



Filter Presses

Manual, Semi-Automated, Automatic





Parkson Filter Presses

Reliable, versatile delivery of drier solids

Recessed plate filter pressing is simple, proven technology that has been around for a while. It has been improved and refined over the years to become highly reliable and quite versatile. Filter pressing remains a popular choice for one good reason.

It is the best process for a host of applications. Filter presses deliver drier solids than either centrifuges or belt filter presses. Engineers and operators rely on their performance and consistent results. And, they are surprisingly simple to run with very little training.

Sequence of Operation

The filter press consists of a series of individual filter plates that are firmly held together during operation. During filtration, ports in the plates allow slurries to flow in and filtrates to flow out. Slurry is pumped into the unit through the core, where it flows into the space between the plates.

Each plate is covered with filter cloth which serves as a platform for the development of the filter cake. As liquid is pumped in, a cake of solids begins to build on the cloth. This cake actually provides the primary filtering, removing smaller and smaller particles as it develops.

Typically, the filtrate passes through the cloth and flows toward the corners of the plate between pips or molded bumps on the surface. Here it flows through holes or discharge eyes and out of the unit.

Meanwhile, the cake continues to build and fill the cavity. As it does, the pressure of the incoming slurry increases, forcing additional liquid from the cake. Eventually, no more slurry can be pumped into the unit and the pressure increases to its maximum, leaving a dry cake between the plates.

Prior to cake discharge, air may be blown through the press to further dry the cake and to displace any remaining free liquid.

To remove the cake, the plate pressure is relieved and the head plate retracted. The plates are sequentially separated, allowing the cake to fall into a dumpster, conveyor, truck or other container. Since the discharged solids are very dry, they weigh less and have less volume, keeping costs down.

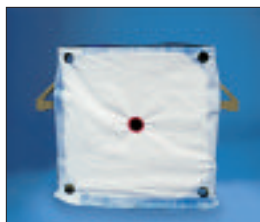
The Parkson filter press can be equipped with membrane filter plates. These plates have diaphragms that are inflated with water pressure.

Diaphragms squeeze additional liquid from the filter cake, thereby, making the discharged solids even drier. The use of diaphragm plates makes it possible to reduce cycle times by 50%, effectively doubling the capacity of the press and ensuring that a very dry cake is obtained – no matter what size batch is processed.

Considering its compact size, the filter press processes liquids at much higher than expected flow rates. A press with (180) 1500 mm plates has an incredible total screening surface area of 380 square meters.

Applications

- Metals, metal finishing, minerals
- Petrochemical and oily slurries
- Industrial laundries
- Tanneries and textile waste
- Paint sludge
- Filter backwash
- Municipal water treatment plant sludge – aluminum and lime
- Municipal wastewater treatment plant sludge-activated
- Filtering of fruit juices, wine, vegetable oils and flavor extracts
- Chemical separation processes
- Dewatering and washing of pigments and dyestuffs
- Environmental remediation



Non-Gasketed



Gasketed



Membrane

Automatic Filter Press Model Size/Capacity w/32 mm Cake Thickness

Filter Press Volume (ft³)

Model (With Shifter)	3	4	5	6	8	10	12	15	20	25	30	35	40	45	50	60	70	80	90	100	120	140	160	180	200	230	
630mm 43w x 62/80h Plate size: 25x25 No. of plates Length of press	10 94	13 101	16 107	19 114	26 128	32 143																					
800mm 50w x 67/87h Plate size: 31x31 No. of plates Length of press			10 109	12 114	16 123	19 129	23 138	28 150	38 172																		
1000mm 62w x 78h Plate size: 39x39 No. of plates Length of press									24 158	30 172	36 187	42 201	48 215	54 229	60 243												
1200mm 70w x 86h Plate size: 48x48 No. of plates Length of press														38 224	46 243	54 263	61 280	69 300	76 317								
1500mm 85w x 99h Plate size: 59x59 No. of plates Length of press																31 218	36 233	42 247	47 260	52 273	62 300	72 326	83 355	93 382	103 354	118 448	

All measurements are in inches except where noted.



Simple, versatile,
time-tested

**Parkson filter
pressing –
a dependable
process from the
people you trust for
your liquid/solid
separations needs.**

Benefits:

- No moving parts during filtration
- All wetted parts are stable polymeric materials
- Little operator skill or attention is required
- And, it can be completely automated
- Long life with low maintenance

Options:

- Bombay doors
- Manual, semi-automatic and automatic plate shifters
- High-pressure designs
- Variety of cloth materials
- Variety of cloth weaves and patterns
- Wide variety of unit sizes and chamber depths
- Different materials of construction, flow patterns and gasketing schemes

Parkson Manual Filter Presses

Manual Filter Press Model Size/Capacity w/32 mm Cake Thickness
Filter Press Volume (ft³)

Model	0.1	0.3	0.5	1	2	3	4	5	6	8	10	12	15	20
320mm 17w x 22h Plate size: 13x13 No. of plates Length of press	3 38	6 45	9 51											
470mm 30w x 47/65h Plate size: 18x18 No. of plates Length of press			5 67	8 74	14 86	20 99	27 114							
630mm 36w x56/74h Plate size: 39x39 No. of plates Length of press				4 68	7 75	10 82	13 88	16 95	19 102	26 115	32 131			
800mm 70w x 86h Plate size: 48x48 No. of plates Length of press								10 84	12 89	16 98	19 104	23 113	28 125	38 147

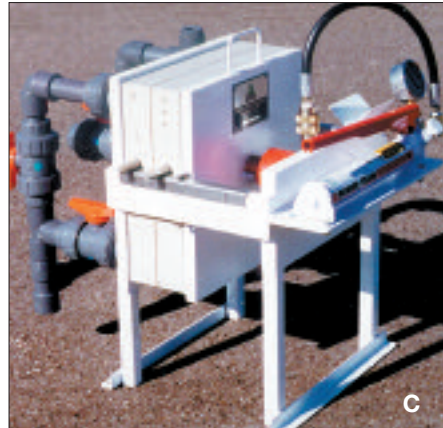


**630mm Press
(shown with options)**

All measurements are in inches except where noted.



A



C



B

**A – Sludge dumpster
B – Pre-coat and acid wash
C – Lab press**



**800mm Press
(shown with options)**



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