

PRODUCT DATA SHEET

Salsnes Fine Screen Filter (SFSF)

water | wastewater | sewage



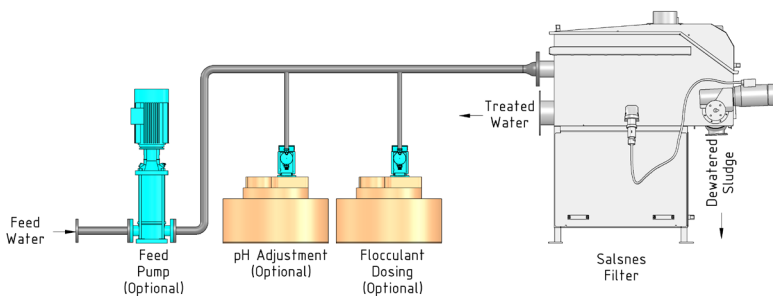
OVERVIEW

The Salsnes Fine Screen Filter (SFSF) provides compact, flexible and cost-effective solids separation for primary wastewater, storm water and industrial applications.

Three critical processes - solids separation, primary sludge thickening and sludge dewatering - are performed in one compact unit that can completely replace conventional primary treatment and does so in a fraction of the footprint - saving costs and valuable land space. It does this by building a filter mat; particles larger than the mesh opening start the process by partially blocking the mesh. This in turn traps smaller and smaller particles building the mat. Solids are gently lifted from the effluent for thickening and then dewatering via the onboard screw press.

The air knife filter mesh cleaning system uses compressed air to clean, which has many benefits compared to scrapers, brushes or water-based cleaning systems. Air is gentler on the mesh (to extend its life) and on particles (so they don't break into smaller pieces). Air cleaning also produces drier sludge for more effective dewatering.

The intelligent onboard controls make this a completely automated system, ideal for remote or unstaffed facilities. A water pressure sensor tells the unit when to rotate the filter mesh (and at what speed), while the PLC simultaneously starts the air knife and sludge screw press.



STANDARD SPECIFICATIONS

| Parameter | | Units | SFSF-1000 | SFSF-2000 | SFSF-4000 | SFSF-6000 |
|-------------------------|----------------------------------------------------|--------------------|---------------------------------------------------------------|-----------------|-----------------|-----------------|
| Performance | Hydraulic capacity (max) | m ³ /hr | 54 | 144 | 288 | 576 |
| | Typical flow for municipal wastewater | m ³ /hr | 31 | 79 | 158 | 394 |
| | Suspended solids (TSS) removal | % | 30 - 80% (design dependent) | | | |
| | Biological oxygen demand (BOD) removal | % | 15 - 40% (design dependent) | | | |
| | Sludge dry matter after thickening | % | 3 ~ 8% | | | |
| | Sludge dry matter after integrated dewatering unit | % | 20 ~ 30% | | | |
| Available mesh sizes | | micron | 54 / 90 / 110 / 154 / 180 / 210 / 250 / 300 / 350 / 540 / 840 | | | |
| Weight & Dimensions | Weight (dry) | kg | 415 | 690 | 1,020 | 1,120 |
| | Length x width x height | m | 1.4 x 1.3 x 1.4 | 2.1 x 1.6 x 1.3 | 2.5 x 2.0 x 1.5 | 2.8 x 2.5 x 1.8 |
| | Inlet diameter (pumped/*gravity fed) | mm | DN 100 / 100 | DN 150 / 200 | DN 200 / 350 | DN 250 / 400 |
| | Outlet diameter | mm | DN150 | DN 250 | DN 350 | DN 400 |
| | Overflow diameter | mm | **N/A | DN 250 | DN 350 | DN 400 |
| | Bottom drain diameter | mm | N/A | DN 100 | | |
| Power | Water connection | mm | 13 BSP | | | 19 BSP |
| | Supply | - | AC 415V, 3 Phase, 50 Hz | | | |
| | Consumption | kW | 3.1 | 4.3 | 5.1 | 6.1 |
| Materials | Filter | kW | 1.8 | 1.8 | 1.8 | 1.8 |
| | Filter & screw press enclosures | - | SS316L | | | |
| | Filter Mesh | - | Polyethylene | | | |
| | Screw press screw | - | Carbon steel | | | |
| Temperature | Control panel | - | SS304 (optional SS316L) | | | |
| | Ambient (min/max) | °C | 0 ~ 40 (-5 ~ 50 with optional control panel air conditioner) | | | |
| | Influent (max) | °C | 80 | | | |
| Control panel IP rating | | IP | 65 (67 with optional control panel air-conditioner) | | | |

*1 Optional Equipment **2 Combined with outlet

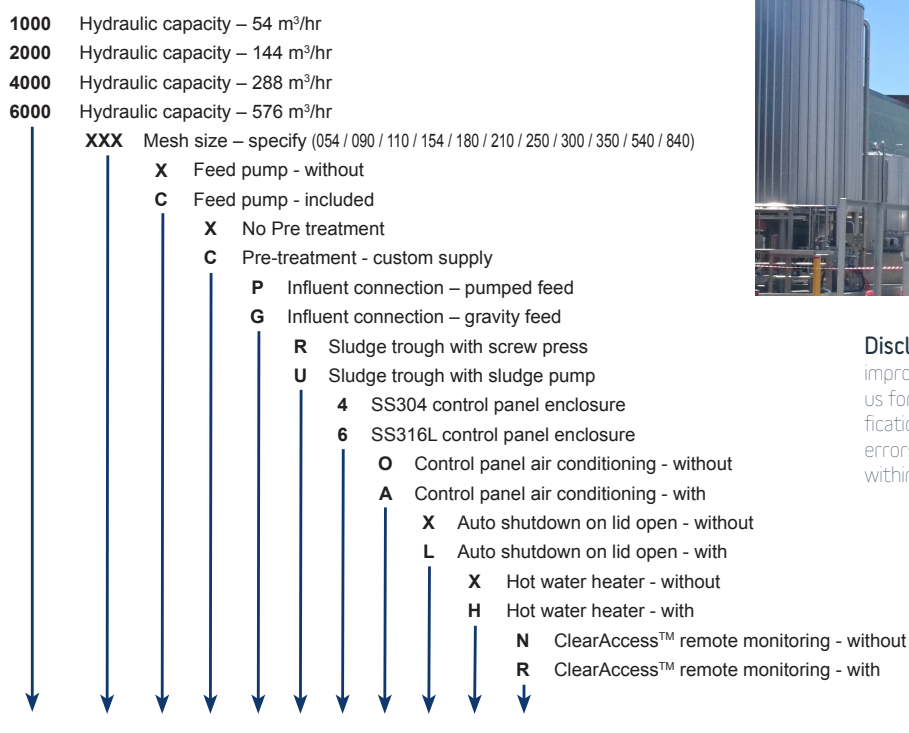
STANDARD INCLUSIONS + OPTIONS

√ = Standard Supply o = Optional Supply - = Not Applicable

| Equipment | | SFSF-1000 | SFSF-2000 | SFSF-4000 | SFSF-6000 |
|--------------------------------------------------------------------------|---------------------------------------------|-----------|-----------|-----------|-----------|
| Enclosed, free standing filter with lockable lids and odour control port | | √ | √ | √ | √ |
| Influent connection | Flanged inlet connection for pumped feed | √ | √ | √ | √ |
| | Open inlet chamber for gravity feed | o | o | o | o |
| Inclined (35°) rotating belt filter | | √ | √ | √ | √ |
| Air knife blower | Integral to filter housing | √ | - | - | - |
| | External to filter housing | - | √ | √ | √ |
| Sludge handling system | Sludge trough with screw press | √ | √ | √ | √ |
| | Sludge trough with sludge pump | o | o | o | o |
| Control panel | PLC (Allen Bradley) | √ | √ | √ | √ |
| | Colour touch screen (Beijer) HMI | √ | √ | √ | √ |
| | Wall mounting lugs | √ | √ | √ | √ |
| | SS304 enclosure | √ | √ | √ | √ |
| | SS316L enclosure | o | o | o | o |
| | Mounting pedestal | o | o | o | o |
| Safety equipment | Enclosure air conditioning | o | o | o | o |
| | Filter & panel mounted E-stops | √ | √ | √ | √ |
| Water flushing connection(s) | Open lid detection for auto shutdown | o | o | o | o |
| | Cold water (basin flushing) | - | √ | √ | √ |
| Hot water (mesh cleaning) | Hot water (mesh cleaning) | √ | √ | √ | √ |
| | | | | | |
| Feed pump | | o | o | o | o |
| Pre-treatment | Flocculation tubes and/or flocculant dosing | o | o | o | o |
| | pH adjustment (caustic and/or acid dosing) | o | o | o | o |
| Hot water flushing heater | | o | o | o | o |
| ClearAccess™ remote monitoring | | o | o | o | o |

| Instrumentation | | SFSF-1000 | SFSF-2000 | SFSF-4000 | SFSF-6000 |
|--------------------------------|-------------------------|-----------|-----------|-----------|-----------|
| Water level sensor | | | | √ | |
| Air knife pressure sensor | | | | √ | |
| VSD | Mesh motor | | | √ | |
| | Screw press auger motor | | | √ | |
| Lid open sensors | | | | o | |
| ClearAccess™ remote monitoring | | | | o | |

MODEL SELECTION



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SAL-PDS-043 | AUG-2018