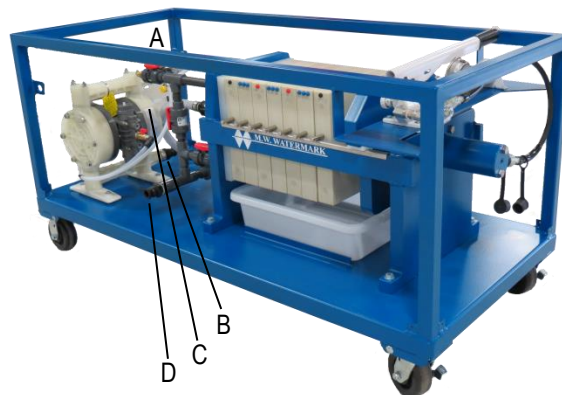


This guide is intended to help the operator with basic filter press operating instructions.

FILTER PRESS FEED / DISCHARGE / AIR CONNECTIONS

Description	SCFM	Air Quality	PSI	Minutes
A Air Blow	10-20	Standard	40	5-15
B Slurry Pump Suction	-	-	-	-
C Slurry Pump Air	10-20	Standard	100	Press Feed
D Filtrate / Air Blow Outlet	-	-	-	-

Standard Plant Quality Air: Maximum Particle Size 40µm.
Instrument Quality Air: ANSI/ISA-S7.0-1996
Air shall be free of all corrosive contaminants and hazardous substances.
*Cap if not used.



Cloth Removal

To remove a filter cloth from a gasketed plate, insert a thin bladed screw driver into the groove at the outer edge of the caulking and pry out a small section of the cloth. Grasp the sash cord caulking with pliers and pull the remaining cloth out of the caulking groove. Do this on both sides of the plate. Pull the cloth through the centerfeed eye of the plate. After the cloth is removed, inspect and remove any accumulated solids from the groove before inserting the new cloth.

Cloth Installation

1. Filter plates should be power washed and clean.
2. Roll one side of the filter cloth in half and pull it through the feed eye.
3. Align part number with the top of the filter plate.
4. Lay filter plate on a flat, sturdy surface.
5. Begin tacking filter cloth at corners of filter plate.
6. Work into the straight edges.
TIP: If you're using a deadblow hammer rotate the filter plate as you go so you're always pulling the hammer toward your body, not reaching across the filter plate.
TIP: If you're using an air hammer, run it right along the straight edge to tack in the sides.
7. Check for high spots.
8. If you used a deadblow hammer, use a wedge to smooth high spots.
9. Flip filter plate over to repeat on the second side.

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OPERATION

To Close Filter Press

1. Push the filter plates forward.
2. To extend the cylinder, turn the pump release valve knob clockwise to a closed position. **NOTE:** Do not over tighten.
3. Use the manual hydraulic pump to extend the cylinder and clamp the filter plate stack. A closing pressure of 3,400 PSI is required throughout the entire "feed" cycle.
4. Turn the secondary shut-off ball valve to the closed position (handle perpendicular to flow). If at any time the hydraulic system loses pressure, the operator must open the secondary shut-off valve prior to stroking the hand pump. Failure to open the shut-off valve may damage the gauge.
5. Configure the valves per the chart on the next page for either precoat/evenfill or feed and start feed pump. The air diaphragm feed pump stroking slows as the press fills. With the press completely filled, the feed pump stalls.
6. When the feed pump stalls, turn off the feed pump by shutting off its air supply.
7. Air blow: air supply pressure is 40-60 PSI.
 - a. Position valves as shown in the chart.
 - b. When air blow is complete, close the air valve.
 - c. Open the three valves on discharge manifold, leaving the inlet valve closed. This allows gravity drainage of press (approximately 2 minutes).

To Open Filter Press

1. **IMPORTANT:** Make sure the feed pump air supply has been turned off, and the pressure has been bled down.
2. Open hydraulic cylinder release valve slowly by turning the knob counterclockwise to control the load.
3. Remove the pumping unit.
4. Pull the follower back toward ram end.
5. Manually separate filter plates to discharge the filter cake.
6. Use the non-abrasive paddle furnished with the filter press to remove any cake that has not fallen free. All cake should be cleaned from sealing surfaces. **NOTE:** Failure to thoroughly clean the plates can cause leakage and filter plate cracking due to unbalanced pressure build-up.
7. With the plates thoroughly cleaned, the press is ready to be closed.

CAUTION: If slurry flow to the filter press is interrupted for a period of time, such as overnight, it is recommended that the feed pump be restarted at a low pressure for 5 to 10 minutes before slowly increasing to maximum pressure. When the feed to the press is interrupted, the solids within the chambers have a tendency to fall from the sides of the chamber and settle to the bottom, possibly blocking the center feed hole. Restarting with high feed pressure does not give the sludge time to re-soften and distribute itself in the chamber. Blockage of the center feed can cause uneven pressure build up and result in plate breakage.

MANIFOLD VALVE POSITIONING

Process	Open Valves	Closed Valves
Precoat / Even Fill	B, C, D, G	All Others
Feed	B, C, D, E, F, G	All Others
Air Blow	A, F	All Others
Cake Wash	C, E	All Others

The standard manifold configuration is known as "Air Blow – Even Fill".

Even Fill includes a valve on each lower discharge port that may be closed during feeding of the press to force chambers to completely fill with slurry prior to filtrate discharge.

Air Blow blows air back through the top left corner and discharges at the bottom right corner, same place as filtrate. Air blow removes free water from within the filter plate stack and improves cake release from the filter cloths.

