

Tandem QBQ

Tandem QBQ Seal for Safety and Near Zero Emissions

The Tandem QBQ Seal is a compact medium to high pressure tandem seal arrangement. Tandem seal technology provides for safety backup in hazardous services and provides emissions control in critical environmental applications. These sealing systems have had over 15 years of development in our laboratory and in the field.

Features/Benefits

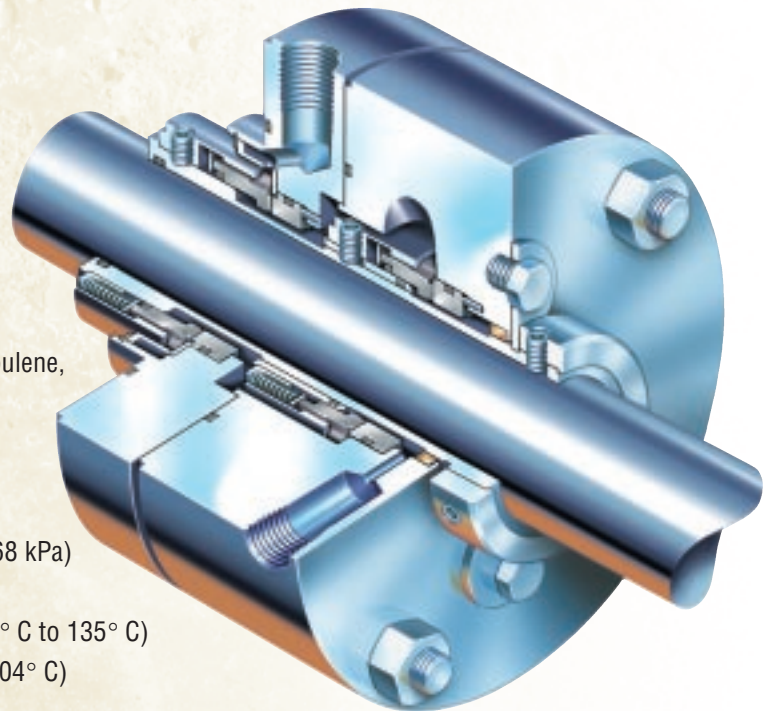
- Near Zero Emissions - contained primary seal leakage for proper disposal
- Full Pressure Rated Backup Seal - provides continuous pump operation to a safe and orderly shut down
- Compact Multi-Spring Design - minimize costly pump modification
- Cartridge Design Available - provides easy installation with reduced down time
- Circulation of the Barrier Fluid - provided without changes to the basic components part interchangeability results in low inventory costs
- Low Emissions - lab tested and field tested to less than 50 ppm. Meets SCAQMD Rule 1173*
- Multiport Injection - available to optimize face cooling, reducing face distortion

Materials of Construction

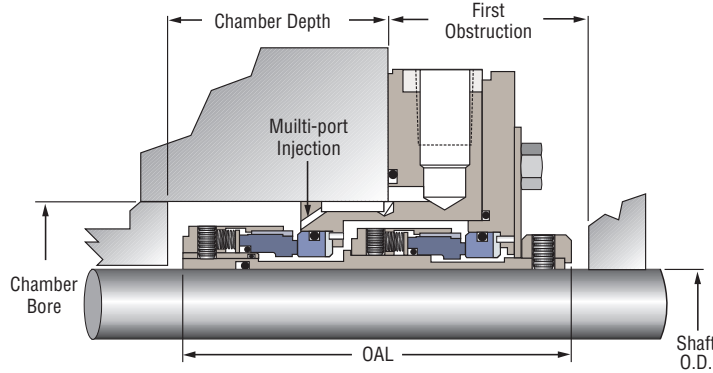
- Metal Parts: AISI 316 SS - Standard, Alloy C-276, Alloy 400, and Alloy 20 - Optional (Springs: Alloy C-276 - Standard)
- Rotating Face: Carbon
- Stationary Face: Silicon Carbide - Standard, Tungsten Carbide - Optional
- Gasketing: Fluorocarbon, Nitrile, Ethylene-Propylene, and Perfluoroelastomer

Operating Parameters

- Maximum Pressure:
Balanced for pressure up to 750 PSIG (5.168 kPa)
- Temperature:**
Water or Water Solution: 32° F to 275° F (0° C to 135° C)
Other Liquids: -40° F to 400° F (-40° C to 204° C)
- Liquid: Corrosive and Non-corrosive
Specific Gravity: .37 and higher
- Surface Speed: Up to 75 ft/sec. (23m/sec.)



BW Seals
 Durametallic Seals
 Pacific Wietz Seals
 Pac-Seal



Dimensional Data

Max. Shaft	Min. Chamber Bore w/MPI	Min. Chamber Bore w/o MPI	Min. Chamber Depth	Min. First Obstruct	Min. Total OAL	Seal Size	Max. Shaft	Min. Chamber Bore w MPI	Min. Chamber Bore w/o MPI	Min. Chamber Depth	Min First Obstruct	Min. Total OAL
0.500	1.938	1.844	2.469	2.500	4.719	1000/0875	12.70	49.21	46.83	62.71	63.50	119.86
0.625	2.063	1.969	2.531	2.500	4.781	1125/1000	15.88	52.39	50.01	64.29	63.50	121.44
0.750	2.219	2.219	2.594	2.500	4.844	1375/1125	19.05	56.36	56.36	65.88	63.50	123.03
0.875	2.594	2.594	2.969	2.500	5.219	1625/1375	22.23	65.88	65.88	75.42	63.50	132.57
1.000	2.719	2.719	2.969	2.625	5.344	1750/1500	25.40	69.06	69.06	75.42	66.68	135.74
1.125	2.844	2.844	3.344	2.750	5.844	1875/1625	28.58	72.23	72.23	84.94	69.85	148.44
1.250	2.969	2.969	3.344	2.750	5.844	2000/1750	31.75	75.41	75.41	84.94	69.85	148.44
1.375	3.094	3.094	3.406	2.781	5.938	2125/1875	34.93	78.58	78.58	86.53	70.64	150.83
1.500	3.219	3.219	3.406	2.906	6.063	2250/2000	38.10	81.76	81.76	86.53	73.82	154.00
1.625	3.375	3.344	3.594	2.906	6.250	2375/2125	41.28	85.73	84.93	91.28	73.82	158.75
1.750	3.500	3.469	3.594	2.906	6.250	2500/2250	44.45	88.90	88.11	91.28	73.82	158.75
1.875	3.766	3.766	3.906	2.906	6.563	2625/2375	47.63	95.65	95.65	99.22	73.82	166.69
2.000	3.891	3.891	3.906	2.906	6.563	2750/2500	50.80	98.82	98.82	99.22	73.82	166.69
2.125	4.047	4.016	4.156	2.906	6.813	2875/2625	53.98	102.79	102.00	105.57	73.82	173.04
2.250	4.188	4.141	4.156	2.906	6.813	3000/2750	57.15	106.36	105.17	105.57	73.82	173.04
2.375	4.313	4.266	4.156	2.906	6.813	3125/2875	60.33	109.54	108.35	105.57	73.82	173.04
2.500	4.438	4.391	4.156	3.063	6.969	3250/3000	63.50	112.71	111.52	105.57	77.79	177.01
2.625	4.563	4.516	4.281	3.063	7.094	3375/3125	66.68	115.89	114.70	108.74	77.79	180.18
2.750	4.703	4.625	4.281	3.063	7.094	3500/3250	69.85	119.46	117.48	108.74	77.79	180.18
2.875	4.828	4.766	4.281	3.125	7.156	3625/3375	73.03	122.63	121.05	108.74	79.38	181.77
3.000	4.953	4.891	4.281	3.125	7.156	3750/3500	76.20	125.81	124.22	108.74	79.38	181.77
3.125	5.078	5.000	4.281	3.125	7.156	3875/3625	79.38	128.98	127.00	108.74	79.38	181.77
3.250	5.219	5.125	4.281	3.125	7.156	4000/3750	82.55	132.56	130.18	108.74	79.38	181.77
3.375	5.375	5.375	4.406	3.125	7.282	4125/3875	85.73	136.53	136.53	111.93	79.38	184.96
3.500	5.500	5.500	4.406	3.125	7.282	4250/4000	88.90	139.70	139.70	111.93	79.38	184.96
3.625	5.719	5.625	4.500	3.188	7.439	4375/4125	92.08	145.26	142.88	114.31	80.98	188.94
3.750	5.844	5.750	4.500	3.188	7.439	4500/4250	95.25	148.43	146.05	114.31	80.98	188.94
3.875	5.969	5.875	4.500	3.219	7.740	4625/4375	98.43	151.61	149.23	114.31	81.77	189.73
4.000	6.109	6.000	4.500	3.219	7.470	4750/4500	101.60	155.18	152.40	114.31	81.77	189.73
4.125	6.234	6.125	4.500	3.219	7.470	4875/4625	104.78	158.35	155.58	114.31	81.77	189.73
4.250	6.359	6.250	4.500	3.219	7.470	5000/4750	107.95	161.53	158.75	114.31	81.77	189.73
4.375	6.484	6.375	4.500	3.219	7.470	5125/4875	111.13	164.70	161.93	114.31	81.77	189.73
4.500	6.750	6.750	4.688	3.219	7.657	5250/5000	114.30	171.45	171.45	119.08	81.77	194.49
4.625	6.875	6.875	4.688	3.219	7.657	5375/5125	117.48	174.63	174.63	119.08	81.77	194.49
4.750	7.141	7.000	4.875	3.219	7.845	5500/5250	120.65	181.37	177.80	123.84	81.77	199.26
4.875	7.266	7.125	4.875	3.219	7.845	5625/5375	123.83	184.55	180.98	123.84	81.77	199.26
5.000	7.391	7.250	4.875	3.219	7.845	5750/5500	127.00	187.72	184.15	123.84	81.77	199.26
5.125	7.531	7.375	4.938	3.219	7.906	5875/5625	130.18	191.29	187.33	125.81	81.77	200.83
5.250	7.656	7.500	4.938	3.219	7.906	6000/5750	133.35	194.47	190.50	125.41	81.77	200.83
5.375	7.781	7.750	4.969	3.531	8.250	6250/5875	136.53	197.64	196.85	126.21	89.69	209.55
5.500	7.906	7.875	4.969	3.531	8.250	6375/6000	139.70	200.82	200.83	126.21	89.69	209.55
5.625	8.172	8.125	4.969	3.563	8.281	6625/6250	142.88	207.57	206.38	126.21	90.49	210.34

• MPI is Multiport Injection. • Non-Cartridge designs available.
 Note: For sizes and conditions not listed, contact your Flowserve Representative.
 * SCAQMD is South Coast Air Quality Management District.
 ** Depending on materials selected.

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