



A Sulzer Brand

Sludge Dewatering System Multi-Disc Screw Press

Sludge Management



The FRC Multi-Disc Screw Press provides efficient, continuous dewatering with ultra-low water usage and self-cleaning discs for reliable sludge management.

The FRC Multi-Disc Screw Press offers an energy-efficient, low-maintenance solution for sludge thickening and dewatering. Designed with a self-cleaning, clog-free architecture, this press combines gravity filtration and mechanical compression into one continuous process—ideal for a wide range of industrial and municipal wastewater applications.

Flocculated sludge enters a flocculation tank and is directed into a screw chamber containing multiple fixed and moving disc rings. As the screw slowly rotates, sludge is conveyed and compressed toward a back-pressure plate. Water is squeezed out through the disc gaps, while the motion of the discs prevents clogging and maintains filtration pathways. The dry cake is discharged at the end, and filtrate is collected separately. Its low water and energy usage ensure efficient, hands-free operation.

Key Features

- Clog-resistant multi-disc design with continuous self-cleaning
- Ultra-low water consumption: ≤5 gal/hr per screw
- Quiet, enclosed operation with minimal odor
- Stainless-steel construction resists corrosion in harsh environments
- Fully customizable system configuration including skids, catwalks, and controls

Specifications

- **Flow Capacity:** Up to 440+ GPM (100 m³/hr)
- **Dry Solids Capacity:** Up to 3,000+ lbs/hr (1,361 kg/hr)
- **Typical Cake Solids:** 20% - 35% *Application Dependent*
- **Water Consumption:** < 5 gal/hr (< 18.9 L/hr) per screw
- **Construction:** Stainless steel (304, 316, duplex, or custom alloys); optional tungsten carbide coating
- **Components:** Screw assembly, disc modules, spray bar, sludge inlet, filtrate and cake outlets

Applications

- Industrial and municipal biosolids
- Food and beverage processing sludge
- Chemical and pharmaceutical waste streams
- DAF float thickening and dewatering
- Facilities with variable sludge flow or loading

Why choose a screw press?

FRC's screw press provides reliable, low-footprint sludge dewatering with minimal water, energy, and labor requirements. Its clog-free, automated operation ensures consistent cake dryness—making it a smart investment for sustainable and cost-effective sludge management.

How can we help you?
Contact us today to find
your best solution.



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