

RELY ON EXCELLENCE

M461C

Mechanical Seals | Agitator seals | Liquid lubricated seals



Features

- Cartridge double seal for top entry drives
- For glass lined vessels
- Liquid lubricated
- Self-closing on product side
- For stepped and unstepped shafts
- Unbalanced
- Independent of direction of rotation
- Multiple springs rotating

Advantages

- Ready-to-fit and factory-tested units
- The M461CL will remain closed even during pressure variations or pressure reversal. Operation is possible with buffer fluid ($p_{1max} = 6 \text{ bar (87 PSI)}$) or pressurized with barrier fluid as double seal.
- Available with or without bearing
- The seal can be lifted off the glass-lined flange as a complete cartridge. The sensitive glass lined basic flange remains mounted on the vessel.
- Can be applied at higher pressure and rotating speed than specified by DIN.

Operating range

Shaft diameter:
 $d_1 = 40 \dots 125 \text{ mm (1.57" } \dots 4.92\text{")}$

Pressure:
 $p_1 = \text{vacuum } \dots 16 \text{ bar (232 PSI)}$
 $p_3 = \text{max. } 18 \text{ bar (261 PSI)}$
 Temperature:
 $t_1 = -40 \text{ }^\circ\text{C } \dots +200 \text{ }^\circ\text{C}$
 $(-40 \text{ }^\circ\text{F } \dots +392 \text{ }^\circ\text{F})$

Sliding velocity:
 $vg = 0 \dots 3 \text{ m/s (0 } \dots 9.8 \text{ ft/s)}$

For applications beyond this range, please inquire.

! It should be noted that the extremal values of each operating parameter cannot be applied at the same time because of their interaction.

Materials

Seal faces: Carbon graphite or Silicon carbide, FDA compliant

Seats: Silicon carbide, FDA compliant
 Secondary seals and metallic parts acc. to application and customer's requirement.

Standards and approvals

- FDA
- EG 1935/2004
- USP Class VI
- ATEX
- DIN 28138 (mechanical seals for agitator shafts)
- DIN 28136 T3 (for steel vessels)
- DIN 28137 T2 (flange connections for glass lined vessels)
- DIN 28159 (shaft end for glass lined vessels)

Recommended applications

- Petrochemical industry
- Chemical industry
- Pharmaceutical industry
- Food and beverage industry
- Agitators
- Reactors

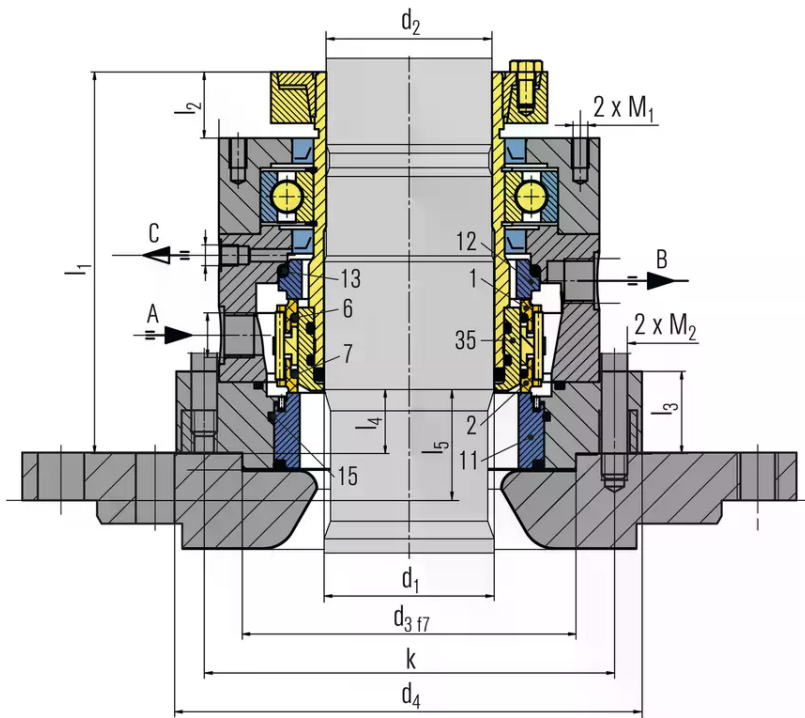
Recommended piping plans

Closed circuit EagleBurgmann TS system, open circuit EagleBurgmann SPA, EagleBurgmann SPN

Product links:

[EagleBurgmann TS1000](#)
[EagleBurgmann TSA2](#)
[EagleBurgmann SPA](#)
[EagleBurgmann SPN \(manual\)](#)
[EagleBurgmann SPN \(automatic\)](#)

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Item	Description
1	Seal face, atmosphere side
2	Seal face, product side
11	Seat, product side
12	Seat, atmosphere side
35	Torque transmission, metal free
6, 7, 13, 15	O-ring

Product variants

M491CL

Variant for customer-specific dimensions. Further customer-specific adaptations are also possible.

Dimensions

ø	d1	d2	d3 f7	d4	k	l1	l2	l3	l4	l5	M1	M2	nx quantity	A, B	C
ø40	40	38	93	175	145	147.5	22.5	31.5	25	50	M8	M8	M8X8	G3/8	G1/8
ø50	50	48	116	240	210	161.5	26.5	33.5	25	50	M8	M8	M8X2	G3/8	G1/8
ø60	60	58	125	204	176	161.5	26.5	33.5	25	50	M8	M8	M10X8	G3/8	G1/8
ø80	80	78	157	219	203	179	31	38.5	30	60	M8	M10	M10X8	G1/2	G1/8
ø100	100	98	185	247	228	187	32	36	30	60	M10	M10	M10X8	G1/2	G1/8
ø125	125	120	210	294	268	211	38.5	38.5	30	60	M10	M10	M10X8	G1/2	G1/8

Dimensions in millimeter 1) Shaft diameters d1 and d2 according to DIN 28159 2) Shaft shoulder according to DIN 28159 3) Flange according to DIN 28138 T2