

PART NUMBER	NOM DIA.	THEO DIA.	A' DIA. MIN.	C MAX.	D DIA.	F DRIVING FLATS	H REF.	J DIA. MAX.	K MAX.	M GAGE PROT.	R RAD.	S MAX.	W GAGE DIA.	HOLE SIZE	BREAK-OFF LIMITS	PREVAILING TORQUE IN. LBS. MIN	DOUBLE SHEAR STRENGTH LBS. MIN	TENSILE STRENGTH LBS. MIN
		.332			.1645	.086				.0276	.030		.2671	.168	+.082			
PLT120-05-()	.1635	.325	.296	.268	.1625	.081	.069	.244	.246	.0278	.030	.012	.2667	.165	006	1.0	3150	900
DIT100.07.73	.1980	.385 .378	.342	.303	.1990	.104	.077	.300	.281	.0299	.030	.015	.3147	.202	+.072	1.5	4600	1400
PLT120-06-( )	.1700	.378	.342	.303	.1970	.099	.0//	.300	.201	.0259	.015	.015	.3143	.199	016	1.5	4600	1400
DIT100 00 ()	.2590	.507	.463	.354	.2600	.135	.102	.384	.325	.0353	.030	015	.4245	.263	+.072	2.5	7900	2100
PLT120-08-()	.2390	.499	.463	.334	.2580	.130	.102	.304	.323	.0307	.015	.015	.4241	.260	026	2.5	7900	2100
PLT120-10-()	.3105	.635	.577	.423	.3115	.152	.134	.427	.390	.0409	.040	.020	.5389	.315	+.072	3.5	11350	3600
PL1120-10-()	.3103	.626	.5//	.423	.3095	.147	.134	.42/	.390	.0357	.020	.020	.5385	.312	031	3.3	11330	3600
PLT120-12-()	.3735	.762	.696	.510	.3745	.185	.160	.516	.470	.0466	.040	.023	.6532	.378	+.072	4.0	16450	5600
1 L1120-12-( )	.5/33	.752	.076	.510	.3725	.180	.160	.516	.4/0	.0407	.020	.023	.6528	.375	031	4.0	10430	3000

SECOND		<u></u>		L REF.					
DASH	G GRIP	GRIP R	RANGE	PLT120					
NUMBER		MIN	MAX	-05-()	-06-()	-08-()	-10-()	-12-()	
-	-	-	-	-	-	-	-	-	
-02	.156	.094	.156	.795	.916	-	-	-	
-03	.219	.157	.219	.858	.978	1.006	1.158	-	
-04	.281	.220	.281	.920	1.041	1.069	1.221	1.304	
-05	.344	.282	.344	.983	1.103	1.131	1.283	1.367	
-06	.406	.345	.406	1.045	1.166	1.194	1.346	1.429	
-07	.469	.407	.469	1.108	1.228	1.256	1.408	1.492	
-08	.531	.470	.531	1.170	1.291	1.319	1.471	1.554	
-09	.594	.532	.594	1.233	1.353	1.381	1.533	1.617	
-10	.656	.595	.656	1.295	1.416	1.444	1.596	1.679	
-11	.719	.657	.719	1.358	1.478	1.506	1.658	1.742	
-12	.781	.720	.781	1.420	1.541	1.569	1.721	1.804	
-13	.844	.782	.844	1.483	1.603	1.631	1.783	1.867	
-14	.906	.845	.906	1.545	1.666	1.694	1.846	1.929	
-15	.969	.907	.969	1.608	1.728	1.756	1.908	1.992	
-16	1.031	.970	1.031	.1670	1.791	1.819	1.971	2.054	

SECOND		<u></u>	$\triangle$	L REF.						
DASH	G GRIP	GRIP RANGE		PLT120						
NUMBER		MIN	MAX	-05-()	-06-()	-08-()	-10-()	-12-()		
-17	1.094	1.032	1.094		1.853	1.881	2.033	2.117		
-18	1.156	1.095	1.156		1.916	1.944	2.096	2.179		
-19	1.219	1.157	1.219		1.978	2.006	2.158	2.242		
-20	1.281	1.220	1.281		2.041	2.069	2.221	2.304		
-21	1.344	1.282	1.344		2.103	2.131	2.283	2.367		
-22	1.406	1.345	1.406		2.166	2.194	2.346	2.429		
-23	1.469	1.407	1.469		2.228	2.256	2.408	2.492		
-24	1.531	1.470	1.531	NOT AVAILABLE	2.291	2.319	2.471	2.554		
-25	1.594	1.532	1.594	IN -05 DIAMETER	2.353	2.381	2.533	2.617		
-26	1.656	1.595	1.656	DIAMETER	2.416	2.444	2.596	2.679		
-27	1.719	1.657	1.719		2.478	2.506	2.658	2.742		
-28	1.781	1.720	1.781		2.541	2.569	2.721	2.084		
-29	1.844	1.782	1.844		2.603	2.631	2.783	2.867		
-30	1.906	1.845	1.906		2.666	2.694	2.846	2.929		
-31	1.969	1.907	1.969		2.728	2.756	2.908	2.992		
-32	2.031	1.970	2.031		2.791	2.819	2.971	3.054		

▲ "G" TOLERANCE: FOR -05 AND -06 SIZES +.030/-.010; FOR -08 & -10 SIZES +.040/-.010; FOR -12 SIZES +.060/- .010.



a TriMas company

3423 SOUTH GARFIELD AVENUE COMMERCE, CALIFORNIA 90040 (323) 722-4760 FAX (323) 727-1029

## VISU-LOK, FASTENER, BLIND INTERNALLY THREADED, EXTERNAL SLEEVE HIGH TEMPERATURE (A286 ALLOY)

100° FLUSH HEAD, SELF LOCKING

DRAWING NO:								
PL	PLT120-()-()							
DRAWN BY:		DRAWN DATE:						
	G.MARTINEZ	07-11-13						
APPROVED BY:		CHECKED DATE:						
MONOGRAM CAGE CODE:	14-0654	REV:						
00504	ECN DATE:							

PROPRIETARY AND CONFIDENTIAL:
NOTICE: THIS DRAWING IS PART OF THE PROPRIETARY ARTICLE HEREIN DISCLOSED, OWNED BY MONOGRAM AEROSPACE FASTENERS, ANY PARTY BY ACCEPTING THIS DOCUMENT
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TITLE:

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Alcoa

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PROCUREMENT SPEC: ESCBB-2 CLASS 2.

NUT, SCREW, & MATERIAL:

CORROSION RESISTANT STEEL, TYPE A286 PER AMS5731, AMS5732 OR AMS5737. SLFFVF:

SOLUTION HEAT TREATED AND AGED TO HARDNESS OF HRC 30 TO HRC 45. ALL CORE **HEAT TREAT:** NUT & SCREW:

HARDNESS READINGS ARE TAKEN ON MOUNTED SPECIMEN, USING A BRALE

PENETRATOR A 30 Kg LOAD (ROCKWELL 30N).

SLEEVE: SOLUTION TREATED.

FINISH: NUT, SCREW, &

PASSIVATE PER AMS2700 SLEEVE: /8\

LUBRICANT: LUBRICANTS LISTED BELOW MAY BE APPLIED TO ANY OR ALL COMPONENTS IF REQUIRED FOR PERFORMANCE.

/8\ NUT, SCREW, &

DRY FILM LUBE PER AS5272 TYPE I OR MIL-PRF-81329, WWM CARBO-WAX, PARAFFIN WAX SLEEVE:

AND OR CETYL ALCOHOL PER AS87132.

PART CODE & EXAMPLE: PLT120 - 05 - 05

GRIP LENGTHS IN 1/16THS

NOMINAL BODY DIAMETER AS TABULATED

BASIC PART NUMBER, SELF LOCKING BLIND FASTENER

## **GENERAL NOTES:**

OUTSIDE DIAMETER OF HEAD OF SCREW AND OUTSIDE DIAMETER OF SLEEVE SHALL NOT EXCEED MAXIMUM "D" DIAMETER. 1

CONCENTRICITY OF NUT HEAD CONICAL SURFACE TO "D" DIAMETER SHALL BE WITHIN .005" T.I.R., EXCEPT OVER INDENTATIONS.

3. REMOVE ALL LOOSE OR HANGING BURRS.

LOCKING FEATURE CONSISTS OF THREE (3) INDENTATIONS LOCATED 120° APART ON THE PERIPHERY OF THE NUT COMPONENT AND APPROXIMATELY .040" ABOVE THE INTERSECTION OF THE NUT NOSE ANGLE AND O.D. (MEAN GRIP OF FASTENER).

MANUFACTURER'S IDENTIFICATION:

LETTER "N" DESIGNATES MONOGRAM AEROSPACE FASTENERS.

LETTERS "VS" DESIGNATE VOI-SHAN.

HEAD MARKINGS ON NUT DEPRESSED .010 MAX.

THE PRODUCT DESCRIBED BY THIS DRAWING IS "EQUIVALENT TO" AND "INTERCHANGEABLE WITH" THE MANUFACTURER'S PRODUCT LISTED BELOW EXCEPT FOR COLOR IDENTIFICATION. HEAD MARKING AND SELF-LOCKING FEATURE. EXSISTING

STOCK MAY BE REWORKED TO COLOR AND HEAD MARKING MAY BE AS SHOWN BELOW.

MONOGRAM...: FL164ALS-FL375ALS SERIES (MARKING: "N" AND "O" OVERSTAMPED "L" OR "SL" ).

VA 402 SERIES (MARKING: "VS", "O", AND "SL"). VOI-SHAN...:

STANDARD FINISHES AND LUBES ARE SHOWN ABOVE. REFER TO ESCBB-4 FOR SPECIAL FINISHES AND/OR LUBES, IF REQUIRED.

HALF-GRIP SIZES MAY BE ORDERED BY ADDING (.5) TO THE GRIP DASH NUMBERS. EXAMPLE: PLT120-06-4.5 INDICATES A NOMINAL GRIP LENGTH OF 4.5 SIXTEENTHS = 0.281. THE GRIP RANGE FOR THESE HALF-GRIPS SIZES WILL BE NOMINAL GRIP +.031"/-.030".

THE BASIC "G" DIMENSION WILL BE NOMINAL GRIP +.031 AND THE OVERALL SCREW LENGTH "L" DIMENSION MAY

VARY AT MANUFACTURER'S OPTION.

DISTORTION OF "D" DIAMETER SHALL NOT PREVENT INSERTION OF THE FASTENER INTO A RING GAUGE OF LENGTH EQUAL TO ONE DIAMETER AND DIAMETER EQUAL TO MAXIMUM "D" + .001". FORCE FOR INSERTION SHALL NOT EXCEED FIVE (5) POUNDS.



STANDARD GRIP LENGTHS ARE AS TABULATED, SHORTER OR LONGER GRIPS THAN THOSE LISTED MAY BE AVAILABLE AS SPECIALS. ON GRIP LENGTHS SHORTER THAN THOSE LISTED, THE BREAKOFF LIMITS AND PREVAILING TORQUES AS TABULATED DO NOT APPLY.



DIMENSIONS "A", "A' ", AND "H" ARE FOR ENGINEERING REFERENCE PURPOSES ONLY AND ARE NOT TO BE USED FOR INSPECTION PURPOSES, THESE DIMENSIONS ARE THEORETICAL VALUES DERIVED FROM "D", "S", "V", "W" AND HEAD ANGLE DIMENSIONS.

13. DIMENSIONS ARE EXCLUSIVE OF LUBRICATION.

TITLE:



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VISU-LOK, FASTENER, BLIND INTERNALLY THREADED, EXTERNAL SLEEVE HIGH TEMPERATURE (A286 ALLOY) 100° FLUSH HEAD, SELF LOCKING

DRAWING NO:								
PLT120-( )-( )								
DRAWN BY:	07-11-13							
APPROVED BY:	CHECKED DATE:							
MONOGRAM CAGE CODE:	14-0654 ECN DATE:	REV:						
98524		SHEET 2 OF 2						

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