

# HART Industrial Unions, LLC

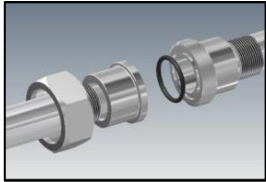
P.O. BOX 310429

Newington, CT 06131

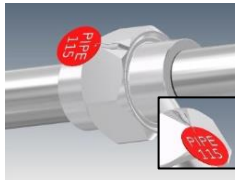
Phone: (800) 769-0503 FAX: (800) 769-0504

E-Mail: info@hartindustries.com

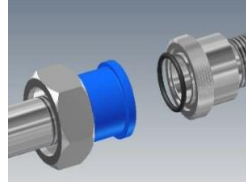
Also available from HART Industrial Unions:



Threaded FNPT Pipe Unions



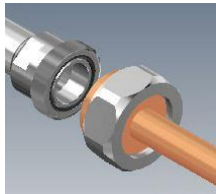
"Wire Tag" Unions



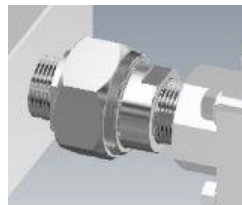
Dielectric Insulating Unions



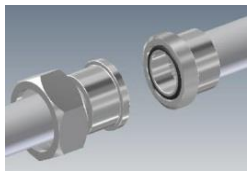
Orifice Unions



Adapter-Transition Unions



Threaded MNPT Unions



Socket Weld  
Pipe and Tube Unions



Steam Unions  
High Pressure-High Temp.



Handle Bar  
"Hammer Unions"

**Most are in stock for immediate delivery!**

We can help you design and specify the union which best fits your application.

**Call us at (800) 769-0503**



HART Industrial Unions, LLC

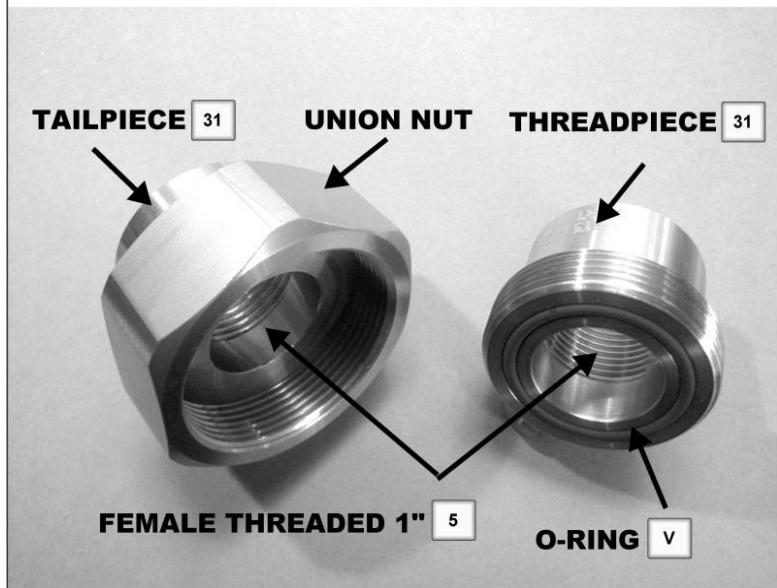
P.O. BOX 310429

Newington, CT 06131

Phone: (800) 769-0503 FAX: (800) 769-0504

## Installation Guidelines HART Sure Seal O-Ring Unions Class 3000 and 6000

**HART ITEM # 3131-5-V-304**



### O-Ring Union Description:

**3000 lb, 304 Stainless Steel Female Threaded 1"  
Union with a Viton O-Ring**

WEBSITE: [www.hartindustries.com](http://www.hartindustries.com)

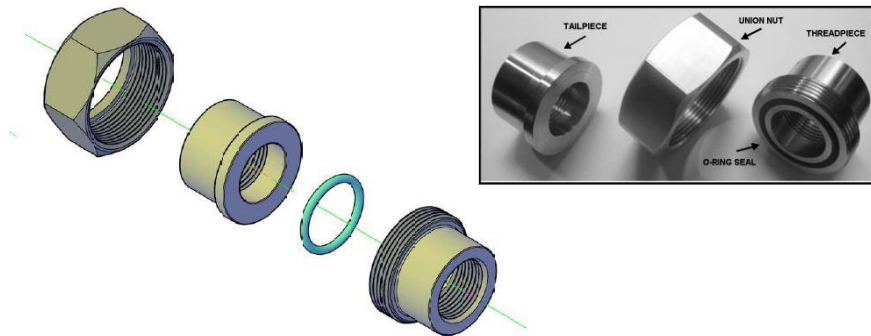
E-MAIL: [info@hartindustries.com](mailto:info@hartindustries.com)



## Installation Guidelines HART Sure Seal O-Ring Unions

**HART Sure-Seal O-Ring Pipe Union consists of:**

- 1) Union Tail Piece
- 2) Union Thread Piece (containing O-ring)
- 3) Union Nut (mates with union threadpiece)



The installation procedure for HART Sure Seal O-Ring Unions is similar to the installation procedure for any standard pipe Union, with the following exceptions:

- The thread piece contains an O-ring on the flat face. O-ring surface should be clean and free of surface damage during assembly.
- The union must be properly tightened to insure a leak-proof seal. Turn nut hand tight, and wrench one quarter (1/4) turn maximum. No further maintenance is required.

### Special Instructions for Socket Weld Unions: (Remove O-Ring)

Whenever welding is performed adjacent to the Threadpiece containing the O-Ring seal, careful attention must be taken to avoid destruction of the O-ring by heat and/or arcing of the union surfaces.

### Special Instructions for Dielectric Insulating Unions:

All HART Dielectric Unions contain a insulating polymer composite coating on the entire surface area of the union tailpiece. To avoid damage to the tailpiece coating during assembly, we recommend a padded wrench be utilized to avoid damage to the insulation. The primary insulation barrier is located on the flat face seal of the tailpiece.

## HART O-RING UNIONS MANUFACTURING SPECIFICATIONS

### Material

Stainless Steel \*

Carbon Steel

Low Temperature

### Meets:

ASTM A182 F304 & L  
ASTM A182 F316 & L

ASTM A105

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

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

Table 1

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	2585	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.