Sondex “Dual-unit” maintenance system

Easy maintenance without operational compromise

Sondex cooling systems have 3 main requirements:

- effective heat transfer, combined with
- operational lifetime
- and serviceability

All of which have been carefully addressed by Sondex’s new “Dual-cooling” oil maintenance system. By means of engineering two skid mounted plate heat exchangers and co-joining them through a system of 3-way valves and a balancing arrangement, Sondex has engineered a trouble-free and operational assured total oil cooling package.

Each heat exchanger in the system operates at 100% of the cooling duty with a 100% duty plate heat exchanger on immediate stand-by. When fouling or heat transfer is impeded and the system pressure drop increases, performance is lost and critical temperatures can be exceeded, but with the Sondex “Dual-cooling system” simply activates the 3-way valve and the stand-by unit is swung into operation. This allows uninterrupted operation of the plant & equipment and immediate servicing of the fouled exchanger can be initiated.

Cooling – uninterrupted operation – without compromise
Sondex “Dual-unit” maintenance system

Function of the 3-way valve

The figure to the right is showing the flow pattern which can be achieved by changing the position of the 3-way valves on the Dual Unit.

The connection of your piping is made in the centre of the units: this will provide you with the possibility to divert the fluids into PHE 1 or PHE 2.

Changing the position of the 3-way valve is made manually.

The flow pattern is shown at the blue line through all the elements mentioned.

Design:

1. Plate Heat Exchanger
   - Plate material AISI 304 (1.4301), AISI316 (1.4401), Titanium, SMO254, 904L
   - Also plates in SONDER SAFE design (double plates) or with Semi-welded design.
   - Gasket material, all types in SONDER LOCK or HANG ON – glueless.
   - Connection size DN50 - DN200, according to all known standards.
   - Working pressure up to 25 bar, working temperatures up to 170° C.
   - Colour, blue RAL 5010, SONDEX standard or according to customer specification.

2. Skid base
   - Carbon steel, standard design hot galvanized or customer specified colour.
   - With lifting holes.

3. Three-way valve
   - Jackets of St.52.3 painted in Sondex standard blue RAL 5010 or customer specified colour.
   - Valve ball of high-alloy steel AISI 316L/gasket PTFE
   - With pressure relief valve.
   - Manual operation or special design with complete automation.