



HART O-RING UNIONS

MANUFACTURING SPECIFICATIONS

| | |
|-------------------|------------------------------------------|
| Material | Meets: |
| Stainless Steel * | ASTM A182 F304 & L ASTM A182 F316 & L |
| Carbon Steel | ASTM A105 |
| Low Temperature | ASLF2 TM A350 LF1 ASTM A350 |

Dimensions

| | |
|-------------------------------------|-----------------------------------------------|
| Pipe Threads | MSS SP-83 (ANSI B2.1 Now ANSI B1.20.1 REV 95) |
| Unified Screw Threads (Nut threads) | ANSI/ASME B1.1 |
| Socket Weld Ends | ANSI B16.11 |
| Butt Weld Ends | ANSI B16.9 |
| Socket Weld Wall Dimensions | ANSI/ASME B36.10M |

Quality MSS SP-83

Surface Finish MSS SP-83

Testing MSS SP-83

Identification The unions can be identified by the "WOG" pressure rating (3000 or 6000) which is included in the figure number marked on the union surface.

Installation & Maintenance Initial Installation-Turn nut hand tight and wrench one quarter (1/4) turn maximum. No further maintenance is required.

* All HART Stainless unions have 303SS grade nuts to minimize galling. 316SS grade nuts available on request.

Pressure Ratings

These unions shall be designated as Class 3000 socket-welding or threaded and shall carry ratings shown in Table 1 of Mil Spec MSS SP-83

Table 1

Pressure-temperature service rating class 3000 carbon stainless steel unions socket welding & threaded ends.

| NON-SHOCK WORKING PRESSURE psig | | | | |
|---------------------------------|------------------------|----------------|-----------------------|----------------|
| SERVICE * Temp. Degree F | ASTM A105 Carbon Steel | ASTM A182 F316 | ASTM A182 F304L F316L | ASTM A182 F304 |
| 100 | 3000 | 2915 | 2430 | 2915 |
| 200 | 2735 | 2510 | 2050 | 2430 |
| 300 | 2655 | 2265 | 1835 | 2140 |
| 400 | 2565 | 2080 | 1670 | 1905 |
| 500 | 2425 | 1935 | 1535 | 1770 |
| 600 | 2220 | 1830 | 1460 | 1680 |
| 650 | 2180 | 1800 | 1420 | 1650 |
| 700 | 2155 | 1750 | 1390 | 1630 |
| 750 | | 1710 | 1360 | 1610 |
| 800 | | 1680 | 1330 | 1595 |
| 850 | | 1645 | 1300 | 1575 |
| 900 | | 1595 | | 1555 |
| 950 | | 1565 | | 1515 |
| 1000 | | 1470 | | 1300 |

Note: These ratings may be lowered by the temperature limitations of the specific O-Ring used. Integral seat "come to ball" unions fully rated.