

Main Specifications

▼Structure

All-Welded Design
I-Type Flange

▼Internal Filling

Glycerin or Silicone Oil
(depending on operating temperature)

▼Gasket

Rubber

▼Flange Standards

JIS (Japanese Standard)
ANSI (American Standard)
DIN (German Standard)

▼Pressure Range

Min.: 1 bar
Max.: 60 bar

▼Ambient Temperature

10°C to 60°C

▼Fluid Temperature

+80°C

▼Protection Rating

IP68

All-Welded Diaphragm Seal (I-Type)

Model: DS200-GP(W)



Features

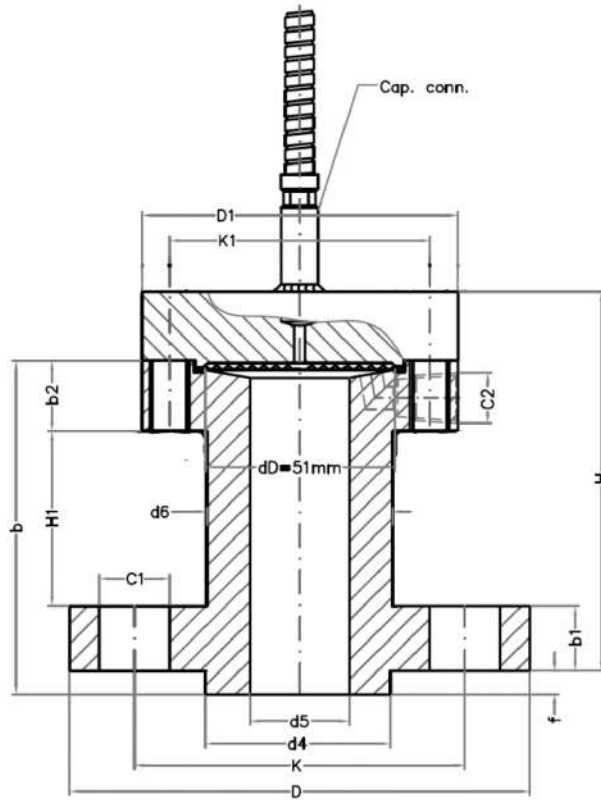
- OEM service
- Designed for applications requiring media isolation
- Fully welded flange construction
- Flange standard, pressure rating, and dimensions available upon request



Due to the variety of customization, the picture is only for reference, please confirm the actual item with our sales. (If there is any change on specification, please take the latest version as standard.)

Suitable Applications	Suitable Media
Petrochemical Plants	Dyes and Coatings
Chemical Plants	Corrosive Media
Paper Mills	Acidic Media
Wastewater Treatment Facilities	Crystallizing Media
	Viscous Media
	High-Temperature Media
	Wastewater
	Heavy Oil
	Concrete Slurries
	Media Containing Solid
	Particles and Impurities

Dimensions (mm)



ASME(ANSI) B16.5 RF

size	rating	facing	b	b1	b2	dD	D	D1	d4	d5	d6	f	H	H1	K	K1	C1	C2
1/2"	cl. 150	RF	80	10	20	51	90	85	35	15	40	2	97	48	60	70	15.9x4	1/4"
1/2"	cl. 300	RF	80	13	20	51	95	85	35	15	40	2	97	45	67	70	15.9x4	1/4"
1/2"	cl. 400 - 600	RF	90	14	20	51	95	85	35	15	40	7	102	49	67	70	15.9x4	1/4"
1/2"	cl. 900 - 1500	RF	100	22	20	51	120	85	35	15	40	7	112	51	83	70	22.3x4	1/4"
3/4"	cl. 150	RF	90	11	20	51	100	85	43	20	42	2	107	578	70	70	15.9x4	1/4"
3/4"	cl. 300	RF	90	14	20	51	115	85	43	20	42	2	107	54	83	70	19.1x4	1/4"
3/4"	cl. 400 - 600	RF	90	16	20	51	115	85	43	20	42	7	102	47	83	70	19.1x4	1/4"
3/4"	cl. 900 - 1500	RF	90	25	20	51	130	85	43	20	42	7	102	38	89	70	22.3x4	1/4"
1"	cl. 150	RF	90	13	20	51	110	85	51	25	52	2	107	55	79	70	15.9x4	1/4"
1"	cl. 300	RF	90	16	20	51	125	85	51	25	52	2	107	52	89	70	19.1x4	1/4"
1"	cl. 400 - 600	RF	90	18	20	51	125	85	51	25	52	7	102	46	89	70	19.1x4	1/4"
1"	cl. 900 - 1500	RF	100	29	20	51	150	85	51	25	52	7	112	44	102	70	25.4x4	1/4"
1.5"	cl. 150	RF	90	16	21	51	125	85	73	40	52	2	107	51	98	70	15.9x4	1/4"
1.5"	cl. 300	RF	90	19	21	51	155	85	73	40	52	2	107	48	114	70	22.3x4	1/4"
1.5"	cl. 400 - 600	RF	90	22	21	51	155	85	73	40	52	7	102	40	114	70	22.3x4	1/4"
1.5"	cl. 900 - 1500	RF	100	32	21	51	180	85	73	40	52	7	112	40	124	70	28.6x4	1/4"
2"	cl. 150	RF	100	18	20	51	150	85	92	47	52	2	117	61	121	70	19.1x4	1/4"
2"	cl. 300	RF	100	21	20	51	165	85	92	47	52	2	117	57	127	70	19.1x8	1/4"
2"	cl. 400 - 600	RF	110	25	20	51	165	85	92	47	52	7	122	58	127	70	19.1x8	1/4"
2"	cl. 900 - 1500	RF	125	38	20	51	215	85	92	47	52	7	137	60	165	70	25.4x8	1/4"
3"	cl. 150	RF	100	22	20	51	190	85	127	47	52	2	117	56	152	70	19.1x4	1/4"
3"	cl. 300	RF	100	27	20	51	210	85	127	47	52	2	117	51	168	70	22.3x8	1/4"
3"	cl. 400 - 600	RF	110	32	20	51	210	85	127	47	52	7	122	51	168	70	22.3x8	1/4"
3"	cl. 900	RF	125	38	20	51	240	85	127	47	52	7	137	60	191	70	25.4x8	1/4"
3"	cl. 1500	RF	140	48	20	51	265	85	127	47	52	7	152	65	203	70	31.8x8	1/4"

EN 1092-1 - TYPE B1

size	rating	type	b	b1	b2	dD	D	D1	d4	d5	d6	f	H	H1	K	K1	C1	C2
DN15	PN10-40	B1	80	14	20	51	95	85	45	15	40	2	97	44	65	70	14x4	1/4"
DN15	PN63-100	B1	90	18	20	51	105	85	45	15	40	2	107	50	75	70	14x4	1/4"
DN20	PN10-40	B1	90	16	20	51	105	85	58	20	45	2	107	52	75	70	14x4	1/4"
DN20	PN63-100	B1	90	20	20	51	130	85	58	20	45	2	107	48	90	70	18x4	1/4"
DN25	PN10-40	B1	90	16	20	51	115	85	68	25	45	2	107	52	85	70	14x4	1/4"
DN25	PN63-100	B1	90	22	20	51	140	85	68	25	45	2	107	46	100	70	18x4	1/4"
DN40	PN10-40	B1	90	15	20	51	150	85	88	40	52	3	106	52	110	70	18x4	1/4"
DN40	PN63-100	B1	90	23	20	51	170	85	88	40	52	3	106	44	125	70	22x4	1/4"
DN50	PN10	B1	90	15	20	51	165	85	102	47	52	3	106	52	125	70	18x4	1/4"
DN50	PN25-40	B1	90	17	20	51	165	85	102	47	52	3	106	50	125	70	18x4	1/4"
DN50	PN63	B1	90	23	20	51	180	85	102	47	52	3	106	44	135	70	22x4	1/4"
DN50	PN100	B1	100	25	20	51	195	85	102	47	52	3	116	52	145	70	26x4	1/4"
DN80	PN10	B1	90	17	20	51	200	85	138	47	52	3	106	50	160	70	18x8	1/4"
DN80	PN25-40	B1	90	21	20	51	200	85	138	47	52	3	106	46	160	70	18x8	1/4"
DN80	PN63	B1	90	25	20	51	215	85	138	47	52	3	106	42	170	70	22x8	1/4"
DN80	PN100	B1	100	29	20	51	230	85	138	47	52	3	116	48	180	70	26x8	1/4"

JIS B2220 RF

size	rating	facing	dD	b	b1	b2	D	D1	d4	d5	d6	f	H	H1	d4	K	K1	C1 / pcs	C2
25	5K	RF	32	10	10	20	95	85	35	15	40	1	97	48	59	75	70	12 / 4x	1/4"
25	10K	RF	32	14	13	20	125	85	35	15	40	1	97	45	67	90	70	19 / 4x	1/4"
25	16K	RF	32	14	14	20	125	85	35	15	40	1	102	49	67	90	70	19 / 4x	1/4"
25	20K	RF	32	16	22	20	125	85	35	15	40	1	112	51	67	90	70	19 / 4x	1/4"
32	5K	RF	32	12	11	20	115	85	43	20	42	2	107	578	70	90	70	15 / 4x	1/4"
32	10K	RF	32	16	14	20	135	85	43	20	42	2	107	54	76	100	70	19 / 4x	1/4"
32	16K	RF	32	16	16	20	135	85	43	20	42	2	102	47	76	100	70	19 / 4x	1/4"
32	20K	RF	32	18	25	20	135	85	43	20	42	2	102	38	76	100	70	19 / 4x	1/4"
40	5K	RF	44	12	13	21	120	85	51	25	52	2	107	55	75	95	70	15 / 4x	1/4"
40	10K	RF	44	16	16	21	140	85	51	25	52	2	107	52	81	105	70	19 / 4x	1/4"
40	16K	RF	44	16	18	21	140	85	51	25	52	2	102	46	81	105	70	19 / 4x	1/4"
40	20K	RF	44	18	29	21	140	85	51	25	52	2	112	44	81	105	70	19 / 4x	1/4"
50	5K	RF	57	14	16	20	130	85	73	40	52	2	107	51	85	105	70	15 / 4x	1/4"
50	10K	RF	57	16	19	20	155	85	73	40	52	2	107	48	96	120	70	19 / 4x	1/4"
50	16K	RF	57	16	22	20	155	85	73	40	52	2	102	40	96	120	70	19 / 8x	1/4"
50	20K	RF	57	18	32	20	155	85	73	40	52	2	112	40	96	120	70	19 / 8x	1/4"
80	5K	RF	81	14	18	20	180	85	92	47	52	2	117	61	121	145	70	19 / 4x	1/4"
80	10K	RF	81	18	21	20	185	85	92	47	52	2	117	57	126	150	70	19 / 8x	1/4"
80	16K	RF	81	20	25	20	200	85	92	47	52	2	122	58	132	160	70	23 / 8x	1/4"
80	20K	RF	81	22	38	20	200	85	92	47	52	2	137	60	132	160	70	23 / 8x	1/4"
100	5K	RF	81	16	22	20	200	85	127	47	52	2	117	56	141	163	70	19 / 8x	1/4"
100	10K	RF	81	18	27	20	210	85	127	47	52	2	117	51	151	175	70	19 / 8x	1/4"
100	16K	RF	81	22	32	20	225	85	127	47	52	2	122	51	160	185	70	23 / 8x	1/4"
100	20K	RF	81	24	38	20	225	85	127	47	52	2	137	60	160	185	70	23 / 8x	1/4"

Flange Specification Reference Table

ANSI	DIN	JIS
-	PN6	-
150 lbs	PN10	10K
-	PN16	16K
300 lbs	-	20K
400 lbs	PN25	30K
600 lbs	PN40	40K
900 lbs	PN63	63K
1500 lbs	PN100	100K
2500lbs	PN160	-

Connection Size Reference Table

Size Chart	Nominal
1/8"	DN6
1/4"	DN8
3/8"	DN10
1/2"	DN15
3/4"	DN20
1"	DN25
1 1/4"	DN32
1 1/2"	DN40
2"	DN50
2 1/2"	DN65
3"	DN80
4"	DN100

Flange Specification Reference Table

Flange Specification	Flange Pressure Rating	Connection Size	
ANSI (RF)	150 lbs	1/2"	
	300 lbs	3/4"	
	400 lbs	1"	
	600 lbs	1 1/4"	
	900 lbs	1 1/2"	
	1500 lbs	2"	
		2 1/2"	
		3"	
	JIS (FF)	10K	1/2"
		16K	3/4"
20K		1"	
30K		1 1/4"	
40K		1 1/2"	
63K		2"	
100K		2 1/2"	
		3"	
DIN		PN6	DN15
		PN10	DN20
	PN16	DN25	
	PN25	DN32	
	PN40	DN40	
	PN63	DN50	
	PN100	DN65	
	PN160	DN80	

Pressure Limit

Flange Size	Minimum Pressure Limit	Maximum Pressure Limit
All Sizes	-1...0 bar -1...1 bar 0...1 bar	0...60 bar

How to order

DS200-GP(W) All-Welded Diaphragm Seal (I-Type)									
Std.	Spec.	Code	Item	Code	Item	Code	Item	Code	Item
304	Diaphragm Material	304	SS304 (Standard)	316	SS316	M400	Monel 400	H	Hastelloy B
		C276	Hastelloy C276	N	Nickel 200	T	Titanium	D	Duplex 2205
		I	Inconel 600	-	-	-	-	-	-
316L	Diaphragm	316L	SS316L (Standard)	M400	Monel 400	C276	Hastelloy C276	HB	Hastelloy B
		C22	Hastelloy C22	N	Nickel 200	T	Titanium	D	Duplex 2205
		I	Inconel 600	-	-	-	-	-	-
304	Wetted Lower Flange	304	SS304 (Standard)	316	SS316	M400	Monel 400	H	Hastelloy B
		C276	Hastelloy C276	N	Nickel 200	T	Titanium	D	Duplex 2205
		I	Inconel 600	-	-	-	-	-	-
Custom	Flange Specification	Please refer to the flange reference table.							
Custom	Flange Pressure Rating	Please refer to the flange reference table.							
Custom	Connection Size	Please refer to the flange reference table.							
Custom	Pressure Range	Please refer to the pressure limit.							

Order example: DS200-GP(W) - 304 - 316L - 304 - ANSI (RF) - 150 lbs - 1/2" - (0...60 bar)

Other Requirements:

DS100 Series	DS200 - DS300 Series
<ul style="list-style-type: none"> ■ Heat Dissipation Tube ■ Heat Exchanger Installed Between Diaphragm and Pressure Gauge ■ Internal Filling: Medical-grade Mineral Oil or Vegetable Oil ■ Fluid Temperature: +80~200°C ■ Fluid Temperature: +200~400°C ■ Inner Copper / Outer 304 Stainless Steel Isolation Tube*¹ ■ Inner and Outer 304 Stainless Steel Isolation Tube*¹ ■ Flush Holes*⁴ ■ Gasket Material: PTFE*⁵ 	<ul style="list-style-type: none"> ■ Heat Dissipation Tube ■ Heat Exchanger Installed Between Diaphragm and Pressure Gauge ■ Internal Filling: Medical-grade Mineral Oil or Vegetable Oil ■ Fluid Temperature: +80~200°C ■ Fluid Temperature: +200~400°C ■ Isolation Tube: Inner Copper / Outer 304 Stainless Steel*¹ ■ Isolation Tube: Inner and Outer 304 Stainless Steel*¹ ■ Coating: PTFE, PFA, FEP, PVDF; *² EPOXY (for ambient temperature ≤ 60°C) ■ Lining: PTFE ■ Contact Face: RF, FF *³ ■ Contact Face: Ring Joint *³ ■ Gasket Material: PTFE*⁵ ■ Diaphragm Plating: Gold or Pure Silver
DS400 Series	DS500 Series
<ul style="list-style-type: none"> ■ Heat Dissipation Tube ■ Heat Exchanger Installed Between Diaphragm and Pressure Gauge ■ Internal Filling: Medical-Grade Mineral Oil or Vegetable Oil ■ Fluid Temperature: +80~200°C ■ Fluid Temperature: +200~400°C ■ Isolation Tube: Inner Copper / Outer 304 Stainless Steel*¹ ■ Isolation Tube: Inner and Outer 304 Stainless Steel*¹ 	<ul style="list-style-type: none"> ■ Heat Dissipation Tube ■ Heat Exchanger Installed Between Diaphragm and Pressure Gauge ■ Internal Filling: Medical-Grade Mineral Oil or Vegetable Oil ■ Fluid Temperature: +80~200°C ■ Fluid Temperature: +200~400°C ■ Isolation Tube: Inner Copper / Outer 304 Stainless Steel*¹ ■ Isolation Tube: Inner and Outer 304 Stainless Steel*¹

*1: Pressure limited to below 40 bar.

*2: Fluid temperature limited to below 200°C.

*3: Limited to flange specifications; if not specified, standard applies.

*4: Limited to certain specifications.

*5: Limited to screw-lock type.