



# ***FILTER PRESS***



**M.W. WATERMARK™**

THE ULTIMATE SOURCE FOR  
FILTER PRESSES, PARTS, AND SERVICE  
MWWATERMARK.COM • 616.399.8850  
INFO@MWWATERMARK.COM

**New, Used &  
Rebuilt Equipment**

**Parts & Retrofits**

**Custom Filter Cloths**

**Troubleshooting**

**Laboratory Testing**

**On-Site Service & Support**

**Complete Rebuild &  
Upgrade Packages**



# M.W. WATERMARK™ FILTER PRESS

M.W. Watermark's standard and customized filter presses incorporate designs developed through years of experience to provide superior reliability, durability, and ease of use.

Highly efficient solid/liquid separation  
for the following industries:

- Stone Fabrication
- Metal Finishing
- Mining & Energy
- Power
- Industrial Wastewater
- Municipal Wastewater
- Lime Softening
- Chemical Processing
- Ready Mixed Concrete
- Car & Truck Washes
- CBD Oil Extraction



SERVICE • EXPERIENCE • EXPERTISE • SAVINGS



In-house treatability laboratory. Two pilot models for rental or purchase.

Model	FP250N25L-6-0.2MXX	FP320G32-6-0.3MXX
Plate Dimensions	250 mm x 250 mm (10" x 10")	320 mm x 320 mm (12.5" x 12.5")
Capacity	0.2 ft <sup>3</sup>	0.3 ft <sup>3</sup>
Plate Type	Non-Gasketed	Gasketed
Filter Cloths	Included	Included
Hydraulics	Manual	Manual
Std. Piping Connections	1/2" Feed x 1/2" Discharge	1" Feed x 1" Discharge
Plate Shifting	Manual	Manual
Skid Mounted	Standard - Included	Standard - Included
Feed Pump	Standard - Included	Standard - Included





# WHAT IS A FILTER PRESS?

A filter press is a batch operation, fixed volume piece of equipment ranging from .01-600ft<sup>3</sup> that separates liquids and solids using pressure filtration. A slurry is pumped into the filter press and dewatered under pressure. A filter press can be used for process, water and wastewater treatment in a variety of different industries and applications.

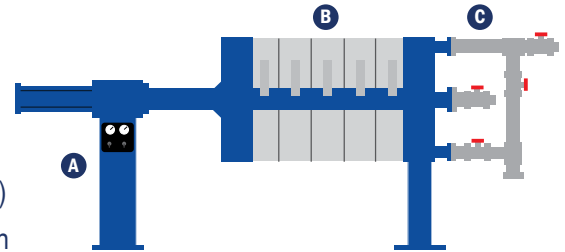
A filter press has four main components:

**Frame:** The steel frame acts as a clamping device for the filter plates. (A)

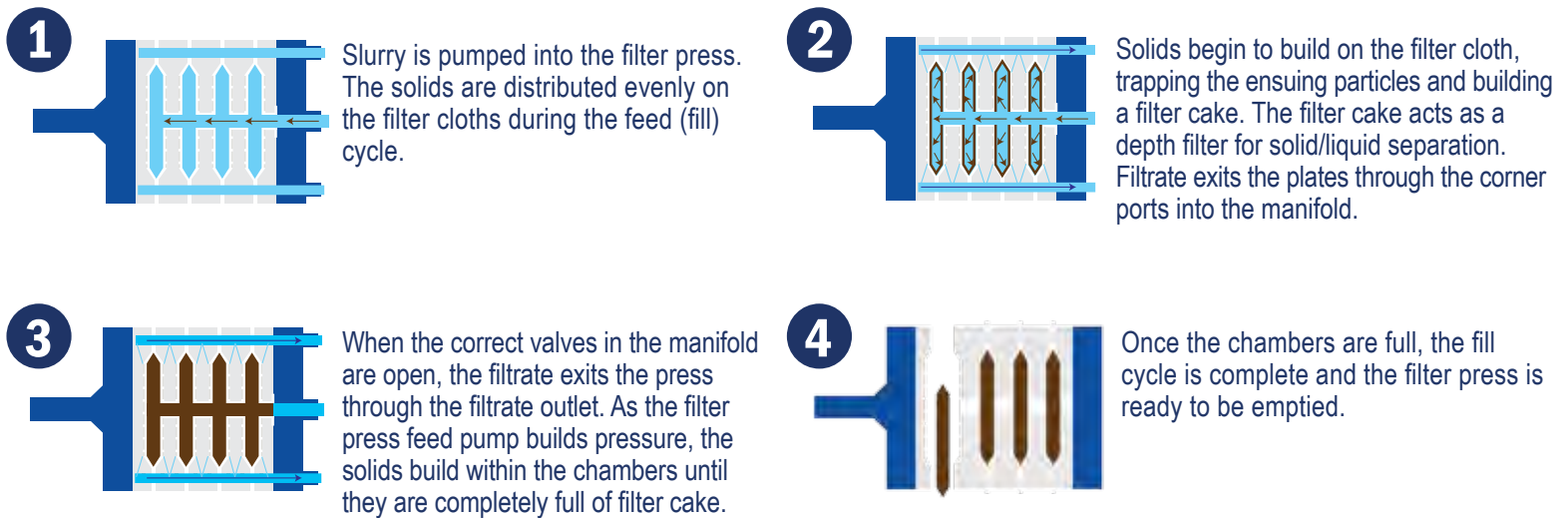
**Filter Plates:** A filter cake forms in the chambers between filter plates. (B)

**Manifold:** Our standard manifold consists of piping and valves which control the slurry inlet and connect the four corner filtrate discharge ports into a common discharge pipe. (C)

**Filter Cloth:** A cloth filter that is attached to both sides of a filter plate. Solids build up on cloth to form a filter cake, separating liquids from solids.



## HOW DOES IT WORK?



## PRESS SIZING FORMULAS\*

### Information Needed to Quote a Press

- Type of slurry to be processed
- Amount of slurry to be processed in a given amount of time expressed in either:
  - Gallons per minute, per hour, per day, or per week
  - Pounds of solids (100% dry basis) per time period
- Number of hours per day, and days per week the process operates
- Percent solids (by weight) in slurry
- Specific gravity of slurry if available
- Process operating temperature
- Density of wet filter cake
- Chemical conditioning amounts, if required (D.E., etc.)
- Press location: Indoor or outdoor, temperature range
- Desired cake thickness (std. is 32mm - 1 1/4")
- Desired closure & control automation (Specify: Manual, Semi-Automatic or Automatic)
- Other (Please specify optional features required)

\*Please obtain all possible slurry information as outlined below.  
If one or more criteria are not available, we can test a sample of the slurry, and/or use some standard data.

### Standard Slurries

Volume of slurry in gal. per cycle \* %  
solids \* 8.34 \* specific gravity of slurry

Density of wet cake in lb. per ft<sup>3</sup> \* % dry  
solids in filter cake

### Metal Hydroxide Slurries

Volume of slurry in gal. per cycle \* %  
solids in feed





# M.W. WATERMARK™ FILTER PRESS PRODUCT RANGE

Plate Dimensions	470 mm x 470 mm (18" x 18")
Capacity Range	0.5 ft <sup>3</sup> to 4 ft <sup>3</sup>
Hydraulics	Manual (Standard) or Air (Single Acting)
Std. Piping Connections	1-1/2" Feed x 1" Discharge
Plate Shifting	Manual

## Options Shown:

Air-Operated Diaphragm Feed Pump (On Shelf)

Filter Cake Hopper



470mm

Plate Dimensions	630 mm x 630 mm (24" x 24")
Capacity Range	2 ft <sup>3</sup> to 12 ft <sup>3</sup>
Hydraulics	Air (Standard) or Manual
Std. Piping Connections	2" Feed x 1-1/2" Discharge
Plate Shifting	Manual, Semi-Automatic, or Automatic

## Options Shown:

Expansion Piece



630mm

Plate Dimensions	800 mm x 800 mm (32" x 32")
Capacity Range	8 ft <sup>3</sup> to 30 ft <sup>3</sup>
Hydraulics	Air (Standard) or Electric
Std. Piping Connections	2" Feed x 1-1/2" Discharge
Plate Shifting	Manual, Semi-Automatic, or Automatic

## Options Shown:

Semi-Automatic Plate Shifter

Self-Dumping Filter Cake Hopper

Air Hydraulics



800mm

Plate Dimensions	1000 mm x 1000 mm (39" x 39")
Capacity Range	20 ft <sup>3</sup> to 50 ft <sup>3</sup>
Hydraulics	Air (Standard) or Electric
Std. Piping Connections	3" Feed x 3" Discharge
Plate Shifting	Manual, Semi-Automatic, or Automatic

## Options Shown:

Automatic Plate Shifter with Cloth Washer

Full Automation Control System (FACS)

Electric Hydraulics

Light Curtains

Automatic Drip Trays

Automated Valves



1000mm

Plate Dimensions	1200 mm x 1200 mm (48" x 48")
Capacity Range	40 ft <sup>3</sup> to 125 ft <sup>3</sup>
Hydraulics	Electric (Standard) or Air
Std. Piping Connections	3" Feed x 3" Discharge
Plate Shifting	Manual, Semi-Automatic, or Automatic

**Options Shown:**

Semi-Automatic Plate Shifter	Automatic Drip Trays
Process Automation Control System (PACS)	UV Resistant Filter Cloths
Non-Gasketed Filter Plates	Core Blow Manifold
Enduroliner™ Coating	Automated Valves



1200mm

Plate Dimensions	1500 mm x 1500 mm (60" x 60")
Capacity Range	100 ft <sup>3</sup> to 275 ft <sup>3</sup>
Hydraulics	Electric (Standard) or Air
Std. Piping Connections	4" Feed x 3" Discharge
Plate Shifting	Manual, Semi-Automatic, or Automatic

**Options Shown:**

Automatic Plate Shifter  
Full Automation Control System  
EnduroLiner™ Coating



1500mm

Plate Dimensions	1500 mm x 2000 mm (60" x 79")
Capacity Range	250 ft <sup>3</sup> to 350 ft <sup>3</sup>
Hydraulics	Electric
Std. Piping Connections	6" Feed x 4" Discharge
Plate Shifting	Automatic

**Options Shown:**

Automatic Drip Trays  
Double Air Blowdown, Even Fill Manifold

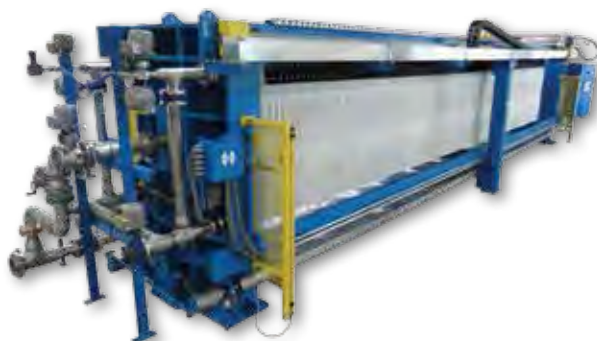


1500mm x 2000mm

Plate Dimensions	2000 mm x 2000 mm (79" x 79")
Capacity Range	300 ft <sup>3</sup> to 600 ft <sup>3</sup>
Hydraulics	Electric
Std. Piping Connections	6" Feed x 4" Discharge
Plate Shifting	Automatic

**Options Shown:**

Overhead Plate Suspension	Light Curtains
Full Automation Control System	Automated Valves
Automatic Plate Shifter with Cloth Washer	



2000mm

## ASK US ABOUT OUR FULL RANGE OF EQUIPMENT RENTALS



320mm Pilot Filter Press



630mm Filter Press  
...And Other Models



Trailer-Mounted Filter Presses

Rental Units

# FEATURES



## STANDARD FEATURES

High-Strength Carbon Steel Frame  
Blasted to SSPC-SP6  
Epoxy-Coated Framework  
304 Stainless Steel Side Bar Wear Caps  
Schedule 80 PVC Piping Connections  
Four Corner Discharge Piping  
Caulked & Gasketed Recessed Polypropylene Plates  
Manual, Air, or Electric Hydraulic Closure Systems

## CUSTOM OPTIONS

- Plates and Frames
- Non-Gasketed Filter Plates
- Diaphragm Squeeze Plates
- Diaphragm Squeeze System
- Various Plate Materials
- Filter Cake Hoppers
- Cake Chutes
- Plate Shifters
- Leg Extensions
- Elevated Platforms
- 2-Palm Safety Closure Switch
- Safety Gate
- Safety Tripwire
- Safety Light Curtains
- Splash Curtains
- Stainless, Carbon Steel, Polypropylene, FRP, and CPVC Manifold Piping
- Even Fill Manifold Piping
- Cake Wash Manifolding
- Manual or Automatic Drip Trays
- Feed Pumps: Air-Operated Diaphragm (AOD), Progressive Cavity, and Centrifugal
- Cloth Washers
- Blanking Plate
- Expansion Piece
- EnduroLiner™ NSF-61 Polyurethane Abrasion and Chemical Resistant Coating
- Electric Hydraulic Closure with PLC Controls
- Cake Thicknesses from 20 to 50mm
- Wide Selection of Filter Media
- Automatic Feed Pump Control System

## PRESS CLOSURE

With 100 psi and 225 psi designs, M.W. Watermark™ offers hydraulic press closure systems to fit a variety of requirements. Hydraulics range from hand-operated hydraulic pumps to standard air-operated hydraulics, to high-capacity electrically-powered hydraulics for large or automated filter presses.

## PLATE SHIFTER

M.W. Watermark's mechanical plate shifters move each plate along the sidebar, allowing rapid discharge of the dewatered cake. A stainless steel sidebar cap is provided to facilitate plate shifting and protect the sidebar. Plate shifter designs include semi-automatic and automatic types. Our standard semi-automatic plate shifter includes a visible pressure gauge as well as easy access to the regulator. The automatic designs are available in shuttle and continuous chain drives. An automatic plate shifter with a cloth washer is also available.

## SAFETY

M.W. Watermark offers many different safety features to help protect press operators and bystanders:

- Safety Light Curtains: Stops the press functions when any object crosses between the infrared light bars
- Auto Shut-off Safety Tripwire Cable: Stops press functions with less than two pounds of pressure
- Safety Splash Curtains: Contains liquid that may, under certain conditions, squirt or splash from between the filter plates during the fill cycle or power washing of the filter plates and cloths
- Safety Gates: Protects surrounding areas at all times
- 2-Palm Safety Closure Switch: Protects the operator during press closure

## CONTROLS

M.W. Watermark's control options include the following models:

- Automatic Feed Pump Control System (AFPCS)  
Increases feed pressure as the press fills
- Electric Hydraulic Control System (EHCS)  
Controls the feed pump, electric-hydraulic closure, and automatic drip trays
- Process Automation Control System (PACS)  
Controls the feed pump and automatic manifold valves on air-operated presses
- Full Automation Control System (FACS)  
Automates the filter press and controls the feed pump







# OTHER M.W. WATERMARK™ PRODUCTS & SERVICES

## **Rebuilt Equipment**

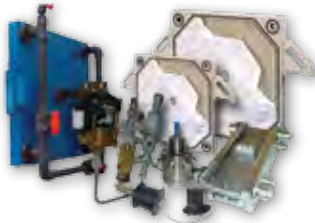
Used equipment is rebuilt in our facility and quality checked prior to shipment. A six month warranty is available on rebuilt equipment. M.W. Watermark can also rebuild your current equipment.

## **Other Rental Equipment**

In addition to filter presses, M.W. Watermark stocks other equipment available for rental including Slant-Plate Clarifiers and OCS pilot units.

## **Parts and Retrofits for Your Existing Press**

M.W. Watermark offers parts and retrofits for many makes and models of filter presses including legacy brands. Plate shifters, hydraulic retrofits and custom filter cloths are available. Cloth and gasket installation services are also available.



Parts and Retrofits for  
Many Makes and Models



Custom Filter Cloths



Retrofit Hydraulic Power Unit (HPU)

## **Field Service**

Factory-trained professionals are available to visit jobsites to assist with start-ups, training, installation supervision, mechanical repairs and troubleshooting, PLC programming, process review, engineering, and rebuilds.

## **Troubleshooting**

Technical sales and service employees are available by phone to troubleshoot and answer service questions during regular business hours.

## **Laboratory Testing**

M.W. Watermark maintains an in-house laboratory for determining the most effective equipment, equipment sizing, filtration media, and dewatering techniques for your specific application.

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## **About M.W. Watermark**

M.W. Watermark's top priority is customer satisfaction. We treat our customers the way we want to be treated. We offer prompt, courteous service and truly enjoy helping our customers.

The M.W. Watermark team has decades of experience designing, building, and servicing water and wastewater treatment equipment. Our experience in the field has given us insight into ways in which to better solve your water problems and improve your equipment.

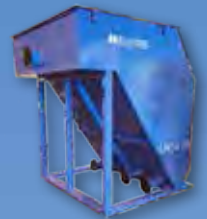
Our mission is to provide advanced solutions to our customers while setting the standard for quality and value. We strive to create and provide products and services to meet and exceed expectations in quality, reliability, delivery and cost.



M.W. Watermark  
Continuous Sludge Dryer



Slant-Plate Clarifier (SPC)



Low Profile Clarifier (LPC)



Oil Coalescing Separator (OCS)



PolyMark™ Polymer Blender



M.W. Watermark/Porex® Tubular  
Membrane Modules™

# WHY M.W. WATERMARK™?

M.W. Watermark wants to make a difference. We are passionate about the world's water. We are innovative, focused on customer service and always try to exceed expectations. We are an environmentally conscious company with people who are energized, encouraged and inspired to make a difference on our planet by helping to keep our shared, finite water supply clean and usable for generations to come.

We build amazing, custom water and wastewater treatment equipment.

Together, we can make a difference.

## OUR MISSION

M.W. Watermark's mission is to provide advanced solutions to our customers while setting the standard for quality and value. We strive to create and provide products and services to meet and exceed expectations in quality, reliability, delivery and cost.

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M.W. WATERMARK™

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