



BLIND BOLT ASSEMBLY		BB302 CORE BOLT								BB322.64 SLEEVE					BB341 EXPANDER			SUGGESTED HOLE PREPARATION		PROTRUSION AFTER INSTALLATION					
FIRST DASH NUMBER	NOMINAL DIAMETER	FIRST DASH NUMBER	RECESS	A DIA.	D DIA.	H	P ₁	T (REF.)	THREAD	FIRST DASH NUMBER	A ₁ DIA.	E GRIP RANGE 0-3%	B GRIP RANGE 3/16-1 1/16	B GRIP RANGE 1 1/4-1 5/8	B GRIP RANGE 1 11/16-2 1/4	D ₁ DIA.	H ₁	DASH NUMBER	D ₂ DIA.	(L) (LENGTH)	THREAD	HOLE DIA.	CORE BOLT INSTALLATION TORQUE	P ₁	D ₂ DIA. (REF.)
-5	5/32	-5	Phillips	.2274 .2226	.1120 .1100	.048 .046	.208	.274	4-40UNJC-3A	-5	.294 .274	.210	—	—	—	.185 .182	.055 .045	-5	.167	.153	4-40UNJC-3B	.191 .187	8 10 IN. LBS.	.208	.220
-6	3/16	-6	Phillips	.2514 .2466	.1240 .1220	.053 .051	.239	.304	5-40UNJC-3A	-6	.315 .295	.250	—	—	—	.203 .200	.065 .055	-6	.194	.184	5-40UNJC-3B	.208 .204	10 14 IN. LBS.	.239	.253
-8	1/4	-8	Phillips	.3304 .3256	.1650 .1630	.069 .067	.316	.397	8-32UNJC-3A	-8	.412 .387	.315	.330	—	—	.264 .262	.090 .080	-8	.255	.245	8-32UNJC-3B	.271 .266	20 30 IN. LBS.	.316	.335
-10	5/16	-10	Hi-Torque	.4454 .4406	.2180 .2160	.095 .092	.414	.498	12-28UNJF-3A	-10	.530 .500	.380	.400	.420	—	.358 .356	.110 .100	-10	.328	.307	12-28UNJF-3B	.365 .359	50 80 IN. LBS.	.414	.438

BB302 CORE BOLT

- GENERAL NOTES:
1. Concentricity: Head to "D" diameter within .005 FIR.
 2. Complete threads shall begin within two thread pitches maximum. Two thread pitch maximum may consist of incomplete thread and extrusion angle.
 3. "H" is dimensioned from maximum "D" diameter.
 4. Curved or flat edge manufacturer's option.

MATERIAL: Type 431 stainless steel per Spec. QQ-S-763.
HEAT TREAT: 125,000 psi shear minimum.
CODE: First dash number of core bolt indicates sleeve nominal diameter in 32nds.
Second dash number indicates mean assembly grip length (thickness of work) in 16ths.

EXAMPLE: BB302-8-12 = 8-32 core bolt for 1/4 nominal diameter sleeve, 3/4 mean assembly grip length.

BB322.64 SLEEVE

- GENERAL NOTES:
1. Concentricity: Hole to "D₁" diameter within .005 FIR. Head to "D₁" diameter within .010 FIR.
- Ⓞ MATERIAL: Type CRES: 305 per QQ-S-763, 302 HQ, or 18-9 LW (ASTM A-493).
FINISH: BB322.64P = Cadmium plate per QQ-P-416, Type I, Class 2.
BB322.64PB = Cadmium plate per QQ-P-416, Type II, Class 2.
CODE: First dash number indicates nominal diameter of sleeve in 32nds. Second dash number indicates mean assembly grip length (thickness of work) in 16ths.
"P" or "PB" indicate plating specification.
EXAMPLE: BB322.64P-8-12 = 1/4 nominal diameter sleeve, 3/4 mean assembly grip length, cadmium plate per QQ-P-416, Type I, Class 2.

BB341 EXPANDER

- GENERAL NOTES:
1. Threads per MIL-S-8879.
- MATERIAL: Type 431 stainless steel per Spec. QQ-S-763.
HEAT TREAT: 125,000 psi shear minimum.
FINISH: BB341 = Cadmium plate per QQ-P-416, Type I, Class 2.
BB341G = Silver plate per QQ-S-365, Grade B, .0002-.0004 thick.
BB341PB = Cadmium plate per QQ-P-416, Type II, Class 2.
CODE: Dash number indicates nominal diameter of Blind Bolt Assembly in 32nds.
Letters "G" or "PB" indicate type of plating.
EXAMPLE: BB341-8 = 8-32 expander for use with 1/4 nominal diameter Blind Bolt Assembly.

BB352.64 BLIND BOLT ASSEMBLY

- CODE: First dash number indicates nominal diameter of Blind Bolt Assembly in 32nds. Second dash number indicates mean assembly grip length (thickness of work) in 16ths. "G" after basic assembly number indicates silver plated expander. Letters "P" or "PB" after basic assembly number indicate type of cadmium plate.
- EXAMPLE: BB352.64-8-12
- 3/4 Mean Assembly Grip Length
 - 1/4 Nominal Diameter Blind Bolt Assembly
- Blind Bolt Assembly which includes:
BB302 Core Bolt, BB322.64 Sleeve, and BB341 Expander
- BB352.64G-8-12 = As example except with Expander BB341G.
BB352.64P-8-12 = As example except with Sleeve BB322.64P.

U.S. Patent 2,959,999. Foreign patents issued. Hi-Torque® trademark.

TITLE			
BLIND BOLT™ ASSEMBLY			
PROTRUDING HEAD STYLE			
1/64" OVERSIZE			
DRAWN	DATE	APPROVED	DATE
G.E.R. 3-16-65		TENENMAN	3/16/65
REVISION	DATE	DRAWING NUMBER	
5		D.P.S. 3-20-79	BB352.64