SEAL INFORMATION

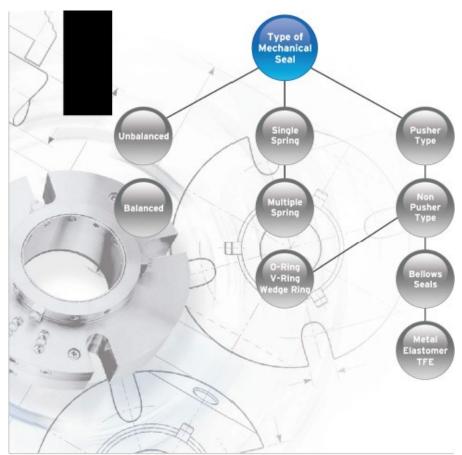
Mechanical seal basics

Mechanical seals are simply another means of controlling leakage of a process where other means are deemed to be less capable of performing the task adequately. Before the advent of mechanical seals, pump users relied primarily on "rope" or braided style packing to achieve a "seal" around the shaft. A series of pieces or "rings" were installed into the pump "stuffing box" and they were compressed tightly so that they created a difficult leak path for the liquid to negotiate in order to leak to atmosphere.

Mechanical seal is a device which is used to avoid leakage at pump, agitator etc. mechanical seals constituted by two sliding faces maintain by an axial forces. Their primary sealing is done by primary sealing ring and it's mating ring. In a properly designed seal they slide relative to each other.

The mechanical seal constitutes:

- 1. Primary sealing ring and mating ring.
- 2. Secondary seals consisting of o-ring or other suitable gasket.
- 3. Hardware consisting mainly of spring and retainer.



Type: CS 1

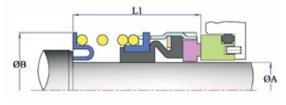
Features:

- Single seal
- Unbalanced
- Independent of direction of rotation
- Elastomer bellows

These seals has been designed for high volume production and reliable service using field-proven. The low-profile offers a unit with a very high degree of interchangeability.

Application:

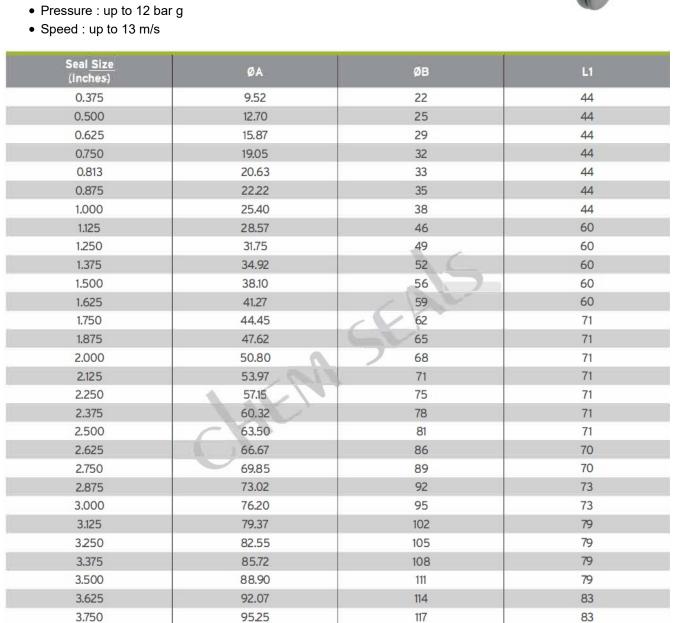
Its used for medium pressure applications. For Centrifugal,



Rotary & Turbine Pumps, Compressors, Mixers, Blenders, Chillers, Other Rotary Shaft Equipment.

Operating Condition:

• Temperature : -40°C to +140°C



121

124

86

86

98.42

101.60

Type: CS 1B

3.875

4.000

Features:

• Single seal Balanced

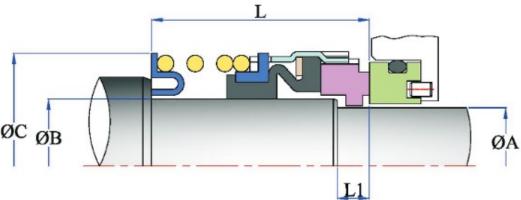
Independent of direction of rotation Elastomer bellows

CS 1B is suitable for wide range of service conditions from water & steam to chemicals corrosive materials. These seals has been designed for high volume production and reliable service using field-proven. The low-profile offers a unit with a very high degree of interchangeability.

Application:

Its used for medium pressure applications. For Centrifugal, Rotary & Turbine Pumps, Compressors, Mixers, Blenders, Chillers, Other Rotary Shaft Equipment.





Operating Condition:

Temperature : -40°C to +140°C
Pressure : up to 40 bar g
Speed : up to 13 m/s

Seal Size (Inches)	ØA	ØВ	ØС	L	L1
1.250	28.6	31.75	49.2	60.3	7.9
1.375	31.7	34.92	52.4	60.3	7.9
1.500	34.9	38.10	55.6	60.3	7.9
1.625	38.1	41.27	58.7	60.3	7.9
1.750	41.3	44.45	61.9	70.6	7.9
1.875	44.4	47.62	65.1	70.6	7.9
2.000	47.6	50.79	68.3	70.6	7.9
2.125	50.8	5 3.97	71.4	70.6	7.9
2.250	54.0	57.15	74.6	70.6	7.9
2.375	57.1	60.32	77.8	70.6	7.9
2.500	60.3	63.50	81.0	70.6	7.9
2.625	63.5	66.67	85.7	79.4	17.5
2.750	66.7	69.85	88.9	79.4	17.5
2.875	69.8	73.02	92.1	82.5	17.5
3.000	73.0	76.19	95.2	82.5	17.5
3.125	73.0	79.37	101.6	88.9	22.5
3.250	76.2	82.55	104.8	88.9	22.5
3.375	79.4	85.72	107.9	88.9	22.5

3.500	82.5	88.90	111.1	88.9	22.5
3.625	85.7	92.07	114.3	92.1	22.5
3.750	88.9	95.25	117.5	92.1	22.5
3.875	92.1	98.42	120.6	95.2	22.5
4.000	95.2	101.62	123.8	95.2	22.5

Type: CS 12

Features:

- Single Seal
- Unbalanced
- Independent of rotation of direction
- Elastomer Bellows

This mechanical seal is most commonly used. The bellow is not subjected to any torsional stress and its ingenious design incorporates several functions, as seal face carrier secondary sealing element and drive collar. The seal face is driven through the spring and L-rings.

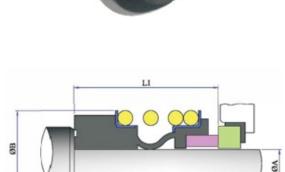
Application:

It is used for Water and waste water technology, submersible pump, sewage pump and chemical industry etc.



• Temperature : -20°C to +120°C

Pressure : 12 barSpeed : 20 m/s



Seal Size	ØA	ØB	L1
10	10	22.5	25.9
12	12	25.0	25.9
14	14	28.5	28.4
15	15	28.5	28.4
16	16	28.5	28.4
18	18	28.5	30.0
19	19	32.0	30.0
20	20	37.0	30.0
22	22	37.0	30.0
24	24	37.0	32.5
25	25	42.5	32.5
28	28	42.5	35.0
30	30	49.0	35.0
32	32	53.5	35.0
33	33	53.5	35.0
35	35	57.0	35.0
38	38	59.0	36.0
40	40	62.0	36.0
42	42	62 E	260

42	42	63.5	36.0
43	43	63.5	36.0
45	45	68.0	36.0
48	48	70.5	36.0
50	50	74.0	36.0
53	53	78.5	36.5
55	55	81.0	36.5
58	58	85.5	41.5
60	60	88.5	41.5
65	65	93.5	41.5
68	68	96.5	41.2
70	70	99.5	48.0
75	75	107.0	48.0
80	80	112.0	48.0
85	85	120.0	48.0
90	90	127.0	51.0
95	95	132.0	51.0
100	100	137.0	51.0
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Type: CS 21

Features:

- Single seal
- unBalanced
- Single coil spring design
- Independent of direction of rotation
- Elastomer bellow

Application:

Water pumps, Submersible pump

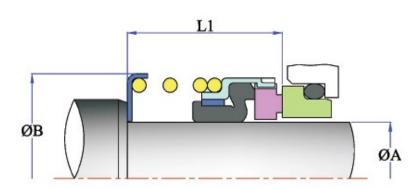
Operating Condition:

• Temperature : -40°C to +140°C

• Pressure : up to 10 bar

• Speed : 20 m/s





Seal Size (inches)	A	В	LI
0.500	12.70	23.81	20.64
0.625	15.88	26.99	22.23
0.750	19.05	30.16	22.23
0.875	22.23	33.34	23.81
1.000	25.40	42.85	25.40

1.125	28.58	46.02	26.97
1.250	31.75	49.20	26.97
1.375	34.93	52.37	28.58
1.500	38.10	55.55	28.58
1.625	41.28	63.50	34.93
1.750	44.45	66.68	34.93
1.875	47.63	69.85	38.10
2.000	50.80	73.03	38.10
2.125	53.98	76.20	42.85
2.250	57.15	79.38	42.85
2.375	60.33	82.55	46.02
2.500	63.50	84.91	46.02
2.625	66.68	88.90	49.20
2.750	69.85	95.25	49.20
2.875	73.03	98.43	52.37
3.000	76.20	101.60	52.37
3.125	79.38	104.78	55.55
3.250	82.55	107.95	55.55
3.375	85.73	114.30	55.55
3.500	88.90	117.48	55.55
3.625	92.08	120.65	58.72
3.750	95.25	123.83	58.72
3.875	98.43	127.00	61.90
4.000	101.60	130.18	61.90