

The BC construction has a seal body that is made of bar stock or forged material. The weld of the diaphragm to the seal body is a wetted part and therefore diaphragm materials are mostly chosen the same as the flange material. Its pressure rating is defined by the back-up flange and as such it can be used for all pressure ratings in RF or type B1 facings. An extra feature of BC type seal is that it can be equipped with the so-called LGP module, which allows for Low Gauge Pressure measurement with temperature influences reduced with factor 10.



STANDARD EXECUTION

DIAPHRAGM	BODY	MOUNTING CONNECTION
AISI 316(L)	AISI 316(L)	side (radial)
FACING	FACING TYPE	
RF	B1	

FLANGED PROCESS CONNECTIONS

ASME B16.5

size	rating	dD
1"	cl. 150 - cl. 2500	23.0mm
1.5"	cl. 150 - cl. 600	44.0mm
1.5"	cl. 900 - cl. 2500	32.0mm
2"	cl. 150 - cl. 600	57.0mm
2"	cl. 900 - cl. 2500	44.0mm
3"	cl. 150 - cl. 2500	81.0mm
4"	cl. 150 - cl. 2500	81.0mm

EN 1092-1

size	rating	dD
DN20	PN10-400	23.0mm
DN25	PN10-400	32.0mm
DN32	PN10-400	32.0mm
DN40	PN10-400	44.0mm
DN50	PN10-400	57.0mm
DN80	PN10-400	81.0mm
DN100	PN10-400	81.0mm

API ISO 10423

size	rating	facing	dD
1-13/16"	69 – 138 MPa	6BX - RJF	32.0mm
2-1/16"	13.8 MPa	6B - RJF	44.0mm
2-1/16"	20.7 – 34.5 MPa	6B - RJF	44.0mm
2-1/16"	69 – 138 MPa	6BX - RJF	44.0mm
2-9/16"	13.8 MPa	6B - RJF	72.0mm
2-9/16"	20.7 – 34.5 MPa	6B - RJF	81.0mm
2-9/16"	69 – 138 MPa	6Bx - RJF	57.0mm
3-1/16"	69 – 138 MPa	6Bx - RJF	72.0mm
3-1/8"	13.8 – 34.5 MPa	6B - RJF	81.0mm

JIS B2220

size	rating	facing	dD
25 (1")	10K – 20K	RF	32.0mm
32 (1.25")	10K – 20K	RF	44.0mm
40 (1.5")	10K – 20K	RF	44.0mm
50 (2")	10K – 20K	RF	57.0mm
80 (3")	10K – 20K	RF	81.0mm
90 (3.5")	10K – 20K	RF	81.0mm
100 (4")	10K – 20K	RF	81.0mm

Note: JIS RF facing roughness is Ra 3.2-6.3 µm

WETTED PARTS, BODY MATERIALS, AND FACING OPTIONS

body material	diaphragm material
AISI 316(L)	AISI 316(L) AISI 304L AISI 321 AISI 316 UG Hastelloy C-276 Wst. 1.4435
AISI 904(L)	AISI 904(L)
AISI 310 MoLn	25-22- LMN
Duplex F44	254 SMO (6Mo)
Duplex F51/F60	Duplex 2205
Duplex F53	Super Duplex 2507
Duplex F55	Super Duplex 2507
Hastelloy B2	Hastelloy B2
Hastelloy C-276	Hastelloy C-276
Alloy 20	Alloy 20
Inconel 600	Inconel 600
Inconel 625	Inconel 625
Inconel 825	Inconel 825
Monel 400	Monel 400
Nickel 201	Nickel 201
Titanium Gr. 2	Titanium Gr. 1
Zirconium 702	Zirconium 702

facing (ASME B16.5)	
RF	Ra 3.2-6.3 µm
LMF	Ra 3.2-6.3 µm
SMF	Ra <3.2 µm
LTF	Ra <3.2 µm
LGF	Ra <3.2 µm
STF	Ra <3.2 µm
SGF	Ra <3.2 µm
RJF	Ra <1.6 µm

Facing type (EN 1092-1)	
B1	Ra 0.8-3.2 µm
B2	Ra 3.2-12.5 µm
C	Ra 0.8-3.2 µm
D	Ra 0.8-3.2 µm
E	Ra 3.2-12.5 µm
F	Ra 3.2-12.5 µm

COATING AND OTHER OPTIONS

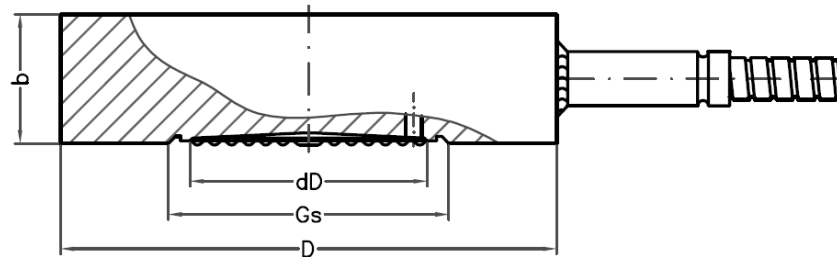
COATINGS

- gold: 25 µm / 40 µm chemical resistance and/or hydrogen permeation protection (facing and/or diaphragm)
- PTFE / ECTFE for anti-stick purpose only
- FEP / PFA
- thermal spray

OTHER OPTIONS

- TC - temperature compensator
- degreasing wetted parts
- back-up / cover flange

DRAWING AND DIMENSIONS STANDARD EXECUTIONS



ASME B16.5 - RF FACING

size	rating	facing	dD	b	D	Gs
1"	cl. 150 - cl. 2500	RF	23.0	24.0	50.8	31.8
1.5"	cl. 150 - cl. 600	RF	44.0	24.0	73.0	52.4
1.5"	cl. 900 - cl. 2500	RF	32.0	24.0	73.0	41.5
2"	cl. 150 - cl. 600	RF	57.0	24.0	92.1	70.2
2"	cl. 900 - cl. 2500	RF	44.0	24.0	92.1	55.4
3"	cl. 150 - cl. 2500	RF	81.0	24.0	127.0	101.0
4"	cl. 150 - cl. 2500	RF	81.0	24.0	157.2	101.0

All dimensions in mm

EN 1092-1 - TYPE B1

size	rating	type	dD	b	D	Gs
DN20	PN10-400	B1	23.0	24.0	58.0	33.8
DN25	PN10-400	B1	32.0	24.0	68.0	41.0
DN32	PN10-400	B1	32.0	24.0	78.0	41.5
DN40	PN10-400	B1	44.0	24.0	88.0	55.4
DN50	PN10-400	B1	57.0	24.0	102.0	70.2
DN80	PN10-400	B1	81.0	24.0	138.0	93.0
DN100	PN10-16	B1	81.0	24.0	158.0	101.0
DN100	PN25-400	B1	81.0	24.0	162.0	101.0

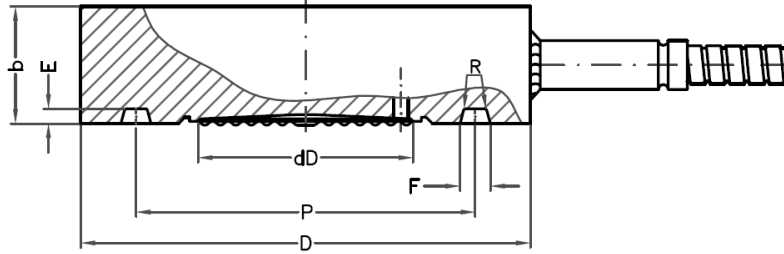
All dimensions in mm

JIS B2220

size	rating	facing	dD	b	D	Gs
25	10K	RF	32.0	24.0	67.0	40.0
25	16-20K	RF	32.0	24.0	67.0	40.0
32	10K	RF	44.0	24.0	76.0	50.6
32	16-20K	RF	44.0	24.0	76.0	50.6
40	10K	RF	44.0	24.0	81.0	55.4
40	16-20K	RF	44.0	24.0	81.0	55.4
50	10K	RF	57.0	24.0	96.0	68.5
50	16-20K	RF	57.0	24.0	96.0	68.5
80	10K	RF	81.0	24.0	126.0	93.0
80	16-20K	RF	81.0	24.0	132.0	93.0
90	10K	RF	81.0	24.0	136.0	101.0
90	16-20K	RF	81.0	24.0	145.0	101.0
100	10K	RF	81.0	24.0	151.0	101.0
100	16-20K	RF	81.0	24.0	160.0	101.0

All dimensions in mm

DRAWING AND DIMENSIONS RJF FACING



ASME B16.5 - RJF FACING

size	rating	facing	dD	b	D	E	F	P	R	Ring #
1"	cl. 150	RJF	32.0	28.0	63.5	6.4	8.7	47.6	0.8	15
1"	cl. 300	RJF	32.0	28.0	70.0	6.4	8.7	50.8	0.8	16
1"	cl. 400-600	RJF	32.0	28.0	70.0	6.4	8.7	50.8	0.8	16
1"	cl. 900-1500	RJF	32.0	28.0	71.5	6.4	8.7	50.8	0.8	16
1"	cl. 2500	RJF	32.0	28.0	82.5	6.4	8.7	60.3	0.8	18
1.5"	cl. 150	RJF	44.0	28.0	82.5	6.4	8.7	65.1	0.8	19
1.5"	cl. 300	RJF	44.0	28.0	90.5	6.4	8.7	68.3	0.8	20
1.5"	cl. 400-600	RJF	44.0	28.0	90.5	6.4	8.7	68.3	0.8	20
1.5"	cl. 900-1500	RJF	44.0	28.0	92.0	6.4	8.7	68.3	0.8	20
1.5"	cl. 2500	RJF	44.0	28.0	114.0	7.9	11.9	95.3	0.8	23
2"	cl. 150	RJF	57.0	28.0	102.0	6.4	8.7	82.6	0.8	22
2"	cl. 300	RJF	57.0	28.0	108.0	7.9	11.9	82.6	0.8	23
2"	cl. 400-600	RJF	57.0	28.0	108.0	7.9	11.9	82.6	0.8	23
2"	cl. 900-1500	RJF	57.0	28.0	124.0	7.9	11.9	95.3	0.8	24
2"	cl. 2500	RJF	57.0	28.0	133.0	7.9	11.9	101.6	0.8	26
3"	cl. 150	RJF	81.0	28.0	133.0	6.4	8.7	114.3	0.8	29
3"	cl. 300	RJF	81.0	28.0	146.0	7.9	11.9	123.8	0.8	31
3"	cl. 400-600	RJF	81.0	28.0	146.0	7.9	11.9	123.8	0.8	31
3"	cl. 900	RJF	81.0	28.0	156.0	7.9	11.9	123.8	0.8	31
3"	cl. 1500	RJF	81.0	28.0	168.0	7.9	11.9	136.5	0.8	35
3"	cl. 2500	RJF	81.0	28.0	168.0	9.5	13.5	127.0	1.5	32
4"	cl. 150	RJF	81.0	30.0	171.0	6.4	8.7	149.2	0.8	36
4"	cl. 300	RJF	81.0	30.0	175.0	7.9	11.9	149.2	0.8	37
4"	cl. 400	RJF	81.0	30.0	175.0	7.9	11.9	149.2	0.8	37
4"	cl. 600	RJF	81.0	30.0	175.0	7.9	11.9	149.2	0.8	37
4"	cl. 900	RJF	81.0	30.0	181.0	7.9	11.9	149.2	0.8	37
4"	cl. 1500	RJF	81.0	30.0	194.0	7.9	11.9	161.9	0.8	39
4"	cl. 2500	RJF	81.0	30.0	203.0	11.1	16.7	157.2	1.5	38

All dimensions in mm

API ISO 10423 - TYPE 6BX

size	rating	facing	dD	b	D	E	F	P	R	Ring #
1-13/16"	69 Mpa	6BX – RJF	32.0	28.0	105.0	5.6	11.8	65.9	0.8	20
1-13/16"	103.5 Mpa	6BX – RJF	32.0	28.0	106.0	5.6	11.8	65.9	0.8	20
1-13/16"	138 Mpa	6BX – RJF	32.0	28.0	117.0	5.6	11.8	65.9	0.8	23
2-1/16"	69 Mpa	6BX – RJF	44.0	28.0	111.0	5.9	12.7	73.6	0.8	22
2-1/16"	103.5 Mpa	6BX – RJF	44.0	28.0	114.0	5.9	12.7	73.6	0.8	23
2-1/16"	138 Mpa	6BX – RJF	44.0	28.0	132.0	5.9	12.7	73.6	0.8	23
2-9/16"	69 Mpa	6BX – RJF	57.0	28.0	132.0	6.8	14.1	88.7	0.8	24
2-9/16"	103.5 Mpa	6BX – RJF	57.0	28.0	133.0	6.8	14.1	88.7	0.8	26
2-9/16"	138 Mpa	6BX – RJF	57.0	28.0	151.0	6.8	14.1	88.7	0.8	29
3-1/16"	69 Mpa	6BX – RJF	72.0	28.0	152.0	7.5	15.4	103.6	0.8	31
3-1/16"	103.5 Mpa	6BX – RJF	72.0	28.0	154.0	7.5	15.4	103.6	0.8	31
3-1/16"	138 Mpa	6BX – RJF	72.0	28.0	171.0	7.5	15.4	103.6	0.8	31

All dimensions in mm

API ISO 10423 - TYPE 6B

size	rating	facing	dD	b	D	E	F	P	R	Ring #
2-1/16"	13.8 MPa	6B – RJF	44.0	28.0	108.0	7.9	11.9	82.6	0.8	15
2-1/16"	20.7 MPa	6B – RJF	44.0	28.0	124.0	7.9	11.9	95.2	0.8	16
2-1/16"	34.5 MPa	6B – RJF	44.0	28.0	124.0	7.9	11.9	95.2	0.8	16
2-9/16"	13.8 MPa	6B – RJF	72.0	28.0	127.0	7.9	11.9	101.6	0.8	16
2-9/16"	20.7 MPa	6B – RJF	72.0	28.0	137.0	7.9	11.9	107.9	0.8	16
2-9/16"	34.5 MPa	6B – RJF	72.0	28.0	137.0	7.9	11.9	107.9	0.8	16
3-1/8"	13.8 MPa	6B – RJF	81.0	28.0	146.0	7.9	11.9	123.8	0.8	18
3-1/8"	20.7 MPa	6B – RJF	81.0	28.0	156.0	7.9	11.9	123.8	0.8	19
3-1/8"	34.5 MPa	6B – RJF	81.0	28.0	168.0	7.9	11.9	136.5	0.8	20

All dimensions in mm



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