

RELY ON EXCELLENCE

## M461CL-E3

Mechanical Seals | Agitator seals | Liquid lubricated seals



### Features

- Retrofit for JC Type 109 / Type 109B
- Cartridge double seal for top entry drives
- For glass lined vessels
- With integrated floating bearing
- 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 unit
- The M461CL-E3 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.
- 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.
- Made of stainless steel, no protective coating required

### Operating range

Shaft diameter:  
 $d1 = 40 \dots 125 \text{ mm (1.57" \dots 4.92")}$

Pressure:  
 $p1 = \text{vacuum} \dots 10 \text{ bar} (\dots 145 \text{ PSI})$   
 $p3 = \text{max. } 12 \text{ bar (174 PSI)}$

Temperature:  
 $t1 = -40 \text{ °C} \dots +200 \text{ °C}$   
 $(-40 \text{ °F} \dots +392 \text{ °F})$

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

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 (B), FDA compliant  
 Seats: Silicon carbide (Q1), FDA compliant  
 Secondary seals on product side: KL/M5  
 Secondary seals on atmospheric side: V  
 Springs: G  
 Metal parts: E (1.4122)  
 Parts in contact with product: Al-oxide (Buke5)

### Standards and approvals

- FDA
- ATEX
- DIN 28138 (mechanical seals for agitators)
- DIN 28136 T3 (for glass lined vessels)
- DIN 28137 T2 (flange connections for glass lined vessels)
- DIN 28159 (shaft end for glass lined vessels)
- Compliant to TA Luft (German Clean Air Act)

### Recommended applications

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

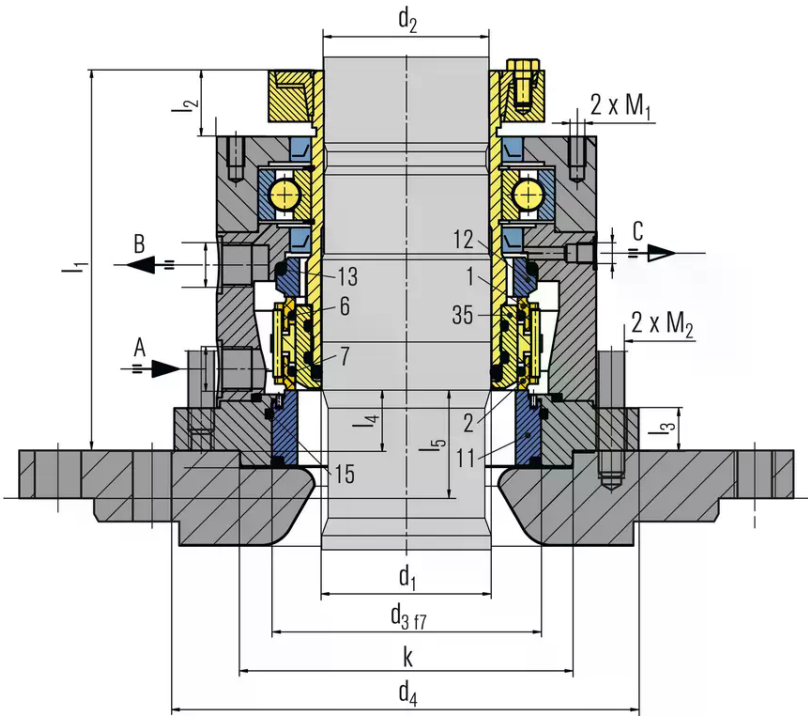
### Recommended piping plans

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

Product links:

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

RELY ON EXCELLENCE



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

## Dimensions

SAP	Shaft*	M461CL-...	Material combination
1001236076	40	D20/40-E3	B01KL/M5GE(AL-OXID)-B01VGE
1001236080	50	D20/50-E3	B01KL/M5GE(AL-OXID)-B01VGE
1001236079	60	D20/60-E3	B01KL/M5GE(AL-OXID)-B01VGE
1001215335	80	D20/80-E3	B01KL/M5GE(AL-OXID)-B01VGE
1001236078	100	D20/100-E3	B01KL/M5GE(AL-OXID)-B01VGE
1001236081	125	D20/125-E3	B01KL/M5GE(AL-OXID)-B01VGE

\* Dimensions in millimeter