

RELY ON EXCELLENCE

## The patented SeccoLip – Unique. Flexible and efficient.

For agitators, mixers and reactors



Patented design



Extremely versatile



Cost efficient

# The SeccoLip – A smart combination

## For optimal results

In machines and plants, shaft seals are continuously subjected to forces of varying strength and direction during operation. Typical lip seals have a difficult time coping with such conditions. Increased wear, contamination due to leakage that can reduce quality or even a costly seal replacement – all this is avoidable.

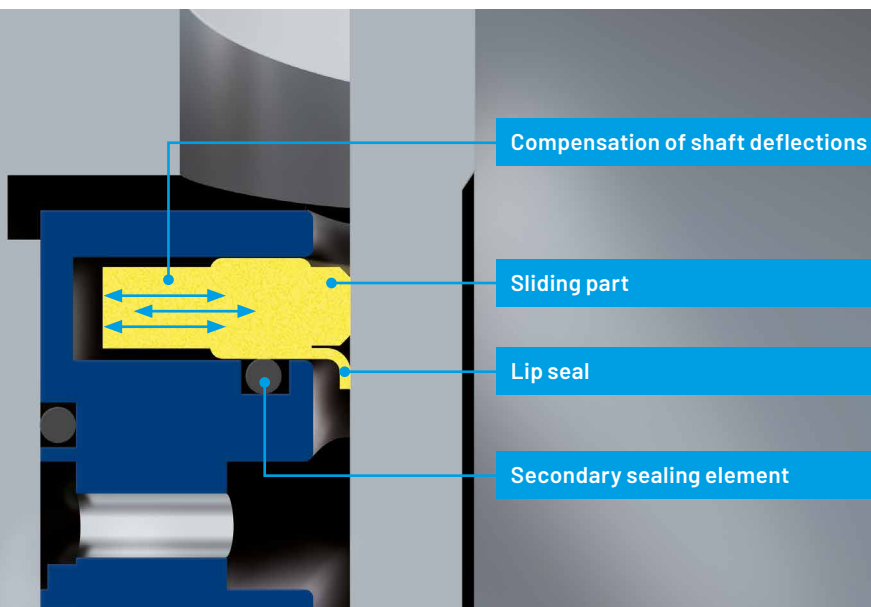
The SeccoLip is an entirely new design that combines the principle of a shaft sealing lip with the reliability and safety of a mechanical seal.

The combination of PTFE sealing lip and sliding part is patented and can compensate any shaft deflection directly and reliably thanks to a special compensation function.

### Advantages of using the SeccoLip

- Protects both the product and the environment
- Minimizes maintenance and service work
- Reliably handles challenging conditions

The lip seal SeccoLip is ideal for machines such as agitators, mixers, kneaders and reactors whether they feature top, bottom or side entry drives. It is designed as a dry running seal and can be operated both with or without a gas supply system.



### Patented compensation

#### Movable in all directions

The seal lip/sliding part combination compensates all radial and axial deflections of the shaft directly and reliably.



## Intelligently designed

### Extremely versatile

Thanks to its modular design and a variable sealing lip arrangement, the SeccoLip can be individually customized for a perfect fit. It is also compatible with machinery from any manufacturer.

### Ready-to-install due to cartridge design

The pre-assembled and tested unit with an enclosed design makes installation simple and ensures reliable use of the seal.

### Technically efficient

The SeccoLip eliminates the typical compensation elements such as O-rings, expansion discs or metal bellows. A rolling bearing and a temperature sensor are not required but are optionally available, if desired. The same applies to the glass-lined flange, since the SeccoLip461 can be easily adapted to already existing glass-lined machine flanges. All this makes the SeccoLip a cost-saving and low-maintenance solution.

### Service-friendly design

The SeccoLip has no sensitive parts such as springs, drive pins, slide rings or counter rings. The sealing lips can be changed quickly and easily on-site.

### ATEX zone 0

The seal can also be used reliably in explosion protection zone 0 without temperature sensor.

### FDA-compliant

The PTFE material of the sealing lips satisfies the strict regulations of the U.S. Food and Drug Administration.

### CIP/SIP compatibility

Designed with minimal dead space, the SeccoLip can be operated hygienically and safely.

### Sealing system compliant with TA-Luft (German Clean Air Act) requirements

The SeccoLip is low-emission and perfectly environmentally safe.

## At home in many sectors



Chemical industry



Pharmaceutical industry



Food processing industry



Beverage industry

# Fully flexible in design

## SeccoLip 481

### Rolling bearing

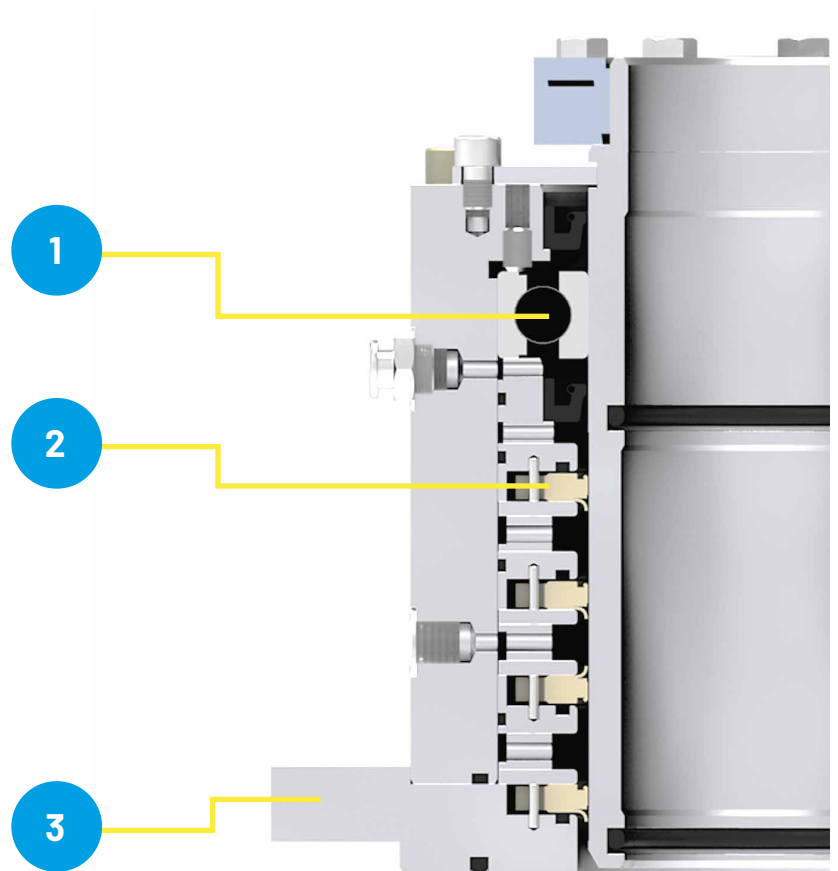
- Not required thanks to patented compensation function
- Available upon request - reduces the load on the lips for a longer lifespan

### Sealing lips

- Variable positioning on either the process or atmosphere side
- Perfect contact with the machine shaft for minimal leakage
- Non-variable parts in all sealing stages
- Easy to replace
- Made of bright, chemically highly resistant PTFE compound
- FDA-certified material
- Suitable for corrosive processes

### Flanges

- Optional addition: Easy-to-clean hygiene flange, flushing flange and cooling flange
- Special materials are possible



**Variants: 2, 3 or 4 lips**

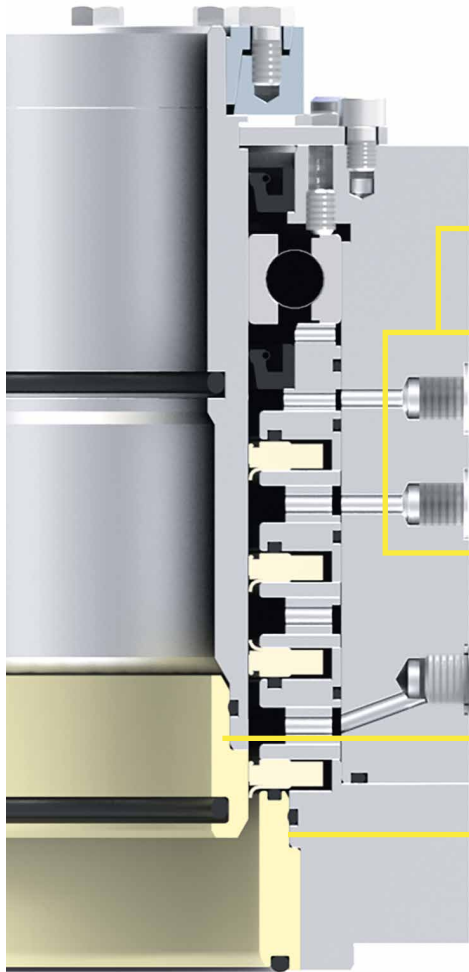
For stainless steel vessels.

## Variable arrangement of the sealing lips

The diverse range of applications are matched by the many possible variants of SeccoLip regarding the number and possible alignment of the individual sealing lips.

Let us know your application conditions, and we will provide you with a SeccoLip in the design you require.

## SeccoLip 461



4

### Supply connections

- Holes available as standard for flushing, monitoring, application of barrier pressure

### Targeted leak detection/discharge

- Optionally possible

5

### Product side metal-free

- High resistance thanks to aluminum oxide
- Compatible with existing glass-lined flange

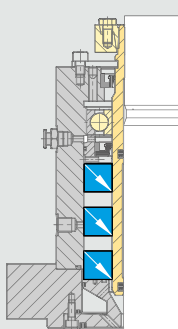
### Variants: 3 or 4 lips

For glass-lined vessels.  
Recommended for special requirements regarding chemical resistance.

## Example variant with 3 lips, differently aligned

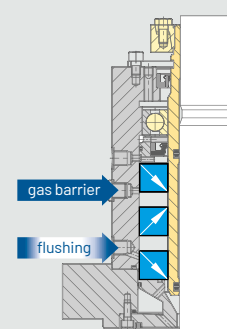
### Overpressure application

- Sealing supply connections with plugs
- No supply system necessary

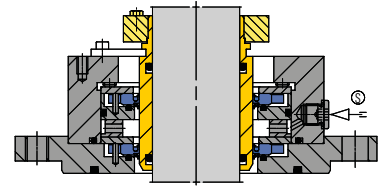


### Overpressure or vacuum application

- Optional flushing: The product cannot penetrate into the seal
- Flushing medium enters into the product
- Supply system necessary



# Convincing also in detail

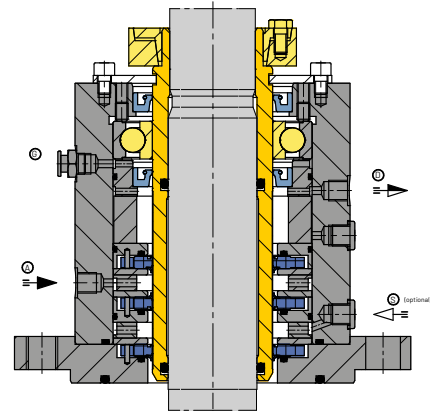


SeccoLip 481-2

## Operating range

- Shaft diameter:  $d_1 = 40 \dots 125 \text{ mm}$  (1.57" ... 4.92")  
Special shaft diameters between 25 mm and 200 mm possible (0.98" ... 7.87")
- Pressure:  $p_1 = \text{vacuum} \dots 6 \text{ bar}$  (87 PSI)
- Temperature:  $-10 \text{ }^\circ\text{C} \dots +200 \text{ }^\circ\text{C}$  (14  $^\circ\text{F} \dots +392 \text{ }^\circ\text{F}$ )
- Sliding velocity:  $v_{g, \text{max.}} = 0 \dots 2 \text{ m/s}$  (0 ... 6 ft/s)
- Axial movement:  $\pm 3.0 \text{ mm}$
- Radial movement: 1.0 mm (up to 3 mm on request)

Please note that the extremal values of each operating parameter cannot be applied at the same time because of their interaction. For applications beyond this range, please inquire.



SeccoLip 481L-3

## Materials

- Lip sealing element: bright chemically highly resistant PTFE-compound, FDA compliant
- Secondary seals: FKM (V)
- Metallic parts: 316L / 1.4404
- Parts in contact with product:  
AL-oxide (glass-lined variant SeccoLip 461)

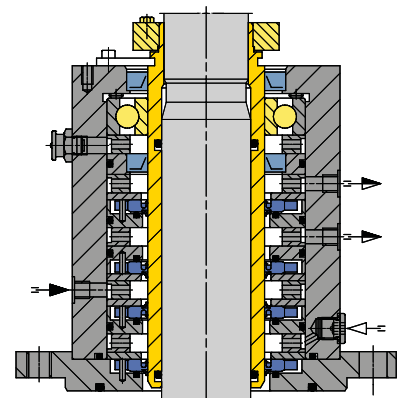
Other materials are possible. Please do not hesitate to contact us if required.

## Standards and approvals

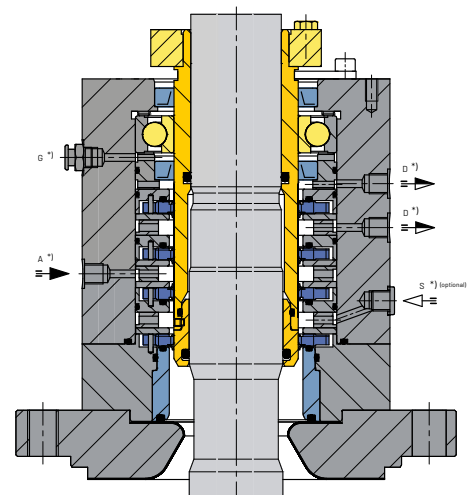
- ATEX
- FDA
- TA-Luft (German Clean Air Act)

## DIN and non-DIN

The SeccoLip is basically designed for machines based on the DIN standards. SeccoLip variants for use outside DIN are also part of our product portfolio.



SeccoLip 481L-4



SeccoLip 461L-4

**We will provide you with an optimal seal.  
Even for the most difficult conditions.**

Do you have applications that pose a greater challenge than usual? Are you seeking to reliably prevent entry of product into the seal with a flush? Or are you confronted with the requirements of ATEX zone 0? The SeccoLip has all necessary holes for connection to a supply system as standard. Whether barrier pressure system, flushing system or combined barrier/flushing system – everything is optionally available with the SeccoLip.

**Please feel free to contact us.  
Together, we will design the perfect seal for your application.**

## The supply systems

Our supply systems of the GSS series (Gas Supply System) are designed for dry running seals. The required gas (e.g. air or N<sub>2</sub>) is taken from the supply network. According to the safety requirements, all systems can be equipped with alarms and/or shut-off points.



### Barrier system

For securely creating a gas barrier (cooling and circulation of the barrier medium, application of pressure and leak compensation).

### Flushing system

Constant flushing prevents product from adhering in the area of the seal.



### Combined system

Combines the barrier and flushing system into a single device.

## EagleBurgmann – at the leading edge of industrial sealing technology

Our products are used wherever safety and reliability count: in the industries of oil & gas, refineries, petrochemicals, chemicals, pharmaceuticals, food, power, water and many more. About 6,000 employees contribute their ideas, solutions and dedication every day to ensure that customers around the globe can rely on our seals. With our modular TotalSealCare Service, we emphasize our strong customer orientation and offer custom-tailored services for every need. [Rely on excellence.](#)

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