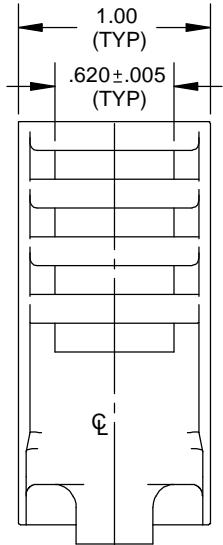
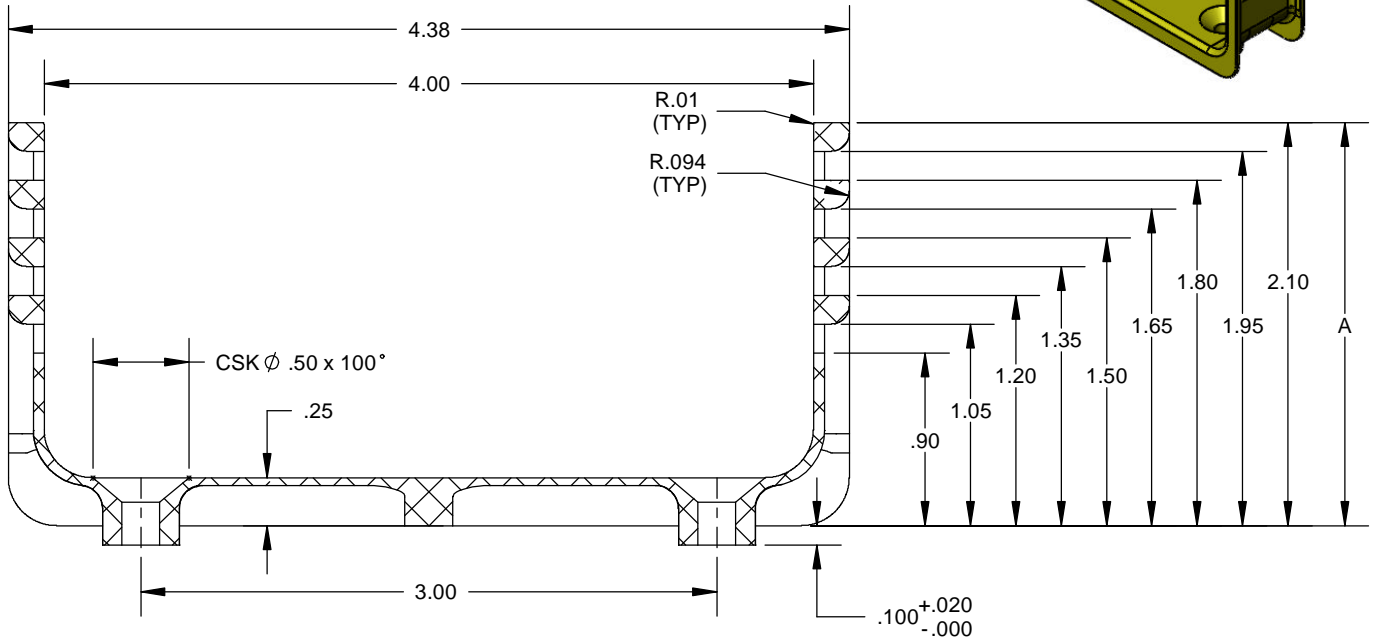
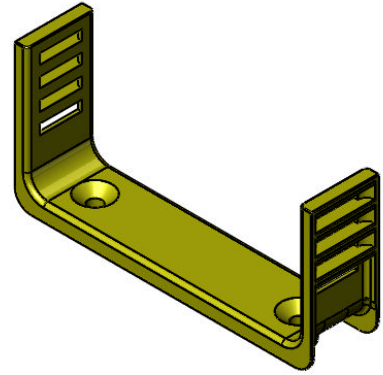
NMC AEROSPACE 2755 THOMPSON CREEK
POMONA, CA 91767-1861
www.esterline.com 909-451-2290

DWG. NO. **NMC 7500**

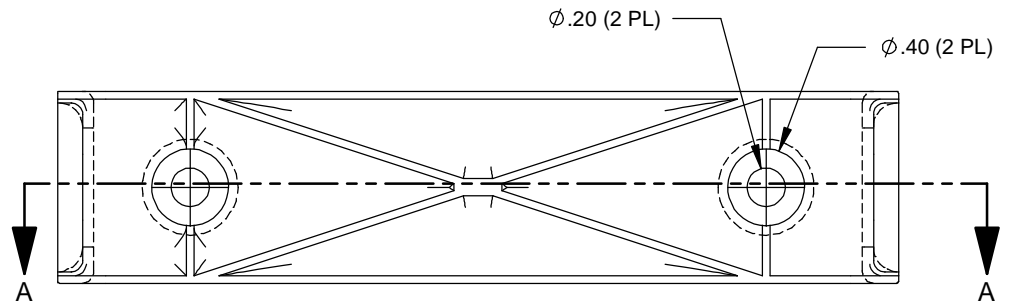
**CLAMP U-TYPE WITH
SADDLE**

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



SECTION A-A



PART NUMBER	A	COLOR
6	1	NATURAL
7	2	
8	3	
9	4	
10	1	BLACK
11	2	
12	3	
13	4	

1. MATERIAL: NYLON 6/6
COLOR: NATURAL
2. EXTENDED MOUNTING BOSS BELOW THE CHANNEL IS FOR DASH 10 - 13 ONLY

EXAMPLE OF PART NUMBER:

NMC 10DR - 6

SEE TABLE
BASIC PART NUMBER



NMC AEROSPACE 2755 THOMPSON CREEK
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NMC 10DR

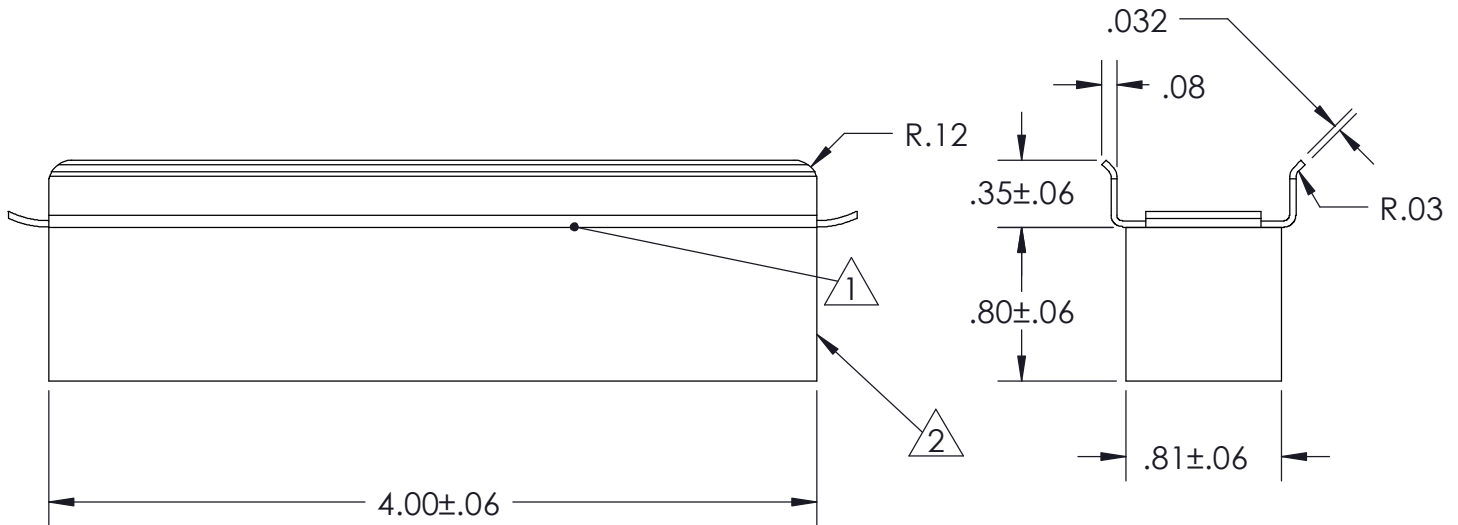
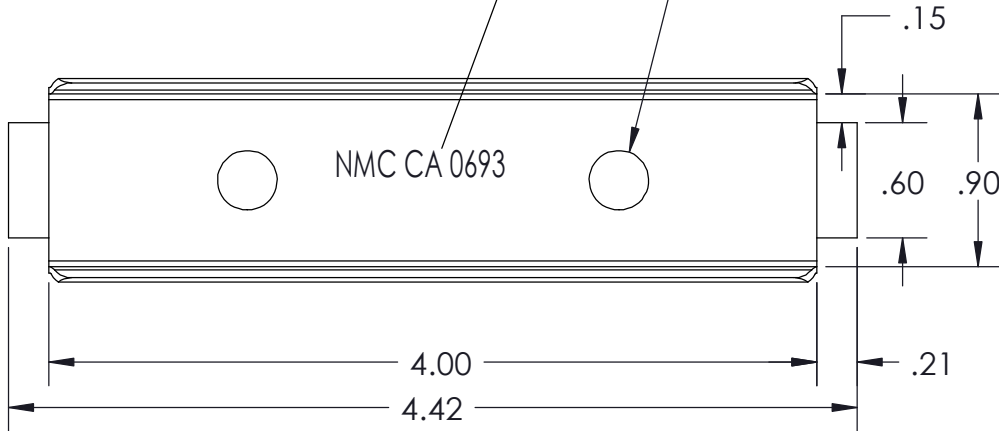
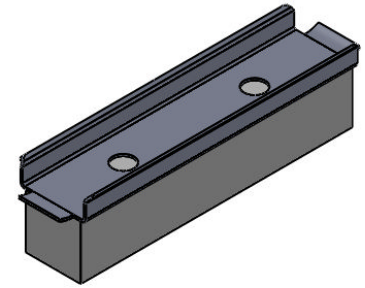
CHANNEL, WIRE BUNDLE

MATERIAL: NYLON 6/6

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

TOOLING HOLES OPTIONAL (.31 ϕ 2X)

OPTIONAL PART MARKING LOCATION



4. MARKING:
EACH CLAMP SHALL BE CLEARLY AND PERMANENTLY MARKED WITH THE MANUFACTURER'S IDENTIFICATION NUMBER AS SHOWN.

3. MATERIAL:
CHANNEL - ALUMINUM ALLOY
FOAM PAD - GENERAL PURPOSE POLYETHER URETHANE FOAM

2 THIS AREA SHALL BE COATED WITH A SELF-EXTINGUISHING COATING (SEE FINISH) OVER FOAM PAD.

1 BONDED IN PLACE

2	1	NMC 0366 (FOAM PAD)
1	1	NMC 0376-2 (RACEWAY)
DET. QTY.		DESCRIPTION



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DWG. NO.

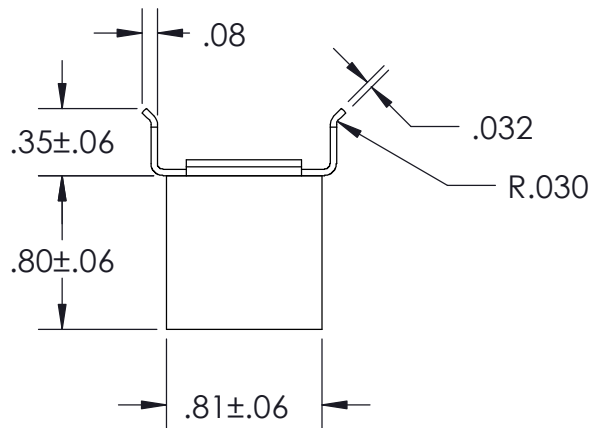
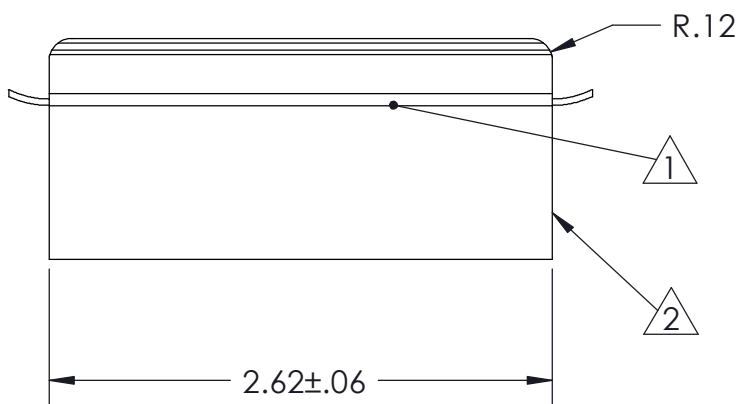
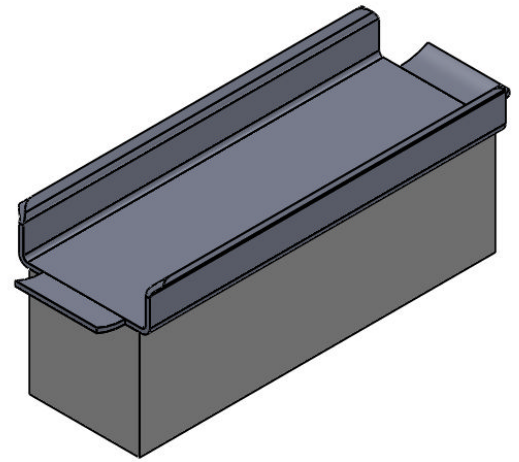
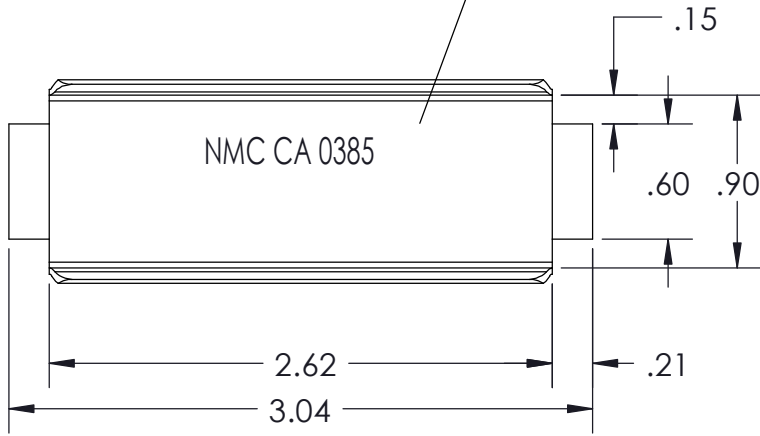
NMC CA0693

CLAMP, RACEWAY

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

OPTIONAL PART MARKING LOCATION



4. MARKING:
EACH CLAMP SHALL BE CLEARLY AND PERMANENTLY MARKED WITH THE MANUFACTURER'S IDENTIFICATION NUMBER AS SHOWN.

3. MATERIAL:
CHANNEL - ALUMINUM ALLOY
FOAM PAD - GENERAL PURPOSE POLYETHER URETHANE FOAM

2 THIS AREA SHALL BE COATED WITH A SELF-EXTINGUISHING COATING (SEE FINISH) OVER FOAM PAD.

1 BONDED IN PLACE

2	1	NMC 0368 (FOAM PAD)
1	1	NMC 0369-2 (RACEWAY)
DET.	QTY.	DESCRIPTION



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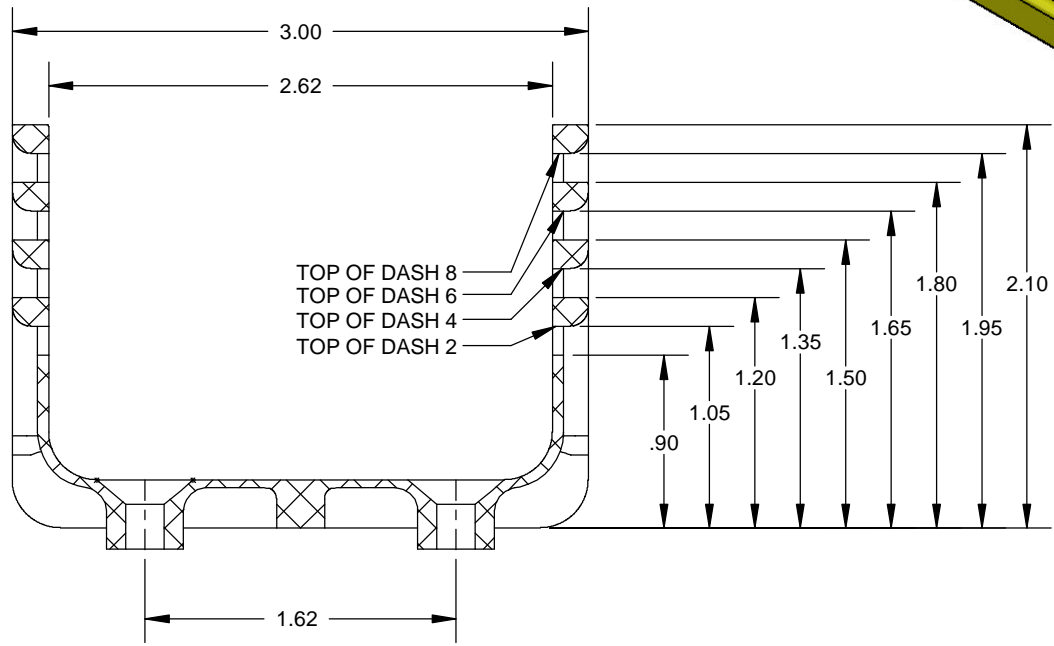
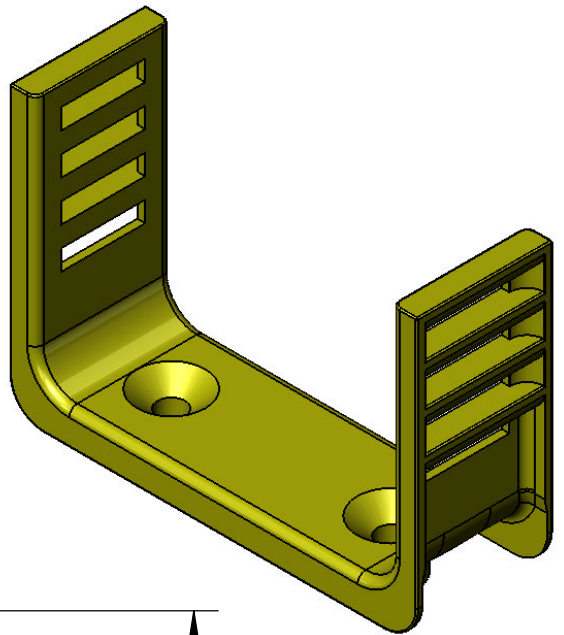
DWG. NO.

NMC CA0385

CLAMP, RACEWAY

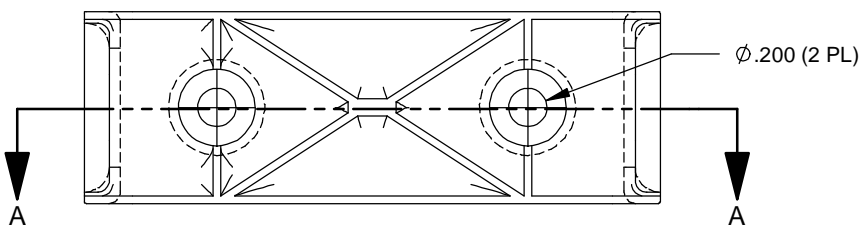
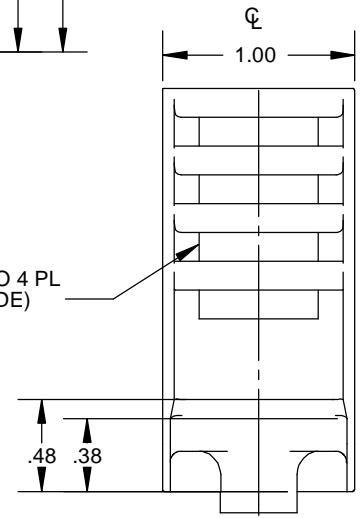
MATERIAL: SEE NOTES

TOLERANCES	DECIMAL	ANGULAR
	.XX ±.030	.XXX ±.010



SECTION A-A

SLOTS
(TYP 1 TO 4 PL
EACH SIDE)



EST. WEIGHT
 SIZE 2 - 7.6g
 SIZE 4 - 8.8g
 SIZE 6 - 10.0g
 SIZE 8 - 11.3g



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DWG. NO.
NMC RC3310

**RACEWAY, WIRE
 CHANNEL**

MATERIAL: NYLON 6			
TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

INSULATION BLANKET FASTENERS



NMC Insulation Blanket Fasteners

NMC supplies a number of insulation blanket fasteners. These are used to attach insulation blankets to fuselage, stringers, and frames. Some of these fasteners serve a dual purpose, supporting the insulation blanket while providing an attachment point for wire and cable or other devices.

Our insulation fasteners are attached to the aircraft by structural adhesive, VHB adhesive tapes, screwed to threaded attachments, or snapped into place. They are all molded from Nylon 6/6 providing strength and resistance to aggressive environments.

Most of the attachments provide a barb that pierces the blanket. A disc is snapped onto the barb to secure the insulation blanket. Some attachments clip onto frames or stringers to allow freedom of placement. Some fasteners provide a fixed air gap between the fuselage and the insulation blanket.

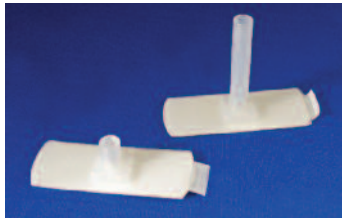
INSULATION BLANKET FASTENERS



NMC CP2151



OP 344



NMC IF2004



OP 345



NMC IFD2004



OP 346



NMC PW3A



OP 434



NMC PW4



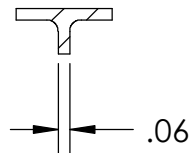
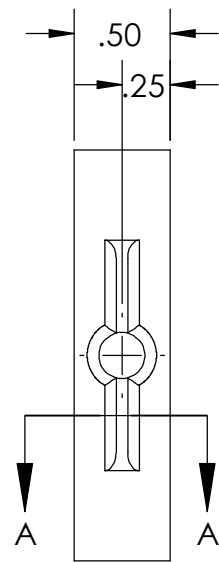
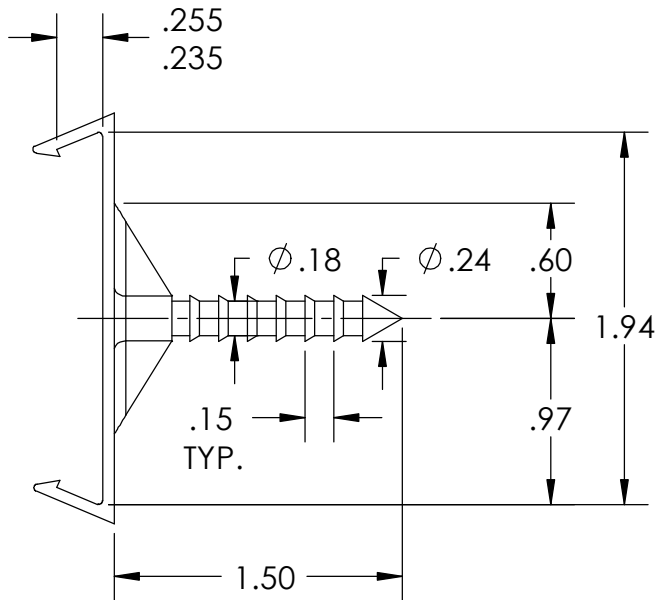
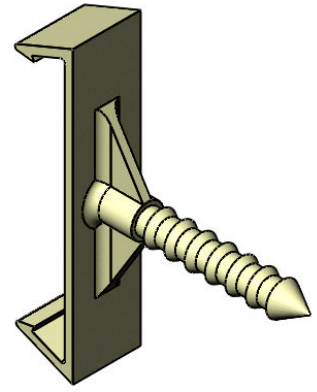
OP 435



OP 342



OP 1913



SECTION A-A

EST. WEIGHT: 2.4 GRAMS



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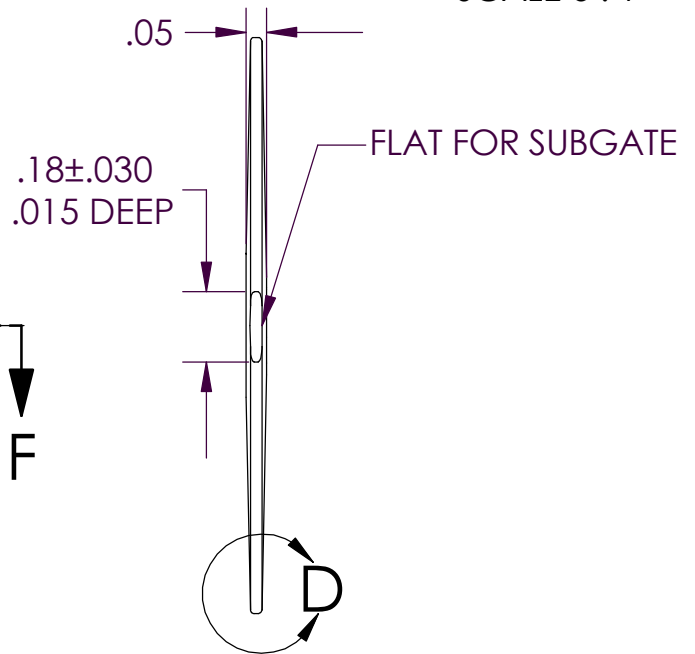
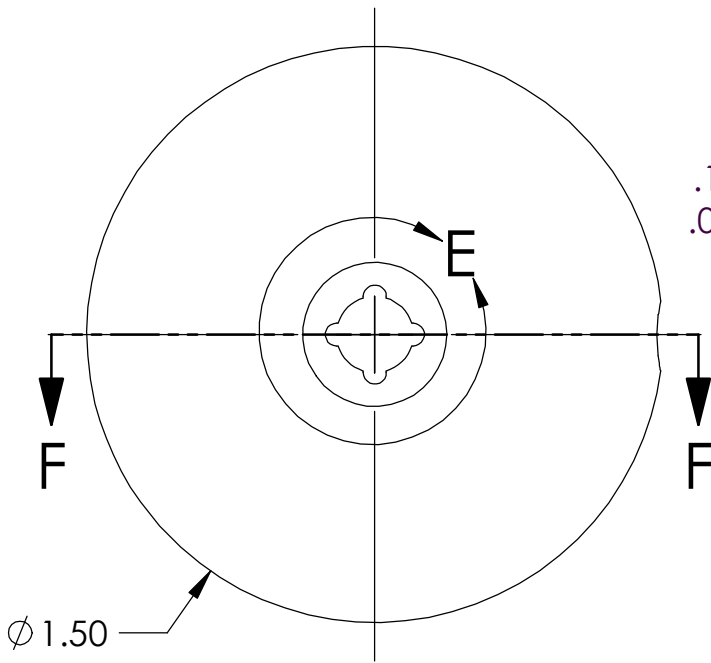
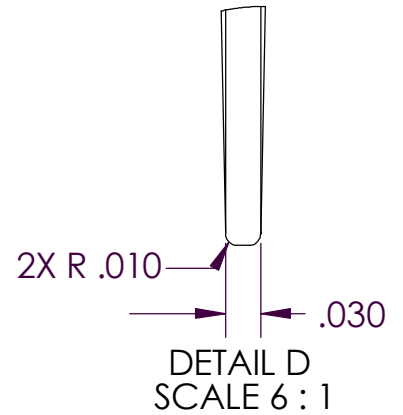
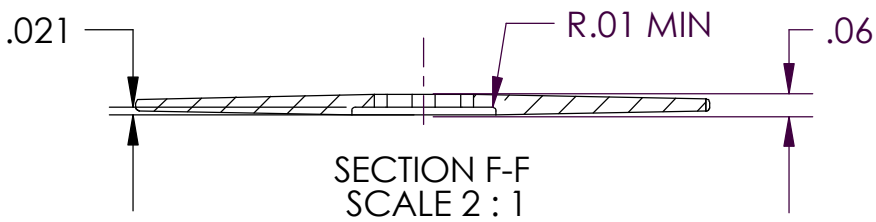
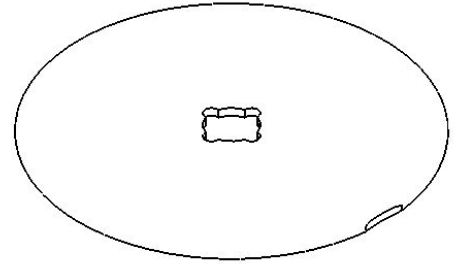
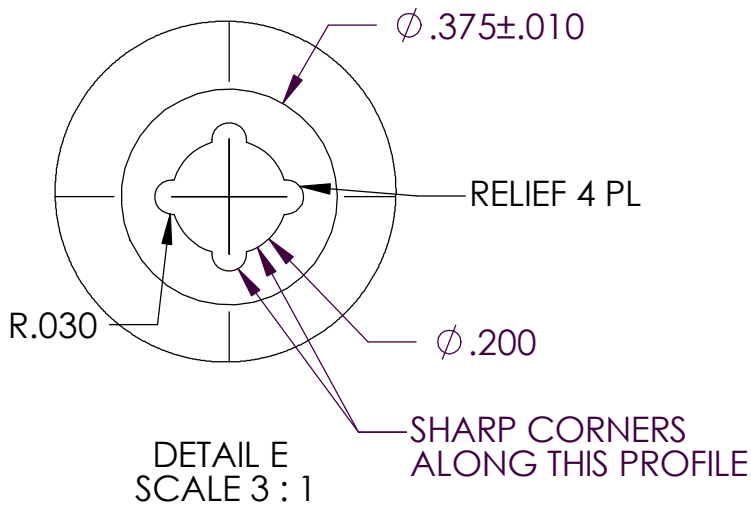
DWG. NO.

NMC CP 2151

**CLIP, STRINGER
INSULATION**

MATERIAL: NYLON 6/6

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



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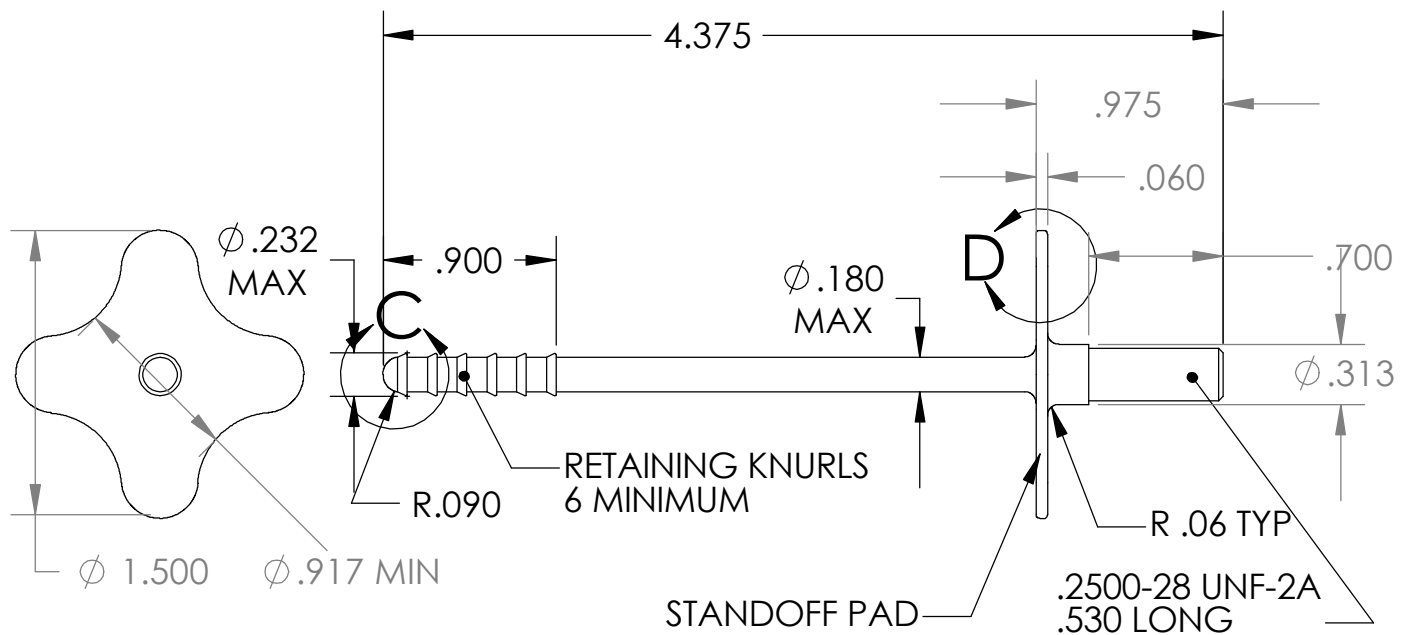
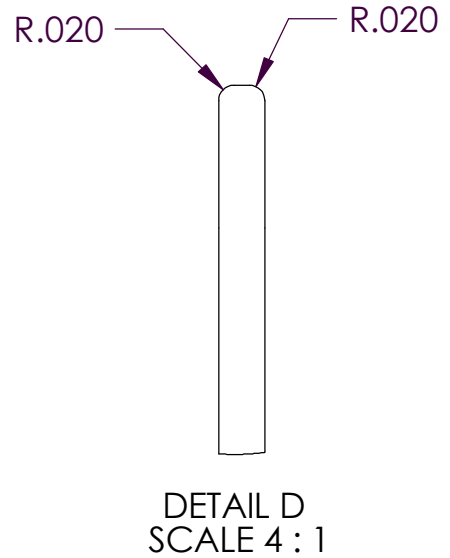
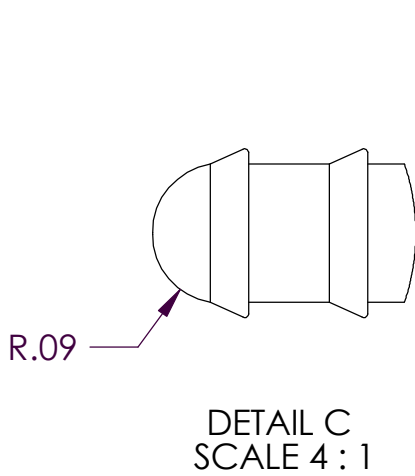
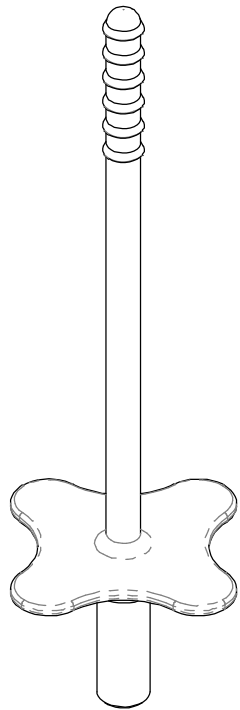
DWG. NO.

NMC IF1112-1

**DISK, INSULATION
 ATTACHMENT**

MATERIAL: NYLON 6/6

TOLERANCES	DECIMAL		ANGULAR
	.XX $\pm .030$.XXX $\pm .010$	$\pm 5^\circ$



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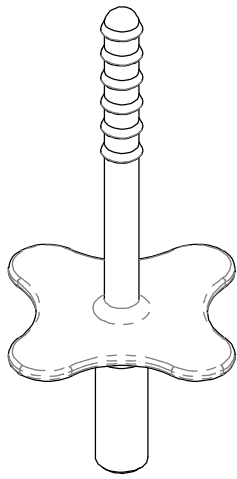
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NMC IF1112-5

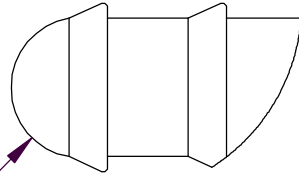
**SCREW-ON INDEX PIN,
INSULATION ATTACHMENT**

MATERIAL: NYLON 6/6

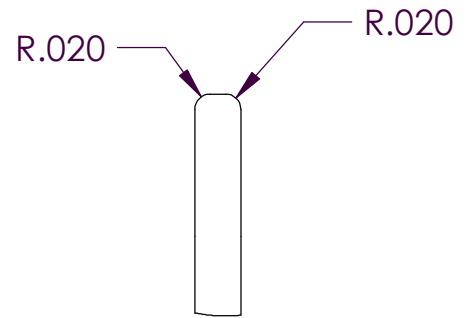
TOLERANCES	DECIMAL		ANGULAR
	.XX $\pm .030$.XXX $\pm .010$	$\pm 5^\circ$



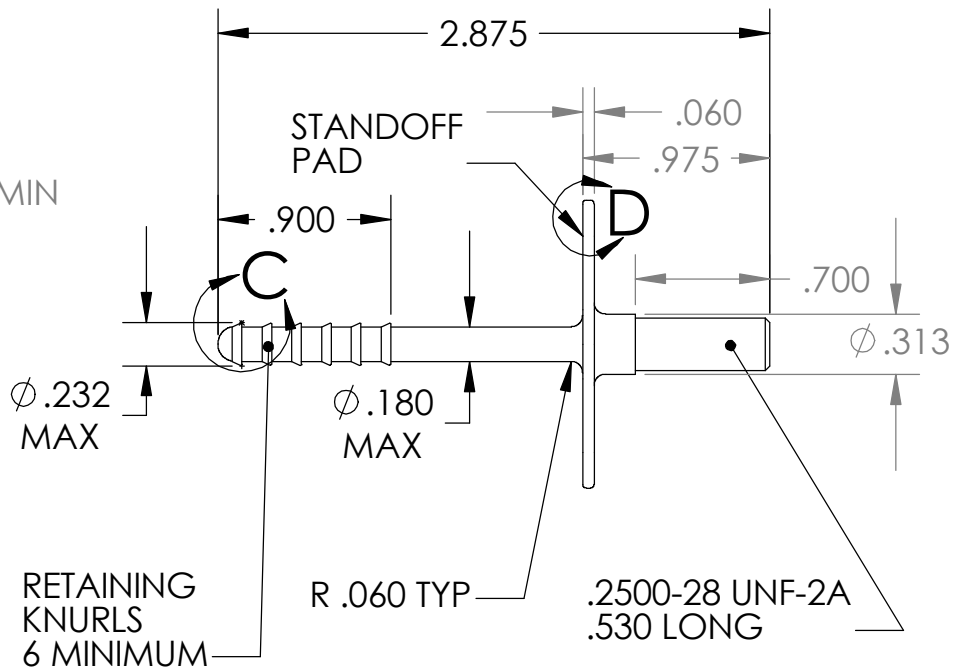
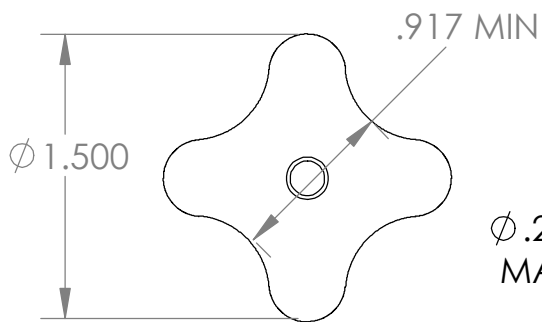
R.09



DETAIL C
SCALE 4 : 1



DETAIL D
SCALE 4 : 1



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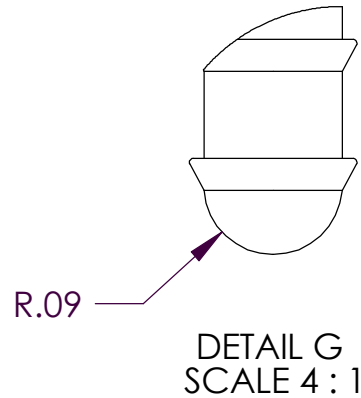
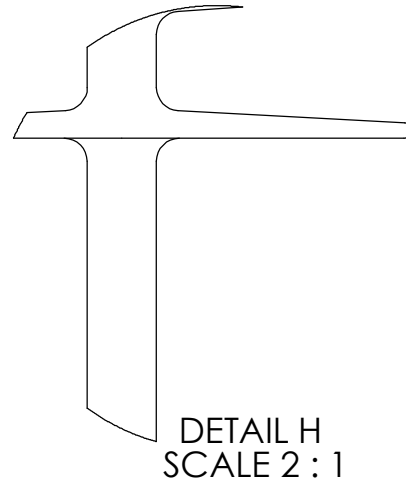
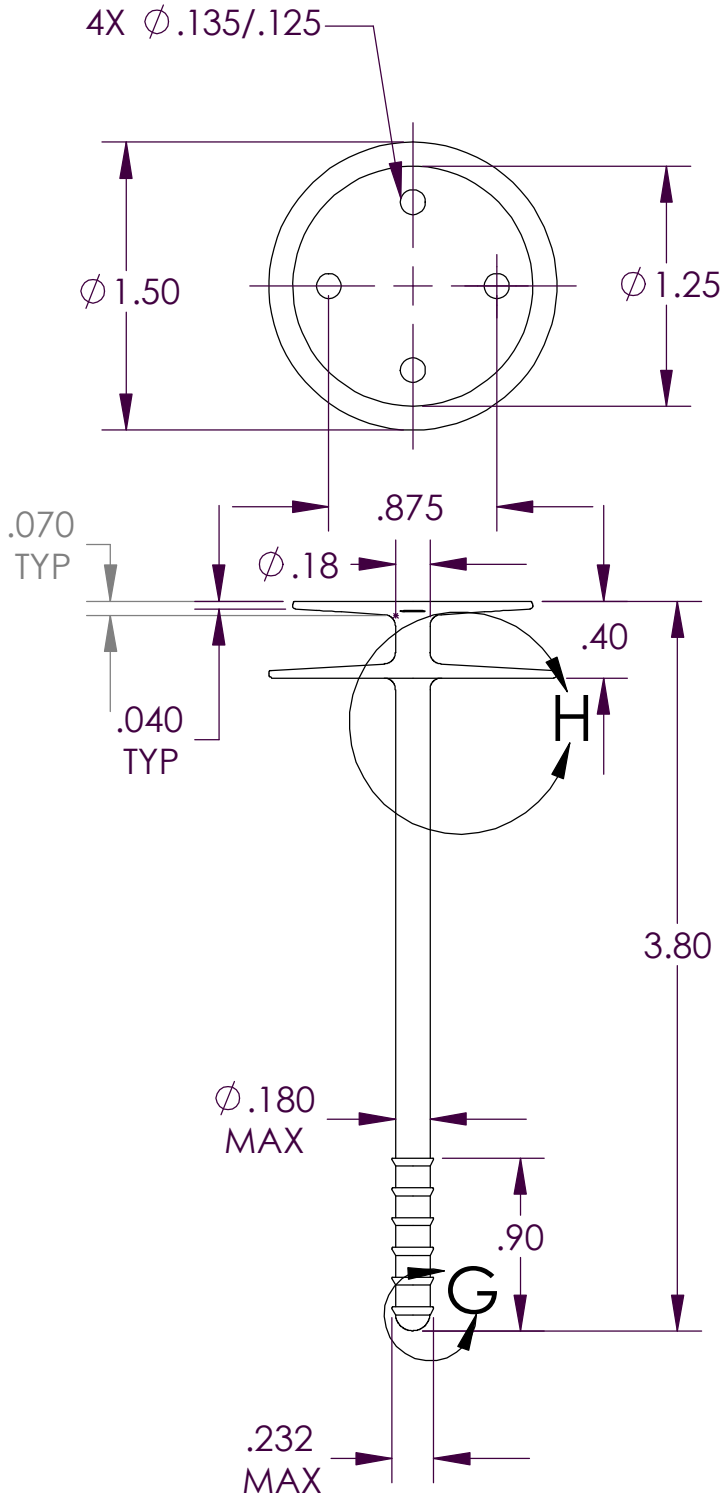
DWG. NO.

NMC IF1112-6

**SCREW-ON INDEX PIN (SHORT)
INSULATION ATTACHMENTS**

MATERIAL: NYLON 6/6

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



NOTES:

MATERIAL:

NYLON PER ASTM D4066 PA01,2,1
COLOR NATURAL



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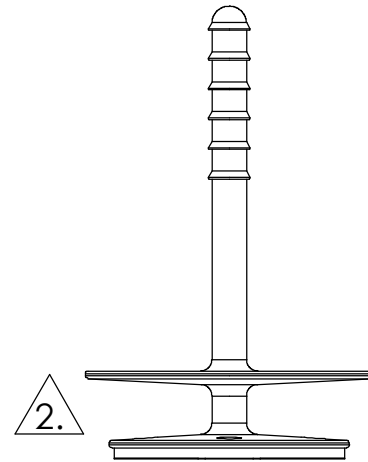
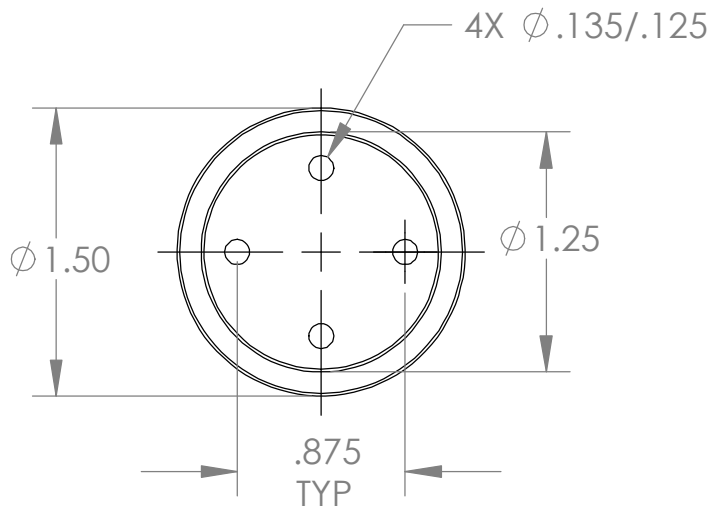
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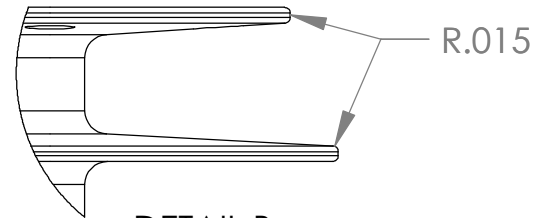
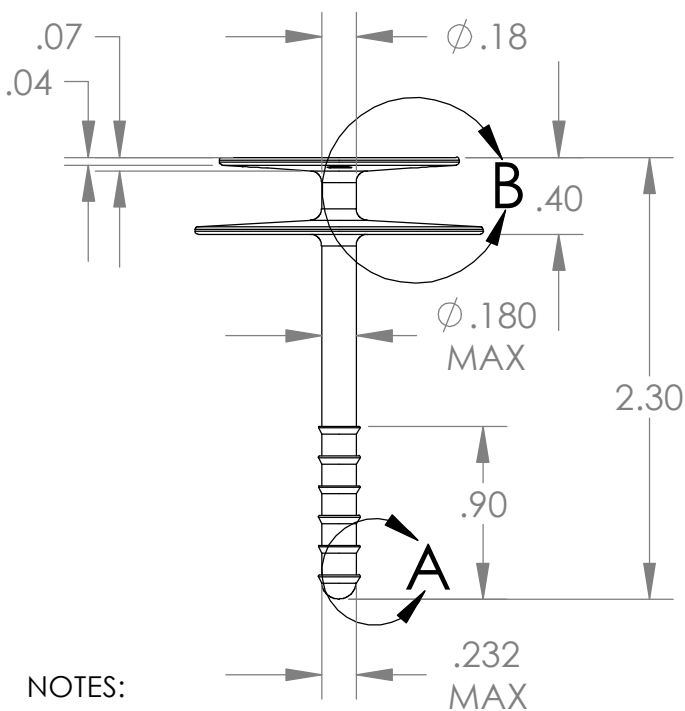
**BOND-ON INDEX PIN (LONG),
INSULATION ATTACHMENTS**

MATERIAL: NYLON 6/6

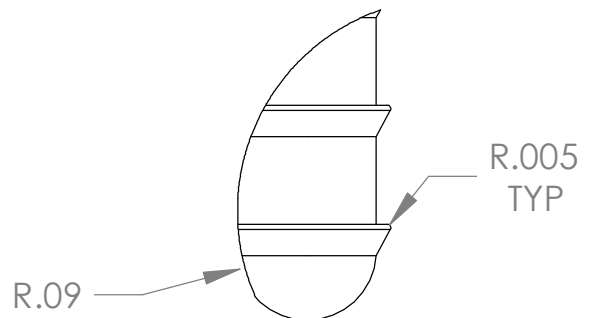
TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



NMC IF1112-26 P CODE



DETAIL B
SCALE 2 : 1



DETAIL A
SCALE 4 : 1

NOTES:

1. AKA P/N BACS31N3H
BACS31N3P (WITH PSA)

2. PSA TAPE:
NMC PS1000

MATERIAL: NYLON PER ASTM D4066
PA 01,2,1 OR ASTM D6779 PA 01,2,1
COLOR NATURAL

EXAMPLE PART NUMBER:
NMC IF1112-26 P

"P" WITH PSA TAPE
"NO CODE" WITHOUT
BASIC PART NUMBER



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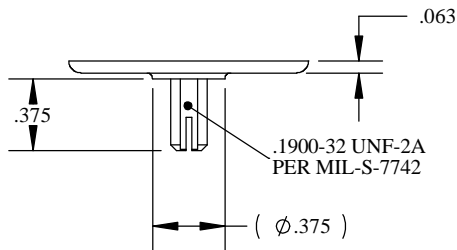
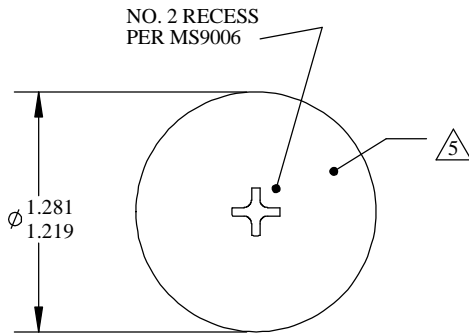
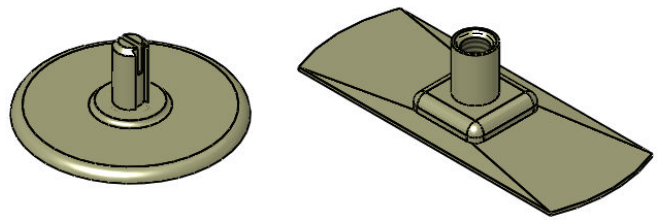
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NMC IF1112-26

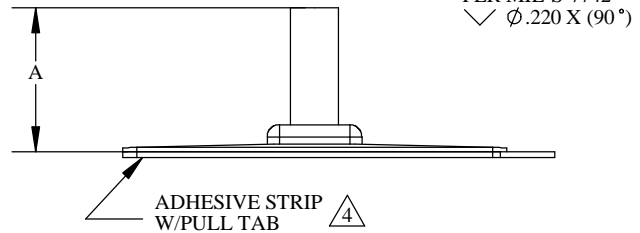
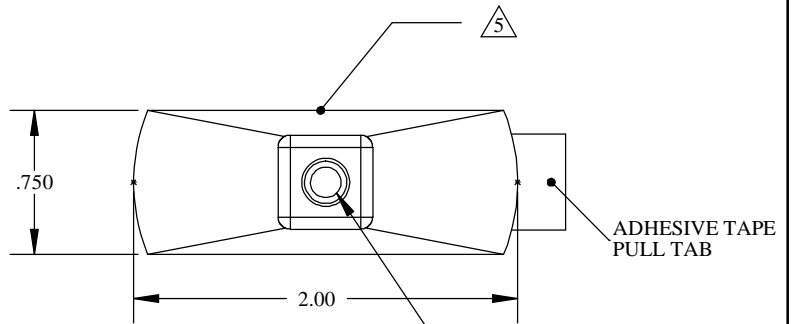
BOND-ON INDEX PIN (SHORT)
INSULATION ATTACHMENTS

MATERIAL: NYLON 6/6

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



NMC IFD2004
DISC



NMC IF2004-4-()
STANDOFF

DESIGN INFORMATION

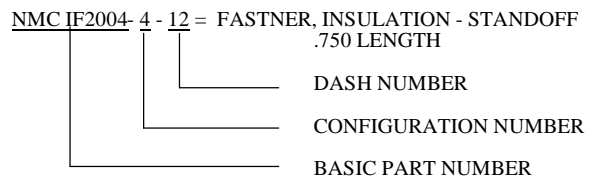
1. STANDOFF MAY BE ATTACHED WITH DOUBLE BACK TAPE OR ADHESIVE.

☐ NMC IF2004- 4-() DOES NOT PROVIDE A DISC AS PART OF THE ASSEMBLY, SPECIFY NMC IFD2004 FOR DISC

TABLE 1

PART NO.	A
NMC IF2004-4-8	0.460
NMC IF2004-4-12	0.750
NMC IF2004-4-24	1.500
NMC IFD2004	DISC

EXAMPLE OF APPROVED NUMBER CALLOUT



MATERIAL:
DISC AND STANDOFF - NYLON 6/6 PER ASTM-D-4066

ADHESIVE STRIP - TAPE, 3M SCOTCH MOUNT NO. 4962 WITH LINER OR NO. 4930 WITH PAPER LINER OR EQUIVALENT, DIE CUT TO SIZE

EST. WEIGHT
DISK 1.6g
STANDOFF 1.5g



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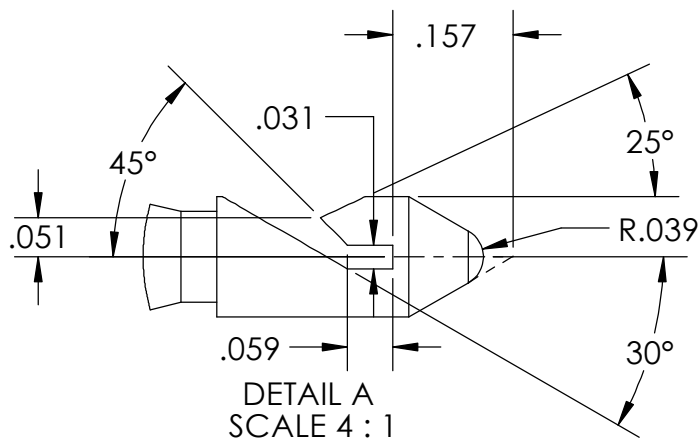
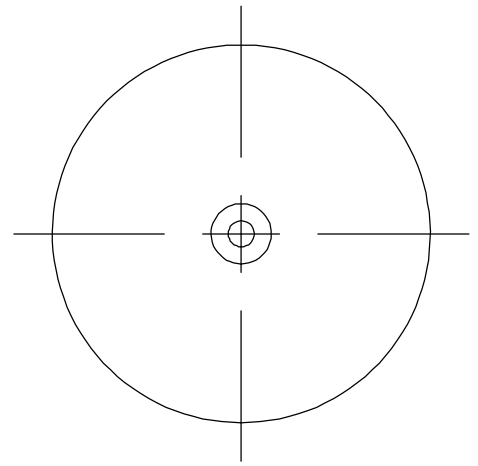
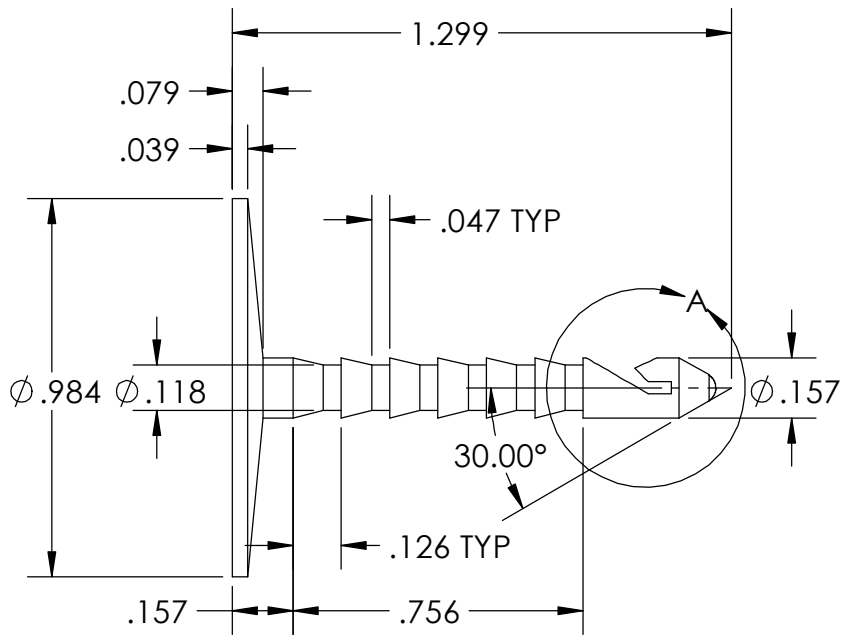
DWG. NO.

NMC IF2004

**FASTENER, INSULATION
BLANKET-DISC AND STANDOFF**

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



NOTES:

1. MATERIAL: NYLON 6/6 COLOR NATURAL
2. ALL UNDIMENSIONED EDGES AND FILLETS SHALL BE AS FOLLOWS
EDGES - .000/.005 R.
FILLETS - .020 R.
3. MOISTURE CONTITION PARTS PRIOR TO PACKAGING BY BOILING IN WATER FOR 30 MINUTES



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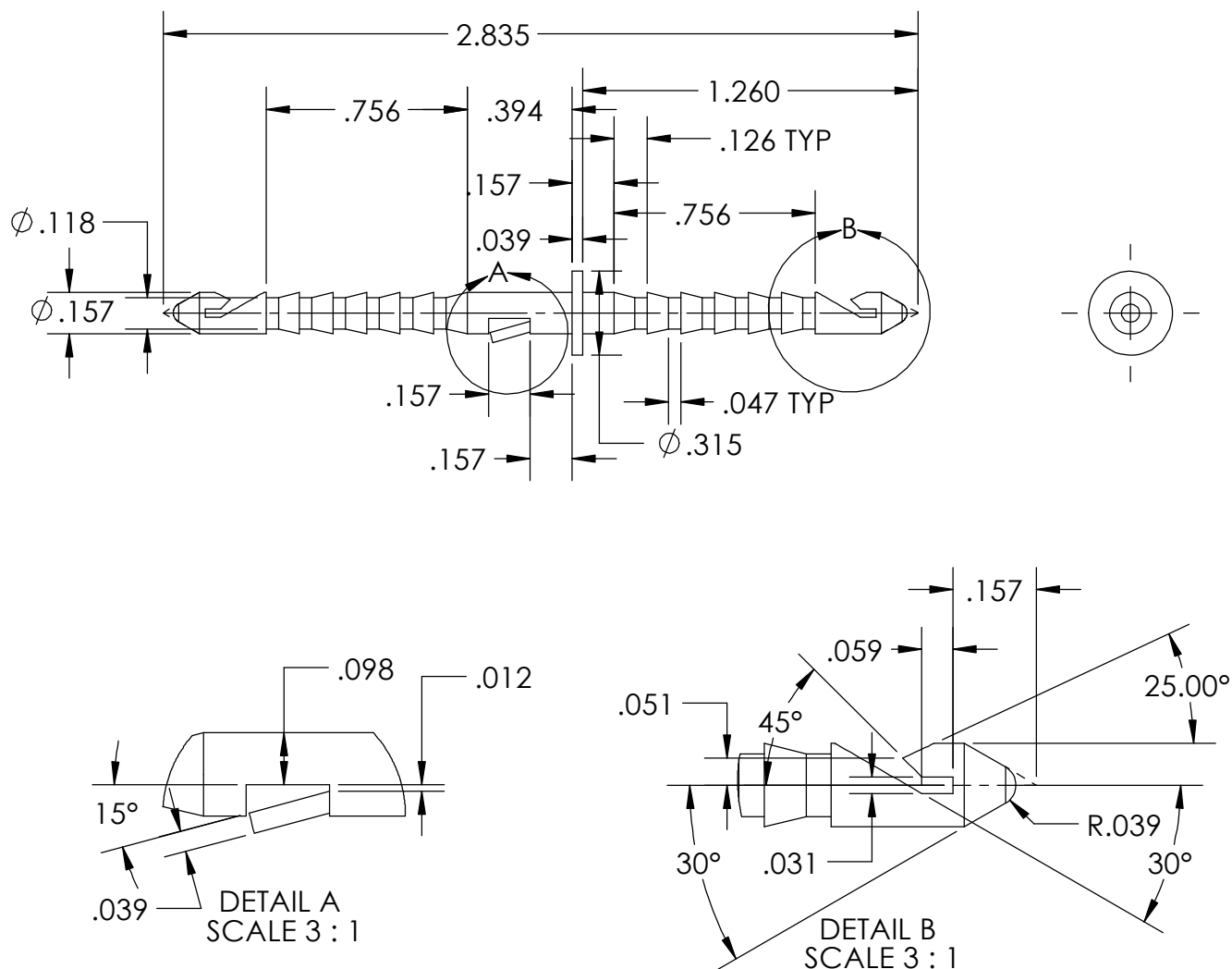
DWG. NO.

NMC IP2001

ISO - PIN

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX $\pm .030$.XXX $\pm .010$	$\pm 5^\circ$



NOTES:

1. MATERIAL: NYLON 6/6 COLOR NATURAL
2. ALL UNDIMENSIONED EDGES AND FILLETS SHALL BE AS FOLLOWS
 EDGES - .000/.005 R.
 FILLETS - .020 R.
3. MOISTURE CONTITION PARTS PRIOR TO PACKAGING BY BOILING IN WATER FOR 30 MINUTES



NMC AEROSPACE 2755 THOMPSON CREEK
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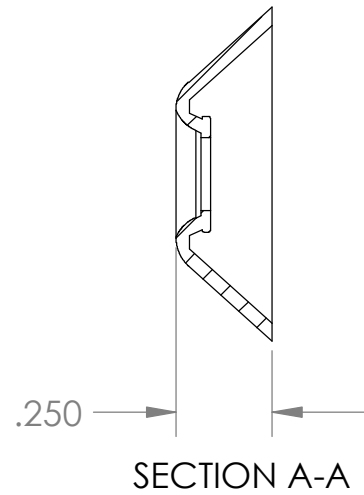
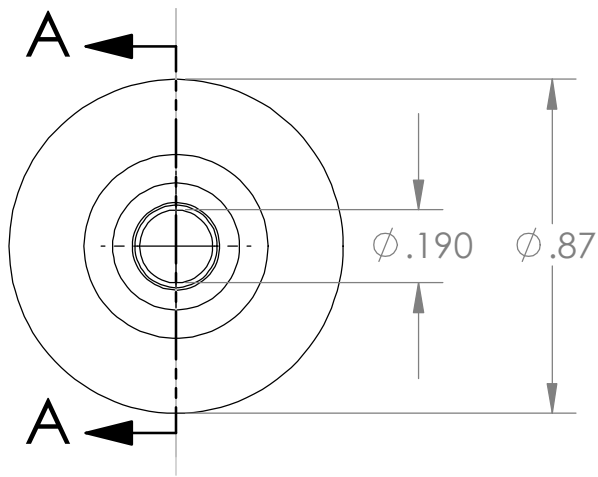
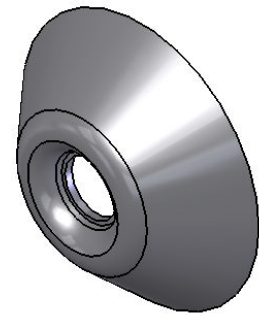
DWG. NO.

NMC IS2001

ISO - STUD

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



Note:
ESTIMATED PART WEIGHT=0.4 G



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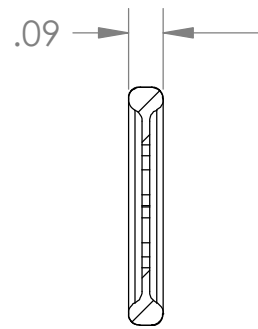
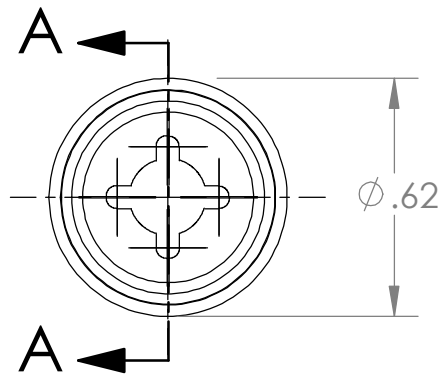
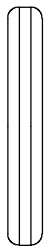
DWG. NO.

NMC PW3A

CLIP, PUSH ON

MATERIAL: POLYETHYLENE-BLACK

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



SECTION A-A

NOTES:

MATERIAL: NYLON 6/6 OR LDPE



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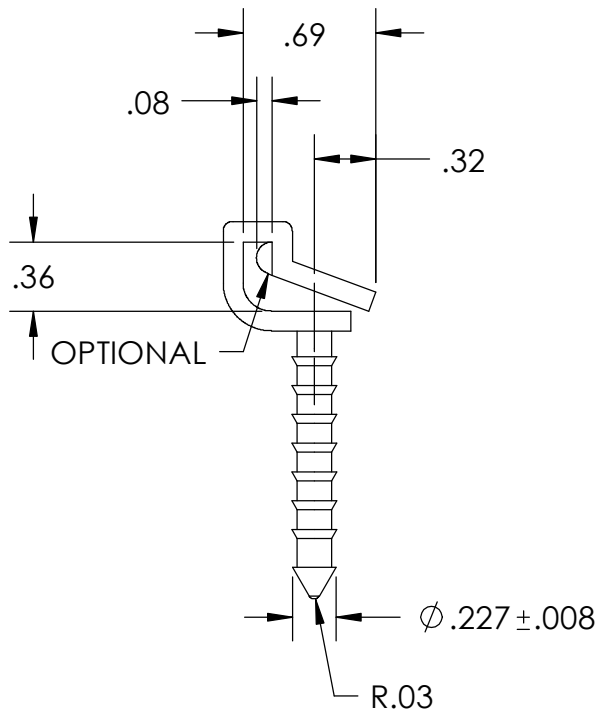
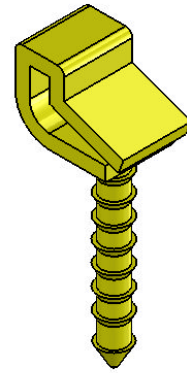
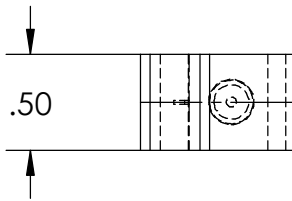
DWG. NO.

NMC PW4

CLIP, PUSH ON

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX $\pm .030$.XXX $\pm .010$	$\pm 5^\circ$



DASH #	L	WEIGHT
-10	1.00	2.3g
-15	1.50	2.6g
-20	2.00	2.8g
-25	2.50	3.1g



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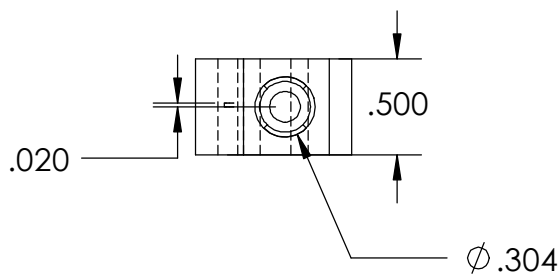
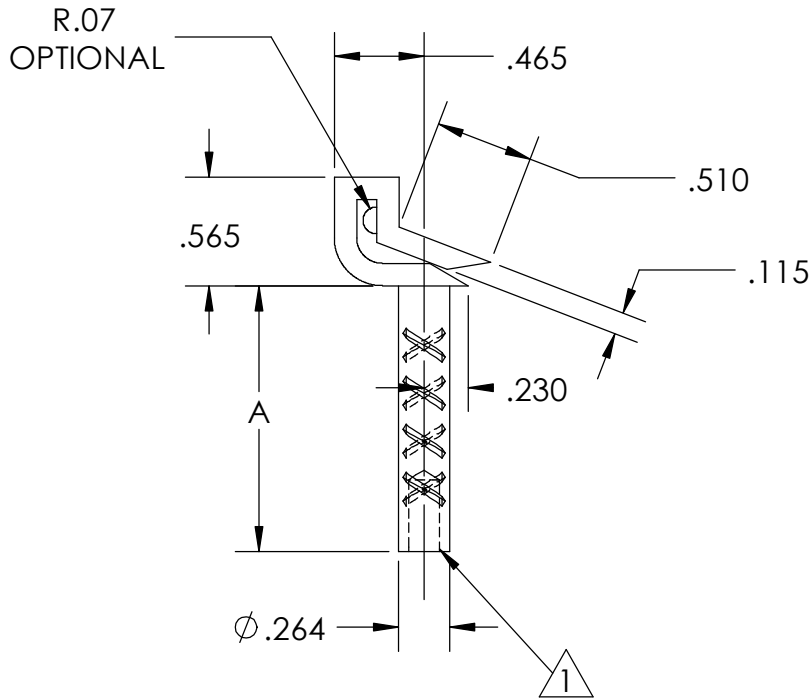
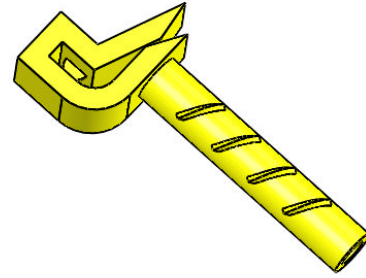
DWG. NO.

NMC SC3280

STUD, CLIP ON

MATERIAL: NYLON 6/6

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



1) THREAD 10-32UNF-2B
.375 USABLE THREAD DEPTH

2) MATERIAL: NYLON 6/6
COLOR: NATURAL

DASH #	A INCHES	WEIGHT
-1	0.00	
-2	0.50	2.1g
-3	0.75	
-4	1.00	
-5	1.25	
-6	1.50	3.2g
-7	1.75	
-8	2.00	
-9	2.25	
-10	2.50	4.1g



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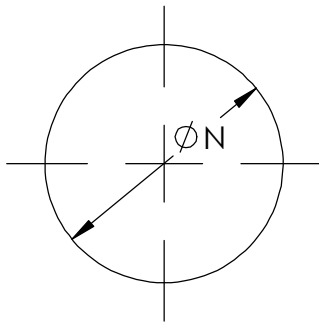
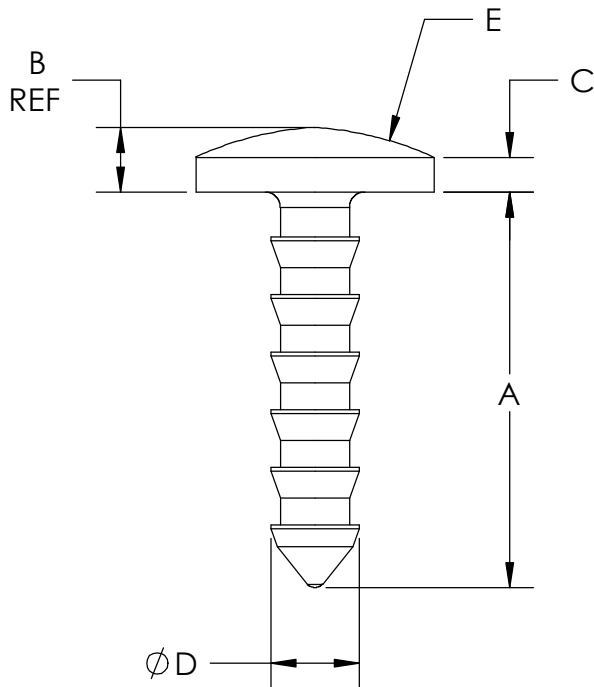
DWG. NO.

NMC SC3360

STANDOFF, CLIP ON

MATERIAL: NYLON 6/6

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



NMC PART NO.	BACS21AG	A	B REF	C	D +/- .010	E RADIUS	F
OP342-1	4B7	0.73	0.15	0.09	0.23	0.88	0.62
OP342-2	4B9	1.03	0.15	0.09	0.23	0.88	0.62
OP342-3	4B11	1.13	0.15	0.09	0.23	0.88	0.62

NOTES:

1) MATERIAL- POLYETHYLENE PER L-P-390, TYPE 1, CLASS L, GRADE 1, CAT 3

2) COLOR- BLACK



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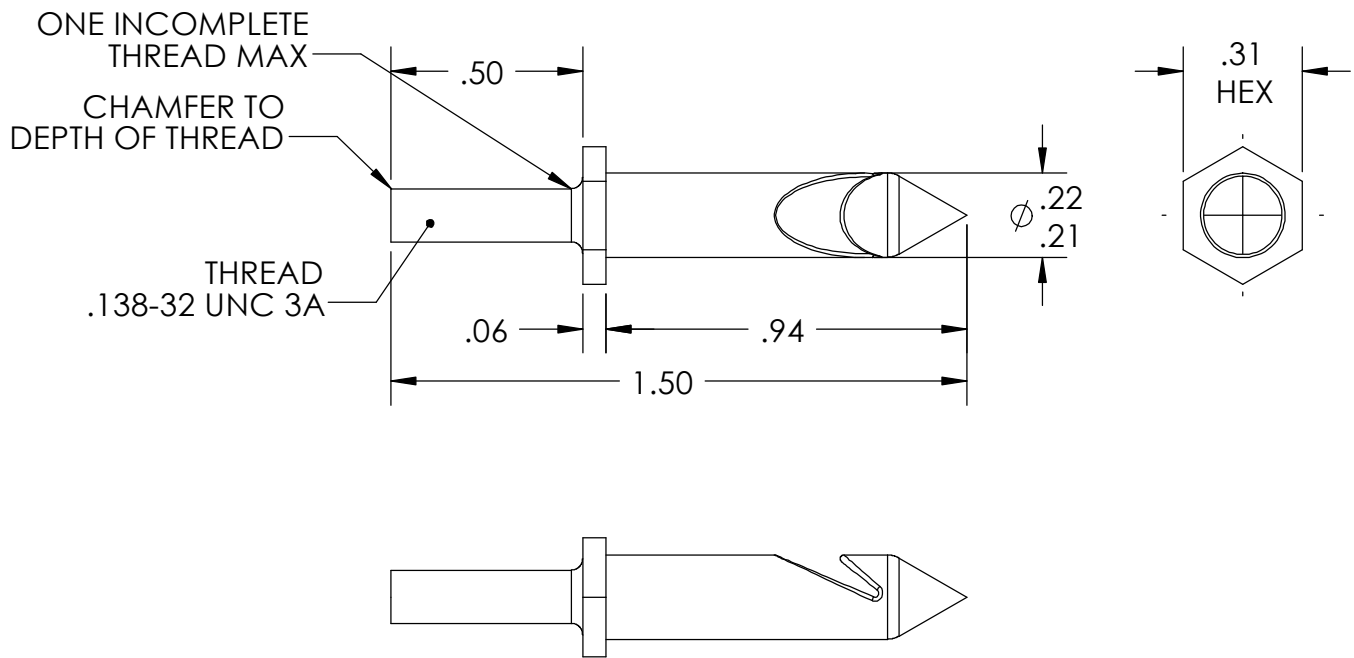
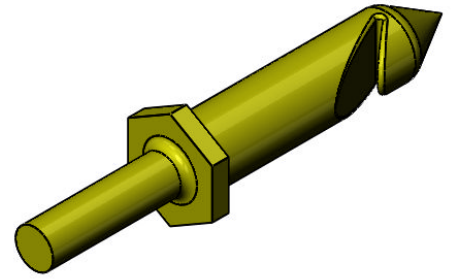
DWG. NO.

OP342

STUD-LINING FASTENER

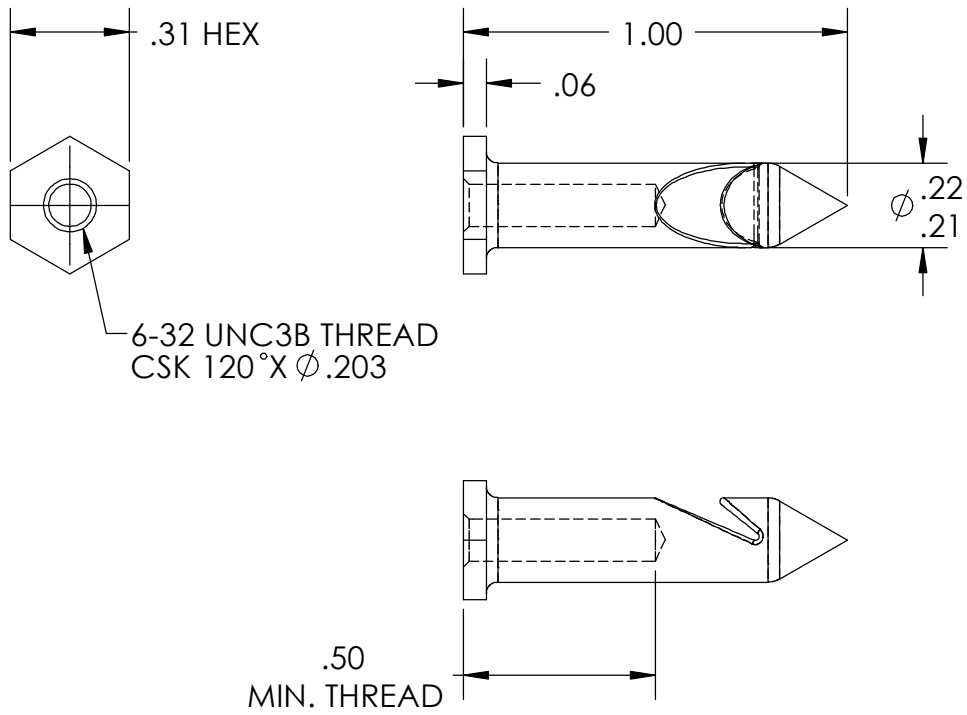
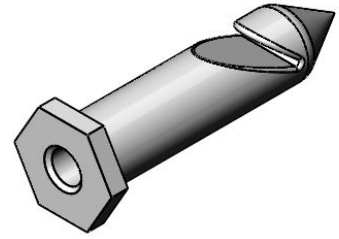
MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



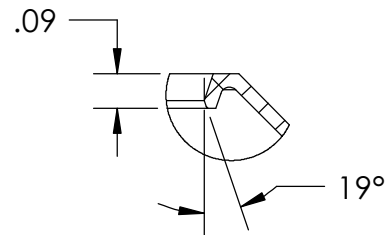
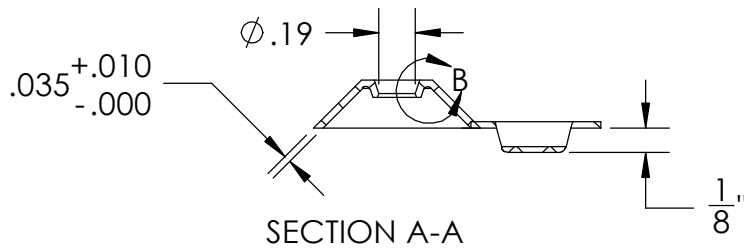
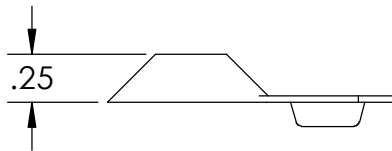
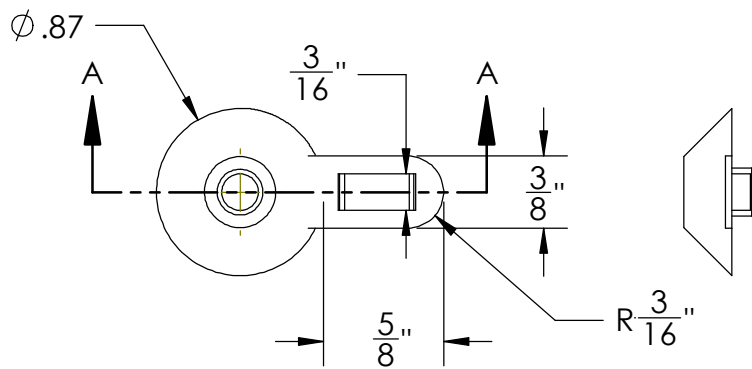
EST. WEIGHT: 0.687 GRAMS

	NMC AEROSPACE www.esterline.com	2755 THOMPSON CREEK POMONA, CA 91767-1861 909-451-2290	DWG. NO. OP344				
	STUD LINING FASTENER TYPE C		MATERIAL: NYLON 6/6				
			<table border="1"> <thead> <tr> <th>TOLERANCES</th> <th>DECIMAL</th> <th>ANGULAR</th> </tr> </thead> <tbody> <tr> <td></td> <td>.XX ±.030</td> <td>.XXX ±.010</td> <td>±5°</td> </tr> </tbody> </table>	TOLERANCES	DECIMAL	ANGULAR	
TOLERANCES	DECIMAL	ANGULAR					
	.XX ±.030	.XXX ±.010	±5°				



EST. WEIGHT: 0.558 GRAMS

	NMC AEROSPACE www.esterline.com 2755 THOMPSON CREEK POMONA, CA 91767-1861 909-451-2290	DWG. NO. OP345							
	NUT, LINING FASTENER	MATERIAL: NYLON 6/6							
		<table border="1"> <thead> <tr> <th>TOLERANCES</th> <th>DECIMAL</th> <th>ANGULAR</th> </tr> </thead> <tbody> <tr> <td></td> <td>.XX ±.030</td> <td>.XXX ±.010</td> </tr> <tr> <td></td> <td colspan="2">±5°</td> </tr> </tbody> </table>	TOLERANCES	DECIMAL	ANGULAR		.XX ±.030	.XXX ±.010	
TOLERANCES	DECIMAL	ANGULAR							
	.XX ±.030	.XXX ±.010							
	±5°								



DETAIL B
SCALE 2 : 1

NOTES:

- 1: MATERIAL
POLYETHYLENE
- 2: FOR P/N 345-2 FR (SAME AS 346-2 EXCEPT)
MATERIAL: NYLON 6 FIRE RETARDANT

EST. WEIGHT: .66g



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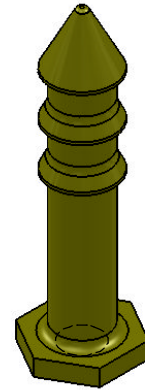
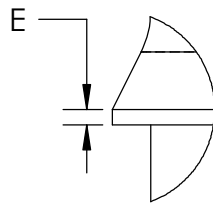
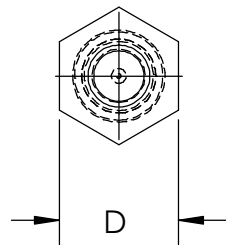
DWG. NO.

OP346-2

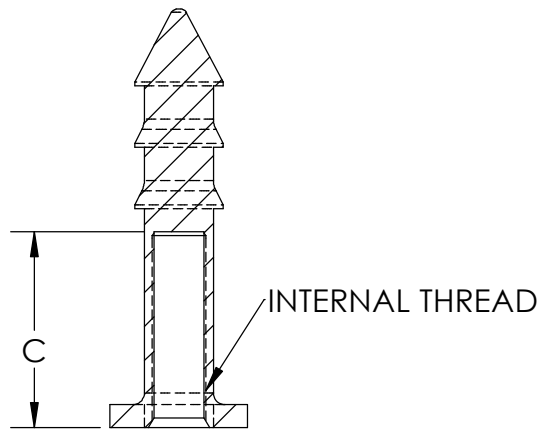
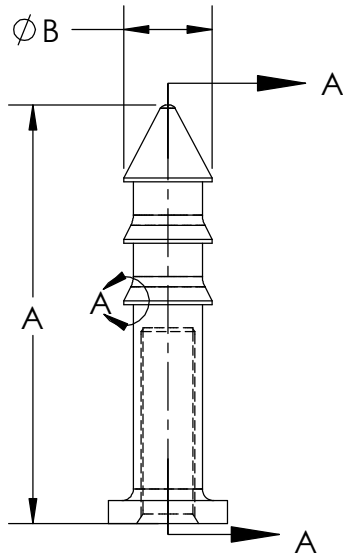
**CLIP, PUSH ON / WITH
TAB**

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



DETAIL A
SCALE 8 : 1



SECTION A-A

NMC PART NO.	BAC S21AG	THREAD UNC-3B	A	B +/- .01	C MIN	D	E
OP434	4E13	.1380-32	1.09	.23	.50	.31	.010

NOTES:

- 1) MATERIAL: NYLON 6 PER ASTM D 4066, GROUP 1 OR 2, CLASS 1, GRADE 1 OR 3
- 2) COLOR: BLACK



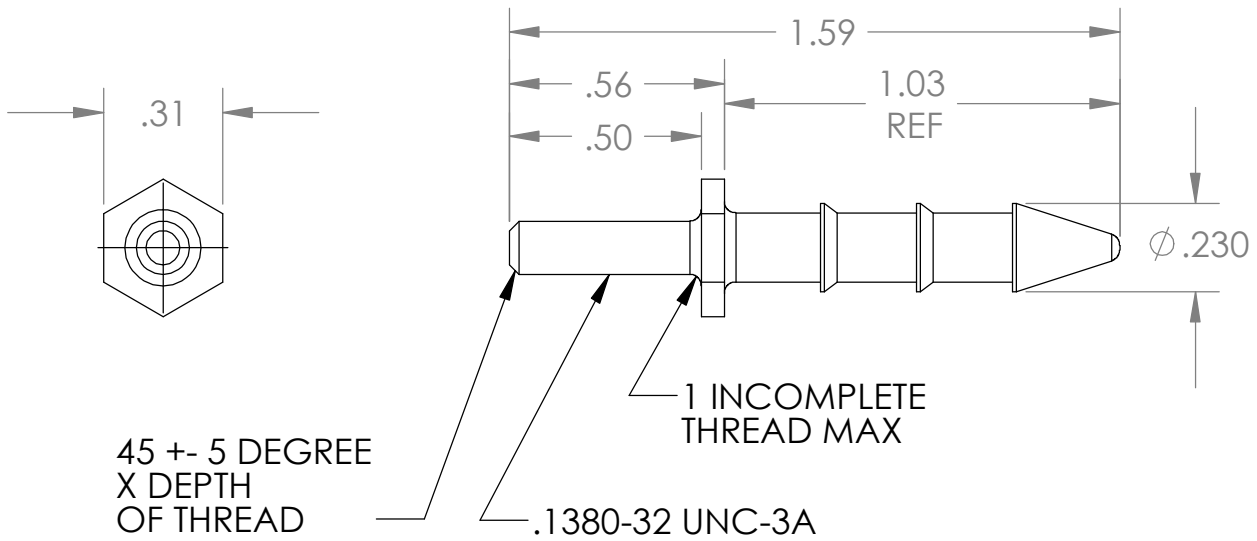
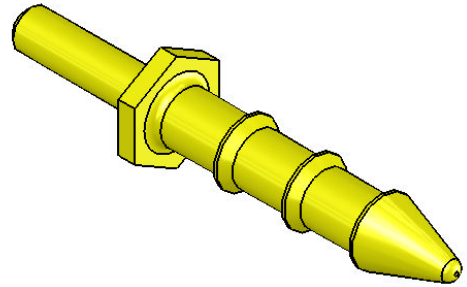
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DWG. NO.
OP434

**NUT, LINING RETAINER
TYPE "E"**

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



NOTE:

MATERIAL: NYLON 6

ESTIMATED PART WEIGHT 0.7 G



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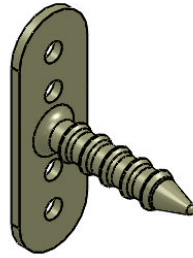
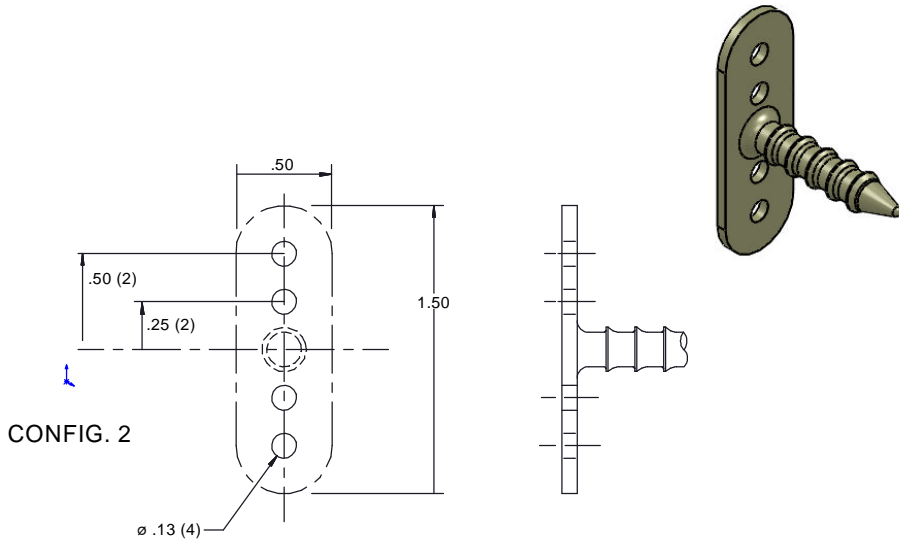
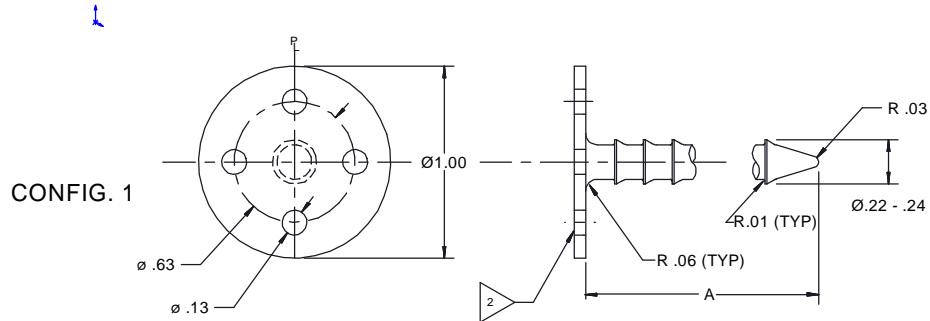
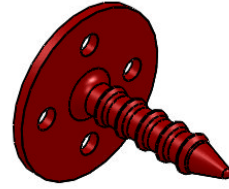
DWG. NO.

OP435

**STUD, LINING RETAINER
TYPE F**

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



▶ THE ADDITION OF A "B" SUFFIX WILL USE 3M4930VHB TAPE OR EQUIVALENT ON SURFACE. EX: OP1913-1B

PART NO.	A	NO. OF FINS	B	COLOR	CONFIG.
OP1913-1	1.03	5	.15	RED OR NATURAL	1
OP1913-2	1.56	8	.23	RED OR NATURAL	1
OP1913-3	.73	3	.15	RED OR NATURAL	1
OP1913-4	1.03	5	.15	RED OR NATURAL	2

EST. WEIGHT: 1.2 GRAMS



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DWG. NO.

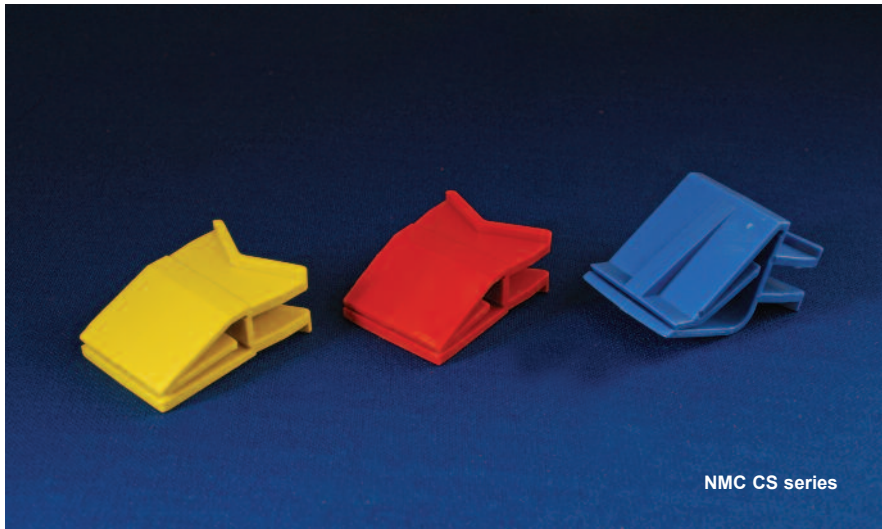
OP1913

**STUD, INSULATION
ATTACHMENT**

MATERIAL: NYLON 6/6

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

STRINGER CLIPS

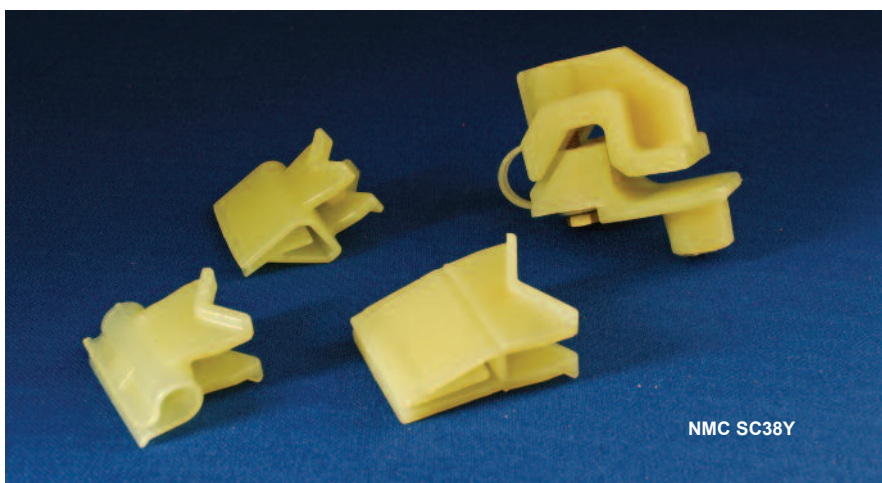
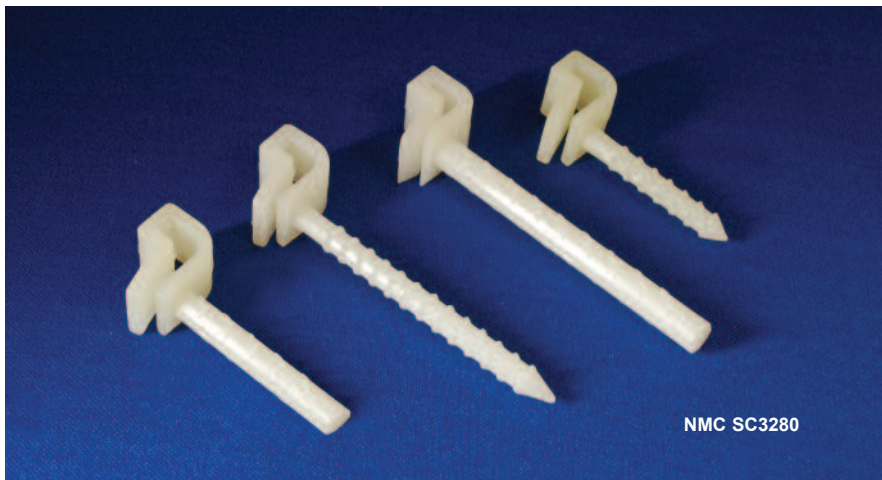


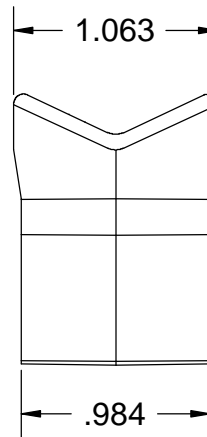
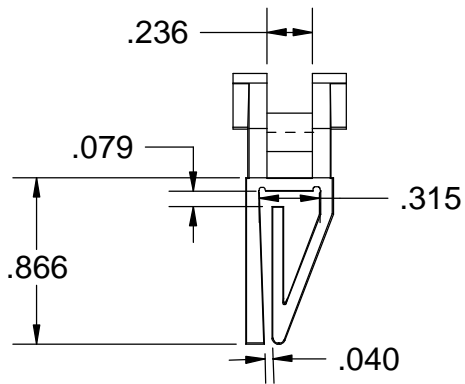
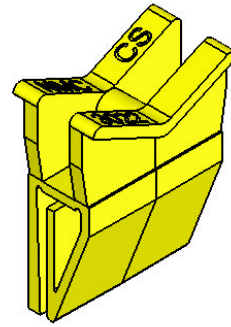
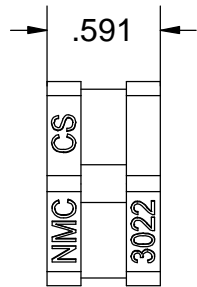
NMC Stringer Clips

NMC designs and manufactures several stringer clips and stringer clamps. These devices provide a wide range of attachment points and types, varying from cable tie mounts to threaded standoffs and insulation blank retainers. The threaded standoffs provide a mechanical fastening point for cable clamps, ring posts and component attachment.

Stringer clips are used in low-load situations and are designed to handle loads in the 50-pound range.

Bring us your attachment requirements and we can suggest an existing product or design and manufacture a new one for you.





PART #	COLOR	PACKAGE QTY
NMC CS3022	YELLOW	250

EST. WEIGHT - 5.4g



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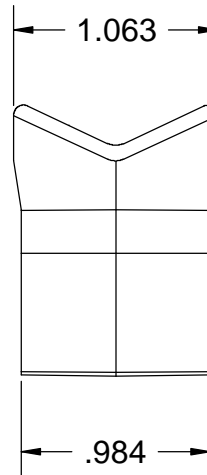
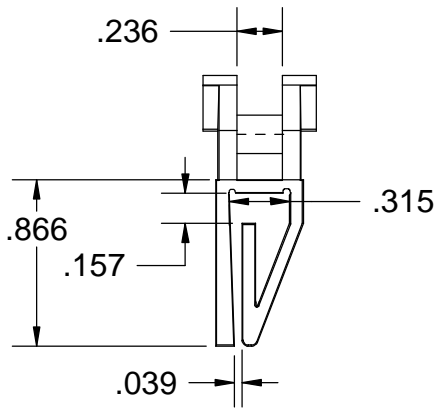
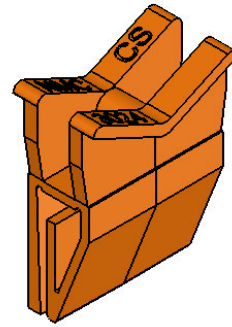
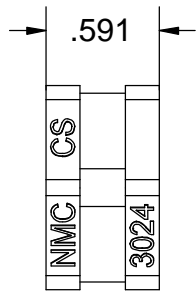
DWG. NO.

NMC CS3022

CABLE SUPPORT

MATERIAL: NYLON 6/6

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



PART #	COLOR	PACKAGE QTY
NMC CS3024	ORANGE	250

EST. WEIGHT - 5.4g



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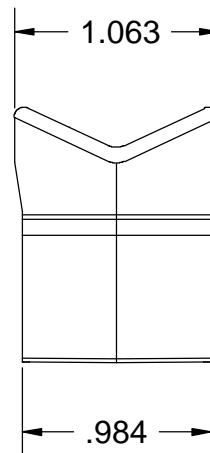
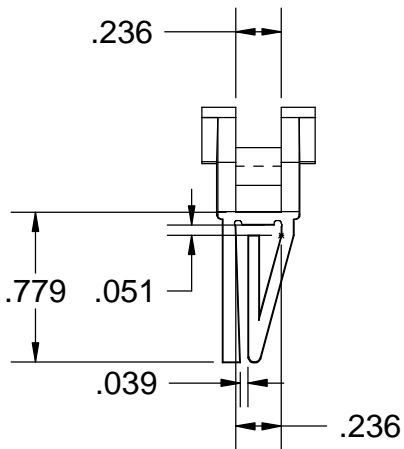
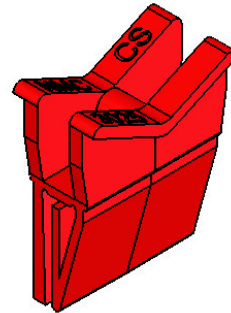
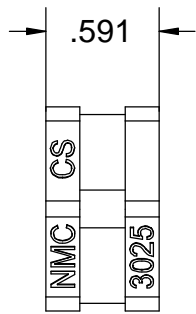
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NMC CS3024

CABLE SUPPORT

MATERIAL: NYLON 6/6

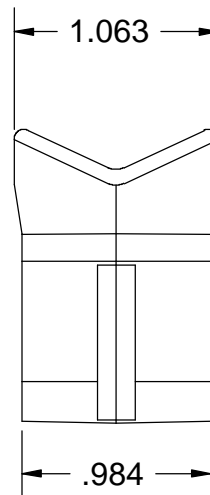
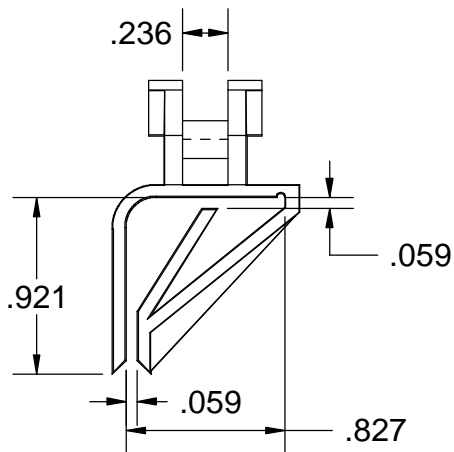
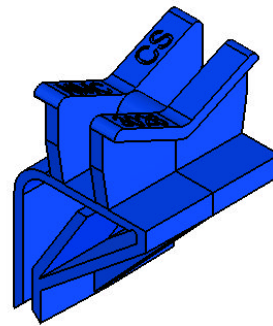
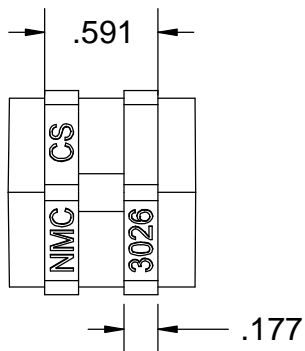
TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



PART #	COLOR	MATERIAL	PACKAGE QTY
NMC CS3025	RED	ZYTEL 103HSL	250 PER BAG

EST. WEIGHT 5g

 NMC Aerospace	NMC AEROSPACE www.esterline.com 2755 THOMPSON CREEK POMONA, CA 91767-1861 909-451-2290	DWG. NO. NMC CS3025							
	CABLE SUPPORT	MATERIAL: NYLON 6/6							
		<table border="1"> <thead> <tr> <th>TOLERANCES</th> <th>DECIMAL</th> <th>ANGULAR</th> </tr> </thead> <tbody> <tr> <td></td> <td>.XX ±.030</td> <td>.XXX ±.010</td> </tr> <tr> <td></td> <td></td> <td>±5°</td> </tr> </tbody> </table>	TOLERANCES	DECIMAL	ANGULAR		.XX ±.030	.XXX ±.010	
TOLERANCES	DECIMAL	ANGULAR							
	.XX ±.030	.XXX ±.010							
		±5°							



PART #	COLOR	MATERIAL	PACKAGE QTY
NMC CS3026	BLUE	ZYTEL 103HSL	250 PER BAG

EST. WEIGHT 6.8g



NMC AEROSPACE 2755 THOMPSON CREEK
POMONA, CA 91767-1861
www.esterline.com 909-451-2290

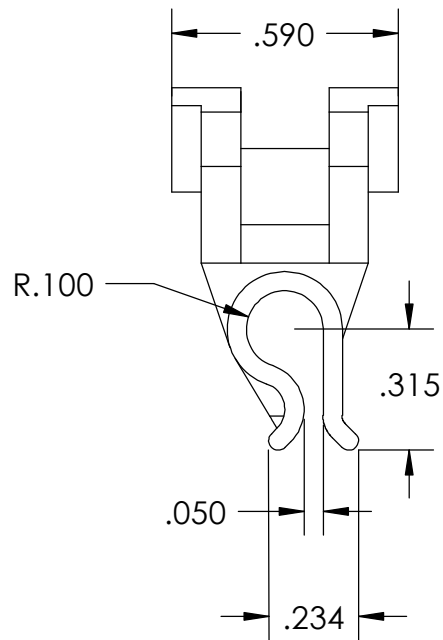
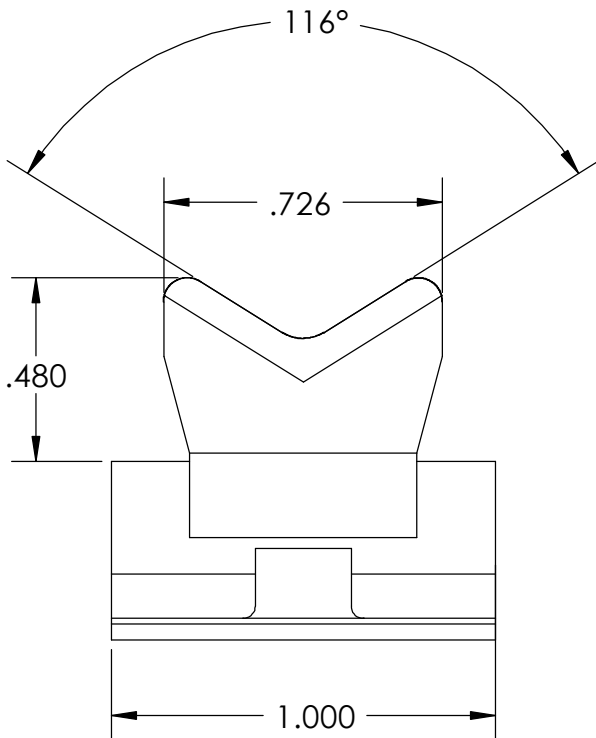
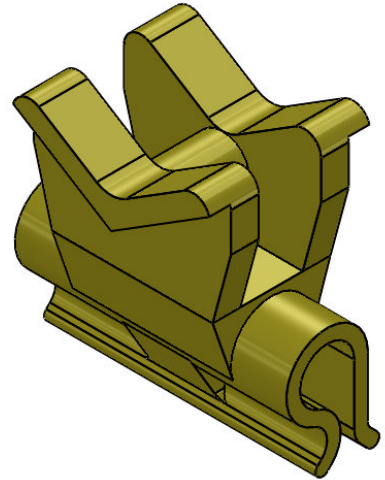
DWG. NO.

NMC CS3026

CABLE SUPPORT

MATERIAL: NYLON 6/6

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



MATERIAL: NYLON 6/6
EST. WEIGHT- 2.7g



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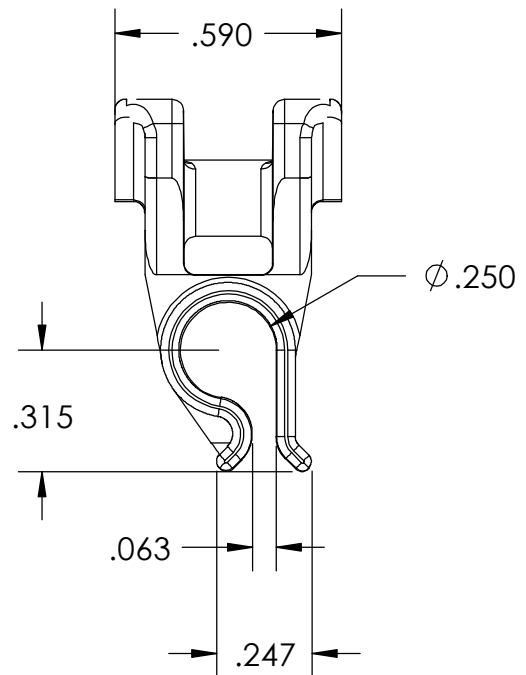
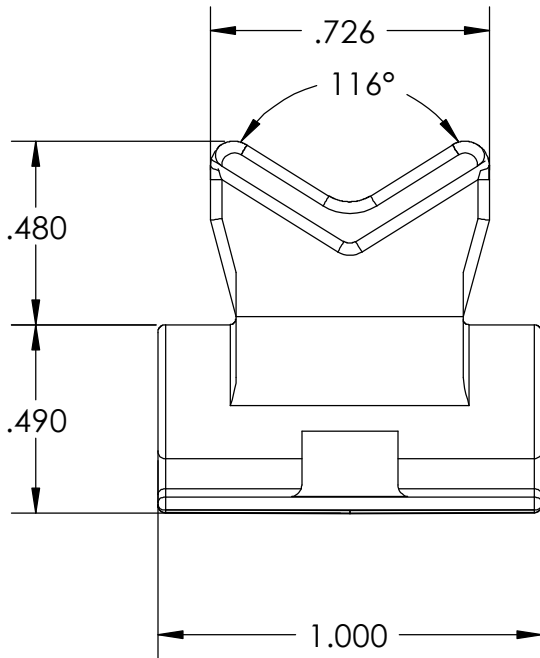
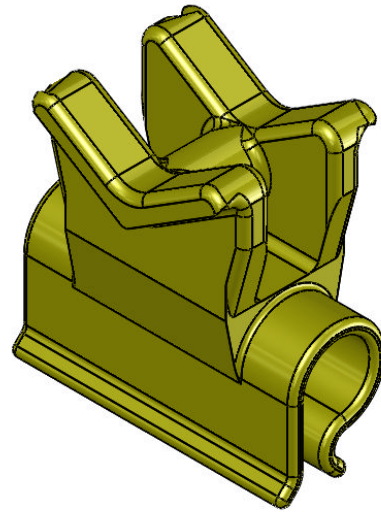
DWG. NO.

NMC CS3041

**CABLE SUPPORT,
STRINGER**

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



MATERIAL:

NYLON 6/6
EST. WEIGHT 3g



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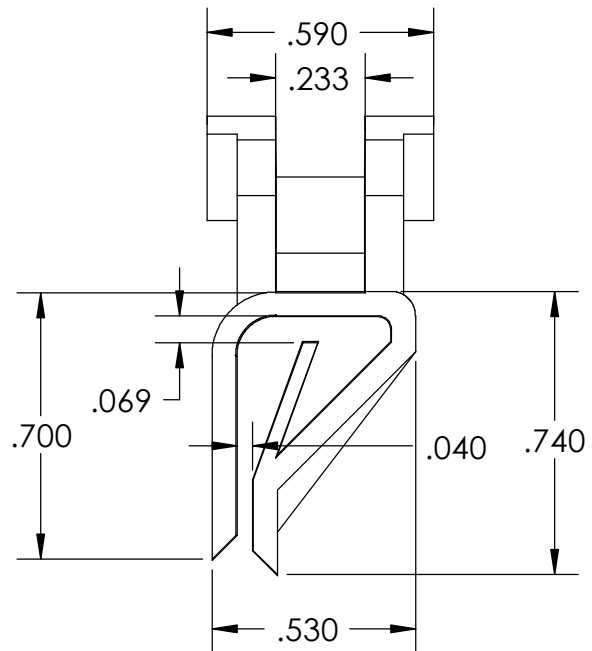
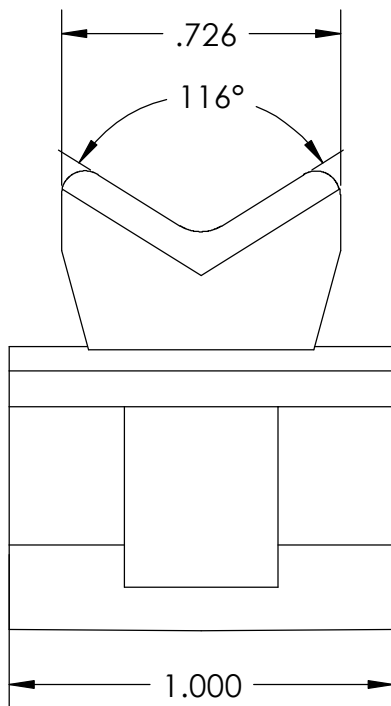
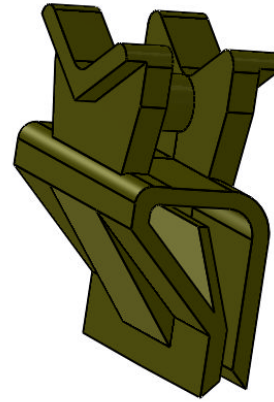
DWG. NO.

NMC CS3043

**CABLE SUPPORT,
STRINGER**

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



MATERIAL:

NYLON 6/6
EST. WEIGHT 4g



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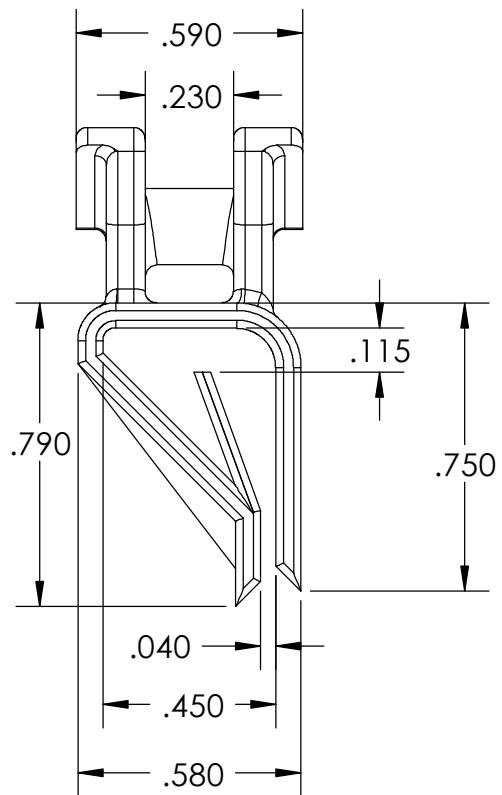
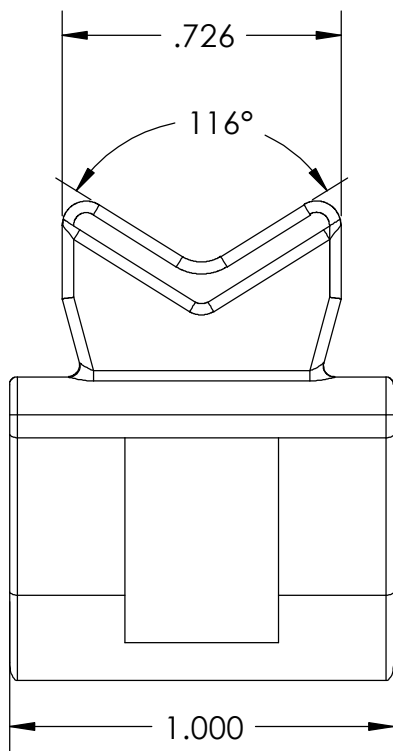
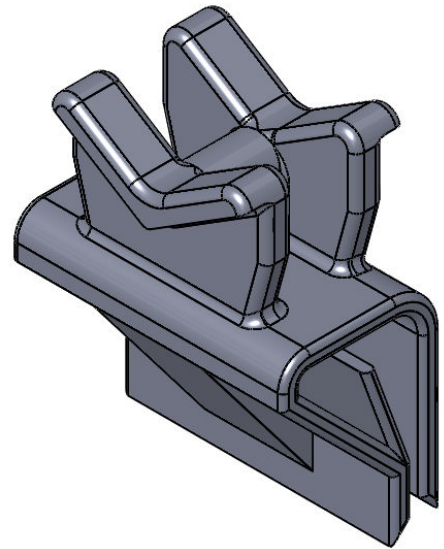
DWG. NO.

NMC CS3161

CABLE SUPPORT, FRAME

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



MATERIAL:

NYLON 6/6 PER L-P-410
EST. WEIGHT - 4.2g



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www.esterline.com 909-451-2290

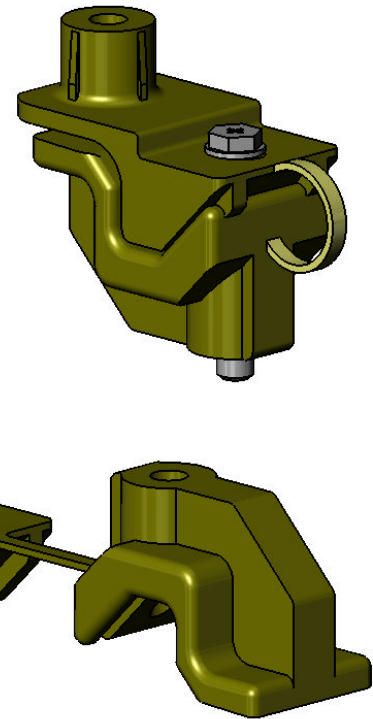
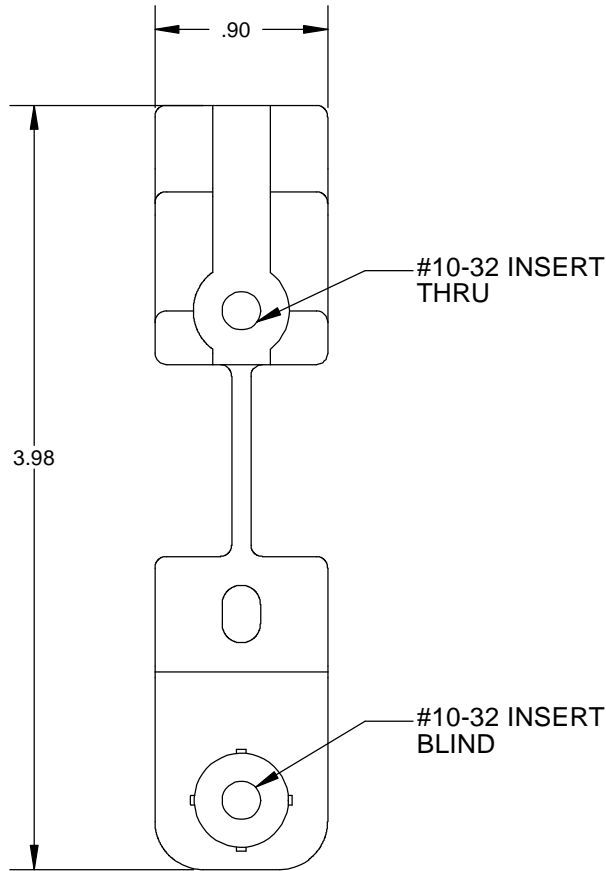
DWG. NO.

NMC CS3162

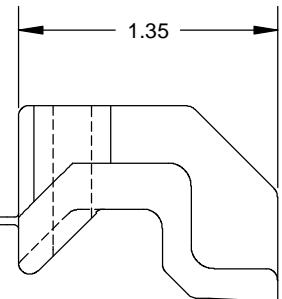
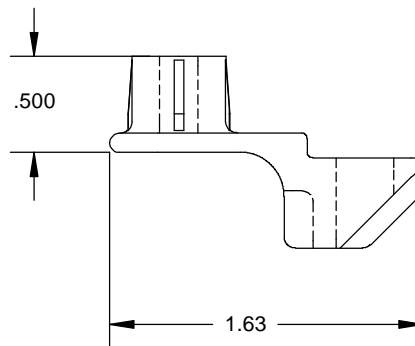
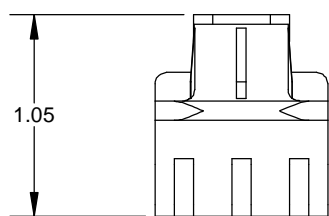
CABLE SUPPORT, FRAME

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



UNINSTALLED



EXAMPLE PART NO.

NMC SC38Y

1

CONFIGURATION CODE

BASIC PART NUMBER

1 THREADED INSERT- BRASS
 .190-32 UNF, CLASS 2B THREADS
 SELF LOCKING PER NASM25027

EST. WEIGHT- 16g



NMC AEROSPACE 2755 THOMPSON CREEK
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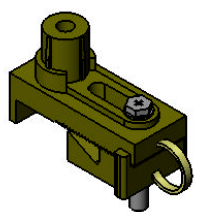
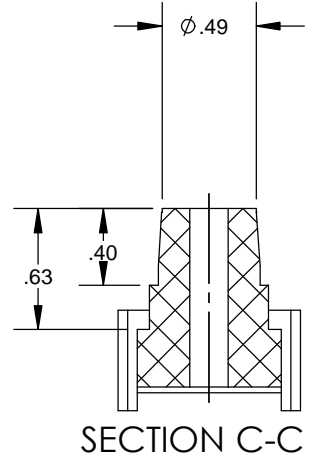
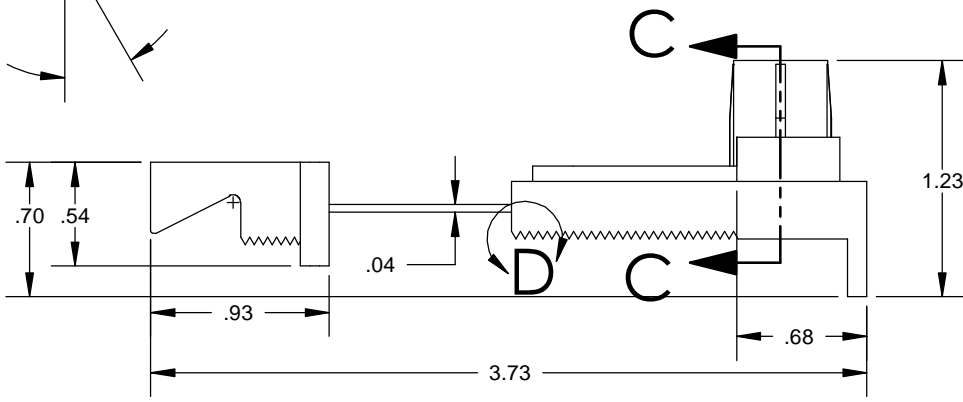
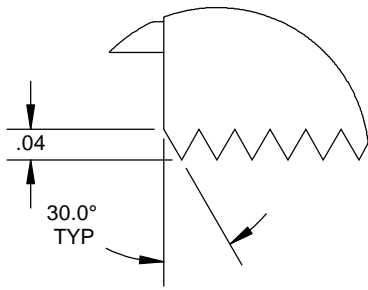
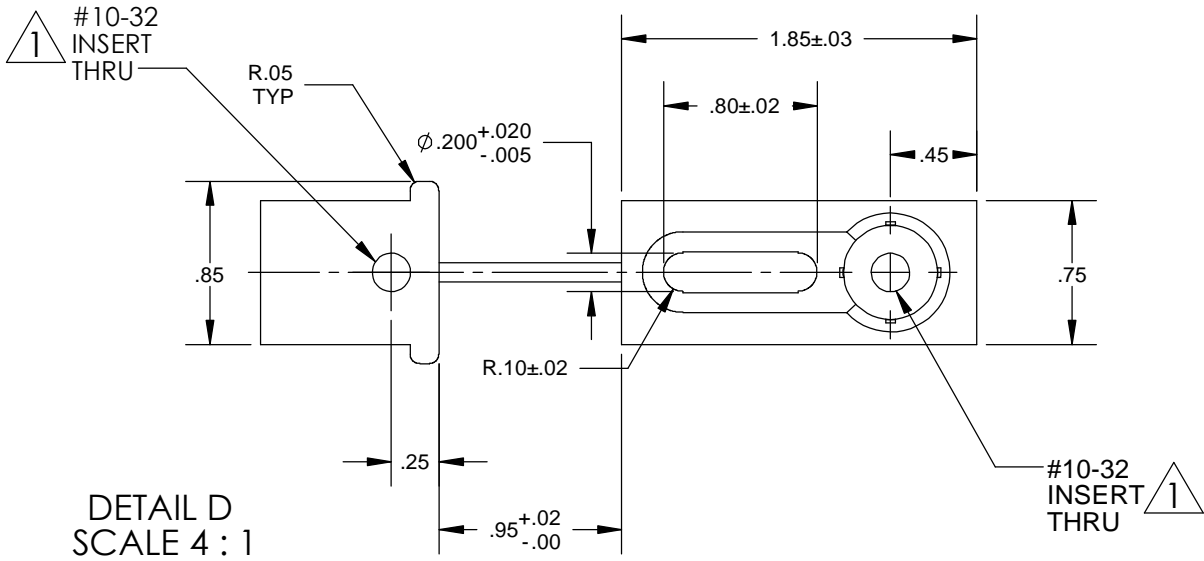
DWG. NO.

NMC SC38Y

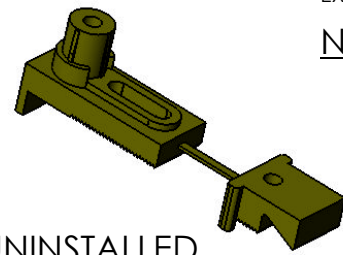
STRINGER CLIP

MATERIAL: NYLON 6/6

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



INSTALLED



UNINSTALLED

EXAMPLE PART NO.

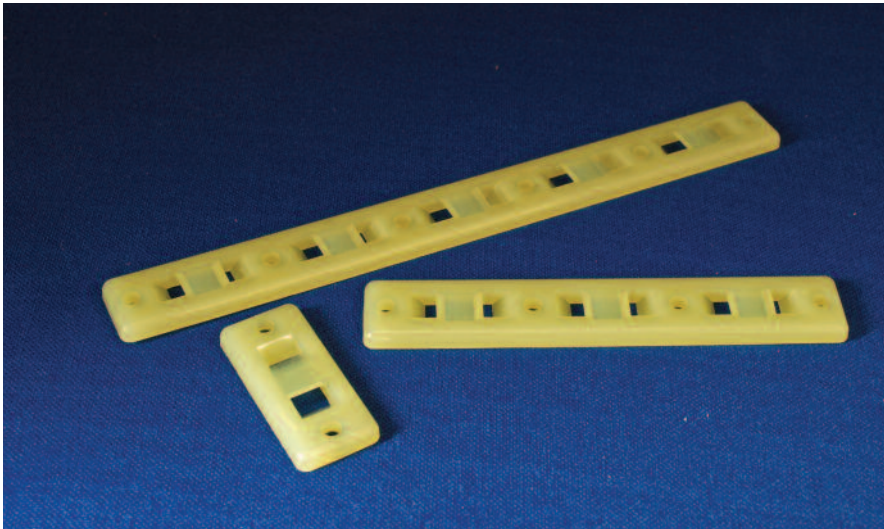
NMC SC38Y 2

CONFIGURATION CODE

BASIC PART NUMBER

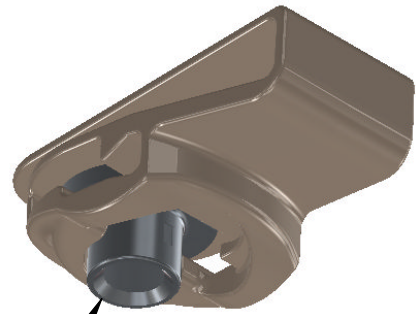
1 THREADED INSERT- BRASS
.190-32 UNF, CLASS 2B THREADS
SELF LOCKING PER NASM25027

	NMC AEROSPACE 2755 THOMPSON CREEK POMONA, CA 91767-1861 www.esterline.com 909-451-2290		DWG. NO. NMC SC38Y		
	STRINGER CLIP			MATERIAL: NYLON 6/6	
	TOLERANCES		DECIMAL .XX ±.030	.XXX ±.010	ANGULAR ±5°

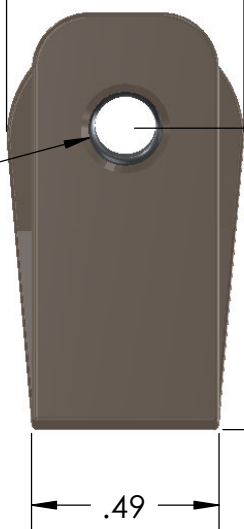
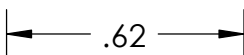
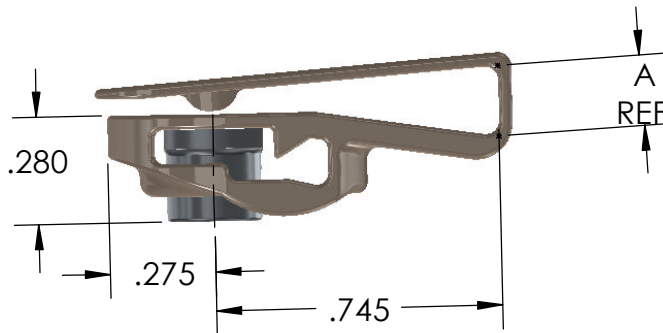


NMC Miscellaneous Items

NMC offers a number of other products that do not fall into the previous categories. These products range from the NMC CN08001, a PEEK Clip Nut that eliminates issues of corrosion and scratching that can occur with the use of the traditional metal clip nut, to several options of lightweight plastic spacers in either Nylon or PEEK, and a series of lightweight Nylon Mounting strips.



SEE NOTES 1 AND 3



Ø.193
MIN

.785
REF

.49

PART NUMBER	A REF
NMC CN08001-1	.175
NMC CN08001-2	.315

NOTES:

1) NUT ELEMENT IS AVAILABLE IN THE FOLLOWING THREAD SIZES:

- .1380-32 UNJC-3B = CODE 06
- .1640-32 UNJC-3B = CODE 08
- .1900-32 UNJF-3B = CODE 10

2) BODY IS GLASS FILLED PEEK

3) NUT ELEMENT IS AVAILABLE IN THE FOLLOWING MATERIALS

SIZE CODE	MATERIAL	FINISH
S	CARBON STEEL PER ASTM A108 OR MATERIAL COMPOSITION PER FED-STD-66 WITH A UTS OF 85 KSI MIN	CADMIUM PLATE PER AMS-QQ-P-416
C	302 PER AMS 5516, AMS 5636 OR AMS 5637, 303 PER AMS 5640, 303Se PER AMS 5639 OR AMS 5641, 304 PER AMS 5638 OR AMS 5513	PASSIVATE PER AMS2700 TYPE 2, SOLID FILM LUBE PER AS5272

EXAMPLE PART NUMBER:

NMC CN08001-1 10 C

NUT MATERIAL

THREAD SIZE

A REF

BASIC PART NUMBER

COVERED UNDER
US PATENT#7,648,319



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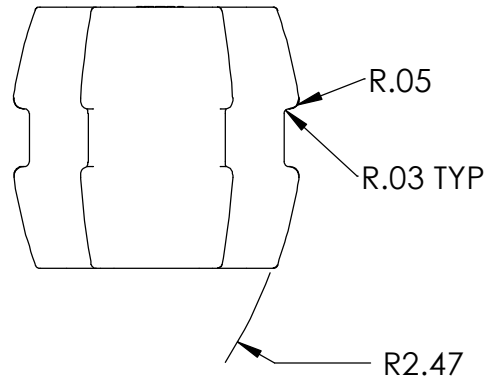
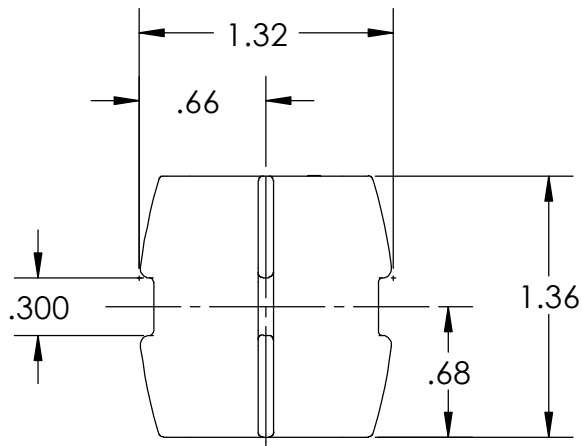
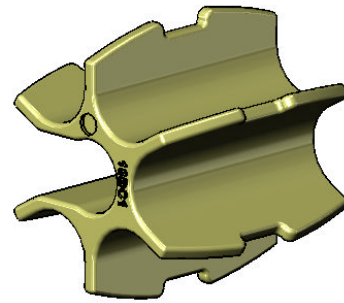
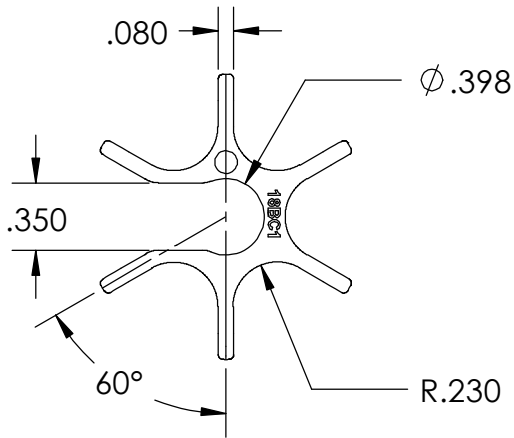
DWG. NO.

NMC CN08001

CLIP NUT, LIGHTWEIGHT

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



SMALL SPACER

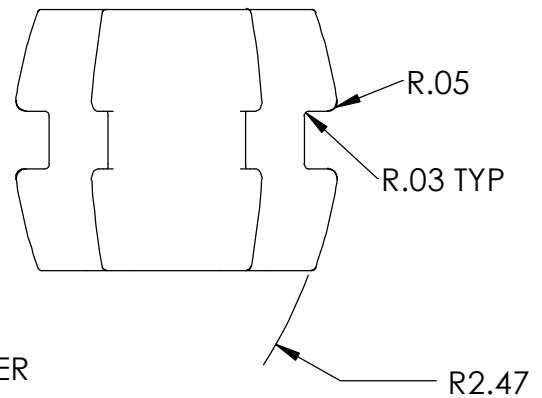
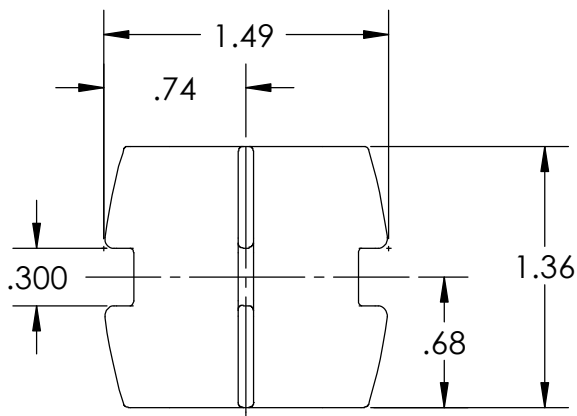
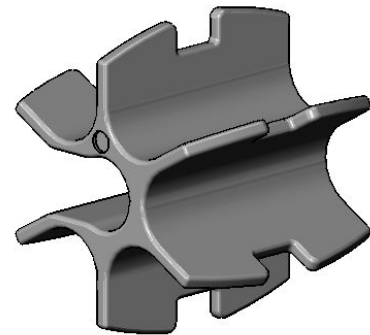
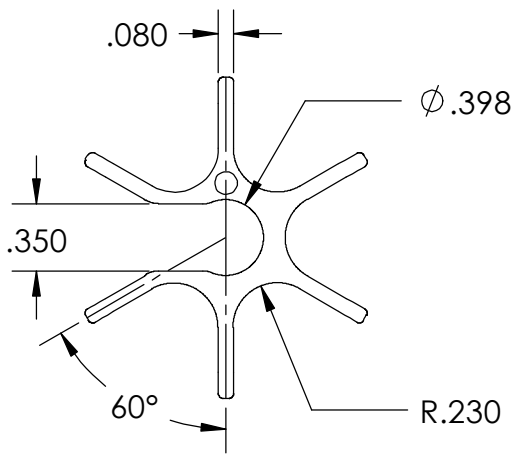


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DWG. NO.
NMC 07157

SPACER, SMALL

MATERIAL: ULTEM 1000 OR EQUIVALENT			
TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



LARGE SPACER



NMC AEROSPACE 2755 THOMPSON CREEK
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DWG. NO.

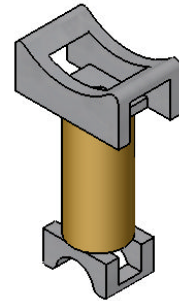
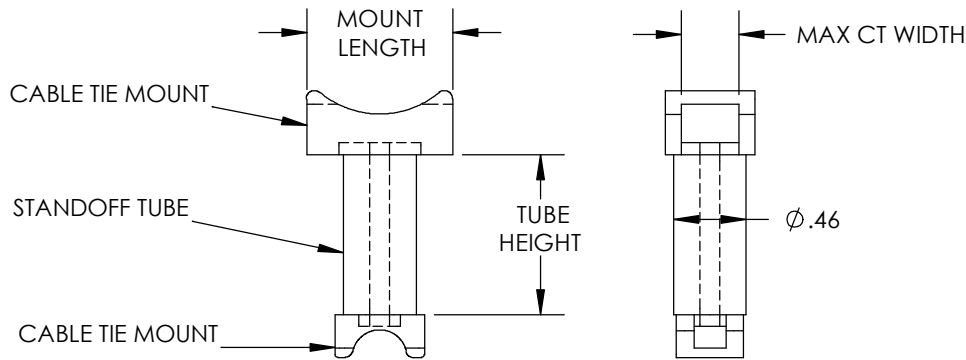
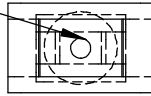
NMC 07158

SPACER, LARGE

MATERIAL: ULTEM 1000 OR EQUIVALENT

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

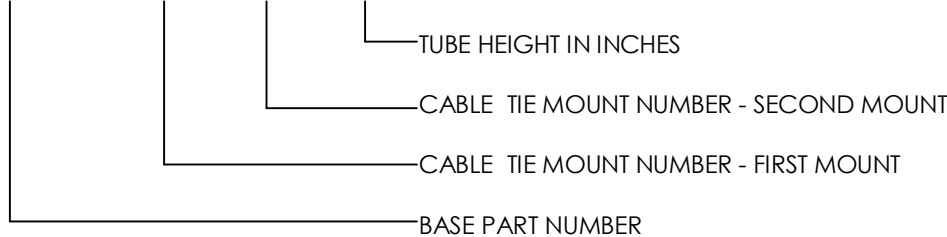
PLASTIC RIVET (X2)



ISOMETRIC VIEW

SAMPLE PART NUMBER:

NMC CE1000 - 101 - 102 - 05



AVAILABLE TUBE HEIGHTS (INCHES)	
0.5	
1.0	
1.5	
2.0	
2.5	
3.0	
4.0	
5.0	
6.0	
7.0	
8.0	
9.0	
10.0	
11.0	
12.0	

MAX. CABLE TIE WIDTH	MOUNT LENGTH	CABLE TIE MOUNT PART NUMBER
0.100	0.555	NMC CTM100
0.200	0.665	NMC CTM101
0.300	0.910	NMC CTM102
0.400	TBD	NMC CTM103
0.500	TBD	NMC CTM104



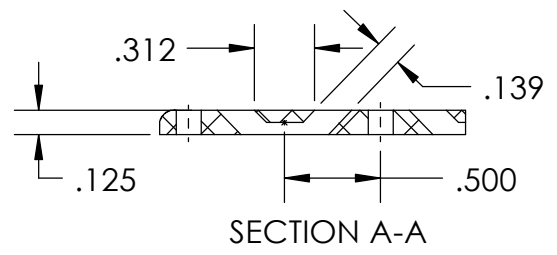
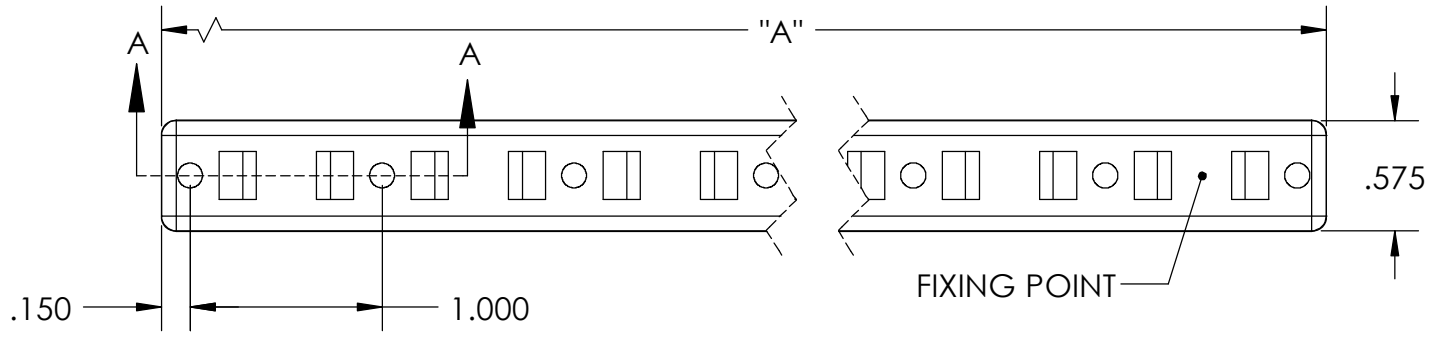
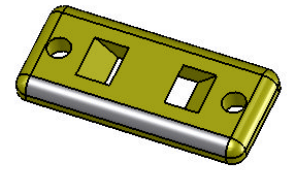
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www.esterline.com 909-451-2290

DWG. NO.

NMC CE1000

**CABLE TIE MOUNT
EXTENSION ASSEMBLY**

MATERIAL: NYLON			
TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



PART NUMBER	LENGTH "A"	WEIGHT (g)	FIXING POINTS
NMC HT303-1	1.3	1.08	1
NMC HT303-2	2.3	1.86	2
NMC HT303-3	3.3	2.63	3
NMC HT303-4	4.3	3.90	4
NMC HT303-5	5.3	4.17	5
NMC HT303-6	6.3	4.99	6
NMC HT303-7	7.3	5.80	7
NMC HT303-8	8.3	6.58	8
NMC HT303-9	9.3	7.39	9
NMC HT303-10	10.3	8.16	10
NMC HT303-11	11.3	8.98	11
NMC HT303-12	12.3	9.80	12



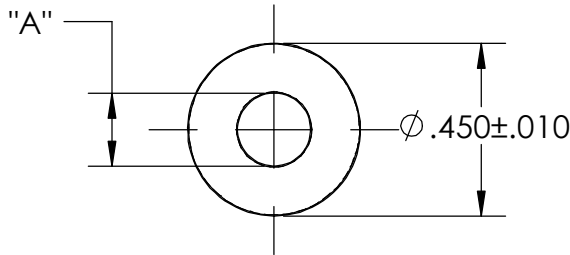
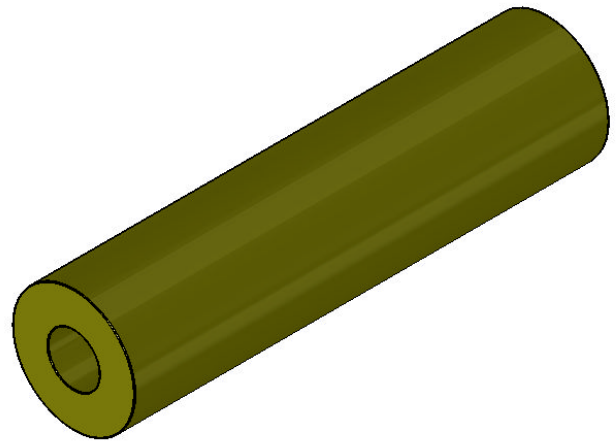
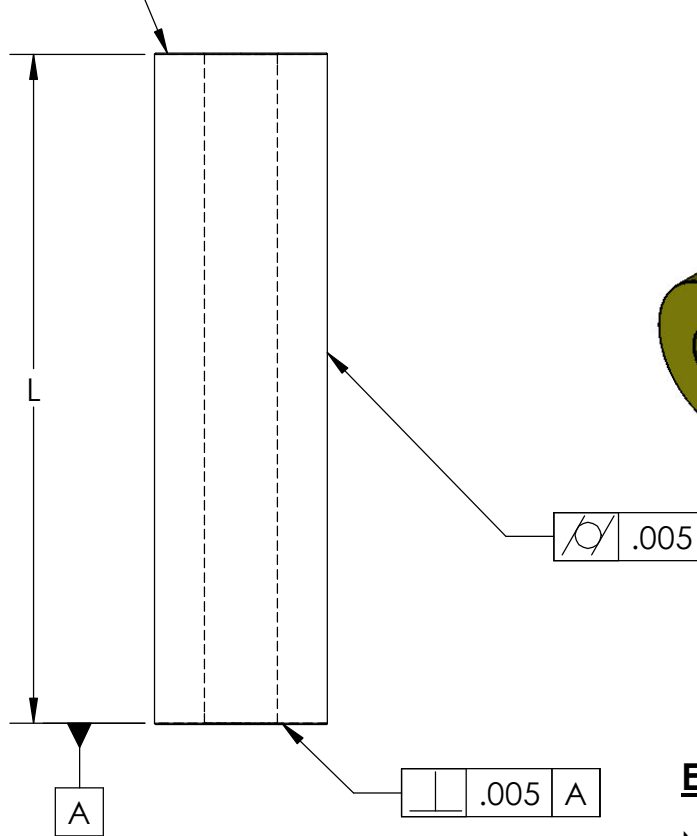
NMC AEROSPACE 2755 THOMPSON CREEK
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DWG. NO. **NMC HT303**

HARNESSTIEDOWN STRIP

MATERIAL: ZYTEL 103HSL			
TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°

CORNER BREAK TYP.



EXAMPLE PART NUMBER

NMC SP47-017 1 P
 P= PEEK, N= NYLON
 ID SIZE CODE (TABLE 1)
 LENGTH: (.265)
 BASIC PART NUMBER

TABLE 1

ID SIZE CODE	"A"
1	.158
2	.195
3	.197
4	.260
5	.268
6	.276

NOTES:

- 1) MATERIAL- "P"=POLYETHERETHERKETONE PER MIL-P-46183, TYPE II, CLASS 3; OR EQUIVALENT.
 "N"= NYLON 6/6 HEAT STABILIZED PER ASTM D4066, ASTM D6779 OR EQUIVALENT.
- 2) MOLD TOOL SURFACE FINISH SHALL BE SPI D2 OR BETTER PER SPI MOLD FINISH GUIDE.
- 3) "L" SHALL INDICATE THE AVAILABLE LENGTHS IN 1/64THS (.0156). MIN "L" IS .250 & MAX "L" IS 2.00 LENGTHS. TOLERANCE IS $\pm .005$ FOR LENGTHS BETWEEN .250 AND 1.00, AND $\pm .008$ FOR LENGTHS BETWEEN 1.010 AND 2.00 INCHES.



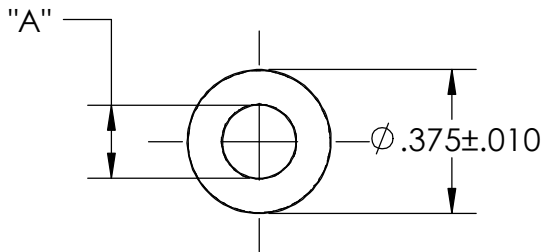
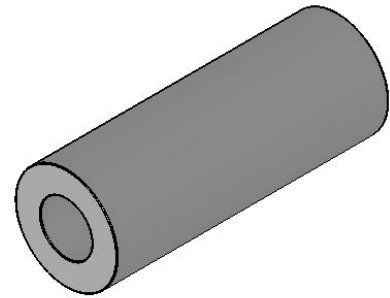
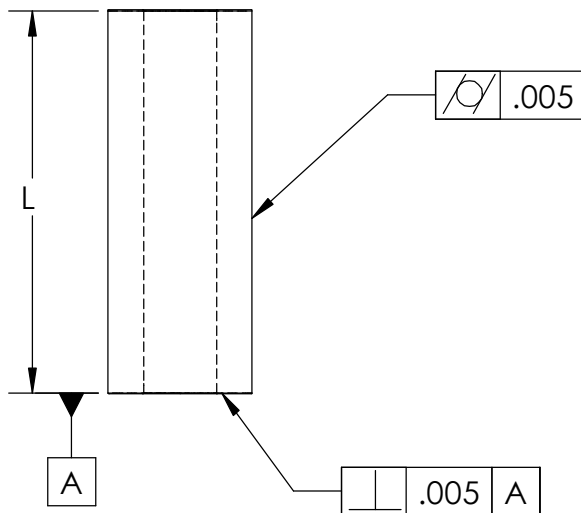
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DWG. NO.
NMC SP47

SPACER, 0.450" OD

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX $\pm .030$.XXX $\pm .010$	$\pm 5^\circ$



EXAMPLE PART NUMBER

NMC SP48-017 1 P
 P= PEEK, N= NYLON
 ID SIZE CODE(TABLE 1)
 LENGTH: (.265)
 BASIC PART NUMBER

TABLE 1

ID SIZE CODE	"A"
1	.158
2	.190
3	.197
4	.260
5	.268
6	.276

NOTES:

1) MATERIAL- "P"=POLYETHERETHERKETONE PER MIL-P-46183, TYPE II, CLASS 3; OR EQUIVALENT.
 "N"= NYLON 6/6 HEAT STABILIZED PER ASTM D4066, ASTM D6779 OR EQUIVALENT.

2)MOLD TOOL SURFACE FINISH SHALL BE SPI D2 OR BETTER PER SPI MOLD FINISH GUIDE.

3) "L" SHALL INDICATE THE AVAILABLE LENGTHS IN 1/64THS (.0156). MIN "L" IS .250 & MAX "L" IS 2.00 LENGTHS. TOLERANCE IS +/-0.005 FOR LENGTHS BETWEEN .250 AND 1.00, AND +/-0.008 FOR LENGTHS BETWEEN 1.010 AND 2.00 INCHES.



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DWG. NO.
NMC SP48

SPACER, 0.375" OD

MATERIAL: SEE NOTES

TOLERANCES	DECIMAL		ANGULAR
	.XX ±.030	.XXX ±.010	±5°



INJECTION MOLDING

Machines range in size from 24 to 200-ton presses. Small to mid-size parts are our specialty. We'll work with your part design in order to build the best tooling which meets your unique requirements.

CAD/CAM

We utilize a CAD system to design products and molds.

MOLD DESIGN AND CONSTRUCTION

In-house mold design and construction – mold maintenance and repair services available.

QUALITY ASSURANCE SYSTEM

Approved by major aircraft, medical and automotive industries. These include:

- MIL-I-45208A
- MIL-Q-9858A
- MIL-STD-45662
- D1-9000 AQS for Boeing
- Lockheed QCS 320 A & B Certified
- Process Monitoring Statistical Process Control