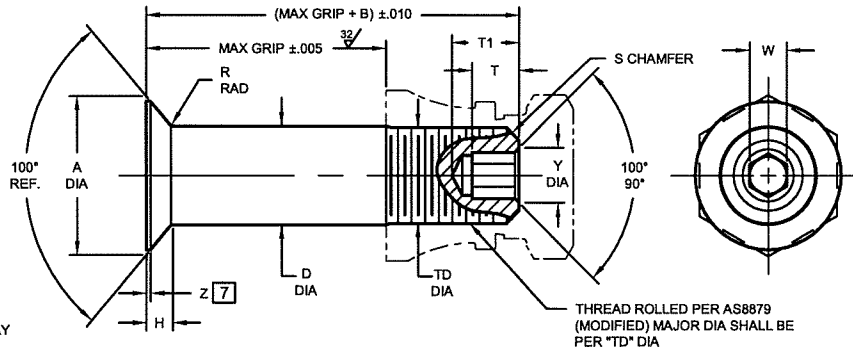
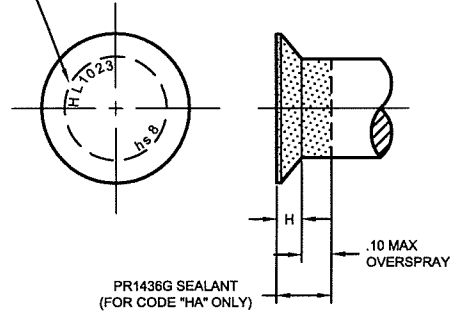
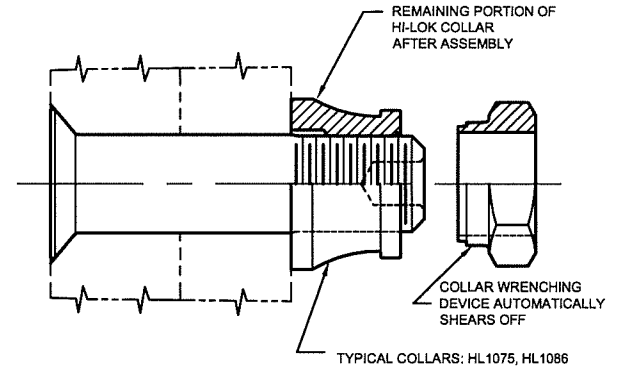


INDENTED HEAD MARKING MAXIMUM DEPTH .010".  
"hs" INDICATES HI-SHEAR TRADEMARK.  
THE NUMBER(S) FOLLOWING THE TRADEMARK  
INDICATES FIRST DASH NUMBER.  
ARRANGEMENT OPTIONAL.



HI-LOK® PIN



HI-LOK® PIN AND COLLAR AFTER ASSEMBLY

| FIRST DASH NO. | PIN NOM DIA | A DIA            | B REF | D DIA           |                | TD DIA         | F    | H              | R RAD        | Z MAX | S CHAMFER REF | THREAD                     | SOCKET         |              |              |              | DOUBLE SHEAR POUNDS MINIMUM | TENSION POUNDS MINIMUM |
|----------------|-------------|------------------|-------|-----------------|----------------|----------------|------|----------------|--------------|-------|---------------|----------------------------|----------------|--------------|--------------|--------------|-----------------------------|------------------------|
|                |             |                  |       | WITHOUT COATING | WITH COATING   |                |      |                |              |       |               |                            | W HEX          | T DEPTH      | T1 DEPTH MAX | Y DIA        |                             |                        |
| 5              |             |                  |       |                 |                |                |      |                |              |       |               | NOTE: USE HL1013-6-{}      |                |              |              |              |                             |                        |
| 6              | 13/64       | .3813<br>.3765   | .325  | .2026<br>.2021  | .2026<br>.2016 | .1840<br>.1810 | .005 | .0750<br>.0730 | .030<br>.020 | .015  | 1/32" x 45°   | 10-32UNJF-3A<br>Modified   | .0806<br>.0791 | .100<br>.080 | .140         | .119<br>.104 | 6,130                       | 3,180                  |
| 8              | 17/64       | .5066<br>.5018   | .395  | .2651<br>.2646  | .2651<br>.2641 | .2440<br>.2410 | .006 | .1013<br>.0993 | .030<br>.020 | .015  | 1/32" x 45°   | 1/4-28UNJF-3A<br>Modified  | .0967<br>.0947 | .110<br>.090 | .160         | .142<br>.122 | 10,490                      | 5,820                  |
| 10             | 21/64       | .6335<br>.6287   | .500  | .3276<br>.3271  | .3276<br>.3266 | .3060<br>.3020 | .007 | .1283<br>.1263 | .040<br>.030 | .015  | 3/64" x 45°   | 5/16-24UNJF-3A<br>Modified | .1295<br>.1270 | .130<br>.110 | .200         | .180<br>.160 | 16,000                      | 9,200                  |
| 12             | 25/64       | .7604<br>.7556   | .545  | .3901<br>.3896  | .3901<br>.3891 | .3680<br>.3640 | .008 | .1553<br>.1533 | .040<br>.030 | .015  | 3/64" x 45°   | 3/8-24UNJF-3A<br>Modified  | .1617<br>.1582 | .160<br>.140 | .235         | .217<br>.197 | 22,700                      | 14,000                 |
| 14             | 29/64       | .8884<br>.8812   | .635  | .4526<br>.4521  | .4526<br>.4516 | .4310<br>.4260 | .009 | .1828<br>.1798 | .050<br>.040 | .022  | 3/64" x 45°   | 7/16-20UNJF-3A<br>Modified | .1930<br>.1895 | .190<br>.170 | .280         | .253<br>.233 | 30,600                      | 18,900                 |
| 16             | 33/64       | 1.0139<br>1.0068 | .685  | .5151<br>.5146  | .5151<br>.5141 | .4930<br>.4880 | .010 | .2093<br>.2063 | .050<br>.040 | .022  | 3/64" x 45°   | 1/2-20UNJF-3A<br>Modified  | .2242<br>.2207 | .220<br>.200 | .320         | .289<br>.269 | 39,600                      | 25,600                 |
| 18             | 37/64       | 1.1408<br>1.1337 | .770  | .5771<br>.5766  | .5771<br>.5761 | .5550<br>.5500 | .010 | .2365<br>.2335 | .050<br>.040 | .025  | 1/16" x 45°   | 9/16-18UNJF-3A<br>Modified | .2555<br>.2520 | .260<br>.240 | .360         | .326<br>.306 | 49,700                      | 32,400                 |
| 20             | 41/64       | 1.2723<br>1.2651 | .825  | .6396<br>.6391  | .6396<br>.6386 | .6180<br>.6120 | .010 | .2654<br>.2624 | .050<br>.040 | .025  | 1/16" x 45°   | 5/8-18UNJF-3A<br>Modified  | .2555<br>.2520 | .260<br>.240 | .400         | .326<br>.306 | 61,000                      | 41,000                 |
| 24             | 49/64       | 1.5308<br>1.5236 | 1.050 | .7646<br>.7641  | .7646<br>.7636 | .7430<br>.7370 | .012 | .3214<br>.3184 | .050<br>.040 | .025  | 1/16" x 45°   | 3/4-16UNJF-3A<br>Modified  | .3185<br>.3150 | .330<br>.300 | .425         | .398<br>.378 | 87,200                      | 59,500                 |

SEE COLLAR STANDARDS FOR COLLAR STRENGTHS. LOWER STRENGTH (PIN OR COLLAR) DETERMINES SYSTEM STRENGTH.

\*\* The Double Shear values shown are based on cross sectional area for nominal diameter pin.

|                                                                                     |          |                                 |  |
|-------------------------------------------------------------------------------------|----------|---------------------------------|--|
| "Hi-Lok" and "HL" are internationally registered trademark of Hi-Shear Corporation. |          |                                 |  |
| DRAWN                                                                               | DATE     | TITLE                           |  |
| J.F.Obispo                                                                          | 3-22-95  | HI-LOK® PIN                     |  |
| APPROVED                                                                            | DATE     | 100° FLUSH MS24694 TENSION HEAD |  |
| E.E.B.                                                                              | 3-23-95  | TITANIUM, 1/64" OVERSIZE        |  |
|                                                                                     |          | 1/16" GRIP VARIATION            |  |
|                                                                                     |          | (SPECIAL APPLICATION)           |  |
| REVISION                                                                            | DATE     | DRAWING NUMBER                  |  |
| 7                                                                                   | 11-14-12 | HL1023                          |  |
|                                                                                     |          | SHEET 1 OF 2                    |  |

- GENERAL NOTES:**
- Head edge out of roundness shall not exceed "F".
  - Concentricity: Conical surface of head to "D" diameter within .003 FIM.
  - "H" is dimensioned from maximum "D" diameter.
  - Dimensions to be met after finish.
  - Surface texture per ANSI B46.1.
  - Hole preparation per NAS618.
  - Curved or flat edge manufacturer's option.
  - Use HL1033 for oversize replacement.

**MATERIAL:** 6Al-4V titanium alloy per AMS4928 or AMS4967.

**HEAT TREAT:** 160,000 psi tensile minimum (95,000 psi shear minimum).

**FINISH:** HL1023(-)(-) = Cetyl alcohol lube per Hi-Shear Spec. 305.

HL1023VF(-)(-) = Surface coating per Hi-Shear Spec. 306, Type I, color blue, and cetyl alcohol lube per Hi-Shear Spec. 305.

HL1023AZ(-)(-) = Hi-Kote 1 aluminum coating per Hi-Shear Spec. 294, with color black on the thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.

⑦ HL1023BB(-)(-) = Hi-Kote 1 aluminum coating per Hi-Shear Spec. 294 on top of head only (.005 max overspray on the head bearing surface permissible) with color blue on the thread end. Top of head painted in accordance with BAC5684, Type 5 and cetyl alcohol lube per Hi-Shear Spec. 305.

⑦ HL1023BN(-)(-) = Hi-Kote 1 aluminum coating per Hi-Shear Spec. 294 on threads (no overspray on the shank is allowed) and top of head only (.005 max overspray on the head bearing surface permissible) with color white on thread end. Top of head painted in accordance with BAC5684, Type 5 and cetyl alcohol lube per Hi-Shear Spec. 305.

HL1023HA(-)(-) = Hi-Kote 1 aluminum coating per Hi-Shear Spec. 294, with color black on the thread end, and apply precoat No. PR1436G sealant (.002-.005 thick), and cetyl alcohol lube per Hi-Shear Spec. 305.

HL1023RA(-)(-) = Phosphate fluoride treat with color code red on the thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.

HL1023GM(-)(-) = Hi-Kote 1 aluminum coating per Hi-Shear Spec. 294 on threads (no overspray on the shank is allowed) and top of head only (.005 max overspray on the head bearing surface permissible) with color white on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.

HL1023HD(-)(-) = I.V.D. aluminum plating per BAC5315, with color code red on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.

HL1023EF(-)(-) = Hi-Kote 1 aluminum coating per Hi-Shear Spec. 294 on top of head only (.005 max overspray on the head bearing surface permissible) with color blue on thread end, and cetyl alcohol lube per Hi-Shear Spec. 305.

⑦ HL1023EZ(-)(-) = Hi-Kote 1 aluminum coating per Hi-Shear Spec. 294, with color black on the thread end. Top of head is painted in accordance with BAC5684 Type 5, and cetyl alcohol lube per Hi-Shear Spec. 305.

**SPECIFICATION:** Hi-Lok Product Specification 342.

**CODE:** First dash number indicates nominal diameter in 1/32nds of the pin which HL1023 oversize pin replaces.  
Second dash number indicates maximum grip in 1/16ths.  
See Finish note for explanation of code letters.

## HOW TO ORDER

### EXAMPLE:

Pin Part Number Only

HL1023AZ8-8

8/16 or 1/2 Maximum Grip Length  
8/32 or 1/4 Nominal Diameter Pin  
Hi-Kote 1 and Cetyl Alcohol Lube Finish  
Pin Basic Part Number

DRAWING NUMBER

# HL1023

Sheet 2 of 2