

# SWFF-TF™

## Water Management System with Flow Fuse™ and Thermal Fuse™



### Features

- Flow sensing shut off valve
- Water regulator
- Automatic reset facility
- Thermal relief valve

### Benefits

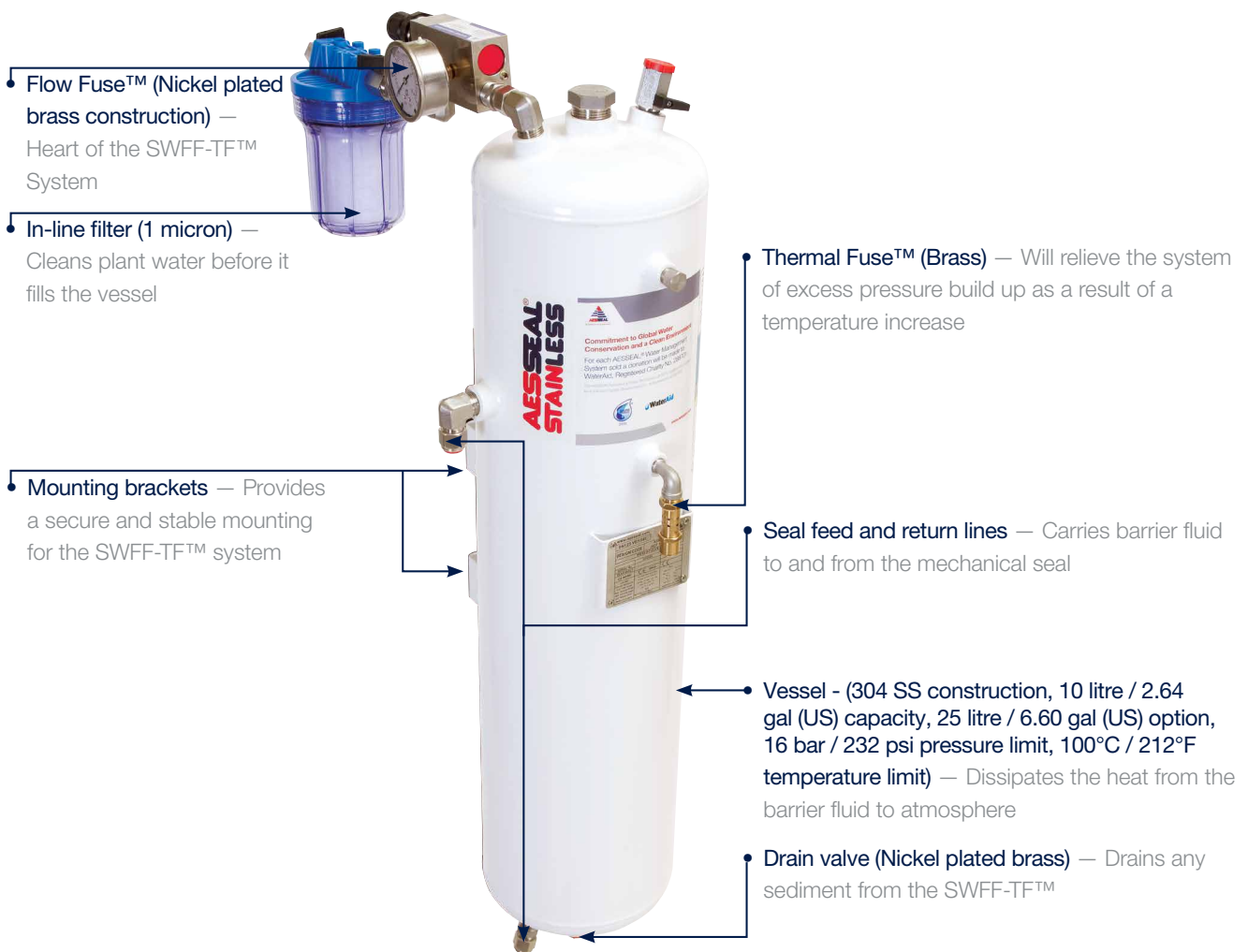
- Protects the process from barrier fluid contamination upon catastrophic seal failure
- Maintains water level and pressure, which reduces due to normal seal operation
- Protects the mechanical seal from running dry during process up-sets
- Maintains systems pre-set pressure by accommodating any thermal expansion



## The intelligent SWFF-TF™ system incorporates the Flow Fuse™ and Thermal Fuse™ products:

The Flow Fuse™ is designed to restrict barrier fluid contamination of the process upon momentary or permanent seal failure. The Flow Fuse™ does this by shutting off the plant water supply when it detects an abnormally high flow of water. The Flow Fuse™ product has two operating functions. These are manual-reset and auto-reset. In manual-reset the Flow Fuse™ will completely shut off the plant water supply upon the detection of seal failure and the only way to reset the Flow Fuse™ is manually. This mode is most suited to applications where barrier fluid contamination of the process cannot be tolerated. In auto-reset mode, upon seal failure the Flow Fuse™ will shut off the plant water supply but allow a small volume of water to continue to pass through. If the seal failure is momentary (e.g. temporary parting of the seal faces) the Flow Fuse™ will automatically reset itself to the original operating pressures once the seal failure has been resolved.

**The Thermal Fuse™ is a pressure relief valve designed to relieve the system of pressure build up as a result of a temperature increase.**



Charity registration number 288701

**WaterAid - water for life** - The international NGO dedicated exclusively to the provision of safe domestic water, sanitation and hygiene education to the world's poorest people. Commitment to Global Water Conservation and a Clean Environment AESSEAL® is delighted to support WaterAid's vision of a world where everyone has access to safe water and sanitation.

[www.wateraid.org](http://www.wateraid.org)



## 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
- Connections:** 1/2" NPT for seal feed and return hoses
- Finish:** White powder coat or satin bead blast
- Designed to:** ASME VIII Div.1 and certified by TÜV to cover PED requirements

\* Depending on components fitted this may be lower contact AESSEAL® for advise

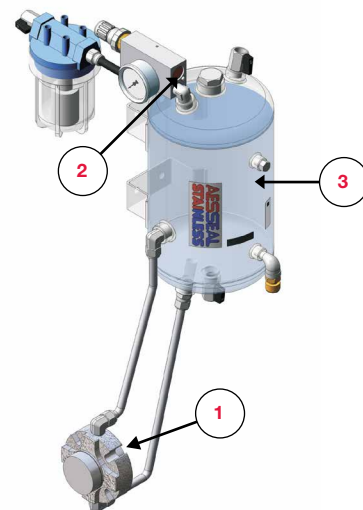
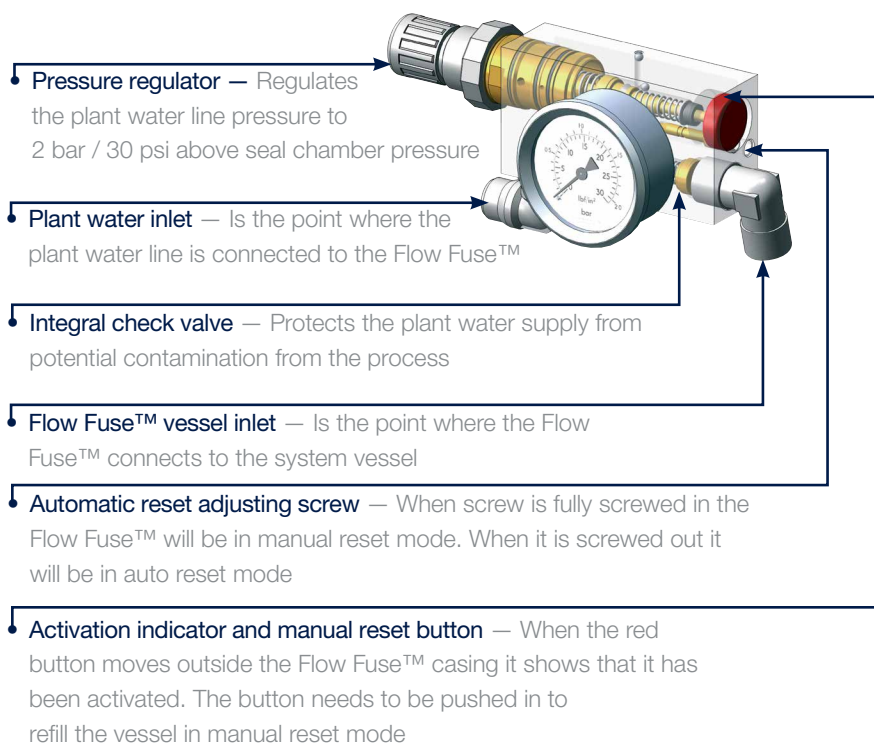
### SWFF-TF™ Components:

- Flow Fuse™:** Nickel plated brass construction, 10 bar / 150 psi maximum pressure
- Thermal Fuse™:** Brass construction
- In-line Filter:** 1 micron, UV stabilized material, 8 bar / 120 psi maximum pressure

### Optional Extras:

- Cooling Coil**
- Finned Tubing**
- Pressure Switch:** Safe Area, Intrinsically Safe and Explosion Proof options
- Level Switch:** Safe Area, Intrinsically Safe and Explosion Proof options
- SS Braided Flexible Hose**
- SS Hard Pipe**

### Flow Fuse™ Operating Principle



### Flow Fuse™ Activation

1. The seal fails
2. Flow Fuse™ valve triggers, isolating plant water supply
3. Minimal barrier fluid loss, ensuring your process is protected

**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®.

Our purpose is to give our customers such exceptional service that they need never consider alternative sources of supply.

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