



McLanahan

FILTER PRESS

mclanahan.com

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McLanahan Filter Presses completely change how producers manage their fines and tailings. Filter Press technology is proven to produce drip-free cakes from concentrates and a wide range of waste materials. They are used in industries such as aggregates, metals mining, coal, municipal waste, concrete, chemicals and more.

Featuring rapid open and close plate stacks for short, effective cycles, a Filter Press will make your operation more efficient and cost-effective. They are easy to install, integrate and operate at both new and existing sites. McLanahan Filter Presses can eliminate the need for slurry ponds/tailings dams and a full-time operator. They utilize fewer chemicals than belt presses and come with the McLanahan Smart Hydraulic System for online monitoring and assistance.

McLanahan Filter Presses are available as an overhead beam or side beam frame option. Based on your application you can also choose recessed chamber plates or membrane style plates. When deciding on your filtrate return, we provide two options: open or internal. Open discharge from each plate allows the operator to quickly and easily identify bad filter cloths, while internal return is used to prevent filtrate from being exposed to an open environment.

Smart Hydraulic System

McLanahan's Smart Hydraulic System controls operating pressure and mobile plate position for fast, precise opening and closing. Controls on the system are designed for typical slurry feed pressures of 100 - 225 psi (7 - 15 Bar); however, the system can be designed for higher slurry feed pressure to meet specific application requirements. The McLanahan Smart Hydraulic System is monitored and controlled via the standard Allen Bradley PLC or a customer preferred control system with remote capabilities and assistance via Ethernet. Redundant hydraulic pressure relief valves, which are tamper-proof and adjustable, are included for extra safety.



OTHER AVAILABLE OPTIONS ARE:

- Core blow
- Automatic high-pressure cloth wash
- Bomb Bay doors/drip trays
- Cake wash and cake blow

INTELLIGENT PROCESS CONTROL

- Consistent, continuous automatic operations
- PLC-based with operator-friendly touch screen
- Fully integrateable with plant control system
- Descriptive fault-tracking and display
- On-screen user manual
- Immediate remote accessibility

WHY MCLANAHAN

- Knowledgeable/accessible sales representatives
- Detailed lab or on-site sample evaluations
- Installation and start-up support
- 24/7 online support
- Experienced field service support

OVERHEAD BEAM FILTER PRESS

McLanahan's Overhead Beam Filter Press allows greater access for maintenance and has a larger production capacity. The Overhead Beam Filter Press standard plates are available in sizes from 630mm x 630mm to 2,000mm x 2,000mm. Larger plate sizes are available upon customer requests.

Overhead Beam Filter Presses allow a wider opening for better cake release and easier access for cleaning, cloth washing and cloth replacement. The Smart Hydraulics System controls opening and closing pressures and distances for discharge, while the high-speed carousel system quickly opens the plates for rapid cake discharge and higher production rates.

McLanahan's quad tension shaft design allows for optimum force distribution and eliminates stress on the overhead beam. The hydraulic cylinder and tension shafts are attached to FEA designed plates to ensure proper operation and minimize wear.

DESIGN FEATURES:

- Modern engineered press frame design
- FEA designed plants
- Enhanced plate sealing
- Uniform frame loading
- Interference free operation
- Optimized cake release
- Easy cloth inspection and cleaning
- Faster cloth changes

SIDE BEAM FILTER PRESS

McLanahan's Side Beam Filter Press offers a lower cost alternative to the Overhead Beam Filter Press while still incorporating many of the same advantages.

This design increases production with a high-speed cake discharge system that opens plates in groups. Side Beam Filter Presses are available with plate sizes from 630mm up to 1500mm and include an Allen Bradley or other customer preferred control system with remote assistance via an Ethernet connection.

DESIGN FEATURES:

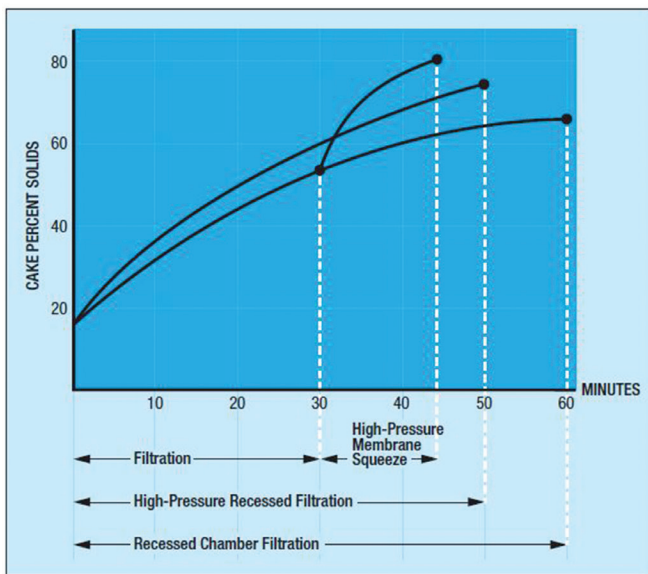
- Single hydraulic ram provides quick, precise, mobile plate opening
- Plate shaking system option helps to release the cakes
- Available with high pressure shower or one-by-one high-pressure wash systems
- Modern engineered press frame design



RECESSED CHAMBER FILTER PLATES

McLanahan's recessed chamber style plates offer flexibility with a wide range of cake thicknesses and limited maintenance. The sizing of these plates range from 630mm to 2000mm, depending on your application. To ensure highly efficient and productive operation, recessed chamber filter plates have no moving parts resulting in longer plate life and easier operation. Customers can also choose cake thickness ranging from 15mm to 50mm to suit a wide variety of slurries. Feed pressure of these slurries can range from 100-225psi (7-15 bar).

Difference Between Recessed Chamber And Membrane Plates On A Compressible Slurry



MEMBRANE FILTER PLATES

McLanahan's membrane filter plates offer higher production rates for compressible slurries or slurries that require a cake wash or cake blow. The sizing of these plates range from 630mm to 2000mm, depending on your application. These plates are also used to help maintain cake integrity during wash and blow. Cake thickness can range from 15mm all the way up to 50mm to suit a wide variety of slurries. Membrane plates are capable of a pressure of up to 225 psi (15 bar). Membrane plates are ideal for producers needing higher productions rates and the driest cakes with compressible slurries.

