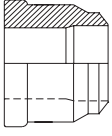

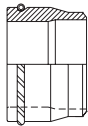
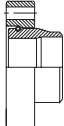
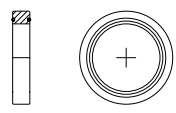
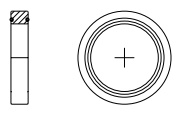
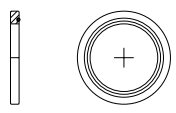

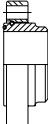

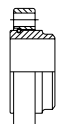




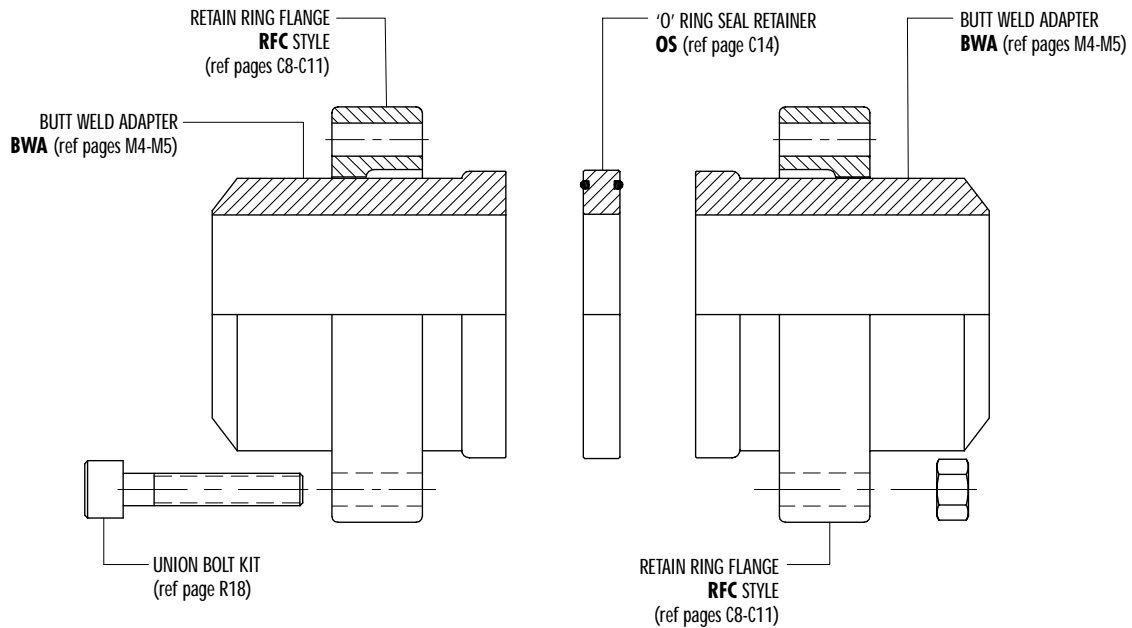
Weld Adapters - Visual Index

<p>BUTT WELD ADAPTER</p>	<p>BWA-O.DXWALL SEVERE APPLICATIONS</p>  <p>$\frac{1}{2}$" - 8" Page M4-M5</p>	<p>A/BWA ASSEMBLY</p>  <p>$\frac{1}{2}$" - 8" Page M10-M11</p>		
<p>BUTT WELD ADAPTER RETAIN RING STYLE</p>	<p>BWAR-O.DXWALL RETAIN RING STYLE</p>  <p>$\frac{1}{2}$" - 8" Page M8-M9</p>	<p>A/BWAR ASSEMBLY</p>  <p>$\frac{1}{2}$" - 8" Page M10-M11</p>		
<p>'O' RING SEAL RETAINERS</p>	<p>OS</p>  <p>$\frac{1}{2}$" - 4" Page M12</p>	<p>OSA</p>  <p>5" - 8" Page M12</p>	<p>OSH</p>  <p>$\frac{1}{2}$" - 4" Page M13</p>	
<p>LOW PRESSURE BUTT WELD RETAIN RING FLANGE STYLE</p>	<p>LBWAO 'O' RING FACE BODY ONLY</p>  <p>$2\frac{1}{2}$" - 8" Page M14</p>	<p>A/LBWAO 'O' RING FACE ASSEMBLY</p>  <p>$2\frac{1}{2}$" - 8" Page M15</p>	<p>LBWAF FLAT FACE BODY ONLY</p>  <p>$2\frac{1}{2}$" - 8" Page M16</p>	<p>A/LBWAF FLAT FACE ASSEMBLY</p>  <p>$2\frac{1}{2}$" - 8" Page M17</p>

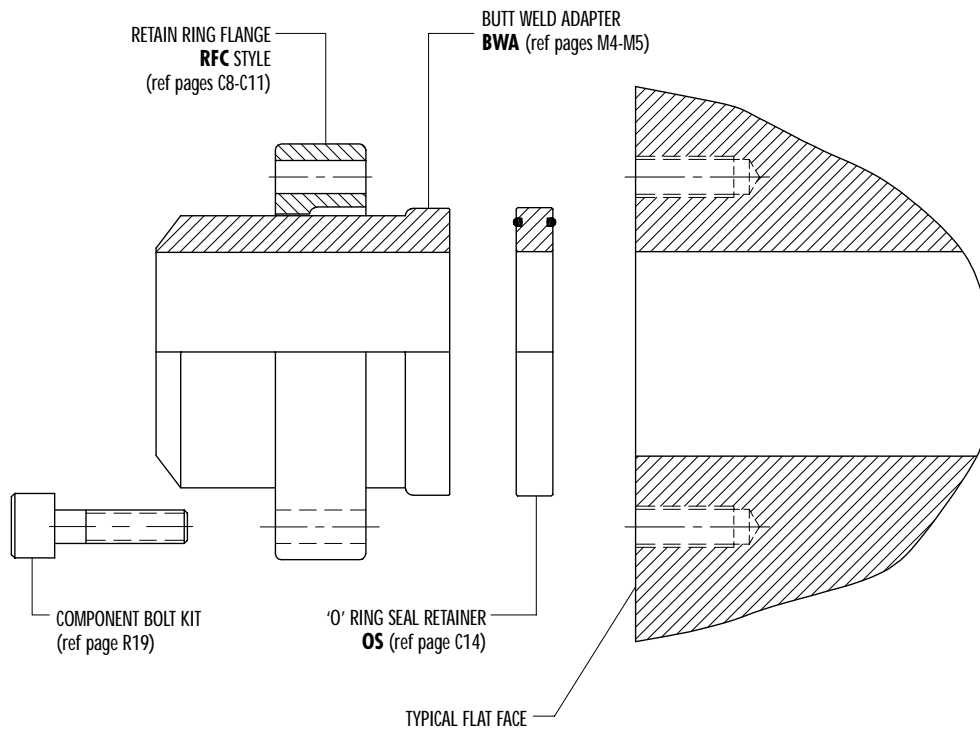


Butt Weld Adapter Connections

Typical Butt Weld Adapter Union Connection



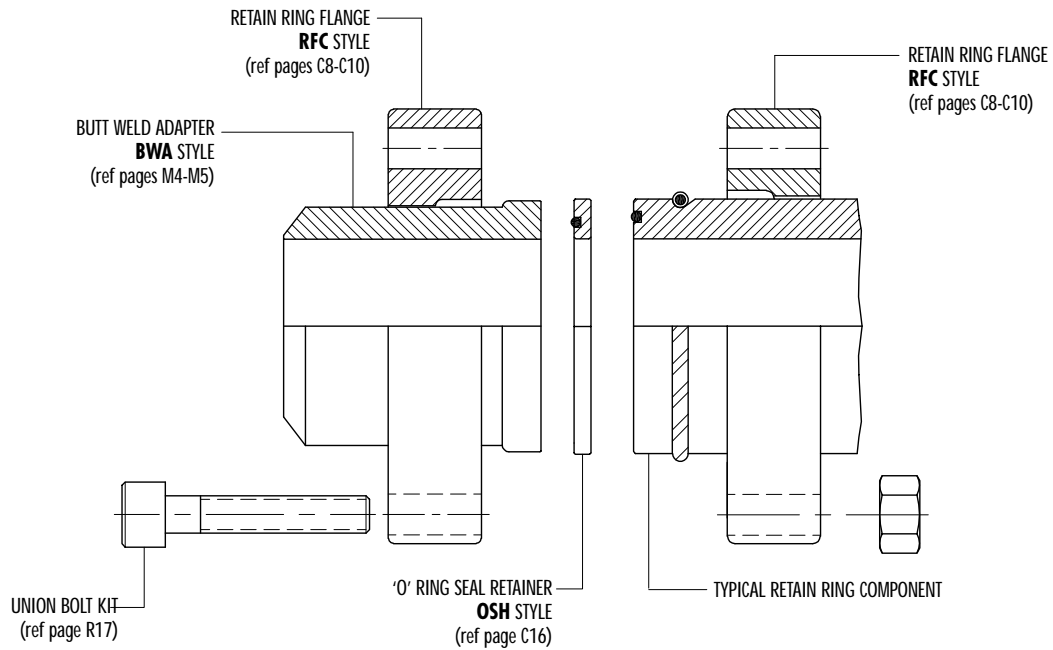
Typical Butt Weld Adapter to Flat Face Connection



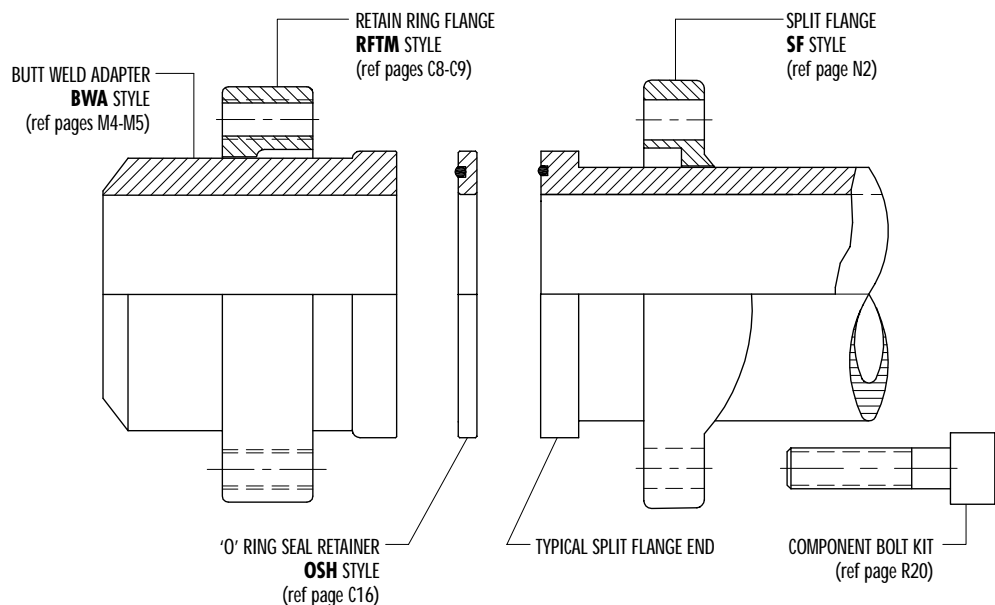


Butt Weld Adapter Connections

Typical Butt Weld Adapter to 'O' Ring Face Retain Ring Component Connection

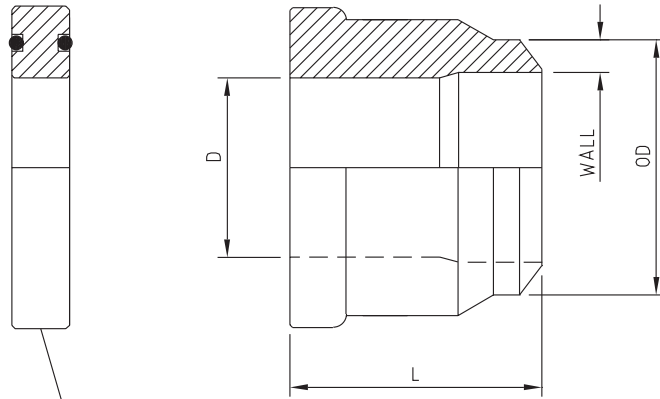


Typical Butt Weld Adapter to SAE Split Flange Connection



Tube-Mac® Butt Weld Adapter Body - Metric

Severe Applications



O-RING SEAL RETAINER
IS SOLD SEPARATELY.

'O' RING SEAL RETAINER
OS STYLE
(ref page C14)

BWA-O.D. x wall Butt Weld Adapter Body - 1/2"-8"

Material: Carbon Steel, (Stainless Steel - 316, Duplex and Super Duplex available)

The pipe O.D. x wall must match the adapter O.D. x wall.

Size (inch)	Adapter Part No.	Dimensions (mm)		OD x Wall (mm)	WT. kgs./pc	Working Pressure (bar)
		D	L			
1/2"	BWA-12.0 x 1.5-050	14.0	38.1	12.0 x 1.5	0.11	Note 1.
1/2"	BWA-16.0 x 2.0-050	14.0	38.1	16.0 x 2.0	0.11	
1/2"	BWA-18.0 x 2.0-050	14.0	38.1	18.0 x 2.0	0.11	
1/2"	BWA-20.0 x 2.5-050	14.0	38.1	20.0 x 2.5	0.11	
1/2"	BWA-20.0 x 3.0-050	14.0	38.1	20.0 x 3.0	0.11	
1/2"	BWA-21.3 x 2.8-050	14.0	38.1	21.3 x 2.1	0.11	
1/2"	BWA-21.3 x 3.7-050	14.0	38.1	21.3 x 3.7	0.11	
1/2"	BWA-21.3 x 4.8-050	14.0	38.1	21.3 x 4.8	0.11	
1/2"	BWA-21.3 x 7.5-050	14.0	38.1	21.3 x 7.5	0.11	
1/2"	BWA-26.0 x 6.0-050	14.0	38.1	26.0 x 6.0	0.11	
3/4"	BWA-20.0 x 2.5-075	20.1	44.5	20.0 x 2.5	0.20	
3/4"	BWA-25.0 x 3.0-075	20.1	44.5	25.0 x 3.0	0.20	
3/4"	BWA-26.7 x 2.8-075	20.1	44.5	26.7 x 2.8	0.20	
3/4"	BWA-26.7 x 3.9-075	20.1	44.5	26.7 x 3.9	0.20	
3/4"	BWA-26.7 x 5.6-075	20.1	44.5	26.7 x 5.6	0.20	
3/4"	BWA-26.7 x 7.8-075	20.1	44.5	26.7 x 7.8	0.20	
3/4"	BWA-30.0 x 4.0-075	20.1	44.5	30.0 x 4.0	0.20	
3/4"	BWA-36.0 x 8.0-075	20.1	44.5	36.0 x 8.0	0.20	
1"	BWA-25.0 x 3.0-100	23.1	44.5	25.0 x 3.0	0.21	
1"	BWA-30.0 x 4.0-100	23.1	44.5	30.0 x 4.0	0.21	
1"	BWA-33.4 x 3.4-100	23.1	44.5	33.4 x 3.4	0.21	
1"	BWA-33.4 x 4.6-100	23.1	44.5	33.4 x 4.6	0.21	

To be used with 'O' Ring Seal
Retainer Ref. pages M14-M15



Tube-Mac® Butt Weld Adapter Body - Metric

Severe Applications

Size (inch)	Adapter Part No.	Dimensions (mm)		OD x Wall (mm)	WT. kgs./pc	Working Pressure (bar)
		D	L			
1"	BWA-33.4 x 6.4-100	23.1	44.5	33.4 x 6.4	0.21	Note 1.
1"	BWA-33.4 x 9.1-100	23.1	44.5	33.4 x 9.1	0.21	
1"	BWA-38.0 x 5.0-100	23.1	44.5	38.0 x 5.0	0.21	
1"	BWA-39.0 x 7.5-100	23.1	44.5	39.0 x 7.5	0.21	
1 1/4"	BWA-30.0 x 4.0-125	30.0	50.8	30.0 x 4.0	0.34	
1 1/4"	BWA-38.0 x 4.0-125	30.0	50.8	38.0 x 4.0	0.34	
1 1/4"	BWA-42.2 x 3.6-125	30.0	50.8	42.2 x 3.6	0.34	
1 1/4"	BWA-42.2 x 4.9-125	30.0	50.8	42.2 x 4.9	0.34	
1 1/4"	BWA-42.2 x 6.4-125	30.0	50.8	42.2 x 6.4	0.34	
1 1/4"	BWA-42.2 x 9.7-125	30.0	50.8	42.2 x 9.7	0.34	
1 1/4"	BWA-46.0 x 8.5-125	30.0	50.8	46.0 x 8.5	0.34	
1 1/2"	BWA-38.0 x 5.0-150	39.1	57.2	38.0 x 5.0	0.44	
1 1/2"	BWA-48.3 x 3.7-150	39.1	57.2	48.3 x 3.7	0.44	
1 1/2"	BWA-48.3 x 5.1-150	39.1	57.2	48.3 x 5.1	0.44	
1 1/2"	BWA-48.3 x 7.1-150	39.1	57.2	48.3 x 7.1	0.44	
1 1/2"	BWA-48.3 x 10.2-150	39.1	57.2	48.3 x 10.2	0.44	
1 1/2"	BWA-50.0 x 5.0-150	39.1	57.2	50.0 x 5.0	0.44	
1 1/2"	BWA-56.0 x 8.5-150	39.1	57.2	56.0 x 8.5	0.44	
2"	BWA-60.0 x 5.0-200	49.0	63.5	60.0 x 5.0	0.55	
2"	BWA-60.0 x 8.0-200	49.0	63.5	60.0 x 8.0	0.55	
2"	BWA-60.3 x 3.9-200	49.0	63.5	60.3 x 3.9	0.55	
2"	BWA-60.3 x 5.5-200	49.0	63.5	60.3 x 5.5	0.55	
2"	BWA-60.3 x 8.7-200	49.0	63.5	60.3 x 8.7	0.55	
2"	BWA-60.3x 11.1-200	49.0	63.5	60.3 x 11.1	0.55	
2"	BWA-66.0 x 8.5-200	49.0	63.5	66.0 x 8.5	0.55	
2 1/2"	BWA-65.0 x 8.0-250	59.9	63.5	65.0 x 8.0	0.77	
2 1/2"	BWA-73.0 x 7.0-250	59.9	63.5	73.0 x 7.0	0.77	
2 1/2"	BWA-76.1 x 6.3-250	59.9	63.5	76.1 x 6.3	0.77	
2 1/2"	BWA-76.1 x 12.5-250	59.9	63.5	76.1 x 12.5	0.77	
2 1/2"	BWA-80.0 x 10.0-250	59.9	63.5	80.0 x 10.0	0.77	
3"	BWA-80.0 x 10.0-300	73.2	69.9	80.0 x 10.0	1.36	
3"	BWA-88.9 x 5.5-300	73.2	69.9	88.9 x 5.5	1.36	
3"	BWA-88.9 x 7.7-300	73.2	69.9	88.9 x 7.7	1.36	
3"	BWA-88.9 x 11.1-300	73.2	69.9	88.9 x 11.1	1.36	
3"	BWA-88.9 x 15.2-300	73.2	69.9	88.9 x 15.2	1.36	
3"	BWA-97.0 x 12.0-300	73.2	69.9	97.0 x 12.0	1.36	
4"	BWA-115.0 x 15.5-400	85.1	101.6	115.0 x 15.5	2.64	
5"	BWAA-141.3 x 19.0-500	103.1	152.5	141.3 X 19.0	8.8	
6"	BWAA-168.3 X 22.0-600	124.5	152.5	168.3 X 22.0	11.8	
8"	BWAA-219.0 x 22.2-800	172.9	152.5	219.0 X 22.2	16.7	

To be used with 'O' Ring Seal Retainer Ref. pages M14-M15

Note 1.

Note 1. WORKING PRESSURE RATING IS DEPENDANT ON THE PIPE THAT THE ADAPTER IS WELDED TO

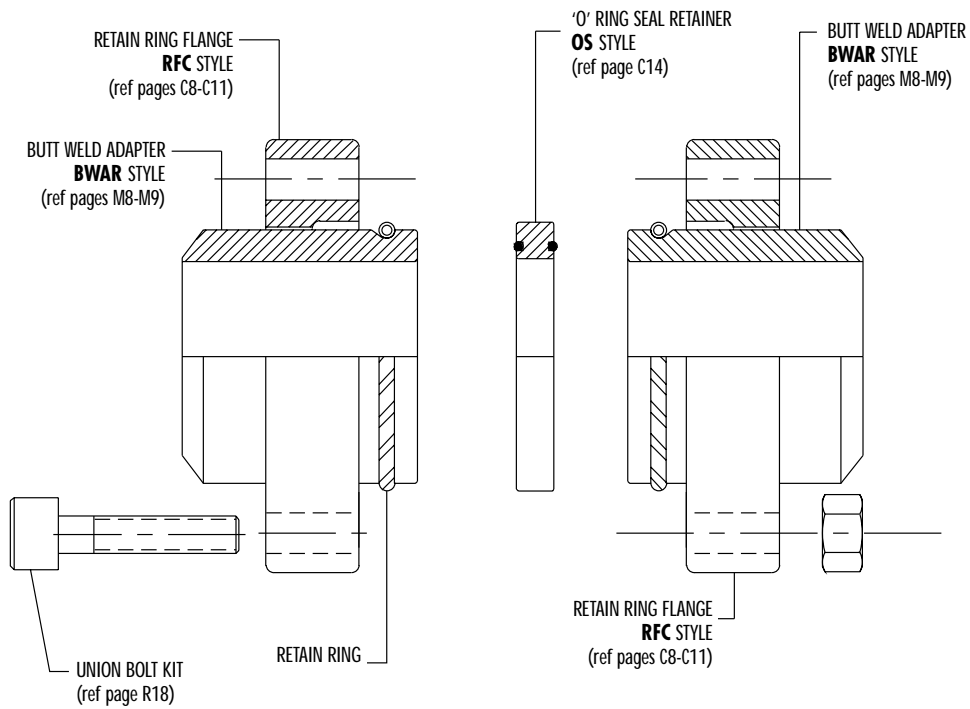
- TO ORDER COMPLETE ASSEMBLY REFERENCE PAGE M11
- JUMP SIZES ARE AVAILABLE
- LARGER SIZES AVAILABLE CONSULT FACTORY

MATERIAL: CARBON STEEL, (STAINLESS STEEL STANDARD-316 AVAILABLE) OTHER MATERIALS ARE AVAILABLE

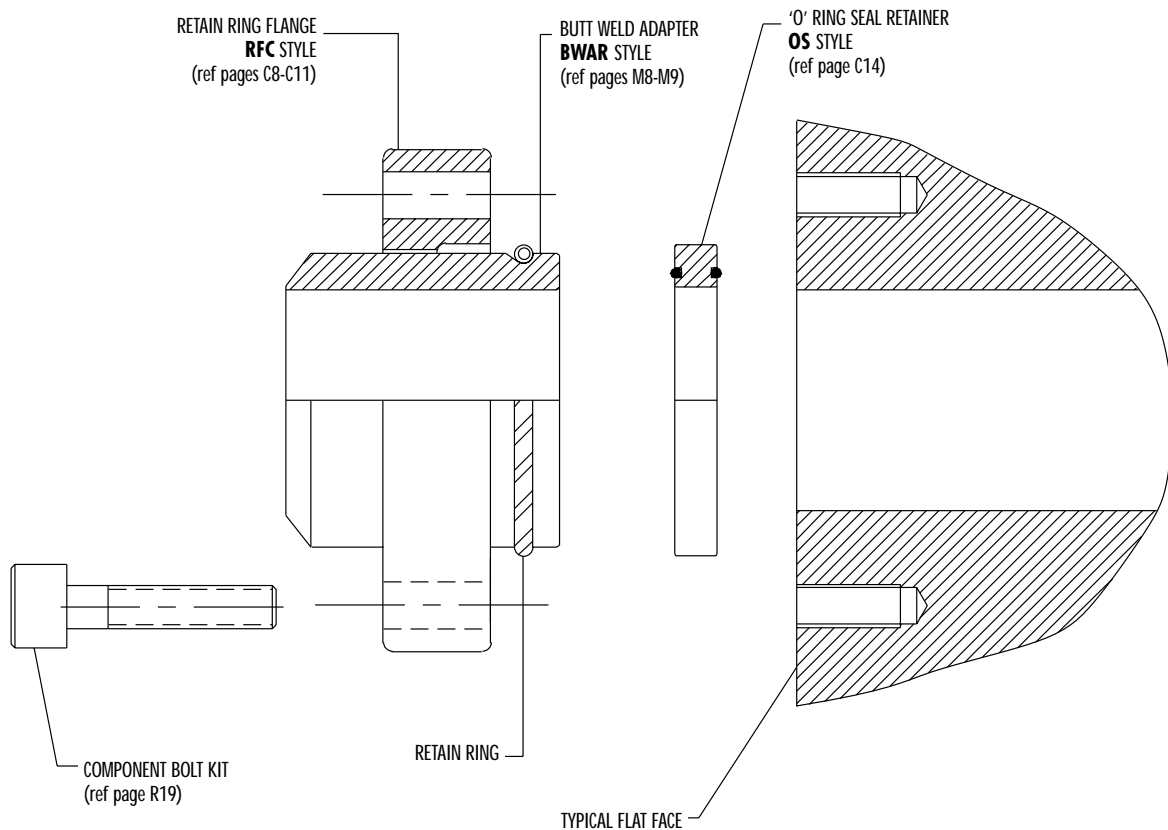


Butt Weld Adapter Retain Ring Style Connections

Typical Butt Weld Adapter Union Connection



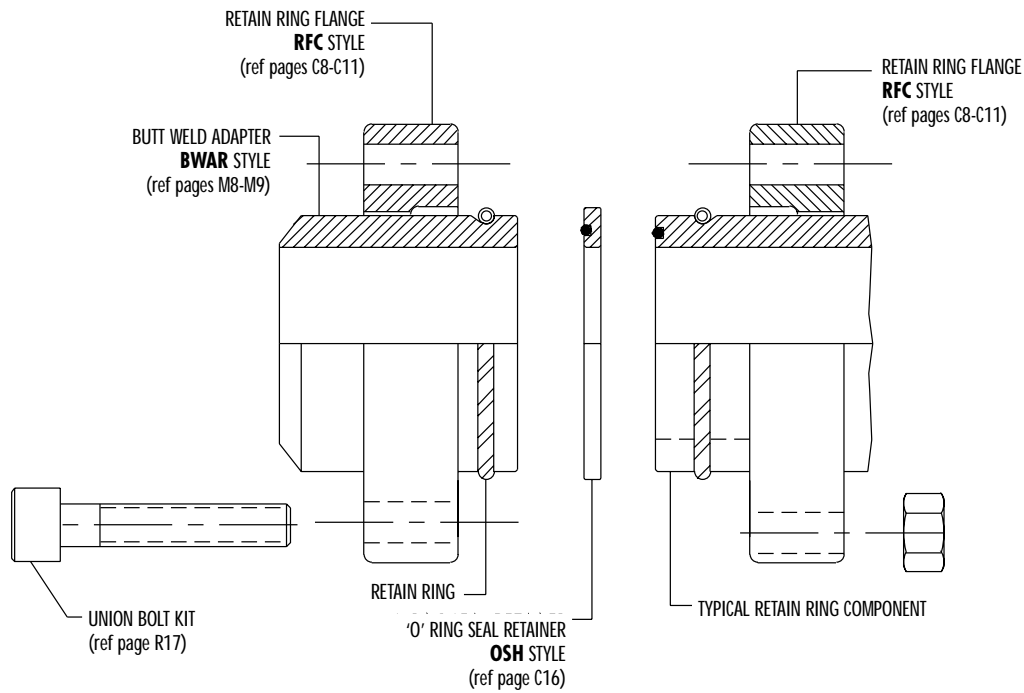
Typical Butt Weld Adapter to Flat Face Connection



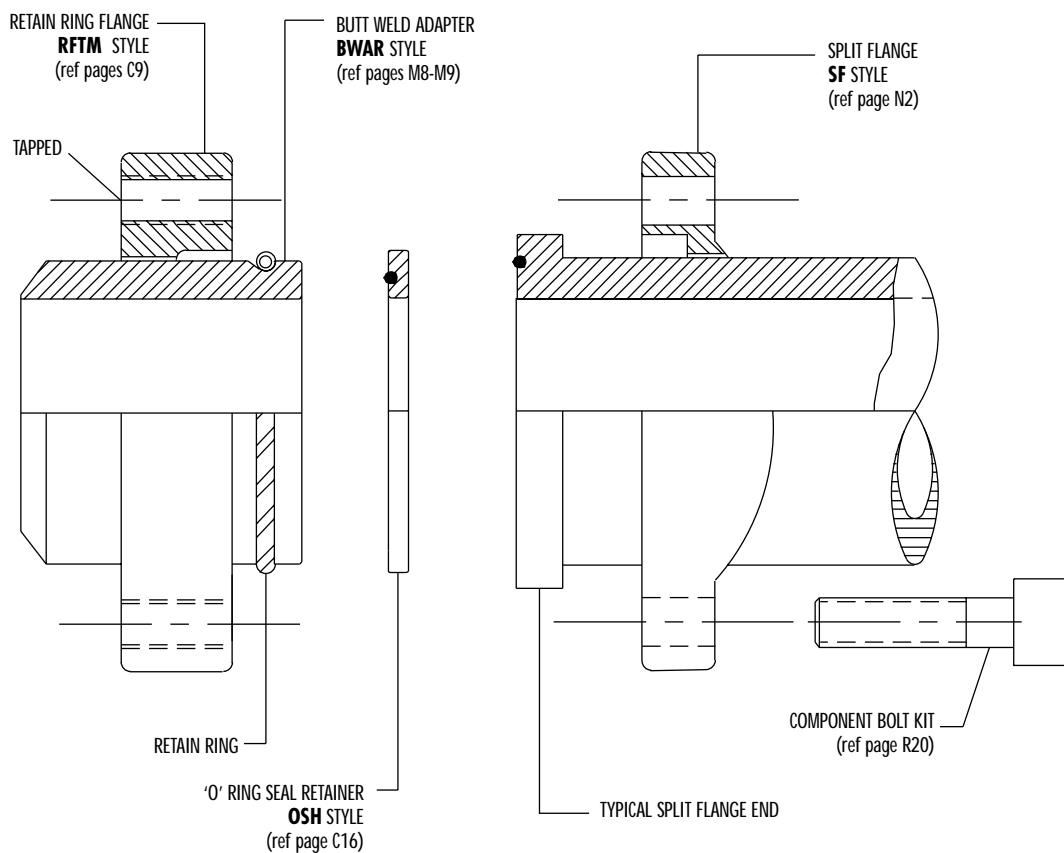


Butt Weld Adapter Retain Ring Style Connections

Typical Butt Weld Adapter to 'O' Ring Face Retain Ring Component Connection

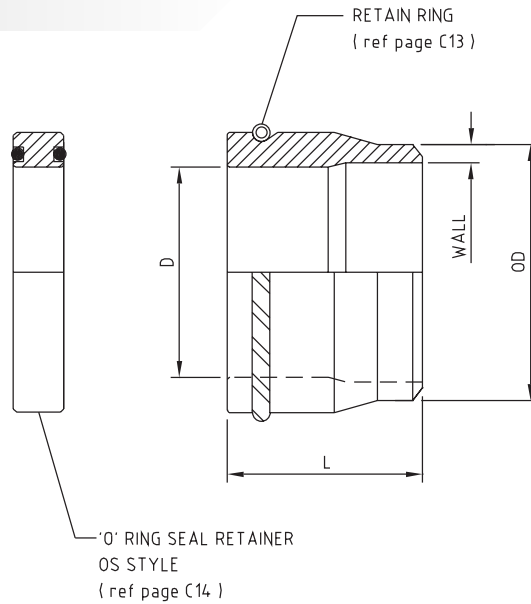


Typical Butt Weld Adapter to SAE Split Flange Connection



Tube-Mac® Butt Weld Adapter Body - Metric

Retain Ring Style



O-RING SEAL RETAINER AND
RETAIN RING ARE SOLD SEPARATELY.

O-RING SEAL RETAINER
OS STYLE
(ref page C14)

BWAR-O.D. x wall Butt Weld Adapter Body - 1/2"-8"

Material: Carbon Steel, (Stainless Steel - 316, Duplex and Super Duplex available)

The pipe O.D. x wall must match the adapter O.D. x wall.

Size (inch)	Adapter Part No.	Dimensions (mm)		OD x Wall (mm)	WT. kgs./pc	Working Pressure (bar)
		D	L			
1/2"	BWAR-12.0 x 1.5-050	14.0	38.1	12.0 x 1.5	0.11	Note 1.
1/2"	BWAR-16.0 x 2.0-050	14.0	38.1	16.0 x 2.0	0.11	
1/2"	BWAR-18.0 x 2.0-050	14.0	38.1	18.0 x 2.0	0.11	
1/2"	BWAR-20.0 x 2.5-050	14.0	38.1	20.0 x 2.5	0.11	
1/2"	BWAR-20.0 x 3.0-050	14.0	38.1	20.0 x 3.0	0.11	
1/2"	BWAR-21.3 x 2.8-050	14.0	38.1	21.3 x 2.8	0.11	
1/2"	BWAR-21.3 x 3.7-050	14.0	38.1	21.3 x 3.7	0.11	
1/2"	BWAR-21.3 x 4.8-050	14.0	38.1	21.3 x 4.8	0.11	
1/2"	BWAR-21.3 x 7.5-050	14.0	38.1	21.3 x 7.5	0.11	
1/2"	BWAR-26.0 x 6.0-050	14.0	38.1	26.0 x 6.0	0.11	
3/4"	BWAR-20.0 x 2.5-075	20.1	44.5	20.0 x 2.5	0.20	
3/4"	BWAR-25.0 x 3.0-075	20.1	44.5	25.0 x 3.0	0.20	
3/4"	BWAR-26.7 x 2.8-075	20.1	44.5	26.7 x 2.8	0.20	
3/4"	BWAR-26.7 x 3.9-075	20.1	44.5	26.7 x 3.9	0.20	
3/4"	BWAR-26.7 x 5.6-075	20.1	44.5	26.7 x 5.6	0.20	
3/4"	BWAR-26.7 x 7.8-075	20.1	44.5	26.7 x 7.8	0.20	
3/4"	BWAR-30.0 x 4.0-075	20.1	44.5	30.0 x 4.0	0.20	
3/4"	BWAR-36.0 x 8.0-075	20.1	44.5	36.0 x 8.0	0.20	
1"	BWAR-25.0 x 3.0-100	23.1	44.5	25.0 x 3.0	0.21	
1"	BWAR-30.0 x 4.0-100	23.1	44.5	30.0 x 4.0	0.21	
1"	BWAR-33.4 x 3.4-100	23.1	44.5	33.4 x 3.4	0.21	
1"	BWAR-33.4 x 4.6-100	23.1	44.5	33.4 x 4.6	0.21	

To be used with 'O' Ring Seal
Retainer Ref. pages M14-M15



Tube-Mac® Butt Weld Adapter Body - Metric

Retain Ring Style

Size (inch)	Adapter Part No.	Dimensions (mm)		OD x Wall (mm)	WT. kgs./pc	Working Pressure (bar)
		D	L			
1"	BWAR-33.4 x 6.4-100	23.1	44.5	33.4 x 6.4	0.21	Note 1.
1"	BWAR-33.4 x 9.1-100	23.1	44.5	33.4 x 9.1	0.21	
1"	BWAR-38.0 x 5.0-100	23.1	44.5	38.0 x 5.0	0.21	
1"	BWAR-39.0 x 7.5-100	23.1	44.5	39.0 x 7.5	0.21	
1 1/4"	BWAR-30.0 x 4.0-125	30.0	50.8	30.0 x 4.0	0.34	
1 1/4"	BWAR-38.0 x 4.0-125	30.0	50.8	38.0 x 4.0	0.34	
1 1/4"	BWAR-42.2 x 3.6-125	30.0	50.8	42.2 x 3.6	0.34	
1 1/4"	BWAR-42.2 x 4.9-125	30.0	50.8	42.2 x 4.9	0.34	
1 1/4"	BWAR-42.2 x 6.4-125	30.0	50.8	42.2 x 6.4	0.34	
1 1/4"	BWAR-42.2 x 9.7-125	30.0	50.8	42.2 x 9.7	0.34	
1 1/4"	BWAR-46.0 x 8.5-125	30.0	50.8	46.0 x 8.5	0.34	
1 1/2"	BWAR-38.0 x 5.0-150	39.1	57.2	38.0 x 5.0	0.44	
1 1/2"	BWAR-48.3 x 3.7-150	39.1	57.2	48.3 x 3.7	0.44	
1 1/2"	BWAR-48.3 x 5.1-150	39.1	57.2	48.3 x 5.1	0.44	
1 1/2"	BWAR-48.3 x 7.1-150	39.1	57.2	48.3 x 7.1	0.44	
1 1/2"	BWAR-48.3 x 10.2-150	39.1	57.2	48.3 x 10.2	0.44	
1 1/2"	BWAR-50.0 x 5.0-150	39.1	57.2	50.0 x 5.0	0.44	
1 1/2"	BWAR-56.0 x 8.5-150	39.1	57.2	56.0 x 8.5	0.44	
2"	BWAR-60.0 x 5.0-200	49.0	63.5	60.0 x 5.0	0.55	
2"	BWAR-60.0 x 8.0-200	49.0	63.5	60.0 x 8.0	0.55	
2"	BWAR-60.3 x 3.9-200	49.0	63.5	60.3 x 3.9	0.55	
2"	BWAR-60.3 x 5.5-200	49.0	63.5	60.3 x 5.5	0.55	
2"	BWAR-60.3 x 8.7-200	49.0	63.5	60.3 x 8.7	0.55	
2"	BWAR-60.3 x 11.1-200	49.0	63.5	60.3 x 11.1	0.55	
2"	BWAR-66.0 x 8.5-200	49.0	63.5	66.0 x 8.5	0.55	
2 1/2"	BWAR-65.0 x 8.0-250	59.9	63.5	65.0 x 8.0	0.77	
2 1/2"	BWAR-73.0 x 7.0-250	59.9	63.5	73.0 x 7.0	0.77	
2 1/2"	BWAR-76.1 x 6.3-250	59.9	63.5	76.1 x 6.3	0.77	
2 1/2"	BWAR-76.1 x 12.5-250	59.9	63.5	76.1 x 12.5	0.77	
2 1/2"	BWAR-80.0 x 10.0-250	59.9	63.5	80.0 x 10.0	0.77	
3"	BWAR-80.0 x 10.0-300	73.2	69.9	80.0 x 10.0	1.36	
3"	BWAR-88.9 x 5.5-300	73.2	69.9	88.9 x 5.5	1.36	
3"	BWAR-88.9 x 7.7-300	73.2	69.9	88.9 x 7.7	1.36	
3"	BWAR-88.9 x 11.1-300	73.2	69.9	88.9 x 11.1	1.36	
3"	BWAR-88.9 x 15.2-300	73.2	69.9	88.9 x 15.2	1.36	
3"	BWAR-97.0 x 12.0-300	73.2	69.9	97.0 x 12.0	1.36	
4"	BWAR-115.0 x 15.5-400	85.1	101.6	115.0 x 15.5	2.64	
5"	BWAAR-141.3 x 19.0-500	103.1	152.5	141.3 X 19.0	8.8	
6"	BWAAR-168.3 X 22.0-600	124.5	152.5	168.3 X 22.0	11.8	
8"	BWAAR-219.0 x 22.2-800	172.9	152.5	219.0 X 22.2	16.7	

To be used with 'O' Ring Seal Retainer Ref. pages M14-M15

Note 1.

Note 1. WORKING PRESSURE RATING IS DEPENDANT ON THE PIPE THAT THE ADAPTER IS WELDED TO

- TO ORDER COMPLETE ASSEMBLY REFERENCE PAGES M11
- JUMP SIZES ARE AVAILABLE
- LARGER SIZES AVAILABLE CONSULT FACTORY

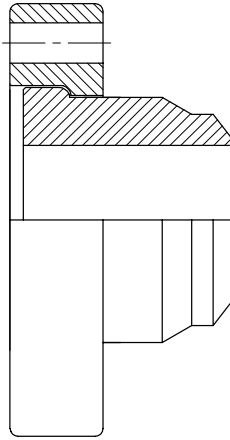
MATERIAL: CARBON STEEL, (STAINLESS STEEL STANDARD-316 AVAILABLE) OTHER MATERIALS ARE AVAILABLE



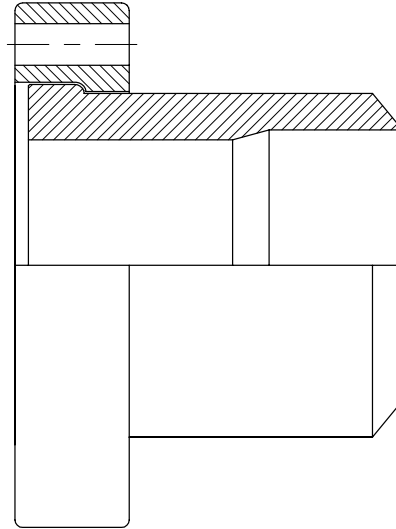
Butt Weld Adapter Assembly

1/2"-8" Pipe Connection

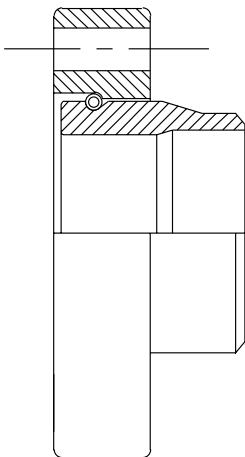
Typical A/BWA Assembly - 1/2"-4"



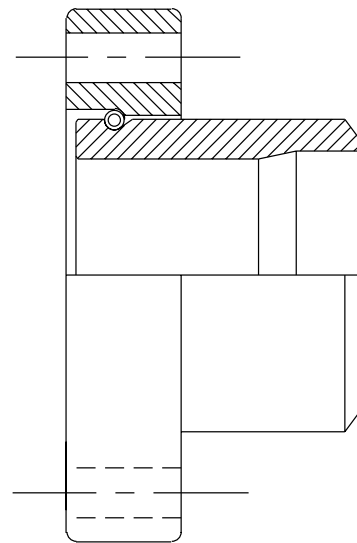
Typical A/BWAA Assembly - 5"-8"



Typical A/BWAR Assembly - 1/2"-4"



Typical A/BWAAR Assembly - 5"-8"



COMPLETE ASSEMBLY CONSISTS OF:

- ONE (1) BUTT WELD ADAPTER BODY (REF. PAGES M4-M5 OR M8-M9)
- ONE (1) RETAIN RING FLANGE (REF. PAGES C8-C11)
- ONE (1) RETAIN RING (REF. PAGE C13) SUPPLIED WITH A/BWAR AND A/BWAAR ASSEMBLIES ONLY

TO BE ORDERED SEPARATELY:

- 'O' RING SEAL RETAINER (REF. PAGES M12-M13)



Butt Weld Adapter Assembly

Complete Assembly Part Number

Code		A	/	Body	-	Body Material	-	OD X Wall	-	Adapter Size	-	Flange	-	Option
Assembly		A												
Butt Weld Adapter Body	1/2"-4"	BWA												
	1/2"-4"	BWAR												
	5"-8"	BWAA												
	5"-8"	BWAAR												
Body Material Carbon Steel (Standard)	No Designation Required													
Body Material Stainless Steel (Optional)	TMP304SS	304												
	TMP316SS	316												
Pipe Sizes	See Pages	OD												
	M4-M5 M8-M9	X Wall												
Adapter Size	1/2"	050												
	3/4"	075												
	1"	100												
	1 1/4"	125												
	1 1/2"	150												
	2"	200												
	2 1/2"	250												
	3"	300												
	4"	400												
	5"	500												
Flange Type	RFC34 ISO 6162-1 W/Clearance Holes	FC34												
	*RFTM34 ISO 6162-1 W/Tapped Holes	FTM34												
	RFC64 ISO 6162-2 W/Clearance Holes	FC64												
	*RFTM64 ISO 6162-2 W/Tapped Holes	FTM64												
	RFC74 ISO 6164 W/Clearance Holes	FC74												
	RFAC48 TMI® 8-Bolt W/Clearance Holes	FAC48												
Options	Complete Stainless Steel Assembly: (including flange)	SS												

To be used with 'O' Ring Seal Retainer Ref. pages M12-M13

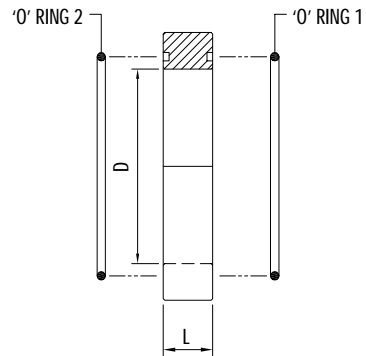
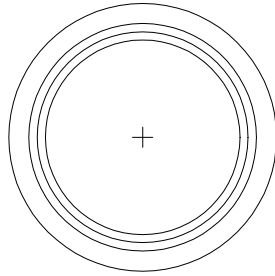
* NORMALLY USED FOR CONNECTION TO SPLIT FLANGE TYPE ENDS
PART NO. (EXAMPLE): A/BWA - 20.0 x 3.0 - 050 - FC34

- ASSEMBLY WORKING PRESSURE RATINGS ARE SUBJECT TO THE LESSER OF THE FLANGE OR BODY RATINGS
- SEE REFERENCE PAGES INDICATED ABOVE FOR PRESSURE RATINGS
- FOR BOLT KIT - REFERENCE SECTION R



'O' Ring Seal Retainer

OS/OSA



OS 'O' Ring Seal Retainer for Retain Ring Pipe - 1/2" - 4"

Complete with Nitrile 'O' Rings (Standard)

OSA 'O' Ring Seal Retainer for Retain Ring Pipe - 5" - 8"

Complete with Nitrile 'O' Rings (Standard)

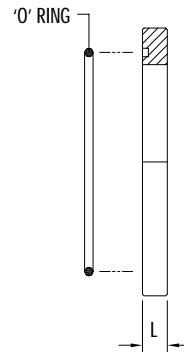
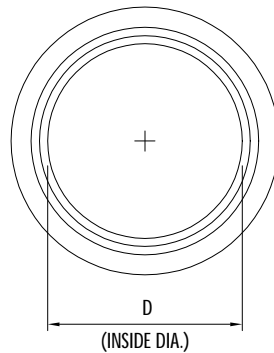
Size (inch)	Retainer Part No.	Dimensions (mm)		'O' Rings 1&2 (Nitrile) Part No.	WT. kgs./pc
		D	L		
1/2"	OS-050-*	14.0	12.7	OR*-3-909	0.04
3/4"	OS-075-*	20.1	12.7	OR*-3-913	0.06
1"	OS-100-*	23.1	12.7	OR*-3-916	0.07
1 1/4"	OS-125-*	30.0	12.7	OR*-3-918	0.09
1 1/2"	OS-150-*	39.1	12.7	OR*-3-924	0.11
2"	OS-200-*	49.0	12.7	OR*-3-928	0.13
2 1/2"	OS-250-*	59.9	25.4	OR*-2-232	0.24
3"	OS-300-*	73.2	25.4	OR*-2-237	0.35
4"	OS-400-*	85.1	25.4	OR*-2-241	0.55
5"	OSA-500-*	103.1	38.1	OR*-2-353	2.60
6"	OSA-600-*	124.5	38.1	OR*-2-359	3.09
8"	OSA-800-*	173.0	38.1	OR*-2-368	4.70

• FOR SIZES 10" OR LARGER CONSULT FACTORY

* INSERT 'V' TO INDICATE OPTIONAL VITON 'O' RINGS



'O' Ring Seal Retainer



OSH 'O' Ring Seal Retainer for Retain Ring Pipe Complete with Nitrile 'O' Ring (Standard)

Size (inch)	Retainer Part No.	Dimensions (mm)		'O' Ring (Nitrile) Part No.	WT. kgs./pc
		D	L		
1/2"	OSH-050-*	14.0	6.4	OR*-3-909	0.02
3/4"	OSH-075-*	20.1	6.4	OR*-3-913	0.03
1"	OSH-100-*	23.1	6.4	OR*-3-916	0.04
1 1/4"	OSH-125-*	30.0	6.4	OR*-3-918	0.04
1 1/2"	OSH-150-*	39.1	6.4	OR*-3-924	0.05
2"	OSH-200-*	49.0	6.4	OR*-3-928	0.07
2 1/2"	OSH-250-*	59.9	12.7	OR*-2-232	0.12
3"	OSH-300-*	73.2	12.7	OR*-2-237	0.18
4"	OSH-400-*	85.1	12.7	OR*-2-241	0.27

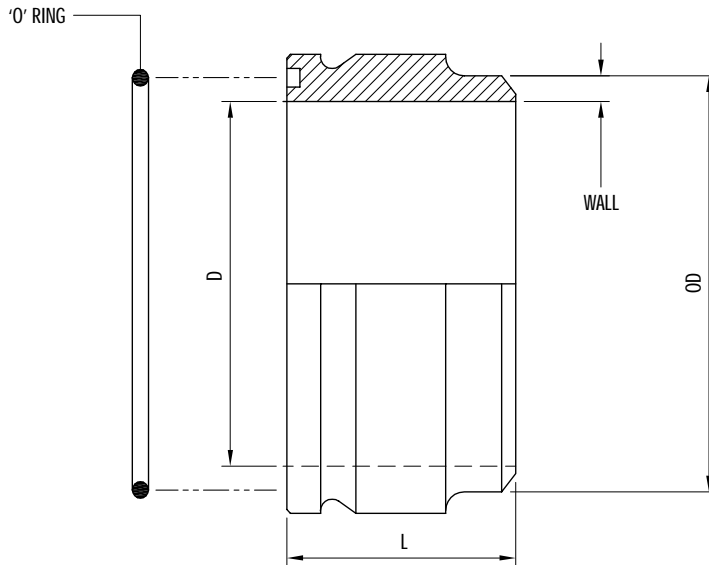
* INSERT ' V ' TO INDICATE OPTIONAL VITON 'O' RING

MATERIAL: CARBON STEEL, YELLOW ZINC DICHROMATE PLATED, (STAINLESS STEEL AVAILABLE)



Low Pressure - Metric Butt Weld Retain Ring Adapter Body

'O' Ring Face



LBWAO Low Pressure Butt Weld Retain Ring Adapter Body - 'O' Ring Face Complete With Nitrile 'O' Ring (Standard)

Size (inch)	Adapter Part No.	Dimensions (mm)		OD x Wall (mm)	'O' Ring (BUNA) Part No.	WT. kgs./pc	Working Pressure (bar)
		D	L				
2 1/2"	LBWAO-250-*	69.7	35.1	73.0 x 5.16	OR*-2-232	0.46	52
3"	LBWAO-300-*	81.7	39.9	88.9 x 5.49	OR*-2-237	0.65	52
4"	LBWAO-400-*	105.3	40.1	114.3 x 6.02	OR*-2-245	0.96	52
5"	LBWAO-500-*	128.5	45.0	141.3 x 6.55	OR*-2-253	1.51	52
6"	LBWAO-600-*	154.1	50.0	168.3 x 7.11	OR*-2-259	2.47	48
8"	LBWAO-800-*	203.1	59.9	219.1 x 8.18	OR*-2-372	4.54	40

* INSERT ' V ' TO INDICATE OPTIONAL VITON 'O' RING

• FOR COMPLETE ASSEMBLY REFERENCE PAGE M15

MATERIAL: CARBON STEEL, (STAINLESS STEEL STANDARD-316 AVAILABLE)

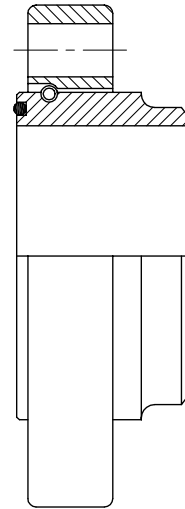
OTHER SIZES AVAILABLE, CONSULT FACTORY



Low Pressure - Metric Butt Weld Retain Ring Adapter Assembly

'O' Ring Face

Typical A/LBWAO Assembly:



COMPLETE ASSEMBLY CONSISTS OF:

- ONE (1) LOW PRESSURE 'O' RING FACE BUTT WELD ADAPTER
- ONE (1) LOW PRESSURE RETAIN RING FLANGE (REF. PAGES D8-D9)
- ONE (1) LOW PRESSURE RETAIN RING (REF. PAGE D14)
- ONE (1) NITRILE 'O' RING (STANDARD)

A/LBWAO Low Pressure Butt Weld Retain Ring Adapter Assembly - 'O' Ring Face Complete With Nitrile 'O' Ring (Standard)

Size (inch)	Assembly Part No.	WT. kgs./pc	Working Pressure (bar)
2 1/2"	A/LBWAO-250-*	1.45	52
3"	A/LBWAO-300-*	2.37	52
4"	A/LBWAO-400-*	3.97	52
5"	A/LBWAO-500-*	5.42	52
6"	A/LBWAO-600-*	6.92	48
8"	A/LBWAO-800-*	13.29	40

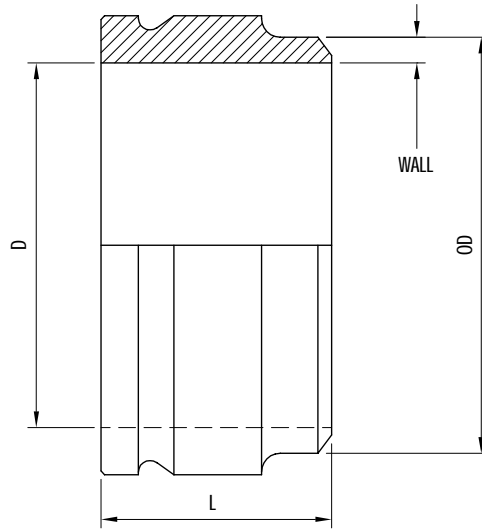
* INSERT ' V ' TO INDICATE OPTIONAL VITON 'O' RING

MATERIAL: CARBON STEEL, (STAINLESS STEEL STANDARD-316 AVAILABLE)

OTHER SIZES AVAILABLE, CONSULT FACTORY

Low Pressure - Metric Butt Weld Retain Ring Adapter Body

Flat Face



LBWAF Low Pressure Butt Weld Retain Ring Adapter Body - Flat Face

Size (inch)	Adapter Part No.	Dimensions (mm)		OD x Wall (mm)	WT. kgs./pc	Working Pressure (bar)
		D	L			
2 1/2"	LBWAF-250	69.7	35.1	73.0 x 5.16	0.49	52
3"	LBWAF-300	81.7	39.9	88.9 x 5.49	0.67	52
4"	LBWAF-400	105.3	40.1	114.3 x 6.02	0.97	52
5"	LBWAF-500	128.5	45.0	141.3 x 6.55	1.53	52
6"	LBWAF-600	154.1	50.0	168.3 x 7.11	2.50	48
8"	LBWAF-800	203.1	59.9	219.1 x 8.18	4.80	40

• FOR COMPLETE ASSEMBLY REFERENCE PAGE M17

MATERIAL: CARBON STEEL, (STAINLESS STEEL STANDARD-316 AVAILABLE)

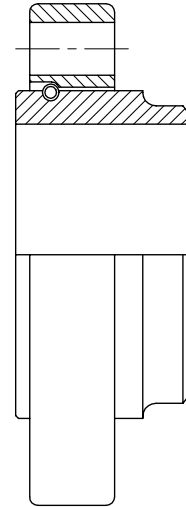
OTHER SIZES AVAILABLE, CONSULT FACTORY



Low Pressure - Metric Butt Weld Retain Ring Adapter Assembly

Flat Face

Typical A/LBWAF Assembly:



COMPLETE ASSEMBLY CONSISTS OF:

- ONE (1) LOW PRESSURE FLAT FACE BUTT WELD ADAPTER
- ONE (1) LOW PRESSURE RETAIN RING FLANGE (REF. PAGES D8-D9)
- ONE (1) LOW PRESSURE RETAIN RING (REF. PAGE D14)

A/LBWAF Low Pressure Butt Weld Retain Ring Adapter Assembly - Flat Face

Size (inch)	Assembly Part No.	WT. kgs./pc	Working Pressure (bar)
2 1/2"	A/LBWAF-250	1.47	52
3"	A/LBWAF-300	2.40	52
4"	A/LBWAF-400	3.98	52
5"	A/LBWAF-500	5.44	52
6"	A/LBWAF-600	5.44	48
8"	A/LBWAF-800	13.55	40

MATERIAL: CARBON STEEL, (STAINLESS STEEL STANDARD-316 AVAILABLE)
OTHER SIZES AVAILABLE, CONSULT FACTORY



