



PART NUMBER	NOM. DIA.	A	C MAX.	D DIA.	F DRIVING FLATS	H MAX.	J DIA MAX.	K MAX.	N MIN.	R RAD.	HOLE SIZE	BREAK-OFF LIMITS	PREVAILING TORQUE IN. LBS. MIN.	DOUBLE SHEAR STRENGTH LBS. MIN.	TENSILE STRENGTH LBS. MIN.
PLT214-05-()	.1640	.250	.268	.1645 .1635	.086 .081	.096	.244	.246	.272	.020	.1680 .1650	+.088 +0.000	1.0	3355	900
PLT214-05-()X	.1795	.244	.293	.1800 .1790				.272		.010	.1830 .1800				
PLT214-06-()	.2021	.312 .305	.303	.2026 .2016	.104 .099	.113	.300	.281	.340	.025 .015	.2060 .2030	+.098 +0.10	1.5	5240	1400
PLT214-06-()X	.2145		.328	.2150 .2140			.2180 .2150	.315			.334			.312	
PLT214-06-()Y	.2295		.360	.2300 .2290				.334			.2330 .2300			7000	
PLT214-08-()	.2645	.375 .367	.354	.2651 .2641	.135 .130	.135	.384	.325	.409	.025 .015	.2685 .2655	+.135 +0.047	2.5	9000	2100
PLT214-08-()X	.2755		.379	.2760 .2750			.2790 .2760	.351			.351			.2790 .2760	
PLT214-08-()Y	.2905		.404	.2910 .2900			.401	.375			.2940 .2910			11300	
PLT214-10-()	.3115	.437 .429	.423	.3120 .3110	.152 .147	.160	.427	.390	.479	.030 .015	.3150 .3120	+.146 +0.043	3.5	12000	3600
PLT214-10-()X	.3265		.448	.3270 .3260			.3300 .3270	.426			.426			.3300 .3270	
PLT214-10-()Y	.3420		.493	.3425 .3415			.442	.460			.3460 .3430			14500	
PLT214-12-()	.3740	.500 .491	.510	.3745 .3735	.185 .180	.190	.516	.470	.548	.030 .015	.3780 .3750	+.152 +0.049	4.0	19500	5600
PLT214-12-()X	.3895		.535	.3900 .3890			.3930 .3900	.495			.495			.3930 .3900	
PLT214-12-()Y	.4050		.583	.4055 .4045			.531	.543			.4090 .4060			23000	

MONOGRAM AEROSPACE FASTENERS
a TriMas company
3423 SOUTH GARFIELD AVENUE
COMMERCE, CALIFORNIA 90040
(323) 722-4760 FAX (323) 727-1029

TITLE:
VISU-LOK, FASTENER, BLIND INTERNALLY THREADED, EXTERNAL SLEEVE ALLOY STEEL PROTRUDING HEX HEAD, SELF LOCKING GROUND SHANK

DRAWING NO:
PLT214-()-()(()

DRAWN BY: **G.MARTINEZ** DRAWN DATE: **07-10-13**

APPROVED BY: CHECKED 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 ASSUME CUSTODY THEREOF AND AGREES:
A: THE INFORMATION SET FORTH HEREIN IS GIVEN IN CONFIDENCE AND THIS DOCUMENT WILL NOT BE COPIED OR REPRODUCED IN WHOLE OR IN PART, NOR ITS CONTENTS REVEALED IN ANY MANNER TO ANY PERSON EXCEPT TO MEET THE PURPOSE FOR WHICH IT WAS DELIVERED.
B: WITHOUT THE WRITTEN CONSENT OF MONOGRAM AEROSPACE FASTENERS, THIS DOCUMENT AND THE INFORMATION CONTAINED HEREIN UNDER NO CIRCUMSTANCES WILL BE USED IN THE MANUFACTURE OR REPRODUCTION OF THE ARTICLE DISCLOSED, AND THE DELIVERY OF THIS DOCUMENT SHALL NOT CONSTITUTE ANY RIGHT OR LICENSE TO DO SO.

Alcoa CAGE CODE: **5M902**

MONOGRAM CAGE CODE: **98524**

ECN NO: **14-0671** REV: **L**

ECN DATE: **11/03/14** SHEET 1 OF 2



PROCUREMENT SPEC: ESCBB-2 CLASS I, EXCEPT AS SPECIFIED HEREIN.

MATERIAL:

NUT & SCREW: ALLOY STEEL: 4130 PER AMS-S-6758, 4140 PER AMS6349 OR 8740 PER AMS 6322 AND MMS616.
 SLEEVE: CORROSION RESISTANT STEEL: 303 PER AMS5639 OR 304 PER AMS5641.
 HEAT TREAT:
 NUT & SCREW: HEAT TREAT PER AMS2759, APPROXIMATELY 180,000-200,000 PSI TENSILE (HRC 39-42).
 SLEEVE: AS REQUIRED FOR PERFORMANCE.
 FINISH: \triangle_8
 NUT & SCREW: CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CLASS 2. CADMIUM PLATE PER NAS672 IS PERMISSIBLE PROVIDED IT IS FOLLOWED BY A DICHROMATE POST TREATMENT PER AMS-QQ-P-416.
 SLEEVE: PASSIVATE PER AMS2700. CADMIUM PLATE PER AMS-QQ-P-416, TYPE I, CLASS 3.

LUBRICANT: \triangle_8

LUBRICANTS LISTED BELOW MAY BE APPLIED TO ANY OR ALL COMPONENTS IF REQUIRED FOR PERFORMANCE.
 NUT: WWM CARBOWAX, PARAFFIN WAX AND/OR CETYLE ALCOHOL PER AS87132.
 SCREW & SLEEVE: DRY FILM LUBE PER AS5272 TYPE I, OR MIL-PRF-81329, WWM CARBO-WAX, PARAFFIN WAX AND/OR CETYL ALCOHOL PER AS87132.

PART CODE & EXAMPLE:

PLT214 - 05 - 05 ()

DESIGNATES NOMINAL OR FIRST "X" OR SECOND "Y" OVERSIZES
 GRIP LENGTHS IN 1/16THS
 NOMINAL BODY DIAMETER AS TABULATED
 BASIC PART NUMBER, SELF LOCKING BLIND FASTENER

SECOND DASH NUMBER	G GRIP	\triangle_9 GRIP RANGE		L REF.				
		MIN.	MAX.	-05-()	-06-()	-08-()	-10-()	-12-()
-01	.093	.031	.093	.733	.874	-	-	-
-02	.156	.094	.156	.795	.936	1.006	1.158	-
-03	.219	.157	.219	.858	.999	1.069	1.221	1.304
-04	.281	.220	.281	.920	1.061	1.131	1.283	1.367
-05	.344	.282	.344	.983	1.124	1.194	1.346	1.429
-06	.406	.345	.406	1.045	1.186	1.256	1.408	1.492
-07	.469	.407	.469	1.108	1.249	1.319	1.471	1.554
-08	.531	.470	.531	1.170	1.311	1.381	1.533	1.617
-09	.594	.532	.594	1.233	1.374	1.444	1.596	1.679
-10	.656	.595	.656	1.295	1.436	1.506	1.658	1.742
-11	.719	.657	.719	1.358	1.499	1.569	1.721	1.804
-12	.781	.720	.781	1.420	1.561	1.631	1.783	1.867
-13	.844	.782	.844	1.483	1.624	1.694	1.846	1.929
-14	.906	.845	.906	1.545	1.686	1.756	1.908	1.992
-15	.969	.907	.969	1.608	1.749	1.819	1.971	2.054
-16	1.031	.970	1.031	1.670	1.811	1.881	2.033	2.117
-17	1.094	1.032	1.094		1.874	1.944	2.096	2.179
-18	1.156	1.095	1.156		1.936	2.006	2.158	2.242
-19	1.219	1.157	1.219		1.999	2.069	2.221	2.304
-20	1.281	1.220	1.281		2.061	2.131	2.283	2.367
-21	1.344	1.282	1.344		2.124	2.194	2.346	2.429
-22	1.406	1.345	1.406		2.186	2.256	2.408	2.492
-23	1.469	1.407	1.469		2.249	2.319	2.471	2.554
-24	1.531	1.470	1.531		2.311	2.381	2.533	2.617
-25	1.594	1.532	1.594		2.374	2.444	2.596	2.679
-26	1.656	1.595	1.656		2.436	2.506	2.658	2.742
-27	1.719	1.657	1.719		2.499	2.569	2.721	2.804
-28	1.781	1.720	1.781		2.561	2.631	2.783	2.867
-29	1.844	1.782	1.844		2.624	2.694	2.846	2.929
-30	1.906	1.845	1.906		2.686	2.756	2.908	2.992
-31	1.969	1.907	1.969		2.749	2.819	2.971	3.054
-32	2.031	1.970	2.031		2.811	2.881	3.033	3.117

NOT AVAILABLE IN .05 DIAMETER

GENERAL NOTES

- OUTSIDE DIAMETER OF HEAD OF SCREW AND OUTSIDE DIAMETER OF SLEEVE SHALL NOT BE GREATER THAN MAXIMUM "D" DIAMETER.
- FASTENERS SHALL BE FREE OF ALL LOOSE OR HANGING BURRS.
- \triangle_3 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).
- \triangle_4 THE PREVAILING TORQUE SHALL CONFORM TO THE VALUES AS TABULATED, WHEN TESTED IN ACCORDANCE WITH SPECIFICATION ESCBB-2. HOWEVER, PREVAILING TORQUES FOR THE PLT214-05-01 AND PLT214-06-01 SHALL BE RECORDED THRU A ROTATION OF ONLY 360° OF THE NUT.
- \triangle_5 MANUFACTURER'S IDENTIFICATION: (REFER TO NOTE 7 FOR INTERIM IDENTIFICATION) LETTER "N" DESIGNATES MONOGRAM AEROSPACE FASTENERS. LETTER "VS" DESIGNATES ALCOA.
- HEAD MARKINGS ON NUT DEPRESSED .010" MAX.
- \triangle_7 THE PRODUCT DESCRIBED BY THIS DRAWING IS "EQUIVALENT TO" AND "INTERCHANGABLE WITH" THE MANUFACTURER'S PRODUCT LISTED BELOW EXCEPT FOR COLOR IDENTIFICATION, HEAD MARKING, AND SELF-LOCKING FEATURE. EXISTING STOCK MAY BE REWORKED TO INCORPORATE THE LOCK, WHEN THESE REWORKED FASTENERS ARE SUPPLIED. THE HEAD IDENTIFICATION MAY BE AS SHOWN BELOW:
 MONOGRAM..... PPG162-PPG375 SERIES (MARKING: " - " AND/OR "N" OVERSTAMPED "L" OR "SL").
 ALCOA..... BAGAH SERIES (MARKING: "VS", "AG" AND "SL"; NUT HEAD MAY BE COLORED ORANGE).
- \triangle_8 STANDARD FINISHES AND LUBRICANTS ARE SHOWN ABOVE. REFER TO SPECIFICATION ESCBB-4 FOR SPECIAL FINISHES AND/OR LUBRICANTS, IF REQUIRED.
- \triangle_9 HALF-GRIP SIZES MAY BE ORDERED BY ADDING (.5) TO THE GRIP DASH NUMBERS.
 EXAMPLE: PLT214-06-4.5 INDICATES A NOMINAL GRIP LENGTH OF 4.5 SIXTEENTHS = .281". THE GRIP RANGE FOR THESE HALF-GRIP 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 THE MANUFACTURER'S OPTION.
- \triangle_{10} GROUND SHANK VISU-LOKS SHOULD NOT BE USED, EXCEPT WITH CONSIDERABLE CAUTION, IN APPLICATIONS WHICH EXCEED APPROXIMATELY .0005" INTERFERENCE FIT. GROUND SHANK VISU-LOKS WILL PERFORM SATISFACTORILY WHEN INSTALLED IN THE TABULATED HOLE SIZES.
- \triangle_{11} 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.
- DIMENSIONS ARE EXCLUSIVE OF LUBRICATION.
- \triangle_{13} "G" TOLERANCES: FOR -05 & -06 SIZES +.030/-0.10; FOR -08 & -10 SIZES +0.040/-0.10; FOR -12 SIZES +.050/-0.10.

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

TITLE:
 VISU-LOK, FASTENER, BLIND INTERNALLY THREADED, EXTERNAL SLEEVE ALLOY STEEL PROTRUDING HEX HEAD, SELF LOCKING GROUND SHANK

DRAWING NO: PLT214-()-() ()	
DRAWN BY: G.MARTINEZ	DRAWN DATE: 07-10-13
APPROVED BY:	CHECKED 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 ASSUME CUSTODY THEREOF AND AGREES:
 A: THE INFORMATION SET FORTH HEREIN IS GIVEN IN CONFIDENCE AND THIS DOCUMENT WILL NOT BE COPIED OR REPRODUCED IN WHOLE OR IN PART, NOR ITS CONTENTS REVEALED IN ANY MANNER TO ANY PERSON EXCEPT TO MEET THE PURPOSE FOR WHICH IT WAS DELIVERED.
 B: WITHOUT THE WRITTEN CONSENT OF MONOGRAM AEROSPACE FASTENERS, THIS DOCUMENT AND THE INFORMATION CONTAINED HEREIN UNDER NO CIRCUMSTANCES WILL BE USED IN THE MANUFACTURE OR REPRODUCTION OF THE ARTICLE DISCLOSED, AND THE DELIVERY OF THIS DOCUMENT SHALL NOT CONSTITUTE ANY RIGHT OR LICENSE TO DO SO.

Alcoa CAGE CODE: 5M902	MONOGRAM CAGE CODE: 98524	ECN NO: 14-0671	REV: L
		ECN DATE: 11/03/14	SHEET 2 OF 2