# **B750VN Single Seals**

## **API 682 Seals For Pumps - Standard Cartridge Seals**

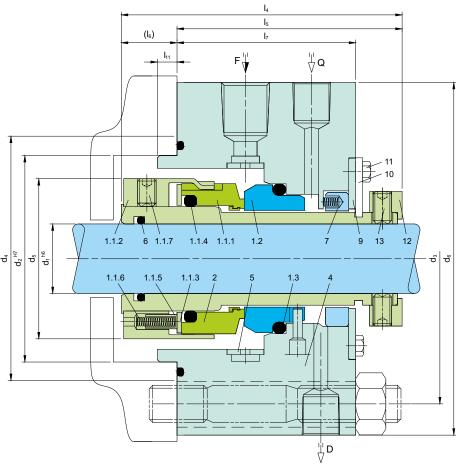


#### **Product Description**

- 1. Single seal configuration
- 2. Balanced design
- 3. Independent of direction of rotation
- 4. Cartridge construction
- 5. Category 2 and 3, Type A, Arrangement 1
- 6. Design in accordance to API 682 / ISO 21049
- 7. Pumping device available for increased efficiency in circulation (B750VP)
- 8. Rotary unit with multiple springs

#### **Technical Features**

- Designed for "Low-Emission" conforming to the American STLE-limits
- 2. Can handle extensive applications in various temperatures and pressures
- 3. Versatile in design to fit various seal chambers
- 4. Material of construction available in special metallurgy



Note: The item numbers as depicted above are based on our technical experience and knowledge and are placed in the chronological order of their assembly procedure.

Item	Description
1.1.1	Seal face
1.1.2	Driver
1.1.3	Thrust ring
1.1.4, 1.3, 6, 8	O-ring
1.1.5	Sleeve
1.1.6	Spring
1.1.7	Set screw
1.2	Seat

Description
Shaft sleeve
Housing
Insert
Throttle ring
Washer
Assembly fixture
Hexagon bolt
Set ring
Set screw

**Typical Industrial Applications** API & ISO Pumps Low solids content Acids (some) media Aqueous solutions Media with poor Chemical lubrication properties Oil & gas Fertiliser Highly viscous Petrochemical hydrocarbons Refining technology Light volatile Toxic & hazardous hydrocarbons media Low abrasive media

Performance Capabilities						
Sizes	d = Upto 110 mm (Upto 4.250")*					
Pressure	p <sub>1</sub> = 40 bar (580 PSI)					
Temperature	t = -40 °C+220 °C (-40°F +428 °F)					
Speed	23 m/s (75 ft/s)					
* Other sizes on request						

#### Permissible Axial Movement

± 2.0 ... 4.0 mm depending on the diameter and installation situation

Dimensional Data

Materials								
Seal face	Carbon graphite resin antimony impregnated (A)							
Seat	Silicon carbide (Q1, Q2)							
Secondary seals	EPDM (E), NBR (P), FKM (V), FFKM (K)							
Springs	Hastelloy® C-4 (M)							
Metal parts	CrNiMo steel (G), Duplex (G1), Hastelloy <sup>®</sup> C-4 (M)							

esign)	Variations

Dimensions, items and descriptions as B750VN, but with pumping ring. Shorter installation length possible.

#### B750N

Dimensions, items and description as B750VN. Seal face: Silicon carbide (Q1, Q2) Seat: Silicon carbide (Q1, Q2)

Standards

API 682/ ISO 21049

					Dillions	nonai Data					
Dimensions in i	nch										
API/d <sub>1</sub>	API/d <sub>2</sub>	API/d <sub>3</sub>	API/d <sub>4</sub>	$d_5$	$d_6$	I <sub>4</sub>	l <sub>5</sub>	I <sub>6</sub>	I <sub>7</sub>	I <sub>11</sub>	Overall length
0.750	2.756	4.134	3.346	1.969	5.433	3.740	3.701	0.039	2.992	0.236	3.937
1.125	3.150	4.528	3.740	2.441	5.827	3.957	3.858	0.098	3.031	0.236	4.094
1.500	3.543	4.921	4.134	2.835	6.220	4.154	3.878	0.276	3.051	0.236	4.921
2.000	3.937	5.512	4.528	3.386	6.614	4.390	3.917	0.472	3.091	0.236	5.512
2.250	4.724	6.299	5.315	3.898	7.402	4.744	4.016	0.728	3.189	0.236	6.299
2.750	5.118	6.693	5.709	4.291	7.795	4.902	4.173	0.709	3.189	0.236	6.693
3.125	5.512	7.087	6.102	4.685	8.189	5.079	4.173	0.906	3.189	0.236	7.087
3.500	6.299	8.071	6.890	5.079	9.370	5.079	4.173	0.906	3.189	0.236	8.071
3.750	6.693	8.465	7.283	6.024	9.764	5.236	4.291	0.945	3.189	0.236	8.465
4.250	7.087	8.858	7.677	6.614	10.157	5.236	4.291	0.945	3.189	0.236	8.858

### Dimensions in millimeter

API/d <sub>1</sub>	API/d <sub>2</sub>	API/d <sub>3</sub>	API/d <sub>4</sub>	$d_5$	$d_6$	I <sub>4</sub>	I <sub>5</sub>	I <sub>6</sub>	I <sub>7</sub>	I <sub>11</sub>	Overall length
20	70	105	85	50	138	95.0	94.0	1.0	76.0	6	100
30	80	115	95	62	148	100.5	98.0	2.5	77.0	6	104
40	90	125	105	72	158	105.5	98.5	7.0	77.5	6	125
50	100	140	115	86	168	111.5	99.5	12.0	78.5	6	140
60	120	160	135	99	188	120.5	102.0	18.5	81.0	6	160
70	130	170	145	109	198	124.5	106.0	18.0	81.0	6	170
80	140	180	155	119	208	129.0	106.0	23.0	81.0	6	180
90	160	205	175	129	238	129.0	106.0	23.0	81.0	6	205
100	170	215	185	153	248	133.0	109.0	24.0	81.0	6	215
110	180	225	195	168	258	133.0	109.0	24.0	81.0	6	225

Note: Additional technical & dimensional information will be provided on request.

The specifications, drawings, images etc included in this catalogue are intended to be generic and must be interpreted as equivalent or functionally equivalent, more specifically the performance capabilities mentioned in this catalogue is based on optimum values, however the performance of the product is dependent on size, material of construction, media, pressure, temperature, sliding velocity etc and it shall vary from size to size or application to application. Customers are requested to consult with Sealmatic before employing the product from this catalogue for any application.