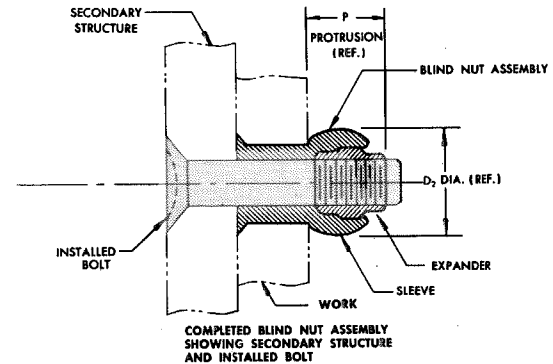
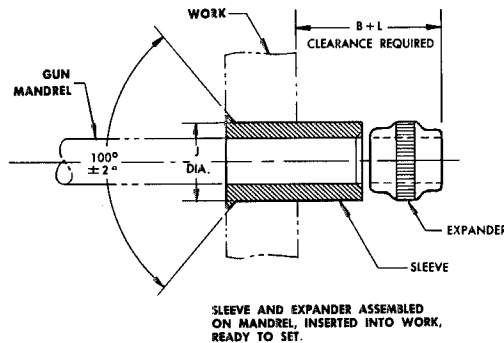
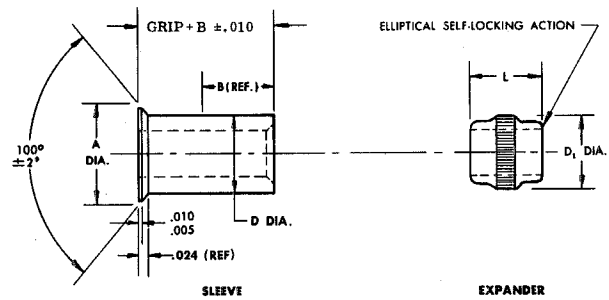


**hi-shear**  
CORPORATION

2600 SKYPARK DRIVE  
TORRANCE, CALIFORNIA 90509  
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| BN565<br>BLIND NUT<br>ASSEMBLY |                         | BN502 SLEEVE |                             |                               |                               |              |  | BB415GA EXPANDER |            |      |                | HOLE<br>PREPARATION |  | PROTRUSION<br>AFTER<br>INSTALLATION |      |
|--------------------------------|-------------------------|--------------|-----------------------------|-------------------------------|-------------------------------|--------------|--|------------------|------------|------|----------------|---------------------|--|-------------------------------------|------|
| FIRST<br>DASH<br>NUMBER        | FIRST<br>DASH<br>NUMBER | A<br>DIA.    | B<br>GRIP<br>RANGE<br>0-1/4 | B<br>GRIP<br>RANGE<br>1/4-1/2 | B<br>GRIP<br>RANGE<br>1/2-3/4 | D<br>DIA.    |  | PART<br>NUMBER   | D1<br>DIA. | L    | THREAD         | J<br>HOLE<br>DIA.   |  | D2<br>DIA.                          | P    |
| -440                           | -440                    | .229<br>.224 | .210                        | —                             | —                             | .169<br>.167 |  | BB415GA-5        | .167       | .153 | 4-40UNJC-3B    | .173<br>.170        |  | .210                                | .175 |
| -632                           | -632                    | .278<br>.273 | .280                        | —                             | —                             | .218<br>.216 |  | BB415GA-632      | .217       | .215 | 6-32UNJC-3B    | .222<br>.219        |  | .285                                | .260 |
| -832                           | -832                    | .317<br>.312 | .315                        | .330                          | —                             | .257<br>.255 |  | BB415GA-8        | .255       | .245 | 8-32UNJC-3B    | .264<br>.258        |  | .335                                | .290 |
| -1024                          | -1032                   | .372<br>.367 | .380                        | .420                          | .460                          | .312<br>.309 |  | BB415GA-1024     | .309       | .307 | 10-24UNJC-3B   | .319                |  | .410                                | .350 |
| -420                           | -428                    | .450<br>.445 | .450                        | .450                          | .450                          | .390<br>.387 |  | BB415GA-420      | .383       | .368 | 1/4-20UNJC-3B  | .397                |  | .510                                | .420 |
| -518                           | -524                    | .528<br>.523 | .500                        | .500                          | .500                          | .468<br>.465 |  | BB415GA-518      | .458       | .429 | 5/16-18UNJC-3B | .477<br>.469        |  | .600                                | .470 |
| -616                           | -624                    | .590<br>.585 | .550                        | .550                          | .550                          | .530<br>.527 |  | BB415GA-616      | .521       | .491 | 3/8-16UNJC-3B  | .539<br>.531        |  | .662                                | .530 |
| -720                           | -720                    | .652<br>.647 | .600                        | .600                          | .600                          | .592<br>.589 |  | BB415GA-720      | .585       | .552 | 7/16-20UNJC-3B | .605<br>.593        |  | .720                                | .592 |
| -820                           | -820                    | .714<br>.709 | .650                        | .650                          | .650                          | .654<br>.651 |  | BB415GA-820      | .643       | .614 | 1/2-20UNJC-3B  | .664<br>.656        |  | .785                                | .650 |
| -813                           | -813                    |              |                             |                               |                               |              |  | BB415GA-813      |            |      | 1/2-13UNJC-3B  |                     |  |                                     |      |

#### BN502 SLEEVE

NOTE: Concentricity: Hole to "D" diameter within .005 TIR;  
"D" diameter to head within .005 TIR

MATERIAL: Type A-286 meeting composition limits of the AMS specifications.

HEAT TREAT: Heat treated to meet the requirements of AMS5736.

FINISH: Sandblast.

CODE: First dash number indicates size of bolt to be used.  
Second dash number indicates grip length (thickness of work) in 16ths.

EXAMPLE: BN502-624-12 = Sleeve for 3/8-24 or 3/8-16 bolt,  
3/4 grip length.

#### BB415GA EXPANDER

GENERAL NOTES: 1. Threads per MIL-S-8879.

MATERIAL: A-286 alloy per AMS5731.

HEAT TREAT: 110,000 psi shear minimum.

FINISH: Silver plate per AMS2411, .0002-.0004 thick.

CODE: Dash number indicates nominal diameter of Blind Bolt Assembly in 32nds.

EXAMPLE: BB415GA-6 = 3/16 nominal diameter Blind Bolt Assembly.

#### BN565 BLIND NUT ASSEMBLY

CODE: First dash number indicates size of bolt to be used.  
Second dash number indicates grip length (thickness of work) in 16ths.

EXAMPLE: BN565-428-12  
3/4 Grip Length  
For 1/4-28 Bolt  
Blind Nut Assembly which includes:  
BN502 Sleeve and BB415GA Expander

U.S. Patents 2,789,619; 2,946,208; and 2,969,999.  
Foreign patents granted and pending.

|                                              |                |                                |                |               |                         |
|----------------------------------------------|----------------|--------------------------------|----------------|---------------|-------------------------|
| TITLE<br>T.M.<br><b>BLIND NUT ASSEMBLY</b>   |                |                                |                |               |                         |
| 100° COUNTERSUNK SHALLOW HEAD<br>A-286 ALLOY |                |                                |                |               |                         |
| DRAWN<br><i>W. H. H. H.</i>                  | DATE<br>4-6-73 | APPROVED<br><i>W. H. H. H.</i> | DATE<br>4-6-73 | REVISION<br>1 | DRAWING NUMBER<br>BN565 |

DATE IDENTIFICATION NO. 73197

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BN565