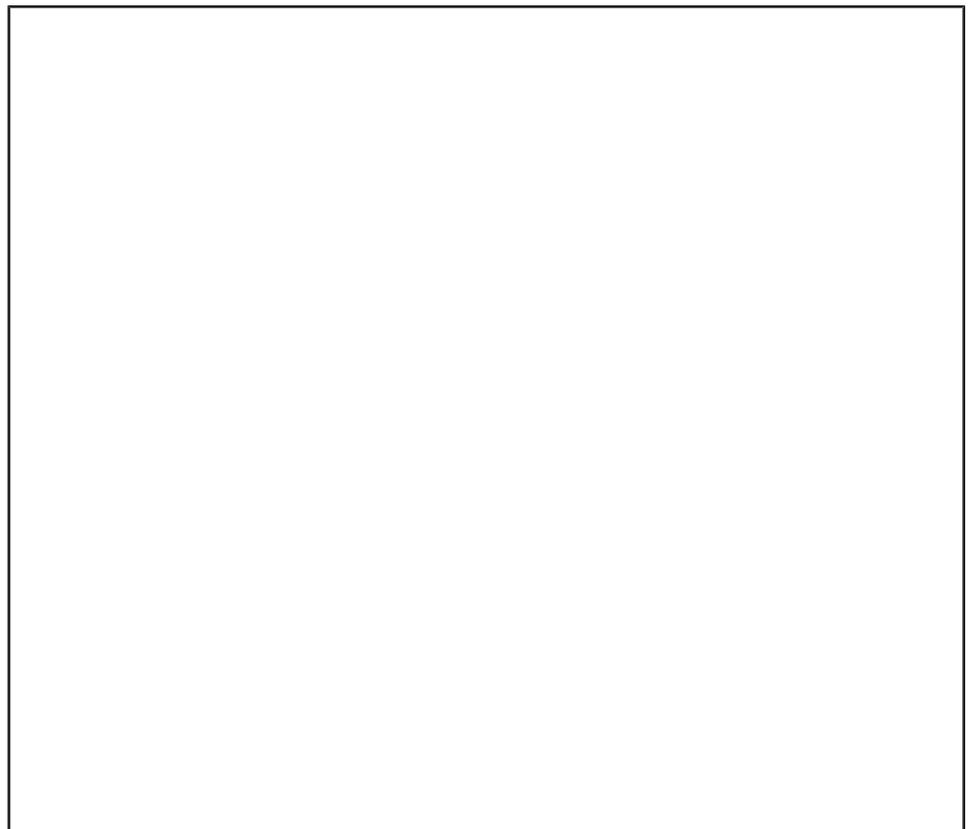


Permanent Flushing System for Cartridge Seals

Supplementary Operating Manual



Legal information/Copyright

Supplementary Operating Manual Permanent Flushing System for Cartridge Seals

Original operating manual

All rights reserved. The contents provided herein must neither be distributed, copied, reproduced, edited or processed for any other purpose, nor otherwise transmitted, published or made available to a third party without the manufacturer's express written consent.

Subject to technical modification without prior notice.

© KSB SE & Co. KGaA, Frankenthal 25/01/2018

Contents

1	Supplementary Operating Manual	4
1.1	General.....	4
1.2	Technical data.....	4
1.3	Function	4
1.4	Properties of the flushing fluid	4
1.5	Connecting the permanent flushing system.....	5
1.6	Starting up the permanent flushing system	5

1 Supplementary Operating Manual

1.1 General

This supplementary operating manual accompanies the installation/operating manual. All information contained in the installation/operating manual must be observed.

Table 1: Relevant operating manuals

Type series	Reference number of the operating/installation manual
KWP	2361.8 2361.81

1.2 Technical data

Bearing bracket	Mechanical seal	Installation drawing	Connection	Flushing parameters	
				Flow rate [l/min]	Inlet pressure [bar]
P12sx	4K-120MF	UG1136163	R 3/4	4	3-4
P16sx	4KF-160	-	-	-	-
P20sx/ Version 10	4KF-200	UG1079620	R 3/4	10	3-4
P20sx/ Version 11	4KF-253	UG1363058	R 3/4	10	3-4

1.3 Function

If the pumped fluid contains an elevated amount of oxidation air, the mechanical seal requires the shaft seal chamber to be permanently flushed in order to function correctly.

A suitable external flushing liquid is supplied via four connections equally distributed around the circumference. Each connection is supplied from a common supply manifold via its own feed line.

The flushing pipework is installed at the factory.

1.4 Properties of the flushing fluid

The flushing liquid used must meet the following criteria:

- Clean process water
- Maximum solids size: 50 µm

1.5 Connecting the permanent flushing system

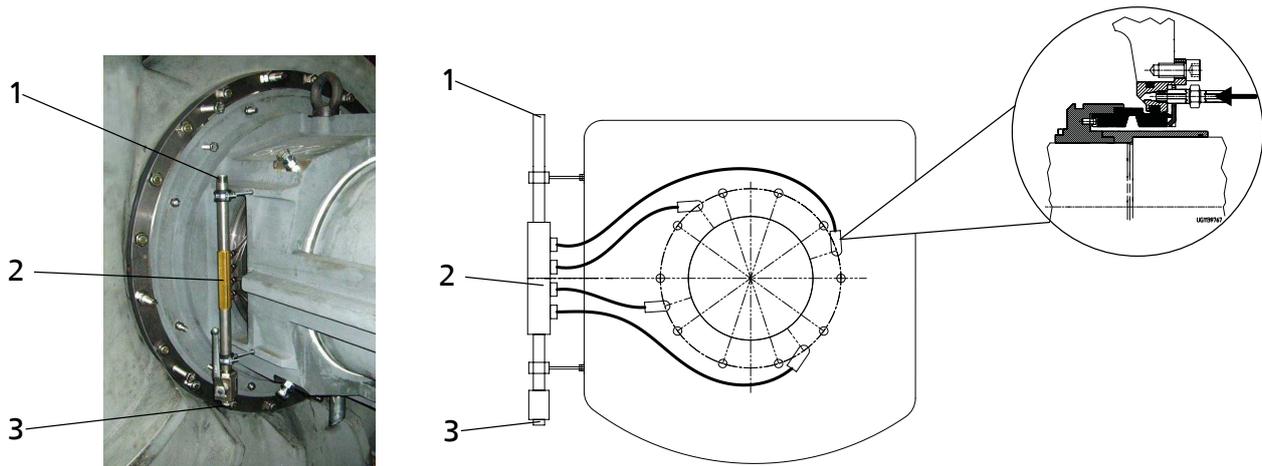


Fig. 1: Connecting the flushing pipework

1	Flushing liquid inlet (R3/4)	2	Manifold
3	Ball valve		

A supply pipe must be permanently connected to the R3/4 flushing liquid connection at the site.

Fitting a shut-off element upstream of the flushing liquid inlet is recommended for pressure regulation.

Fitting an upstream needle valve is recommended for flow rate regulation.

1.6 Starting up the permanent flushing system

	CAUTION
	<p>Incorrect start-up sequence Dry running of the mechanical seal!</p> <ul style="list-style-type: none"> ▸ Start up the flushing system first. As soon as liquid enters the shaft seal chamber, start up the pump set.

- ✓ The ball valve at the bottom end of the manifold is closed.
 1. Open the shut-off valve.
 2. Open the needle valve and adjust the flow rate as required.



KSB SE & Co. KGaA

Johann-Klein-Straße 9 • 67227 Frankenthal (Germany)

Tel. +49 6233 86-0

www.ksb.com