

Pharmaceutical Ready VRA Dry Running Mixer Seal

Today there are many users of mixing equipment that are frequently requesting dry running single seals that operate dead ended on top entry mixers in the pharmaceutical industry. Flowserve offers the VRA dry running contacting face seal. Based on over 20 years of experience in dry running sealing designs made especially for mixers, the VRA is designed with the following features.

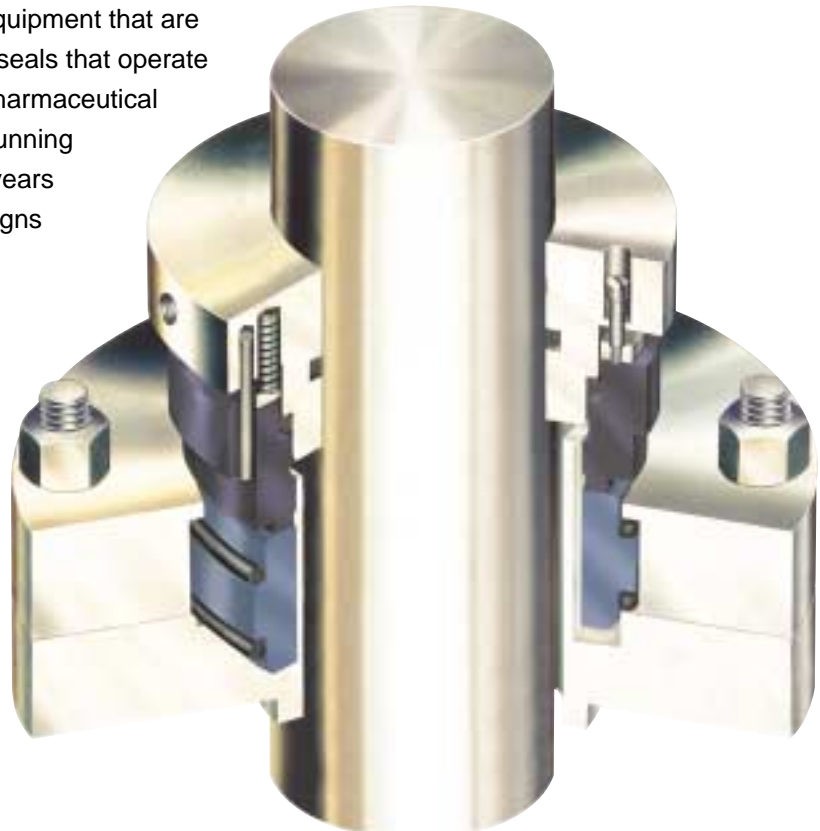
Mixer Design Features

- Dead ended top entry installations
- Dry running faces eliminate buffer fluid
- Seals vessel pressure fluctuations
- Handles up to .150" runout
- No barrier fluid or gas required
- Cartridge designs available

Special Pharmaceutical Features

- Non-pooling design
- FDA grade materials
- Sanitary gland catches face wear debris
- Suitable for SIP/CIP
- Welded connections to eliminate contamination issues with thread connections
- Electropolish finish option

Consult your local Flowserve representative for specific applications



Standard Operating Window

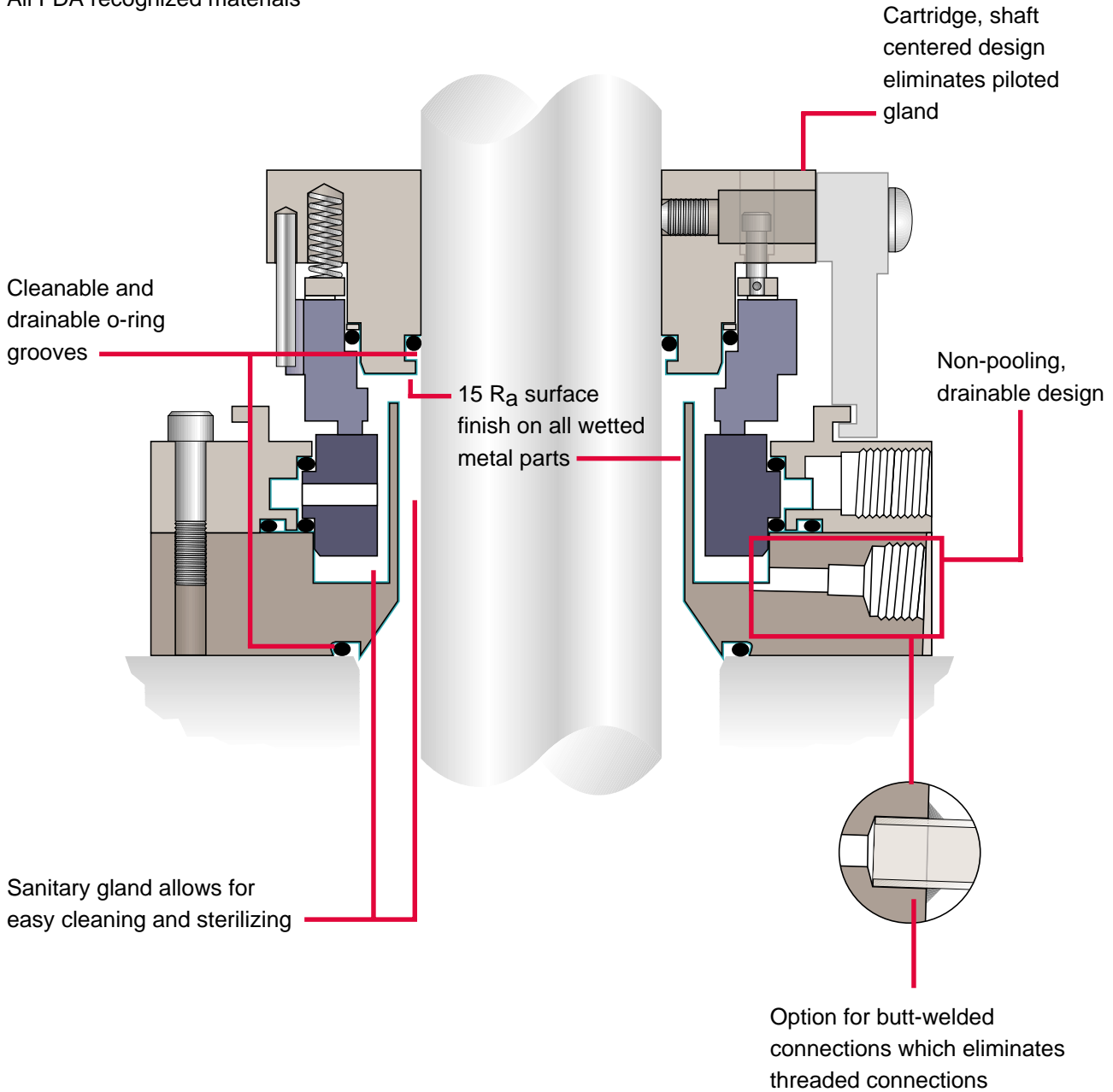
Shaft Size	Maximum Speed (FPM)	Maximum Vessel Pressure (psi)	Temperature
1.000 - 7.000"	300	200	0 to -40° F*

Barrier media is not required for single design

* Cryogenic Designs Available Upon Request

Pharmaceutical Ready Single VRA Features

All FDA recognized materials



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Primary Worldwide Flow Solutions Division Locations

Licenseses, authorized agents, and affiliated companies located worldwide.

United States	Canada	Netherlands	Argentina	Australia
Kalamazoo, MI Phone 616-381-2650 Fax 616-381-8368	Edmonton, Alberta Phone 708-463-7958 Fax 708-450-1241	Scarborough, Ontario Phone 416-292-2877 Fax 416-292-5190	Rosendaal Phone 31-165-581400 Fax 31-165-552622	Villa Martelli Phone 54-11-4709-6800 Fax 54-11-4709-7072
Singapore	Mexico	Brazil	Japan	Germany
Phone 65-746-4318 Fax 65-747-1963	Tlcala Phone 52-2-461-6791 Fax 52-2-461-6847	Sao Paulo Phone 55-11-4066-8600 Fax 55-11-4066-7014	Osaka Phone 81-720-85-5571 Fax 81-720-85-5575	Dortmund Phone 49-231-6964-0 Fax 49-231-6964-248