



Filter Presses



**INDUSTRIAL FILTRATION &
SEPARATION EQUIPMENT**



AMERICAS



EUROPE & ASIA

Pacific Press Co. manufactures a high quality filter press for the removal of solids from liquid/solid solutions. Since the inception of the company over 20 years ago we have been dedicated to providing continued innovation to our products for our customers. This niche product line ranges from standard filter presses to fully custom equipment including a full line of accessories ranging from pumps to complete automated packages. The fabrication of your equipment is done in house for the highest quality and most economical cost. We service the customer with our worldwide representative network providing local sales & service support.

APPLICATION ENGINEERING

MANUFACTURING

START UP & INFIELD SERVICE



The engineering staff at Pacific Press Co. is available for on site evaluation, testing and design work to ensure the equipment best suits your facility.



Your equipment is ensured proper fabrication, assembly & operation as it is completely preassembled and trial tested prior to factory shipment.



The skilled service personnel at Pacific Press Co. will ensure a smooth installation, commissioning and training of personnel at your job site.

WORLDWIDE VENDOR PARTNERSHIPS

Pacific Press Co. has established special partnerships to provide worldwide service using the following brand name components.



PRODUCT APPLICATIONS

FOOD, BEVERAGE &
PHARMACEUTICAL



MUNICIPAL & INDUSTRIAL
WASTEWATER



INDUSTRIAL
WASTEWATER



METALS &
MINING INDUSTRY



METAL FINISHING



LAUNDRY &
TEXTILE INDUSTRY



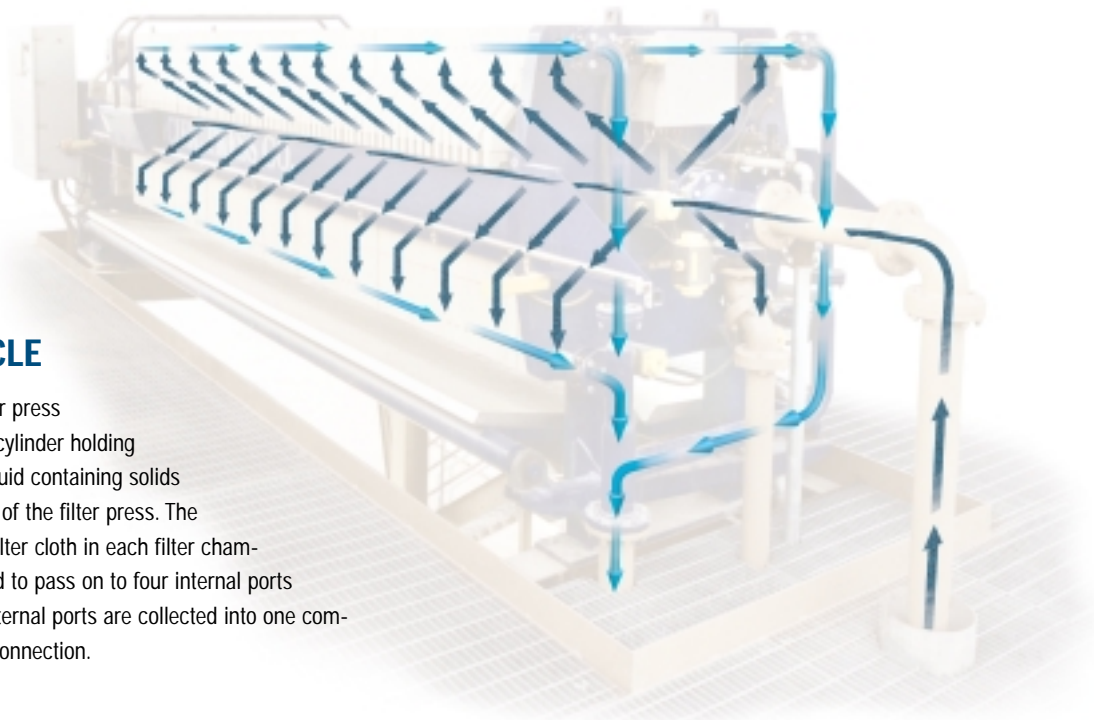
CHEMICAL
PROCESSING



ENVIRONMENTAL
CLEANUP



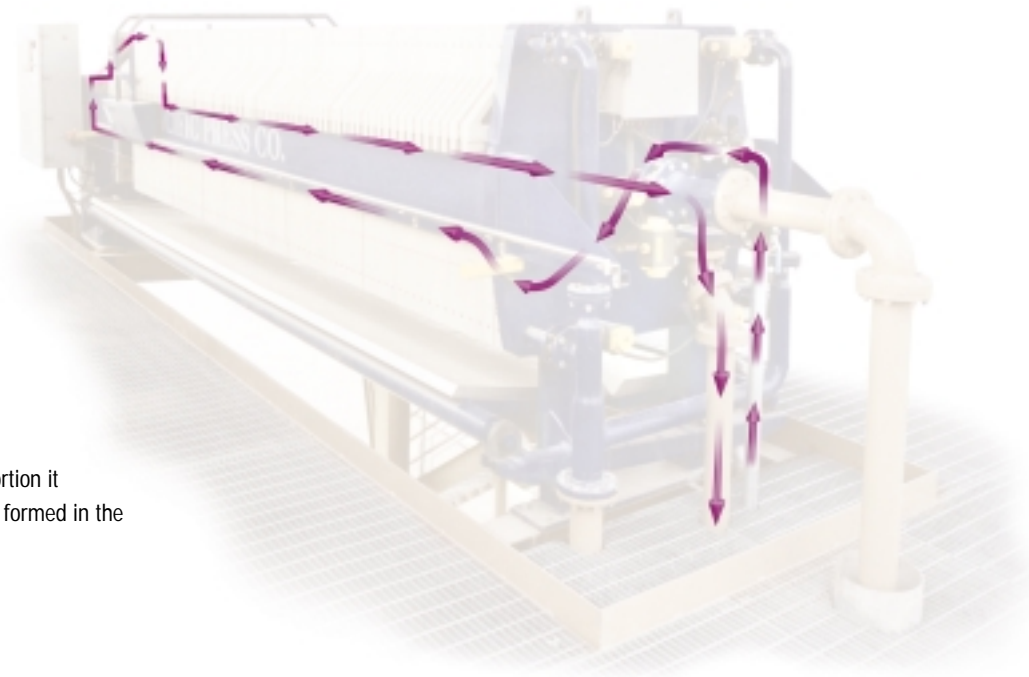
HOW DOES IT WORK?



■ FILTRATION CYCLE

The operation of the filter press starts with the hydraulic cylinder holding the filter plates closed. Fluid containing solids is pumped the full length of the filter press. The solids are retained by a filter cloth in each filter chamber allowing filtered liquid to pass on to four internal ports in each plate. The four internal ports are collected into one common external discharge connection.

KEY: ■ Unfiltered
■ Filtered



■ CORE BLOWDOWN CYCLE

The use of compressed air injected in the opposite end that the press is filled in allows residual liquid to be purged out an auxiliary connection. In removing the residual unfiltered center portion it will not add liquid to the already dry cake formed in the filter plate.

KEY: ■ Compressed Air

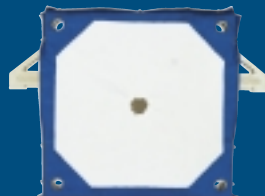
WHICH STYLE OF PLATES?



Gasketed

This plate offers a positive O-ring sealing design. The filter cloth is pressed into a retaining groove within the recessed

portion of the filter chamber.



Non-Gasketed

This recessed chamber plate has a cloth with a latex edge seal. Convenient

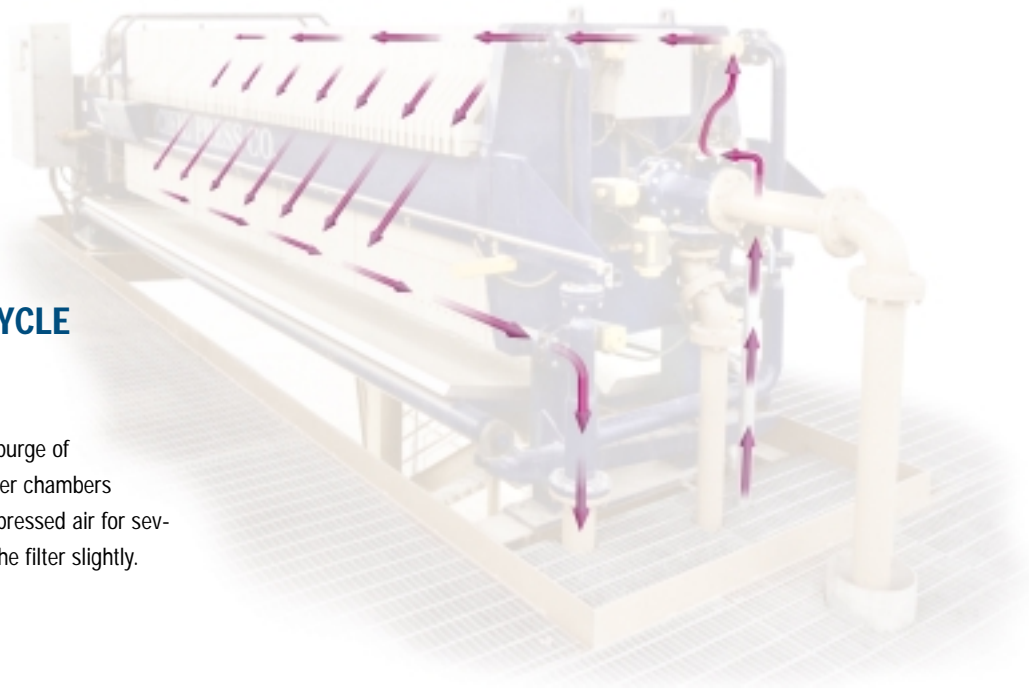
for quick cloth replacement; the disadvantage is a wicking of the cloth can occur.



Membrane

This plate uses an integral bladder that is inflated up to twice the processing

pressure. This squeezes the filter cake, providing a drier filter cake.



■ AIR BLOWDOWN CYCLE

The introduction of compressed air into the corner discharge port allows the reverse purge of any residual liquid left in the filter chambers and discharge lines. Using compressed air for several hours will assist in drying the filter slightly.

KEY: ■ Compressed Air



■ FILTER DISCHARGE CYCLE

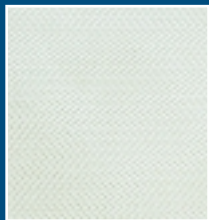
First, the Bomb-Bay doors are opened to allow solids to pass into a sludge container below the filter press. Next, the hydraulic cylinder is retracted and the filter plates are now accessible to remove the filter cake. Some of the filter cake will fall out and parts of it will have to be removed by a manual paddle. All filter plates must be separated to discharge the filter cake formed within each chamber.

WHICH STYLE OF FILTER CLOTH?



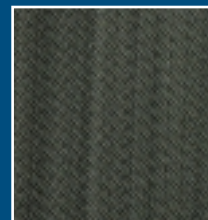
PMU

Polypropylene Multifilament fabric is the most widely used fabric, ideal for metal hydroxides and other easily dewatered solids.



PSM

Polypropylene Single Monofilament is used in high oil content applications such as laundries and food processing plants.



PMM

Polypropylene Mono-Multifilament has a tight micron retention while providing excellent release characteristics.

SEMI-AUTOMATIC



SEMI-AUTOMATIC FEATURES

The premium design press shown here has many features that improve the safety and flexibility of the standard model. The accessories pictured below are designed to reduce the amount of time required to operate the filter press.



Automated Pump Control

A PLC controller is used to gradually increase pump pressure in 5 psi increments. A feed back switch determines the most efficient cycle.

Hydraulic Safety Cabinet

The steel cabinet of the premium series is designed to contain the hydraulic operation and capture oil if a leak should occur.

Duo-Step Siderail

Allowing the press to expand an additional 2 cu. ft. without the use of a longer frame or the expense of an expansion spacer.

Semi-Automatic Plate Shifter

Used to assist in separating the filter plates that are to be cleaned. The unit is moved to the location in which the desired plates are to be opened.

Air Blowdown Piping

Standard with all filter presses. A pump, if purchased, can be mounted to the press and piped directly to the inlet.

Safety Cord

A cable operated switch is available to ensure the hydraulic closure is able to be stopped at any location along the filter press.

A U T O M A T I C



AUTOMATIC FEATURES

The premium style press shown here has fully automated features. In larger installations by increasing the amount of automation the operator is only required to be present for the discharge of the filter cake. All other functions are automatically sequenced at the touch of a button.

1



The PLC Interface

The automatic functions available on the filter press are displayed graphically on this screen. Using a PLC controller, the unit may be operated as stand alone equipment or as part of a larger, facility wide system.

2



Electric Hydraulics

Reliability is the main feature of this design. A hydraulic system that does not require dry compressed air proves to be the most trouble free.

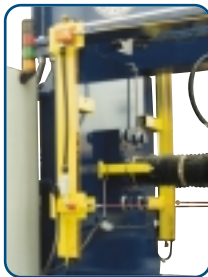
3



Automatic Plate Shifter

Typically used on presses with large quantities of filter plates. This unit allows the plates to separate without any operator intervention.

4



Light Curtains

Incorporated as an interruption mechanism for the automatic plate shifter. It allows the shifter to be rapidly stopped and started, reducing cleaning time.

5



Automated Valves

Used in the air blow-down piping. Automatic activation allows the air blow, core blow and feed cycles to operate unattended.

6



Bomb-Bay Doors

Used to capture any dripping liquid from non-gasketed filter plates. These stainless steel trays also act as chutes to divert the cake discharging from the filter press.

WHAT IS INCLUDED IN A FILTER PRESS SYSTEM?

1 Sludge Thickener & Conditioning Tank



A wide range of tank and mixers sizes are available for conditioning of polymers or pre-treatment. Tanks without mixers are also used as thickeners to concentrate solids prior to feeding into a filter press.

2 Chemical Feed System

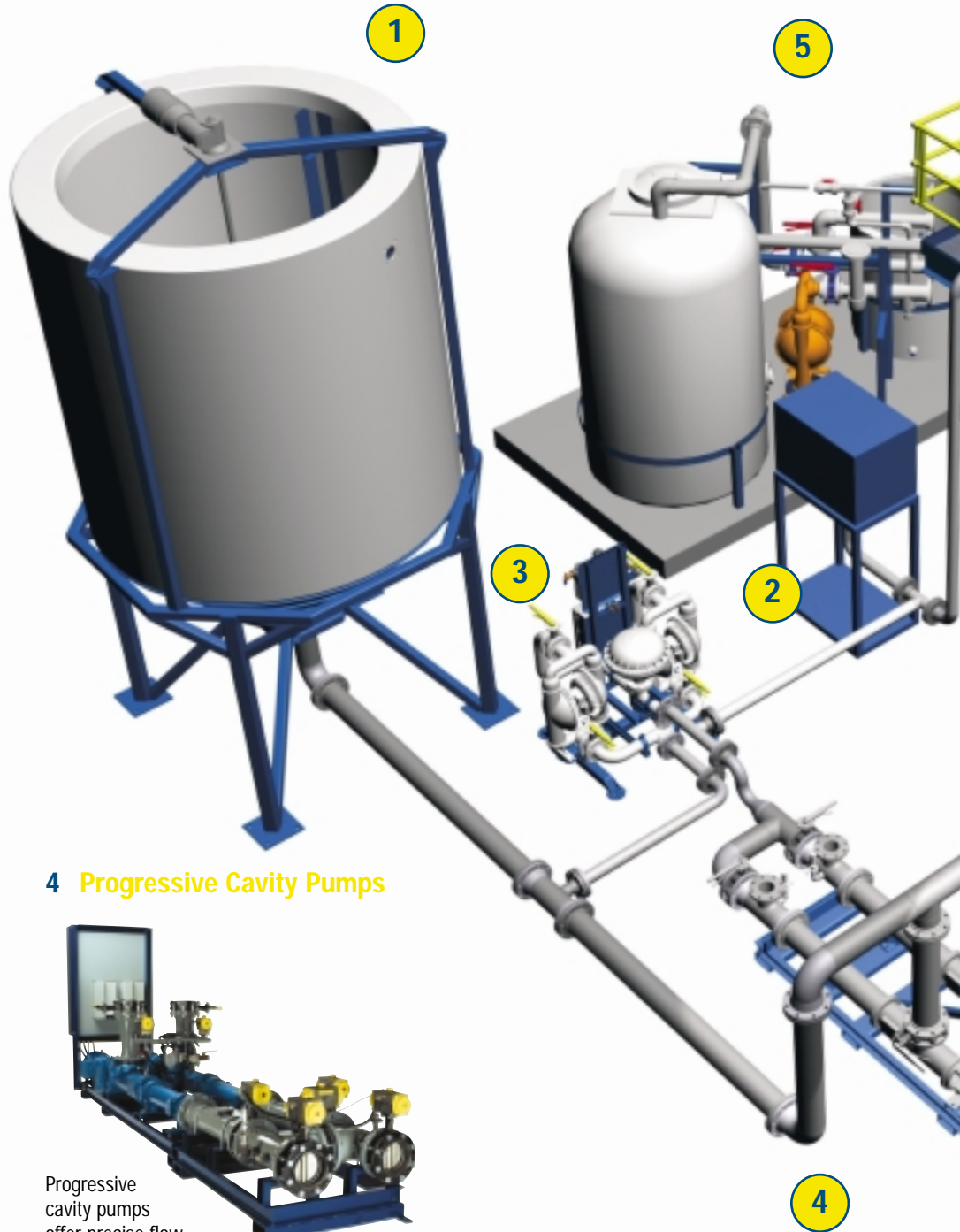


Many applications require some form of pretreatment prior to filtration. A wide range of both wet and dry polymer feed injection systems are available for in-line or in-tank mixing.

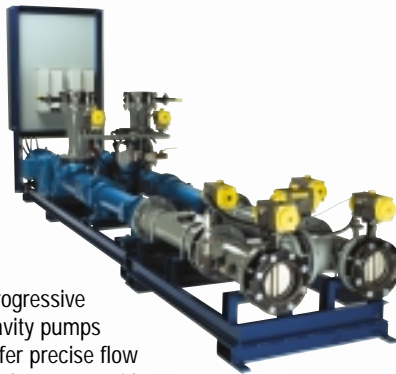
3 Air Diaphragm Pumps



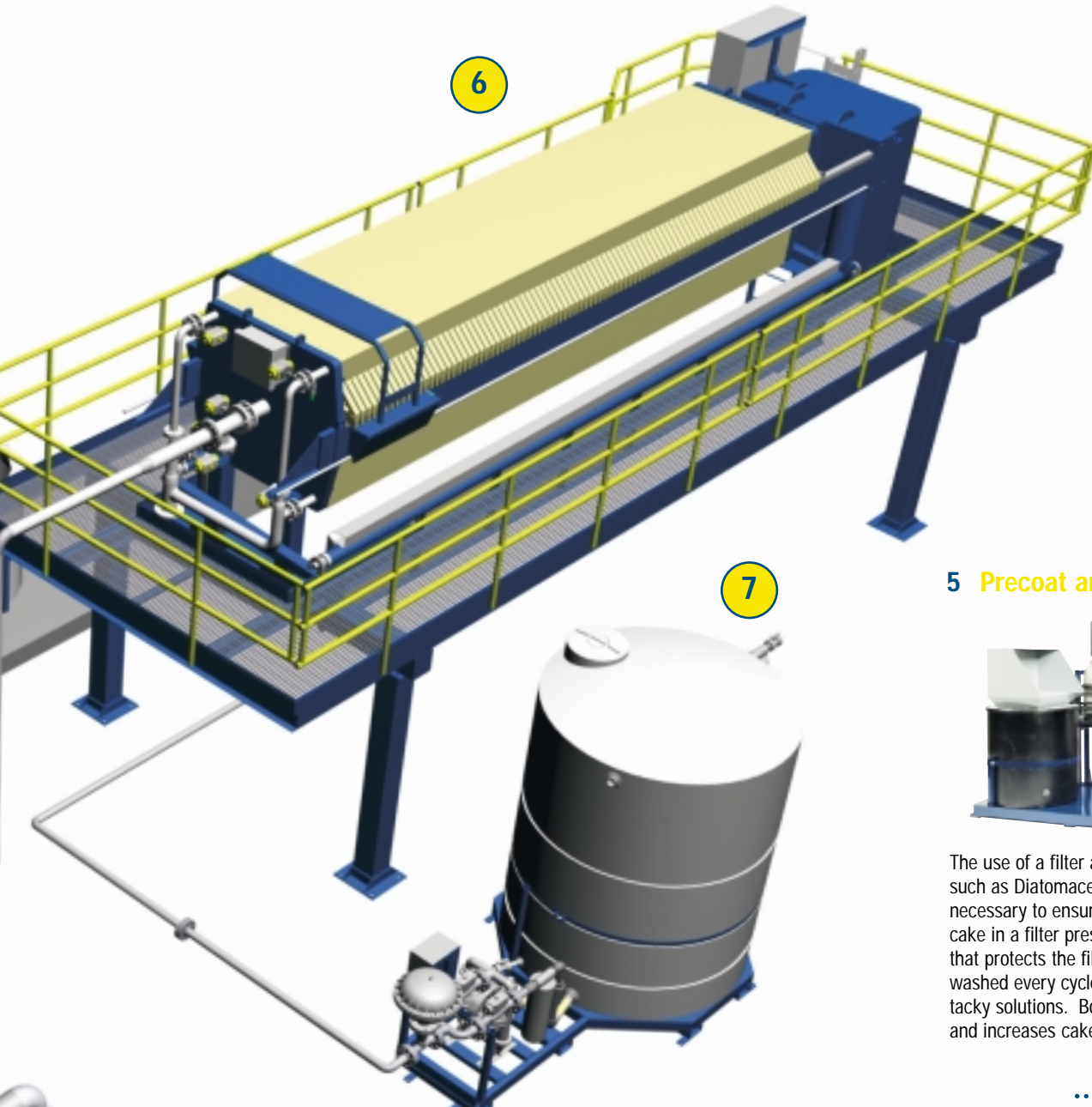
Air diaphragm pumps are ideal for feeding heavy sludges into filter presses. This low cost, simple to maintain pump uses compressed air to operate and can be provided with an incremental pressure controller to form a dryer cake.



4 Progressive Cavity Pumps



Progressive cavity pumps offer precise flow and pressure with very little maintenance. Electrically operated and precisely incrementally controlled these pumps deliver variable flows at a constant pressure.



6

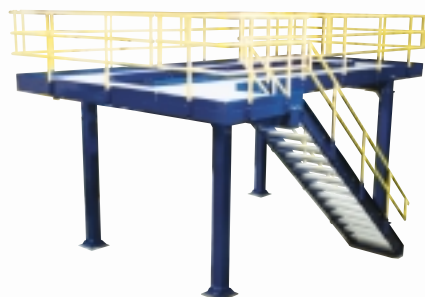
5 Precoat and Bodyfeed



The use of a filter aid such as Diatomaceous Earth is sometimes necessary to ensure the proper forming of filter cake in a filter press. Precoat creates a barrier that protects the filter cloth from needing to be washed every cycle when filtering sticky or tacky solutions. Bodyfeed enhances the flow and increases cake dryness.

7

6 Platform



Elevated platforms allow the filter press to discharge solids rapidly in to a range of disposal methods: roll off bins, conveyors or directly into sludge dryers.

7 Auxiliary Skids





Auxiliary skids such as membrane (water squeeze) cloth washing or acid washing are typically located near the filter press for automatic sequencing from the filter press control panel.


















FILTER PRESSES, OPTIONS & ACCESSORIES

The following chart shows the complete line of filter presses sized from 470mm to 1500mm frame sizes with the corresponding options and accessories available for each model.

			FILTER PRESS			MANUAL CLOSURE CONTROLS		DISCHARGE DEVICES				
			Filter Press			HYD Closure		Controls		Safety		
			CGR	NCGR	MEMB	PNEV	ELE	AP-3	AIS	Cord	Light	
470 mm		MANUAL P04L	✓			✓		✓				
630 mm *		SEMI* P06L	✓			✓		✓		✓		
		P06H		✓		✓		✓		✓		
800 mm *		SEMI* P08L	✓			✓		✓		✓		
		P08H		✓	✓			✓		✓		
		AUTO* P08L	✓				✓			✓	✓	
		P08H		✓	✓			✓		✓	✓	
1000 mm *		SEMI* P10L	✓	✓		✓	✓	✓		✓		
		P10H		✓	✓			✓		✓		
		AUTO* P10L	✓	✓			✓			✓	✓	
		P10H		✓	✓			✓		✓	✓	
1200 mm *		SEMI P12L	✓	✓		✓	✓	✓		✓		
		P12H		✓	✓			✓		✓		
		AUTO P12L	✓	✓			✓			✓	✓	
		P12H		✓	✓			✓		✓	✓	
		AUTO OVERH P12L	✓	✓			✓			✓	✓	
		P12H		✓	✓			✓		✓	✓	
1500 mm		SEMI P15L		✓		✓	✓	✓		✓		
		P15H		✓	✓			✓		✓		
		AUTO P15L		✓			✓			✓	✓	
		P10H		✓	✓			✓		✓	✓	
		AUTO OVERH P15L		✓			✓			✓	✓	
		P10H		✓	✓			✓		✓	✓	

* The following presses are available in standard and premium models.

DISCHARGE DEVICES			DISPOSAL SYSTEMS					PUMPS & PUMP SYSTEMS					CONDITIONING		
Plate Shifters			Sludge Handling			Drip Tray		Feed Pumps		Accessory Pumps			Mixing & Blending		
															
			✓					✓	✓				✓		
	✓		✓	✓	✓			✓	✓				✓		
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		✓	✓			✓	✓	✓	✓			✓	✓	✓	

Filter Press Sizing Chart

Please review the chart below to make a frame size selection.

Most Common Capacities Filter press Volume (Ft³)

Press size	1	2	3	4	5	6	7	8	9	10	12	15	20	25	30	35	40	45	50	60	75	80	90	100	125	150	175	200	250	300		
470 mm 18.5" plates No. of Plates	7	13	19	25	31																											
630 mm 24.8" plates No. of Plates					19	23		29		35	43																					
800 mm (31.5") No. of Plates										21		31	41	51	61																	
1000 mm (39.37") No. of Plates																43	49	55	61	73												
1200 mm (47.25") No. of Plates																					47	59	63	71	79							
1500 mm (59.00") No. of Plates																									65	77	89	101	127	153		

1500 x 2000 mm and 2000 x 2000 mm press data available upon request.

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