

QB Series

Balanced pusher seals

QB Series seals are balanced pusher seals available in single and dual seal configurations used for sealing environmentally-restricted products and meeting the most stringent regulations. The QB Series is fully compliant with API 682/ISO 21049 Type A requirements.



Features and Benefits

- Rugged components in a cartridge design are built for the highest reliability and simple installation on API pumps.
- Heavy duty seal faces remain flat during operation to minimize leakage.
- Multiport flush design improves heat dissipation for uniform face cooling.
- Spring holder pumping ring design is patented and flushes spring area.
- Part interchangeability between single and dual seal arrangements minimizes inventory requirements and maximizes design flexibility.

Specialized designs for specific applications

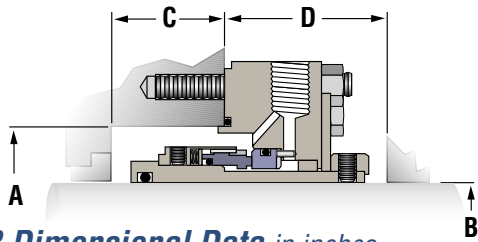
QBQ	High balance face meets lowest hydrocarbon emissions levels, less than 500 ppm
QBQ LZ	Patented wavy face features solve the challenges of low vapor pressure margin light hydrocarbon services
QBB	Dual balanced rotating face assembly provides API 682 arrangement 3 reverse pressure capability
QBU	Grooved face design improves cooling in hot water applications where cooling water is not available
QBS	Single spring design provides the highest resistance to clogging

Operating Parameters

- Pressure: Up to 750 psig (51.7 bar)
- Temperature: -40 to +400°F (-40 to +204°C)
- Specific Gravity: 0.4 and higher
- Surface Speed: Up to 75 fps (23 m/sec)
- Shaft Sizes: 0.50 to 5.50 inches (12.70 to 139.70 mm)

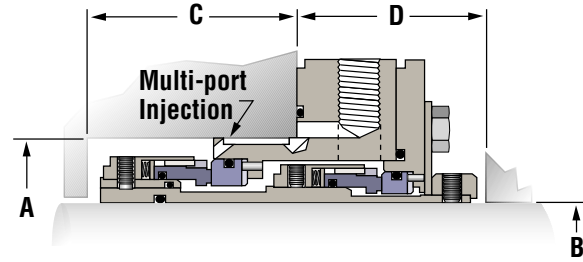
Materials of Construction

- Metal Components: 316 Stainless Steel, Alloy C-276, Alloy 20
- Rotating Face: Carbon, Silicon Carbide
- Stationary Face: Silicon Carbide, Tungsten Carbide
- Gaskets: Fluoroelastomer, Perfluoroelastomer
- Springs: Alloy C-276



QB Dimensional Data in inches

Seal Size	A Min	B Max	C Min	D Min
0875	1.718	0.500	1.406	2.031
0937	1.750	0.563	1.406	2.031
1000	1.843	0.625	1.406	2.031
1125	1.968	0.750	1.468	2.031
1250	2.093	0.813	1.437	2.063
1375	2.218	0.875	1.437	2.063
1500	2.343	1.000	1.437	2.219
1625	2.593	1.125	1.781	2.219
1750	2.718	1.250	1.781	2.219
1875	2.843	1.375	1.718	2.375
2000	2.968	1.500	1.937	2.500
2125	3.156	1.625	2.000	2.500
2250	3.281	1.750	2.000	2.500
2375	3.406	1.875	1.968	2.594
2500	3.531	2.000	1.968	2.594
2625	3.843	2.125	2.250	2.625
2750	3.968	2.250	2.250	2.625
2875	4.093	2.375	2.250	2.625
3000	4.218	2.500	2.250	2.781
3125	4.343	2.625	2.250	2.781
3250	4.468	2.750	2.250	2.781
3375	4.593	2.875	2.250	2.906
3500	4.687	3.000	2.156	3.000
3625	4.843	3.125	2.156	3.000
3750	4.968	3.250	2.125	3.031
3875	5.062	3.375	2.125	3.031
4000	5.187	3.500	2.125	3.031
4125	5.562	3.625	2.218	3.188
4250	5.687	3.750	2.218	3.188
4375	5.812	3.875	2.218	3.219
4500	5.937	4.000	2.218	3.219
4625	6.062	4.125	2.125	3.313
4750	6.187	4.250	2.125	3.313
4875	6.312	4.375	2.125	3.313
5000	6.437	4.500	2.125	3.313
5125	6.562	4.625	2.125	3.313
5250	6.937	4.750	2.312	3.313
5375	7.062	4.875	2.312	3.313
5625	7.312	5.125	2.312	3.313
5750	7.437	5.250	2.312	3.313
5875	7.562	5.375	2.437	3.563
6000	7.687	5.500	2.437	3.563



Seal Size	A Min	B Max	C Min	D Min
0875	1.844	0.500	2.469	2.500
0937	1.969	0.563	2.531	2.500
1000	2.219	0.625	2.594	2.500
1125	2.594	0.750	2.969	2.500
1250	2.719	0.813	2.969	2.625
1375	2.844	0.875	3.344	2.750
1500	2.969	1.000	3.344	2.750
1625	3.094	1.125	3.406	2.781
1750	3.219	1.250	3.406	2.906
1875	3.344	1.375	3.594	2.906
2000	3.469	1.500	3.594	2.906
2125	3.766	1.625	3.906	2.906
2250	3.891	1.750	3.906	2.906
2375	4.016	1.875	4.156	2.906
2500	4.141	2.000	4.156	2.906
2625	4.266	2.125	4.156	2.906
2750	4.391	2.250	4.156	3.063
2875	4.516	2.375	4.281	3.063
3000	4.625	2.500	4.281	3.063
3125	4.766	2.625	4.281	3.125
3250	4.891	2.750	4.281	3.125
3375	5.000	2.875	4.281	3.125
3500	5.125	3.000	4.281	3.125
3625	5.375	3.125	4.406	3.125
3750	5.500	3.250	4.406	3.125
3875	5.625	3.375	4.500	3.188
4000	5.750	3.500	4.500	3.188
4125	5.875	3.625	4.500	3.219
4250	6.000	3.750	4.500	3.219
4375	6.125	3.875	4.500	3.219
4500	6.250	4.000	4.500	3.219
4625	6.375	4.125	4.500	3.219
4750	6.750	4.250	4.688	3.219
4875	6.875	4.375	4.688	3.219
5000	7.000	4.500	4.875	3.219
5125	7.125	4.625	4.875	3.219
5250	7.250	4.750	4.875	3.219
5375	7.375	4.875	4.938	3.219
5625	7.500	5.125	4.938	3.219
5750	7.750	5.250	4.969	3.531
5875	7.875	5.375	4.969	3.531
6000	8.125	5.500	4.969	3.563

Note: For sizes and conditions not listed, contact your local Flowserve representative

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USA and Canada
Kalamazoo, Michigan USA
Telephone: 1 269 381 2650
Telefax: 1 269 382 8726

Europe, Middle East, Africa
Roosendaal, The Netherlands
Telephone: 31 165 581400
Telefax: 31 165 552622

Asia Pacific
Singapore
Telephone: 65 6544 6800
Telefax: 65 6214 0541

Latin America
Mexico City
Telephone: 52 55 5567 7170
Telefax: 52 55 5567 4224