

# BX Series

## Metal bellows seals

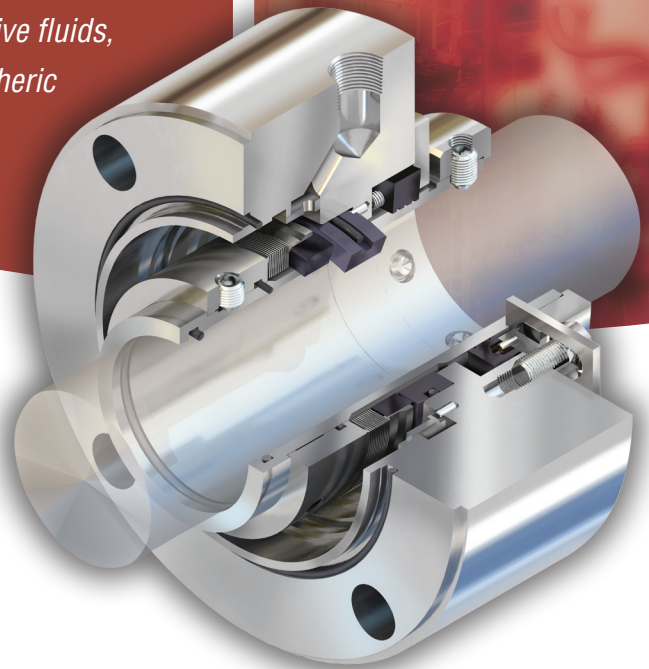
The BX Series is a family of balanced metal bellows seals available in single and dual seal configurations. BX Series seals provide exceptional reliability in corrosive and non-corrosive fluids, especially fluids that crystallize or coke in atmospheric conditions. The BX Series is fully compliant with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

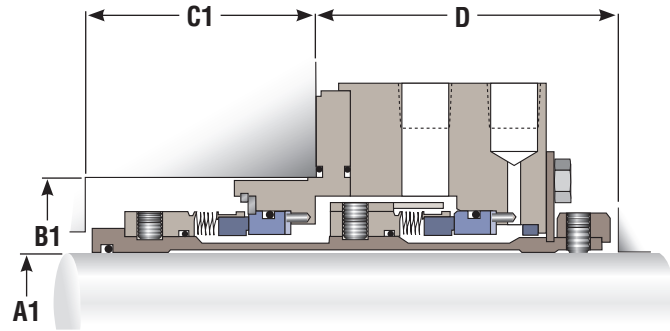
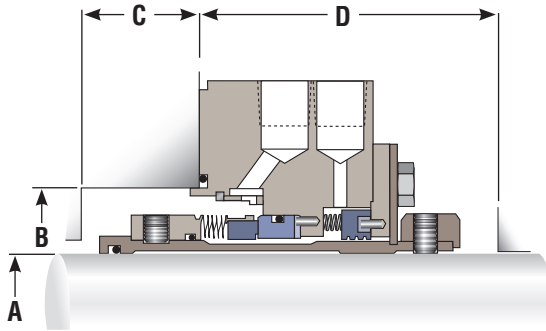


### Materials of Construction

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

### Operating Parameters

<b>Pressure</b>	Up to 28 bar (400 psi) Higher pressures available for selected sizes.
<b>Temperature</b>	-40 to 204°C (-40 to 400°F)
<b>Specific Gravity</b>	0.45 and higher
<b>Surface Speed</b>	Up to 23 m/s (75 fps)
<b>Shaft Sizes</b>	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
875	16.51	16.51	41.28	47.63	25.78	67.08	63.09
1000	19.69	16.51	44.45	51.99	27.36	68.68	63.09
1125	22.86	22.86	47.63	55.17	26.59	68.68	63.09
1250	26.04	26.04	50.80	58.34	28.17	68.68	66.27
1375	29.21	29.21	53.98	63.09	27.38	69.44	69.44
1500	32.39	32.39	57.15	67.46	32.13	78.18	69.44
1625	35.56	33.02	65.08	70.64	34.52	82.93	70.26
1750	38.74	33.27	68.10	74.63	42.44	79.76	73.43
1875	41.91	36.45	71.42	77.80	43.23	80.57	73.43
2000	45.09	39.62	74.60	81.36	43.23	80.57	73.43
2125	48.26	42.80	80.95	87.71	45.62	82.14	73.43
2250	51.44	45.97	84.12	89.31	45.62	82.14	73.43
2375	54.61	49.15	87.30	91.29	47.19	83.74	73.43
2500	57.79	52.32	90.47	97.23	51.15	91.67	73.43
2625	60.96	55.50	90.47	100.0	51.15	91.67	73.43
2750	64.14	58.67	93.65	103.9	52.78	94.46	77.39
2875	67.31	61.85	100.0	108.7	52.37	94.46	79.38
3000	70.49	65.02	103.2	111.9	52.37	94.46	79.38
3125	73.66	68.20	108.0	117.5	54.76	96.75	83.34
3250	76.84	71.37	111.1	120.7	54.76	96.75	83.34
3375	80.01	74.55	114.3	124.2	54.76	96.75	83.34
3500	83.19	77.72	117.5	127.4	54.76	98.43	83.34
3750	89.54	84.07	123.8	133.8	54.76	98.43	83.34
4000	95.89	90.42	131.7	140.5	54.76	92.08	89.69
4250	95.89	96.77	131.7	148.8	54.76	92.08	89.69
4500	108.6	103.1	146.0	153.6	54.76	92.08	89.69
5000	121.2	115.8	158.8	166.7	57.15	93.68	89.69
5500	134.0	128.5	171.5	181.0	57.15	93.68	89.69
6250	152.4	147.6	193.7	203.2	57.15	93.68	89.69

A Max	A1 Max	B Min	B1 Min	C Min	C1 Min	D Min
0.650	0.650	1.625	1.875	1.015	2.641	2.484
0.775	0.775	1.750	2.047	1.077	2.704	2.484
0.900	0.900	1.875	2.172	1.047	2.704	2.484
1.025	1.025	2.000	2.297	1.109	2.704	2.609
1.150	1.150	2.125	2.484	1.078	2.734	2.734
1.275	1.275	2.250	2.656	1.265	3.078	2.734
1.400	1.300	2.562	2.781	1.359	3.265	2.766
1.525	1.310	2.681	2.938	1.671	3.140	2.891
1.650	1.435	2.812	3.063	1.702	3.172	2.891
1.775	1.560	2.937	3.203	1.702	3.172	2.891
1.900	1.685	3.187	3.453	1.796	3.234	2.891
2.025	1.810	3.312	3.516	1.796	3.234	2.891
2.150	1.935	3.437	3.594	1.858	3.297	2.891
2.275	2.060	3.562	3.828	2.014	3.609	2.891
2.400	2.185	3.562	3.938	2.014	3.609	2.891
2.525	2.310	3.687	4.094	2.078	3.719	3.047
2.650	2.435	3.937	4.281	2.062	3.719	3.125
2.775	2.560	4.062	4.406	2.062	3.719	3.125
2.900	2.685	4.250	4.625	2.156	3.809	3.281
3.025	2.810	4.375	4.750	2.156	3.809	3.281
3.150	2.935	4.500	4.891	2.156	3.809	3.281
3.275	3.060	4.625	5.016	2.156	3.875	3.281
3.525	3.310	4.875	5.266	2.156	3.875	3.281
3.775	3.560	5.187	5.531	2.156	3.625	3.531
4.025	3.810	5.500	5.859	2.156	3.625	3.531
4.275	4.060	5.750	6.047	2.156	3.625	3.531
4.775	4.560	6.250	6.563	2.250	3.688	3.531
5.275	5.060	6.750	7.125	2.250	3.688	3.531
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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