

GCX

A self contained single cartridge multiple chemical seal

Specifically designed for multiple chemical exposure services and ideally suited for intermediate and batch chemical processes, the GCX is perfect for short run chemical plants, multiple campaign specialty chemical and pharmaceutical plants using solvents and steam for decontamination. The GCX can seal tough multiple exposure applications dynamically, statically and during process change over.



Focused on the Multiple Chemical Applications

Specific sealing applications often require a focused product designed to meet these intricate operational demands. The GCX is designed specifically for ANSI and DIN pump services, where the pumps and seals are required to operate in multiple chemical environments without chemical compatibility change outs. Batch processing and intermediate chemical pumps often handle multiple pH level products as the processing moves from start to completion not allowing for secondary seal conversion. The GCX provides sealing on chemical pumps from a variety of manufacturers.

Materials of Construction

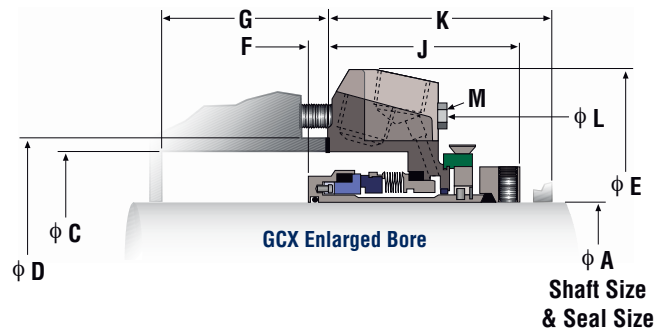
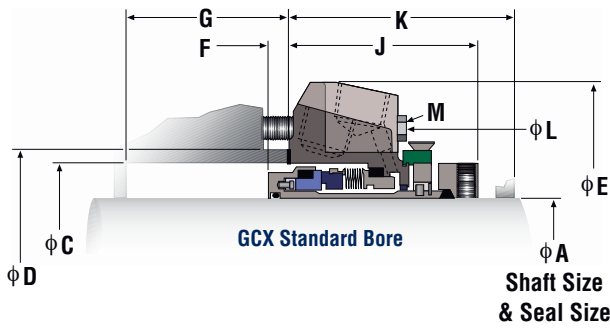
Gland Ring:	316 Stainless Steel
Bellows:	Alloy C-276
Primary Ring:	Carbon (Optional Direct Sintered Silicon Carbide)
Mating Ring	Direct Sintered Silicon Carbide
Secondary Seals:	Flexible Graphite Foil
Throttle Bushing:	Carbon
Gland Gaskets:	316 Stainless Steel Reinforced Graphite Laminate

Standard Operating Limits

Pressure:	0 to 200 psig (0 to 13.8 bar)
Temperature:	-40 to 400°F (-40 to 204°C)
Speed:	3000 fpm (15.2 m/s)
Sizes:	1.125" to 2.625" (33 mm to 65 mm)

Features and Benefits

- **Flexible Graphite foil secondary seals** offer near universal chemical compatibility for application in the harshest chemical conditions.
- **High alloy bellows** technology of Alloy C-276 for the best corrosion resistance.
- **Stationary bellows design** avoids seal hang up in coking applications.
- **Canned sleeve design** protects the silicon carbide rotor from damage.
- **Silicon Carbide Rotor** is held in compression with graphite foil secondary seal for maximized chemical compatibility.
- **Alloy C-276 drive mechanism** and minor parts are isolated from the process fluid to minimize chemical stress.
- **Inboard O-ring on the sleeve** between the sleeve and shaft resists particulate build up, facilitating easy removal of the seal from the equipment.
- **Standard throttle bushing with vent and drain ports** allow use of nitrogen or steam quench to mitigate coking.



GCX Standard Bore Dimensions inch (metric)

A	C		D	E	F	G	J	K	L	M
Shaft & Seal Size	Min	Max	Gasket OD	Gland OD	Sleeve Penetration	Box Depth Min	Outboard Seal Length	Dist. to Obst Min	Bolt Circle	Bolt Slot Dia.
1.125	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1.375 (33, 35)	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1.750	2.500	2.875 (63.5 73.0)	3.15 (80.0)	4.94-5.00 (125.5-127.0)	0.256 (6.5)	0.318 (8.1)	2.530 (64.3)	2.620 (66.5)	3.875 (98.4)	0.562 (14.3)
1.875 (45, 48)	2.625	2.875 (66.7 73.0)	3.15 (80.0)	4.94-5.00 (125.5-127.0)	0.256 (6.5)	0.318 (8.1)	2.522 (64.1)	2.580 (65.5)	3.875 (98.4)	0.562 (14.3)
2.125 (53)	2.875	3.250 (73.0 82.6)	3.54 (89.9)	5.94-6.00 (139.4-150.9)	0.275 (7.0)	0.337 (8.6)	2.530 (64.3)	2.590 (65.8)	4.440 (112.8)	0.750 (19.1)
2.375	3.388	3.750 (86.1 95.3)	3.985 (101.2)	6.32-6.38 (160.5-162.0)	0.310 (7.9)	0.372 (9.4)	2.522 (64.1)	2.630 (66.8)	4.875 (123.8)	0.750 (19.1)
2.500-Goulds	3.587	3.625 (91.1 92.1)	3.942 (100.1)	6.32-6.38 (160.5-162.0)	0.651 (16.5)	0.755 (19.2)	2.521 (64.0)	2.609 (66.3)	4.875 (123.8)	0.750 (19.1)
2.500-IDP	3.375	3.750 (85.7 95.2)	3.942 (100.1)	7.06-7.12 (179.3-180.8)	0.158 (4.0)	0.220 (5.6)	3.014 (76.6)	3.139 (79.7)	6.125 (155.6)	0.560 (14.2)
2.625 (65)	3.625	4.312 (92.1 109.5)	4.615 (117.2)	7.19-7.25 (182.6-184.2)	0.264 (6.7)	0.326 (8.3)	3.547 (90.1)	3.672 (93.3)	5.625 (142.9)	0.875 (22.2)

GCX Enlarged Bore Dimensions inch (metric)

A	C		D	E	F	G	J	K	L	M
Shaft & Seal Size	Min	Max	Gasket OD	Gland OD	Sleeve Penetration	Box Depth Min	Outboard Seal Length	Dist. to Obst Min	Bolt Circle	Bolt Slot Dia.
1.125	2.090	2.912 (53.1 74.0)	3.120 (79.2)	4.44-4.50 (112.8-114.3)	0.940 (23.9)	1.000 (25.4)	1.950 (49.5)	1.98 (50.3)	3.750 (50.3)	0.440 (11.2)
1.375 (33, 35)	2.495	3.162 (63.4 80.3)	3.365 (85.5)	5.19-5.25 (131.8-133.4)	0.760 (19.3)	0.82 (20.8)	1.950 (49.5)	2.000 (50.8)	4.000 (101.6)	0.440 (11.2)
1.750	3.500	4.152 (88.9 105.5)	4.355 (110.6)	6.44-6.50 (163.6-165.1)	0.166 (4.2)	0.228 (5.8)	2.620 (66.5)	2.769 (70.3)	3.875 (98.4)	0.562 (14.3)
1.875 (45, 48)	3.625	3.907 (92.1 99.2)	4.110 (104.4)	5.82-5.88 (147.8-149.4)	0.000 (0.0)	0.000 (0.0)	2.854 (72.5)	2.947 (74.9)	5.000 (127.0)	0.562 (14.3)
2.125 (53)	3.870	4.607 (98.3 117.0)	4.800 (121.9)	6.94-7.00 (176.3-177.8)	0.275 (7.0)	0.337 (8.6)	2.530 (64.3)	2.590 (65.8)	5.625 (142.9)	0.750 (19.1)
2.375	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2.500-Goulds	3.750	4.907 (95.2 124.6)	5.115 (129.9)	7.94-8.00 (201.7-203.2)	0.492 (12.5)	0.552 (14.0)	2.680 (68.1)	2.805 (71.2)	6.313 (160.4)	0.750 (19.1)
2.500-IDP	3.750	4.907 (95.2 124.6)	5.115 (129.9)	7.06-7.12 (179.3-180.8)	0.492 (12.5)	0.552 (14.0)	2.680 (68.1)	2.805 (71.2)	6.125 (155.6)	0.562 (14.3)
2.625 (65)	4.625	4.912 (117.5 124.8)	5.115 (129.9)	6.94-7.00 (176.3-177.8)	0.000 (0.0)	0.000 (0.0)	3.879 (98.5)	4.004 (101.7)	6.000 (152.4)	0.875 (22.2)

N/A - The GCX seal is not available in this size/configuration

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