



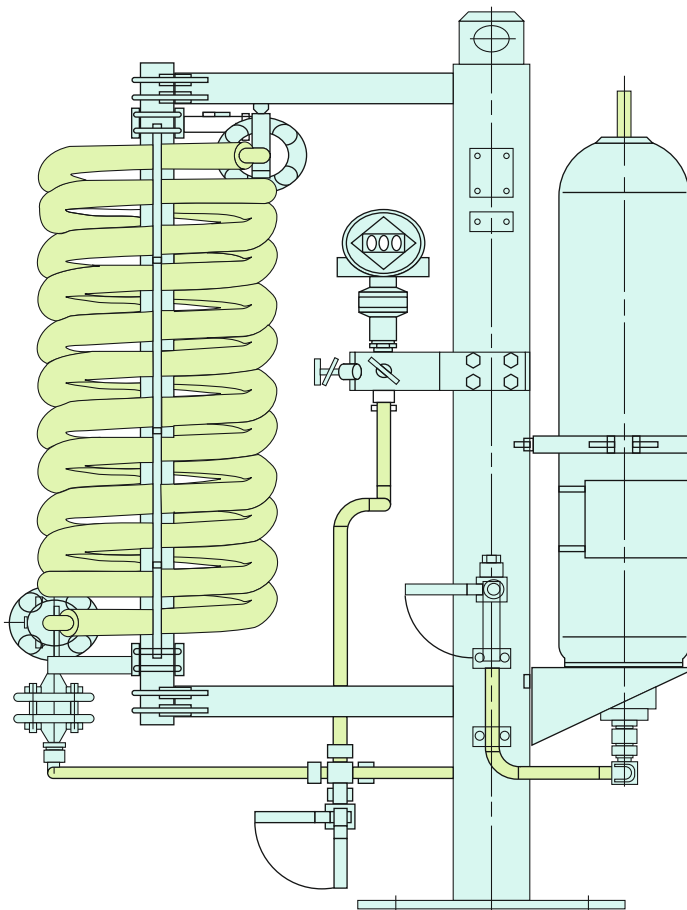
### Product Description

Circulation in accordance with API 682 / ISO 21049: Plan 53B

Pressurised barrier system (closed circuit) is employed for applications in sealing systems with operating parameters of high pressures and/or for hazardous/environmentally harmful processes. The BFS (Plan 53B) range is available with a pressure accumulator, cooler (finned tube or water or air cooler with fan) with a wide range of instruments.

### Technical Features

1. Design construction available with finned tube, water or air coolers with fan
2. Barrier pressure is created without any need for connection to a nitrogen supply
3. Modular design combination available with a wide variety of system components and instruments selection possible
4. Pressurisation is achieved through a pre-loaded bladder accumulator
5. Nitrogen cannot get into the barrier medium or process medium, because it is separated from the barrier medium by membranes in the accumulator



### Typical Industrial Applications

Chemical industry  
Oil and gas industry  
Petrochemical industry  
Refining technology

### Functional Description

The BFS is designed to perform the following functions of a barrier system:

- to pressurize the barrier chamber
- leakage compensation
- to cool the seal

Pressurization (> process pressure) prevents the process medium from getting into the barrier circuit or the atmosphere. Pressurization is supplied by a pressure accumulator which is pre-loaded with nitrogen. Circulation in the barrier circuit takes place by the thermosiphon principle or by forced circulation, e.g. with a pumping screw.

### Standards

PED 2014/68/EU (Design and production in accordance with EU Pressure Equipment Directive)  
ASME VIII, Div. 1 (Design, calculation and production)

### Installation, Details, Options

**Operating and installation diagram for a BFS (Plan 53B).**

- A From mechanical seal
- B To mechanical seal
- C Fill
- F Drain
- G Vent
- H N2 Precharge

