MECHANICAL SEALS

Food Industry
Biotechnology
Sterile Processes
Chemical, pharmaceutical Industry
### Alfa-Laval (centrifugal pumps)

**Pumps FM serie 0-4, MR-serie, CM, EM, GM**
- Single seal, unbalanced, independent of direction of rotation
- simple mounting
- Shaft sizes: ø22, 27 and 65mm
- Seal faces made of: Carbon/AISI 316
- Stationary seat: with thread
- O-rings: EPDM and PTFE
- Spring: AISI 316

**Pumps LKM serie LKH 5 - 60, LKH 70, LKHP, LKR**
- Single seal, balanced, independent of direction of rotation
- simple mounting
- Shaft sizes: For ex.: ø35mm and ø42mm
- Seal faces made of: Carbon/SiC or SiC/SiC
- Stationary seat: with thread
- O-rings: EPDM and Viton®
- Spring: AISI 316

**Pumps ALC serie 1 and 2**
- Rubber bellow single seal, unbalanced, independent of direction of rotation
- simple mounting
- Shaft sizes: For ex.: ø40 and 53mm
- Seal faces made of: Carbon/SiC or SiC/SiC
- Bellows: EPDM and PTFE
- Spring: AISI 316

**APV (centrifugal pumps)**

**Pumps W−**
- Single seal, unbalanced, dependent of direction of rotation
- simple mounting
- Shaft sizes: ø25 and 35mm
- Seal faces made of: Carbon/tungsten carbide or carbon/SiC or tungsten carbide/SiC/SiC
- O-rings: EPDM + Viton®
- Spring: AISI 316
- double mounting with quenching, rubber bellow seal on the atmosphere side
- Seal faces made of: Carbon/AISI 316
- Bellow: NBR
- Spring: AISI 316

**Pumps W+**
- Single seal, balanced, independent of direction of rotation
- simple mounting
- Shaft sizes: ø25 and 35mm
- Seal faces made of: Carbon/SiC or SiC/SiC
- O-rings: EPDM or Viton®
- Spring: AISI 316

**Pumps Rosita serie ZMA, ZMH and ZMK**
- Single seal, unbalanced, dependent of direction of rotation (left)
- simple mounting
- Shaft sizes: ø20, 25 and 30mm
- Seal faces made of: Carbon/AISI 316
- O-rings: EPDM or PTFE
- Spring: AISI 316

**Pumps serie ZMS5, 6**
- Single seal, balanced, independent of direction of rotation
- simple mounting
- Shaft sizes: ø48mm
- Seal faces made of: Carbon/AISI 316
- O-rings: EPDM or Viton®
- Spring: AISI 316

**Pumps serie Puma**
- Single seal or double seal, unbalanced, dependent of direction of rotation
- simple or double mounting
- Shaft sizes: ø25, 4 or 38,1mm
- Seal faces made of: Carbon/Ceramic or SiC/SiC
- O-rings: EPDM
- Spring: AISI 316

### KSB (centrifugal pumps)

**Pumps serie Etachrom, Etanorm, Etabloc...**
- Rubber bellow single seal, unbalanced, independent of direction of rotation
- simple mounting
- Shaft sizes: For ex.: ø22, 28, 33, 43, 48, 53 and 65mm
- Seal faces made of: Carbon/SiC or SiC/SiC
- O-rings: EPDM, FPM or PTFE

**Pumpen Serie KWP-K..., CPK-S1...**
- simple mounting
- Shaft sizes: For ex.: ø22, 27 and 65mm
- Seal faces made of: Carbon/AISI 316
- O-rings: EPDM, PTFE or PTFE
**Rotary Lobe pumps**

Pumps ITT Jabsco, Tetra Pak, LKM, Ibex, Johnson...

Pumps ALFA-Laval (SR serie, LKPL serie)

Pumps INDAQ

Simple seal (twice), unbalanced, independent of direction of rotation

| Simple mounting | Shaft sizes (metric) | For ex.: ø20, 28, 30, 38, 45, 50, 55 and 60mm. |
| Simple mounting | Shaft sizes (inch) | For ex.: a1,125", 1,875", 2,125" |
| Simple mounting | Seal faces made of | Carbon/AISI 316 or tungsten carbide/tungsten carbide or SiC/SiC |
| Simple mounting | O-rings | EPDM and Viton® |
| Simple mounting | Spring | AISI 316 |

special constructions on request

**Grundfos**

CR, LM, LP, DM, NM, JP, CH, NB, NK, TP, SV ...

Single cartridge seals, single seal, unbalanced

Simple mounting

| Shaft sizes (metric) | For ex.: ø12, 16, 22mm, ... |
| Simple mounting | Shaft sizes (metric) | For ex.: ø15, 19, 25, 4, 28, 35, 41, 50 and 65mm |
| Simple mounting | Seal faces made of | Carbon/AISI 316 or tungsten carbide/tungsten carbide or ceramic/carbon |
| Simple mounting | O-rings | EPDM and Viton® |
| Simple mounting | Spring | AISI 316 |

special constructions on request

**Johnson, Stork, Inoxpa**

Radial centrifugal pumps

Single seal, unbalanced, independent of direction of rotation

Simple mounting or double mounting

| Simple mounting | Shaft sizes | For ex.: ø15, 19, 25, 4, 28, 35, 41, 50 and 65mm |
| Simple mounting | Shaft sizes | For ex.: ø20 and 30mm |
| Simple mounting | Seal faces made of | Carbon/AISI 316 or tungsten carbide/tungsten carbide or ceramic/carbon |
| Simple mounting | O-rings | EPDM and Viton® |
| Simple mounting | Spring | AISI 316 |

Rrubber bellow single seal, unbalanced, independent of direction of rotation

Simple mounting

| Simple mounting | Shaft sizes | For ex.: ø20 and 30mm |
| Simple mounting | Seal faces made of | Carbon/AISI 316 or tungsten carbide/tungsten carbide or ceramic/carbon |
| Simple mounting | O-rings | EPDM and FPM |
| Simple mounting | Spring | AISI 316 |

special constructions on request

**EDUR (centrifugal pumps)**

Cooling pumps, hot water pumps

Single seal, unbalanced, dependent of direction of rotation

Simple mounting

| Simple mounting | Shaft sizes | For ex.: ø20 and 30mm |
| Simple mounting | Seal faces made of | Carbon/AISI 316 or tungsten carbide/tungsten carbide or ceramic/carbon |
| Simple mounting | O-rings | EPDM and Viton® |
| Simple mounting | Spring | AISI 316 |

Rubber bellow single seal, unbalanced, independent of direction of rotation

Simple mounting

| Simple mounting | Shaft sizes | For ex.: ø20 and 30mm |
| Simple mounting | Seal faces made of | Carbon/AISI 316 or tungsten carbide/tungsten carbide or ceramic/carbon |
| Simple mounting | O-rings | EPDM and FPM |
| Simple mounting | Spring | AISI 316 |

special constructions on request

**Freezer**

Ice cream machines

Single seal, unbalanced, dependent of direction of rotation

Simple mounting

| Simple mounting | Shaft sizes | For ex.: ø40, 45, 50, 60, 65, 70 and 75mm |
| Simple mounting | Seal faces made of | Carbon/AISI 316 or tungsten carbide/tungsten carbide or ceramic/carbon |
| Simple mounting | O-rings | EPDM and Viton®, Sicon or FEP |
| Simple mounting | Spring | AISI 316 |

special constructions on request
MECHANICAL SEALS FOR FOOD INDUSTRY AND CHEMICAL, PHARMACEUTICAL INDUSTRY

**Progressing cavity pumps**

Allweiler serie SEP, ACN...
Netzsch serie NE, NL, NM...
Seepex serie CS, BTM
PCM serie MR

Single seal, unbalanced, dependent of direction of rotation
simple mounting

- Shaft sizes: For ex.: ø20, 25, 30, 35, 38, 40, 43, 45, 48, 50, 55, 60, 65, 70, 80, 85, 90 and 100mm
- Seal faces made of: many different combinations
- O-rings: EPDM or Viton®
- Spring: AISI 316

Single seal, unbalanced, independent of direction of rotation
simple mounting

- Super sinus spring: AISI 316

Double seals, unbalanced, independent of direction of rotation (without photo)

Fully pre-assembled cartridge units
simple mounting

special constructions on request

**Mixers, agitators**

Stelzer
PRG
Alfa-Laval
Ystral

Single seal, unbalanced, dependent of direction of rotation
simple mounting

- Shaft sizes: For ex.: ø25, 35, 40, 45, 50, 60, 70 and 80mm
- Seal faces made of: Carbon/AISI 316 or tungsten carbide/tungsten carbide or SiC/SiC
- O-rings: EPDM and Viton®
- Spring: AISI 316

Single seal, unbalanced, independent of direction of rotation
simple mounting

- Sinus spring: AISI 316

Double seals, unbalanced, independent of direction of rotation (without photo)

special constructions on request

**Sterile applications**

Sterile centrifugal pumps
Sterile progressing cavity pumps
Sterile mixers

Reduced free gap, high pressure versions, single seals, balanced, independent of direction of rotation, protected spring, 3A sanitary standard
simple mounting

- Shaft sizes: Many different Ø
- Seal faces made of: Carbon/AISI 316 or carbon/SiC or SiC/SiC
- O-rings: EPDM and Viton®
- Spring: AISI 316

special materials like special SiC or titan possible

special constructions on request
**Various sanitary centrifugal pumps**

**Many different other centrifugal pumps producers**

- Single seal, unbalanced, dependent of direction of rotation (maybe also left hand, “back to back” or tandem versions possible)
- Single seal, balanced, independent of direction of rotation
- Double seals, unbalanced and balanced

**FRISTAM (centrifugal pumps)**

**Pumps serie FC, FM, FP, FZ**

- Single seal or rubber bellow seal, unbalanced, dependent of direction of rotation (right hand)
- Shaft sizes: ø22, 30 and 35mm
- Seal faces made of: Carbon/AISI 316 or carbon/ceramic or tungsten carbide/tungsten carbide or SiC/SiC
- O-rings: EPDM or Viton® or PTFE
- Spring: AISI 316

- Rubber bellow single seals, independent of direction of rotation
- simple mounting
- Rubber bellow: NBR, EPDM or FPM
- Metallic parts: AISI 316
- With quenching, atmosphere side with rubber bellow single seals, independent of direction of rotation or as single seal dependent of direction of rotation (right hand)
- double mounting
- Seal faces made of: Carbon/AISI 316 or carbon/ceramic
- Bellows: NBR, EPDM or FPM
- Metallic parts: AISI 316
- With special stationary seats for double use
- double mounting
- Stationary seat: AISI 316 or ceramic
- O-rings: EPDM or Viton®

**Pumps CF Wiking (Tuchenhagen)**

- Single seal, balanced, independent of direction of rotation
- simple mounting
- Sizes: I, II, III, IV
- Seal faces made of: Carbon/Cr-oxide or carbon/SiC or SiC/SiC
- O-rings: EPDM and Viton®, FEP
- Spring: AISI 316

**Pumps serie C 114, 216, 218, 328, 428, 4410**

- Single seal, balanced, independent of direction of rotation
- simple mounting
- Shaft sizes: ø20, ø28, ø38mm
- Seal faces made of: Carbon/SiC or SiC/SiC
- O-rings: EPDM and Viton®, PTFE
- Spring: AISI 316

**Tri-Clover, Pierre Guerin (Centrifugal pumps)**
### TUCHENHAGEN (centrifugal pumps)

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Professional complete regeneration and renewal for all types and all producers

**Repair service**

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