

Applications & Features

- Flanged Seal with recessed diaphragm for Off-line process connection
- 3 Sizes to fit various applications
- Standard flange sizes from ANSI ½” to 3”.
- Standard flange ratings from ANSI Class 150 to 600, Extended rating to ANSI class 1500
- Other flange standards available



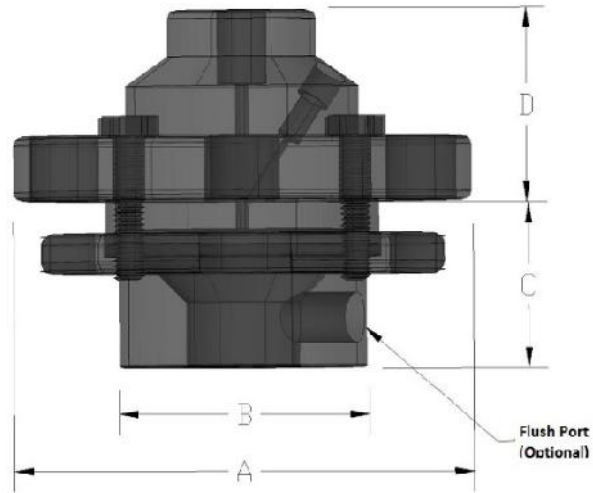
Ordering Information

Base Model			
	HFL	Flanged Off-Line	
Size			
	2	2.4" Diaphragm	ANSI Raised Face (RF)
	3	2.9" Diaphragm	ANSI Raised Face (RF)
	4	4.1" Diaphragm	ANSI Raised Face (RF)
	5	2.4" Diaphragm	Ring Type Joint (RTJ)
	6	2.9" Diaphragm	Ring Type Joint (RTJ)
	7	4.1" Diaphragm	Ring Type Joint (RTJ)
Inst. Connection			
	W	Weld Connection	(Not available with Titanium or Zirconium)
	2	1/4" NPT	
	4	1/2" NPT	
Upper Material			
	S6	316 / 316LSS	
	T1	Titanium	(Required with Titanium diaphragm)
	Z7	Zirconium 702	(Required with Zirconium diaphragm)
Process Connection Size			
	05	1/2"	
	07	3/4"	
	10	1.0"	
	15	1.5"	
	20	2.0"	
	30	3.0"	
	40	4.0"	
Process Connection Rating			
	A	150#	
	B	300#	
	C	600#	
	D	900#	
	E	1500#	

Lower Material			
	S6	316 / 316LSS	
	S4	304 / 304LSS	
	TA	Tantalum Lined 316SS (Flush not available)	
	C2	Alloy 20	
	HC	Alloy C-276	
	HB	Alloy B-3	
	M4	Monel 400	
	I6	Alloy 600	
	DP	Alloy 2205	
	NI	Nickel 200	
	TI	Titanium	
	Z7	Zirconium 702	
Flushing Connection			
	N	None	
	A	Single 1/4" NPTF	
	B	Dual 1/4" NPTF	
	C	Single 1/2" NPTF	Size 3 & 4 Only
	D	Dual 1/2" NPTF	Size 3 & 4 Only
Diaphragm Material			
	S6	316 / 316LSS	
	S4	304 / 304LSS	
	TA	Tantalum	
	C2	Alloy 20	
	HC	Alloy C-276	
	HB	Alloy B-3	
	M4	Monel 400	
	I6	Alloy 600	
	DP	Alloy 2205	
	NI	Nickel 201 /200	
	TI	Titanium	
	Z7	Zirconium 702	
Gasket Material			
	K4	Klinger C4401 (Standard)	450 F Max
	GF	Grafoil	700 F Max
	GL	Gylon 3510	300F Max
	TF	PTFE (o-ring)	350 F Max
	VI	Viton (o-ring)	400 F max
	BN	Buna-N (o-ring)	250 F Max
	KZ	Kalrez (o-ring)	500 F Max
Bolting			
	CS	Grade 8 Zinc Plated (Standard)	
	S4	304SS Reduces Pressure rating 50%	
	S6	316SS Reduces Pressure rating 50%	
Options			
	/AU	Gold Plated Diaphragm	
	/NS	PTFE Coated Diaphragm (Non Stick Only - Not for corrosion protection)	
	/P1	With single pipe plug for flush port (Material same as lower)	
	/P2	With dual pipe plugs for flush port (Material same as lower)	
	/MC	Material cert with MTR's	

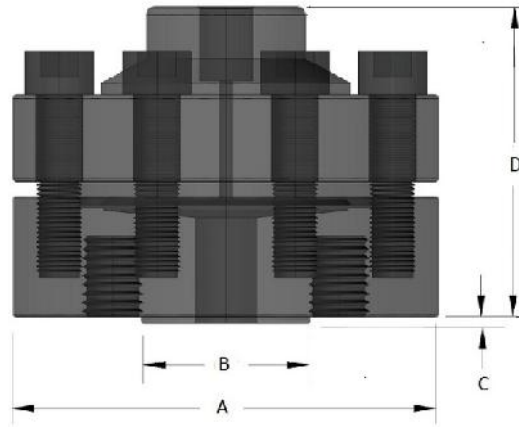
Configuration A

Through Bolt Mounting



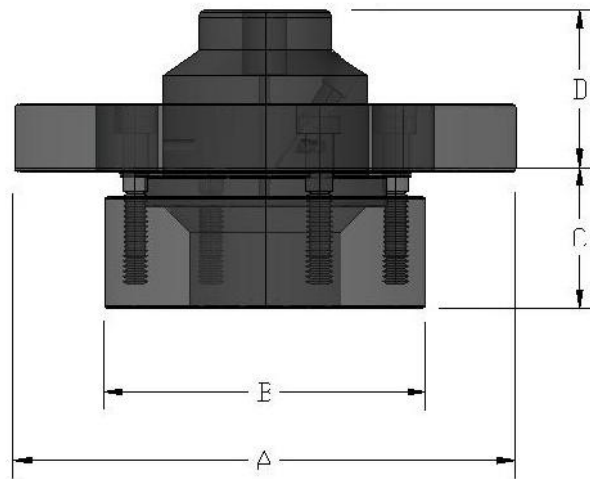
Configuration B

Stud Bolt Mounting



Configuration C

Through Bolt Mounting



HFL Dimensions 2.4" diaphragm

Seal Type	Flush Port Size	Configuration Type	A	B	C	D	Bolt Quantity, Bolt Size, Bolt Circle Ø
1/2"-150#	None or 1/4" NPT	B	3.48"	1.38"	.06	2.65"	(4X), 1/2-13nc, 2.38Øb.c.
	1/2" NPT					2.98"	
3/4"-150#	None or 1/4" NPT	B	3.92"	1.69"	.06"	2.65"	(4X), 1/2-13nc, 2.75Øb.c.
	1/2" NPT					2.98"	
1"-150#	None or 1/4" NPT	A	3.96"	2.17"	1.37"	1.66"	(4X), 1/2-13nc, 3.12Øb.c.
	1/2" NPT				1.70"		
1-1/2"-150#	None or 1/4" NPT	C	5.00"	3.20"	1.30"	1.66"	(4X), 1/2-13nc, 3.12Øb.c.
	1/2" NPT				1.63"		
2"-150#	None or 1/4" NPT	C	6.00"	3.92"	1.30"	1.66"	(4X), 5/8-11nc, 4.75Øb.c.
	1/2" NPT				1.63"		
3"-150#	None or 1/4" NPT	C	7.50"	5.15"	1.30"	1.66"	(4X), 5/8-11nc, 6.00Øb.c.
	1/2" NPT				1.63"		
4"-150#	None or 1/4" NPT	C	9.00"	6.20"	1.30"	1.66"	(8X), 5/8-11nc, 7.50Øb.c.
	1/2" NPT				1.63"		
1/2"-300#	None or 1/4" NPT	B	3.75"	1.38"	.06"	2.65"	(4X), 1/2-13nc, 2.62Øb.c.
	1/2" NPT					2.98"	
3/4"-300#	None or 1/4" NPT	B	4.62"	1.69"	.06"	2.65"	(4X), 5/8-11nc, 3.25Øb.c.
	1/2" NPT					2.98"	
1"-300#	None or 1/4" NPT	A	4.88"	2.17"	1.37"	1.66"	(4X), 5/8-11nc, 3.50Øb.c.
	1/2" NPT				1.70"		
1-1/2"-300#	None or 1/4" NPT	C	6.12"	3.20"	1.30"	1.66"	(4X), 3/4-10nc, 4.50Øb.c.
	1/2" NPT				1.63"		
2"-300#	None or 1/4" NPT	C	6.50"	3.92"	1.30"	1.66"	(8X), 5/8-11nc, 5.00Øb.c.
	1/2" NPT				1.63"		
3"-300#	None or 1/4" NPT	C	8.25"	5.15"	1.30"	1.66"	(8X), 3/4-10nc, 6.62Øb.c.
	1/2" NPT				1.63"		
4"-300#	None or 1/4" NPT	C	10.00"	6.20"	1.30"	2.66"	(8X), 3/4-10nc, 7.88Øb.c.
	1/2" NPT				1.63"		
1/2"-600#	None or 1/4" NPT	B	3.75"	1.38"	.06"	2.65"	(4X), 1/2-13nc, 2.62Øb.c.
	1/2" NPT					2.98"	
3/4"-600#	None or 1/4" NPT	B	4.62"	1.69"	.06"	2.65"	(4X), 5/8-11nc, 3.25Øb.c.
	1/2" NPT					2.98"	
1"-600#	None or 1/4" NPT	A	4.88"	2.17"	1.37"	1.66"	(4X), 5/8-11nc, 3.50Øb.c.
	1/2" NPT				1.70"		
1-1/2"-600#	None or 1/4" NPT	C	6.12"	3.20"	1.30"	1.66"	(4X), 3/4-10nc, 4.50Øb.c.
	1/2" NPT				1.63"		
2"-600#	None or 1/4" NPT	C	6.50"	3.92"	1.30"	1.66"	(8X), 5/8-11nc, 5.00Øb.c.
	1/2" NPT				1.63"		
3"-600#	None or 1/4" NPT	C	8.25"	5.15"	1.30"	2.66"	(8X), 3/4-10nc, 6.62Øb.c.
	1/2" NPT				1.63"		
4"-600#	None or 1/4" NPT	C	10.75"	6.20"	1.30"	2.66"	(8X), 3/4-10nc, 8.50Øb.c.
	1/2" NPT				1.63"		
1/2"-900/1500#	None or 1/4" NPT	B	4.75"	1.58	.06"	3.05"	(4X), 3/4-10nc, 3.25Øb.c.
	1/2" NPT					3.38"	
3/4"-900/1500#	None or 1/4" NPT	B	5.12"	1.69"	.06"	3.05"	(4X), 3/4-10nc, 3.50Øb.c.
	1/2" NPT					3.38"	
1"-900/1500#	None or 1/4" NPT	A	5.88"	2.17"	1.37"	1.88"	(4X), 7/8-9nc, 4.00Øb.c.
	1/2" NPT				1.70"		
1-1/2"-900/1500#	None or 1/4" NPT	C	7.00"	3.20"	1.30"	2.66"	(4X), 1-8nc, 4.88Øb.c.
	1/2" NPT				1.63"		
2"-900/1500#	None or 1/4" NPT	C	8.50"	3.92"	1.70"	2.66"	(8X), 7/8-9nc, 6.50Øb.c.
	1/2" NPT				1.70"		
3"-900#	None or 1/4" NPT	C	9.50"	5.15"	1.70"	2.66"	(8X), 7/8-9nc, 7.50Øb.c.
	1/2" NPT				1.70"		
4"-900#	None or 1/4" NPT	C	11.50"	6.20"	1.95"	2.66"	(8X)1-1/8-7nc, 9.25Øb.c.
	1/2" NPT				1.95"		
3"-1500#	None or 1/4" NPT	C	10.50"	5.15"	2.08"	2.66"	(8X), 1.1/8-7nc, 8.00Øb.c.
	1/2" NPT				2.08"		
4"-1500#	None or 1/4" NPT	C	12.25"	6.20"	2.32"	3.31"	(8X), 1.1/4-7nc, 9.50Øb.c.
	1/2" NPT				2.32"		

HFL Dimensions 2.9" diaphragm

Seal Type	Flush Port Size	Configuration Type	A	B	C	D	Bolt Quantity, Bolt Size, Bolt Circle Ø
1/2"-150#	None or 1/4" NPT	B	4.48"	1.385"	.06"	2.65"	(4X), 1/2-13nc, 2.38Øb.c.
	1/2" NPT					2.98"	
3/4"-150#	None or 1/4" NPT	B	4.48"	1.69"	.06"	2.65"	(4X), 1/2-13nc, 2.75Øb.c.
	1/2" NPT					2.98"	
1"-150#	None or 1/4" NPT	B	4.48"	2.00"	.06"	2.65"	(4X), 1/2-13nc, 3.12Øb.c.
	1/2" NPT					2.98"	
1-1/2"-150#	None or 1/4" NPT	B	5.00"	2.88"	.06"	2.65"	(4X), 1/2-13nc, 3.12Øb.c.
	1/2" NPT					2.98"	
2"-150#	None or 1/4" NPT	C	6.00"	3.92"	1.30"	1.66"	(4X), 5/8-11nc, 4.75Øb.c.
	1/2" NPT				1.63"		
3"-150#	None or 1/4" NPT	C	7.50"	5.15"	1.30"	1.66"	(4X), 5/8-11nc, 6.00Øb.c.
	1/2" NPT				1.63"		
4"-150#	None or 1/4" NPT	C	9.00"	6.20"	1.30"	1.66"	(8X), 5/8-11nc, 7.50Øb.c.
	1/2" NPT				1.63"		
1/2"-300#	None or 1/4" NPT	B	4.48"	1.38"	.06"	2.65"	(4X), 1/2-13nc, 2.62Øb.c.
	1/2" NPT					2.98"	
3/4"-300#	None or 1/4" NPT	B	4.62"	1.69"	.06"	2.65"	(4X), 5/8-11nc, 3.25Øb.c.
	1/2" NPT					2.98"	
1"-300#	None or 1/4" NPT	B	4.88"	2.00"	.06"	2.65"	(4X), 5/8-11nc, 3.50Øb.c.
	1/2" NPT					2.98"	
1-1/2"-300#	None or 1/4" NPT	B	6.12"	2.88"	.06"	2.65"	(4X), 3/4-10nc, 4.50Øb.c.
	1/2" NPT					2.98"	
2"-300#	None or 1/4" NPT	C	6.50"	3.92"	1.30"	1.66"	(8X), 5/8-11nc, 5.00Øb.c.
	1/2" NPT				1.63"		
3"-300#	None or 1/4" NPT	C	8.25"	5.15"	1.30"	1.66"	(8X), 3/4-10nc, 6.62Øb.c.
	1/2" NPT				1.63"		
4"-300#	None or 1/4" NPT	C	10.00"	6.20"	1.30"	2.66"	(8X), 3/4-10nc, 7.88Øb.c.
	1/2" NPT				1.63"		
1/2"-600#	None or 1/4" NPT	B	4.48"	1.38"	.06"	2.65"	(4X), 1/2-13nc, 2.62Øb.c.
	1/2" NPT					2.98"	
3/4"-600#	None or 1/4" NPT	B	4.62"	1.69"	.06"	2.65"	(4X), 5/8-11nc, 3.25Øb.c.
	1/2" NPT					2.98"	
1"-600#	None or 1/4" NPT	B	4.88"	2.00"	.06"	2.65"	(4X), 5/8-11nc, 3.50Øb.c.
	1/2" NPT					2.98"	
1-1/2"-600#	None or 1/4" NPT	B	6.12"	2.88"	.06"	2.65"	(4X), 3/4-10nc, 4.50Øb.c.
	1/2" NPT					2.98"	
2"-600#	None or 1/4" NPT	C	6.50"	3.92"	1.30"	1.66"	(8X), 5/8-11nc, 5.00Øb.c.
	1/2" NPT				1.63"		
3"-600#	None or 1/4" NPT	C	8.25"	5.15"	1.30"	2.66"	(8X), 3/4-10nc, 6.62Øb.c.
	1/2" NPT				1.63"		
4"-600#	None or 1/4" NPT	C	10.75"	6.20"	1.70"	2.66"	(8X), 3/4-10nc, 8.50Øb.c.
	1/2" NPT				1.70"		
1/2"-900/1500#	None or 1/4" NPT	B	4.75"	1.38"	.06"	3.05"	(4X), 3/4-10nc, 3.25Øb.c.
	1/2" NPT					3.38"	
3/4"-900/1500#	None or 1/4" NPT	B	5.12"	1.69"	.06"	3.05"	(4X), 3/4-10nc, 3.50Øb.c.
	1/2" NPT					3.38"	
1"-900/1500#	None or 1/4" NPT	B	5.88"	2.00"	.06"	3.05"	(4X), 7/8-9nc, 4.00Øb.c.
	1/2" NPT					3.38"	
1-1/2"-900/1500#	None or 1/4" NPT	B	7.00"	2.88"	.06"	3.05"	(4X), 1-8nc, 4.88Øb.c.
	1/2" NPT					3.38"	
2"-900/1500#	None or 1/4" NPT	C	8.50"	3.92"	1.70"	2.66"	(8X), 7/8-9nc, 6.50Øb.c.
	1/2" NPT					2.66"	
3"-900#	None or 1/4" NPT	C	9.50"	5.15"	1.70"	2.66"	(8X), 7/8-9nc, 7.50Øb.c.
	1/2" NPT					2.66"	
4"-900#	None or 1/4" NPT	C	11.50"	6.20"	1.95"	2.66"	(8X)1-1/8-7nc, 9.25Øb.c.
	1/2" NPT					2.66"	
3"-1500#	None or 1/4" NPT	C	10.50"	5.15"	2.08"	2.66"	(8X), 1.1/8-7nc, 8.00Øb.c.
	1/2" NPT					2.66"	
4"-1500#	None or 1/4" NPT	C	12.25"	6.20"	2.32"	3.31"	(8X), 1.1/4-7nc, 9.50Øb.c.
	1/2" NPT					3.31"	

HFL Dimensions 4.1" diaphragm

Seal Type	Flush Port Size	Configuration Type	A	B	C	D	Bolt Quantity, Bolt Size, Bolt Circle Ø
1/2"-150#	None or 1/4" NPT	B	5.40"	1.38"	.06	2.46"	(4X), 1/2-13nc, 2.38Øb.c.
	1/2" NPT					2.79"	
3/4"-150#	None or 1/4" NPT	B	5.40"	1.69"	.06	2.46"	(4X), 1/2-13nc, 2.75Øb.c.
	1/2" NPT					2.79"	
.06"	None or 1/4" NPT	B	5.40"	2.00"	.06	2.46"	(4X), 1/2-13nc, 3.12Øb.c.
	1/2" NPT					2.79"	
1-1/2"-150#	None or 1/4" NPT	B	5.40"	2.88"	.06	2.46"	(4X), 1/2-13nc, 3.12Øb.c.
	1/2" NPT					2.79"	
2"-150#	None or 1/4" NPT	B	5.98"	3.62"	.06	2.46"	(4X), 5/8-11nc, 4.75Øb.c.
	1/2" NPT					2.79"	
3"-150#	None or 1/4" NPT	C	7.50"	5.15"	1.30"	1.66"	(4X), 5/8-11nc, 6.00Øb.c.
	1/2" NPT				1.63"		
4"-150#	None or 1/4" NPT	C	9.00"	6.20"	1.30"	1.66"	(8X), 5/8-11nc, 7.50Øb.c.
	1/2" NPT				1.63"		
1/2"-300#	None or 1/4" NPT	B	5.40"	1.38"	.06	2.46"	(4X), 1/2-13nc, 2.62Øb.c.
	1/2" NPT					2.79"	
3/4"-300#	None or 1/4" NPT	B	5.40"	1.69"	.06	2.46"	(4X), 5/8-11nc, 3.25Øb.c.
	1/2" NPT					2.79"	
1"-300#	None or 1/4" NPT	B	5.40"	2.00"	.06	2.46"	(4X), 5/8-11nc, 3.50Øb.c.
	1/2" NPT					2.79"	
1-1/2"-300#	None or 1/4" NPT	B	6.12"	2.88"	.06	2.46"	(4X), 3/4-10nc, 4.50Øb.c.
	1/2" NPT					2.79"	
2"-300#	None or 1/4" NPT	B	6.48"	3.62"	.06	2.46"	(8X), 5/8-11nc, 5.00Øb.c.
	1/2" NPT					2.79"	
3"-300#	None or 1/4" NPT	C	8.25"	5.15"	1.30"	1.66"	(8X), 3/4-10nc, 6.62Øb.c.
	1/2" NPT				1.63"		
4"-300#	None or 1/4" NPT	C	10.00"	6.20"	1.30"	2.66"	(8X), 3/4-10nc, 7.88Øb.c.
	1/2" NPT				1.63"		
1/2"-600#	None or 1/4" NPT	B	5.40"	1.38"	.06	2.46"	(4X), 1/2-13nc, 2.62Øb.c.
	1/2" NPT					2.79"	
3/4"-600#	None or 1/4" NPT	B	5.40"	1.69"	.06	2.46"	(4X), 5/8-11nc, 3.25Øb.c.
	1/2" NPT					2.79"	
1"-600#	None or 1/4" NPT	B	5.40"	2.00"	.06	2.46"	(4X), 5/8-11nc, 3.50Øb.c.
	1/2" NPT					2.79"	
1-1/2"-600#	None or 1/4" NPT	A	6.12"	2.88"	.06	2.46"	(4X), 3/4-10nc, 4.50Øb.c.
	1/2" NPT					2.79"	
2"-600#	None or 1/4" NPT	B	6.50"	3.62"	.06	2.86"	(8X), 5/8-11nc, 5.00Øb.c.
	1/2" NPT					2.19"	
3"-600#	None or 1/4" NPT	C	8.25"	5.15"	1.30"	2.66"	(8X), 3/4-10nc, 6.62Øb.c.
	1/2" NPT				1.63"		
4"-600#	None or 1/4" NPT	C	10.75"	6.20"	1.70"	2.66"	(8X), 3/4-10nc, 8.50Øb.c.
	1/2" NPT					2.66"	
1/2"-900/1500#	None or 1/4" NPT	B	5.40"	1.38"	.06	2.66"	(4X), 3/4-10nc, 3.25Øb.c.
	1/2" NPT					2.99"	
3/4"-900/1500#	None or 1/4" NPT	B	5.40"	1.69"	.06	2.66"	(4X), 3/4-10nc, 3.50Øb.c.
	1/2" NPT					2.99"	
1"-900/1500#	None or 1/4" NPT	B	5.88"	2.00"	.06	2.66"	(4X), 7/8-9nc, 4.00Øb.c.
	1/2" NPT					2.99"	
1-1/2"-900/1500#	None or 1/4" NPT	B	7.00"	2.88"	.06	2.66"	(4X), 1-8nc, 4.88Øb.c.
	1/2" NPT					2.99"	
2"-900/1500#	None or 1/4" NPT	B	8.48"	3.62"	.06	2.96"	(8X), 7/8-9nc, 6.50Øb.c.
	1/2" NPT					2.96"	
3"-900#	None or 1/4" NPT	C	9.50"	5.15"	1.70"	2.66"	(8X), 7/8-9nc, 7.50Øb.c.
	1/2" NPT					2.66"	
4"-900#	None or 1/4" NPT	C	11.50"	6.20"	1.95"	2.66"	(8X), 1-1/8-7nc, 9.25Øb.c.
	1/2" NPT					2.66"	
3"-1500#	None or 1/4" NPT	C	10.50"	5.15"	2.08"	2.66"	(8X), 1.1/8-7nc, 8.00Øb.c.
	1/2" NPT					2.66"	
4"-1500#	None or 1/4" NPT	C	12.25"	6.20"	2.32"	3.31"	(8X), 1.1/4-7nc, 9.50Øb.c.
	1/2" NPT					3.31"	