



**SURE SEAL O-RING UNIONS**



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**TOP FIGURES**  
 Wall Thickness  
 in inches

## DIMENSIONS AND WEIGHTS OF SEAMLESS AND WELDED PIPE

**BOTTOM FIGURES**  
 Weight Per Foot  
 in pounds

Pipe Size Nominal	DN	O.D.	5	10	40	STD	80	XH	160	XXH
1/8	6	.405	.035 * .138	.049 .187	.068 .245	.068 .245	.095 .315	.095 .315		
1/4	8	.540	.049 * .257	.065 .330	.088 .425	.088 .425	.119 .536	.119 .536		
3/8	10	.675	.049 * .328	.065 .424	.091 .568	.091 .568	.126 .740	.126 .740		
1/2	15	.840	.065 .539	.083 .672	.109 .852	.109 .852	.147 1.089	.147 1.089	.188 1.310	.294 1.716
3/4	20	1.050	.065 .684	.083 .858	.113 1.132	.113 1.132	.154 1.475	.154 1.475	.219 1.945	.308 2.443
1	25	1.315	.065 .869	.109 1.405	.133 1.681	.133 1.681	.179 2.174	.179 2.174	.250 2.846	.358 3.662
1-1/4	32	1.660	.065 1.108	.109 1.807	.140 2.275	.140 2.275	.191 2.999	.191 2.999	.250 3.764	.382 5.219
1-1/2	40	1.900	.065 1.275	.109 2.087	.145 2.720	.145 2.720	.200 3.635	.200 3.635	.281 4.863	.400 6.414
2	50	2.375	.065 1.605	.109 2.640	.154 3.656	.154 3.656	.218 5.027	.218 5.027	.344 7.469	.436 9.037
2-1/2	65	2.875	.083 2.477	.120 3.534	.203 5.798	.203 5.798	.276 7.668	.276 7.668	.375 10.020	.552 13.710
3	80	3.500	.083 3.032	.120 4.336	.216 7.538	.216 7.583	.300 10.260	.300 10.260	.438 14.340	.600 18.600
3-1/2	90	4.000	.083 3.475	.120 4.977	.226 9.118	.226 9.118	.318 12.520	.318 12.520		.636 22.870
4	100	4.500	.083 3.919	.120 5.619	.237 10.800	.237 10.800	.337 15.000	.337 15.000	.531 22.530	.674 27.570
4-1/2	-	5.000				.247 12.550		.355 17.630		.710 32.560
5	125	5.563	.109 6.355	.134 7.777	.258 14.630	.258 14.630	.375 20.800	.375 20.800	.625 32.990	.750 38.590
6	150	6.625	.109 7.593	.134 9.298	.280 18.990	.280 18.990	.432 28.600	.432 28.600	.719 45.390	.864 53.210

Source: ASME B36.10M-2018. (\*) denotes Sch 5S from ASME B36.19M-2015. All dimensions are in inches unless otherwise noted.

### HART O-RING UNIONS - MANUFACTURING SPECIFICATIONS

**Stainless Steel** ASTM A182F304 & L  
 ASTM A182F316 & L  
**Carbon Steel** ASTM A105, A105N, and 12L14  
**Low Temperature** ASTM A350-LF2  
**Dimensions** MSS SP-83  
**Quality** MSS SP-83  
**Surface Finish** MSS SP-83  
**Testing** MSS SP-83

**Butt Weld Ends** ASME B16.9  
**Socket Weld Wall Dimensions** ASME B36.10M  
**Pipe Threads** ASME B1.20.1  
**Unified Screw Threads (Nut Threads)** ASME B1.1  
**Socket Weld Ends** ASME B16.11

**Union Identification** HART 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 & wrench one quarter (1/4) turn max. No further maintenance is required.



# HART

## SURE SEAL O-RING UNIONS



Scan here for more info and expert application support on HART Unions!

## HOW TO ORDER

The chart below contains the necessary information to place an order. Use the appropriate code that corresponds to your application. When a size reduction or change in material is needed, simply use a slash ("/") between the sizes or materials. Please reference the two examples below which include descriptions of the unions and their corresponding HART Part Numbers.

OPTIONS (PREFIX)		DESCRIPTION	TAIL PIECE	THREAD PIECE	SIZE	O-RING	MATERIAL	
O	ORIFICE: Flat Orifice Plate with Double O-Ring Seal	Female NPT (FNPT) Class 3000 Pipe	31	31	0 (1/8")	<b>STANDARD O-RINGS</b> V Viton® Fluorocarbon A (FKM-A) E Ethylene Propylene (EPDM) ES High-Temp Steam EPDM [up to 550°F max] (EPDM E0962) T Teflon® Tetrafluoroethylene (PTFE) B Buna-N / Nitrile (NBR) <b>SPECIALTY O-RINGS / SEALS</b> N Neoprene® Polychloroprene (CR) K Kalrez® 4079 Perfluoroelastomer (FFKM) N Hydrogenated Nitrile (HNBR) EP NSF-61 Approved Ethylene Propylene (EPDM) G Metallic Spiral Wound Graphite Seal I No O-Ring / Integral Seat ("Ball and Cone") <small>Viton®, Teflon®, Neoprene®, and Kalrez® are registered trademarks of their respective owners.</small>	A	Aluminum 6061
		Male NPT (MNPT) Class 3000 Pipe	32	32	1 (1/4")		B	Brass 360 or 464
D	DIELECTRIC (Insulating): Dielectric Coating applied to union tailpiece	Socket Weld (SW) Class 3000 Pipe	33	33	2 (3/8")		CS	A105/A350-LF2, A105 Normalized, and 12L14 CS
		Socket Weld (TUBE) Class 3000 Tube	34	34	3 (1/2")		304L	A182F304/304L Stainless Steel
H	HAMMER NUT: 3-Lug Hammer Blow / Lug Nut Option	Butt Weld (BW) Class 3000 Pipe	35	35	4 (3/4")		316L	A182F316/316L Stainless Steel
		Copper Sweat (SWEAT) Class 3000 Tube	36	36	5 (1")		73	70/30 Copper Nickel
		Female NPT (FNPT) Class 6000 Pipe	61	61	6 (1-1/4")		91	90/10 Copper Nickel
		Male NPT (MNPT) Class 6000 Pipe	62	62	7 (1-1/2")		H	Hastelloy C276
		Socket Weld (SW) Class 6000 Pipe	63	63	8 (2")		I	Inconel 600
		Socket Weld (TUBE) Class 6000 Tube	64	64	9 (2-1/2")		M	Monel 400
Butt Weld (BW) Class 6000 Pipe	65	65	10 (3")	T	Titanium T-2			
		Female NPT (FNPT) Class 6000 Pipe	61	61	11 (3-1/2")		A20	Alloy 20 (Carpenter Steel C20)
		Male NPT (MNPT) Class 6000 Pipe	62	62	12 (4")			
		Socket Weld (SW) Class 6000 Pipe	63	63				
		Socket Weld (TUBE) Class 6000 Tube	64	64				
		Butt Weld (BW) Class 6000 Pipe	65	65				

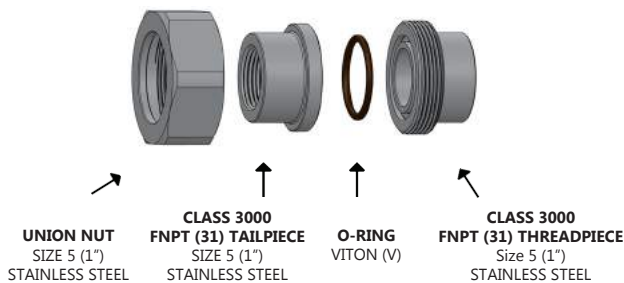
SUFFIX (ADDITIONAL INFO)	CUSTOM OPTIONS AVAILABLE
<b>Male NPT (MNPT), Socket Weld (SW), and Butt Weld (BW):</b> Place desired Wall Thickness in parentheses. Note: S40 Standard for Class 3000 and S80 Standard for Class 6000 unless otherwise specified. <b>Examples:</b> 6262-5-V-304(S160) 3335-7-E-CS(S80)	<b>BSPT-F</b> BSPT (British Standard Pipe Taper) - Female, Rc <b>BSPT-M</b> BSPT (British Standard Pipe Taper) - Male, R <b>BW TUBE</b> Butt Weld with Tube O.D. <b>MALE PIPE END</b> Male Pipe End (unthreaded) for socket welding <b>ACME Nut</b> ACME Thread Nut for specialty applications
<b>Orifice Unions:</b> Place desired drilled orifice bore in parentheses. For blank plate, omit the bore or note "(blank)". <b>Examples:</b> O-3131-5-V-304(0.250") O-3333-4-B-316(blank)	

### Example 1:

Class 3000, 1" Female NPT x 1" Female NPT, Viton O-Ring, Stainless Steel 316 connections.

**3131 - 5 - V - 316**  
 Tail / Thread Size O-Ring Material

#### Detailed Breakdown:



### Example 2:

Dielectric, Class 3000, 1" Male NPT x 3/4" Copper Sweat, EPDM O-Ring, Stainless Steel 304L Tailpiece with dielectric coating, Lead-free Brass 464 Threadpiece.

**D - 3236 - 5/4 - E - 304L/B464**  
 Option Tail / Thread Size O-Ring Tail Material / Thread Material (Prefix)

#### Detailed Breakdown:

