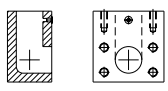
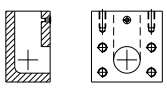
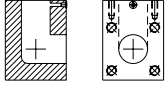
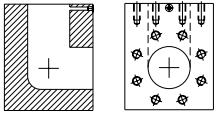
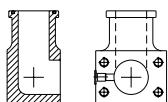
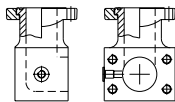
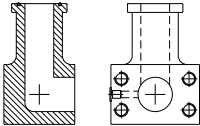
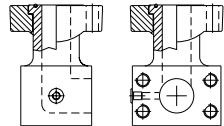
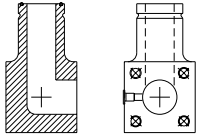
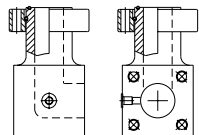
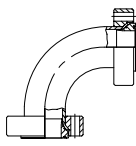
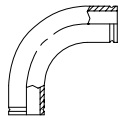
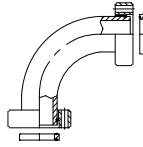
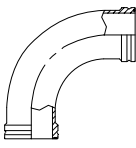
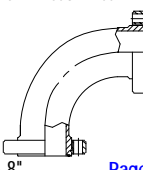
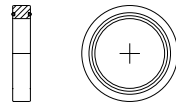
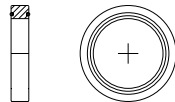
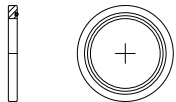
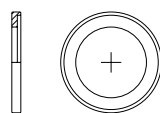
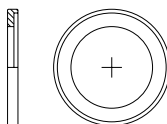




# Elbows - Metric Visual Index

<p><b>BLOCK STYLE</b></p>	<p><b>BEM34</b> ISO 6162-1</p>  <p>1/2" - 3" <a href="#">Page G3</a></p>	<p><b>BEM64</b> ISO 6162-2</p>  <p>1/2" - 2" <a href="#">Page G3</a></p>	<p><b>BEM74</b> ISO 6164</p>  <p>2 1/2" - 4" <a href="#">Page G4</a></p>	<p><b>BEM48</b> TMI® 8-BOLT</p>  <p>5" - 8" <a href="#">Page G5</a></p>
<p><b>SPLIT FLANGE BLOCK STYLE</b></p>	<p><b>SFEM34</b> ISO 6162-1</p>  <p>1/2" - 3" <a href="#">Page G6</a></p>	<p><b>A/SFEM34</b> ISO 6162-1</p>  <p>1/2" - 3" <a href="#">Page G7</a></p>	<p><b>SFEM64</b> ISO 6162-2</p>  <p>1/2" - 2" <a href="#">Page G8</a></p>	<p><b>A/SFEM64</b> ISO 6162-2</p>  <p>1/2" - 2" <a href="#">Page G9</a></p>
<p><b>RETAIN RING FLANGE BLOCK STYLE</b></p>	<p><b>REM74</b> ISO 6164</p>  <p>2 1/2" - 4" <a href="#">Page G10</a></p>	<p><b>A/REM74</b> ISO 6164 ASSEMBLY</p>  <p>2 1/2" - 4" <a href="#">Page G11</a></p>	<p><b>FLARE FLANGE BENT STYLE</b></p>	<p><b>A/FFEM</b> FLARE FLANGE ELBOW ASSEMBLY</p>  <p>1/2" - 3" <a href="#">Page G12-13</a></p>
<p><b>RETAIN RING FLANGE BENT STYLE</b></p>	<p><b>RFE</b> BODY ONLY</p>  <p>1 1/2" - 8" <a href="#">Page G14</a></p>	<p><b>A/RFE</b> ASSEMBLY</p>  <p>1 1/2" - 8" <a href="#">Page G15</a></p>		
<p><b>LOW PRESSURE RETAIN RING FLANGE BENT STYLE</b></p>	<p><b>LRE</b> LOW PRESSURE-BODY ONLY</p>  <p>2 1/2" - 8" <a href="#">Page G16</a></p>	<p><b>A/LRE</b> LOW PRESSURE-ASSEMBLY</p>  <p>2 1/2" - 8" <a href="#">Page G17</a></p>		
<p><b>'O' RING SEAL RETAINERS</b></p>	<p><b>OS</b></p>  <p>1 1/2" - 4" <a href="#">Page G18</a></p>	<p><b>OSA</b></p>  <p>5" - 8" <a href="#">Page G18</a></p>	<p><b>OSH</b></p>  <p>1 1/2" - 4" <a href="#">Page G19</a></p>	
<p><b>'O' RING CONNECTOR PLATES</b></p>	<p><b>OCP</b> CONNECTOR PLATE</p>  <p>1/2" - 4" <a href="#">Page G20</a></p>	<p><b>LOCP</b> LOW PRESSURE-CONNECTOR PLATE</p>  <p>2 1/2" - 8" <a href="#">Page G21</a></p>		

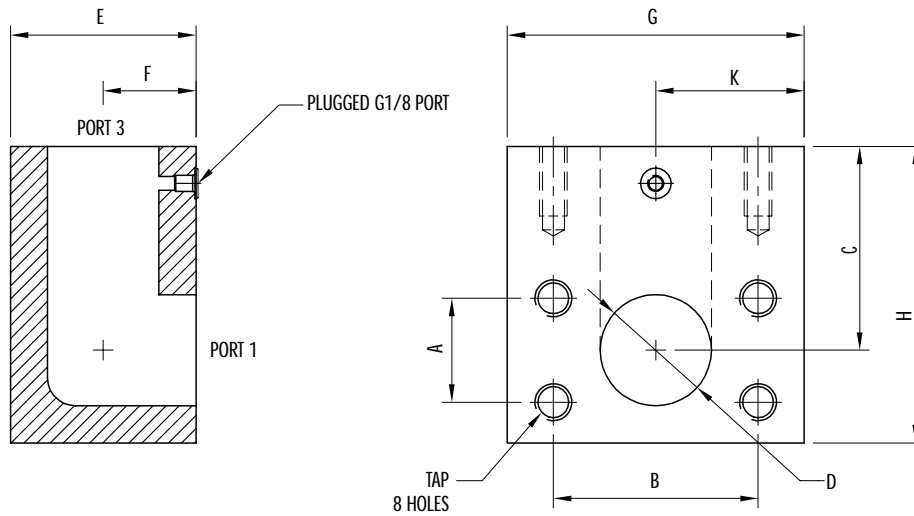






# Block Elbow - Metric

ISO 6162 Flange Style



## BEM34 Block Elbow (Metric) - ISO 6162-1 Flat Face With Tapped Holes Complete With G1/8 Port (Plugged)

Size (inch)	Block Elbow Part No.	Dimensions (millimeters)									Bolt Minimum 10.9	WT. kgs./pc	Working Pressure (bar)
		A	B	C	D	E	F	G	H	K			
1/2"	BEM34-050-*	17.5	38.1	47.8	12.7	50.8	25.4	63.5	63.5	31.8	M8 x 1.25	1.41	350
3/4"	BEM34-075-*	22.4	47.8	57.2	19.1	50.8	25.4	76.2	82.6	38.1	M10 x 1.50	2.17	350
1"	BEM34-100-*	26.2	52.3	57.2	23.9	50.8	25.4	76.2	82.6	38.1	M10 x 1.50	2.05	350
1 1/4"	BEM34-125-*	30.2	58.7	69.9	31.8	57.2	28.7	76.2	101.6	38.1	M10 x 1.50	2.63	275
1 1/2"	BEM34-150-*	35.8	69.9	69.9	38.1	63.5	31.8	101.6	101.6	50.8	M12 x 1.75	3.83	210
2"	BEM34-200-*	42.9	77.7	76.2	49.3	76.2	38.1	101.6	114.3	50.8	M12 x 1.75	4.85	210
2 1/2"	BEM34-250-*	50.8	88.9	82.6	60.5	88.9	44.5	127.0	127.0	63.5	M12 x 1.75	8.02	175
3"	BEM34-300-*	62.0	106.4	95.3	73.2	101.6	50.8	152.4	152.4	69.9	M16 x 2.00	11.34	140

## BEM64 Block Elbow (Metric) - ISO 6162-2 Flat Face With Tapped Holes Complete With G1/8 Port (Plugged)

Size (inch)	Block Elbow Part No.	Dimensions (millimeters)									Bolt Minimum 10.9	WT. kgs./pc	Working Pressure (bar)
		A	B	C	D	E	F	G	H	K			
1/2"	BEM64-050-*	18.3	40.4	47.8	12.7	50.8	25.4	63.5	63.5	31.8	M8 x 1.25	1.41	420
3/4"	BEM64-075-*	23.9	50.8	57.2	19.1	50.8	25.4	76.2	82.6	38.1	M10 x 1.50	2.15	420
1"	BEM64-100-*	27.7	57.2	63.5	23.9	57.2	28.7	76.2	101.6	38.1	M12 x 1.75	2.92	420
1 1/4"	BEM64-125-*	31.8	66.8	69.9	31.8	63.5	31.8	101.6	101.6	50.8	M12 x 1.75	4.17	420
1 1/2"	BEM64-150-*	36.6	79.5	76.2	38.1	76.2	38.1	101.6	114.3	50.8	M16 x 2.00	5.30	420
2"	BEM64-200-*	44.5	96.8	85.9	49.3	76.2	38.1	127.0	127.0	63.5	M20 x 2.50	6.80	420

\* INSERT 'V' TO INDICATE OPTIONAL VITON 'O' RING FOR G1/8 PLUG

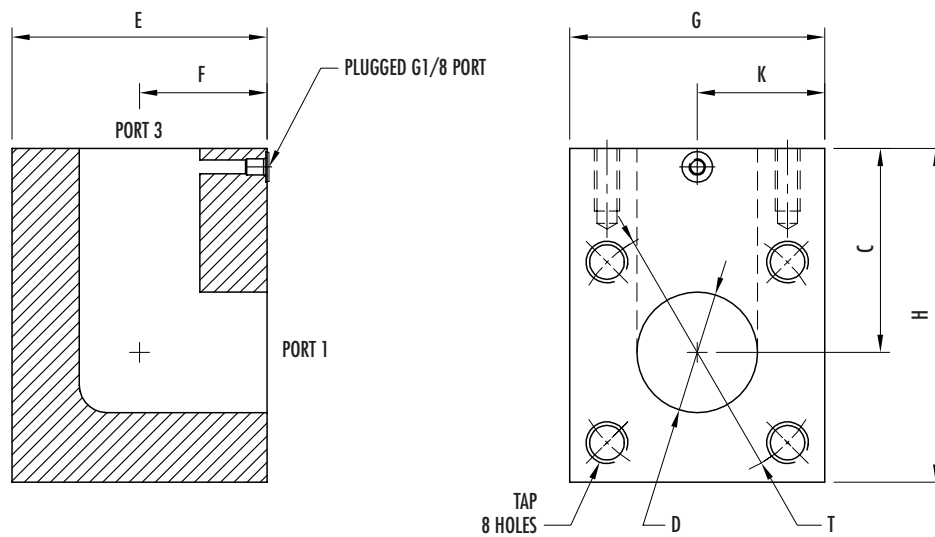
• OTHER BLOCK ELBOWS ARE AVAILABLE (CONSULT FACTORY)

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



# Block Elbow - Metric

ISO 6164 Flange Style



## BEM74 Block Elbow (Metric) - ISO 6164 Flat Face With Tapped Holes Complete With G1/8 Port (Plugged)

Size (inch)	Block Elbow Part No.	Dimensions (millimeters)								Bolt Minimum 10.9	WT. kgs./pc	Working Pressure (bar)
		T	C	D	E	F	G	H	K			
2 1/2"	BEM74-250-*	118.1	101.6	60.5	127.0	63.5	127.0	165.1	63.5	M20 x 2.50	16.74	400
3"	BEM74-300-*	145.0	127.0	73.2	152.4	76.2	152.4	203.2	76.2	M24 x 3.00	29.73	400
4"	BEM74-400-*	175.0	139.7	88.9	177.8	88.9	177.8	228.6	88.9	M30 x 3.50	42.09	400

\* INSERT 'V' TO INDICATE OPTIONAL VITON 'O' RING FOR G1/8 PLUG

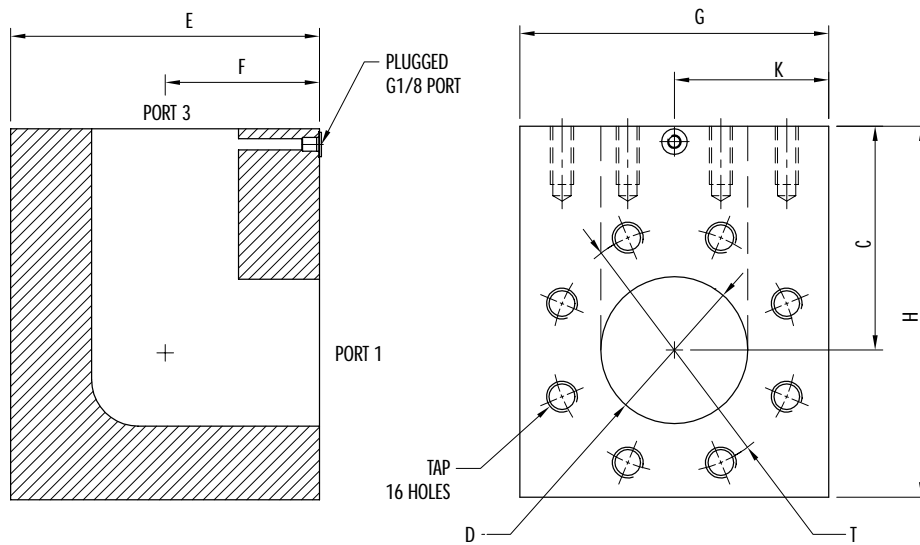
• OTHER BLOCK ELBOWS ARE AVAILABLE (CONSULT FACTORY)

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



# Block Elbow - Metric

TMI® 8-Bolt Flange Style



## BEM48 Block Elbow (Metric) - TMI® 8-Bolt Flat Face With Tapped Holes Complete With G1/8 Port (Plugged)

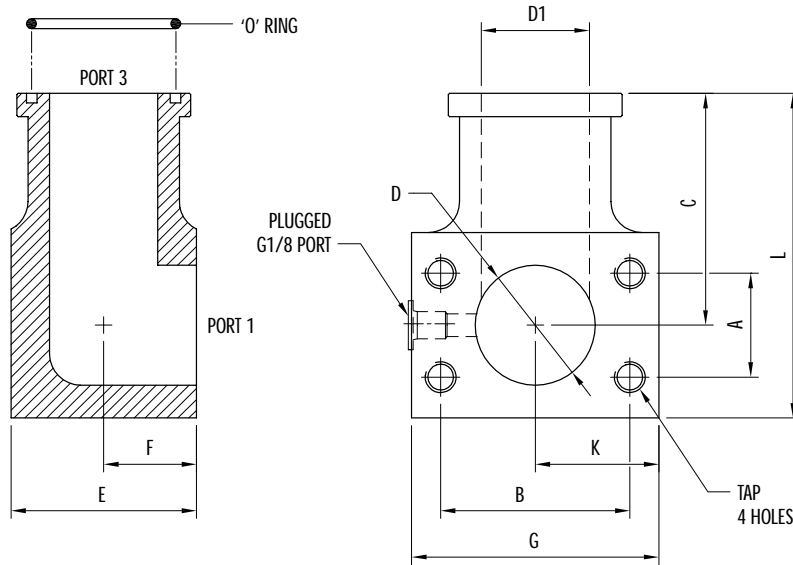
Size (inch)	Block Elbow Part No.	Dimensions (millimeters)								Bolt Minimum 10.9	WT. kgs./pc	Working Pressure (bar)
		T	C	D	E	F	G	H	K			
5"	BEM48-500-*	200.2	181.1	101.6	247.7	124.0	247.7	304.8	124.0	M24 X 3.00	124.77	275
6"	BEM48-600-*	245.1	203.2	124.5	301.8	150.9	301.8	355.6	150.9	M30 X 3.50	215.95	255
8"	BEM48-800-*	315.0	260.4	173.0	381.0	190.5	381.0	457.2	190.5	M36 X 4.00	457.77	240

- FOR SIZES 10" OR LARGER CONSULT FACTORY
  - \* INSERT 'V' TO INDICATE OPTIONAL VITON 'O' RING FOR G1/8 PLUG
  - OTHER BLOCK ELBOWS ARE AVAILABLE (CONSULT FACTORY)
- MATERIAL:** CARBON STEEL, PRIME PAINTED, (STAINLESS STEEL AVAILABLE)



# Split Flange Elbow - Metric

ISO 6162-1 Flange Style - Body Only



## SFEM34 Split Flange Elbow (Metric) - ISO 6162-1 Flat Face With Tapped Holes

Complete With Nitrile 'O' Ring (Standard) and G1/8 Port (Plugged)

Size (inch)	Elbow Part No.	Dimensions (millimeters)										Bolt Minimum 10.9	'O' Ring (Nitrile) Part No.	WT. kgs./pc	Working Pressure (bar)
		A	B	C	D	D1	E	F	G	K	L				
1/2"	SFEM34-050-*	17.5	38.1	63.5	12.7	9.7	50.8	25.4	63.5	31.8	88.9	M8 x 1.25	OR*-2-210	1.30	350
3/4"	SFEM34-075-*	22.4	47.8	69.9	19.1	16.0	50.8	25.4	76.2	38.1	95.3	M10 x 1.50	OR*-2-214	1.55	350
1"	SFEM34-100-*	26.2	52.3	69.9	23.9	22.4	50.8	25.4	76.2	38.1	95.3	M10 x 1.50	OR*-2-219	1.57	350
1 1/4"	SFEM34-125-*	30.2	58.7	79.5	31.8	28.7	57.2	28.7	76.2	38.1	108.0	M10 x 1.50	OR*-2-222	1.77	275
1 1/2"	SFEM34-150-*	35.8	69.9	82.6	38.1	34.9	63.5	31.8	101.6	50.8	114.3	M12 x 1.75	OR*-2-225	2.78	210
2"	SFEM34-200-*	42.9	77.7	88.9	49.3	47.8	76.2	38.1	101.6	50.8	127.0	M12 x 1.75	OR*-2-228	3.64	210
2 1/2"	SFEM34-250-*	50.8	88.9	101.6	60.5	60.5	88.9	44.5	114.3	57.2	146.1	M12 x 1.75	OR*-2-232	5.23	175
3"	SFEM34-300-*	62.0	106.4	114.3	73.2	73.2	101.6	50.8	139.7	69.9	165.1	M16 x 2.00	OR*-2-237	8.20	140

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

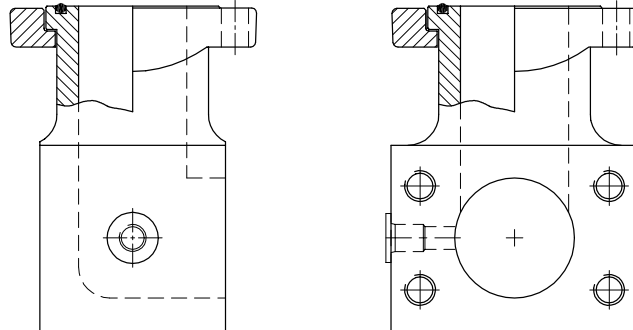
- OTHER SPLIT FLANGE ELBOWS ARE AVAILABLE (CONSULT FACTORY)
- TO ORDER COMPLETE ASSEMBLY REFERENCE PAGE G7
- FOR SPLIT FLANGES REFERENCE PAGE N2

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

# Split Flange Elbow Assembly - Metric

ISO 6162-1 Flange Style

## Typical A/SFEM34 Assembly



### COMPLETE ASSEMBLY CONSISTS OF:

- ISO 6162-1 SPLIT FLANGE ELBOW BODY (REF. PAGE G6)
- ONE SET (2 HALVES) ISO 6162-1 SPLIT FLANGES (REF. PAGE N2)
- ONE (1) NITRILE 'O' RING (STANDARD)
- ONE (1) COMPONENT BOLT KIT

## A/SFEM34 Split Flange Elbow (Metric) - ISO 6162-1 Assembly

Size (inch)	Elbow Part No.	WT. kgs./pc
1/2"	A/SFEM34-050-*	1.48
3/4"	A/SFEM34-075-*	1.81
1"	A/SFEM34-100-*	1.86
1 1/4"	A/SFEM34-125-*	2.17
1 1/2"	A/SFEM34-150-*	3.43
2"	A/SFEM34-200-*	4.35
2 1/2"	A/SFEM34-250-*	6.20
3"	A/SFEM34-300-*	9.86

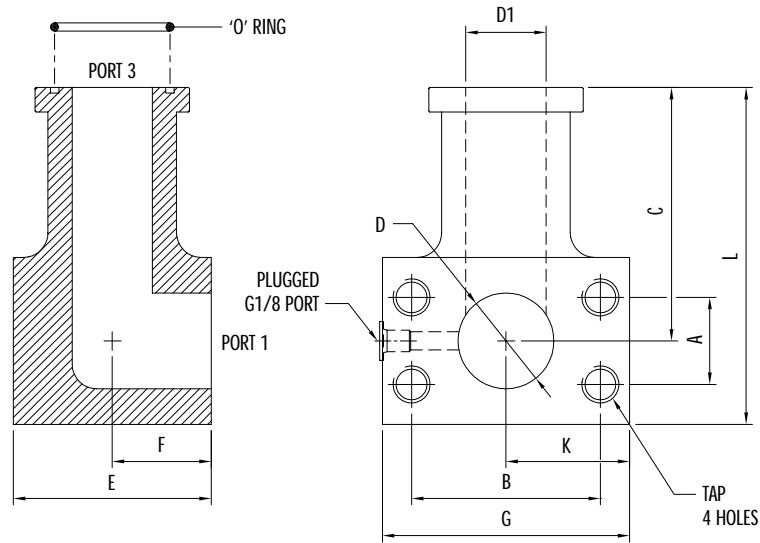
\* INSERT ' V ' TO INDICATE OPTIONAL VITON 'O' RING

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

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

# Split Flange Elbow - Metric

ISO 6162-2 Flange Style - Body Only



## SFEM64 Split Flange Elbow (Metric) - ISO 6162-2 Flat Face With Tapped Holes

Complete With Nitrile 'O' Ring and G1/8 Port (Plugged)

Size (inch)	Elbow Part No.	Dimensions (millimeters)										Bolt Minimum 10.9	'O' Ring (Nitrile) Part No.	WT. kgs./pc	Working Pressure (bar)
		A	B	C	D	D1	E	F	G	K	L				
1/2"	SFEM64-050-*	18.3	38.1	69.9	12.7	9.7	50.8	25.4	63.5	31.8	95.3	M8 x 1.25	OR*-2-210	1.32	420
3/4"	SFEM64-075-*	23.9	50.8	76.2	19.1	16.0	50.8	25.4	76.2	38.1	101.6	M10 x 1.50	OR*-2-214	1.60	420
1"	SFEM64-100-*	27.7	57.2	85.9	23.9	22.4	57.2	28.7	76.2	38.1	114.3	M12 x 1.75	OR*-2-219	2.00	420
1 1/4"	SFEM64-125-*	31.8	66.8	88.9	31.8	28.7	63.5	31.8	101.6	50.8	120.7	M12 x 1.75	OR*-2-222	2.96	420
1 1/2"	SFEM64-150-*	36.6	79.5	108.0	38.1	34.9	76.2	38.1	101.6	50.8	146.1	M16 x 2.00	OR*-2-225	4.27	420
2"	SFEM64-200-*	44.5	96.8	120.7	49.3	47.8	88.9	44.5	127.0	63.5	158.8	M20 x 2.50	OR*-2-228	5.35	420

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

- OTHER SPLIT FLANGE ELBOWS ARE AVAILABLE (CONSULT FACTORY)
- TO ORDER COMPLETE ASSEMBLY REFERENCE PAGE G9
- FOR SPLIT FLANGES REFERENCE PAGE N2

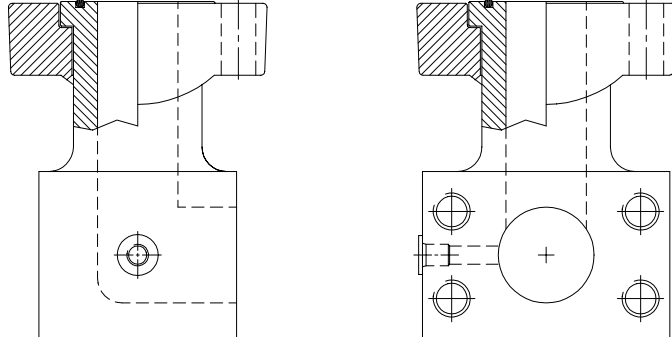
**MATERIAL:** CARBON STEEL, YELLOW ZINC DICHROMATE PLATED, (STAINLESS STEEL AVAILABLE)



# Split Flange Elbow Assembly - Metric

ISO 6162-2 Flange Style

## Typical A/SFEM64 Assembly



### COMPLETE ASSEMBLY CONSISTS OF:

- ISO 6162-2 SPLIT FLANGE ELBOW BODY (REF. PAGE G8)
- ONE SET (2 HALVES) ISO 6162-2 SPLIT FLANGES (REF. PAGE N2)
- ONE (1) NITRILE 'O' RING (STANDARD)
- ONE (1) COMPONENT BOLT KIT

## A/SFEM64 Split Flange Elbow (Metric) - ISO 6162-2 Assembly

Size (inch)	Elbow Part No.	WT. kgs./pc
1/2"	A/SFEM64-050-*	1.57
3/4"	A/SFEM64-075-*	2.03
1"	A/SFEM64-100-*	2.66
1 1/4"	A/SFEM64-125-*	3.99
1 1/2"	A/SFEM64-150-*	6.05
2"	A/SFEM64-200-*	8.30

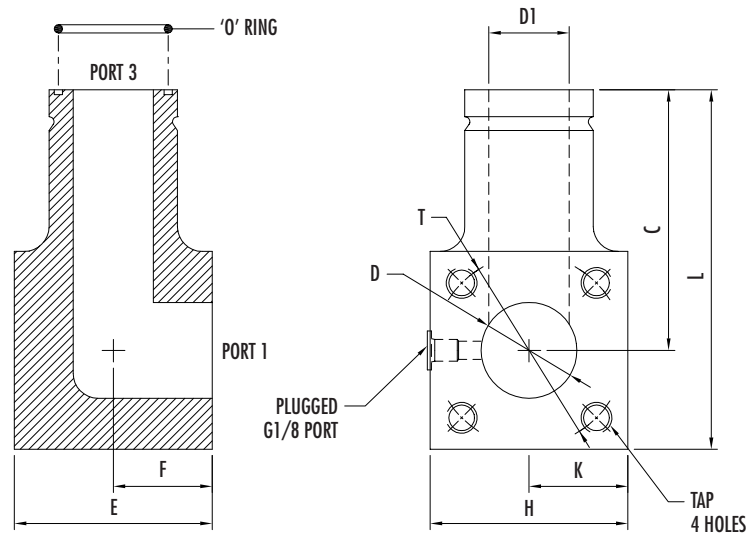
\* INSERT 'V' TO INDICATE OPTIONAL VITON 'O' RING

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

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

# Retain Ring Flange Elbow -Metric

ISO 6164 Flange Style - Body Only



## REM74 Retain Ring Flange Elbow (Metric) - ISO 6164 Flat Face With Tapped Holes

Complete With Nitrile 'O' Ring (Standard) and G1/8 Port (Plugged)

Size (inch)	Elbow Part No.	Dimensions (millimeters)									Thread	'O' Ring (Nitrile) Part No.	WT. kgs./pc	Working Pressure (bar)
		T	C	D	D1	E	F	H	K	L				
2 1/2"	REM74-250-*	118.1	171.5	60.5	57.2	127.0	63.5	127.0	63.5	235.0	M20 x 2.50	OR*-2-232	14.26	400
3"	REM74-300-*	145.0	203.2	73.2	69.9	152.4	76.2	152.4	76.2	279.4	M24 x 3.00	OR*-2-237	20.12	400

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

- OTHER RETAIN RING FLANGE ELBOWS ARE AVAILABLE (CONSULT FACTORY)
- TO ORDER COMPLETE ASSEMBLY REFERENCE PAGE G11

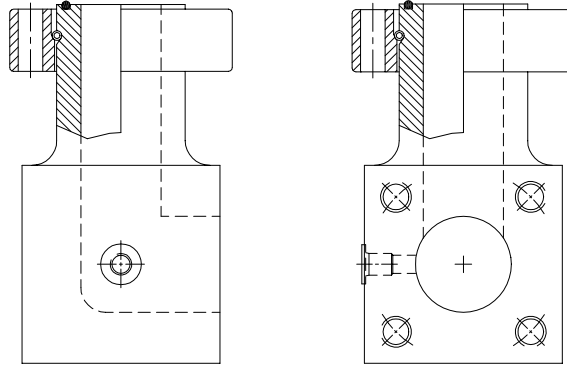
**MATERIAL:** CARBON STEEL, YELLOW ZINC DICHROMATE PLATED, (STAINLESS STEEL AVAILABLE)



# Retain Ring Flange Elbow Assembly - Metric

## ISO 6164 Flange Style

### Typical A/REM74 Assembly



**COMPLETE ASSEMBLY CONSISTS OF:**

- ISO 6164 RETAIN RING FLANGE ELBOW BODY (REF. PAGE G10)
- ONE (1) ISO 6164 RETAIN RING FLANGE (REF. PAGE C10)
- ONE (1) RETAIN RING
- ONE (1) NITRILE 'O' RING (STANDARD)

## A/REM74 Retain Ring Flange Elbow (Metric) - ISO 6164 Assembly

Size (inch)	Elbow Part No.	WT. kgs./pc
2 1/2"	A/REM74-250-*	16.44
3"	A/REM74-300-*	23.70

- \* INSERT 'V' TO INDICATE OPTIONAL VITON 'O' RING
- ASSEMBLY WORKING PRESSURE RATINGS ARE SUBJECT TO THE LESSER OF THE FLANGE OR BODY RATINGS
- SEE REFERENCE PAGES INDICATED ABOVE FOR PRESSURE RATINGS

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



# Flare Flange Elbow Assembly - Metric

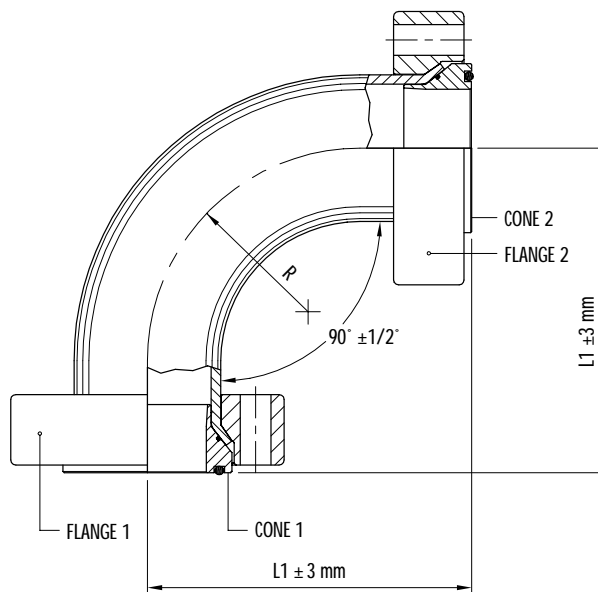
## Short Radius Bent Elbow

### Typical A/FFEM Assembly

For field bent pipe assemblies  
Ref. page B22

#### COMPLETE ASSEMBLY CONSISTS OF:

- FLARE FLANGE 90° ELBOW BODY
- TWO (2) FLARE FLANGES (REF. PAGES B8-B11)
- TWO (2) CONES  
(REF. PAGES B12-B15 FOR TYPE OF CONE)
- ENDS SEALED WITH 6 MIL HEAT SHRINK MATERIAL



PART NO. (EXAMPLE): A/FFEM - 20x3-050 - FCM34 - FCM34 - CO - CO

## FFEM Flare Flange Elbow Body (Metric)

Size (inch)	OD x Wall	Dimensions (mm)		WT. *(Body Only) kgs./pc	Working Pressure *(Body Only) bar
		L1	R		
1/2"	20 x 3	127	40	0.28	420
3/4"	25 x 3	127	50	0.36	420
1"	30 x 4	127	60	0.56	420
1 1/4"	38 x 4	152	76	0.89	420
1 1/2"	50 x 5	165	100	1.58	420
2"	60 x 5	203	120	2.38	400
2 1/2"	73 x 7	279	191	5.38	310
3"	89 x 7.6	318	229	8.10	270

\* BODY ONLY CONSISTS OF BENT FLARED PIPE SECTION AND CONES. FOR TOTAL ASSEMBLY WEIGHT, ADD APPROPRIATE FLANGE WEIGHTS TO BODY WEIGHT.

- TO ORDER COMPLETE ASSEMBLY REFERENCE PAGE B25
- OTHER RADII AVAILABLE (CONSULT FACTORY)

**MATERIAL:** CARBON STEEL, (STAINLESS STEEL AVAILABLE)

#### • REDUCING METRIC FLANGES AND CONES ARE AVAILABLE (REFERENCE PAGES B16-B19)

FOR FLARE FLANGE ASSEMBLIES UTILIZING REDUCING FLANGES AND CONES ADD (R) TO FLANGE AND CONE CODE NUMBERS.

ie. ISO 6162-1 metric flare flange with clearance holes - code number FCM34 would be FCRM34-(flange size)

**REDUCING PART NO. (EXAMPLE):** A/FFEM - 20x3 - FCRM34-075 - FCM34 - COR - CO

Consult factory for ordering assistance



# Flare Flange Elbow Assembly - Metric

Complete Assembly Part Number

Code		A	FFEM	Body & Cone Material	Size & OD x Wall	Flange 1	Flange 2	Cone 1	Cone 2	Options
<b>Assembly</b>		<b>A</b>								
<b>Flare Flange Elbow Metric</b>		<b>FFEM</b>								
Body & Cone Material Carbon Steel (Standard) Ref. page (B24)	No Designation Required									
Body & Cone Material Stainless Steel (Optional) Ref. page (B7)	<b>TMP304SS</b>	304								
	<b>TMP316SS</b>	316								
	<b>TMP2205SS</b>	2205								
<b>Body Size &amp; Schedule</b>	<b>1/2"</b>	20x3-050								
	<b>3/4"</b>	25x3-075								
	<b>1"</b>	30x4-100								
	<b>1 1/4"</b>	38x4-125								
	<b>1 1/2"</b>	50x5-150								
	<b>2"</b>	60x5-200								
	<b>2 1/2"</b>	73x7-250								
	<b>3"</b>	89x7.6-300								
<b>Flange Type</b>  Carbon Steel Yellow Zinc Dicromate Plated Ref. pages (B8-B11)	<b>FFCM34</b> ISO 6162-1 W/Metric Clearance Holes	<b>FCM34</b>								
	<b>FFTM34</b> ISO 6162-1 W/Metric Tapped Holes	<b>FTM34</b>								
	<b>FFCM64</b> ISO 6162-2 W/Metric Clearance Holes	<b>FCM64</b>								
	<b>FFTM64</b> ISO 6162-2 W/Metric Tapped Holes	<b>FTM64</b>								
	<b>FFCM74</b> ISO 6164 W/Metric Clearance Holes	<b>FCM74</b>								
<b>Cone Type</b> Ref. pages (B12-B15)	Cone - Flat Face	<b>CF</b>								
	Cone - 'O' Ring Face	<b>CO</b>								
<b>Options</b>	<b>Viton</b>	<b>V</b>								
	<b>Painted (Specify)</b>	<b>P</b>								
<b>Complete Stainless Steel Assembly:</b> (including flanges)	<b>SS</b>									

◆ TMP2205SS PIPE IS ONLY AVAILABLE IN 38x4, 50x5, and 60x5 mm SIZES

\* NORMALLY USED FOR CONNECTION TO SPLIT FLANGE TYPE ENDS

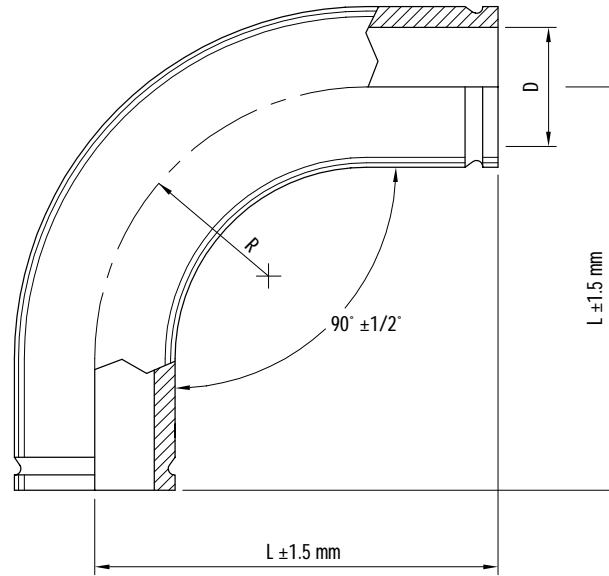
**PART NO. (EXAMPLE): A/FFEM - 20x3-050 - FCM34 - FCM34 - CF - CO**

- 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 KITS - REFERENCE SECTION R



# Retain Ring Flange Elbow - Metric

Long Radius Bent Elbow - Body Only



## RFE Retain Ring Flange Elbow - Body Only

Size (inch)	Body Only Part No.	Dimensions (mm)			WT. (Body Only) kgs./pc	Working Pressure (Body Only) (bar)
		L	R	D		
1 1/2"	RFE-150	317.50	209.55	39.12	5.23	420
2"	RFE-200	355.60	241.30	49.02	7.09	420
2 1/2"	RFE-250	431.80	317.50	59.94	12.12	400
3"	RFE-300	508.00	381.00	73.15	20.82	400
4"	RFE-400	635.00	508.00	85.09	37.96	400
5"	RFE-500	635.00	508.00	103.12	55.22	275
6"	RFE-600	762.00	609.60	124.46	93.78	255
8"	RFE-800	1016.00	812.80	172.97	177.88	240

- OTHER RADII AVAILABLE (CONSULT FACTORY)
- TO ORDER COMPLETE ASSEMBLY REFERENCE PAGE G15

**MATERIAL:** CARBON STEEL, (STAINLESS STEEL AVAILABLE - CONSULT FACTORY)



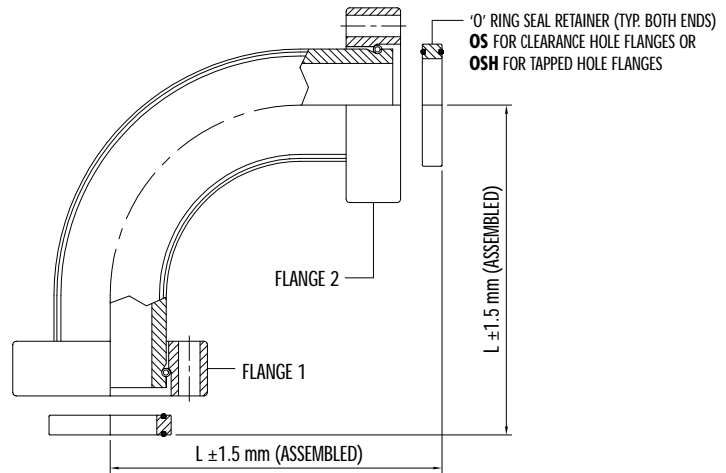
# Retain Ring Flange Elbow Assembly - Metric

Complete Assembly Part Number

## Typical A/RFE Assembly

### COMPLETE ASSEMBLY CONSISTS OF:

- ONE (1) RETAIN RING FLANGE ELBOW BODY (REF. PAGE G14)
- TWO (2) RETAIN RING FLANGES (REF. PAGES C8-C12)
- TWO (2) RETAIN RINGS
- TWO (2) 'O' RING SEAL RETAINERS (REF. PAGES G18-G19)
- ENDS SEALED WITH 6 MIL HEAT SHRINK MATERIAL (1 1/2" - 3")
- ENDS SEALED WITH POSITIVE CLOSURE (4" - 8")



Code		A	/	RFE	-	Body Material	-	Size	-	Flange 1	-	Flange 2	-	Options
<b>Assembly</b>		<b>A</b>												
<b>Retain Ring Flange Elbow</b>		<b>RFE</b>												
Body Material Carbon Steel (Standard)	No Designation Required													
Body Material Stainless Steel (Optional) Ref. page (C7)	<b>TMP304SS</b>	304												
	<b>TMP316SS</b>	316												
<b>Body Size</b>	<b>1 1/2"</b>	150												
	<b>2"</b>	200												
	<b>2 1/2"</b>	250												
	<b>3"</b>	300												
	<b>4"</b>	400												
	<b>5"</b>	500												
	<b>6"</b>	600												
	<b>8"</b>	800												
<b>Flange Type</b>	<b>RFC34</b> ISO 6162-1 W/Clearance Holes	<b>FC34</b>												
	<b>*RFTM34</b> ISO 6162-1 W/Tapped Holes	<b>FTM34</b>												
	<b>RFC64</b> ISO 6162-2 W/Clearance Holes	<b>FC64</b>												
	<b>*RFTM64</b> ISO 6162-2 W/Tapped Holes	<b>FTM64</b>												
	<b>RFC74</b> ISO 6164 W/Clearance Holes	<b>FC74</b>												
	<b>RFAC48</b> TMI® 8-Bolt W/Clearance Holes	<b>FAC48</b>												
<b>Options</b>	<b>Viton</b>	<b>V</b>												
	<b>Painted (Specify)</b>	<b>P</b>												
	◆ <b>Complete Stainless Steel Assembly:</b> (including flanges, 'O' Ring seal retainers)	<b>SS</b>												

L Dimension will vary if OSH 'O' Ring Seal Retainer is used. (reference page G19)

Size	Dimensions (mm)	
	L (OS/OSA)	
1 1/2"	330.20	
2"	368.30	
2 1/2"	457.20	
3"	533.40	
4"	660.40	
5"	673.10	
6"	800.10	
8"	1054.10	

◆ STAINLESS STEEL IS AVAILABLE (CONSULT FACTORY)

\* NORMALLY USED FOR CONNECTION TO SPLIT FLANGE TYPE ENDS (SUPPLIED WITH OSH STYLE 'O' RING SEAL RETAINER)

**PART NO. (EXAMPLE):**

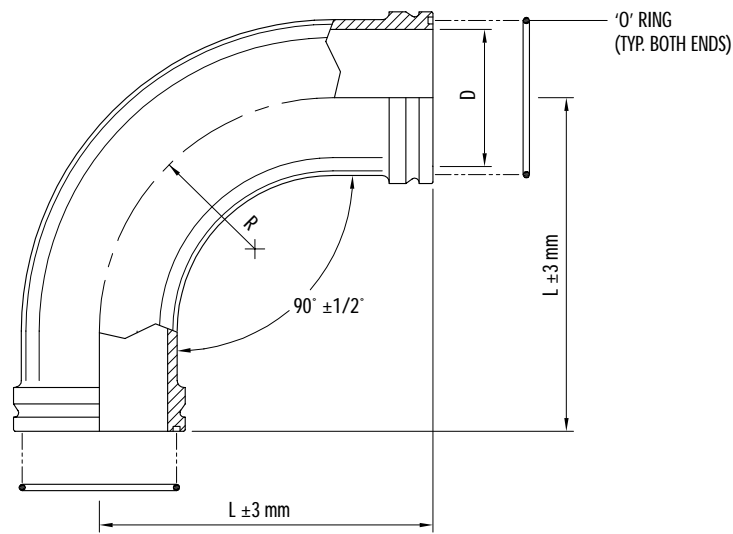
**A/RFE - 250 - FC34 - FC34**

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



# Low Pressure Retain Ring Flange Elbow - Metric

Body Only



## LRE Low Pressure Retain Ring Flange Elbow - Body Only (segmentally welded)

Complete with Nitrile 'O' Rings (Standard)

Size (inch)	Elbow Body Part No.	Dimensions (mm)			'O' Ring (Nitrile) Part No.	WT. kgs./pc	Working Pressure (bar)
		L	R	D			
2 1/2"	LRE-250-*	132.59	95.25	62.74	OR*-2-232	2.40	52
3"	LRE-300-*	156.72	114.30	77.98	OR*-2-237	3.57	52
4"	LRE-400-*	194.82	152.40	102.36	OR*-2-245	6.02	52
5"	LRE-500-*	237.74	190.50	128.27	OR*-2-253	10.06	52
6"	LRE-600-*	280.92	228.60	154.18	OR*-2-259	16.07	48
8"	LRE-800-*	367.03	304.80	202.69	OR*-2-372	31.80	40

- \* INSERT ' V ' TO INDICATE OPTIONAL VITON 'O' RINGS
  - TO ORDER COMPLETE ASSEMBLY REFERENCE PAGE G17
  - ELBOW BODY INCLUDES BUTT WELD ADAPTERS (REF. PAGES D10-D13)
- MATERIAL:** CARBON STEEL, (STAINLESS STEEL AVAILABLE)

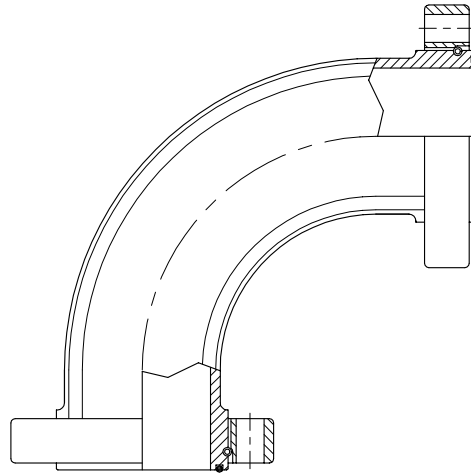




# Low Pressure Retain Ring Flange Elbow Assembly - Metric

Complete Assembly Part Number

Typical A/LRE Assembly



**COMPLETE ASSEMBLY CONSISTS OF:**

- ONE (1) LOW PRESSURE RETAIN RING FLANGE ELBOW BODY
- TWO (2) LOW PRESSURE RETAIN RING FLANGES (REF. PAGES D8-D9)
- TWO (2) LOW PRESSURE RETAIN RINGS
- TWO (2) NITRILE 'O' RINGS (STANDARD)
- ENDS SEALED WITH 6 MIL HEAT SHRINK MATERIAL (2 1/2" & 3")
- ENDS SEALED WITH POSITIVE CLOSURE (4"-8")

## A/LRE Low Pressure Retain Ring Flange Elbow Assembly

Size (inch)	Complete Assembly Part No.	WT. (Assembly) kgs./pc	Working Pressure (bar)
2 1/2"	A/LRE-250-*	4.37	52
3"	A/LRE-300-*	5.30	52
4"	A/LRE-400-*	9.02	52
5"	A/LRE-500-*	13.98	52
6"	A/LRE-600-*	20.53	48
8"	A/LRE-800-*	40.55	40

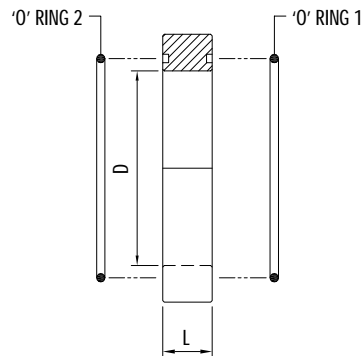
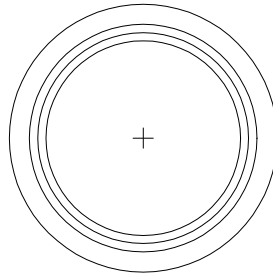
\* INSERT 'V' TO INDICATE OPTIONAL VITON 'O' RINGS

**MATERIAL:** CARBON STEEL, (STAINLESS STEEL AVAILABLE)



# 'O' Ring Seal Retainer - Metric

OS/OSA



**OS** 'O' Ring Seal Retainer for Retain Ring Pipe (Metric) - 1 1/2" - 4"  
Complete with Nitrile 'O' Rings (Standard)

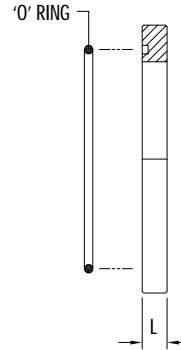
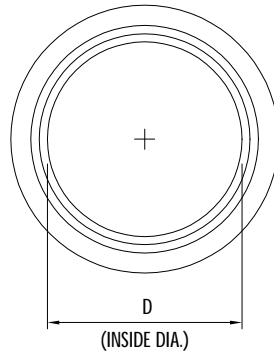
**OSA** 'O' Ring Seal Retainer for Retain Ring Pipe (Metric) - 5" - 8"  
Complete with Nitrile 'O' Rings (Standard)

Size (inch)	Retainer Part No.	Dimensions (mm)		'O' Rings 1&2 (Nitrile) Part No.	WT. kgs./pc
		D	L		
1 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 - Metric



## OSH 'O' Ring Seal Retainer for Retain Ring Pipe (Metric)

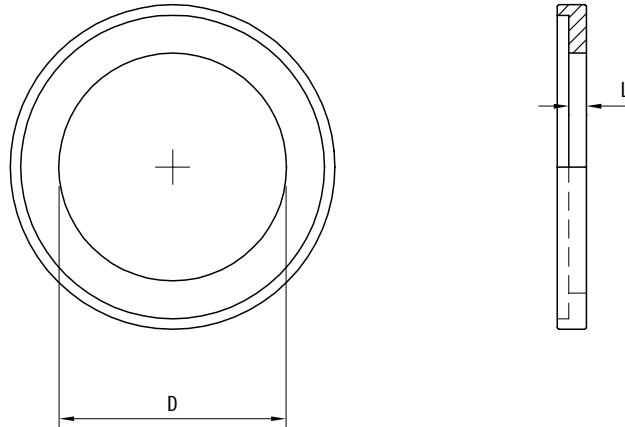
Complete with Nitrile 'O' Ring (Standard)

Size (inch)	Retainer Part No.	Dimensions (mm)		'O' Ring (Nitrile) Part No.	WT. kgs./pc
		D	L		
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)

# 'O' Ring Connector Plate - Metric

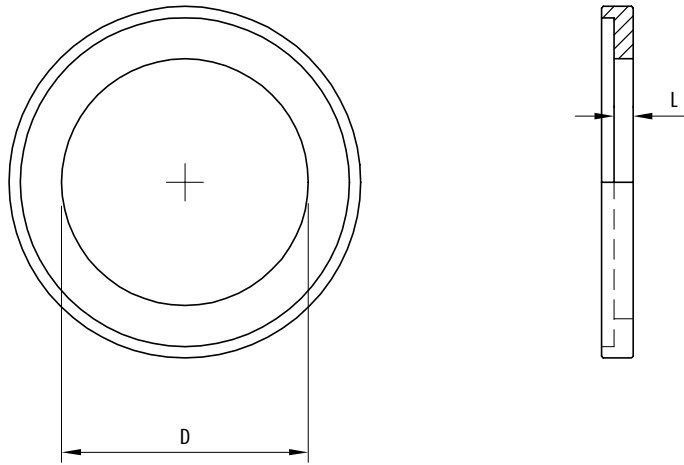


## OCP 'O' Ring Connector Plate (Metric)

Size (inch)	Connector Plate Part No.	Dimensions (mm)		WT. kgs./pc
		D	L	
1/2"	OCP-050	12.7	3.3	0.02
3/4"	OCP-075	19.1	3.3	0.03
1"	OCP-100	23.9	3.3	0.03
1 1/4"	OCP-125	30.5	3.3	0.04
1 1/2"	OCP-150	38.1	3.3	0.05
2"	OCP-200	49.3	3.3	0.06
2 1/2"	OCP-250	59.9	3.3	0.08
3"	OCP-300	73.2	3.3	0.11
4"	OCP-400	85.1	3.3	0.15

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

# Low Pressure 'O' Ring Connector Plate - Metric



## LOCP Low Pressure 'O' Ring Connector Plate (Metric)

Size (inch)	Connector Plate Part No.	Dimensions (mm)		WT. kgs./pc
		D	L	
2 1/2"	LOCP-250	62.7	3.3	0.07
3"	LOCP-300	78.0	3.3	0.10
4"	LOCP-400	102.4	3.3	0.15
5"	LOCP-500	128.3	4.8	0.26
6"	LOCP-600	154.2	4.8	0.36
8"	LOCP-800	202.7	4.8	0.61

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

