

BX Series

Metal bellows seals

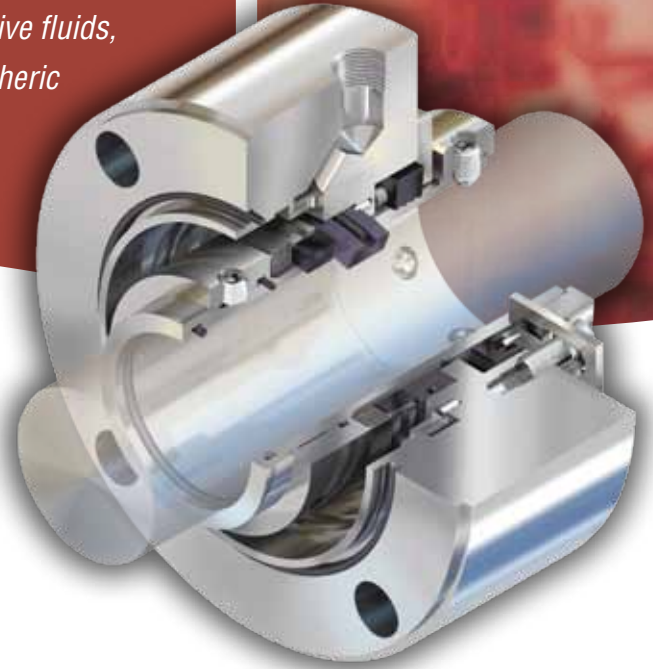
The BX Series is a family of balanced metal bellows seals available in single and dual seal configurations. BX Series seals provide exceptional reliability in corrosive and non-corrosive fluids, especially fluids that crystallize or coke in atmospheric conditions. The BX Series is fully compliant with API 682 Type B requirements.

Features and Benefits

- 0.20 mm (0.008 inch) thick standard welded bellows provides maximum resistance to corrosion, shaft vibrations, and centrifugal forces.
- Rotating bellows acts to clear convolutions and prevent accumulation of debris.
- Absence of springs and dynamic elastomers reduces clogging vulnerabilities.
- Circulating device integrated into the dual seal cartridge circulates barrier fluid to keep the seal faces cool. A circulating device is also available on single seals for fluids over 75°C (167°F).
- Available multi-port flush distributes flush fluid evenly around the seal faces for uniform cooling.
- Part interchangeability between single and dual seal arrangements minimizes inventory requirements and maximizes design flexibility.

Specialized designs for specific applications

- BXQ** High balance low emission hydrocarbon design for specific gravities down to 0.45 with multi-port flush. Standard API 682 Type B Arrangement 1 seal.
- BXB** Inner bellows designed for ID pressurization with barrier fluid. Standard API 682 Type B Arrangement 3 pressurized dual seal.
- BXLS** Designed to international standard DIN EN 12 756 L1k for use in DIN pumps.
- BXR** Stationary bellows design capable of speeds up to 46 m/s (150 fps).

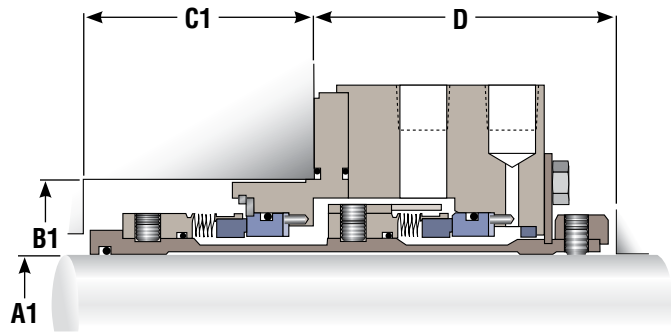
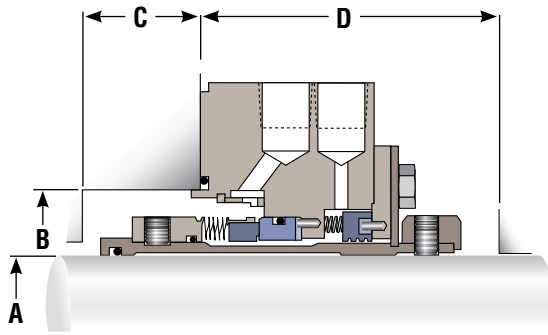


Materials of Construction

Metal Bellows	316 Stainless Steel, Alloy C-276, Alloy 400
Rotating Face	Carbon, Silicon Carbide, Tungsten Carbide
Stationary Face	Silicon Carbide, Tungsten Carbide
Metal Components	316 Stainless Steel, Alloy C-276, Alloy 400
Gaskets	Fluoroelastomer, Perfluoroelastomer

Operating Parameters

Pressure	Up to 28 bar (400 psi) Higher pressures available for selected sizes.
Temperature	-40 to 204°C (-40 to 400°F)
Specific Gravity	0.45 and higher
Surface Speed	Up to 23 m/s (75 fps)
Shaft Sizes	12.3 to 152.4 mm (0.483 to 6.000 inch)


Dimensional Data in millimeters
in inches

Seal Size	A Max	A1 Max	B Min	B1 Min	C Min	C1 Min	D Min	A Max	A1 Max	B Min	B1 Min	C Min	C1 Min	D Min
875	16.51	16.51	41.28	47.63	25.78	67.08	63.09	0.650	0.650	1.625	1.875	1.015	2.641	2.484
1000	19.69	16.51	44.45	51.99	27.36	68.68	63.09	0.775	0.775	1.750	2.047	1.077	2.704	2.484
1125	22.86	22.86	47.63	55.17	26.59	68.68	63.09	0.900	0.900	1.875	2.172	1.047	2.704	2.484
1250	26.04	26.04	50.80	58.34	28.17	68.68	66.27	1.025	1.025	2.000	2.297	1.109	2.704	2.609
1375	29.21	29.21	53.98	63.09	27.38	69.44	69.44	1.150	1.150	2.125	2.484	1.078	2.734	2.734
1500	32.39	32.39	57.15	67.46	32.13	78.18	69.44	1.275	1.275	2.250	2.656	1.265	3.078	2.734
1625	35.56	33.02	65.08	70.64	34.52	82.93	70.26	1.400	1.300	2.562	2.781	1.359	3.265	2.766
1750	38.74	33.27	68.10	74.63	42.44	79.76	73.43	1.525	1.310	2.681	2.938	1.671	3.140	2.891
1875	41.91	36.45	71.42	77.80	43.23	80.57	73.43	1.650	1.435	2.812	3.063	1.702	3.172	2.891
2000	45.09	39.62	74.60	81.36	43.23	80.57	73.43	1.775	1.560	2.937	3.203	1.702	3.172	2.891
2125	48.26	42.80	80.95	87.71	45.62	82.14	73.43	1.900	1.685	3.187	3.453	1.796	3.234	2.891
2250	51.44	45.97	84.12	89.31	45.62	82.14	73.43	2.025	1.810	3.312	3.516	1.796	3.234	2.891
2375	54.61	49.15	87.30	91.29	47.19	83.74	73.43	2.150	1.935	3.437	3.594	1.858	3.297	2.891
2500	57.79	52.32	90.47	97.23	51.15	91.67	73.43	2.275	2.060	3.562	3.828	2.014	3.609	2.891
2625	60.96	55.50	90.47	100.0	51.15	91.67	73.43	2.400	2.185	3.562	3.938	2.014	3.609	2.891
2750	64.14	58.67	93.65	103.9	52.78	94.46	77.39	2.525	2.310	3.687	4.094	2.078	3.719	3.047
2875	67.31	61.85	100.0	108.7	52.37	94.46	79.38	2.650	2.435	3.937	4.281	2.062	3.719	3.125
3000	70.49	65.02	103.2	111.9	52.37	94.46	79.38	2.775	2.560	4.062	4.406	2.062	3.719	3.125
3125	73.66	68.20	108.0	117.5	54.76	96.75	83.34	2.900	2.685	4.250	4.625	2.156	3.809	3.281
3250	76.84	71.37	111.1	120.7	54.76	96.75	83.34	3.025	2.810	4.375	4.750	2.156	3.809	3.281
3375	80.01	74.55	114.3	124.2	54.76	96.75	83.34	3.150	2.935	4.500	4.891	2.156	3.809	3.281
3500	83.19	77.72	117.5	127.4	54.76	98.43	83.34	3.275	3.060	4.625	5.016	2.156	3.875	3.281
3750	89.54	84.07	123.8	133.8	54.76	98.43	83.34	3.525	3.310	4.875	5.266	2.156	3.875	3.281
4000	95.89	90.42	131.7	140.5	54.76	92.08	89.69	3.775	3.560	5.187	5.531	2.156	3.625	3.531
4250	95.89	96.77	131.7	148.8	54.76	92.08	89.69	4.025	3.810	5.500	5.859	2.156	3.625	3.531
4500	108.6	103.1	146.0	153.6	54.76	92.08	89.69	4.275	4.060	5.750	6.047	2.156	3.625	3.531
5000	121.2	115.8	158.8	166.7	57.15	93.68	89.69	4.775	4.560	6.250	6.563	2.250	3.688	3.531
5500	134.0	128.5	171.5	181.0	57.15	93.68	89.69	5.275	5.060	6.750	7.125	2.250	3.688	3.531
6250	152.4	147.6	193.7	203.2	57.15	93.68	89.69	6.000	5.810	7.625	8.000	2.250	3.688	3.531

Note: For sizes and conditions not listed, contact your Flowserve Representative.

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