

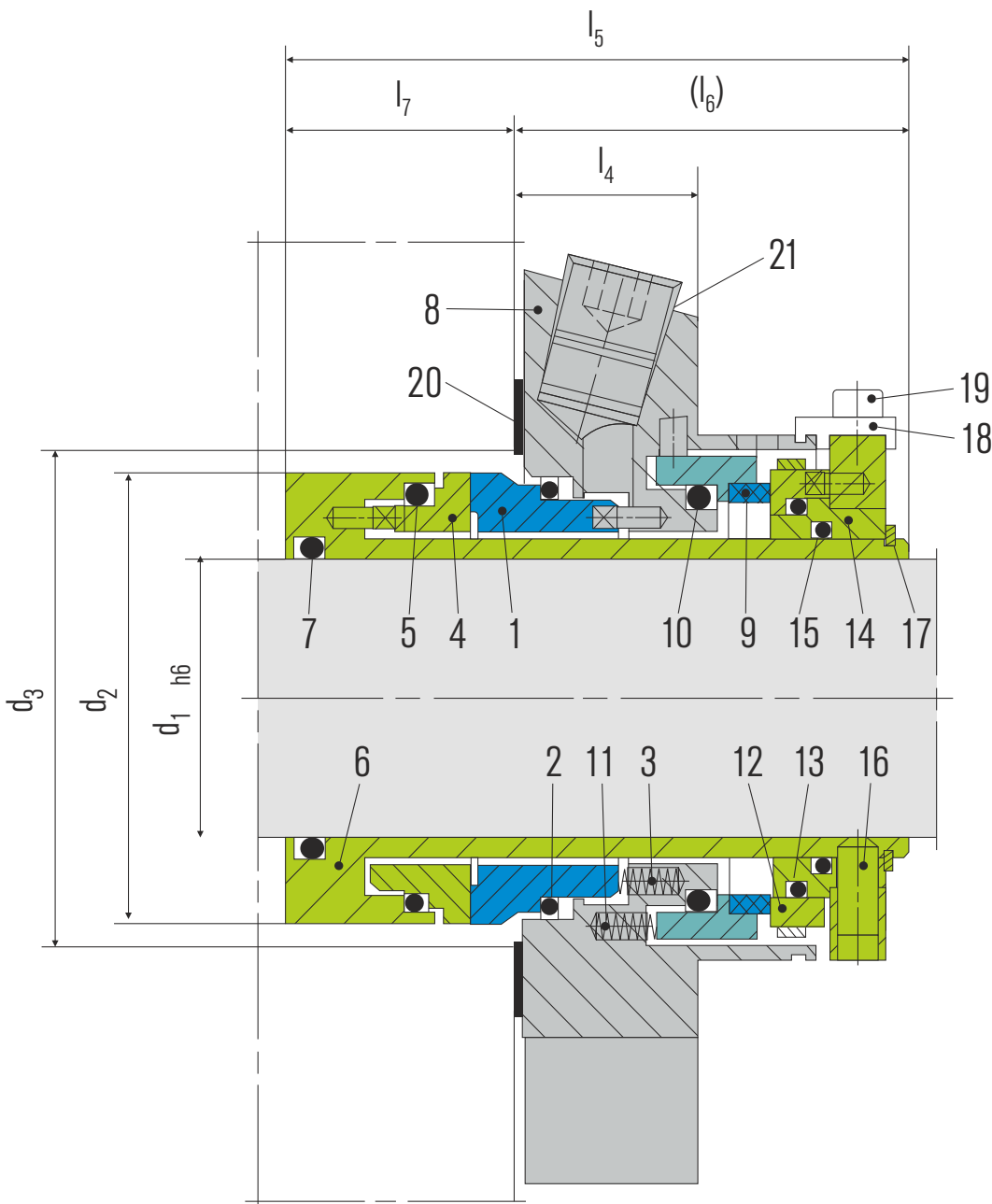


Product Description

1. Balanced
2. Cartridge
3. Double pressure balanced
4. Dual seal
5. Independent of direction of rotation
6. Integrated pumping device
7. Variants available: for eccentric screw pumps

Technical Features

1. Cost-effective
2. Easy installation due to pre-assembled unit (reduced down-times)
3. Extended service life
4. Ideal seal for standardizations
5. No damage of the shaft by dynamically loaded O-Ring
6. Universal applicable for packings conversions, retrofits or OEM



Item	Description
1	Seal face
2, 5, 7, 10, 13, 15	O-Ring
3	Spring
4	Seat
6	Shaft sleeve
8	Cover
9	Seal face
11	Spring
12	Seat
14	Drive collar
16	Set screw
17	Snap ring
18	Assembly fixture
19	Hex socket head screw
20	Gasket
21	Screw plug

National - sealmatic

Typical Industrial Applications

Chemical industry
 Food and beverage industry
 Petrochemical industry
 Pharmaceutical industry
 Universally applicable
 Water and waste water technology
 Centrifugal pumps
 Eccentric screw pumps

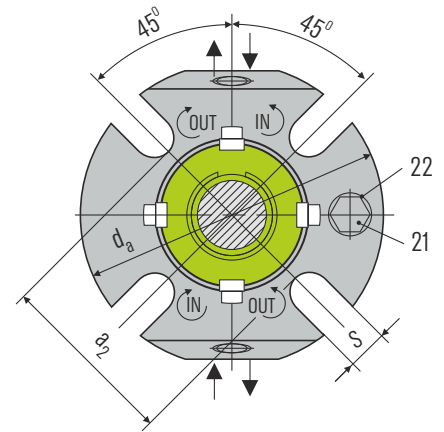
Materials

Seal face: Silicon carbide (Q1), Carbon graphite resin impregnated (B), Tungsten carbide (U2)
 Seat: Silicon carbide (Q1)
 Secondary seals: FKM (V), EPDM (E), FFKM (K), Perfluorocarbon rubber/PTFE (U1)
 Springs: Hastelloy® C-4 (M)
 Metal parts: CrNiMo steel (G), CrNiMo cast steel (G)

Performance Capabilities

Sizes: $d_1 =$ Upto 100 mm (Upto 4.000")
 Other sizes on request
 Temperature: $t = -40\text{ °C} \dots 220\text{ °C}$ ($-40\text{ °F} \dots 428\text{ °F}$)
 (Check O-Ring resistance)
 Sliding face material combination BQ1
 Pressure: $p_1 = 25\text{ bar}$ (363 PSI)
 Speed = 16 m/s (52 ft/s)
 Sliding face material combination Q1Q1 or U2Q1
 Pressure: $p_1 = 20\text{ bar}$ (290 PSI)
 Speed = 10 m/s (33 ft/s)
 Barrier fluid circulation system:
 $p_{3\text{max}} = 25\text{ bar}$ (363 PSI)
 Δp ($p_3 - p_1$) ideal = 2 ... 3 bar (29 ... 44 PSI),
 7 bar (102 PSI) for barrier media with poor lubricating properties)
 Pump startup:
 Δp ($p_3 - p_1$)max = 25 bar (363 PSI) allowed
 Recommended supply medium: max. ISO VG 5
 Permissible axial movement: $\pm 1.0\text{ mm}$, $d_1 \geq 75\text{ mm} \pm 1.5\text{ mm}$

Installation, Details, Options



Seal cover

Dimensional Data

d_1	d_2	$d_3\text{ min.}$	$d_3\text{ max.}$	l_4	l_5	l_6	l_7
1.000	1.693	1.732	2.008	1.000	3.400	2.102	1.303
1.125	1.811	1.875	2.050	1.000	3.400	2.102	1.303
1.250	1.961	2.008	2.244	1.000	3.400	2.102	1.303
1.375	2.087	2.126	2.421	1.000	3.400	2.102	1.303
1.500	2.205	2.244	2.598	1.000	3.400	2.102	1.303
1.625	2.343	2.375	2.700	1.000	3.400	2.102	1.303
1.750	2.461	2.520	2.874	1.000	3.400	2.102	1.303
1.875	2.582	2.638	2.953	1.000	3.400	2.102	1.303
2.000	2.677	2.717	3.071	1.000	3.400	2.102	1.303
2.125	2.835	2.874	3.425	1.000	3.400	2.102	1.303
2.250	2.961	3.000	3.560	1.000	3.400	2.102	1.303
2.375	3.071	3.125	3.583	1.000	3.400	2.102	1.303
2.500	3.213	3.300	3.800	1.000	3.400	2.102	1.303
2.625	3.339	3.374	3.937	1.000	3.400	2.102	1.303
2.750	3.661	3.740	4.252	1.000	3.400	2.102	1.303
2.875	3.937	4.000	4.646	1.000	4.250	2.516	1.736
3.000	3.937	4.000	4.646	1.102	4.250	2.516	1.736
3.125	4.189	4.252	4.882	1.102	4.250	2.516	1.736
3.250	4.189	4.252	4.882	1.102	4.250	2.516	1.736
3.375	4.311	4.375	5.039	1.102	4.250	2.516	1.736
3.500	4.437	4.500	5.157	1.102	4.250	2.516	1.736
3.625	4.563	4.625	5.315	1.102	4.250	2.516	1.736
3.750	4.689	4.752	5.433	1.102	4.250	2.516	1.736
4.000	4.937	5.000	5.669	1.102	4.250	2.516	1.736

Dimensions in inch

d_1	d_2	$d_3\text{ min.}$	$d_3\text{ max.}$	l_4	l_5	l_6	l_7
25	43.0	44.0	51.5	25.4	86.5	53.4	33.1
28	46.0	47.0	52.0	25.4	86.5	53.4	33.1
30	48.0	49.0	56.0	25.4	86.5	53.4	33.1
32	49.8	51.0	57.0	25.4	86.5	53.4	33.1
33	49.8	51.0	57.0	25.4	86.5	53.4	33.1
35	53.0	54.0	61.5	25.4	86.5	53.4	33.1
38	56.0	57.0	66.0	25.4	86.5	53.4	33.1
40	58.0	59.0	68.0	25.4	86.5	53.4	33.1
42	60.5	61.5	69.5	25.4	86.5	53.4	33.1
43	60.5	61.5	70.5	25.4	86.5	53.4	33.1
45	62.5	64.0	73.0	25.4	86.5	53.4	33.1
48	65.6	67.0	75.0	25.4	86.5	53.4	33.1
50	68.0	69.0	78.0	25.4	86.5	53.4	33.1
53	72.0	73.0	87.0	25.4	86.5	53.4	33.1
55	73.0	74.0	83.0	25.4	86.5	53.4	33.1
60	78.0	79.0	91.0	25.4	86.5	53.4	33.1
65	84.8	85.7	98.5	25.4	86.5	53.4	33.1
70	93.0	95.0	108.0	25.4	86.5	53.4	33.1
75	100.0	101.6	118.0	28.0	108.0	63.9	44.1
80	106.4	108.0	124.0	28.0	108.0	63.9	44.1
85	109.5	111.1	128.0	28.0	108.0	63.9	44.1
90	115.9	117.5	135.0	28.0	108.0	63.9	44.1
95	119.1	120.7	138.0	28.0	108.0	63.9	44.1
100	125.4	127.0	144.0	28.0	108.0	63.9	44.1

Dimensions in millimeter

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