VRA and VRA-C
Dry-Running, Top-Entry Mixer Seals



An outside-mounted, dry-running single seal designed for top-entry agitator and mixer equipment. The contacting, dry-running design eliminates the need for a buffer fluid system while handling run-out up to 3.81 mm (0.150 in.) TIR.

Features and benefits

- Self-lubricating carbon or filled PTFE seal face runs completely dry without cooling. Long life and reliability are achieved in the dry vapor space at the top of the mixer vessel while eliminating product contamination from liquid barrier fluids.
- Flexible rotor design compensates for shaft misalignment. Clearances, drive design, seal face dimensions and O-ring configuration were optimized for the high run-out requirements of mixers and similar equipment. The VRA operates at eccentric run-out levels up to 3.81 mm (0.150 in.) TIR.
- Double O-ring mounted stator prevents distortion. Various configurations are available to fit different equipment types.
- Non-metallic collar option provides superior chemical resistance. Designated the VRA-C, a two-piece collar design eliminates the need for expensive exotic metal alloys in non-wetted areas.
- Optional sanitary gland allows steam cleaning and sterilizing of the seal's interior while mounted on the equipment. Sanitary porting aids in the removal of steam cleaning debris.

Materials of construction

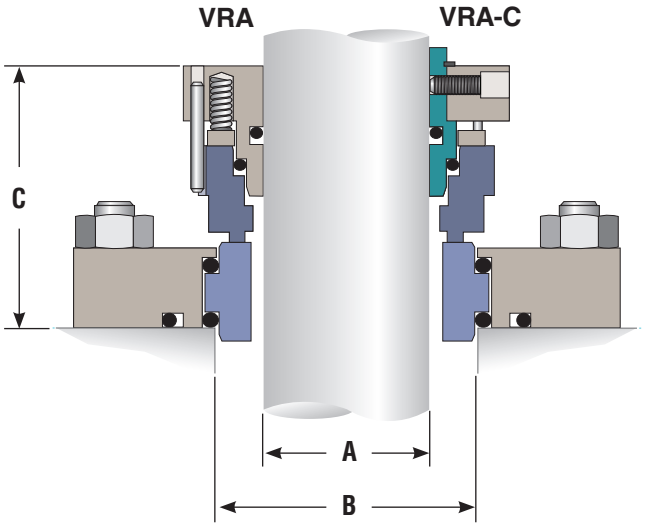
Metal components	316 stainless steel, filled PTFE
Rotating face	Carbon, filled PTFE
Stationary face	Durchrome®, tungsten carbide, aluminum oxide
Gaskets	Fluoroelastomer, perfluoroelastomer, EPR *Food-grade materials of construction also available
Springs	Alloy C-276

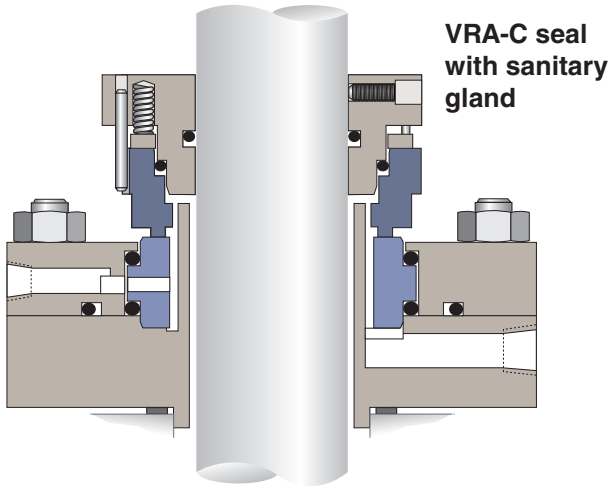
® Durchrome is a registered trademark of Flowserve Corporation.

Operating parameters

Pressure	Full vacuum to 13.8 bar (200 psi)
Temperature	Up to 149°C (300°F)
Shaft speed	Up to 350 rpm
Shaft sizes	25 to 178 mm (1.000 to 7.000 in.)

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LPE LIQUID PROCESS EQUIPMENT
Eagle, Wisconsin
262-594-3790 • LiquidProcess.com





Dimensional data in millimeters

A	B	C
25.40 31.75	50.80 57.15	76.20 76.20
38.10 44.45	63.50 69.85	76.20 76.20
50.80 57.15	76.20 82.55	76.20 76.20
63.50 69.85	88.90 95.25	76.20 76.20
76.20 82.55	101.60 108.00	76.20 76.20
88.90 95.25	114.30 120.70	76.20 82.55
101.60 108.00	127.00 133.40	82.55 82.55
114.30 120.70	139.70 146.10	82.55 82.55
127.00 133.40	152.40 158.80	82.55 82.55
139.70 146.10	165.10 171.10	82.55 82.55
152.40 158.80	177.80 184.20	82.55 82.55
165.10 171.50 177.80	190.50 196.90 203.20	82.55 82.55 82.55

Dimensional data in inches

A	B	C
1.000 1.250	2.000 2.250	3.00 3.00
1.500 1.750	2.500 2.750	3.00 3.00
2.000 2.250	3.000 3.250	3.00 3.00
2.500 2.750	3.500 3.750	3.00 3.00
3.000 3.250	4.000 4.250	3.00 3.00
3.500 3.750	4.500 4.750	3.00 3.25
4.000 4.250	5.000 5.250	3.25 3.25
4.500 4.750	5.500 5.750	3.25 3.25
5.000 5.250	6.000 6.250	3.25 3.25
5.500 5.750	6.500 6.750	3.25 3.25
6.000 6.250	7.000 7.250	3.25 3.25
6.500 6.750 7.000	7.500 7.750 8.000	3.25 3.25 3.25

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

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