



## Double Unbalanced Mechanical Seal (DUS 910 Series & DUS 915 Series)

### DUS 910



Double Unbalanced Mechanical Seal DUS 910 Series & DUS 915 Series are factory assembled cartridge units used on mixers, agitators & reactors. These seals are designed for handling severe services including products emitting toxic vapours during reaction process. The design incorporates a bearing located very close to the seal. This standard feature effectively arrests the shaft whip for smooth and trouble-free operation, enabling enhanced seal life. The cooling jacket, also a standard feature, helps to maintain a cool environment around the seal. Large clearance between the rotating shaft/sleeve and mating ring permits higher deflection of the shaft, invariably associated with top entry agitators.

### DUS 915

**Applications :** Petrochemicals, General Chemicals & Light Hydrocarbons, Emitting Vapour & Pharmaceutical Industries.

#### Seal Components :

##### Seal Face :

Carbon / Ceramic

Carbon / Silicon Carbide

Carbon / Tungsten Carbide

##### Secondary Seal :

**DUS 910 Series :** PTFE, GFT

**DUS 915 Series :** Inboard -PTFE, GFT

Outboard-Elastomers

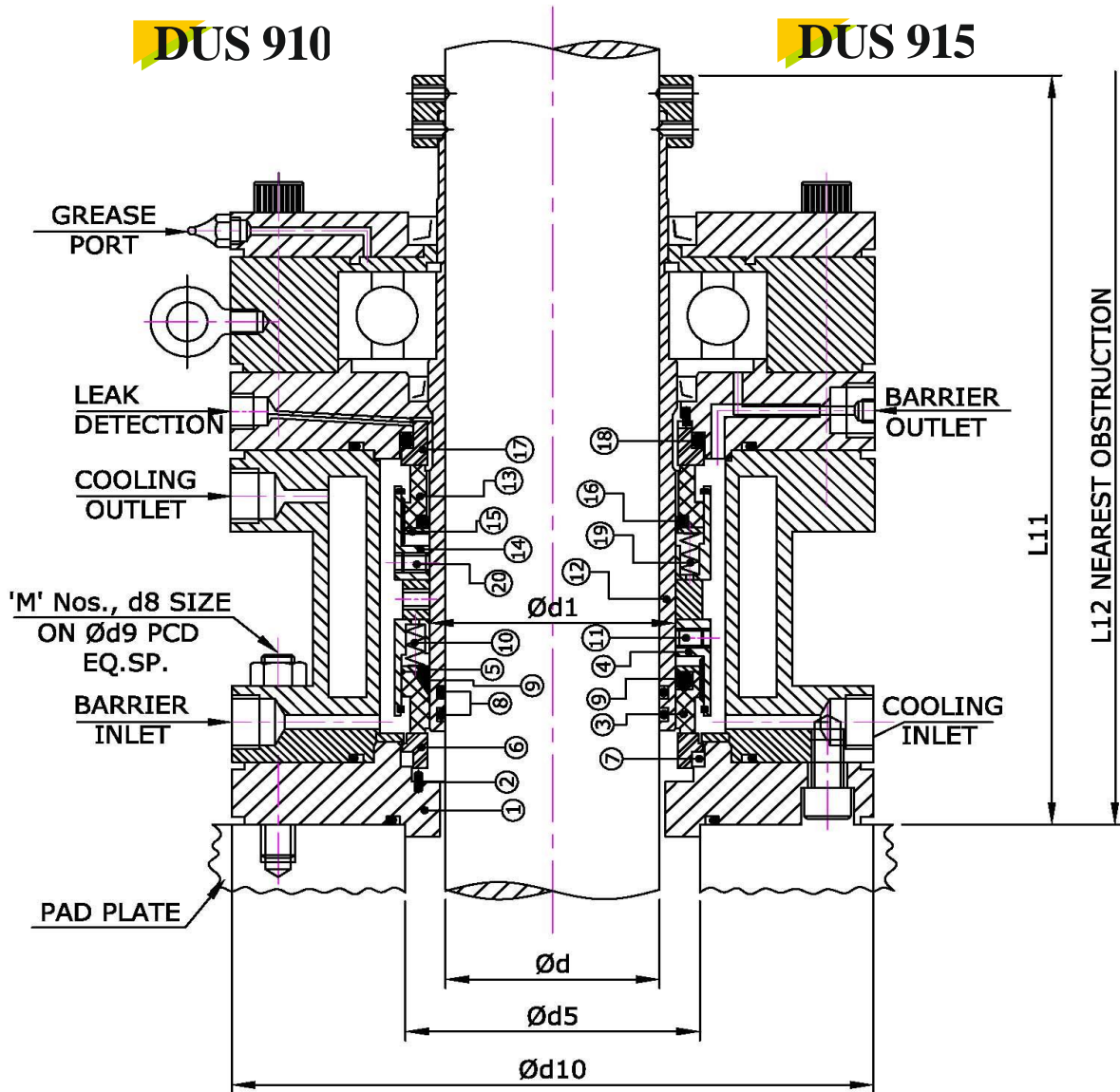
**Metal Parts :** SS 304, SS 316, Hastelloy-C, Hastelloy-B, Monel, Alloy-20, Carbon Steel

#### Seal Characteristics :

- Double Acting Back to Back
- Unbalanced
- Cartridge Unit
- Independent of Direction of Rotation
- Operated with Pressurised Barrier Fluid

#### Operating Parameters :

Shaft Dia	: 25 to 150 mm
Pressure	: Vacuum to 10 Bars (max)
Temperature	: Ambient to +200°C
Speed	: Up to 600 rpm
Barrier Fluid Pressure	: Vessel Pressure +1.5 Bar



ITEM	DESCRIPTION	ITEM	DESCRIPTION
1	GLAND	11	SET SCREW
2	PIN	12	SLEEVE
3	INBOARD SEAL RING	13	OUTBOARD SEAL RING
4	INBOARD RETAINER	14	OUTBOARD RETAINER
5	THRUST RING	15	THRUST RING
6	INBOARD MATING RING	16	WEDGE / O RING
7	PTFE PACKING	17	OUTBOARD MATING RING
8	O RING	18	O RING / PTFE PACKING
9	WEDGE / O RING	19	SPRING
10	SPRING	20	SET SCREW



### DUS 910 & DUS 915 DIMENIONS IN MILLIMETER

SHAFT SIZE	SEAL SIZE						
$d^{g6}$	$d1^{+0.00/-0.05}$	$d5^{H12}$	M,d8	d9	d10	L11	L12
25.0	35.0	75.0	4,M10	130.0	150.0	240.0	280.0
30.0	41.5	80.0	4,M10	135.0	155.0	240.0	280.0
35.0	44.5	85.0	4,M10	140.0	160.0	240.0	280.0
40.0	50.8	90.0	4,M10	145.0	165.0	245.0	290.0
45.0	54.0	95.0	4,M10	155.0	175.0	245.0	290.0
50.0	60.5	100.0	4,M10	155.0	175.0	245.0	290.0
55.0	67.0	105.0	6,M12	175.0	200.0	280.0	320.0
60.0	70.0	110.0	6,M12	180.0	205.0	280.0	320.0
65.0	76.5	115.0	6,M12	185.0	210.0	280.0	320.0
70.0	82.5	120.0	6,M12	190.0	215.0	285.0	325.0
75.0	86.0	125.0	6,M12	195.0	220.0	285.0	325.0
80.0	92.0	130.0	6,M12	200.0	225.0	285.0	325.0
85.0	95.5	135.0	8,M16	220.0	250.0	290.0	330.0
90.0	101.5	140.0	8,M16	225.0	255.0	305.0	345.0
95.0	105.0	145.0	8,M16	245.0	275.0	350.0	390.0
100.0	111.0	160.0	8,M16	250.0	280.0	350.0	390.0
105.0	114.3	165.0	8,M16	255.0	285.0	350.0	390.0
110.0	120.5	170.0	8,M16	260.0	290.0	355.0	395.0
115.0	127.0	175.0	8,M16	265.0	300.0	355.0	395.0
120.0	130.2	180.0	8,M16	270.0	300.0	355.0	395.0
125.0	136.5	195.0	8,M16	275.0	320.0	355.0	420.0
130.0	139.7	200.0	8,M16	280.0	320.0	380.0	425.0
135.0	146.0	205.0	8,M16	290.0	335.0	380.0	425.0
140.0	152.5	210.0	8,M16	295.0	345.0	385.0	425.0
145.0	155.5	215.0	8,M16	300.0	355.0	385.0	425.0
150.0	162.0	220.0	8,M16	300.0	365.0	385.0	425.0