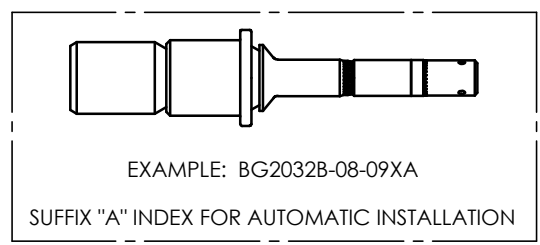
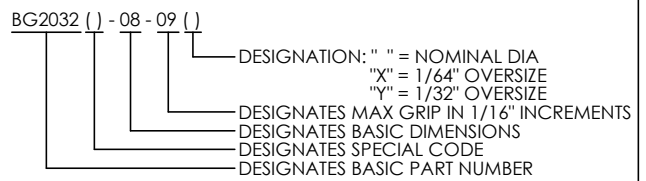


PART NUMBER	NOM DIA	A DIA THEO.	A' DIA MIN.	C REF	D DIA	E DIA MAX	F FLATS	H REF	J DIA MIN	K MAX	L REF	M	N	R MAX	V GAGE PROT	W GAGE DIA
BG2032(-)06(-)	3/16				.1895 .1885	.1875		.081	.290							
BG2032(-)06(-)X	13/64	.385 .378	.342		.2026 .2016	.1995	.112 .109			.750	.850	.315 .305	.047 .044		.0245 .0212	.3272 .3270
BG2032(-)06(-)Y	7/32			5/16	.2182 .2172	.2150					.900					
BG2032(-)08(-)	1/4				.2495 .2485	.2470		.111	.380					.030		
BG2082(-)08(-)X	17/64	.507 .499	.463		.2651 .2641	.2620	.135 .131	.104		.800	.980	.435 .425	.055 .050		.0318 .0279	.4320 .4318
BG2032(-)08(-)Y	9/32				.2807 .2797	.2775		.097	.400		1.040					
BG2032(-)10(-)	5/16				.3120 .3110	.3090		.136	.475		1.100					
BG2032(-)10(-)X	21/64	.635 .626	.577	3/8	.3276 .3266	.3245	.152 .149	.129	.495	.950	1.125	.520 .510	.068 .063		.0405 .0365	.5389 .5385
BG2032(-)10(-)Y	11/32				.3432 .3422	.3400		.122	.515		1.200					
BG2032(-)12(-)	3/8				.3745 .3735	.3715		.162	.560		1.250			.040		
BG2032(-)12(-)X	25/64	.762 .752	.696	7/16	.3901 .3891	.3870	.184 .181	.155	.580	1.100	1.300	.622 .612	.082 .077		.0458 .0415	.6532 .6528
BG2032(-)12(-)Y	13/32				.4057 .4047	.4025		.148	.600		1.320					

PART NUMBER	MIN AVAILABLE GRIP DASH NO.	RECOMMENDED HOLE SIZE FOR:		PREVAILING TORQUE (IN-LBS) MIN	DOUBLE SHEAR (LBS) MIN	TENSILE STRENGTH (LBS) MIN	BREAK-OFF LIMITS MAX
		CLEARANCE INSTALLATION	INTERFERENCE INSTALLATION				
BG2032(-)06(-)		.192 .190	.1890 .1875		5360		
BG2032(-)06(-)X		.205 .203	.2015 .1997	4	6130	1600	.015
BG2032(-)06(-)Y		.2205 .2185	.2171 .2152		7100		
BG2032(-)08(-)		.252 .250	.2489 .2472		9300		
BG2032(-)08(-)X	-03	.268 .266	.2640 .2622	6	10500	3000	
BG2032(-)08(-)Y		.2835 .2815	.2796 .2777		11800		
BG2032(-)10(-)		.315 .313	.3110 .3092		14600		
BG2032(-)10(-)X		.3305 .3285	.3265 .3247	8	16000	5000	.020
BG2032(-)10(-)Y		.346 .344	.3421 .3402		17600		
BG2032(-)12(-)		.377 .375	.3735 .3717		21000		
BG2032(-)12(-)X	-04	.393 .391	.3891 .3872	10	22700	7000	
BG2032(-)12(-)Y		.409 .407	.4047 .4027		24600		



EXAMPLE OF PART NUMBER:



U.S. PATENT NO.: 5,498,110; 5,634,751 AND FOREIGN PATENTS PENDING

<p>MONOGRAM AEROSPACE FASTENERS a TriMas company 3423 SOUTH GARFIELD AVENUE COMMERCE, CALIFORNIA 90040 (323) 722-4760 FAX (323) 727-1029</p>	TITLE:	<p>OSI BOLT™ 100° FLUSH TENSION HEAD CLOSE TOLERANCE SHANK A286 CRES, 95 KSI SHEAR 1/16" GRIP VARIATION</p>		DRAWING NO:	<p>BG2032(-)(-)(-)(-)</p>				
				DRAWN BY:	M. DOMINGUEZ	DRAWN DATE:	07-08-13		
				APPROVED BY:			CHECKED DATE:		
<p>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.</p>				MONOGRAM CAGE CODE:	98524	ECN NO:	15-0241	REV:	F
						ECN DATE:	06-23-15	SHEET 1 OF 2	

PART NUMBER	COMPONENTS							
	BODY		SLEEVE		NUT		COREBOLT	
	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH
BG2032(-)(-)(-)(-)(-)	A286 CRES PER AMS5732 OR AMS5737; HEAT TREATED AS REQUIRED FOR PERFORMANCE	PASSIVATE PER AMS-QQ-P-35 OR BAS5758 & ALUMINUM COAT PER BMS-10-85 TYPE I, CLASS A	304 SS PER AMS5639 FULLY ANNEALED	CAD PLATE PER AMS-QQ-P-416 TYPE II, CLASS 1	A286 CRES PER AMS5732 OR AMS5737; HEAT TREATED TO 160 KSI MIN TENSILE <b>EXCEPT:</b> FOR -08 DIA NOMINAL SIZE ONLY, INCO 718 PER AMS5662 HEAT TREATED TO 125 KSI MIN	CAD PLATE PER AMS-QQ-P-416 TYPE II, CLASS 1	INCO 718 PER AMS5662 HEAT TREATED TO 125 KSI FSU MINIMUM	PASSIVATE PER AMS-QQ-P-35 OR BAC5758
BG2032A(-)(-)(-)(-)(-)	A286 CRES PER AMS5732 OR AMS5737; HEAT TREATED AS REQUIRED FOR PERFORMANCE	PASSIVATE PER AMS-QQ-P-35 OR BAS5758 & ALUMINUM COAT PER BMS-10-85 TYPE I, CLASS A	304 SS PER AMS5639 FULLY ANNEALED	CAD PLATE PER AMS-QQ-P-416 TYPE II, CLASS 1		PASSIVATE PER AMS-QQ-P-35 OR BAC5758	INCO 718 PER AMS5662 HEAT TREATED TO 125 KSI FSU MINIMUM	PASSIVATE PER AMS-QQ-P-35 OR BAC5758
BG2032B(-)(-)(-)(-)(-)	A286 CRES PER AMS5732 OR AMS5737; HEAT TREATED AS REQUIRED FOR PERFORMANCE	PASSIVATE PER AMS-QQ-P-35 OR BAS5758 & ALUMINUM COAT PER BMS-10-85 TYPE I, CLASS A	304 SS PER AMS5639 FULLY ANNEALED	PASSIVATE PER AMS-QQ-P-35 OR BAC5758		PASSIVATE PER AMS-QQ-P-35 OR BAC5758	INCO 718 PER AMS5662 HEAT TREATED TO 125 KSI FSU MINIMUM	PASSIVATE PER AMS-QQ-P-35 OR BAC5758
BG2032C(-)(-)(-)(-)(-)	A286 CRES PER AMS5732 OR AMS5737; HEAT TREATED AS REQUIRED FOR PERFORMANCE	PASSIVATE PER AMS-QQ-P-35 OR BAC5758	304 SS PER AMS5639 FULLY ANNEALED	PASSIVATE PER AMS-QQ-P-35 OR BAC5758		PASSIVATE PER AMS-QQ-P-35 OR BAC5758	INCO 718 PER AMS5662 HEAT TREATED TO 125 KSI FSU MINIMUM	PASSIVATE PER AMS-QQ-P-35 OR BAC5758
BG2032G(-)(-)(-)(-)(-)	A286 CRES PER AMS5732 OR AMS5737; HEAT TREATED AS REQUIRED FOR PERFORMANCE	HI-KOTE I	304 SS PER AMS5639 FULLY ANNEALED	HI-KOTE I		PASSIVATE PER AMS-QQ-P-35 OR BAC5758	INCO 718 PER AMS5662 HEAT TREATED TO 125 KSI FSU MINIMUM	PASSIVATE PER AMS-QQ-P-35 OR BAC5758

INSTALLATION SPECIFICATION: BG2003  
 PRODUCREMENT SPECIFICATION: BG2000

GENERAL NOTES:

- LUBRICANT: DRY FILM LUBE PER THE CHEMICAL REQUIREMENTS OF MIL-L-46010 TYPE I, AND/OR PARAFFIN WAX USED AS REQUIRED FOR PERFORMANCE.
- LOCKING FEATURE CONSISTS OF THREE (3) INDENTATIONS LOCATED 120° APART ON THE PERIPHERY OF THE NUT COMPONENT.
- SEE BG2003 FOR INSTALLATION AND REMOVAL INFORMATION.
- GRIP LENGTHS NOT LISTED MAY BE AVAILABLE UPON REQUEST.
- INSTALLATION HOLE SHALL BE RADIUSUED TO CLEAR HEAD TO SHANK RADIUS.
- ALL DIMENSIONS TO BE MET AFTER FINISH AND BEFORE LUBRICATION.
- CONICAL SURFACE OF HEAD SHALL BE CONCENTRIC TO SHANK DIAMETER WITHIN .005 T.I.R.
- INSERT FABRICATED FROM ACETAL PLASTIC PER ASTM-D-4181.

4 2ND DASH NO.	GRIP RANGE (INCHES)	
	MIN GRIP	MAX GRIP
-02	.063	.125
-03	.126	.187
-04	.188	.250
-05	.251	.312
-06	.313	.375
-07	.376	.437
-08	.438	.500
-09	.501	.562
-10	.563	.625
-11	.626	.687
-12	.688	.750
-13	.751	.812
-14	.813	.875
-15	.876	.937
-16	.938	1.000
-17	1.001	1.062
-18	1.063	1.125
-19	1.126	1.187
-20	1.188	1.250
-21	1.251	1.312
-22	1.313	1.375
-23	1.376	1.437
-24	1.438	1.500
-25	1.501	1.562
-26	1.563	1.625
-27	1.626	1.687
-28	1.688	1.750
-29	1.751	1.812
-30	1.813	1.875
-31	1.876	1.937
-32	1.938	2.000

U.S. PATENT NO.: 5,498,110; 5,634,751 AND FOREIGN PATENTS PENDING



TITLE:  
 OSI BOLT™  
 100° FLUSH TENSION HEAD  
 CLOSE TOLERANCE SHANK  
 A286 CRES, 95 KSI SHEAR  
 1/16" GRIP VARIATION

DRAWING NO:  
**BG2032(-)(-)(-)(-)(-)**

DRAWN BY:  
**M. DOMINGUEZ**

APPROVED BY:

DRAWN DATE:  
**07-08-13**

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.

**MONOGRAM**  
 CAGE CODE: **98524**

ECN NO: **15-0241**

ECN DATE: **06-23-15**

REV: **F**

**SHEET 2 OF 2**