

# SW Range™

## Water Management Systems



### Features

- 304 SS vessel construction
- Water regulator
- Flow indicator
- Supplied as complete system
- Non-return valve

### Benefits

- Suitable for a range of challenging environments
- Maintains vessel water level and pressure
- Visually alerts the user of an inboard seal failure
- The SW Range has all the components required for fast and easy installation
- Protects plant water supply from contamination and maintains vessel pressure in the event of supply interruption



## SW Range

The AESSEAL® SSE10™ and SSE25™ vessels are used as the core of a modular Water Management System Range (SW2™ & SW3™). The environmentally friendly SW Range have significantly contributed to the global drive for water conservation. AESSEAL® Water Management Technology can save 6.3 Million litres / 1.7 Million US gallons of water per pump per year! The Water Management Range starts with the SW2™, which is piped as an API Plan 53A configuration (see Figure 1). This is a self regulating system which can both refill and re-pressurise itself upon any mechanical seal upsets. The SW3™ is piped in the same way as the SW2™ and has the addition of finned tubing to deal with high heat applications. All vessels are designed and manufactured in accordance with ASME VIII Div.1 and all SW systems comply with Pressure Equipment Directive PED (97/23/EC)

## SW Range Operating Principle

(SW2™ shown below)

The SW2™ is connected to the plant water line. Water enters the SW2™ through the non-return valve. The water supply regulator is used to set the barrier fluid pressure. (please note that the SW2™ System can only regulate the water pressure available in the plant water line)

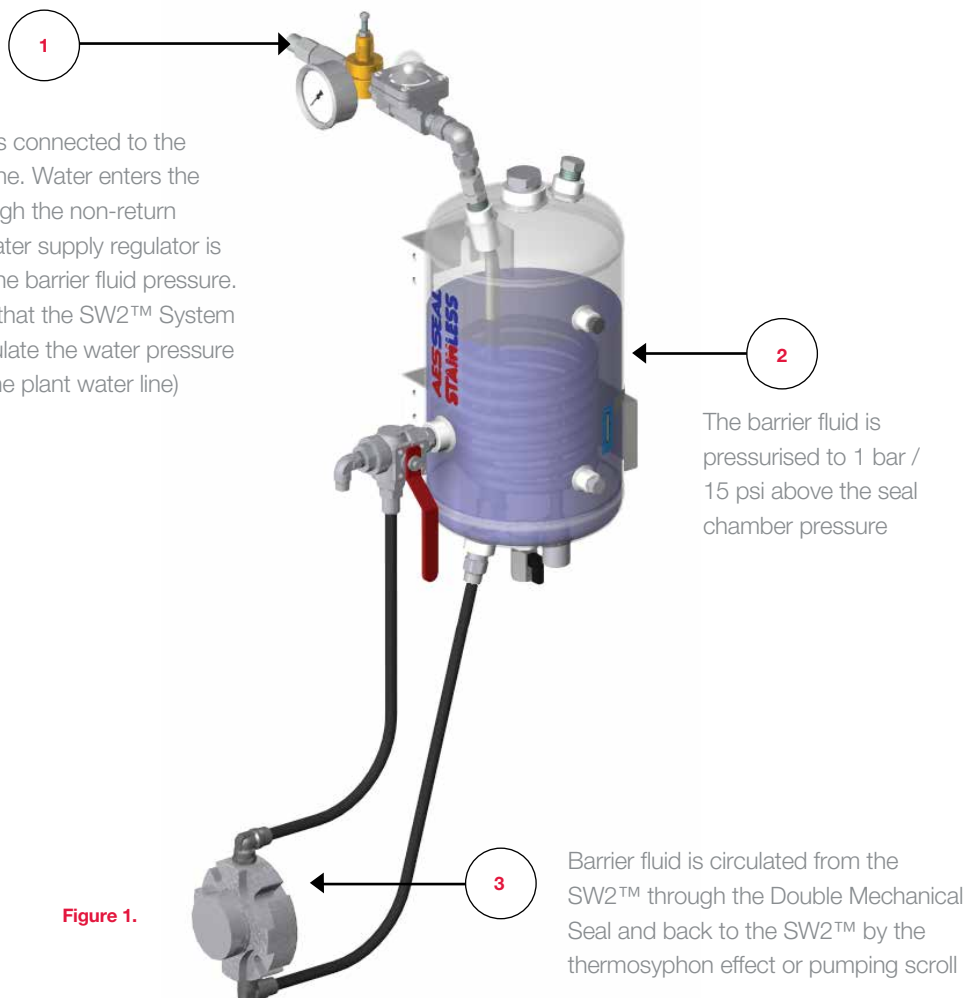


Figure 1.



## Specifications

### System Specification:

**Maximum Set Pressure:** 6 Barg / 87 psig\*

**Maximum Design Pressure:** 10 barg / 145 psig

**Minimum Working Pressure:** 1 barg / 15 psig

**Maximum Temperature:** 80°C / 176°F (with suitably rated piping / hosing)

**Minimum Temperature:** 0°C / 32°F\*\*

\* 8 Barg can be achieved with optional expansion vessel

\*\* Protection against freezing required for water below 0°C

### Vessel

**Construction:** 304 Stainless Steel

**Capacity:** 10 litres / 2.64 gal (US) Or 25 litres / 6.60 gal

**Connections:** 1/2" NPT for seal feed and return hoses

**Finish:** Glass bead blast

**Designed to:** ASME VIII Div.1



### SW Range System Components:

**Non-Return Valve:** Stainless Steel

**Water Supply Regulator:** Brass, max outlet pressure 10 bar / 150 psi (Stainless Steel option available)

**Pressure Gauge:** Brass (Stainless Steel option available)

**Flow Indicator:** Stainless Steel

**Ball Valve (Drain):** Nickel plated brass

**12mm (1/2") Hose Kit (SW2™ Only):** Nylon

**3-way valve (SW2™ Only):** Nickel plated brass (Stainless Steel option available)

**Finned Tubing (SW3™ Only):** Cupro Nickel

### Optional Extras:

**Cooling Coil**

**Finned Tubing:** Cupro Nickel

**Pressure Switch:** Safe area, explosion proof and intrinsically Safe options

**Level Switch:** Safe area, explosion proof and intrinsically Safe options

**Stainless Steel Braided flexible hose**

**Hard pipe kit**

**In-line Water Filter:** UV stabilized material, 8 bar / 120 psi max pressure (we strongly recommend the use of an in-line filter with the SW range)

**Expansion Vessel:** Stainless steel, used for higher set pressures

## The SW Range is commonly used with the following seals:



DMSF™



CDSA™

### 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®.

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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:

**WARNING**

- Guard your equipment
- Wear protective clothing

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