

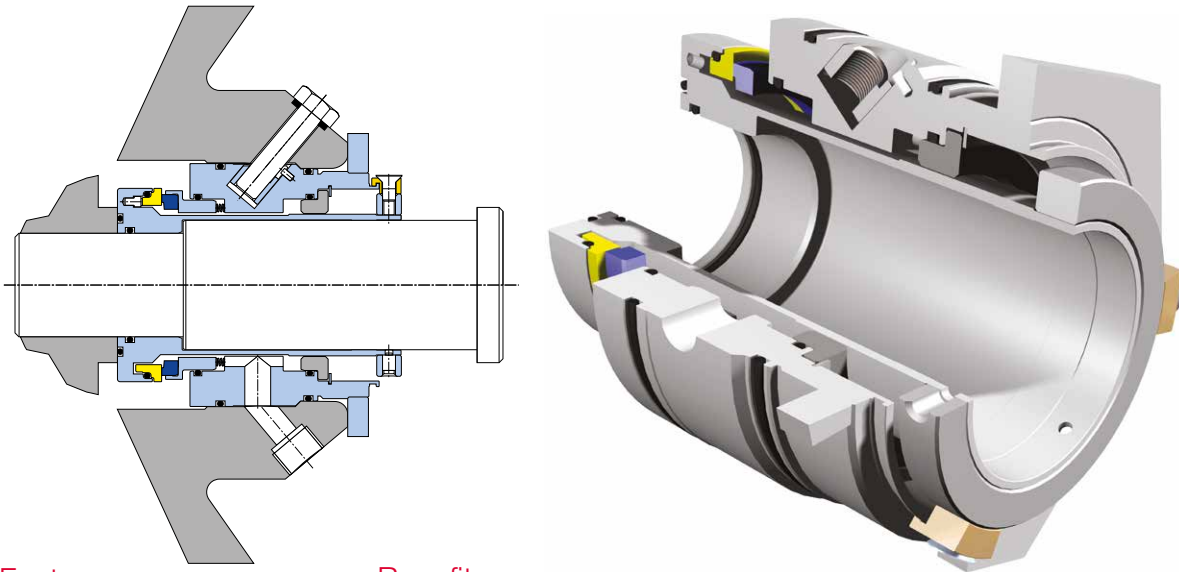
AGCS™ & AGCD™

Single & Double Cartridge Seals to suit
the Sulzer Ahlstar^{UP} Pump Range



- Cartridge assembly
- Accommodates +/- 2.0mm (0.080") Axial movement
- Independently energized seal faces
- Dual seal with integral flow inducer for effective barrier circulation
- Patent Pending Designs

AGCS™ - Glandless cartridge single seal to suit Ahlstar^{UP} pumps



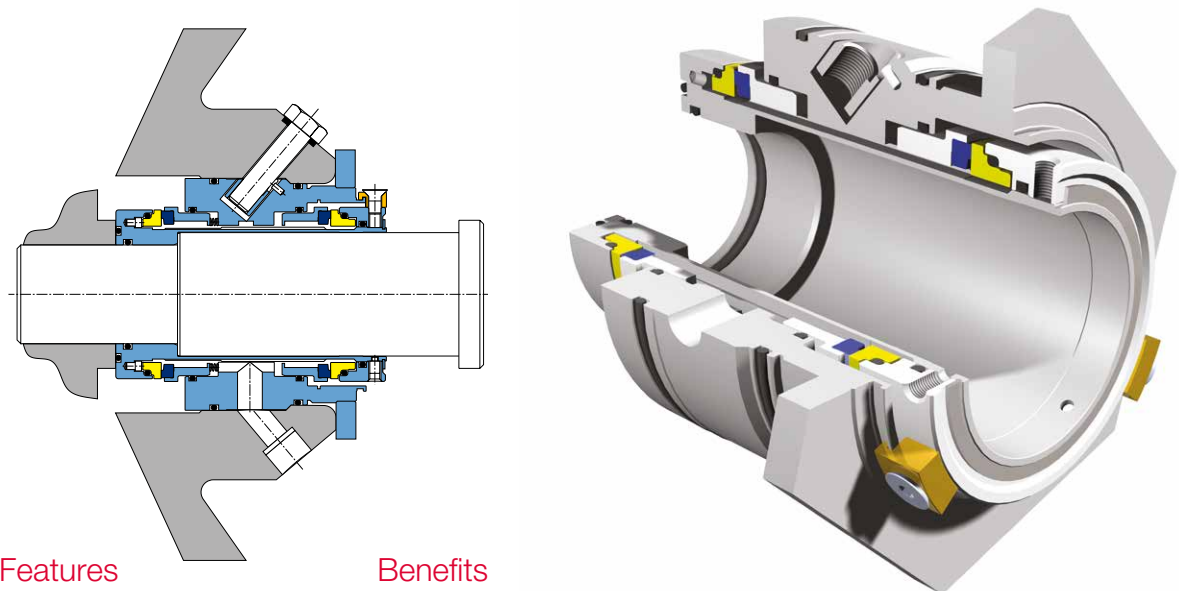
Features

- Multi spring energized
- True cartridge
- +/-2mm (0.080") axial movement

Benefits

- Even face loading for longer life
- Easy to retrofit without any equipment modification
- Allows impeller movement without compromising seal performance

AGCD™ - Glandless cartridge double seal to suit Ahlstar^{UP} pumps



Features

- Multi spring energized
- True cartridge
- +/-2mm (0.080") axial movement
- Bi-Directional flow inducer

Benefits

- Even face loading for longer life
- Easy to retrofit without any equipment modification
- Allows impeller movement without compromising seal performance
- Ensures circulation of barrier fluid to prevent overheating at seal faces

AGCD™ & AGCS™

The AGCD™ and AGCS™ seals are designed to fit the full six bearing frame range of the Ahlstar^{UP} pump models.

AESSEAL® is believed to be the only seal manufacturer to offer a fully integrated and glandless cartridge mechanical seal range for these pumps, which were launched by Sulzer in 2006 with a view to superseding the APP and APT ranges. The AESSEAL® design features and benefits are shown below:

- Cartridge Design - an absolute must for reliable field seal replacement
- Easy to Retrofit - no modification to the equipment needed
- Axial movement capability - designed to +/- 2mm (0.08") axial movement under non-reciprocating operation
- Bi-directional flow induction for effective barrier heat removal (dual seal only)

- Independent multi spring faces - a more reliable solution for longer life
- Axial sealing between impeller hub and seal sleeve - prevents rotary face hang up and failure
- Monolithic rotary faces - resilient mount reduces effect of impeller torque



AGCD™

To increase seal reliability and save significant volumes of cooling water it is recommended that all double seals are used in conjunction with the AESSEAL® water management systems (can save up to 4.2 million litres / 1.1 million gal (US) of water per annum per seal (based on 8 l/min / 2.1 US gpm). See next page for further information on system products.



SWP™
Water Management System

Bearing Protection

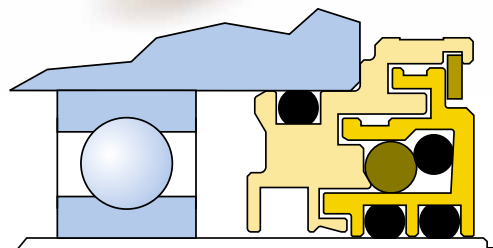
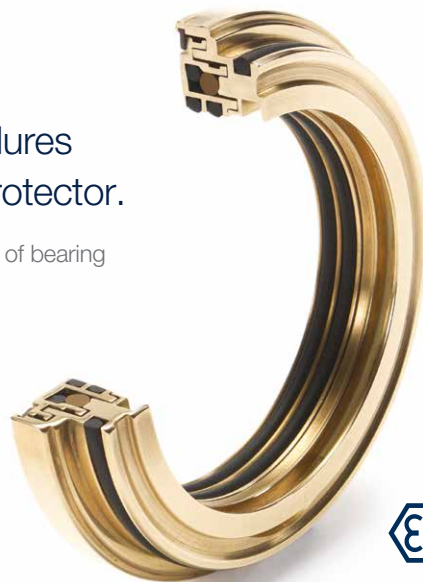
Eliminate the cause of over 50% of bearing failures with the LabTecta®66 IP66-certified bearing protector.

Recent research* shows that water and solids contamination causes 52% of bearing failures. Good bearing protection can eliminate these failures.



LabTecta®66— Labyrinth Bearing Seal

- IP66 Certified (the highest third-party certified bearing protector in the world, as laboratory tested against the Ingress Protection Code)
- Non-contacting Labyrinth Bearing Protector ideally suited for high shaft speed or marginal lubrication applications
- Inexpensive to repair
- Available with full ATEX certification, complying with ATEX directive 2014/34/EU (Group II equipment, Categories 2 & 3)
- Sizes available from 0.750" to 12.000" (16mm - 300mm) larger sizes available on request



Seal Support Systems

AESSEAL® high performance barrier fluid systems help to increase plant uptime even further by enhancing the environment in which mechanical seals operate. Many of these barrier fluid systems are patented, which means that the technology is exclusive to AESSEAL®. A small selection of these is shown below, for more information please visit www.aesseal.com/systems

EasyClean™ — Split Vessel System



- **10 / 25 litre (2.8 / 6.6 gal US) 304 SS vessel construction** — Suitable for a range of challenging environments and is ideal in the Pharmaceutical and Food & Beverage industries
- **Split vessel design** — Simple patented design solves critical issues in applications requiring higher standards of cleanliness
- **Quick release clamp** — Allows easy access for in depth vessel inspection and cleaning
- **Optional cooling coil and weld pad** — Optimizes temperature control and monitors fluid level

SW Range (SW2™ and SW3™) — Water Management Systems



- **10 / 25 litre (2.8 / 6.6 gal US) 304 SS vessel construction** — Suitable for a range of challenging environments
- **Water regulator** — Maintains water level and pressure in the vessel
- **Flow indicator** — Visually alerts the user to an inboard seal failure
- **Non-return valve** — Protects plant water supply from contamination, and maintains vessel pressure in the event of supply interruption
- **Available with / without cooling coil** — Additional heat dump available if required

AES-15™ Systems



- **316 SS vessel construction** — Suitable for challenging plant environments
- **Higher pressure** — Suitable for a wide range of arduous environments. Vessel design rating 30 barg @ 200°C (435 psig @ 392°F)
- **Enhanced modular design** — Suitable for both American and European site applications
- **Cooling coil as standard** — Increases the surface area available for barrier fluid cooling

FDU™ — Fluid Distribution Unit



- **Independent pressurised fluid supply system** — Removes the expense of piping a pressurised clean water / oil supply to a new area of the plant
- **Feeds a number of seal support systems** — Removes the expense of purchasing one system per seal
- **Optional pressure switch and accumulator** — Enables greater control of water / oil line pressure
- **Dead-ended piping** — Allows intermittent operation to reduce energy consumption and costs

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AESSEAL plc is certified to:

ISO 9001, ISO 14001, ISO/IEC 20000, ISO/IEC 27001,
ISO/TS 29001, ISO 37001, ISO 45001 & ISO 50001



Net Zero champions globally



Use double mechanical seals with hazardous products.

Always take safety precautions:

- **Guard your equipment**
- **Wear protective clothing**



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