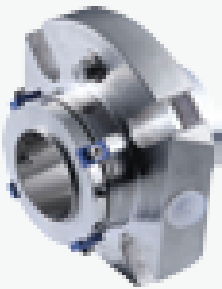




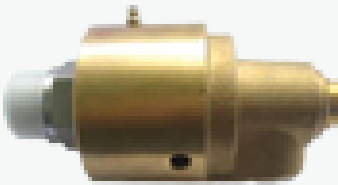
Intec Seals
(A subsidiary of Intec Seals Inc. USA)

Product Catalog

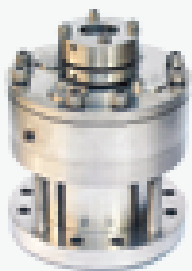
Mechanical Seals



Rotary Joints



Agitator Seals



Bearing Isolators



Designer & Manufacturers of Mechanical Seals and other Engineering Products

INTEC API SEALS

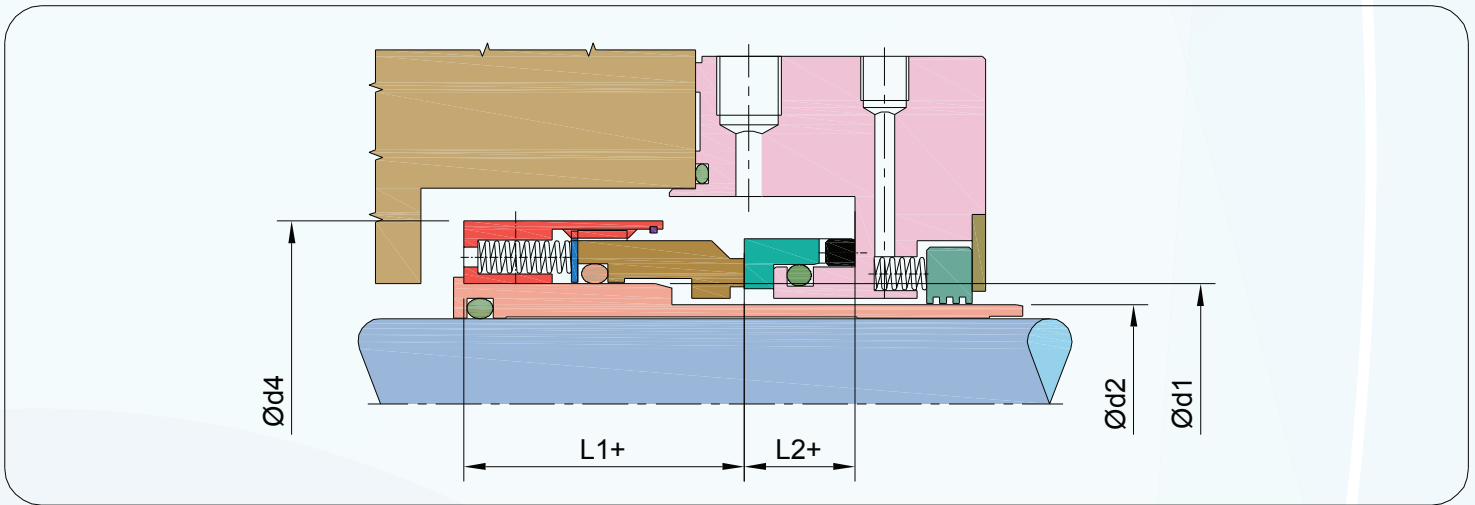
TYPE A

The Intec Seals has developed API (American Petroleum Institute) 682 seals for the oil and gas industry market.

The Intec Seal Type A pusher seal is available in Arrangement 1, 2 and 3. An Arrangement 1 seal is a single contacting wet cartridge seal with a Throttle bush. Arrangement 2 cartridge seal is the same configuration as the Arrangement 3 seal but is an un-pressurized dual seal where the barrier fluid pressure is kept lower than the seal chamber fluid pressure. The outboard seal will provide back up of hazardous fluids in case of Inboard Seal failure.

Intec Seal has designed, manufactured and tested to meet API 682 requirement, Type A pusher seal in Arrangement 1 and Arrangement 3 (dual pressurized cartridge seal) for the market. In an Arrangement 3 design the barrier fluid pressure is kept higher than the seal chamber pressure and is designed to handle and contain hazardous and light hydrocarbon fluids. The Inboard seal is specially designed to handle reverse pressure. Outboard Seal is same as Arrangement1 Seal.

With many years of experience in seal design, manufacturing and testing for the industrial market, Intec Seals has the experience to solve your sealing problems. Intec Seal provides optimum sealing solutions to meet customer needs.



DETAILS

- Single acting
- Balanced
- Inside mounted
- Independent of direction of rotation

APPLICATIONS

- Petroleum refinery
- Chemical industry
- Oil applications
- Petrochemicals
- Light hydrocarbons

OPERATING RANGE

- Shaft diameter: d: 1.000....4.000"
- Pressure: p: 40 bar(max)
- Temperature: -40°C....+260°C
- Speed : upto 4500rpm/23 m/s

FACE MATERIALS

Carbon v/s Silicon Carbide,
(Tungsten Carbide Optional)

METAL PARTS

SS 316

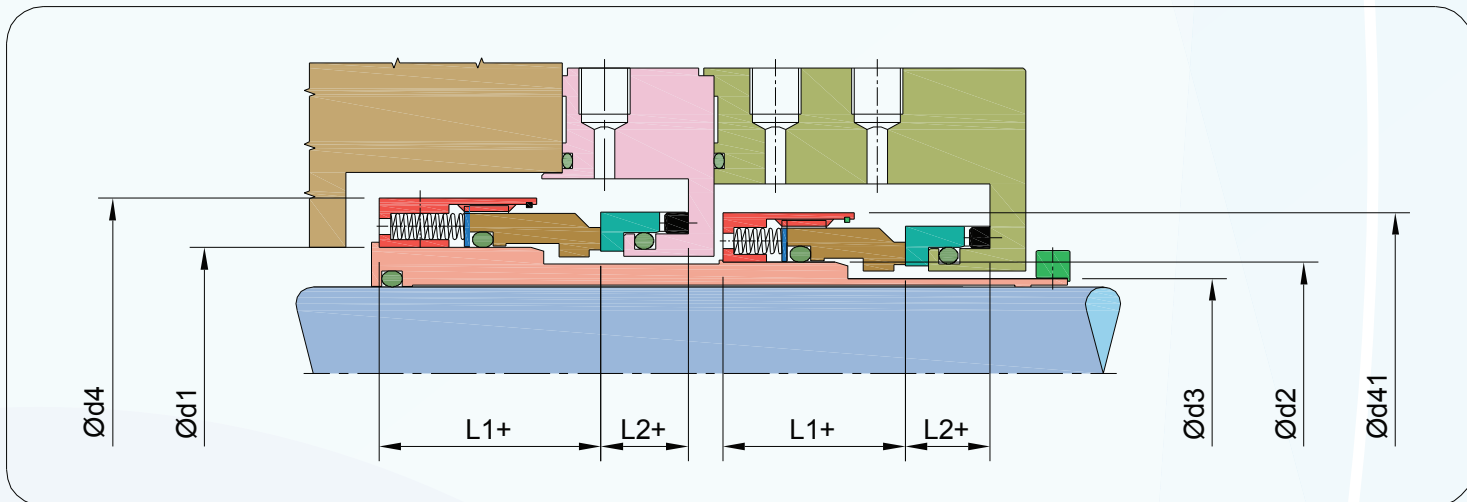
ELASTOMERS:

FKM (Optional FFKM, BUNA, EPR)

SIZE	Ød1	Ød2	Ød4	L1+	L2+
1.000	25.40	22.20	39.7	35.0	15.5
1.125	28.58	25.40	42.8	35.0	15.5
1.250	31.75	28.58	47.6	35.0	15.5
1.375	34.92	28.58	50.8	36.5	15.5
1.500	38.10	31.75	54.0	36.5	15.5
1.625	41.28	34.92	60.3	41.0	15.5
1.750	44.45	38.10	63.5	41.0	15.5
1.875	47.62	41.28	66.7	41.0	15.5
2.000	50.80	44.45	70.0	50.0	15.5
2.125	53.98	47.62	76.2	50.0	16.5
2.250	57.15	50.80	79.4	50.0	16.5
2.375	60.32	53.98	82.6	50.0	16.5
2.500	63.50	57.15	85.7	50.0	16.5
2.625	66.68	60.32	88.9	50.0	16.5
2.750	69.85	63.50	92.1	50.0	16.5
2.875	73.02	66.68	95.3	50.0	16.5
3.000	76.20	69.85	96.8	50.0	16.5
3.125	79.38	73.02	100.0	50.0	16.5
3.250	82.55	76.20	104.8	50.0	16.5
3.375	85.72	79.38	108.0	50.0	16.5
3.500	88.90	82.55	111.1	50.0	16.5
3.625	92.08	85.72	114.3	50.0	16.5
3.750	95.25	88.90	117.5	50.0	16.5
3.875	98.42	92.08	120.7	50.0	16.5
4.000	101.60	95.25	123.8	50.0	16.5

Dimensions for higher sizes available against specific requirement.

All dimensions in mm.



DETAILS

- Double acting
- Balanced
- Inside mounted
- Independent of direction of rotation

APPLICATIONS

- Petroleum refinery
- Chemical industry
- Oil applications
- Petrochemicals
- Light hydrocarbons

OPERATING RANGE

- Shaft diameter: d: 1.000....4.000"
- Pressure: p: 40 bar(max)
- Temperature: -40°C....+260°C
- Speed : upto 4500rpm/23 m/s

FACE MATERIALS

Carbon v/s Silicon Carbide,
(Tungsten Carbide Optional)

METAL PARTS

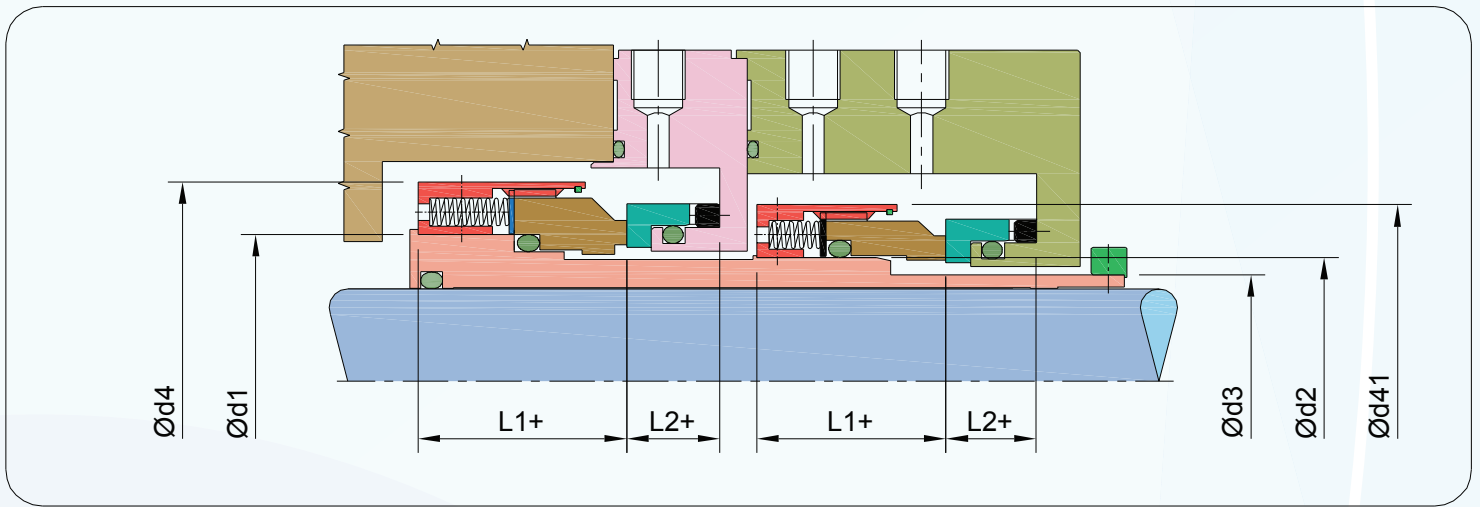
SS 316

ELASTOMERS:

FKM (Optional FFKM, BUNA, EPR)

SIZE	Ød1	Ød2	Ød3	Ød4	Ød41	L1+	L2+
1.000	25.40	22.20	19.05	39.7	39.7	35.0	15.5
1.125	28.58	25.40	22.20	42.8	42.8	35.0	15.5
1.250	31.75	28.58	25.4	47.6	47.6	35.0	15.5
1.375	34.92	28.58	28.58	50.8	50.8	36.5	15.5
1.500	38.10	31.75	28.58	54.0	54.0	36.5	15.5
1.625	41.28	34.92	31.75	60.3	60.3	41.0	15.5
1.750	44.45	38.10	34.92	63.5	63.5	41.0	15.5
1.875	47.62	41.28	38.10	66.7	66.7	41.0	15.5
2.000	50.80	44.45	41.28	70.0	70.0	50.0	15.5
2.125	53.98	47.62	44.45	76.2	76.2	50.0	16.5
2.250	57.15	50.80	47.62	79.4	79.4	50.0	16.5
2.375	60.32	53.98	50.80	82.6	82.6	50.0	16.5
2.500	63.50	57.15	53.98	85.7	85.7	50.0	16.5
2.625	66.68	60.32	57.15	88.9	88.9	50.0	16.5
2.750	69.85	63.50	60.32	92.1	92.1	50.0	16.5
2.875	73.02	66.68	63.50	95.3	95.3	50.0	16.5
3.000	76.20	69.85	66.68	96.8	96.8	50.0	16.5
3.125	79.38	73.02	69.85	100.0	100.0	50.0	16.5
3.250	82.55	76.20	73.02	104.8	104.8	50.0	16.5
3.375	85.72	79.38	76.20	108.0	108.0	50.0	16.5
3.500	88.90	82.55	79.38	111.1	111.1	50.0	16.5
3.625	92.08	85.72	82.55	114.3	114.3	50.0	16.5
3.750	95.25	88.90	85.72	117.5	117.5	50.0	16.5
3.875	98.42	92.08	88.90	120.7	120.7	50.0	16.5
4.000	101.60	95.25	92.08	123.8	122.8	50.0	16.5

Dimensions for higher sizes available against specific requirement.
All dimensions in mm.



DETAILS

- Double acting
- Reverse Balanced
- Inside mounted
- Independent of direction of rotation

APPLICATIONS

- Petroleum refinery
- Chemical industry
- Oil applications
- Petrochemicals
- Light hydrocarbons

OPERATING RANGE

- Shaft diameter: d: 1.000....4.000"
- Pressure: p: 40 bar(max)
- Temperature: -40° C....+260° C
- Speed : upto 4500fpm/23 m/s

FACE MATERIALS

Carbon v/s Silicon Carbide,
(Tungsten Carbide Optional)

METAL PARTS

SS 316

ELASTOMERS:

FKM (Optional FFKM, BUNA, EPR)

SIZE	Ød1	Ød2	Ød3	Ød4	Ød41	L1+	L2+
1.000	25.40	22.20	19.05	39.7	36.5	35.0	15.5
1.125	28.58	25.40	22.20	42.8	39.7	35.0	15.5
1.250	31.75	28.58	25.4	47.6	44.45	35.0	15.5
1.375	34.92	28.58	28.58	50.8	44.45	36.5	15.5
1.500	38.10	31.75	28.58	54.0	47.70	36.5	15.5
1.625	41.28	34.92	31.75	60.3	53.98	41.0	15.5
1.750	44.45	38.10	34.92	63.5	57.15	41.0	15.5
1.875	47.62	41.28	38.10	66.7	60.32	41.0	15.5
2.000	50.80	44.45	41.28	70.0	63.50	50.0	15.5
2.125	53.98	47.62	44.45	76.2	69.85	50.0	16.5
2.250	57.15	50.80	47.62	79.4	73.02	50.0	16.5
2.375	60.32	53.98	50.80	82.6	76.20	50.0	16.5
2.500	63.50	57.15	53.98	85.7	79.38	50.0	16.5
2.625	66.68	60.32	57.15	88.9	82.55	50.0	16.5
2.750	69.85	63.50	60.32	92.1	85.72	50.0	16.5
2.875	73.02	66.68	63.50	95.3	89.00	50.0	16.5
3.000	76.20	69.85	66.68	96.8	92.10	50.0	16.5
3.125	79.38	73.02	69.85	100.0	95.30	50.0	16.5
3.250	82.55	76.20	73.02	104.8	98.50	50.0	16.5
3.375	85.72	79.38	76.20	108.0	101.6	50.0	16.5
3.500	88.90	82.55	79.38	111.1	104.8	50.0	16.5
3.625	92.08	85.72	82.55	114.3	108.0	50.0	16.5
3.750	95.25	88.90	85.72	117.5	111.1	50.0	16.5
3.875	98.42	92.08	88.90	120.7	114.3	50.0	16.5
4.000	101.60	95.25	92.08	123.8	117.5	50.0	16.5

Dimensions for higher sizes available against specific requirement.

All diameters in mm.

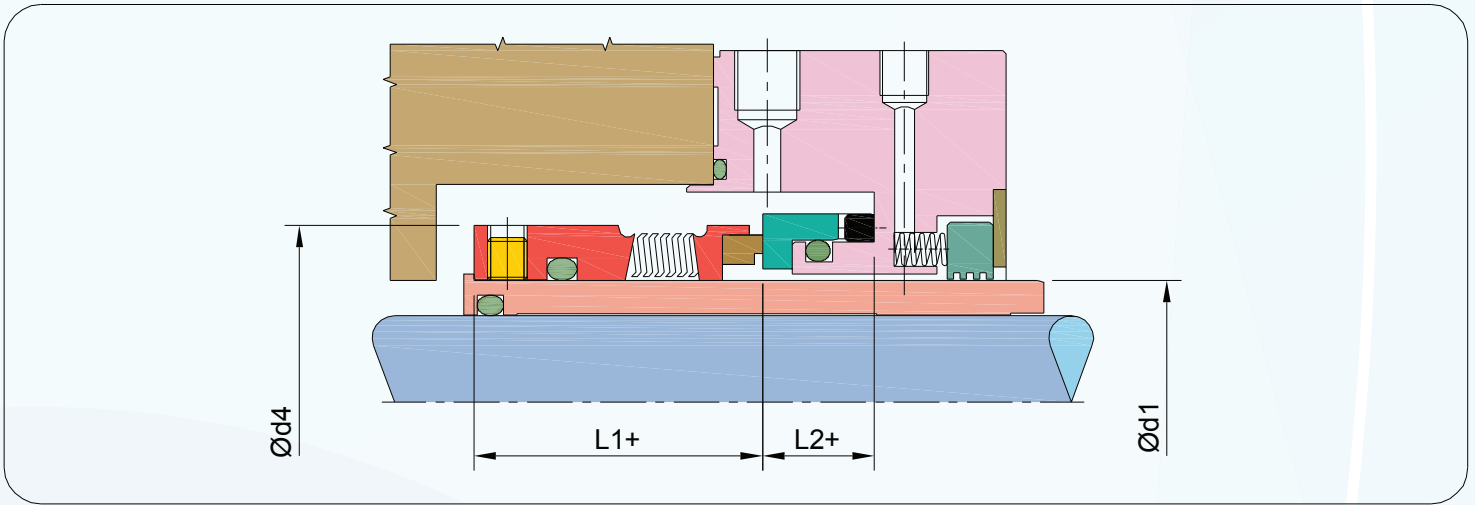
TYPE B

The Intec Seals has developed API (American Petroleum Institute) 682 seals for the oil and gas industry market.

The Intec Seal Type B Non Pusher Seal is available in Arrangement 1, 2 and 3. An Arrangement 1 seal is a single contacting wet cartridge seal with a throttle Bush. Arrangement 2 cartridge seal is the same configuration as the Arrangement 3 seal but is an un-pressurized dual seal where the barrier fluid pressure is kept lower than the seal chamber fluid pressure. The outboard seal will provide back up of hazardous fluids in case of Inboard Seal failure.

Intec Seal has designed, manufactured and tested to meet API 682 requirement, Type B seal in Arrangement 1 and Arrangement 3 (dual pressurized cartridge seal) for the market. In an Arrangement 3 design the barrier fluid pressure is kept higher than the seal chamber pressure and is designed to handle and contain hazardous and corrosive fluids. The Inboard seal is specially designed to handle reverse pressure. Outboard Seal is same as Arrangement 1 Seal.

With many years of experience in seal design, manufacturing and testing for the industrial market, Intec Seals has the experience to solve your sealing problems. Intec Seal provides optimum sealing solutions to meet customer needs.



DETAILS

- Single acting
- Balanced
- Inside mounted
- Independent of direction of rotation

APPLICATIONS

- Low-temperature refinery services
- Acids
- Caustics
- Amines
- Products with H₂S, such as sour water and sour hydrocarbons.

OPERATING RANGE

- Shaft diameter: d1: 18.0....100.0
- Pressure: upto 2MPa/20 bar (g) max.
- Temperature: -40°C....+176°C
- Speed : upto 4500rpm/23 m/s

FACE MATERIALS

Carbon v/s Silicon Carbide,
(Tungsten Carbide Optional)

METAL PARTS

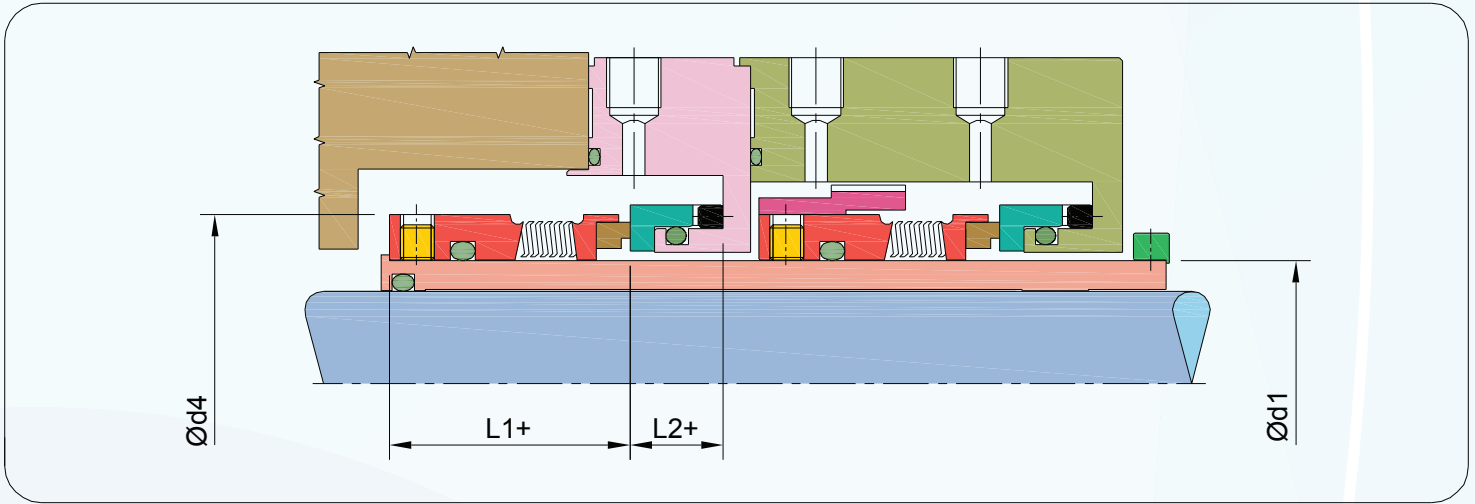
Alloy-C-276

ELASTOMERS:

FKM (Optional FFKM, PTFE)

Ød1	Ød4	L1+	L2+
18.0	32.0	27.5	15.5
20.0	33.4	27.5	15.5
22.0	36.0	27.5	15.5
24.0	38.1	30.0	15.5
25.0	39.0	30.0	15.5
28.0	42.0	32.5	15.5
30.0	44.0	32.5	15.5
32.0	46.0	32.5	15.5
33.0	47.0	32.5	15.5
35.0	49.2	32.5	16.5
38.0	52.4	34.0	16.5
40.0	55.6	34.0	16.5
43.0	58.7	34.0	16.5
45.0	58.7	34.0	16.5
48.0	61.9	34.0	16.5
50.0	65.1	34.5	16.5
53.0	68.3	34.5	16.5
55.0	71.0	34.5	16.5
60.0	74.6	39.5	16.5
65.0	84.1	39.5	16.5
70.0	87.3	45.0	16.5
75.0	95.3	45.0	16.5
80.0	98.4	44.5	16.5
85.0	104.8	44.5	16.5
90.0	108.0	49.5	16.5
95.0	114.3	49.5	16.5
100.0	120.7	49.5	16.5

Dimensions for higher sizes available against specific requirement.
All dimensions in mm.



DETAILS

- Double acting
- Balanced
- Inside mounted
- Independent of direction of rotation

APPLICATIONS

- Low-temperature refinery services
- Acids
- Caustics
- Amines
- Products with H₂S, such as sour water and sour hydrocarbons.

OPERATING RANGE

- Shaft diameter: d1: 18.0....100.0
- Pressure: upto 2MPa/20 bar (g) max.
- Temperature: -40°C....+176°C
- Speed : upto 4500rpm/23 m/s

FACE MATERIALS

Carbon v/s Silicon Carbide,
(Tungsten Carbide Optional)

METAL PARTS

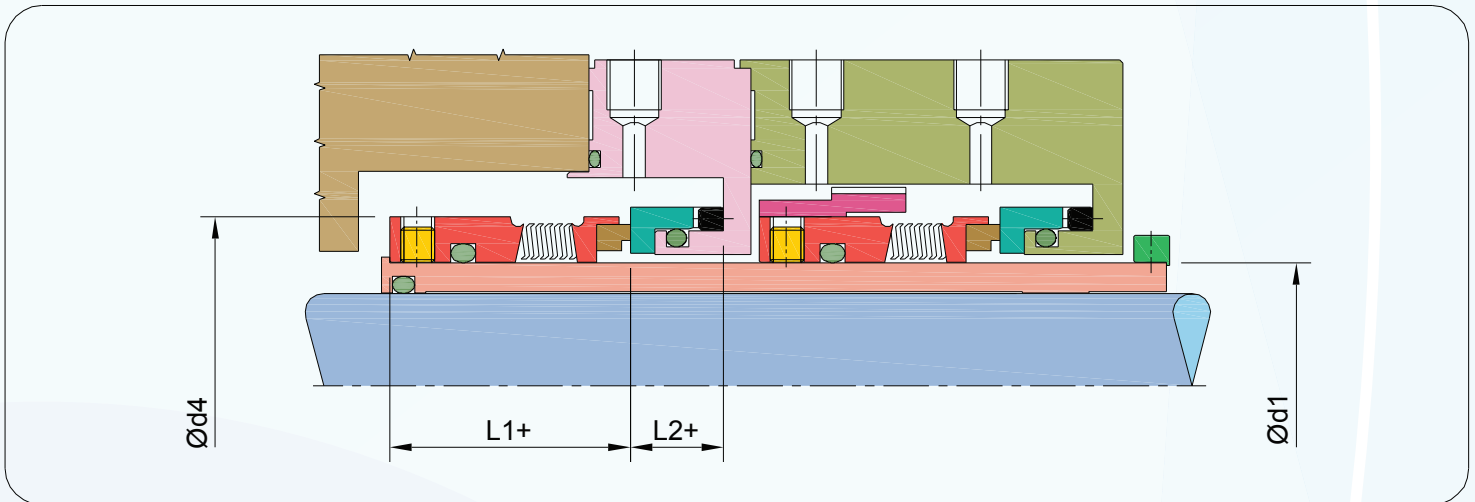
Alloy-C-276

ELASTOMERS:

FKM (Optional FFKM, PTFE)

Ød1	Ød4	L1+	L2+
18.0	32.0	27.5	15.5
20.0	33.4	27.5	15.5
22.0	36.0	27.5	15.5
24.0	38.1	30.0	15.5
25.0	39.0	30.0	15.5
28.0	42.0	32.5	15.5
30.0	44.0	32.5	15.5
32.0	46.0	32.5	15.5
33.0	47.0	32.5	15.5
35.0	49.2	32.5	16.5
38.0	52.4	34.0	16.5
40.0	55.6	34.0	16.5
43.0	58.7	34.0	16.5
45.0	58.7	34.0	16.5
48.0	61.9	34.0	16.5
50.0	65.1	34.5	16.5
53.0	68.3	34.5	16.5
55.0	71.0	34.5	16.5
60.0	74.6	39.5	16.5
65.0	84.1	39.5	16.5
70.0	87.3	45.0	16.5
75.0	95.3	45.0	16.5
80.0	98.4	44.5	16.5
85.0	104.8	44.5	16.5
90.0	108.0	49.5	16.5
95.0	114.3	49.5	16.5
100.0	120.7	49.5	16.5

Dimensions for higher sizes available against specific requirement.
All dimensions in mm.



DETAILS

- Double acting
- Balanced
- Inside mounted
- Independent of direction of rotation

APPLICATIONS

- Low-temperature refinery services
- Acids
- Caustics
- Amines
- Products with H₂S, such as sour water and sour hydrocarbons.

OPERATING RANGE

- Shaft diameter: d1: 18.0....100.0
- Pressure: upto 2MPa/20 bar (g) max.
- Temperature: -40°C....+176°C
- Speed : upto 4500rpm/23 m/s

FACE MATERIALS

Carbon v/s Silicon Carbide,
(Tungsten Carbide Optional)

METAL PARTS

Alloy-C-276

ELASTOMERS:

FKM (Optional FFKM, PTFE)

Ød1	Ød4	L1+	L2+
18.0	32.0	27.5	15.5
20.0	33.4	27.5	15.5
22.0	36.0	27.5	15.5
24.0	38.1	30.0	15.5
25.0	39.0	30.0	15.5
28.0	42.0	32.5	15.5
30.0	44.0	32.5	15.5
32.0	46.0	32.5	15.5
33.0	47.0	32.5	15.5
35.0	49.2	32.5	16.5
38.0	52.4	34.0	16.5
40.0	55.6	34.0	16.5
43.0	58.7	34.0	16.5
45.0	58.7	34.0	16.5
48.0	61.9	34.0	16.5
50.0	65.1	34.5	16.5
53.0	68.3	34.5	16.5
55.0	71.0	34.5	16.5
60.0	74.6	39.5	16.5
65.0	84.1	39.5	16.5
70.0	87.3	45.0	16.5
75.0	95.3	45.0	16.5
80.0	98.4	44.5	16.5
85.0	104.8	44.5	16.5
90.0	108.0	49.5	16.5
95.0	114.3	49.5	16.5
100.0	120.7	49.5	16.5

Dimensions for higher sizes available against specific requirement.

All dimensions in mm.

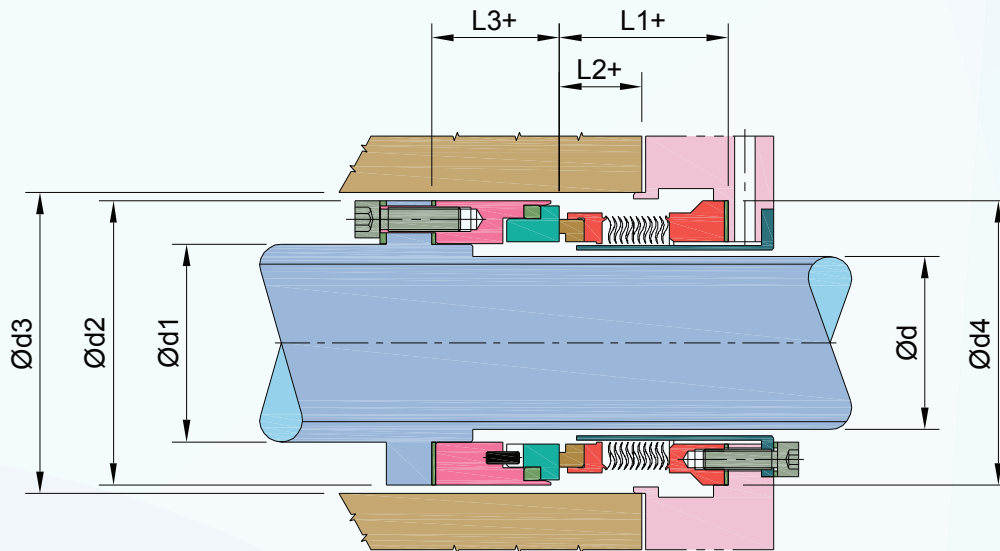
TYPE C

The Intec Seals has developed API (American Petroleum Institute) 682 seals for the oil and gas industry market.

The Intec Seal Type C Non Pusher Seal is available in Arrangement 1, 2 and 3. An Arrangement 1 seal is a single contacting wet cartridge seal with a throttle Bush. Arrangement 2 cartridge seal is the same configuration as the Arrangement 3 seal but is an un-pressurized dual seal where the barrier fluid pressure is kept lower than the seal chamber fluid pressure. The outboard seal will provide back up of hazardous fluids in case of Inboard Seal failure.

Intec Seal has designed, manufactured and tested to meet API 682 requirement, Type C seal in Arrangement 1 and Arrangement 3 (dual pressurized cartridge seal) for the market. In an Arrangement 3 design the barrier fluid pressure is kept higher than the seal chamber pressure and is designed to handle and contain hazardous and light hydrocarbon fluids. The Inboard seal is specially designed to handle reverse pressure. Outboard Seal is same as Arrangement 1 Seal.

With many years of experience in seal design, manufacturing and testing for the industrial market, Intec Seals has the experience to solve your sealing problems. Intec Seal provides optimum sealing solutions to meet customer needs.



DETAILS

- Single acting
- Balanced
- Inside mounted
- Independent of direction of rotation

APPLICATIONS

- Refinery Applications for low as well high temperature
- Oil and Gas Industry
- Petrochemical Industry
- Chemical Industry
- Power Plant

OPERATING RANGE

- Shaft diameter : 20.0....110.0
- Pressure: upto 2MPa/20 bar (g) max.
- Temperature: -40°C....+400°C
- Speed : upto 9800fpm/50 m/s

FACE MATERIALS

Carbon v/s Silicon Carbide

METAL PARTS

Inconel, SS 316

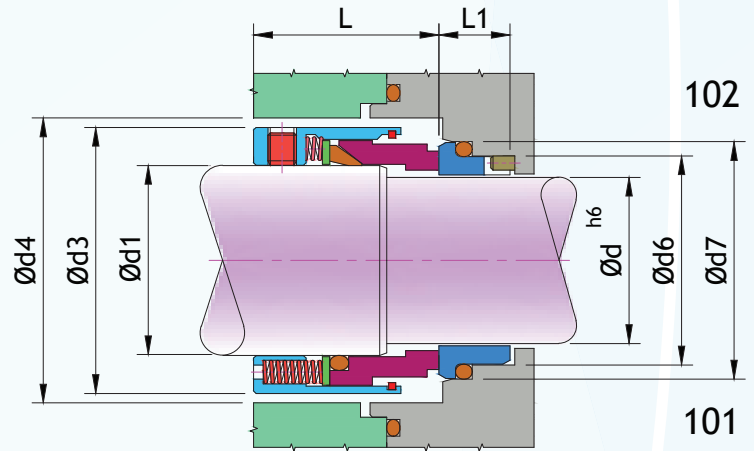
ELASTOMERS:

Flexible Graphite

Ød	Ød1	Ød2	Ød3	Ød4	L1+	L2+	L3+
20.0	25.0	47.0	51.0	48.0	38.0	17.0	31.0
24.0	29.0	50.0	54.0	51.0	38.0	17.0	31.0
28.0	32.0	53.0	57.0	54.0	38.0	17.0	31.0
31.0	36.0	57.0	61.0	58.0	38.0	17.0	31.0
33.0	39.0	60.0	65.0	61.0	41.0	20.0	31.0
35.0	42.0	63.0	68.0	64.0	41.0	20.0	31.0
39.0	45.0	68.0	71.0	67.0	41.0	20.0	31.0
42.0	48.0	69.0	74.0	70.0	41.0	20.0	31.0
45.0	51.0	72.0	77.0	73.0	41.0	20.0	31.0
47.0	54.0	75.0	81.0	77.0	43.0	22.0	31.0
50.0	58.0	79.0	84.0	80.0	43.0	22.0	31.0
53.0	61.0	82.0	87.0	83.0	43.0	22.0	31.0
55.0	64.0	85.0	90.0	86.0	51.0	30.0	31.0
59.0	67.0	89.0	93.0	89.0	51.0	30.0	31.0
63.0	71.0	92.0	97.0	93.0	51.0	30.0	31.0
64.0	74.0	96.0	100.0	96.0	55.0	34.0	31.0
67.0	77.0	99.0	103.0	99.0	55.0	34.0	31.0
70.0	81.0	102.0	106.0	102.0	55.0	34.0	31.0
73.0	84.0	105.0	109.0	105.0	55.0	34.0	31.0
76.0	87.0	109.0	112.0	108.0	55.0	34.0	31.0
79.0	90.0	113.0	117.0	112.0	58.0	37.0	31.0
82.0	93.0	116.0	121.0	115.0	58.0	37.0	31.0
85.0	96.0	119.0	123.0	118.0	58.0	37.0	31.0
88.0	99.0	122.0	126.0	121.0	58.0	37.0	31.0
91.0	103.0	125.0	129.0	124.0	58.0	37.0	31.0
100.0	111.0	138.0	143.0	135.0	60.0	41.0	41.0
110.0	116.0	147.0	153.0	146.0	60.0	41.0	41.0

Dimensions for higher sizes available against specific requirement.

All dimensions in mm.



DETAILS

- Single acting
- Inside mounted
- Balanced
- Independent of direction of rotation

APPLICATIONS

- Water and waste water
- Food and beverages industry
- Oil applications
- General chemicals

OPERATING RANGE

- Shaft diameter d : 16.....120 mm
- Pressure : p : 35 bar(max.)
- Temperature : t : -60°C.....+200°C
- Velocity : v : 20 m/sec.

FACE MATERIALS

Silicon Carbide, Tungsten Carbide, Carbon, Ceramic

METAL PARTS

SS 316, SS 304, Hast-C, Monel, Alloy-20

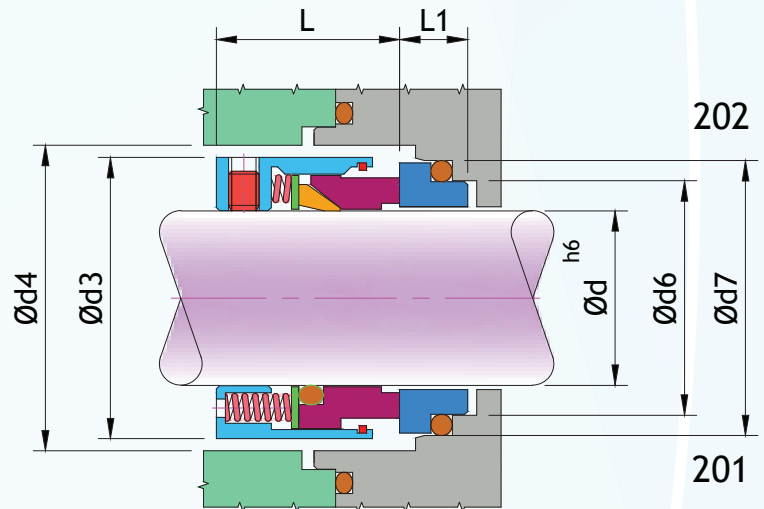
SECONDARY SEALS

NBR, Viton, PTFE, EPDM, Neoprene

SIZE mm	Ød	Ød1	Ød3	Ød4	Ød6	Ød7	L	L1
0016	16.0	20.0	34.5	36.5	23.0	27.0	31.0	15.0
0018	18.0	22.0	36.5	38.5	27.0	33.0	32.0	15.0
0020	20.0	24.0	38.5	40.5	29.0	35.0	32.0	15.0
0025	25.0	30.0	44.5	46.5	34.0	40.0	35.0	15.0
0028	28.0	33.0	47.5	49.5	37.0	43.0	38.0	15.0
0030	30.0	35.0	49.5	51.5	39.0	45.0	38.5	15.0
0032	32.0	38.0	54.5	58.5	42.0	48.0	38.5	15.0
0033	33.0	38.0	54.5	58.5	42.0	48.0	38.5	15.0
0035	35.0	40.0	56.5	60.5	44.0	50.0	38.5	15.0
0038	38.0	43.0	59.5	63.5	49.0	56.0	40.0	16.0
0040	40.0	45.0	61.5	65.5	51.0	58.0	40.0	16.0
0043	43.0	48.0	64.5	68.5	54.0	61.0	40.0	16.0
0045	45.0	50.0	66.5	70.5	56.0	63.0	40.0	16.0
0048	48.0	53.0	69.5	73.5	59.0	66.0	40.0	16.0
0050	50.0	55.0	71.5	75.5	62.0	70.0	44.5	17.0
0053	53.0	58.0	78.5	83.5	65.0	73.0	44.5	17.0
0055	55.0	60.0	80.5	85.5	67.0	75.0	44.5	17.0
0058	58.0	63.0	83.5	88.5	70.0	78.0	49.5	18.0
0060	60.0	65.0	85.5	90.5	72.0	80.0	49.5	18.0
0063	63.0	68.0	88.5	93.5	75.0	83.0	49.5	18.0
0065	65.0	70.0	90.5	95.5	77.0	85.0	49.5	18.0
0070	70.0	75.0	95.5	104.5	83.0	92.0	56.5	19.0
0075	75.0	80.0	104.5	109.5	88.0	97.0	56.5	19.0
0080	80.0	85.0	109.5	114.5	95.0	105.0	55.5	19.0
0085	85.0	90.0	114.5	119.5	100.0	110.0	60.5	19.0
0090	90.0	95.0	119.5	124.5	105.0	115.0	60.5	20.5
0095	95.0	100.0	124.5	129.5	110.0	120.0	60.5	20.5
0100	100.0	105.0	129.5	134.5	115.0	125.0	60.5	20.5

Dimensions for higher sizes available against specific requirement.

All dimensions in mm.



DETAILS

- Single acting
- Inside mounted
- Unbalanced
- Independent of direction of rotation

APPLICATIONS

- Oil Solvents, Refregants,
- Petroleum refinery
- Petrochemicals
- General chemicals
- Light hydrocarbon

OPERATING RANGE

- Shaft diameter d : 16.....120 mm
- Pressure : p : 12 bar(max.)
- Temperature : t : -60°C.....+200°C
- Velocity : v : 20 m/sec.

FACE MATERIALS

Silicon Carbide, Tungsten Carbide, Carbon, Ceramic

METAL PARTS

SS 316, SS 304, Hast-C, Monel, Alloy-20

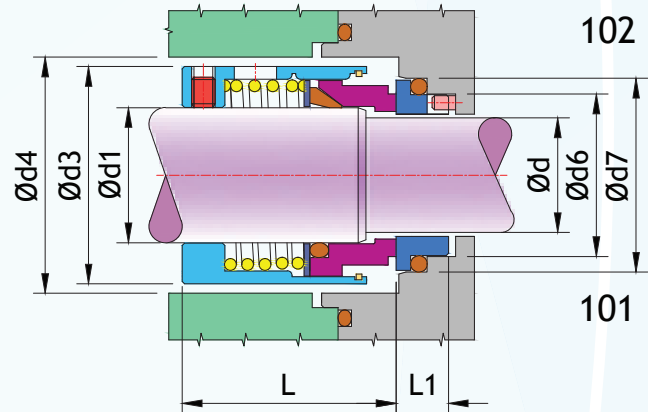
SECONDARY SEALS

NBR, Viton, PTFE, EPDM, Neoprene

SIZE mm	Ød	Ød3	Ød4	Ød6	Ød7	L	L1
0016	16.0	26.5	28.5	23.0	27.0	24.0	7.5
0018	18.0	32.5	35.0	27.0	33.0	25.0	8.5
0020	20.0	34.5	37.0	29.0	35.0	27.5	8.5
0025	25.0	39.5	41.0	34.0	40.0	31.0	8.5
0028	28.0	42.5	45.0	37.0	43.0	31.0	8.5
0030	30.0	44.5	47.0	39.0	45.0	31.0	8.5
0032	32.0	46.5	49.0	42.0	48.0	31.0	8.5
0033	33.0	47.5	50.0	42.0	48.0	31.0	8.5
0035	35.0	49.5	52.0	44.0	50.0	31.0	8.5
0038	38.0	54.5	59.0	49.0	56.0	32.0	10.0
0040	40.0	56.5	61.0	51.0	58.0	33.0	10.0
0043	43.0	59.5	64.0	54.0	61.0	33.0	10.0
0045	45.0	61.5	66.0	56.0	63.0	34.0	10.0
0048	48.0	64.5	69.0	59.0	66.0	34.0	10.0
0050	50.0	66.5	71.0	62.0	70.0	35.0	10.5
0053	53.0	69.5	74.0	65.0	73.0	35.0	12.0
0055	55.0	71.5	76.0	67.0	75.0	35.0	12.0
0058	58.0	78.5	84.0	70.0	78.0	40.5	12.0
0060	60.0	80.5	86.0	72.0	80.0	40.5	12.0
0063	63.0	83.5	88.0	75.0	83.0	40.5	12.0
0065	65.0	85.5	91.0	77.0	85.0	40.5	12.0
0068	68.0	88.5	94.0	81.0	90.0	40.5	12.5
0070	70.0	90.5	96.0	83.0	92.0	46.0	12.5
0075	75.0	95.5	105.0	88.0	97.0	46.0	12.5
0080	80.0	104.5	110.0	95.0	105.0	47.0	13.0
0085	85.0	109.5	115.0	100.0	110.0	47.0	15.0
0090	90.0	114.5	120.0	105.0	115.0	50.0	15.0
0095	95.0	119.5	125.0	110.0	120.0	50.0	15.0
0100	100.0	124.5	129.0	115.0	125.0	50.0	15.0

Dimensions for higher sizes available against specific requirement.

All dimensions in mm.



DETAILS

- Single acting
- Balanced
- Inside mounted
- Independent of direction of rotation

APPLICATIONS

- Petrochemicals
- Chemical industry
- Oil applications
- Petroleum refinery
- Light hydrocarbons

OPERATING RANGE

- Shaft diameter: d: 0.625....4.0"
- Pressure: p: 25 bar(max)
- Temperature: -70° C....+200° C
- Velocity:v: 20m/s

FACE MATERIALS

Carbon, Silicon Carbide, Ceramic, Tungsten Carbide

METAL PARTS:

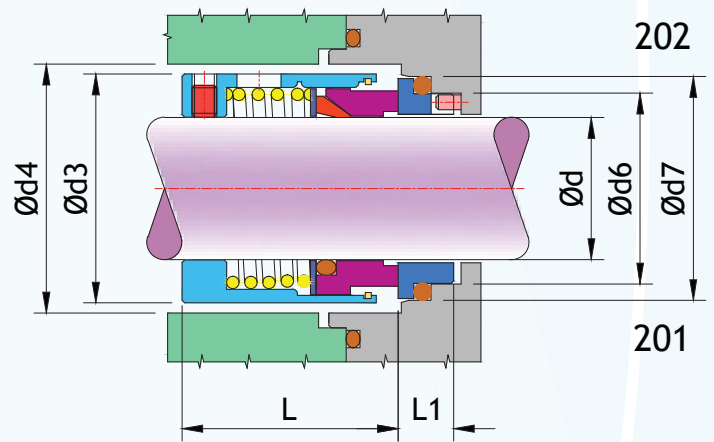
SS 316, SS 304

ELASTOMERS:

NBR, Viton, EPDM, PTFE, GFT

SIZE	Ød1	Ød	Ød3	Ød4	Ød6	Ød7	L	L1
0.625	15.87	12.70	27.0	29.0	--	--	40.0	--
0.750	19.05	15.87	31.0	32.5	--	--	43.0	--
0.875	22.22	19.05	33.8	35.6	--	--	43.0	--
1.000	25.40	22.22	37.0	38.8	35.2	41.4	35.0	11.1
1.125	28.58	25.40	40.0	43.0	38.4	44.6	49.0	11.1
1.250	31.75	28.58	43.5	46.2	41.5	47.7	51.0	11.1
1.375	34.92	28.58	50.0	52.5	44.7	50.9	51.0	11.1
1.500	38.10	31.75	52.8	55.7	47.9	54.1	59.0	11.1
1.625	41.28	34.92	57.8	60.4	54.3	60.4	59.0	12.7
1.750	44.45	38.10	59.0	62.2	57.4	63.6	66.0	12.7
1.875	47.62	41.28	62.8	65.5	60.6	66.8	66.0	12.7
2.000	50.80	44.45	66.2	69.5	63.8	70.0	66.0	12.7
2.125	53.98	47.62	71.8	74.5	70.1	76.3	66.0	14.5
2.250	57.15	50.80	73.8	76.5	73.3	79.5	75.0	14.5
2.375	60.32	53.98	76.5	79.6	76.5	82.7	75.0	14.5
2.500	63.50	57.15	80.0	82.7	79.6	85.8	75.0	14.5
2.625	66.68	60.32	83.0	86.0	79.6	85.8	75.0	16.1
2.750	69.85	63.50	86.0	89.1	82.8	89.0	75.0	16.1
2.875	73.02	66.68	89.0	92.3	85.7	95.3	75.0	16.1
3.000	76.20	69.85	92.8	95.5	88.8	98.4	75.0	16.1
3.125	79.38	73.02	95.4	98.6	92.2	101.7	75.0	16.1
3.250	82.55	76.20	99.0	101.8	95.3	104.8	75.0	16.1
3.375	85.72	79.38	102.0	104.9	98.4	108.0	75.0	16.1
3.500	88.90	82.55	105.0	101.8	101.6	111.2	75.0	16.1
3.625	92.08	85.72	108.0	108.1	104.8	114.4	75.0	17.5
3.750	95.25	88.90	117.5	114.5	107.9	117.5	75.0	17.5
3.875	98.42	92.08	114.5	117.6	111.1	120.7	75.0	17.5
4.000	101.60	95.25	118.5	121.5	114.3	123.9	75.0	17.5

Dimensions for higher sizes available against specific requirement.
All dimensions in mm.



DETAILS

- Single acting
- Unbalanced
- Inside mounted
- Independent of direction of rotation

APPLICATIONS

- Petrochemicals
- Chemical industry
- Oil applications
- Petroleum refinery
- Light hydrocarbons

OPERATING RANGE

- Shaft diameter: d: 0.500....4.000"
- Pressure: p: 12 bar(max)
- Temperature: -70°C.....+200°C
- Velocity:v: 20m/s

FACE MATERIALS

Carbon, Silicon Carbide, Ceramic, Tungsten Carbide

METAL PARTS:

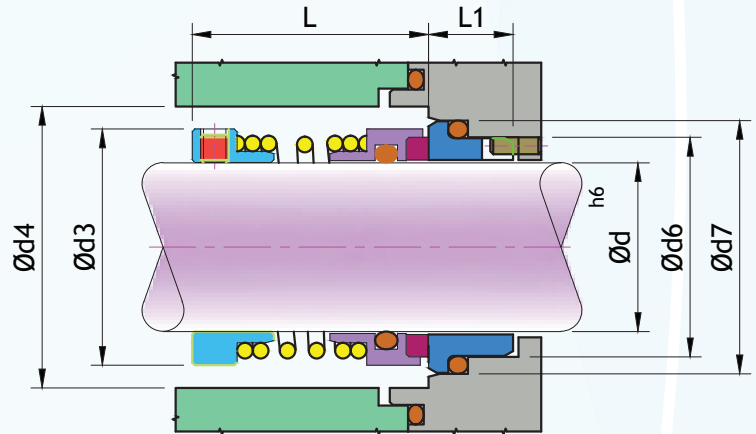
SS 316, SS 304, Monel, Hast-C

ELASTOMERS:

NBR, Viton, EPDM, PTFE, GFT

SIZE	Ød	Ød3	Ød4	Ød6	Ød7	L	L1
0.500	12.70	24.0	25.8	--	--	31.0	--
0.625	15.87	27.0	29.0	--	--	31.0	--
0.750	19.05	31.0	32.5	--	--	35.0	--
0.875	22.22	33.8	35.6	--	--	35.0	--
1.000	25.40	37.0	38.8	35.2	41.4	42.0	11.1
1.125	28.58	40.0	43.0	38.4	44.6	42.0	11.1
1.250	31.75	43.5	46.2	41.5	47.7	42.0	11.1
1.375	34.92	50.0	52.5	44.7	50.9	50.0	11.1
1.500	38.10	52.8	55.7	47.9	54.1	50.0	11.1
1.625	41.28	57.8	60.4	54.3	60.4	55.0	12.7
1.750	44.45	59.0	62.2	57.4	63.6	55.0	12.7
1.875	47.62	62.8	65.5	60.6	66.8	55.0	12.7
2.000	50.80	66.2	69.5	63.8	70.0	55.0	12.7
2.125	53.98	71.8	74.5	70.1	76.3	65.0	14.5
2.250	57.15	73.8	76.5	73.3	79.5	65.0	14.5
2.375	60.32	76.5	79.6	76.5	82.7	65.0	14.5
2.500	63.50	80.0	82.7	79.6	85.8	65.0	14.5
2.625	66.68	83.0	86.0	79.6	85.8	65.0	16.1
2.750	69.85	86.0	89.1	82.8	89.0	65.0	16.1
2.875	73.02	89.0	92.3	85.7	95.3	65.0	16.1
3.000	76.20	92.8	95.5	88.8	98.4	65.0	16.1
3.125	79.38	95.4	98.6	92.2	101.7	65.0	16.1
3.250	82.55	99.0	101.8	95.3	104.8	65.0	16.1
3.375	85.72	102.0	104.9	98.4	108.0	65.0	16.1
3.500	88.90	105.0	101.8	101.6	111.2	65.0	16.1
3.625	92.08	108.0	108.1	104.8	114.4	65.0	17.5
3.750	95.25	115.5	115.5	107.9	117.5	65.0	17.5
3.875	98.42	114.5	117.6	111.1	120.7	65.0	17.5
4.000	101.60	118.5	121.5	114.3	123.9	65.0	17.5

Dimensions for higher sizes available against specific requirement.
All dimensions in mm.



DETAILS

- Single acting
- Inside mounted
- Unbalanced
- Independent of direction of rotation

APPLICATIONS

- Oils, Solvents,
- Petroleum refinery
- General chemicals
- Fertilizers

OPERATING RANGE

- Shaft diameter d : 20.....120 mm
- Pressure : p : 10 bar(max.)
- Temperature : t : -50°C.....+220°C
- Velocity : v : 20 m/sec.

FACE MATERIALS

Silicon Carbide, Tungsten Carbide, Carbon, Ceramic

METAL PARTS

SS 316, SS 304, Hast-C

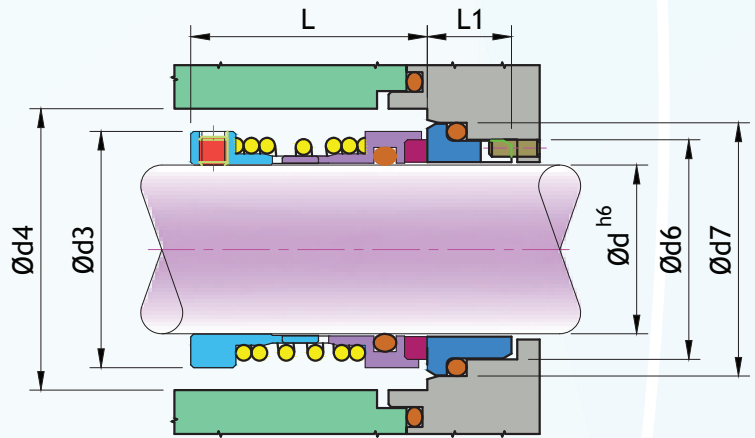
SECONDARY SEALS

Viton, PTFE, EPDM, Neoprene, Nitrile, Aflas

SIZE mm	Ød	Ød3	Ød4	Ød6	Ød7	L	L1
0020	20.0	35.0	37.0	29.0	35.0	39.0	15.0
0025	25.0	38.5	40.5	34.0	40.0	39.0	15.0
0028	28.0	42.5	45.5	37.0	43.0	41.0	15.0
0030	30.0	44.5	48.0	39.0	45.0	41.0	15.0
0032	32.0	48.0	50.0	42.0	48.0	41.0	15.0
0033	33.0	49.0	51.0	42.0	48.0	41.0	15.0
0035	35.0	50.0	52.0	44.0	50.0	41.0	15.0
0038	38.0	53.0	55.0	49.0	56.0	46.0	16.0
0040	40.0	55.0	57.0	51.0	58.0	46.0	16.0
0043	43.0	56.0	58.0	54.0	61.0	51.0	16.0
0045	60.0	60.0	62.0	56.0	63.0	51.0	16.0
0048	48.0	62.0	64.0	59.0	66.0	56.0	16.0
0050	50.0	66.0	68.0	62.0	70.0	56.0	17.0
0055	55.0	71.0	73.0	67.0	75.0	59.0	17.0
0058	55.0	74.0	76.0	70.0	78.0	59.0	18.0
0060	60.0	78.0	80.0	72.0	80.0	61.0	18.0
0063	65.0	80.0	84.0	75.0	83.0	61.0	18.0
0065	65.0	82.0	85.0	77.0	85.0	67.0	18.0
0068	68.0	83.0	86.0	81.0	90.0	67.0	18.5
0070	70.0	87.0	91.0	83.0	92.0	67.0	19.0
0075	75.0	91.0	96.0	88.0	97.0	72.0	19.0
0080	80.0	100.0	105.0	95.0	105.0	72.0	19.0
0085	85.0	106.0	111.0	100.0	110.0	72.0	19.0
0090	90.0	111.0	116.0	105.0	115.0	72.0	20.5
0095	100.0	116.0	121.0	115.0	125.0	80.0	20.5
0100	121.0	121.0	126.0	125.0	135.0	80.0	20.5

Dimensions for higher sizes available against specific requirement.

All Dimensions in mm.



DETAILS

- Single acting
- Inside mounted
- Unbalanced
- Independent of direction of rotation

APPLICATIONS

- Slurry application
- Petroleum refinery
- General chemicals
- Fertilizers

OPERATING RANGE

- Shaft diameter d : 20.....120 mm
- Pressure : p : 12 bar(max.)
- Temperature : t : -50°C.....+220°C
- Velocity : v : 20 m/sec.

FACE MATERIALS

Silicon Carbide, Tungsten Carbide, Carbon, Ceramic

METAL PARTS

SS 316, SS 304, Hast-C

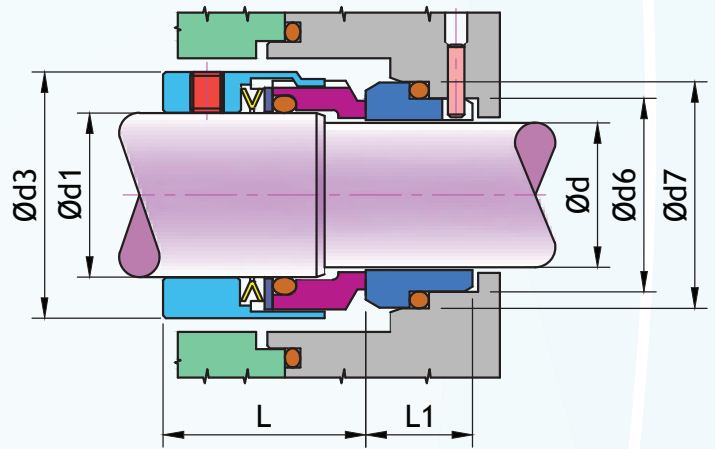
SECONDARY SEALS

Viton, PTFE, EPDM, Neoprene, Nitrile, Aflas

SIZE mm	Ød	Ød3	Ød4	Ød6	Ød7	L	L1
0020	20.0	35.0	37.0	29.0	35.0	46.0	15.0
0025	25.0	38.5	40.5	34.0	40.0	48.0	15.0
0028	28.0	42.5	45.5	37.0	43.0	48.0	15.0
0030	30.0	44.5	48.0	39.0	45.0	52.0	15.0
0032	32.0	48.0	50.0	42.0	48.0	52.0	15.0
0033	33.0	49.0	51.0	42.0	48.0	52.0	15.0
0035	35.0	50.0	52.0	44.0	50.0	55.0	15.0
0038	38.0	53.0	55.0	49.0	56.0	55.0	16.0
0040	40.0	55.0	57.0	51.0	58.0	55.0	16.0
0043	43.0	56.0	58.0	54.0	61.0	55.0	16.0
0045	60.0	60.0	62.0	56.0	63.0	55.0	16.0
0048	48.0	62.0	64.0	59.0	66.0	58.0	16.0
0050	50.0	66.0	68.0	62.0	70.0	62.0	17.0
0055	55.0	71.0	73.0	67.0	75.0	72.0	17.0
0058	55.0	74.0	76.0	70.0	78.0	72.0	18.0
0060	60.0	78.0	80.0	72.0	80.0	76.0	18.0
0063	65.0	80.0	84.0	75.0	83.0	76.0	18.0
0065	65.0	82.0	85.0	77.0	85.0	76.0	18.0
0068	68.0	83.0	86.0	81.0	90.0	76.0	18.5
0070	70.0	87.0	91.0	83.0	92.0	80.0	19.0
0075	75.0	91.0	96.0	88.0	97.0	80.0	19.0
0080	80.0	100.0	105.0	95.0	105.0	80.0	19.0
0085	85.0	106.0	111.0	100.0	110.0	80.0	19.0
0090	90.0	111.0	116.0	105.0	115.0	80.0	20.5
0095	100.0	116.0	121.0	115.0	125.0	80.0	20.5
0100	121.0	121.0	126.0	125.0	135.0	80.0	20.5

Dimensions for higher sizes available against specific requirement.

All Dimensions in mm.



DETAILS

- For stepped shafts
- Balanced
- Single seal
- Wave spring design
- Independent of direction of rotation

APPLICATIONS

- Water, waste water & hot water
- Chemical industry
- Oil applications
- Food industry
- Pulp & Paper
- Boiler feed pump

OPERATING RANGE

- Shaft diameter: d: 18....100mm
- Pressure: p: 50 bar(max)
- Temperature: -50°C....+220°C
- Velocity:v: 20m/s

FACE MATERIALS

Carbon, Silicon Carbide, Ceramic, Tungsten Carbide

METAL PARTS:

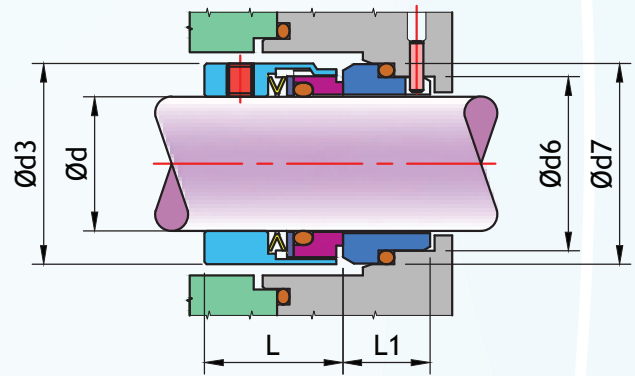
SS 316, SS 304, Hast-C, Duplex

ELASTOMERS:

NBR, Viton, EPDM, FFKM

SIZE	Ød1	Ød	Ød3	Ød6	Ød7	L	L1
0018	18.0	14.0	33.0	21.0	25.0	32.0	17.5
0020	20.0	16.0	35.0	23.0	27.0	32.0	17.5
0022	22.0	18.0	37.0	27.0	33.0	33.0	19.5
0024	24.0	20.0	39.0	29.0	35.0	33.0	19.5
0026	26.0	22.0	41.0	31.0	37.0	33.0	19.5
0028	28.0	24.0	43.0	33.0	39.0	36.0	19.5
0030	30.0	25.0	45.0	34.0	40.0	36.0	19.5
0033	33.0	28.0	48.0	37.0	43.0	38.0	19.5
0035	35.0	30.0	50.0	39.0	45.0	38.0	19.5
0038	38.0	32.0	55.0	42.0	48.0	38.0	19.5
0038	38.0	33.0	55.0	42.0	48.0	38.0	19.5
0040	40.0	35.0	57.0	44.0	50.0	38.0	19.5
0043	43.0	38.0	60.0	49.0	56.0	38.0	22.0
0045	45.0	40.0	62.0	51.0	58.0	38.0	22.0
0048	48.0	43.0	65.0	54.0	61.0	38.0	22.0
0050	50.0	45.0	67.0	56.0	63.0	38.0	22.0
0053	53.0	48.0	70.0	59.0	66.0	38.0	22.0
0055	55.0	50.0	72.0	62.0	70.0	42.0	23.0
0058	58.0	53.0	79.0	65.0	73.0	42.0	23.0
0060	60.0	55.0	81.0	67.0	75.0	42.0	23.0
0063	63.0	58.0	84.0	70.0	78.0	47.0	23.0
0065	65.0	60.0	86.0	72.0	80.0	47.0	23.0
0068	68.0	63.0	89.0	75.0	83.0	47.0	23.0
0070	70.0	65.0	91.0	77.0	85.0	47.0	23.0
0075	75.0	70.0	99.0	83.0	92.0	52.0	26.0
0080	80.0	75.0	104.0	88.0	97.0	52.0	26.0
0085	85.0	80.0	109.0	95.0	105.0	52.0	26.2
0090	90.0	85.0	114.0	100.0	110.0	57.0	26.2
0095	95.0	90.0	119.0	105.0	115.0	57.0	26.2
0100	100.0	95.0	124.0	110.0	120.0	57.0	25.2

DIMENSIONS FOR HIGHER SIZES AVAILABLE AGAINST SPECIFIC REQUIREMENT.
All Dimensions In mm.



DETAILS

- For plain shaft
- Inside mounted
- Unbalanced
- Independent of direction of rotation
- Wave Spring Design

APPLICATIONS

- Water & waste water
- Chemical industry
- Oil applications
- Lube oils
- Low solids content media
- Multistage, Screw & Gear pump

OPERATING RANGE

- Shaft diameter: d: 14....100mm
- Pressure: p: 25 bar(max)
- Temperature: -50°C....+220°C
- Velocity:v: 20m/s

FACE MATERIALS

Carbon, Silicon Carbide, Special cast CrMo Steel

METAL PARTS:

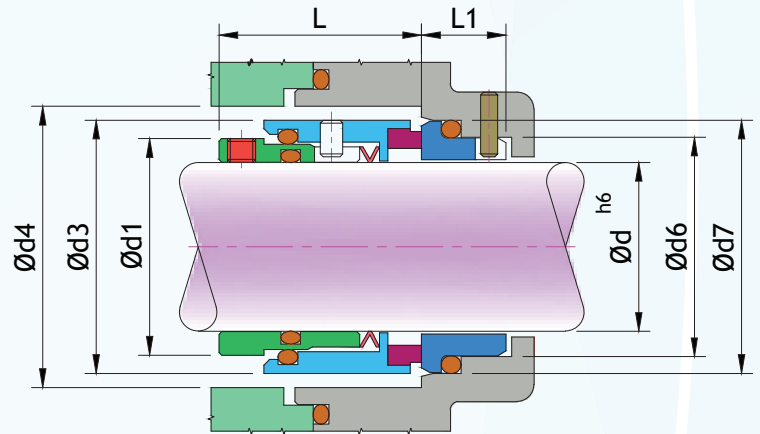
SS 316, SS 304, Hast-C, Duplex

ELASTOMERS:

NBR, Viton, EPDM, FFKM

SIZE	Ød	Ød3	Ød6	Ød7	L	L1
0014	14.0	25.0	21.0	25.0	25.0	17.5
0016	16.0	27.0	23.0	27.0	25.0	17.5
0018	18.0	33.0	27.0	33.0	26.0	19.5
0020	20.0	35.0	29.0	35.0	26.0	19.5
0022	22.0	37.0	31.0	37.0	26.0	19.5
0024	24.0	39.0	33.0	39.0	28.0	19.5
0025	25.0	40.0	34.0	40.0	28.0	19.5
0028	28.0	43.0	37.0	43.0	31.0	19.5
0030	30.0	45.0	39.0	45.0	31.0	19.5
0032	32.0	47.0	42.0	48.0	31.0	19.5
0033	33.0	48.0	42.0	48.0	31.0	19.5
0035	35.0	50.0	44.0	50.0	31.0	19.5
0038	38.0	55.0	49.0	56.0	31.0	22.0
0040	40.0	57.0	51.0	58.0	31.0	22.0
0043	43.0	60.0	54.0	61.0	31.0	22.0
0045	45.0	62.0	56.0	63.0	31.0	22.0
0048	48.0	65.0	59.0	66.0	31.0	22.0
0050	50.0	67.0	62.0	70.0	32.0	23.0
0053	53.0	70.0	65.0	73.0	32.0	23.0
0055	55.0	72.0	67.0	75.0	32.0	23.0
0058	58.0	79.0	70.0	78.0	37.0	23.0
0060	60.0	81.0	72.0	80.0	37.0	23.0
0063	63.0	84.0	75.0	83.0	37.0	23.0
0065	65.0	86.0	77.0	85.0	37.0	23.0
0068	68.0	89.0	81.0	90.0	37.0	26.0
0070	70.0	91.0	83.0	92.0	42.0	26.0
0075	75.0	99.0	88.0	97.0	42.0	26.0
0080	80.0	104.0	95.0	105.0	42.0	26.2
0085	85.0	109.0	100.0	110.0	42.0	26.2
0090	90.0	114.0	105.0	115.0	47.0	26.2
0095	95.0	119.0	110.0	120.0	47.0	25.2
0100	100.0	124.0	115.0	125.0	47.0	25.2

Dimensions for higher sizes available against specific requirement.
All dimensions in mm.



DETAILS

- Single acting
- Encapsulated rotating spring
- Balanced
- Independent of direction of rotation

APPLICATIONS

- Pulp and paper
- Sugar industry
- Water and waste water
- Raw sludge, sewage, slurries
- Thick juice pumps

OPERATING RANGE

- Shaft diameter d : 20.....120 mm
- Pressure : p : 30 bar (max.)
- Temperature : t : -20°C $+180^{\circ}\text{C}$
- Velocity : v : 20 m/sec.

FACE MATERIALS

Silicon Carbide, Tungsten Carbide, Carbon, Ceramic

METAL PARTS

SS 316, SS 304, Hast-C, Monel, Alloy-20

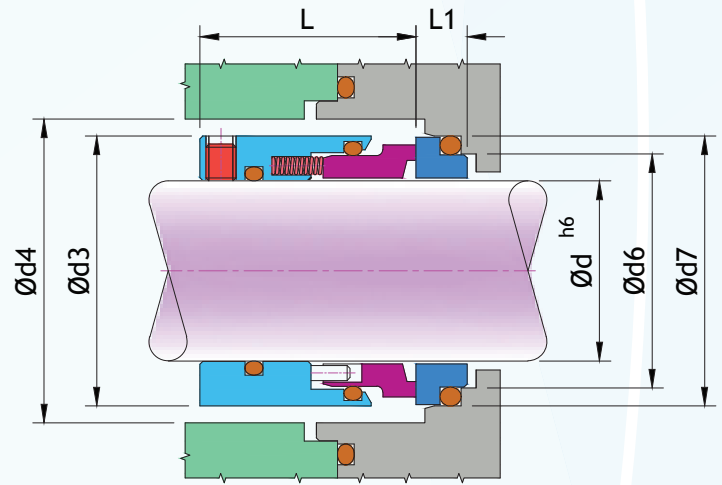
SECONDARY SEALS

NBR, Viton, PTFE, EPDM, Neoprene

SIZE mm	Ød	Ød1	Ød3	Ød4	Ød6	Ød7	L	L1
0020	20.0	28.5	35.0	37.0	29.0	35.0	31.0	15.0
0025	25.0	34.0	40.0	42.0	34.0	40.0	33.5	15.0
0028	28.0	37.0	43.0	45.0	37.0	43.0	36.0	15.0
0030	30.0	39.0	45.0	47.0	39.0	45.0	36.0	15.0
0032	32.0	42.0	48.0	50.0	42.0	48.0	36.0	15.0
0033	33.0	42.0	48.0	50.0	42.0	48.0	36.0	15.0
0035	35.0	44.0	50.0	52.0	44.0	50.0	36.0	15.0
0038	38.0	48.0	55.0	57.0	49.0	56.0	37.5	16.0
0040	40.0	50.0	57.0	59.0	51.0	58.0	37.5	16.0
0043	43.0	53.0	60.0	62.0	54.0	61.0	37.5	16.0
0045	45.0	55.0	62.0	64.0	56.0	63.0	37.5	16.0
0048	48.0	58.0	65.0	67.0	59.0	66.0	37.5	16.0
0050	50.0	60.0	67.0	69.0	62.0	70.0	38.5	17.0
0053	53.0	63.0	70.0	72.0	65.0	73.0	38.5	17.0
0055	55.0	65.0	72.0	74.0	67.0	75.0	38.5	17.0
0058	58.0	69.0	79.0	81.0	70.0	78.0	42.5	18.0
0060	60.0	71.0	81.0	83.0	72.0	80.0	42.5	18.0
0063	63.0	74.0	84.0	86.0	75.0	83.0	42.5	18.0
0065	65.0	76.0	86.0	88.0	77.0	85.0	42.5	18.0
0068	68.0	79.0	89.0	91.0	81.0	90.0	42.0	18.5
0070	70.0	81.0	91.0	93.0	83.0	92.0	49.0	19.0
0075	75.0	89.5	100.0	102.0	88.0	97.0	49.0	19.0
0080	80.0	94.5	105.0	107.0	95.0	105.0	49.0	19.0
0085	85.0	99.5	110.0	112.0	100.0	110.0	49.0	19.0
0090	90.0	104.5	115.0	117.0	105.0	115.0	52.5	20.5
0095	95.0	109.5	120.0	122.0	110.0	120.0	52.5	20.5
0100	100.0	114.5	125.0	127.0	115.0	125.0	52.5	20.5

Dimensions for higher sizes available against specific requirement.

All dimensions in mm.



DETAILS

- Isolated springs
- Balanced
- Inside mounted
- Bi-directional design
- No fretting equipment shaft

APPLICATIONS

- Food and beverages industry
- Viscous medias
- Dye liquor applications
- Moderate slurries

OPERATING RANGE

- Shaft diameter d : 20.....110 mm
- Pressure : p : 10 bar(max.)
- Temperature : t : -25°C.....+250°C
- Velocity : v : 20 m/sec.

FACE MATERIALS

Silicon Carbide, Tungsten Carbide, Carbon, Ceramic

METAL PARTS

SS 316, SS 304,

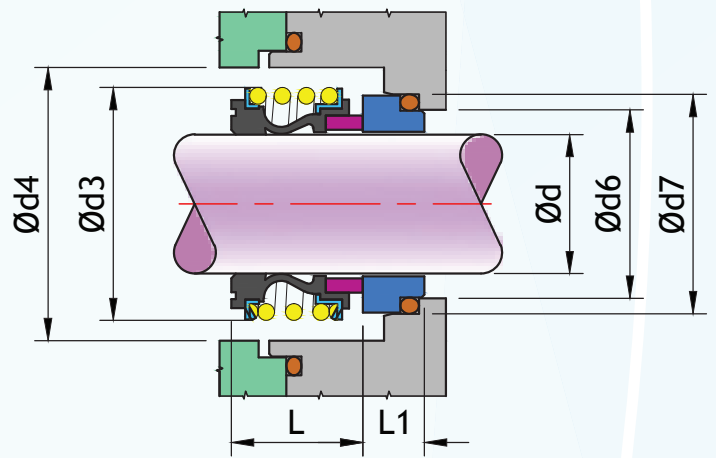
SECONDARY SEALS

Viton, PTFE, EPDM, Neoprene, Nitrile, Aflas

SIZE mm	Ød	Ød3	Ød4	Ød6	Ød7	L	L1
0020	20.0	35.0	37.0	29.0	35.0	31.0	8.5
0025	25.0	40.0	42.0	34.0	40.0	31.0	8.5
0028	28.0	43.0	45.0	37.0	43.0	36.0	8.5
0030	30.0	45.0	47.0	39.0	45.0	36.0	8.5
0032	32.0	48.0	50.0	42.0	48.0	36.0	8.5
0033	33.0	48.0	50.0	42.0	48.0	36.0	8.5
0035	35.0	50.0	52.0	44.0	50.0	36.0	8.5
0038	38.0	55.0	57.0	49.0	56.0	36.0	10.0
0040	40.0	57.0	59.0	51.0	58.0	36.0	10.0
0043	43.0	60.0	62.0	54.0	61.0	36.0	10.0
0045	45.0	62.0	64.0	56.0	63.0	36.0	10.0
0048	48.0	65.0	67.0	59.0	66.0	36.0	10.0
0050	50.0	67.0	69.0	62.0	70.0	36.0	10.5
0053	53.0	70.0	72.0	65.0	73.0	36.0	12.0
0055	55.0	72.0	74.0	67.0	75.0	36.0	12.0
0060	60.0	77.0	79.0	72.0	80.0	36.0	12.0
0065	65.0	82.0	84.0	77.0	85.0	36.0	12.0
0068	68.0	87.0	89.0	81.0	90.0	36.0	12.5
0070	70.0	87.0	94.0	83.0	92.0	36.0	12.5
0075	75.0	99.2	103.0	88.0	97.0	49.0	12.5
0080	80.0	105.0	109.0	95.0	105.0	49.0	13.5
0085	85.0	109.0	114.0	100.0	110.0	49.0	15.0
0090	90.0	115.0	119.0	105.0	115.0	49.0	15.0
0100	100.0	118.5	129.0	115.0	125.0	49.0	15.0
0110	110.0	134.5	139.0	125.0	135.0	49.0	15.0

Dimensions for higher sizes available against specific requirement.

All Dimensions in mm.



DETAILS

- For plain shaft
- Inside mounted
- Unbalanced
- Independent of direction of rotation
- No stress on bellows

APPLICATIONS

- Water & waste water
- Chemical industry
- Oil applications
- Sulfide slurries
- Pulp & Paper
- Dairies & Beverages

OPERATING RANGE

- Shaft Diameter: d: 10....100mm
- Pressure: p: 16 bar(max)
- Temperature: -20°C....+140°C
- Velocity:v: 10m/s

FACE MATERIALS

Carbon, Silicon Carbide, Tungsten Carbide, Ceramic

METAL PARTS:

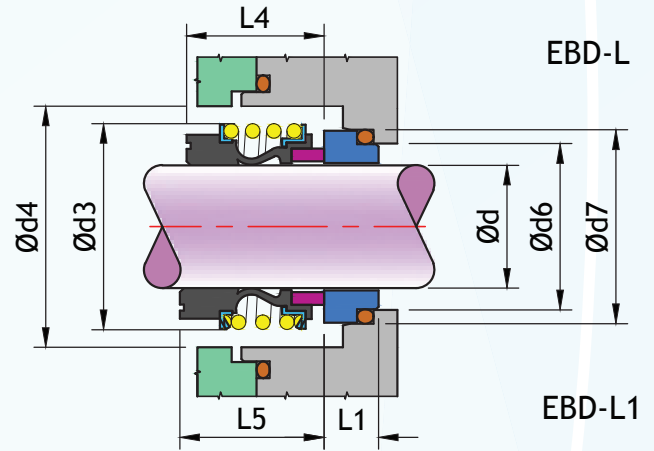
SS 316, SS 304

ELASTOMERS:

NBR, Viton, EPDM

SIZE	Ød	Ød3	Ød4	Ød6	Ød7	L	L1
0010	10.0	22.5	24.0	17.0	21.0	14.5	7.5
0012	12.0	25.0	26.0	19.0	23.0	15.0	7.5
0014	14.0	28.5	30.0	21.0	25.0	17.0	7.5
0015	15.0	28.5	30.0	-	-	17.0	-
0016	16.0	28.5	30.0	23.0	27.0	17.0	7.5
0018	18.0	32.0	33.0	27.0	33.0	19.5	8.5
0019	19.0	37.0	38.0	-	-	21.5	-
0020	20.0	37.0	38.0	29.0	35.0	21.5	8.5
0022	22.0	37.0	38.0	31.0	37.0	21.5	8.5
0024	24.0	42.5	44.0	33.0	39.0	22.5	8.5
0025	25.0	42.5	44.0	34.0	40.0	23.0	8.5
0028	28.0	49.0	50.0	37.0	43.0	26.5	8.5
0030	30.0	49.0	50.0	39.0	45.0	26.5	8.5
0032	32.0	53.5	55.0	42.0	48.0	27.5	8.5
0033	33.0	53.5	55.0	42.0	48.0	27.5	8.5
0035	35.0	57.0	59.0	44.0	50.0	28.5	8.5
0038	38.0	59.0	61.0	49.0	56.0	30.0	10.0
0040	40.0	62.5	64.0	51.0	58.0	30.0	10.0
0042	42.0	65.5	67.0	-	-	30.0	-
0043	43.0	65.5	67.0	54.0	61.0	30.0	10.0
0045	45.0	68.0	70.0	56.0	63.0	30.0	10.0
0048	48.0	70.5	74.0	59.0	66.0	30.5	10.0
0050	50.0	74.0	77.0	62.0	70.0	30.5	10.5
0053	53.0	78.5	81.0	65.0	73.0	33.0	12.0
0055	55.0	81.0	83.0	67.0	75.0	35.0	12.0
0058	58.0	85.5	88.0	70.0	78.0	37.0	12.0
0060	60.0	88.5	91.0	72.0	80.0	38.0	12.0
0065	65.0	93.5	96.0	77.0	85.0	40.0	12.0
0068	68.0	96.5	100.0	81.0	90.0	40.0	12.5
0070	70.0	99.5	103.0	83.0	92.0	40.0	12.5
0075	75.0	107.0	110.0	88.0	97.0	40.0	12.5
0080	80.0	117.0	116.0	95.0	105.0	40.0	13.0
0085	85.0	120.0	124.0	100.0	110.0	41.0	15.0
0090	90.0	127.0	131.0	105.0	115.0	45.0	15.0
0095	95.0	132.0	136.0	110.0	120.0	46.0	15.0
0100	100.0	137.0	140.0	115.0	125.0	47.0	15.0

Dimensions for higher sizes available against specific requirement.
All dimensions in mm.



DETAILS

- For plain shaft
- Inside mounted
- Unbalanced
- Independent of direction of rotation
- No stress on bellows

APPLICATIONS

- Water & waste water
- Chemical industry
- Oil applications
- Sulfide slurries
- Pulp & Paper
- Dairies & Beverages

OPERATING RANGE

- Shaft Diameter: d: 10....100mm
- Pressure: p: 16 bar(max)
- Temperature: -20°C....+140°C
- Velocity:v: 10m/s

FACE MATERIALS

Carbon, Silicon Carbide, Tungsten Carbide

METAL PARTS:

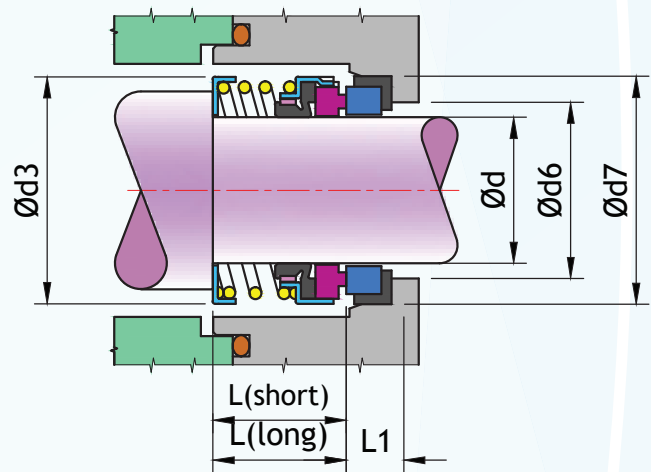
SS 316, SS 304

ELASTOMERS:

NBR, Viton, EPDM

SIZE	Ød	Ød3	Ød4	Ød6	Ød7	L4	L5	L1
0010	10.0	22.5	24.0	17.0	21.0	26.0	25.0	7.5
0012	12.0	25.0	26.0	19.0	23.0	26.0	25.0	7.5
0014	14.0	28.5	30.0	21.0	25.0	28.5	25.0	7.5
0015	15.0	28.5	30.0	-	-	28.5	25.0	-
0016	16.0	28.5	30.0	23.0	27.0	28.5	25.0	7.5
0018	18.0	32.0	33.0	27.0	33.0	30.0	25.0	8.5
0019	19.0	37.0	38.0	-	-	30.0	25.0	-
0020	20.0	37.0	38.0	29.0	35.0	30.0	25.0	8.5
0022	22.0	37.0	38.0	31.0	37.0	30.0	25.0	8.5
0024	24.0	42.5	44.0	33.0	39.0	32.5	25.0	8.5
0025	25.0	42.5	44.0	34.0	40.0	32.5	25.0	8.5
0028	28.0	49.0	50.0	37.0	43.0	35.0	33.0	8.5
0030	30.0	49.0	50.0	39.0	45.0	35.0	33.0	8.5
0032	32.0	53.5	55.0	42.0	48.0	35.0	33.0	8.5
0033	33.0	53.5	55.0	42.0	48.0	35.0	33.0	8.5
0035	35.0	57.0	59.0	44.0	50.0	35.0	33.0	8.5
0038	38.0	59.0	61.0	49.0	56.0	36.0	33.0	10.0
0040	40.0	62.5	64.0	51.0	58.0	36.0	33.0	10.0
0042	42.0	65.5	67.0	-	-	36.0	41.0	-
0043	43.0	65.5	67.0	54.0	61.0	36.0	41.0	10.0
0045	45.0	68.0	70.0	56.0	63.0	36.0	41.0	10.0
0048	48.0	70.5	74.0	59.0	66.0	36.0	41.0	10.0
0050	50.0	74.0	77.0	62.0	70.0	38.0	41.0	10.5
0053	53.0	78.5	81.0	65.0	73.0	36.5	41.0	12.0
0055	55.0	81.0	83.0	67.0	75.0	36.5	41.0	12.0
0058	58.0	85.5	88.0	70.0	78.0	41.5	41.0	12.0
0060	60.0	88.5	91.0	72.0	80.0	41.5	41.0	12.0
0065	65.0	93.5	96.0	77.0	85.0	41.5	49.0	12.0
0068	68.0	96.5	100.0	81.0	90.0	41.5	49.0	12.5
0070	70.0	99.5	103.0	83.0	92.0	48.7	49.0	12.5
0075	75.0	107.0	110.0	88.0	97.0	48.7	52.0	12.5
0080	80.0	117.0	116.0	95.0	105.0	48.0	56.0	13.0
0085	85.0	120.0	124.0	100.0	110.0	46.0	56.0	15.0
0090	90.0	127.0	131.0	105.0	115.0	51.0	59.0	15.0
0095	95.0	132.0	136.0	110.0	120.0	51.0	59.0	15.0
0100	100.0	137.0	140.0	115.0	125.0	51.0	62.0	15.0

Dimensions for higher sizes available against specific requirement.
All dimensions in mm.



DETAILS

- Simple design
- Unbalanced
- No wear on shaft
- Loosely inserted seal face do self adjustment

APPLICATIONS

- Water & waste water
- Chemical industry
- Oil applications
- Food industry
- Pulp & Paper
- Pharmaceutical

OPERATING RANGE

- Shaft diameter: d: 10....75mm
- Pressure: p: 16 bar(max)
- Temperature: -20°C....+140°C
- Velocity:v: 10m/s

FACE MATERIALS

Carbon, Silicon Carbide, Ceramic

METAL PARTS:

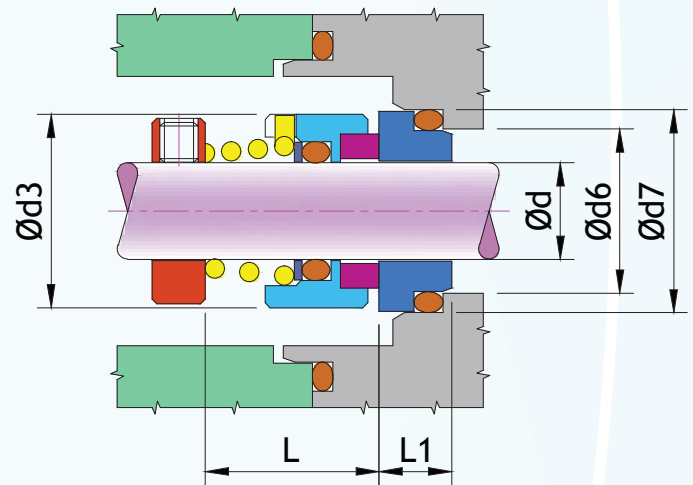
SS 316, SS 304

ELASTOMERS:

NBR, Viton, EPDM, Neoprene

SIZE	Ød	Ød3	Ød6	Ød7	L	L	L1
0010	10.0	20.0	17.0	21.0	25.0	44.0	6.6
0012	12.0	21.7	19.0	23.0	25.0	44.0	6.6
0013	13.0	23.8	20.0	24.0	25.0	44.0	6.6
0014	14.0	24.5	21.0	25.0	25.0	44.0	6.6
0016	16.0	26.6	23.0	27.0	25.0	44.0	6.6
0018	18.0	30.3	27.0	33.0	25.0	44.0	7.5
0020	20.0	31.8	29.0	35.0	25.0	44.0	7.5
0022	22.0	33.5	31.0	37.0	25.0	44.0	7.5
0024	24.0	38.3	33.0	39.0	25.0	44.0	7.5
0025	25.0	38.3	34.0	40.0	25.0	44.0	7.5
0028	28.0	42.2	37.0	43.0	33.0	60.0	7.5
0030	30.0	43.9	39.0	45.0	33.0	60.0	7.5
0032	32.0	45.7	42.0	48.0	33.0	60.0	7.5
0033	33.0	49.1	42.0	48.0	33.0	60.0	7.5
0035	35.0	49.1	44.0	50.0	33.0	60.0	7.5
0038	38.0	52.4	49.0	56.0	33.0	60.0	9.0
0040	34.0	55.7	51.0	58.0	33.0	60.0	9.0
0042	42.0	61.2	53.0	60.0	40.0	70.0	9.0
0043	43.0	61.2	54.0	61.0	40.0	70.0	9.0
0045	45.0	61.2	56.0	63.0	40.0	70.0	9.0
0048	48.0	64.3	59.0	66.0	40.0	70.0	9.0
0050	50.0	67.3	62.0	70.0	41.0	71.0	9.0
0053	53.0	70.6	65.0	73.0	41.0	71.0	11.0
0055	55.0	71.6	67.0	75.0	41.0	71.0	11.0
0058	58.0	78.4	70.0	78.0	41.0	71.0	11.0
0060	60.0	78.4	72.0	80.0	41.0	71.0	11.0
0063	63.0	81.1	75.0	83.0	41.0	71.0	11.0
0065	65.0	84.3	77.0	85.0	49.0	71.0	11.0
0068	68.0	89.6	81.0	90.0	49.0	71.0	11.3
0070	70.0	89.6	83.0	92.0	49.0	71.0	11.3
0075	75.0	96.8	88.0	97.0	52.0	73.0	11.3

Dimensions for higher sizes available against specific requirement.
All dimensions in mm.



DETAILS

- For plain shaft
- Single seal
- Unbalanced
- Rotating conical spring
- Dependent on direction of rotation

APPLICATIONS

- Water & waste water application
- Pulp & paper industry
- Chemical industry
- Food & Beverage industry
- Sugar industry
- Cooling water pump

OPERATING RANGE

- Shaft diameter: d: 10.0....80.0mm
- Pressure: p: 10 bar(max)
- Temperature: -20°C....+140°C
- Velocity:v: 15m/s

FACE MATERIALS

Carbon, Silicon Carbide, Tungsten Carbide
Ceramic, CrMo cast steel

METAL PARTS:

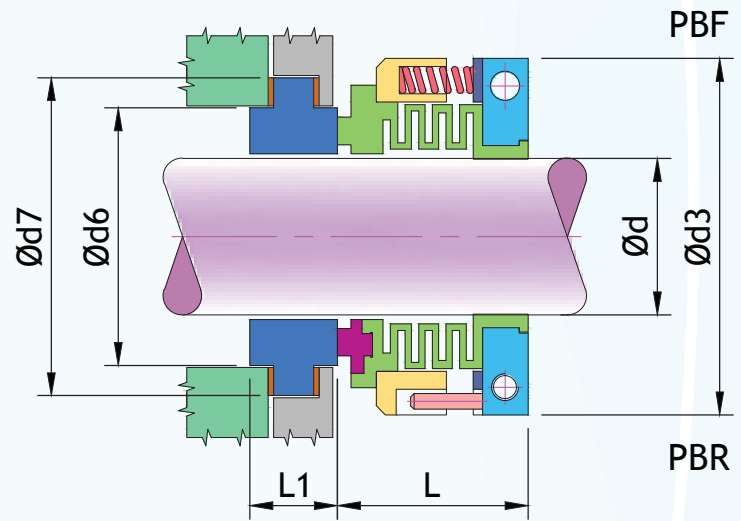
SS 316, SS 304

ELASTOMERS:

NBR, Viton, EPDM, FFKM

SIZE	Ød	Ød3	Ød6	Ød7	L	L1
0010	10.0	20.0	17.0	21.0	17.0	7.5
0012	12.0	22.0	19.0	23.0	17.5	7.5
0014	14.0	24.0	21.0	25.0	17.5	7.5
0015	15.0	25.0	-	-	19.5	-
0016	16.0	26.0	23.0	27.0	20.0	7.5
0018	18.0	31.5	27.0	33.0	22.0	8.5
0020	20.0	34.5	29.0	35.0	24.0	8.5
0022	22.0	36.5	31.0	37.0	25.0	8.5
0024	24.0	38.5	33.0	39.0	27.0	8.5
0025	25.0	39.5	34.0	40.0	27.0	8.5
0028	28.0	42.5	37.0	43.0	27.0	8.5
0030	30.0	44.5	39.0	45.0	28.0	8.5
0033	33.0	47.5	42.0	48.0	28.0	8.5
0035	35.0	49.5	44.0	50.0	33.0	8.5
0038	38.0	54.5	49.0	56.0	35.0	10.0
0040	40.0	56.5	51.0	58.0	37.5	10.0
0043	43.0	59.5	54.0	61.0	37.5	10.0
0045	45.0	61.5	56.0	63.0	39.0	10.0
0048	48.0	64.5	59.0	66.0	45.0	10.0
0050	50.0	66.5	62.0	70.0	46.0	10.5
0053	53.0	69.5	65.0	73.0	48.0	12.0
0055	55.0	71.5	67.0	75.0	49.0	12.0
0058	58.0	78.5	70.0	78.0	52.0	12.0
0060	60.0	79.5	72.0	80.0	55.0	12.0
0063	63.0	84.0	75.0	83.0	55.0	12.0
0065	65.0	86.0	77.0	85.0	55.0	12.0
0068	68.0	89.0	81.0	90.0	55.0	12.5
0070	70.0	91.0	83.0	92.0	56.0	12.5
0075	75.0	99.0	88.0	97.0	56.0	12.5
0080	80.0	104.0	95.0	105.0	60.0	13.0

Dimensions for higher sizes available against specific requirement.
All dimensions in mm.



DETAILS

- For plain shaft
- Outside mounted
- Balanced
- Independent of direction of rotation
- No metal come in contact with media

APPLICATIONS

- Extremely corrosive chemicals
- Acids, salts, strong oxidizing agents
- Chemically active compound
- Lube oils
- Low solids content media
- Multistage, Screw & Gear pump

OPERATING RANGE

- Shaft diameter: d: 0.750....4.000"
- Pressure: p: 10 bar(max)
- Temperature: -40°C....+120°C
- Velocity:v: 20m/s

FACE MATERIALS

GFT, Silicon Carbide

METAL PARTS:

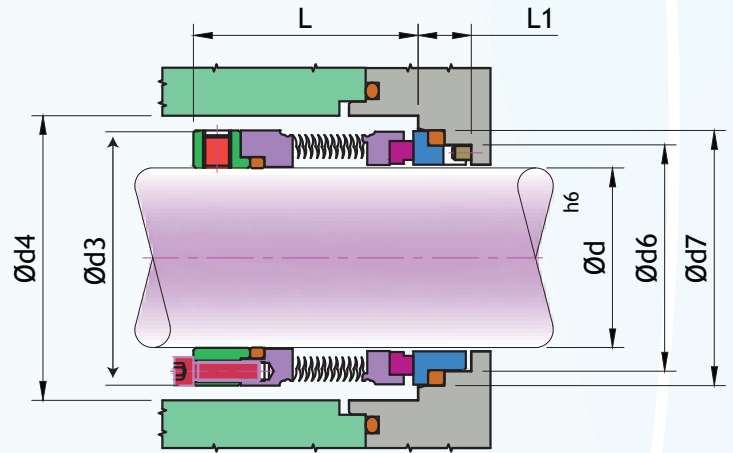
SS 316, SS 304, Hast-C

ELASTOMERS:

PTFE, GFT

SIZE	Ød	Ød3	Ød6	Ød7	L	L1
0.750	19.05	52.0	33.5	43.0	25.0	20.0
0.875	22.22	55.0	36.5	46.0	25.0	20.0
1.000	25.40	57.0	39.5	49.0	28.0	20.0
1.125	25.58	60.0	43.0	54.0	30.0	20.0
1.250	31.75	66.0	46.0	56.0	30.0	20.0
1.375	34.92	70.0	49.0	63.0	32.0	22.0
1.500	38.10	73.0	52.5	65.0	32.0	22.0
1.625	41.28	76.0	60.0	73.0	38.0	22.0
1.750	44.45	79.0	61.0	76.0	38.0	22.0
1.875	47.62	85.0	66.5	79.0	38.0	22.0
2.000	50.80	90.0	70.0	86.0	38.0	25.0
2.125	53.98	92.0	75.0	91.0	45.0	25.0
2.250	57.15	95.0	75.0	91.0	45.0	25.0
2.375	60.32	98.0	79.5	95.0	45.0	25.0
2.500	63.50	101.0	83.0	98.0	45.0	25.0
2.625	66.68	105.0	85.5	102.0	45.0	25.0
2.750	69.85	108.0	89.0	105.0	45.0	25.0
2.875	73.02	111.0	92.0	108.0	45.0	25.0
3.000	76.20	114.0	95.5	111.0	45.0	25.0
3.125	79.38	123.0	98.5	114.0	45.0	25.0
3.250	82.55	126.0	101.5	118.0	45.0	25.0
3.375	85.72	130.0	105.0	121.0	45.0	25.0
3.500	88.90	132.0	108.0	124.0	45.0	25.0
3.625	92.08	135.0	111.0	127.0	45.0	25.0
3.750	95.25	138.0	114.5	130.0	45.0	25.0
3.875	98.42	140.0	117.5	133.0	45.0	25.0
4.000	101.60	145.0	120.5	137.0	45.0	25.0

Dimensions for higher sizes available against specific requirement.
All dimensions in mm.



DETAILS

- Single acting
- Balanced
- Independent of direction of rotation

APPLICATIONS

- Pulp and paper
- Petrochemicals and Refinery medias
- Heat transfer fluids

OPERATING RANGE

- Shaft diameter d : 1.0".....4.0"
- Pressure : p : 20 bar(max.)
- Temperature : t : -50°C.....+350°C
- Velocity : v : 20 m/sec.

FACE MATERIALS

Silicon Carbide, Tungsten Carbide, Carbon, Ceramic

METAL PARTS

SS 316, SS 304, Hast-C

SECONDARY SEALS

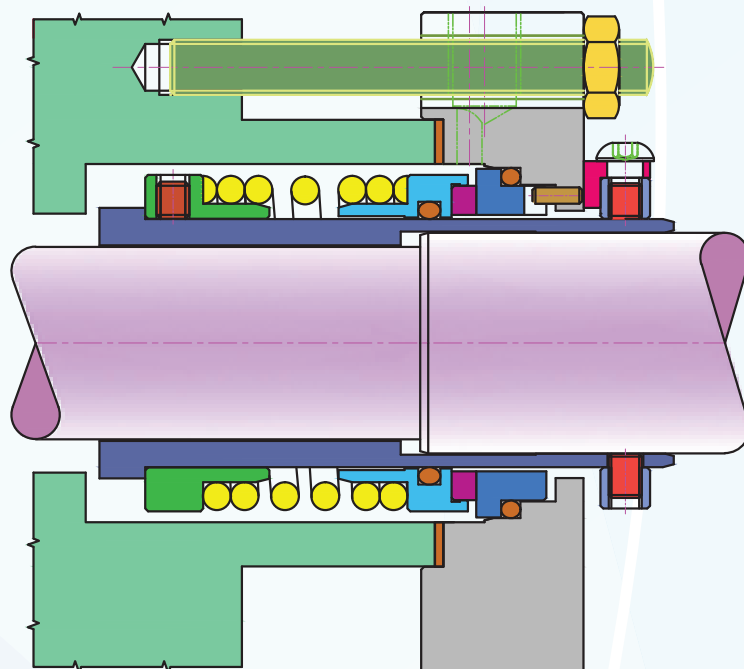
Viton, PTFE, EPDM, Neoprene, Nitrile, Aflas, Grafoil

SIZE inch	Ød	Ød3	Ød4	Ød6	Ød7	L	L1
1.000	25.4	41.3	45.0	35.2	41.4	39.0	11.1
1.125	28.58	44.1	47.5	38.3	44.6	40.0	11.1
1.250	31.75	49.6	53.0	41.5	47.7	40.5	11.1
1.375	34.92	54.1	57.5	44.7	51.1	40.5	11.1
1.500	34.92	57.2	60.5	47.9	54.1	40.5	11.1
1.625	41.62	60.3	64.5	53.2	60.4	40.5	12.7
1.750	44.45	62.5	67.0	57.4	63.6	41.3	12.7
1.875	47.62	67.1	71.5	60.6	66.8	41.3	12.7
2.000	50.80	68.1	74.0	63.8	70.0	42.5	12.7
2.125	53.98	72.6	77.0	70.1	76.3	42.5	14.3
2.250	57.15	76.2	80.5	73.3	79.5	44.0	14.3
2.375	60.33	81.6	86.0	76.5	82.7	44.0	14.3
2.500	63.50	85.6	85.8	79.60	85.8	44.5	14.3
2.625	66.68	89.1	93.5	79.6	85.8	45.5	16.1
2.750	69.85	92.1	95.3	82.8	89.0	45.5	16.1
2.875	73.03	95.6	88.8	85.7	95.3	48.0	16.1
3.000	76.20	99.1	92.0	88.8	98.3	48.0	16.1
3.125	79.34	101.6	106.0	92.0	101.7	48.0	16.1
3.250	82.55	105.0	109.5	95.2	104.8	48.0	16.1
3.375	85.73	108.1	112.5	98.4	108.0	48.0	16.1
3.500	88.90	111.1	115.5	101.6	111.2	48.0	16.1
3.625	92.08	114.6	120.0	104.7	114.4	48.0	17.5
3.750	95.25	117.6	123.0	107.9	117.5	48.0	17.5
3.875	98.43	120.6	126.0	111.2	120.7	48.0	17.5
4.000	101.6	124.1	129.5	103.5	123.9	48.0	17.5

Stand for : 1) MBO : 'O' Ring mounted, 2) MBP : PTFE Packing mounted, 3) MBG : Grafoil Packing mounted.

Dimensions for higher sizes available against specific requirement.

All Dimensions in mm.



DETAILS

- Single acting
- Bidirectional
- Unbalanced

APPLICATIONS

- Slurry application
- Viscous media
- Water based media

OPERATING RANGE

- Shaft diameter: d: 20.0....100.0mm
- Pressure: p: vacuum.. 15 bar(max)
- Temperature: -25....+250 °C
- Velocity:v:20m/s

FACE MATERIALS

Carbon, Silicon Carbide, Ceramic, Tungsten Carbide

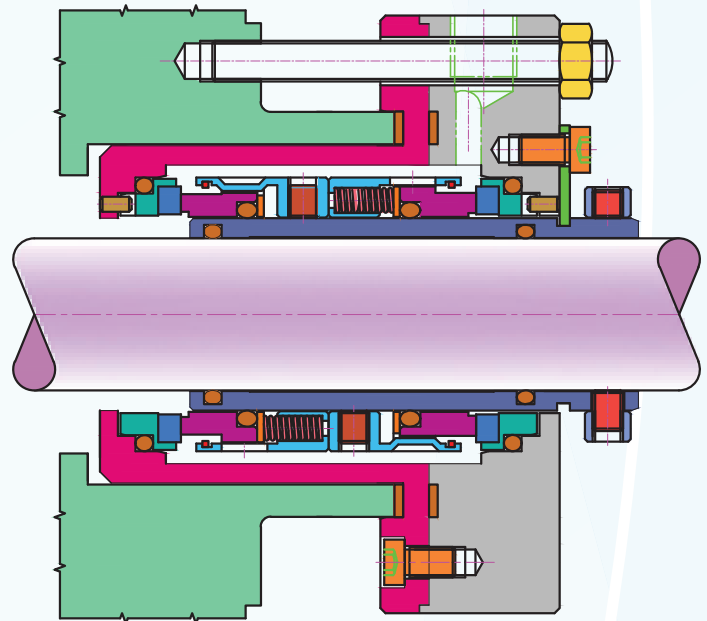
METAL PARTS:

SS 316, SS 304

ELASTOMERS:

NBR, Viton, EPDM, FFKM,, PTFE

*All other Seals are available against specific Requirement.



DETAILS

- Double acting
- Bidirectional
- Unbalanced
- Operated pressurized barrier fluid

APPLICATIONS

- Petrochemicals
- General chemicals
- Refinery

OPERATING RANGE

- Shaft diameter: $d: 20.0 \dots 100.0 \text{mm}$
- Pressure: $p: \text{vacuum} \dots 16 \text{ bar(max)}$
- Temperature: $-40 \dots +280^\circ \text{C}$
- Velocity: $v: 26 \text{m/s}$

FACE MATERIALS

Carbon, Silicon Carbide, Ceramic, Tungsten Carbide

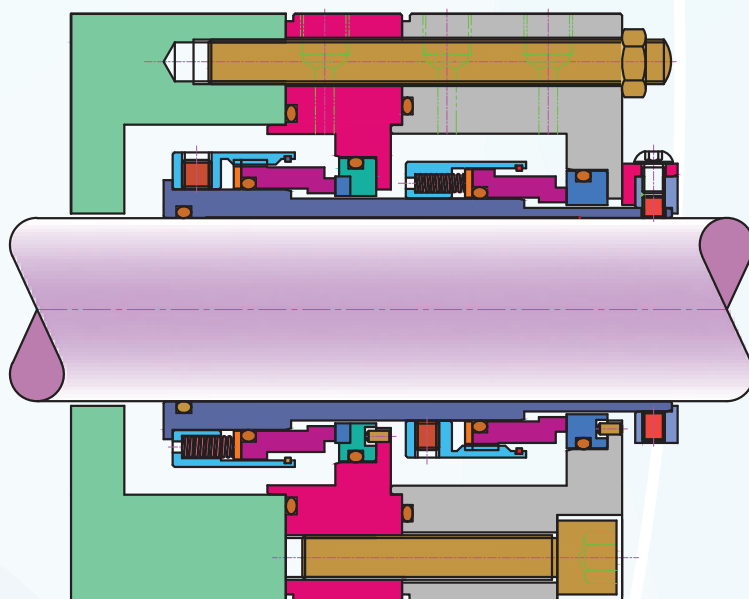
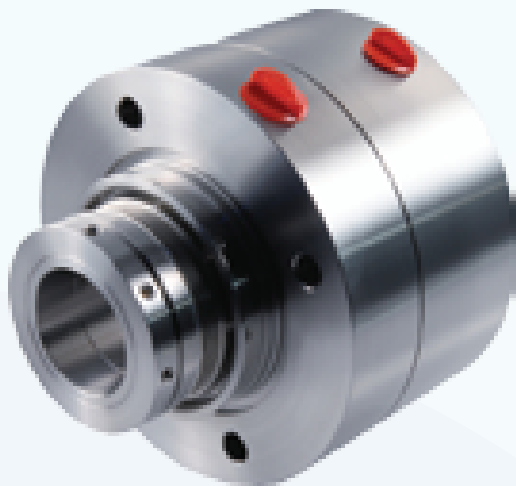
METAL PARTS:

SS 316, SS 304, Hast-C & Alloy 20

ELASTOMERS:

NBR, Viton, EPDM, FFKM, Karlez, PTFE, Aflas

*All other Seals are available against specific Requirement.



DETAILS

- Double acting
- Bidirectional
- Balanced

APPLICATIONS

- clear and lubricating media

OPERATING RANGE

- Shaft diameter: $d: 20.0 \dots 100.0 \text{mm}$
- Pressure: $p: \text{vacuum} \dots 30 \text{ bar (max)}$
- Temperature: $-40 \dots +280^\circ \text{C}$
- Velocity: $v: 20 \text{m/s}$

FACE MATERIALS

Carbon, Silicon Carbide, Ceramic, Tungsten Carbide

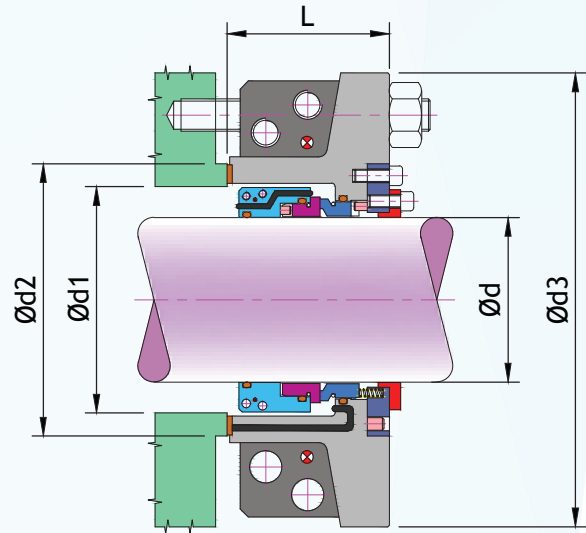
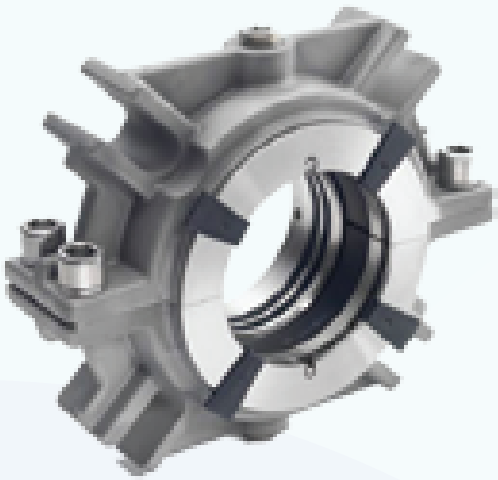
METAL PARTS:

SS 316, SS 304, Hast-C & Alloy 20

ELASTOMERS:

NBR, Viton, EPDM, FFKM, Karlez, PTFE, Aflas

*All other Seals are available against specific Requirement.



DETAILS

- Split components
- Easy to install
- Balanced

APPLICATIONS

- Utility pumps
- Transfer pumps
- Agitators & vessels

OPERATING RANGE

- Shaft diameter: d: 2.000....8.000"
- Pressure: p: vacuum... 13 bar(max)
- Temperature: Amb....+135°C
- Speed: 3500 rpm

FACE MATERIALS

Carbon, Silicon Carbide, Ceramic

METAL PARTS:

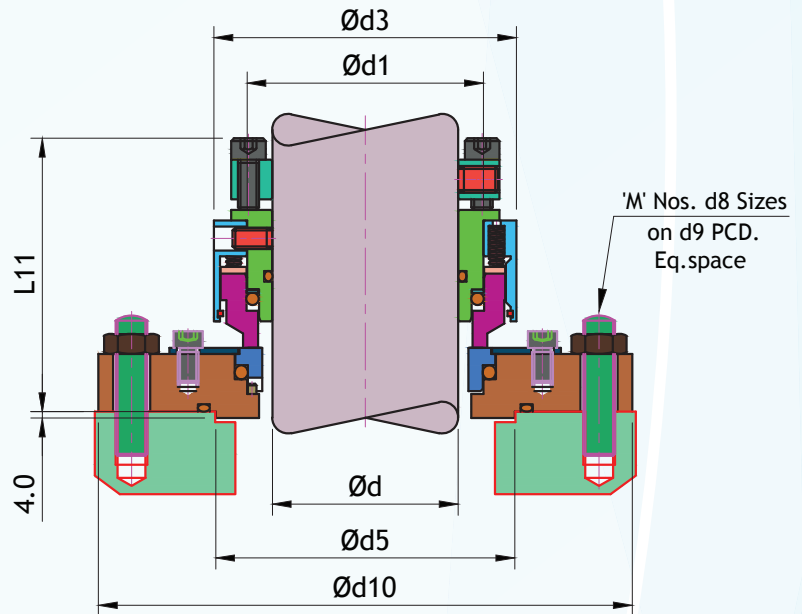
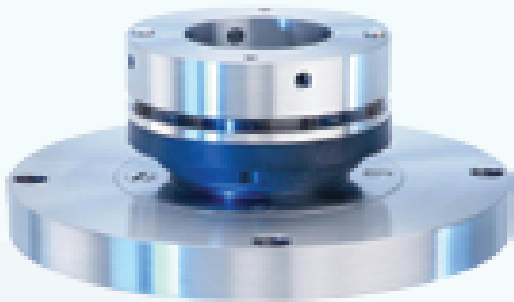
SS 316, SS 304

ELASTOMERS:

NBR, Viton, EPDM

SIZE	Ød	Ød1	Ød2	Ød3	L
2.000	50.80	70.0	85.0	142.0	50.0
2.125	53.97	73.0	94.0	154.0	55.0
2.250	57.15	76.0	100.0	167.0	58.0
2.375	60.32	79.5	102.0	167.0	58.0
2.500	63.50	81.0	106.0	167.0	58.0
2.750	69.85	92.0	112.0	184.0	61.0
3.000	76.20	100.0	120.0	197.0	64.0
3.250	82.55	110.0	130.0	197.0	64.0
3.500	88.90	114.0	138.0	218.0	64.0
3.750	95.25	120.0	140.0	230.0	64.0
4.000	101.60	126.0	150.0	230.0	64.0
4.250	107.95	133.0	154.0	230.0	64.0
4.500	114.30	137.0	166.0	244.0	64.0
4.750	120.65	144.0	171.0	244.0	64.0
5.000	127.00	150.0	185.0	272.0	64.0
5.500	139.70	166.0	203.0	294.0	72.0
6.000	152.42	181.0	216.0	300.0	72.0
6.500	165.10	191.0	226.0	306.0	72.0
7.000	177.80	208.0	240.0	318.0	72.0
7.250	184.15	210.0	244.0	318.0	72.0
8.000	203.20	240.0	285.0	347.0	84.0

Dimensions for higher sizes available against specific requirement.
All dimensions in mm.



DETAILS

- Single acting
- Balanced
- Outside Mounted
- Dry Running
- Independent of direction of rotation

APPLICATIONS

- Food Product
- Multimills
- Pharmaceutical Products

OPERATING RANGE

- Shaft diameter d : 15.....120 mm
- Pressure : p : Vacuum....8 bar(max.)
- Temperature : t :+120°C
- Speed : 120 rpm

FACE MATERIALS

Silicon Carbide, Carbon

METAL PARTS

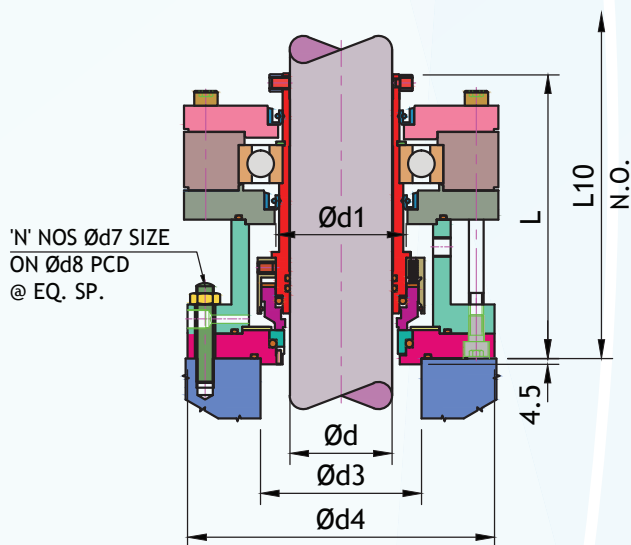
SS 316, SS 304, Hast-C

SECONDARY SEALS

Viton, PTFE

Shaft d	Ød1	Ød3	Ød5	M, d8	Ød9	Ød10	L11
0015	25.4	48.5	45.0	4 x M8	95.0	110.0	62.0
0020	28.58	52.0	50.0	4 x M8	100.0	115.0	62.0
0025	31.75	60.0	55.0	4 x M8	110.0	125.0	67.0
0028	34.92	60.0	65.0	4 x M10	120.0	140.0	67.0
0030	34.92	63.0	65.0	4 x M10	120.0	140.0	82.0
0035	41.62	74.0	65.0	4 x M10	125.0	145.0	82.0
0040	44.45	79.0	75.0	4 x M10	135.0	155.0	82.0
0045	47.62	83.0	80.0	4 x M10	135.0	155.0	82.0
0050	50.80	89.0	85.0	4 x M10	145.0	165.0	82.0
0055	53.98	92.0	90.0	4 x M10	150.0	165.0	82.0
0060	57.15	99.0	95.0	4 x M10	155.0	170.0	82.0
0065	60.33	105.0	105.0	6 x M10	165.0	185.0	82.0
0070	63.50	108.0	110.0	6 x M10	170.0	190.0	82.0
0075	66.68	113.5	115.0	6 x M10	175.0	195.0	82.0
0080	69.85	118.0	125.0	6 x M12	180.0	205.0	82.0
0085	73.03	124.0	135.0	6 x M12	190.0	215.0	82.0
0090	76.20	130.5	145.0	8 x M12	190.0	215.0	82.0
0095	79.34	134.0	150.0	8 x M12	200.0	225.0	87.0
0100	82.55	143.0	150.0	8 x M12	205.0	230.0	87.0
0105	85.73	146.0	155.0	8 x M12	215.0	240.0	87.0
0110	88.90	154.0	165.0	8 x M12	225.0	250.0	87.0
0115	92.08	162.0	170.0	8 x M12	230.0	255.0	87.0
0120	95.25	164.0	175.0	8 x M12	235.0	260.0	87.0

Dimensions for higher sizes available against specific requirement.
All Dimensions in mm.



DETAILS

- Single acting
- Reverse Balanced
- Outside mounted
- With bearing
- Independent of direction of rotation

APPLICATIONS

- Corrosive application
- General light chemicals
- Food products
- Pharmaceutical products

OPERATING RANGE

- Shaft diameter: d: 25....150mm
- Pressure: p: vacuum.. 8 bar(max)
- Temperature: Amb....+250° C
- Speed: 320.0 rpm

FACE MATERIALS

Carbon, Silicon Carbide, Ceramic, Tungsten Carbide

METAL PARTS:

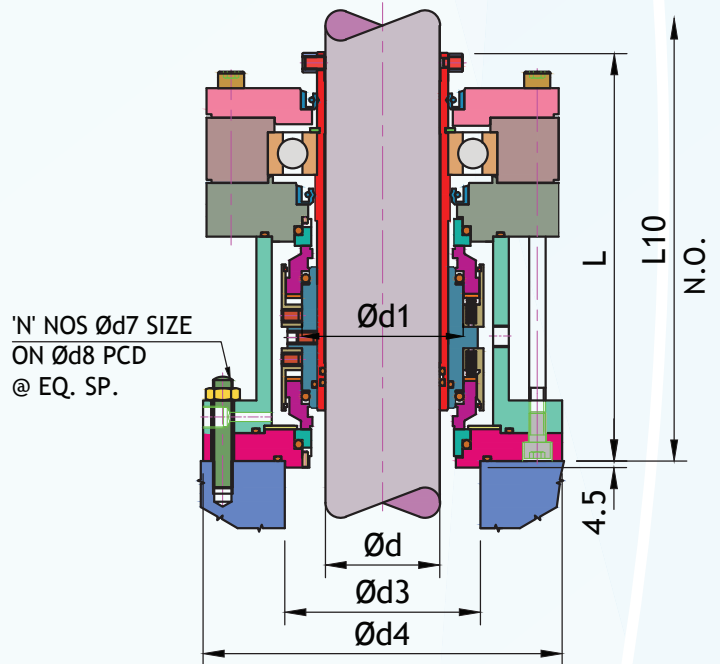
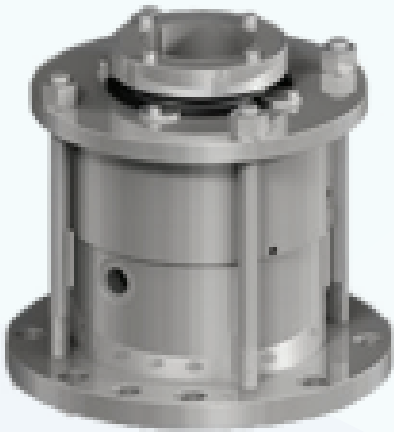
SS 316, SS 304, Hast-C, Alloy 20

ELASTOMERS:

NBR, Viton, EPDM, FFKM, PTFE

SHAFT Ød	SEAL SIZE Ød1		Ød3	Ød4	NxØd7	Ød8	L	L10
	inch	mm						
25.0	1.375	34.92	75.0	152.0	4xM10	132.0	195.0	235.0
30.0	1.625	41.28	80.0	158.0	4xM10	136.0	195.0	235.0
35.0	1.750	44.45	85.0	163.0	4xM10	140.0	205.0	245.0
40.0	2.000	50.80	90.0	168.0	4xM10	147.0	205.0	245.0
45.0	2.125	53.98	95.0	177.0	4xM10	158.0	210.0	250.0
50.0	2.375	60.32	100.0	177.0	4xM10	158.0	210.0	250.0
55.0	2.625	66.68	105.0	200.0	6xM12	178.0	215.0	255.0
60.0	2.750	69.85	110.0	205.0	6xM12	182.0	215.0	255.0
65.0	3.000	76.00	115.0	212.0	6xM12	187.0	215.0	255.0
70.0	3.250	82.55	120.0	217.0	6xM12	192.0	215.0	255.0
75.0	3.375	85.72	125.0	222.0	6xM12	197.0	220.0	260.0
80.0	3.625	92.07	130.0	227.0	6xM12	202.0	220.0	260.0
85.0	3.750	95.25	135.0	250.0	8xM16	222.0	235.0	265.0
90.0	4.000	101.60	140.0	258.0	8xM16	227.0	235.0	275.0
95.0	4.125	104.78	145.0	275.0	8xM16	247.0	245.0	285.0
100.0	4.375	111.12	160.0	282.0	8xM16	250.0	245.0	285.0
105.0	4.500	114.30	165.0	287.0	8xM16	253.0	250.0	290.0
110.0	4.750	120.65	170.0	292.0	8xM16	262.0	250.0	290.0
115.0	5.000	127.00	175.0	300.0	8xM16	265.0	250.0	290.0
120.0	5.125	130.12	180.0	300.0	8xM16	272.0	250.0	290.0
125.0	5.375	136.52	195.0	322.0	8xM16	278.0	250.0	290.0
130.0	5.500	139.70	200.0	322.0	8xM16	282.0	250.0	290.0
140.0	6.000	152.40	210.0	345.0	8xM16	294.0	260.0	300.0
150.0	6.375	161.92	220.0	365.0	8xM16	300.0	260.0	300.0

Dimensions for higher sizes available against specific requirement.
All dimensions in mm.



DETAILS

- Double acting
- Reverse Balanced
- Outside mounted
- With bearing
- Independent of direction of rotation

APPLICATIONS

- Petrochemicals & its vapours
- General chemicals & its vapours
- Light hydrocarbons & its vapours

OPERATING RANGE

- Shaft diameter: d: 25....150mm
- Pressure: p: vacuum.. 35 bar(max)
- Temperature: Amb....+250°C
- Speed: 600 rpm

FACE MATERIALS

Carbon, Silicon Carbide, Ceramic, Tungsten Carbide

METAL PARTS:

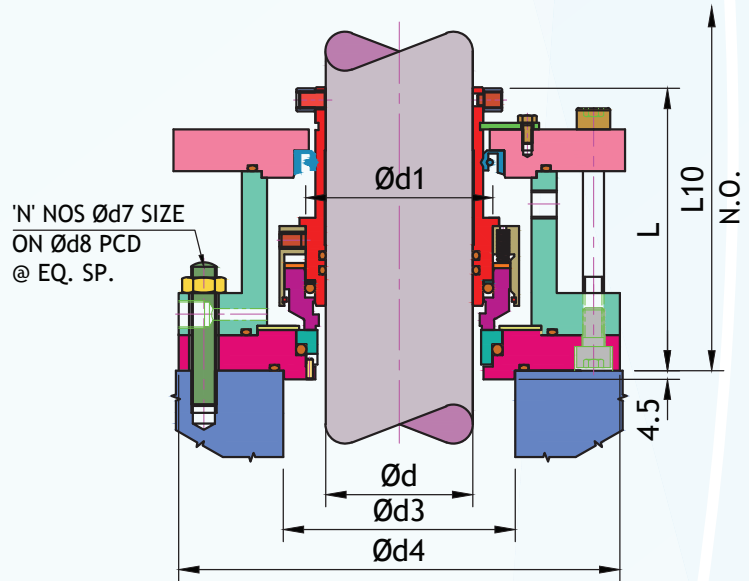
SS 316, SS 304, Hast-C, Alloy 20

ELASTOMERS:

NBR, Viton, EPDM, FFKM, PTFE

SHAFT Ød	SEAL SIZE Ød1 inch	Ød3	Ød4	NxØd7	Ød8	L	L10
25.0	1.625	75.0	152.0	4xM10	132.0	240.0	280.0
30.0	1.875	80.0	158.0	4xM10	136.0	240.0	280.0
35.0	2.000	85.0	163.0	4xM10	140.0	240.0	280.0
40.0	2.250	90.0	168.0	4xM10	147.0	250.0	290.0
45.0	2.500	95.0	177.0	4xM10	158.0	250.0	290.0
50.0	2.625	100.0	177.0	4xM10	158.0	250.0	290.0
55.0	2.875	105.0	200.0	6xM12	178.0	282.0	322.0
60.0	3.125	110.0	205.0	6xM12	182.0	282.0	322.0
65.0	3.375	115.0	212.0	6xM12	187.0	282.0	322.0
70.0	3.500	120.0	217.0	6xM12	192.0	288.0	328.0
75.0	3.750	125.0	222.0	6xM12	197.0	288.0	328.0
80.0	3.875	130.0	227.0	6xM12	202.0	288.0	328.0
85.0	4.250	135.0	250.0	8xM16	222.0	292.0	332.0
90.0	4.500	140.0	258.0	8xM16	227.0	308.0	348.0
95.0	4.875	145.0	275.0	8xM16	247.0	353.0	393.0
100.0	5.000	160.0	282.0	8xM16	250.0	353.0	393.0
105.0	5.250	165.0	287.0	8xM16	253.0	353.0	393.0
110.0	5.375	170.0	292.0	8xM16	262.0	358.0	398.0
115.0	5.625	175.0	300.0	8xM16	265.0	358.0	393.0
120.0	5.750	180.0	300.0	8xM16	272.0	358.0	393.0
125.0	6.000	195.0	322.0	8xM16	278.0	358.0	393.0
130.0	6.250	200.0	322.0	8xM16	282.0	425.0	465.0
140.0	6.625	210.0	345.0	8xM16	294.0	425.0	465.0
150.0	7.000	220.0	365.0	8xM16	300.0	425.0	465.0

Dimensions for higher sizes available against specific requirement.
All Dimensions in mm.



DETAILS

- Single acting
- Reverse Balanced
- Outside mounted
- Without bearing
- Independent of direction of rotation
- With lubrication

APPLICATIONS

- Multimills
- General light chemicals
- Food products
- Pharmaceutical products

OPERATING RANGE

- Shaft diameter: d: 25....150mm
- Pressure: p: vacuum.. 8 bar(max)
- Temperature: Amb....+250°C
- Speed: 120.0 rpm

FACE MATERIALS

Carbon, Silicon Carbide, Ceramic, Tungsten Carbide

METAL PARTS:

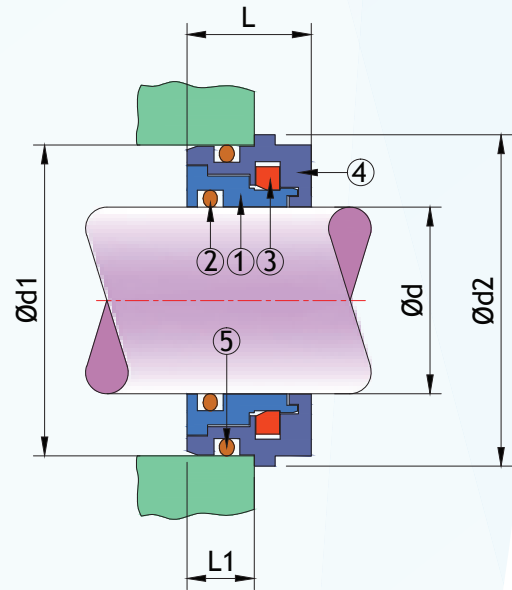
SS 316, SS 304, Hast-C, Alloy 20, Monel

ELASTOMERS:

NBR, Viton, EPDM, FFKM, PTFE

SHAFT Ød	SEAL SIZE Ød1		Ød3	Ød4	NxØd7	Ød8	L	L10
	inch	mm						
25.0	1.375	34.92	50.0	150.0	6xM10	130.0	100.0	150.0
30.0	1.625	41.28	55.0	155.0	6xM10	135.0	120.0	150.0
35.0	1.750	44.45	60.0	160.0	6xM10	140.0	130.0	160.0
40.0	2.000	50.80	65.0	165.0	6xM10	145.0	130.0	160.0
45.0	2.125	53.98	70.0	170.0	6xM10	150.0	130.0	160.0
50.0	2.375	60.32	75.0	175.0	6xM10	155.0	150.0	180.0
55.0	2.625	66.68	85.0	185.0	6xM10	165.0	150.0	180.0
60.0	2.750	69.85	95.0	200.0	6xM10	175.0	150.0	180.0
65.0	3.000	76.00	100.0	205.0	8xM12	180.0	150.0	180.0
70.0	3.250	82.55	105.0	210.0	8xM12	185.0	150.0	180.0
75.0	3.375	85.72	110.0	215.0	8xM12	190.0	160.0	190.0
80.0	3.625	92.07	115.0	220.0	8xM12	195.0	160.0	190.0
85.0	3.750	95.25	120.0	225.0	8xM12	200.0	160.0	190.0
90.0	4.000	101.60	130.0	230.0	8xM12	205.0	160.0	190.0
95.0	4.125	104.78	135.0	235.0	8xM12	210.0	160.0	190.0
100.0	4.375	111.12	145.0	245.0	8xM12	220.0	160.0	190.0
105.0	4.500	114.30	155.0	250.0	8xM12	225.0	170.0	200.0
110.0	4.750	120.65	165.0	255.0	8xM12	230.0	170.0	200.0
115.0	5.000	127.00	170.0	260.0	8xM12	235.0	170.0	200.0
120.0	5.125	130.12	175.0	265.0	8xM12	240.0	170.0	200.0
125.0	5.375	136.52	180.0	270.0	8xM12	245.0	170.0	200.0
130.0	5.500	139.70	185.0	275.0	8xM12	250.0	170.0	200.0
135.0	5.750	146.05	190.0	285.0	8xM12	260.0	170.0	200.0
140.0	6.000	152.40	195.0	290.0	8xM12	265.0	180.0	210.0
145.0	6.125	155.58	200.0	295.0	8xM12	270.0	180.0	210.0
150.0	6.375	161.92	205.0	300.0	8xM12	275.0	180.0	210.0

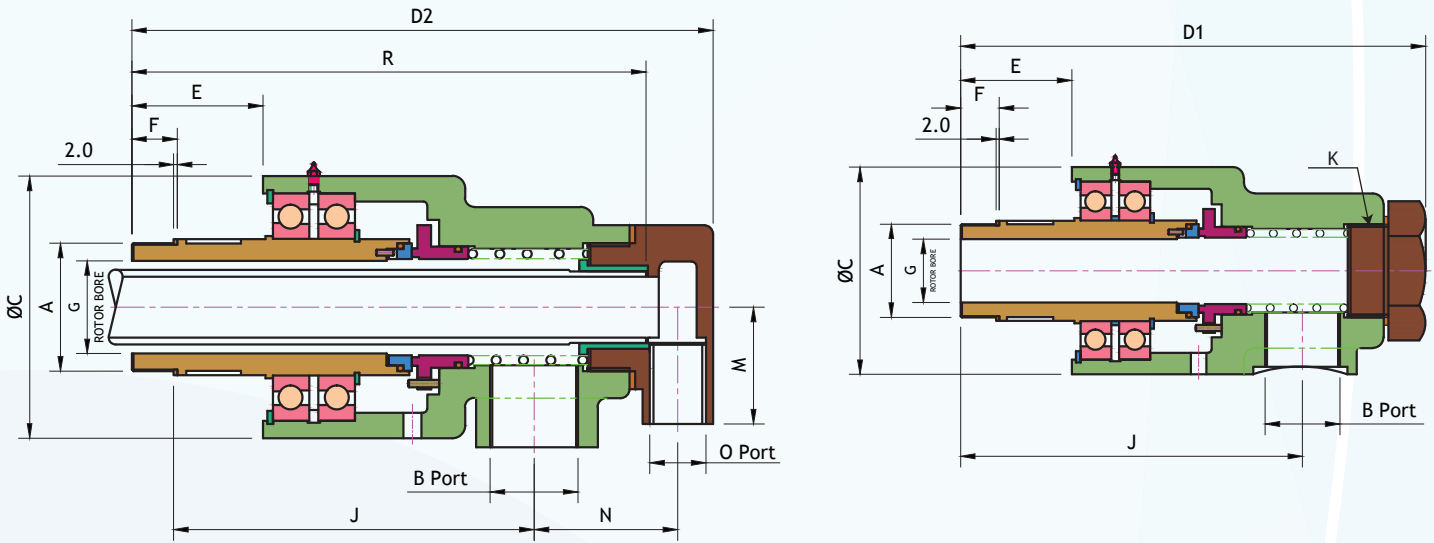
Dimensions for higher sizes available against specific requirement.
All dimensions in mm.



Part No.	Description	Material
1.	Rotor	Bronze
2.	O Ring	Viton
3.	Retaining ring	Bronze
4.	Stator	Poly propylene
5.	O Ring	Viton

Ød	Ød1	Ød2	L	L1
18.0	30.0	33.0	12.5	6.0
20.0	32.0	35.0	12.5	6.5
22.0	32.0	35.0	12.5	6.5
25.0	35.0	38.0	12.5	6.5
28.0	40.0	43.0	12.5	6.5
30.0	40.0	43.0	12.5	6.5
32.0	47.0	45.0	12.5	6.5
35.0	47.0	50.0	12.5	6.5
40.0	52.0	55.0	12.5	6.5
45.0	60.0	63.0	15.5	8.0
50.0	65.0	68.0	15.5	8.0

Dimensions for higher sizes available against specific requirement.
All dimensions in mm



STANDARD TYPE

FACE MATERIALS

Carbon / Silicon Carbide

METAL PARTS

SS 304, Aluminium, Brass

SECODARY SEALS

Elastomers

APPLICATIONS

Oil, Water, Steam, Air , Coolant

OPERATING LIMITS

Pressure : p : 10 bar

Temperature : t : 120°C

Size Range : 3/8" to 2.0"

SPEED UPTO

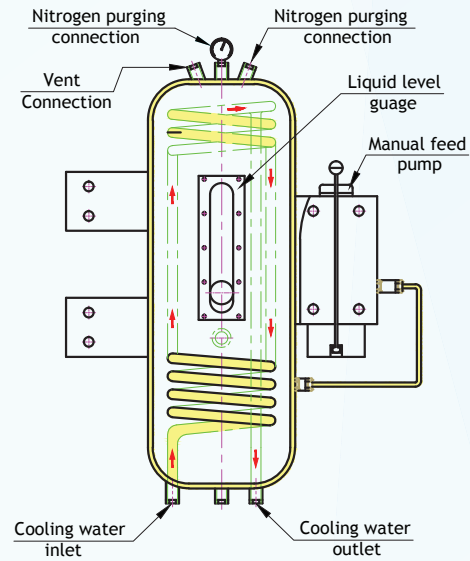
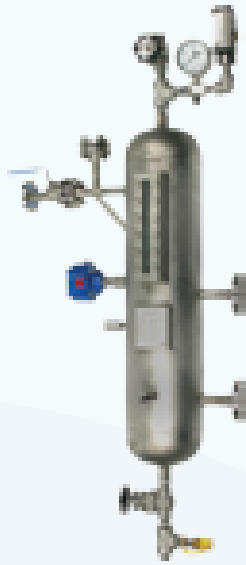
750 rpm : for straight threads 2.0" Size

2500 rpm : for straight threads 1.0" Size

3000 rpm : for straight threads 1 1/2" & 1 1/4" Size

3500 rpm : for straight threads 3/4" Size & below

A ROTOR THREADS	B PORT	C	D1	E	F	NOM.SIZE G ROTOR BORE	J	DUALFLOW											
								D2	K	M	N	O Port	FIXED SUPPLY PIPE			ROTATING SUPPLY PIPE			
													Threads	Pipe OD.	R	Pipe size	Pipe Dia.	S	R
3/8" BSP	3/8" BSP	56	135	26	16	10.0	86.5	146	3/8" BSP	18	35	1/4" BSP	--	--	--	6.35	<u>6.0</u> 5.95	18	125
1/2" BSP	1/2" BSP	56	150	34	19	13.0	92	169	1/2" BSP	18	46.5	3/8" BSP	1/8" BSP	10.3	138	1/8" NB	<u>9.42</u> 9.40	25	145
3/4" BSP	3/4" BSP	67	157	34	19	18.0	98.5	183	3/4" BSP	26	53	1/2" BSP	1/4" BSP	13.7	143	1/4" NB	<u>12.6</u> 12.50	30	157
1" BSP	1" BSP	81	185	42	21.5	24.0	115	211	1" BSP	27	62	1/2" BSP	3/8" BSP	17.1	168	3/8" NB	<u>15.8</u> 15.75	35	185
1 1/4" BSP	1 1/4" BSP	103	222	54	27	30.0	137	252	1 1/4" BSP	35	72	3/4" BSP	1/2" BSP	21.3	201	1/2" NB	<u>19.9</u> 19.85	38	220
1 1/2" BSP	1 1/2" BSP	109	242	61	28.6	36.0	150.5	273	1 1/2" BSP	38	78	3/4" BSP	3/4" BSP	26.7	221	3/4" NB	<u>25.4</u> 25.35	45	239
1 3/4" BSP	1 3/4" BSP	115	247	63	28.6	42.0	154.5	286	1 3/4" BSP	38	87	3/4" BSP	3/4" BSP	26.7	231	3/4" NB	<u>25.4</u> 25.35	44	251
2" BSP	2" BSP	125	260	65	28.6	47.0	165.0	296	2" BSP	38	87	1" BSP	3/4" BSP	26.7	242	3/4" NB	<u>25.4</u> 25.35	44	261



STANDARD TYPE

METAL PARTS

Thermosyphon shell : Carbon steel, SS 316, SS 304
 Cooling coil : SS 316, SS 304
 Secondary seals : Elastomers

OPERATING LIMITS

Capacity : 7.5 ltrs
 Design pressure : 10 bar
 Hydraulic test pressure : 15 bar
 Working temperature (max.) : 180°C
 Heat transfer area of cooling coil : 0.226m²
 Cooling water flow rate recommended : 10 ltrs/min

CONNECTION SPECIFICATIONS

Cooling water inlet1/2" NPT(F)
 Cooling water outlet.....1/2" NPT(F)
 Barrier fluid inlet.....1/2" NPT (F)
 Barrier fluid outlet.....1/2" NPT (F)
 Pressure gauge connection...3/8" NPT (F)
 Filling connection.....1/2" NPT (F)
 Nitrogen purging connection..1/2" NPT (F)
 Feed pump connection.....1/4" NPT (F)
 Drain.....1/2" NPT (F)

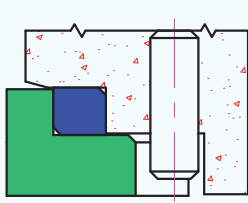
ACCESSORIES

Pressure gauge : 0-10, 0-25, 0-40 bar
 Level gauge : To indicate barrier fluid
 Manual feed pump : 2 ltrs (optional)

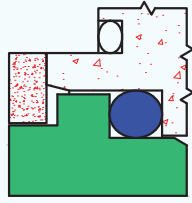
This is used for double mechanical seals in tandem or back to back arrangement to provide necessary lubrication and cooling to the seal faces to achieve recommended seal life and comes equipped with cooling coil inside the shell to bring down the temperature of barrier fluid coming from seal to thermosyphon.

MATING RING

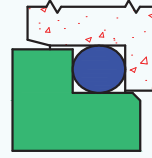
DIN CAVITY



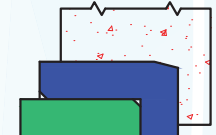
MSW-VAD



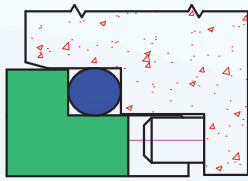
MSW-CD



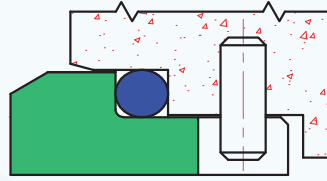
MSW-NAD



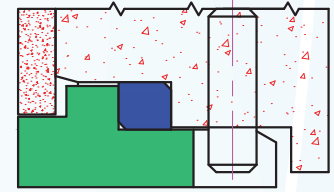
MSW-CPD



MSW-HAD

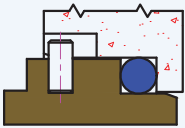


MSW-VALD

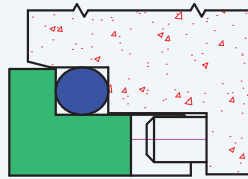


MSW-CLD

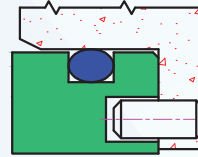
NON DIN CAVITY



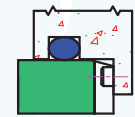
INSERT-ND



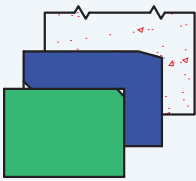
MSW-HAND



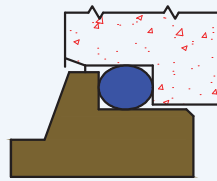
MSW-'H'ND



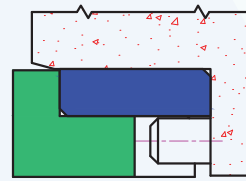
MSW-'D'ND



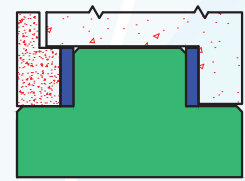
MSW-CPND



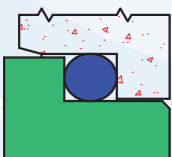
MSW-ND



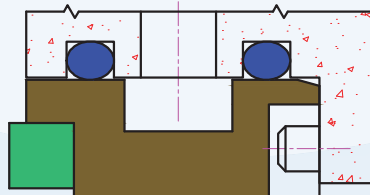
MSW-LPND



'T' TYPE



MSW-ND1



WET SEAT

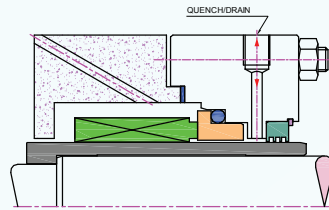
- # STAND FOR :
- 1) MSW = Multi Spring/Single Spring/Wave Spring.
 - 2) VA = Vertical Anti-Rotation
 - 3) C = Clamp
 - 4) VAL = Vertical Anti-Rotation Long
 - 5) NA = No Anti-Rotation

- 6) HA = Horizontal Anti-Rotation
- 7) ND = Non Din Cavity
- 8) 'D' = DA Type
- 9) 'H' = H Type
- 10) CP = Cup Type

- 11) LP = Long Packing
- 12) D = Din

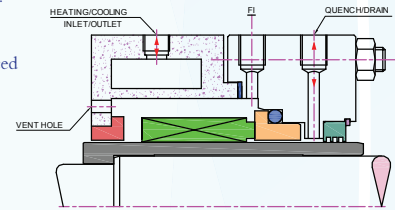
FLUSHING PLANS AS PER API-682

Plan 01 is an recirculation from pump discharge area of the pump into the seal chamber. Recommended for clean pumpage only. This flush plan should only be used for clean products as dirty products



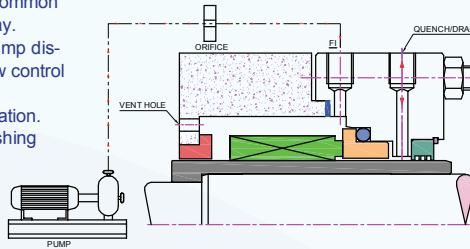
PLAN 01

Plan 02 is a non recirculating flush. Jacketed stuffing box and throat bushing required when specified. Solids are not continually introduced into the seal chamber.



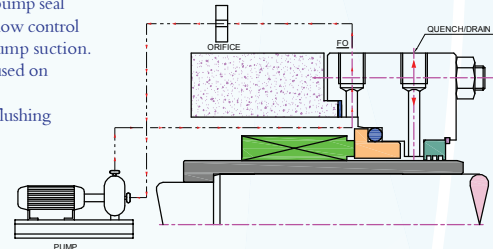
PLAN 02

Plan 11 is the most common flush plan in use today. Recirculation from pump discharge through a flow control orifice to the seal. No product contamination. Connection FI for flushing inlet.



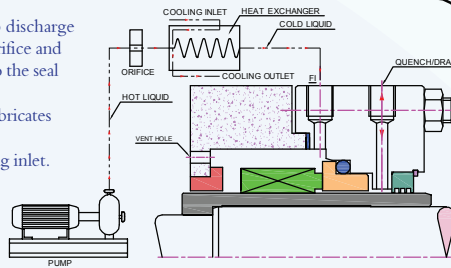
PLAN 11

Recirculation from pump seal chamber through a flow control orifice and back to pump suction. Typically plan 13 is used on vertical pump. Connection FO for flushing outlet.



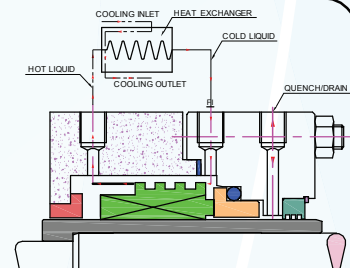
PLAN 13

Recirculation from pump discharge through a flow control orifice and heat exchanger, then in to the seal chamber. Process fluid cools and lubricates the seal. Connection FI for flushing inlet.



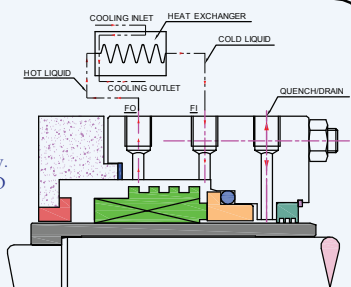
PLAN 21

Recirculation from pumping ring in the seal chamber through a heat exchanger and back in to the seal chamber. More efficient than a plan 21 and less chance of heat exchanger fouling. Reduce temperature improves lubricity. Connection FI for flushing inlet.



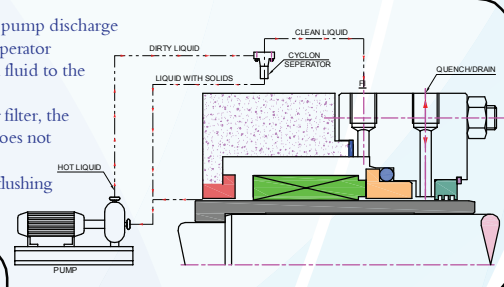
PLAN 23A

Recirculation from pumping ring in the seal chamber through a heat exchanger and back in to the seal chamber. More efficient than a plan 21 and less chance of heat exchanger fouling. Reduce temperature improves lubricity. Connection FI for flushing inlet and FO flushing outlet.



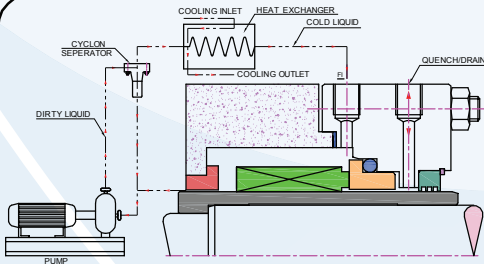
PLAN 23B

Recirculation from pump discharge through a cyclon separator delivering the clean fluid to the seal chamber. Unlike a strainer or filter, the abrasive separator does not require cleaning. Connection FI for flushing inlet.



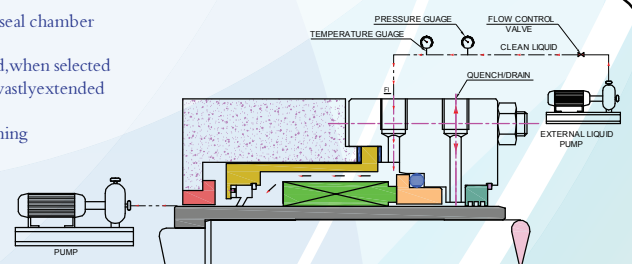
PLAN 31

Recirculation from pump discharge through a cyclon separator delivering the clean fluid to a heat exchanger cooler and then to the seal chamber. Solids are removed and product temperature is reduced to enhance the seal's environment. Connection FI for flushing inlet.



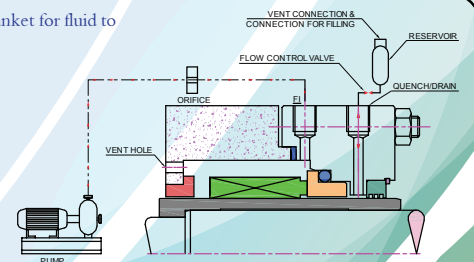
PLAN 41

Flush is injected in the seal chamber from external source. The external flush fluid, when selected properly, can result in vastly extended seal life. Connection FI for flushing inlet.



PLAN 32

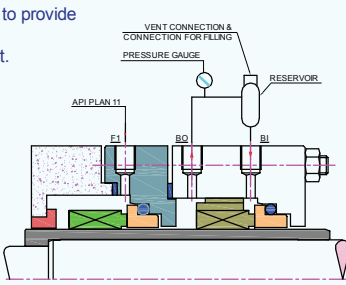
External reservoir providing a ded ended blanket for fluid to quench of the connection of the gland connection FI for flushing



PLAN 51

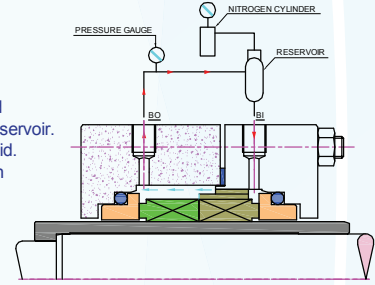
FLUSHING PLANS AS PER API-682

This plan uses an external reservoir to provide buffer fluid for the outer seal of an unpressurized dual seal arrangement. In comparison to single seals, dual unpressurized seals can provide reduced net leakage rates as well as redundancy in the event of a primary seal failure. Cooling coils in the reservoir are available for removing heat from the buffer fluid. This plan is often used where process fluid contamination can not be tolerated.



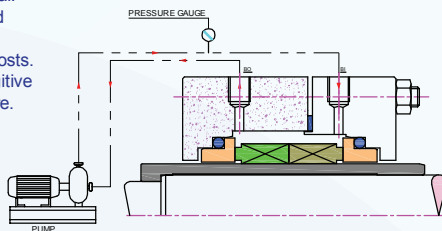
PLAN 52

Clean & pressurized external fluid provided to seal chamber from reservoir. Pumping ring circulate internal fluid. Barrier fluid pressure is more than stuffing box pressure.



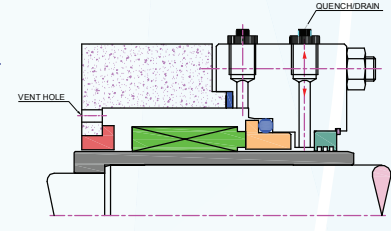
PLAN 53

Plan 54 utilizes an external source to provide a clean pressurized barrier fluid to a dual seal. Can provide pressurized flow to multiple seal installations to reduce costs. Positively eliminates fugitive emissions to atmosphere. Plan 54 systems can be custom engineered to suit application or specific plant requirements.



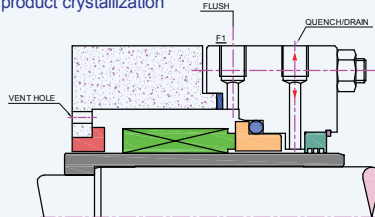
PLAN 54

All connection are plugged. This plan used when customer not providing any fluid for flush & quench



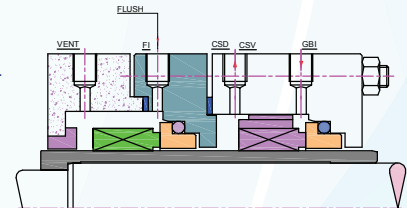
PLAN 61

This plan is a common plan to improve the environment on the atmospheric side of single seals by quenching with steam, nitrogen or water. This plan is a low cost alternative to tandem seals. The quench prevents or retards product crystallization or coking. Quenches can also provide some cooling. Typical applications include; steam quenches on hot services to retard coking; nitrogen quenches on cold or cryogenic service to prevent icing.



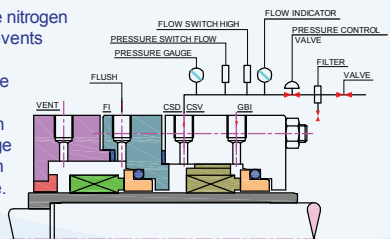
PLAN 62

Connections are trapped. Customer may use in future.



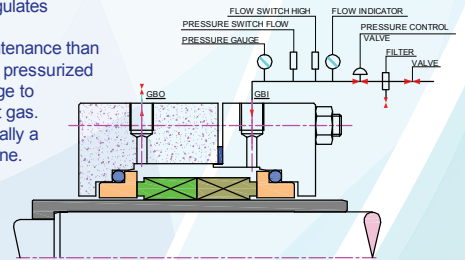
PLAN 71

This plan for secondary containment uses an external low pressure buffer gas, usually nitrogen, regulated by a control panel that injects it into the outer seal cavity. Introduction of a buffer gas like nitrogen reduces fugitive emissions, prevents icing on cold applications, and provides for some cooling to the outboard seal. This plan is normally used with Plan 75 for primary seal leakage that is condensing, or with Plan 76 for non-condensing leakage.



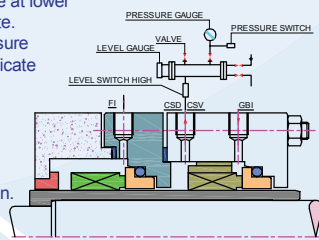
PLAN 72

This plan provides a pressurized gas, typically nitrogen, to dual gas seals through the use of a control panel that removes moisture, filters the gas, and regulates the barrier pressure. Lower costs and maintenance than systems used on dual pressurized liquid systems. Leakage to atmosphere is an inert gas. The barrier gas is usually a pressurized nitrogen line.



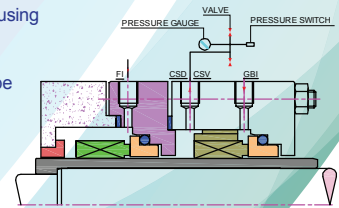
PLAN 74

This plan is a collection system used with secondary containment seals for process fluid that will condense at lower temperatures or is always in a liquid state. The collection reservoir contains a pressure gauge and a high pressure switch to indicate a build up in pressure from excessive primary seal leakage or failure. This plan can be used in conjunction with a gas purge from Plan 72. Typically dry-running, contacting secondary containment seals are used with this plan.



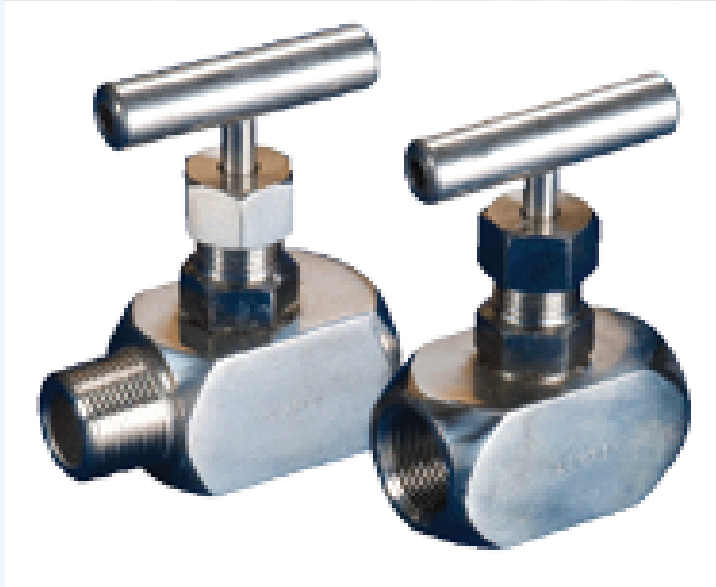
PLAN 75

This plan is a system to divert non-condensing primary seal leakage to a flare or vapor recovery system. Lower initial and maintenance costs than dual unpressurized seals using a Plan 52. This plan can be used in conjunction with a gas purge from Plan 72. Can be used with dry-running, contacting or non-contacting secondary containment seals.

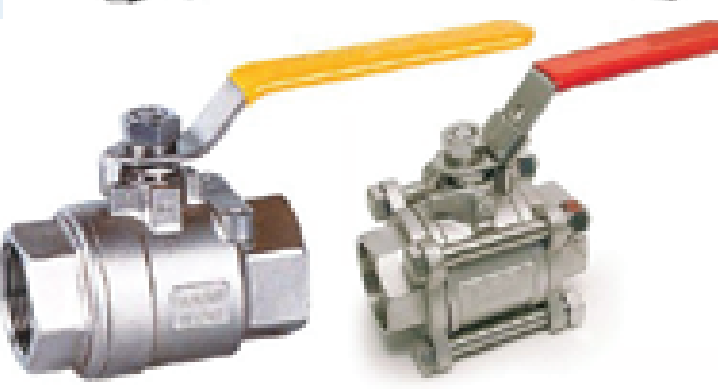
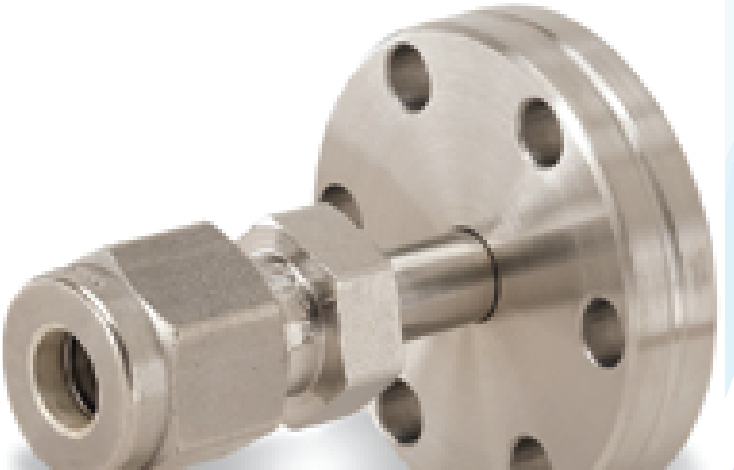


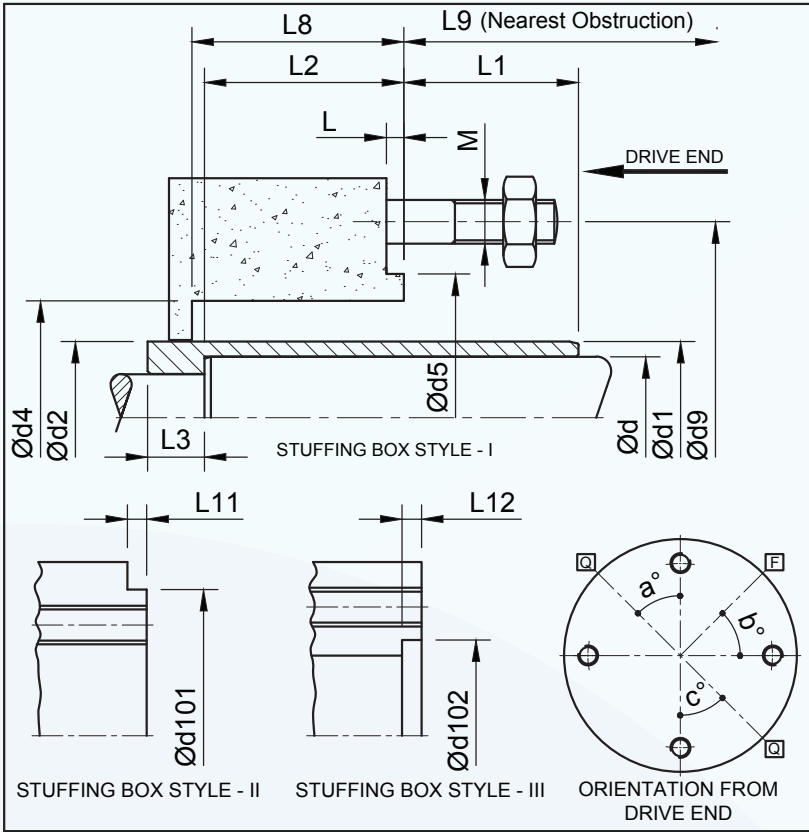
PLAN 76

OTHER ENGINEERING CNC MACHINING PRODUCTS LIKE INSTRUMENTATION FITTING, HYDRAULIC FITTING, PIPE FITTING, FLANGES, QRC COUPLING, ETC.



OTHER ENGINEERING CNC MACHINING PRODUCTS LIKE INSTRUMENTATION FITTING, HYDRAULIC FITTING, PIPE FITTING, FLANGES, QRC COUPLING, ETC.





Pump Information Data

- d - Shaft OD.
- d1 - Sleeve OD.
- d2 - Stuffing Box ID.
- d4 - Stuffing Box Bore
- d5 - Spigot dia.d101.....d102.....
- d9 - Bolt Circle
- M - No. of BoltsSize.....
- L - Raised CollarL11.....L12.....
- L1 - Sleeve Extention
- L2 - Shaft Hub
- L3 - Impeller Sleeve Length
- L8 - Stuffing Box depth
- L9 - Nearest obstruction
- a -b -c -
- Stud holeson axis/off axis
- Stuffing Box coverjacketed/non jacketed

Client : _____
 Address : _____

Pump Data

Make : _____ Bearing Bracket _____
 Model : _____ Item/Tag No. _____
 Material of Construction : _____ Existing Seal _____

Operating Parameters

Total Head : _____ Suction Pressure _____ Discharge Pressure _____ Box Pressure _____
 Speed : _____ Direction of rotation(Viewed from Drive End)CW/CCW

Fluid Details

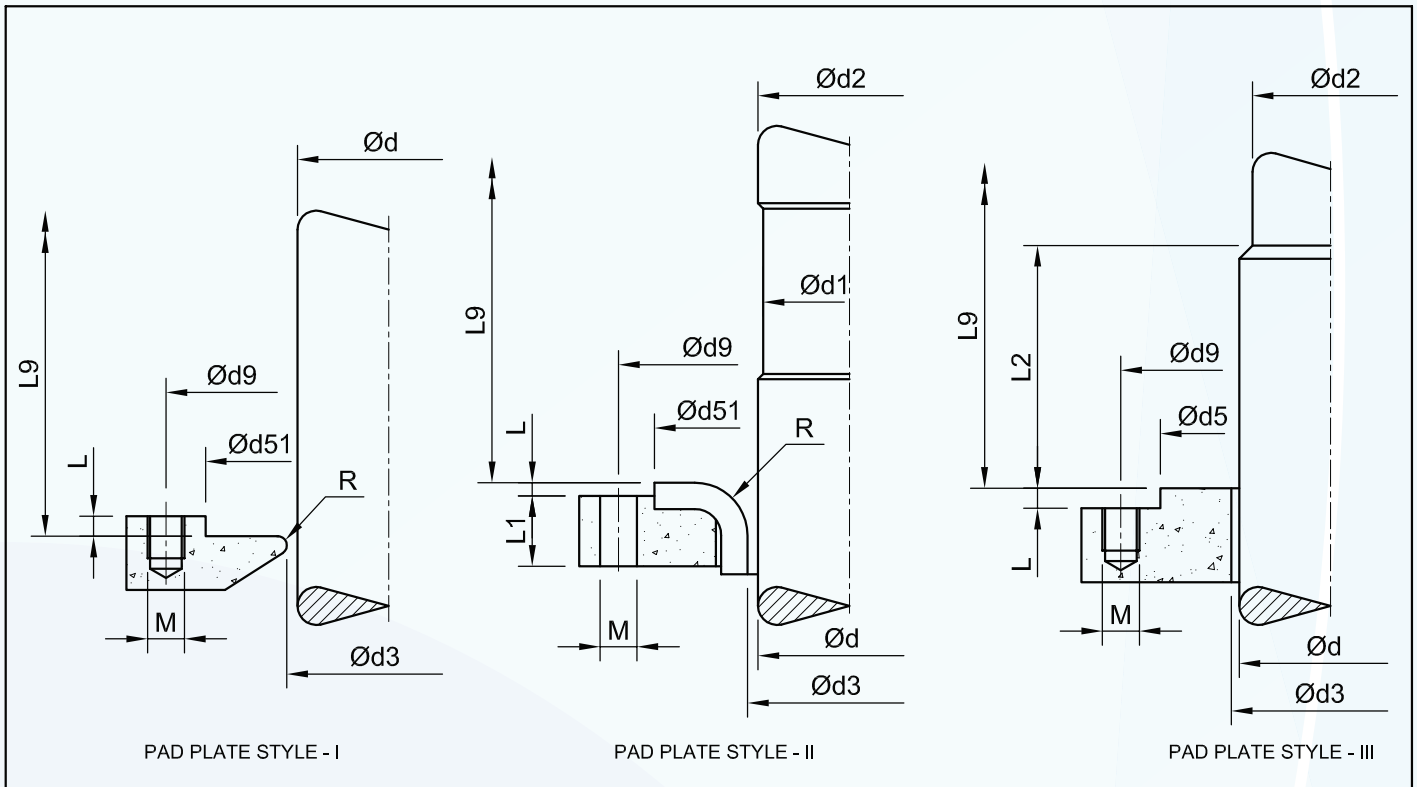
Fluid : _____
 Pumping temperature : _____ Maximum temperature _____
 Specific Gravity : _____ Viscosity _____
 Boiling Point : _____ Freezing Point _____
 Fluid Description : _____ a. CLEAN b. DIRTY c. ABRASIVE d. SLURRY e. TOXIC
 Percentage Of solids : _____ Grain Size _____

API Plans

- a) Whether seal flushing by external fluid acceptable ? if yes,
 What Fluid _____
- b) Recommended buffer fluid for double seal _____ Temperature _____
- c) Recommended API Plan # Plan 52 (Non Pressurised thermosyphon) # Plan 53 (Pressurised Thermosyphon)
 # Plan 54 (Buffer Fluid Circulation by external pump/source) #* Plan 32 (Fluid Injection by external pump/source)
 #*Plan 02 (Dead ended with no circulation of buffer fluid & with cooling jacket)

Remarks

AGITATOR DATA SHEET



- d - Shaft OD d9- Bolt Circle L3- Distance Between two steps.....
- d1 - Shaft OD M - No. of Bolts.....Size..... L9- Nearest obstruction.....
- d2 - Shaft OD L - Raised collar R- Radius.....
- d3 - Pad plate ID..... L1 - Thickness.....
- d5 - Spigotd51..... L2 - Shaft step from Pad.....

Client : _____
 Address : _____

Agitator Data

Make : _____ Model _____
 Item /Tag No. _____ Matl of Construction _____
 Existing seal arrangement Gland Packing/Mechanical Seal
 If mechanical seal, seal make & type _____
 Existing mechanical seal working satisfactory Yes/No _____
 If No,give details of seal failure in brief in remarks column. _____

Operating Parameters

Vessel Pressure: _____ Speed _____
 Direction of rotation from drive end _____ CW/CCW

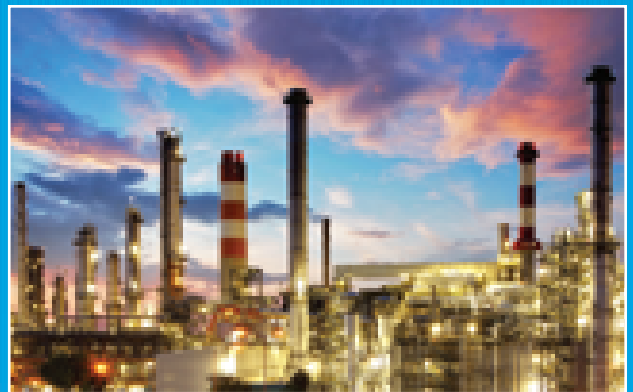
Fluid Details

Fluid _____
 Temperature _____ Specific Gravity _____ Velocity _____
 Fluid Description _____ a. CLEAN b. DIRTY c. ABRASIVE d. SLURRY e. TOXIC
 Percentage Of solids _____ Grain Size _____

API Plans

A) Recommended buffer fluid _____ Temperature _____
 B) Recommended API Plan # Plan 52 (Non Pressurised Thermosyphon), #Plan 53 (Pressurised Thermosyphon),
 # Plan 54 (Buffer Fluid Circulation by External Pump/Source)

Remarks



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