RELY ON EXCELLENCE

NonFlow Supply System

Seal Supply Systems | Closed loop systems

Features

With the new NonFlow seal supply system it is possible to supply barrier fluid to double and tandem mechanical seals for a broad range of applications. NonFlow systems are equipped as standard with all the necessary system connections and brackets. The system allows for multiple additional components for remote monitoring such as seal temperature monitoring with PT-100 sensors, pressure measurement and leakage detection by flow monitoring.

Functional description

The NonFlow system performs all the basic functions of a barrier system for the operation of non-flow capable double and tandem seals:

- Pressurization of the seal barrier chamber via the barrier water supply line
- Leakage compensation
- Compensates pressure variations in the barrier water supply line
- Cools the seal (cooling loop version)
- Prevents dry running by ensuring sufficient barrier pressure, possibility of accidental pressure drop minimized

Advantages

- Eliminates barrier fluid costs and maintains a steady buffer water pressure
- Pressure fluctuations in the seal water line are compensated by the pressure accumulator
- The accumulator can keep the seal pressurized for days even if the supply water line is lost (e.g.in case of power blackout)
- One system, all the needed functionality
- Not as demanding about barrier fluid quality since the system has no small orifices that can be clogged
- No water flow to introduce harmful solids into the system or mechanical seal
- With an NonFlow-system no other auxiliary equipment is required. (No need for flow meters, valves etc.to adjust pressure/flow)
- Better running conditions for the seal, with additional cost benefits!

Recommended applications

- Pulp and paper industry
- Chemical industry
- Food and beverage industry
- Water and waste water technology
- Mining industry
- Sugar industry
- Eccentric screw pumps

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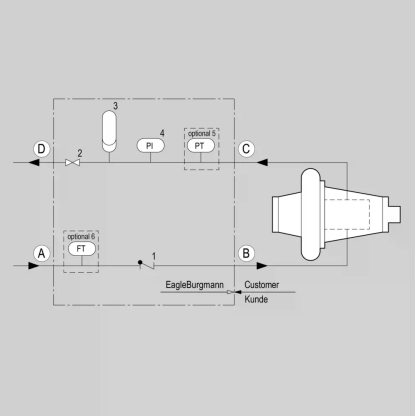
All technical specifications are based on extensive tests and our many years of experience. The diversity of possible applications means, however, that they can serve only as guide values.
We must be notified of the exact conditions of application before we can provide any guarantee for a specific case. Subject to change.

Installation, details, options



1 – Check-valve
2 – Shut-off valve
3 – Bladder accumulator
4 – Pressure gauge
5 – Pressure transmitter (optional)
6 – Flow transmitter (optional)

A – Barrier water supply line
B – To mechanical seal
C – From mechanical seal
D – Vent and drain

Operating and installation diagram for a NF-GO system

The NF-GO vessel should always be installed higher than the mechanical seal. Connection pipes to the seal should be designed with as little resistance as possible. The pressure of the barrier fluid must always be at least 2 bar above the process fluid pressure (max. 10 bar). The NF system is pressurized from the seal water line. In case of > 9 bar seal water line, a pressure reducing valve should be used at the barrier water inlet (1.)

Bolt the NF-GO system next to the device with the bracket / on stand next to the device.

Assemble all water tubes into the NF-GO system according to the GA drawing. To vent the mechanical seal / NF-GO system let the barrier fluid flow through the shutoff valve.

When starting up the device let the barrier fluid go through the mechanical seal until the temperature of the device is stabilized.

Close the barrier water outlet connection (shut-off valve).

If the temperature at the atmospheric side face housing or stationary seat rises above 110 °C, the outlet connection must be opened and the water amount must be adjusted so that the temperature of the barrier fluid does not exceed 60 °C.

When re-starting the device, open the outlet water connection and let the barrier fluid flow through the mechanical seal to ensure thorough venting.

Standard Version	NF-GO/ M144	
Standard incl. Pressure Sensor	NF-GO/ M047	

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Standard Version	NF-GO/ M144	
Seal Supply System incl. H-Piping & Floor Stand	NF3	CARTEX Seals

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