



ENVIRONMENTAL TECHNOLOGY

SWC™ CONDENSATE SYSTEMS FOR DOUBLE SEALS



FEATURES

BENEFITS

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| FLUID LEVEL AND PRESSURE MAINTAINED BY PUMP DISCHARGE | • ELIMINATES THE NEED FOR AN EXTERNAL WATER AND/OR PRESSURE SOURCE |
| COOLS USING THE THERMOSYPHON EFFECT | • ELIMINATES THE NEED FOR A PUMPING RING |
| FINNED TUBING FITTED AS STANDARD | • ENHANCES SURFACE AREA FOR ADDITIONAL HEAT DUMP |
| DOES NOT REQUIRE USE OF AN ADDITIONAL COOLER OR COOLING COIL | • REMOVES CLOGGING ISSUES AND DELIVERS SIGNIFICANT MONEY SAVINGS THROUGH A REDUCTION IN THE USE OF COOLING WATER |
| THERMAL RELIEF VALVE AS STANDARD | • PROTECTS AGAINST AN INCREASE IN THE BULK TEMPERATURE OF THE SYSTEM |





Industrial condensate applications are amongst the most difficult to seal. AESSEAL's experience has shown that the use of API Plan 21 and Plan 23 piping arrangements on these applications can present specific problems, including clogging issues and the significant waste of cooling water when using heat exchangers or cooling coils. In response to this AESSEAL® has developed the SWC™ Condensate System Range which utilises our patented Water Management Technology with a unique piping arrangement. This piping arrangement uses an API Plan 11 feed from the pump discharge to maintain barrier fluid level and pressure in an API Plan 53A Thermosyphon System (Figure 1). The API Plan 11 feed cools down once it reaches the vessel and is carried to and from the mechanical seal via the Thermosyphon effect. This negates the need for a pumping ring within the mechanical seal. A thermal relief valve protects against any potential overheating of the system (please note that the operating pressure of the SWC™ must be stated upon order so that the thermal relief valve can be factory pre-set). The SWC™ greatly increases the expected life of the mechanical seal, removes clogging issues and eliminates the waste of cooling water.

SWC™ RANGE

SWC-12™



Reservoir

- Temperature limit: 100°C / 212°F
- Pressure limit: 16 bar / 230 psi
- Finish: 304 Stainless Steel, with glass bead blast finish
- Capacity: 12 liter / 3.17 gal (US) nominal
- Connections: 1/2" NPT (F) for seal feed and return tubing
- 304 SS Weld Pad Level Gauge
- Designed to: ASME VIII Div.1 and certified by TÜV to meet PED requirements

System

- **Finned Tubing:** Cupro-nickel tube with copper fins
- **Thermal relief valve:** Brass as standard (SS option available)
- **Valves:** Discharge feed, fill and drain valves as standard

SWC-25™



Reservoir

- Temperature limit: 100°C / 212°F
- Pressure limit: 16 bar / 230 psi
- Finish: 304 Stainless Steel, with glass bead blast finish
- Capacity: 25 liter / 6.60 gal (US) nominal
- Connections: 1/2" NPT (F) for seal feed and return tubing
- 304 SS Weld Pad Level Gauge
- Designed to: ASME VIII Div.1 and certified by TÜV to meet PED requirements

System

- **Finned Tubing:** Cupro-nickel tube with copper fins
- **Thermal relief valve:** Brass as standard (SS option available)
- **Valves:** Discharge feed, fill and drain valves as standard

SWC-15™

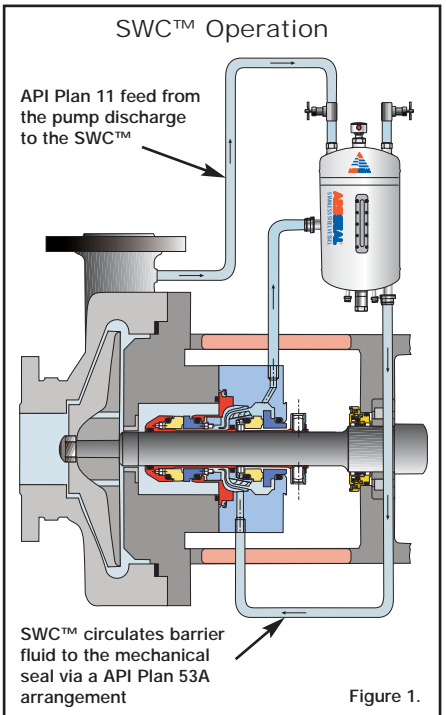


Reservoir

- Temperature limit: 200°C / 392°F
- Pressure limit: 30 bar / 435 psi
- Finish: 316 Stainless Steel, with glass bead blast finish
- Capacity: 15 liter / 3.96 gal (US) nominal
- Connections: 1/2" NPT (F) for seal feed and return tubing
- 316 SS Weld Pad Level Gauge
- Designed to: ASME VIII Div.1 and AD Merkblatter 2000, certified by TÜV to meet PED requirements

System

- **Finned Tubing:** Cupro-nickel tube with copper fins
- **Thermal relief valve:** 316 SS construction
- **Valves:** Discharge feed, fill and drain valves as standard



BARRIER & BUFFER FLUID SYSTEMS FOR USE WITH DOUBLE MECHANICAL SEALS

AESSEAL® supplies an extensive range of barrier and buffer fluid systems for use with double mechanical seals. Wherever possible AESSEAL® prefers to supply both the seal and the system. In addition the company will suggest suitable barrier or buffer fluids for most applications, based on extensive field experience.

AESSEAL® accepts no responsibility for any problems associated with system design, installation, operation, or the use of an unsuitable barrier or buffer fluid, where the fluid, seal or any part of the system have not been specified and/or supplied by AESSEAL®.

THIS DOCUMENT IS DESIGNED TO PROVIDE DIMENSIONAL INFORMATION AND AN INDICATION OF AVAILABILITY. FOR FURTHER INFORMATION AND SAFE OPERATING LIMITS CONTACT OUR TECHNICAL SPECIALISTS AT THE LOCATIONS BELOW.



USE DOUBLE MECHANICAL SEALS WITH HAZARDOUS PRODUCTS. ALWAYS TAKE SAFETY PRECAUTIONS:

- GUARD YOUR EQUIPMENT
- WEAR PROTECTIVE CLOTHING



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