

SBF54

Description

- Barrier pressure units of the SBF range perform all the functions of a barrier system essential for operating double seals (circulation and cooling of the barrier medium, pressurization of the barrier fluid and compensation of leakage).
- The SBF range is available in 3 basic versions:
 - SBF1000: tank capacity 40 l, flow rate 6 l/min.
 - SBF2000: tank capacity 100 l, flow rate 12 l/min.
 - SBF3000: tank capacity 100 l, flow rate 23 l/min.
- The three BFS ranges are designed for hydraulic oil with viscosity values of 12 to 90 mm²/s at operating temperature (tank temperature). The optimum viscosity of the class of the oil to be used has to be determined separately in accordance with the respective application.

Technical Features

- Automatic relief valve for reducing barrier fluid pressure at standstill
- Barrier fluid directed through oil cooler
- Reversible double filter (SBF1000: single filter)
- Level switch with contact for MIN level
- Manual control of barrier fluid pressure
- Measuring instrument connections suitable for fitting contact switching devices (NG160)
- Max. operating temperature in the tank 80°C (return line max. 90°C)
- Provision of an additional pressure connection for monitoring the pump discharge pressure (outside the circuit)
- Temperature monitoring with a return line and tank thermometer

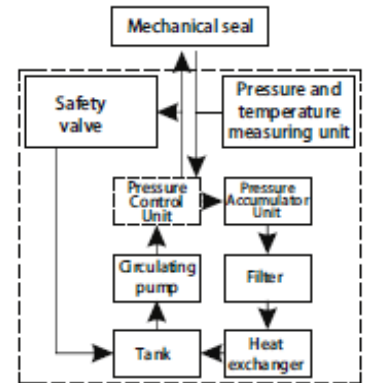
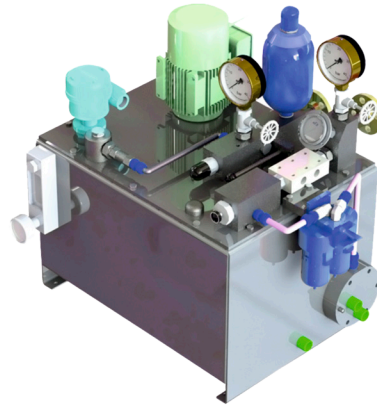
Functional description

- The barrier pressure for circulation is generated by a gear pump. The setpoint barrier pressure is set on an overflow valve in the mechanical seal return line. From this point on the barrier fluid flows back without pressure through a filter and a heat exchanger to the storage tank. To enable systems (pump, agitator) to be stopped without causing damage to the seal in the event of a malfunction (e.g. power failure, damaged motor, etc.), the barrier pressure unit can be fitted with a pressure accumulator unit. To prevent the pressure in the accumulator discharging to the pressureless storage tank, the return line has a pilot-operated check valve, and the supply line also has a simple check valve. The barrier pressure is retained for a limited time.
- However, no circulation takes place and no heat is dissipated from the mechanical seal.

Industrial Applications

-  Chemical industry
-  Refining technology
-  Oil and gas industry
-  Petrochemical industry

Installation, Details, Options



Installation and operating diagram for a SBF system.

Product Variants

Version, Designation	Nominal pressure max. Barrier pressure	Flow rate (l/min)	Cooling capacity (kW) with hydraulic oil $\Delta t = 10K$	Tank		Dimensions overall (mm)			Net weight approx.	Motor data Nominal power (kW)
				Nominal capacity (liters)	Circulation volume (liters)	Height	Width	Depth		
BFS 1040	40 bar (580 PSI)	6	1.8	40	12	650	610	380	125	1
BFS 1090	90 bar (1,305 PSI)	6	1.8	40	12	650	610	380	125	2
BFS 2050	50 bar (725 PSI)	12	3.6	100	20	750	800	555	140	2
BFS 2120	120 bar (1,740 PSI)	12	3.6	100	20	750	800	555	140	3.6
BFS 3120	120 bar (1,740 PSI)	23	6.9	100	20	750	800	555	140	6.8

BFS4000 versions for water and other media available as an option