

# MSUO/MSUW

## Unbalanced Pusher Seals

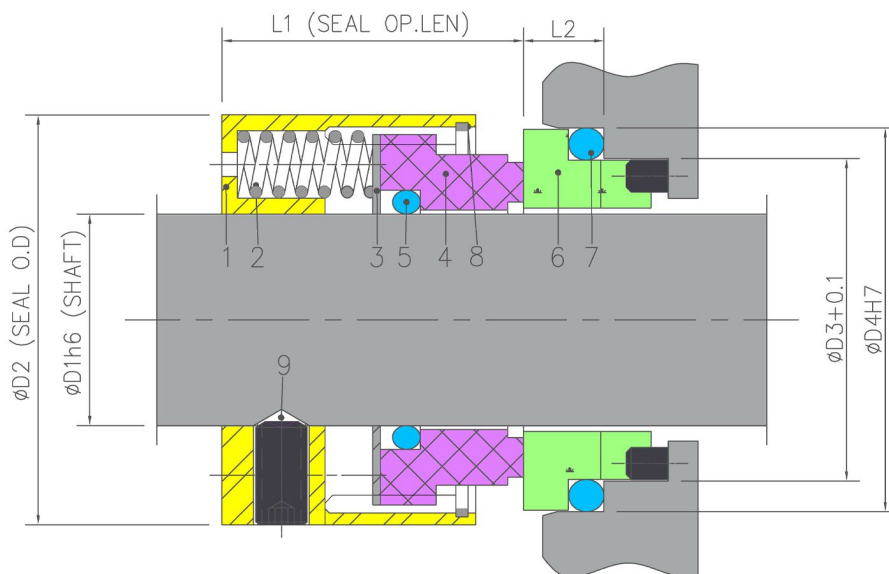


### Product Description

1. Single seal configuration.
2. Multi spring rotating.
3. Inside mounted.
4. Unbalanced.
5. Independent of Direction of Rotation

### Technical Features

1. Economical seal solution for universal application
2. Suitable for all types of centrifugal pumps.
3. Easy Installation



Item	Description
1	Cup
2	Spring
3	Thrust washer
4	Seal ring

Item	Description
5,7	O Ring
6	Mating ring
8	Snap ring
9	Seal ring

### Industrial Application

Petro-Chemical Industry  
 Petroleum Refinery Industries  
 Light Hydrocarbons.  
 General chemicals and Clear liquids

### Material Of Construction

**Seal Face** : Carbon Graphite Antimony Impregnated/Carbon Graphite Resin Impregnated/ Silicon-Carbide/ Tungsten-Carbide. ( SS+Silicon-Carbide / SS+Tungsten-Carbide.

**Seat** : Carbon / Silicon-Carbide / Tungsten-Carbide / Ceramic

**Elastomer** : Viton/Aflas/TTV/EPDM/KALREZ

**Metal Parts** : SS.316 / Hast'C / Other combinations can be given based on application

**Note** : Other MOC Combinations On Request

### Available Sizes

25mm to 200mm (1.000" to 8.000")

**Note** : Other Sizes On Request

### Operating Limits

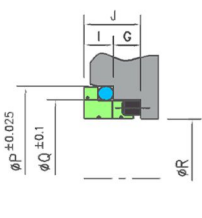
**Pressure** = 10kgs/cm<sup>2</sup> (Max)

**Temperature** = -23°C to + 200°C

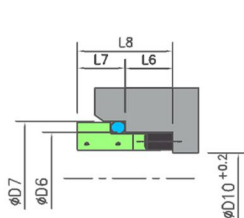
**Speed** = 21m/s

**Permissible Axial Movement** = ±1.0mm

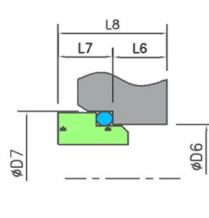
### Stationary Seats



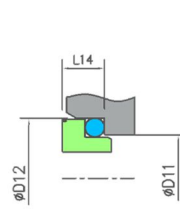
CS MR



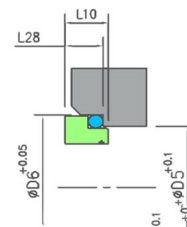
DIN LONG MR



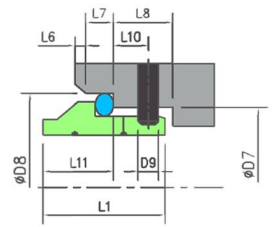
DIN SHORT MR



TYPE G4 MR



TYPE G6 MR



TYPE G9 MR

# Dimensional Data

D1						
INCH	MM	D2	D3	D4	L1	L2
0.750	19.05	-	-	-	-	-
0.875	22.23	-	-	-	-	-
1.000	25.40	36.50	35.20	41.27	28.60	6.63
1.125	28.58	39.70	38.30	44.45	28.60	6.63
1.250	31.75	46.90	41.50	47.63	28.60	6.63
1.375	34.93	49.20	44.70	50.80	29.40	6.63
1.500	38.10	52.40	47.90	53.98	29.40	6.63
1.625	41.28	55.60	54.20	60.33	29.40	7.98
1.750	44.45	58.70	57.40	63.50	29.40	7.98
1.875	47.63	63.50	60.66	66.68	29.40	7.98
2.000	50.80	66.70	63.70	69.85	29.40	7.98
2.125	53.98	71.40	70.10	76.20	30.20	-
2.250	57.15	72.20	73.30	79.38	34.10	8.79
2.375	60.33	76.20	76.40	82.55	34.10	8.79
2.500	63.50	79.40	79.60	85.73	34.10	8.79
2.625	66.68	82.60	79.60	85.73	36.50	9.63
2.750	69.85	85.70	82.80	88.90	36.50	9.63
2.875	73.03	93.70	85.80	95.25	36.50	-
3.000	76.20	96.80	89.00	98.43	36.50	11.43
3.125	79.38	101.60	92.20	101.60	36.50	11.43
3.250	82.55	104.80	95.30	104.78	36.50	-
3.375	85.73	108.00	98.50	107.95	36.50	11.43
3.500	88.90	111.10	101.70	111.13	36.50	11.43
3.625	92.08	114.30	104.90	114.30	38.10	-
3.750	95.25	117.50	108.10	117.48	38.10	12.50
3.875	98.43	120.70	111.20	120.65	38.10	-
4.000	101.60	123.80	114.40	123.83	38.10	12.50
4.125	104.78	128.00	117.50	127.00	38.10	-
4.250	107.95	131.00	120.70	130.18	38.10	-
4.375	111.13	133.40	123.90	133.35	41.50	-
4.500	114.30	137.50	127.10	136.53	41.50	-
4.625	117.48	142.70	130.20	139.70	41.50	-
4.750	120.65	146.00	133.40	142.88	41.50	-
4.875	123.83	146.00	136.60	146.05	41.50	-
5.000	127.00	153.40	142.98	152.40	41.50	-
5.125	130.18	156.50	146.10	155.58	41.50	-
5.250	133.35	159.80	149.30	158.75	41.50	-
5.375	136.53	163.00	152.40	161.93	41.50	-
5.500	139.70	169.00	155.60	165.20	46.00	-
5.625	142.88	176.00	158.80	168.28	51.10	-
5.750	146.05	172.35	162.00	171.55	46.00	-
5.875	149.23	179.00	165.10	174.63	46.00	-
6.000	152.40	182.00	168.30	177.80	47.00	-
6.125	155.58	190.00	171.50	180.98	46.00	-
6.250	158.75	188.50	-	40.85	-	-
6.375	161.93	189.03	177.90	187.33	45.31	-
6.500	165.10	194.70	181.00	190.60	47.00	-
6.625	168.28	195.50	184.10	193.68	45.31	-
6.750	171.45	203.60	187.40	196.95	45.31	-
6.875	174.63	205.00	190.60	200.03	45.31	-
7.000	177.80	210.00	193.70	203.30	47.00	-

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