



Floccell XFM 40

Modular Filtration System

Specification Document

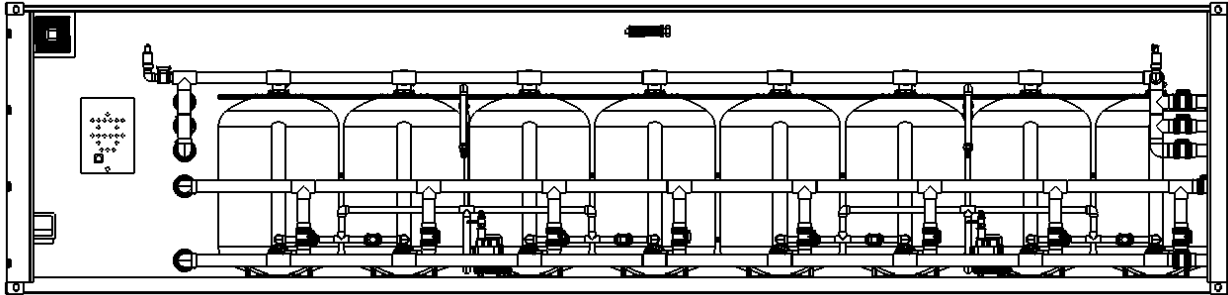
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VERSION CONTROL

| ISSUE | DETAIL | APPROVED | DATE |
|-------|---|----------|------------|
| 1 | First Release | ZB | 24-10-2024 |
| 2 | Document title updated and some minor rewording | ZB | 30-10-2024 |
| 3 | Marketing Department Comments added | ZB | 04-11-2024 |

Floccell XFM 40 Modular Filtration System



(IMAGE SHOWN WITH SIDE ACCESS DOORS REMOVED FOR CLARITY)

1. General Overview

| Aspect | Description |
|-----------------------------------|---|
| Overall Dimensions | Length: 40ft, Width: 8ft, Height: 9.6ft |
| Container Type | 40ft High Cube, ISO Certified |
| Maximum Operating Pressure | 2 bar |
| Flow Rates | Feed: 40 L/s, Sludge: 40 L/s |
| Total Liquid Volume | 10,000 L |
| Total Filtration Bed Surface Area | 8.7 m ² |
| Weight | Dry 11,000kg ≈ Wet 23,500kg ≈ |

2. Power Consumption

| Mode of Operation | Normal Usage (kWh/day) | Winter Usage (kWh/day) |
|-------------------------|------------------------|------------------------|
| With Sludge & Feed Pump | 197.0 kWh/day | 201.0 kWh/day |
| Gravity Operation | 17.0 kWh/day | 21.0 kWh/day |

3. Key Components

| Component | Specification | Details |
|---------------------------|---|--|
| Filter Housing | 8x 1200mm diameter | High-capacity filters with minimal hydraulic loss and low cleaning frequency |
| Feed Pump | 3-phase electric pump, 7.5 kW, operates 24 hours/day (if pumped feed) | High efficiency, operates continuously |
| Gravity Fed Option | No pump required | Operates without the pump, saving energy |
| Sludge Pump | 3-phase sludge pump (estimated power: 1.5 kW), operates at 40 L/s | Used for sludge removal during backwash |
| Air Blowers | 2x blowers, 4.6 kW each, 8.6A, delivering air at 380 m ³ /hr total | Ensures effective air sparging for cleaning media |
| Ventilation Fan | Axial fan, IP54 rated, single phase | Provides continuous airflow |
| Heater | 0.5 kW Tube Heater, IP66 | Provides frost protection and heating |
| Lighting | Single LED, 240V | Energy-efficient |



4. Control System

| Component | Specification | Details |
|-----------------------|---------------------|---|
| Control Panel | Centralised control | Manages feed pump, sludge pump, air blower, ventilation, and heating with automatic and manual override |
| Backwash Cycle | Manual | Requires manual initiation; air sparging for 10 minutes weekly. |

5. Connection Sizes

| Connection Type | Description |
|----------------------|----------------|
| Inlet | 4" PN16 flange |
| Outlet | 4" PN16 flange |
| Air Vent | 4" PN16 flange |
| Head of Works | 4" PN16 flange |
| Sludge Outlet | 4" PN16 flange |

Note: All connections will be supplied with 4" Bauer connection for the customer to connect to.

