



| BLIND BOLT ASSEMBLY |                  | BB307 CORE BOLT   |              |                |                |              |      |         |               | BB339 SLEEVE      |                     |                    |                           |                          |                          | BB342 EXPANDER      |                |             |                     | SUGGESTED HOLE PREPARATION |               | PROTRUSION AFTER INSTALLATION |                               | INSTALLATION PRESSURE (psi) USING HI-SHEAR TOOLING |                           |        |        |
|---------------------|------------------|-------------------|--------------|----------------|----------------|--------------|------|---------|---------------|-------------------|---------------------|--------------------|---------------------------|--------------------------|--------------------------|---------------------|----------------|-------------|---------------------|----------------------------|---------------|-------------------------------|-------------------------------|--|---------------------------|--------|--------|
| FIRST DASH NUMBER   | NOMINAL DIAMETER | FIRST DASH NUMBER | RECESS       | A DIA.         | D DIA.         | H            | P    | T (REF) | THREAD        | FIRST DASH NUMBER | A <sub>1</sub> DIA. | B GRIP RANGE 0-3/4 | B GRIP RANGE 1 1/16-1 1/8 | B GRIP RANGE 1 3/8-1 1/2 | B GRIP RANGE 1 1/2-2 1/4 | D <sub>1</sub> DIA. | H <sub>1</sub> | DASH NUMBER | D <sub>2</sub> DIA. | L (LENGTH)                 | THREAD        | HOLE DIA.                     | CORE BOLT INSTALLATION TORQUE | P  | D <sub>2</sub> DIA. (REF) | BG1750 | BG2500 |
| -5                  | 5/32             | -5                | Phillips #1  | .2274<br>.2226 | .1120<br>.1100 | .048<br>.046 | .208 | .274    | 4-40UNJC-3A   | -5                | .3310<br>.3262      | .210               | .225                      | —                        | .169<br>.166             | .0680<br>.0660      |                | -5          | .167                | .153                       | 4-40UNJC-3B   | .173<br>.170                  | 8<br>10 IN. LBS.              | .208   | .210                      | 500    | 250    |
| -6                  | 3/16             | -6                | Phillips #1  | .2514<br>.2466 | .1240<br>.1220 | .053<br>.051 | .239 | .304    | 5-40UNJC-3A   | -6                | .3813<br>.3765      | .250               | .265                      | .330                     | .196<br>.193             | .0780<br>.0760      |                | -6          | .194                | .184                       | 5-40UNJC-3B   | .201<br>.197                  | 10<br>14 IN. LBS.             | .239   | .253                      | 700    | 350    |
| -8                  | 1/4              | -8                | Phillips #2  | .3304<br>.3256 | .1650<br>.1630 | .069<br>.067 | .316 | .397    | 8-32UNJC-3A   | -8                | .5066<br>.5018      | .315               | .330                      | .370                     | .257<br>.254             | .1050<br>.1030      |                | -8          | .255                | .245                       | 8-32UNJC-3B   | .264<br>.258                  | 20<br>30 IN. LBS.             | .316   | .335                      | 1100   | 650    |
| -10                 | 5/16             | -10               | Hi-Torque #2 | .4454<br>.4406 | .2180<br>.2160 | .095<br>.093 | .414 | .498    | 12-28UNJF-3A  | -10               | .6335<br>.6287      | .380               | .400                      | .420                     | .338<br>.335             | .1240<br>.1220      |                | -10         | .328                | .307                       | 12-28UNJF-3B  | .345<br>.339                  | 50<br>80 IN. LBS.             | .414   | .438                      | 1850   | 950    |
| -12                 | 3/8              | -12               | Hi-Torque #4 | .5066<br>.5018 | .2490<br>.2470 | .108<br>.106 | .485 | .567    | 1/4-28UNJF-3A | -12               | .7604<br>.7556      | .450               | .450                      | .450                     | .390<br>.387             | .1554<br>.1534      |                | -12         | .383                | .368                       | 1/4-28UNJF-3B | .397<br>.391                  | 125<br>150 IN. LBS.           | .485   | .510                      | —      | 1450   |

**BB307 CORE BOLT**

**GENERAL NOTES:**

- Concentricity: Head to "D" diameter within .005 FIR.
- Complete threads shall begin within two thread pitches maximum. Two thread pitch maximum may consist of incomplete thread and extrusion angle.
- "H" is dimensioned from maximum "D" diameter.

**MATERIAL:** 6Al-4V titanium alloy per AMS4967.  
**HEAT TREAT:** 95,000 psi shear minimum.  
**CODE:** First dash number of core bolt indicates sleeve nominal diameter in 32nds. Second dash number indicates assembly grip length (thickness of work) in 16ths.  
**EXAMPLE:** BB307-8-12 = 8-32 core bolt for 1/4 nominal diameter sleeve, 3/4 assembly grip length.

**BB339 SLEEVE**

**GENERAL NOTES:**

- Concentricity: Hole to "D<sub>1</sub>" diameter within .005 FIR; "D<sub>1</sub>" diameter to head within .005 FIR.
- "H<sub>1</sub>" is dimensioned from maximum "D<sub>1</sub>" diameter.

**MATERIAL:** Commercially pure titanium.  
**CODE:** First dash number indicates nominal diameter of sleeve in 32nds. Second dash number indicates assembly grip length (thickness of work) in 16ths.  
**EXAMPLE:** BB339-8-12 = 1/4 nominal diameter sleeve, 3/4 assembly grip length.

**BB342 EXPANDER**

**GENERAL NOTES:**

- Threads per MIL-S-8879.

**MATERIAL:** 6Al-4V titanium alloy per AMS4967.  
**HEAT TREAT:** 95,000 psi shear minimum.  
**FINISH:** Solid film lubricant.  
**CODE:** Dash number indicates diameter of Blind Bolt assembly in 32nds.  
**EXAMPLE:** BB342-8 = 1/4 nominal diameter Blind Bolt Assembly using 8-32 expander.

**BB369 BOLT ASSEMBLY**

**CODE:** First dash number indicates nominal diameter of Blind Bolt Assembly in 32nds. Second dash number indicates assembly grip length (thickness of work) in 16ths.  
**EXAMPLE:** BB369-8-12 = 3/4 Assembly Grip Length, 1/4 Nominal diameter Blind Bolt Assembly which includes: BB307 Core Bolt, BB339 Sleeve and BB342 Expander

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

|                                   |          |          |          |          |          |
|-----------------------------------|----------|----------|----------|----------|----------|
| TITLE                             |          |          |          |          |          |
| BLIND BOLT™ ASSEMBLY              |          |          |          |          |          |
| 100° COUNTERSUNK AN509 HEAD STYLE |          |          |          |          |          |
| TITANIUM                          |          |          |          |          |          |
| DRAWN                             | DATE     | APPROVED | DATE     | REVISION | DATE     |
| LANDES                            | 10-28-57 | Schuster | 10-28-57 | 1        | 11-12-73 |
|                                   |          |          |          |          | Shrode   |
|                                   |          |          |          |          | BB369    |