

CKSA™ & CKDA™

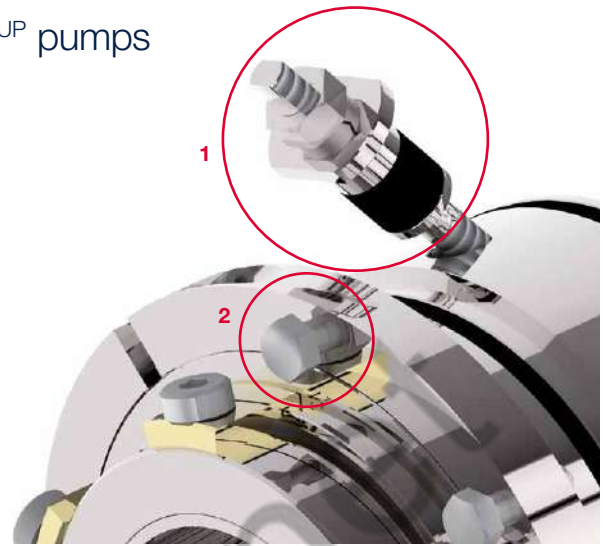
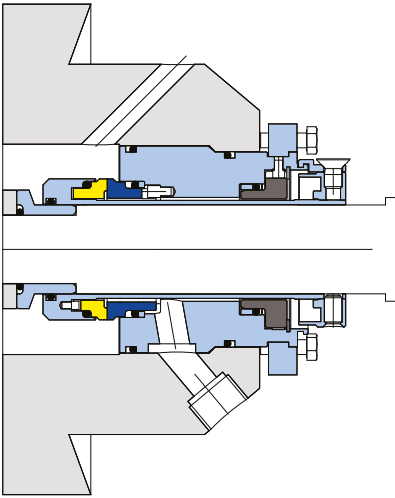
Single & Double Cartridge Seals to suit
the Sulzer Ahlstar^{UP} Pump Range



- Cartridge assembly
- Independently energized seal faces
- Dual seal with integral flow inducer for effective barrier circulation
- Patent pending designs

CKSA™

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



1 Non-contacting expansion plug
2 Bolted axial locking

Features

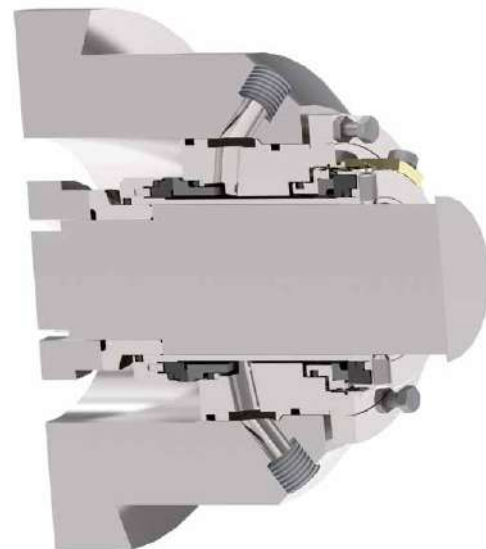
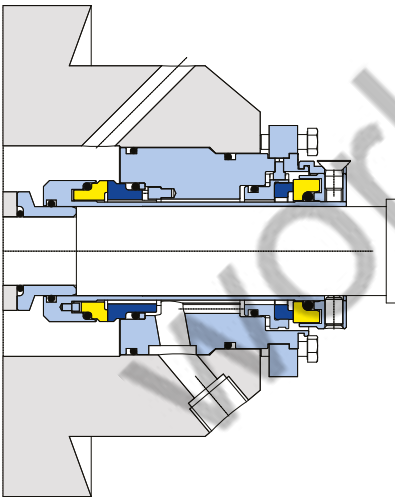
- Multi-spring energized
- Cartridge design
- Monolithic seal face technology

Benefits

- Even face loading for longer life
- Easy to retrofit without any equipment modification
- One piece construction reduces distortion in high and low temperature applications

CKDA™

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



Features

- Multi-spring energized
- Cartridge design
- Patent pending flow inducer
- Bi-directional flow inducer
- Hydraulically balanced faces

Benefits

- Even face loading for longer life
- Easy to retrofit without any equipment modification
- Helps with the removal of heat from the seal, optimizing face cooling
- Ensures circulation of barrier fluid to prevent overheating at seal faces
- Excellent sealing at high & low barrier to process differentials

CKSA™ & CKDA™

The CKSA™ and CKDA™ seals are designed to fit the full six bearing frame range of the Ahlstar^{JP} 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
- Bi-directional flow induction — 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

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.



CKDA™



SWP™
Water management system

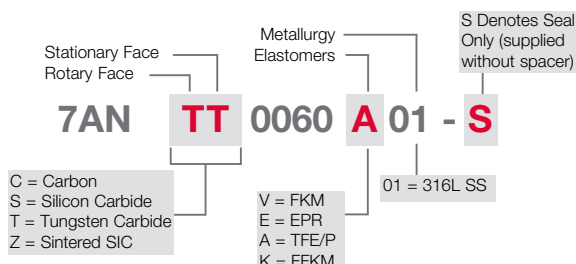
CKSA™ Ordering Information

Bearing Unit Size	Bare Shaft	Ga Drg.No.	Stock Code
1	30mm	3095086	7ANCZ0030V01*
2	40mm	3095058	7ANCZ0040V01*
3	50mm	3095126	7ANCZ0050V01*
4	60mm	3095094	7ANCZ0060V01*
5	80mm	3095104	7ANCZ0080V01*
6	90mm	3095140	7ANCZ0090V01*

*Note: the codes shown in the table are for a Seal supplied with a stubshaft & elastomer as standard. To order a seal only add a -S suffix to the stock code as shown in the example below. When only the seal is ordered a stubshaft elastomer is supplied as standard.

Seal stock codes show TC v TC seal faces, TFE/P elastomers and wetted parts, adjust stock code as necessary using the example below.

EG. 60mm CKSA™ TC/TC TFE/P



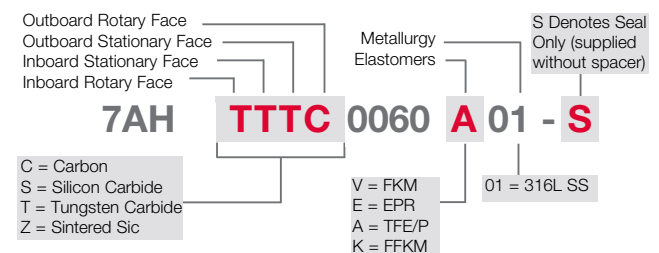
CKDA™ Ordering Information

Bearing Unit Size	Bare Shaft	Ga Drg.No.	Stock Code
1	30mm	3094302	7AHCZCS0030V01*
2	40mm	3094210	7AHCZCS0040V01*
3	50mm	3093237	7AHCZCS0050V01*
4	60mm	3093229	7AHCZCS0060V01*
5	80mm	3094232	7AHCZCS0080V01*
6	90mm	3094221	7AHCZCS0090V01*

*Note: the codes shown in the table are for a Seal supplied with a stubshaft & elastomer as standard. To order a seal only add a -S suffix to the stock code as shown in the example below. When only the seal is ordered a stubshaft elastomer is supplied as standard.

Seal stock codes show TC/TC//TC/C seal faces TFE/P elastomers and 316L SS wetted parts, adjust stock code as necessary using the example below.

EG. 60mm CKDA™ TC/TC//TC/CARBON TFE/P



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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For further information and safe operating limits contact our technical specialists at the locations below.



Use double mechanical seals with hazardous products.

Always take safety precautions:

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



WARNING

AESSEAL plc is certified to ISO 9001, ISO 14001, ISO/IEC 20000, ISO/IEC 27001, ISO/TS 29001, ISO 37001, ISO 45001 & ISO 50001

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