

RELY ON EXCELLENCE

SPN Automatic

Seal Supply Systems | Automatic refill units

Features

The SPN is an automatic refill unit for barrier fluid pressurization in seal circuits. Pressurization by pneumatic or electric power, or a combination of both. The refill unit tank is designed for pressureless operation and is equipped with a level switch and a sight-glass. The refill unit has all pipework as far as the distributor unit. Separate components are installed in the seal circuit to cool and to circulate the barrier medium.

Functional description

SPN automatic refill units differ from an SPA in that they perform just two of the four basic functions of a barrier fluid system, namely barrier fluid pressurization and leakage compensation. It is possible to use a piston pump with either electric or pneumatic power for pressurization of the barrier medium. Should all the pumps fail, the pressure will be maintained in the refill unit for a limited time to ensure that pressurization of the barrier fluid circuit is maintained. How long the pressure is maintained will depend on the storage volume and the leakage losses to be compensated.

Installation, details, options

Operating and installation diagram for an automatic refill unit.

Product variants

Other variants

The SPN automatic refill unit can be supplied with a wide range of system components and engineered systems to meet specific customer requirements. Example: SPN060-E002-D1.

Advantages

- Reliable mode of operation: should the pump be switched off, the barrier fluid pressure will be maintained for a limited time by an integrated accumulator
- Membrane accumulator acts as a pulsation damper / barrier fluid storage tank
- SPN3000: maintains constant barrier pressure irrespective of hysteresis-induced pressure fluctuations of the pressure switch

Operating range

The SPN range is available in 2 basic versions:

SPN1000: Vessel capacity 20 or 40 liters

SPN3000: Vessel capacity 40, 60 or 200 liters

Barrier fluid pressure regulation for the SPN1000 via pressure switch to the pump control.

The SPN3000 is equipped with a pressure regulator for maintaining a constant barrier pressure level.

Materials

Parts in contact with the medium are made of stainless steel. Secondary seals and elastomers are resistant to water, demineralized water and hydraulic oil.

Recommended applications

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