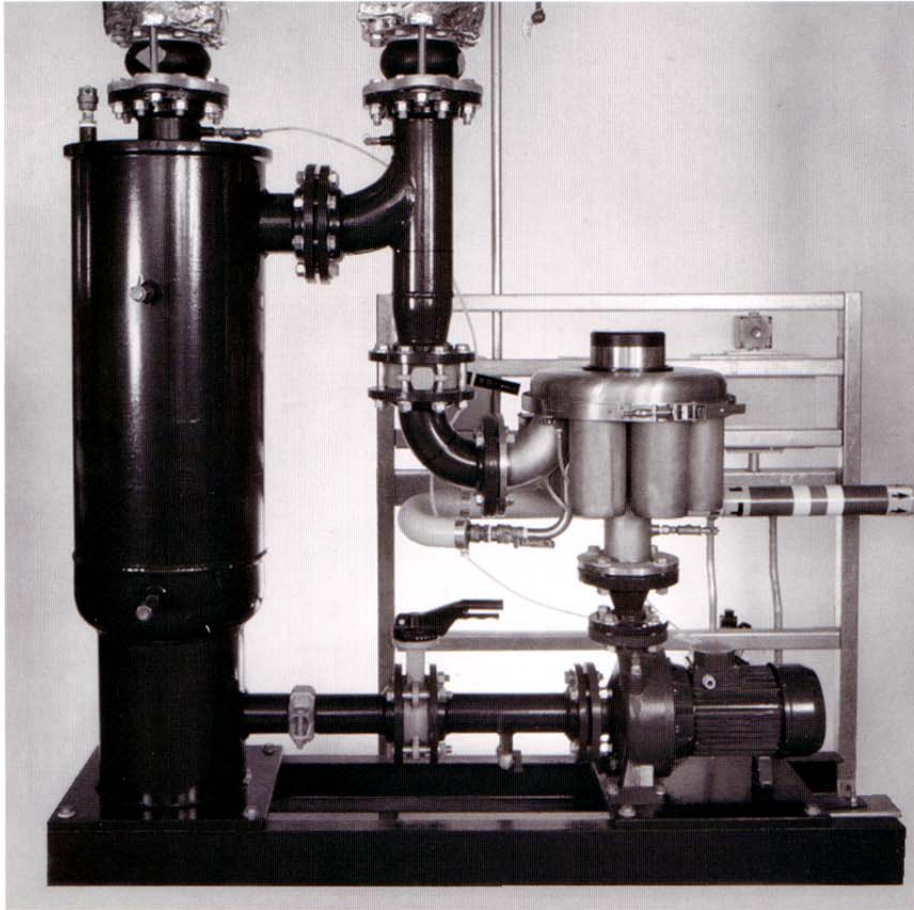




Forced Sedimentation Filtration

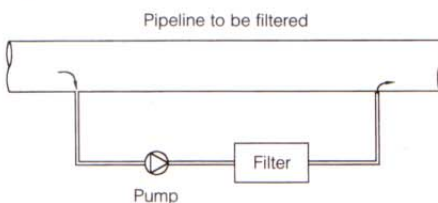
High Performance Liquid Filters



- Efficient side stream filtration
- Economical and rapid sediment removal
- Fully automatic, packaged system
- High dirt removal for low flow filter
- Natural bypass during power loss or maintenance
- Low capital and running costs
- Absolute filtration from 12 to 400 microns
- Open and closed circuit models
- Low maintenance
- 5 year guarantee on filter elements

Why conventional side stream filtration is inefficient

Side stream filtration works by taking a percentage of the flow from the main system pipe, through a small pump and then through a filter back into the system pipe.



The problem with the conventional side stream technique is that the majority of the biggest and most damaging particles in the main system pipe is forced past the side stream inlet and avoids the filter completely.

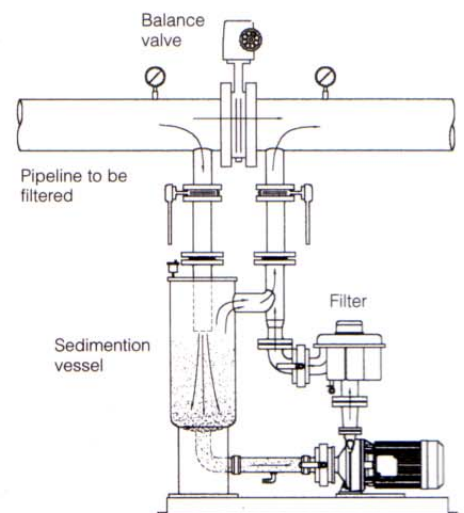
Why Forced Sedimentation works

The Forced Sedimentation Filtration System is designed to lower the velocity of the particles by delivering the flow from a small inlet pipe into a large sedimentation vessel and then forcing it to turn 180° before returning it to the system. As the flow enters the vessel, the momentum is reduced and a high percentage of the particles fall out and collect at the bottom. Here, where the concentration of particles is at its highest, the liquid is automatically pumped through the selected high efficiency, backwashing Cross filter.

Which Forced Sedimentation System?

Open Circuit

For open circuits, eg. cooling tower circuits, condenser water systems etc, the FSFS Phoenix, with a flow rate of up to 18 l/s, provides the best performance.



Closed Circuit

For closed circuits, eg. heating, cooling and many process systems with minimal make-up facility, the FSFS Winchester, with its separate backwash supply, offers the best solution. The Winchester filter handles flow rates of up to 1.6 l/s and maintains full system pressure during backwash.

Both systems are beneficial for new or existing circuits.

Forced Sedimentation Filtration

Specification

FSFS Phoenix - Open Circuit

Materials

| | |
|------------------|-------------------------------|
| Frame and vessel | Galvanised mild steel* |
| Drip tray | Stainless steel |
| Filter | Phoenix (refer to data sheet) |
| Pump | Cast iron |

* Painted finish available on request

Connections

| | |
|--------------------|-------------------------------------|
| Inlet | 4" flanged PN16 |
| Discharge | 4" flanged PN16 |
| Backwash | 3/4" BSP female threaded with valve |
| Drip tray to drain | 3/8" BSP female socket |

Flow Rate

Up to 18 l/s

Maximum Operating Pressure

10 Bar

Maximum Operating Temperature

90° C

Electrical Supply

| | |
|--------|------------------------|
| Pump | 415V 3ph (3 to 7.5 kW) |
| Filter | 12 Vdc 1A |

Number of Elements

Six

Range of Filter Rating

12, 25, 50, 75, 125, 200 and 400 µm

Backwash Quantities

| | |
|-------------|-----------|
| System loss | 40 litres |
|-------------|-----------|

Weight

| | | | |
|-----|--------|-----------|--------|
| Dry | 300 kg | Wet (max) | 400 kg |
|-----|--------|-----------|--------|

Dimensions

| | | | | | |
|--------|--------|-------|-------|--------|--------|
| Length | 1700mm | Width | 385mm | Height | 1465mm |
|--------|--------|-------|-------|--------|--------|

FSFS Winchester - Closed Circuit

Materials

| | |
|------------------|---------------------------------------|
| Frame and vessel | Galvanised mild steel* |
| Drip tray | Stainless steel |
| Filter | Winchester Auto (refer to data sheet) |
| Pump | Stainless steel |
| Vessel to filter | 28mm copper pipe |
| Backwash supply | 45 litre fibreglass tank |

* Painted finish available on request

Connections

| | |
|--------------------|------------------------|
| Inlet | 4" flanged PN16 |
| Discharge | 4" flanged PN16 |
| Backwash | 28mm copper |
| Drip tray to drain | 3/8" BSP female socket |

Flow Rate

Up to 1.6 l/s

Maximum Operating Pressure

10 Bar

Maximum Operating Temperature

90° C

Electrical Supply

| | |
|--------|----------------------|
| Pump | 240 Vac 1ph (1.1 kW) |
| Filter | 240 Vac 5A |

Number of Elements

Two

Range of Filter Rating

25, 50, 75, 125, 200 and 400 µm

Backwash Quantities

| | |
|------------------------------|-----------|
| System loss | Zero |
| Volume used from supply tank | 15 litres |

Weight

| | | | |
|-----|--------|-----------|--------|
| Dry | 300 kg | Wet (max) | 400 kg |
|-----|--------|-----------|--------|

Dimensions

| | | | | | |
|--------|--------|-------|-------|--------|--------|
| Length | 1700mm | Width | 385mm | Height | 1465mm |
|--------|--------|-------|-------|--------|--------|

100% Cleaning with Every Backwash



Filtering

Backwashing

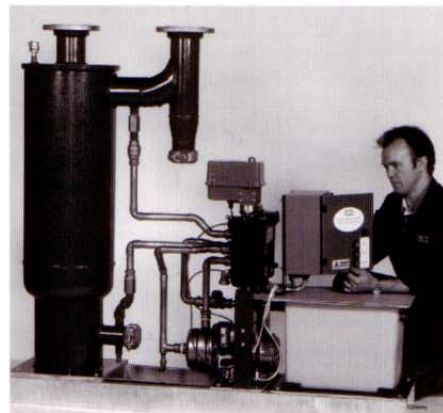
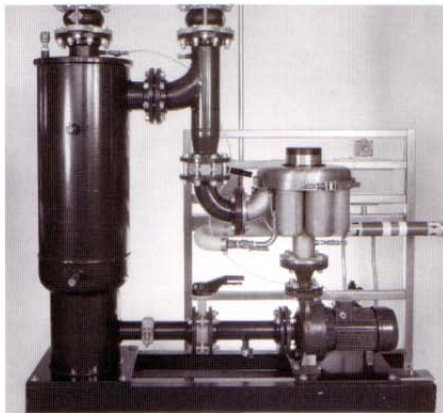
The zero gravity coil design enables filter elements to be completely cleaned with every backwash, minimising backwash frequency and water consumption.

Filtration Ratings

Filter elements are available in seven* different micron ratings: 12, 25, 50, 75, 125, 200 and 400 and are completely interchangeable. In some heavily contaminated systems, it may be advantageous to install a set of coarse or 'commissioning' elements in the early stages of the filter operation and replace them with finer elements at a later stage once the backwash frequency has stabilised.



*Six for Winchester filter.



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