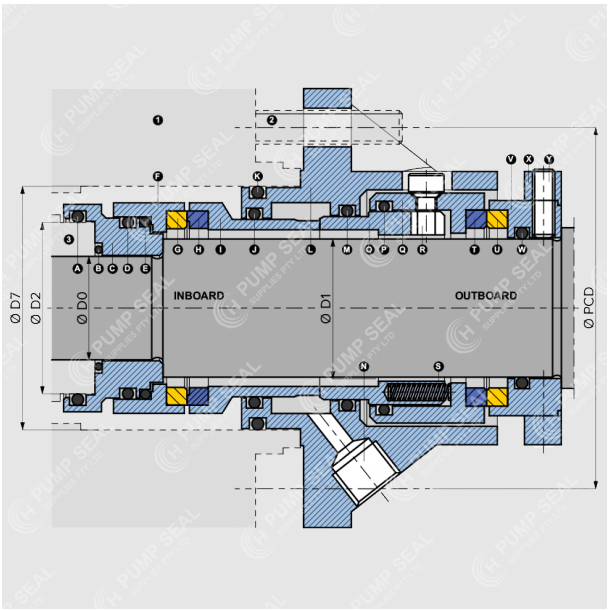
HSE2

'AHLSTAR™ - DOUBLE SEAL'
SPECIFICATION SHEET



- **Safeseal SE2 Replacement**
- **Double Seal, Balanced**
- **Semi-Cartridge Design**
- **Suits Sulzer AHLSTAR™ Pumps**
- **For Gland Packing Chambers**

HSE2 is a double mechanical seal in a balanced, semi-cartridge, stationary-based, multi-spring design. It is a direct replacement for pumps fitted with John Crane Safematic® Safeseal Type SE2. Seal faces are lubricated by a pressurised (barrier) or non-pressurised (buffer) fluid via e.g. a John Crane Safeunit™ seal water control device.

It is suitable for Sulzer AHLSTAR™ APP and APT pumps fitted with the standard gland packing casing covers / seal chambers.

Operating conditions[1]

Temperature:	-30°C to +121°C
Pressure:	< 15 bar, 220 psi, 1.5 MPa
Speed:	< 20m/s, 4000 fpm
	rpm < 1200000/(3.14 x D1)

[1] Guide-values only (due to diversity of possible applications). Enquire for specific-use cases. Maximum values of each parameter cannot be applied together.

Materials

Inb. Seal Faces:	(SiC)/(SiC)
Outb. Seal Faces:	(SiC)/(SiC)
Elastomers:	Viton®
Metal Parts:	316S.S

(_) refers to shrink-fitted

PARTS

1 Gland Packing Chamber
2 Mounting Studs
3 Impeller

A Spacer Sleeve O-ring
B Spacer Sleeve O-ring
C Spacer Sleeve
D Spacer Sleeve O-ring
E Inb. Rotary O-ring
F Inb. Rotary Holder
G Inb. Rotary Face
H Inb. Stationary Face
I Inb. Stationary Holder
J Seal Plate O-ring
K Seal Plate O-ring
L Seal Plate
M Seal Plate O-ring
N Flush Plug / Port
O Seal Thrust Ring
P Outb. Stationary O-ring
Q Outb. Stationary Holder
R Drive Screw
S Multi-Springs
T Outb. Stationary Face
U Outb. Rotary Face
V Outb. Rotary Holder
W Outb. Rotary O-ring
X Drive Collar
Y Set Screws

Note: Drive collar configuration differs between sizes to accomodate OEM installation lengths

EQUIVALENT

Sulzer TB2P
Safeseal SE2 / SE2-AP
LP-D-S32-D20

INSTALLATION & OPERATION

Operation:
HSE2 is a double-acting mechanical seal. It requires seal water for operation. The sliding faces get their lubrication from seal water.

Note! Do not run the seal without seal water. Regulate the seal water flow to 0.5 - 3 L/min. Outcoming seal water temperature should not exceed 60°C. If the seal requires more cooling, increase the flow. Regulate the seal water pressure 2 bars (30 psi) higher than the product pressure to be sealed.

Installation:
1. With the shaft removed, slide the outboard rotary and drive collar (parts U - Y) onto the shaft up against the shaft shoulder and tighten the set screws (Y).
2. Slide the stationary assembly (parts H - T) onto the shaft.
3. Slide the inboard rotary and spacer sleeve assembly (parts A - G) onto the shaft.
4. Make sure the pipe connections are accessible
5. Install the complete shaft assembly onto the mounting studs (2) on the rear of the standard gland packing chamber casing cover (1) and bolt.
6. Tighten with the impeller (3)
7. Install the seal water connections.