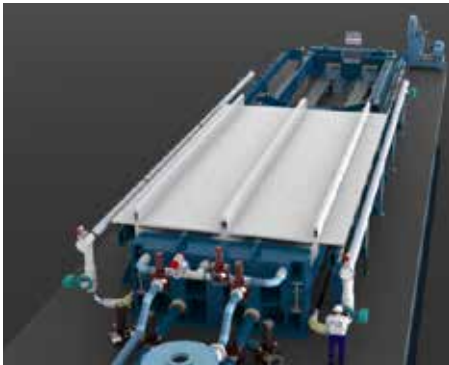


One Source

EIMCO® Colossal™ automatic filter press (AFP)



EIMCO® Colossal™ automatic filter press



FLSmidth brings extensive experience to your process needs and can help determine the most cost-effective filter press for your application. Our trained sales engineers are ready to help you with equipment sizing and selection, without compromising quality or dependability.

This brochure will provide you with general information about major advancements in filter press capacity and automation.



Innovative patent pending filter plate design employs the use of two contiguously configured plates. The size and type of plate used has a proven track record in many applications. This eliminates risks associated with feed distribution and particle stratification which eliminates short circuiting of drying air, reduces pressure differences in the chambers and maximizes cake homogeneity.

Two meter wide cloths are used on each side of each plate making the cloth easy to handle even after being saturated with heavy mineral particles. Patent pending lift out, lower feed combination cloth designs available.

EIMCO® Colossal™ filter press

This large capacity automated filter design provides a simple, rugged and reliable solution to the special problems associated with solid-liquid separation processes. These filters not only provide high throughput and efficient solids capture, but they also operate continuously, automatically, in harsh environments, and can handle abrasive or corrosive slurries.

When coupled with simple systems and our operating philosophies, operating costs are maintained at the lowest levels in the industry.

The heavy-duty design of our filter presses has been specially adapted for minerals service with features designed to enhance their performance in these and other applications.

Benefits

- Positive, fully automatic cake discharge
- Easier operation and maintenance accessibility
- Lower maintenance costs and higher performance
- Proven design

Features

- Push closure-cylinder(s) mounted at centerline of press
- Rolling cross head up to 2040 m² filtration area and 38.4m³ volume in a single machine.
- Low profile filter design
- Automatic cloth washing apparatus
- Widespread beams
- Drip trays - activated trays for liquid containment
- Plate variety - recessed, and membrane designs
 - Open filtrate discharge for visual turbidity detection on individual plates.
- Filter media - variety of materials and weave patterns
- Press control packages - process control and DCS communication is available



Cloth shaker assists cake discharge

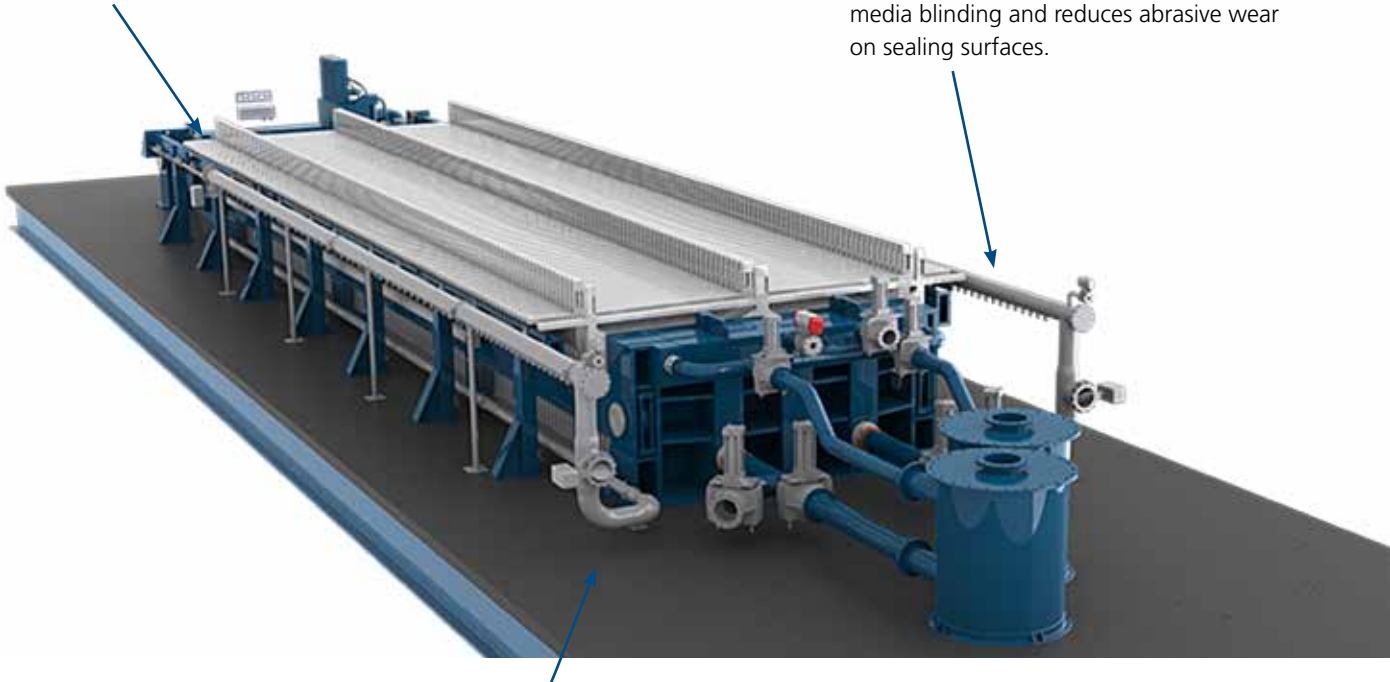
Vibratory discharge assist is provided by a hydraulically actuated cloth shaker that transmits a vibration directly to the filter cloths. To minimize the effects of vibration on other system components, the shaker mechanism is supported on a separate frame system.

Programmable logic control allows automated operation

Various levels of automation can be achieved using PLC controller resident in the filter control panel. Customized instrument and control packages are available for integration with existing systems.

Low pressure, high volume flood wash cleans plates and media between cycles

Wash headers run across the upper edges of each chamber and along the bottom corner of the plate stack on both sides of the filter with nozzles positioned to completely wash every plate face and filter cloth. Thorough washing helps prevent media blinding and reduces abrasive wear on sealing surfaces.



Crosshead slashes cycle times

To reduce the time required for plate shifting and cake discharge, our Colossal filter utilizes a long-stroke cylinder-driven crosshead to open and close the plate stack. Three short-stroke closing cylinders are mounted in a rolling carriage, which spans the filter sidebars. The two hydraulically actuated long-stroke cylinders moves the crosshead and linked plates quickly between open and closed positions in less than one minute. With the crosshead fully retracted, a uniform gap is opened between each plate, allowing all chambers to empty. The crosshead then returns the plates to the filtration position where locking pins anchor the crosshead. Closing pressure is applied to the plate stack and slurry feed resumed. Opening and closing speeds are individually adjustable to suit plant conditions.

Drip trays prevent rewetting of discharged cake

Hydraulically operated drip trays located beneath the filter prevent filtrate leakage and cloth wash water from rewetting previously discharged cake.



Crosshead



Filter plates and media support frames

All hydraulic operation

Power for plate shifting, crosshead drive and locking, filter closing, drip tray operation and cloth shaking is supplied from a single electrically driven hydraulic power unit. Filter-mounted manifolds contains all required valves, switches, and gauges for hydraulic control.

Quick media change-out

Filter plates and media support frames are designed for unobstructed lift out using an overhead crane or lifting frame. Cloths are then changed offline while the filter continues to operate. Media cloths attach with a quick release rod and clip arrangement for fast, simple exchange. Patent pending drop in configurations are also available for replacing cloths without removing the plate.

Filtration solutions

www.flsmidth.com

Rev. 7/31/2012 al-us



FLSmidth filter presses

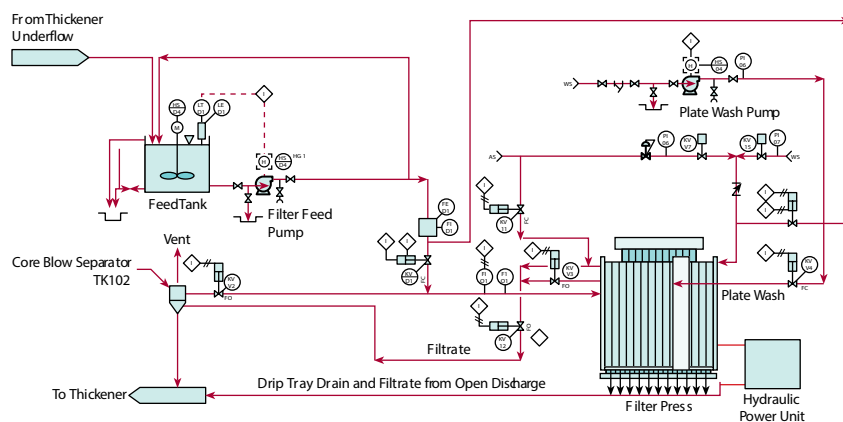
FLSmidth through its Shriver® product lines has been a leading influence in the design and application of filter presses since before the turn of the century, having installed over 30,000 filter presses. FLSmidth has incorporated that expertise into its product lines providing state-of-the-art filter press technology, including efficient and almost maintenance free automatic features that will achieve rugged and dependable performance for your individual applications. FLSmidth's filter presses are designed with recessed or membrane/recess plates to produce minimum cake moisture.

Our filter presses are operating in locations around the world in countries such as Australia, Brazil, Canada, Kazakhstan, Mexico, Peru, Philippines, South Africa, United States, Uzbekistan, Chile, Mongolia, Europe, China, India, Oman and many others..

FLSmidth designs and builds turnkey liquid-solid separation facilities

As a broad line supplier of separation equipment for minerals processing with comprehensive expertise in liquid-solid separation, FLSmidth can often provide the best capital economy and process performance when its equipment is supplied as part of a complete system. In addition to primary equipment supply, FLSmidth offers a wide range of design, construction and start-up services, including:

- Flowsheet development
- Auxiliary equipment selection and supply (pumps, valves, conditioning chemical preparation and feed systems)
- Piping & instrumentation drawings
- Control system strategy & design
- Architectural design support
- Customized design and packaging for international delivery & operation
- Specialized tankage design & construction
- Complete construction management services
- Preparation of operating documentation
- Plant start-up & training services



Mineral Processing Technology Center

FLSmidth Salt Lake City, Inc.
7158 S. FLSmidth Drive
Midvale, UT 84047-5559
USA
Tel: +1 801 871 7000
Fax: +1 801 871 7001
E-mail: info.sl@flsmidth.com