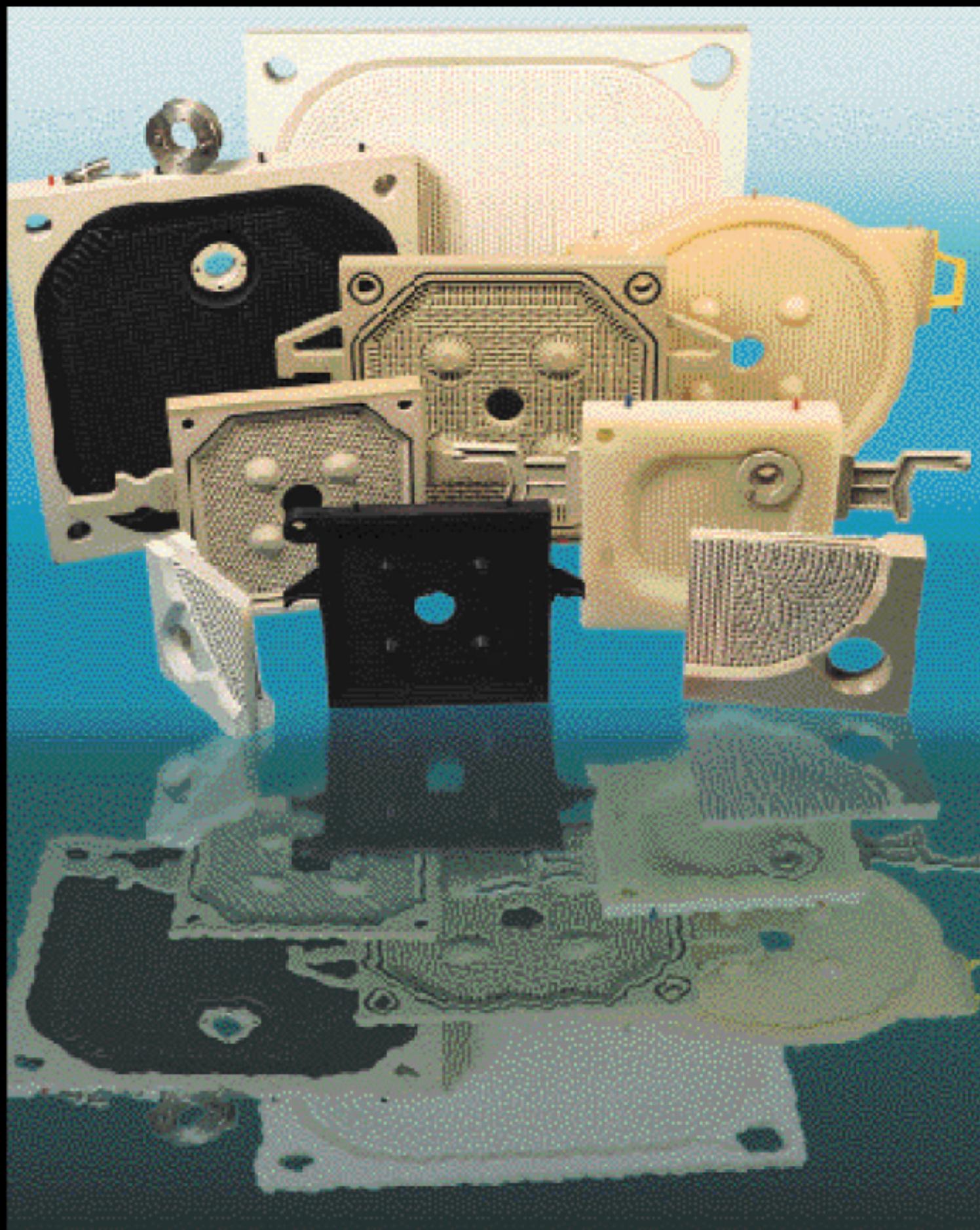


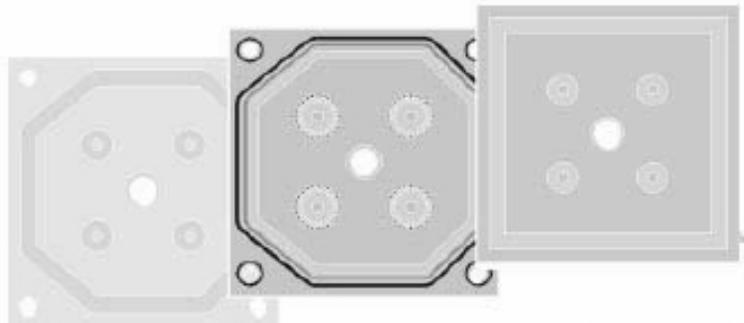
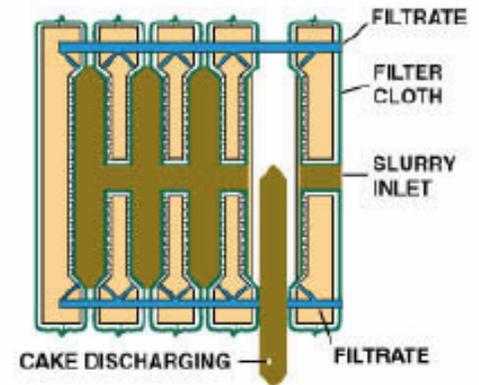
MICRONICS

FILTER PRESS PLATES FITS ALL OEM PRESSES



A Spectrum of Filtration Plates and Accessories from MICRONICS "the filter plate people"

RECESS PLATE



Recess Plate - Open Filtrate

An open filtrate, recess plate, discharges filtrate to either a "bib" (drain tap) located on one side of the plate or via vertical holes along the underside of the filter plate. Bib drains commonly drain into side launders (troughs) which are connected to a suitable discharge pipe. An advantage of this plate is visible filtrate discharge from each chamber, which can identify holed filter cloth or retention problems. The plate has a greater filtration area compared to the same size closed filtrate design.

Cloth Support Patterns

There are three drainage patterns used today; pipped, elongated pip and grooved. Grooved drainage is more common on plate & frame installations. The higher filtration pressures used with recessed or membrane plates make a pipped design more desirable. This design provides a better support for filter cloth, allowing filtrate to discharge along the base of the plate with the least resistance.



Recess Plate - Closed Filtrate

The recessed plate has a periphery sealing surface designed to accommodate the clamping force of the filter press. Stay boss supports are used to control flexing during the pressure delivery of the feed slurry. Filtrate is discharged via horizontal corner drains, which connect to the corner holes and in turn discharge to the feedhead end of the filter.

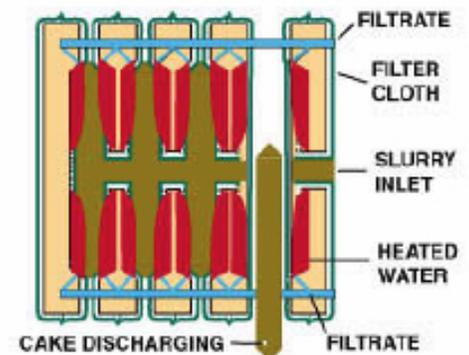
Gasketed Recess Plate (CGR)

A gasketed recess plate has a periphery sealing surface of 'O' ring. This design uses filter cloth with either sewn in caulking rope or a loose 'O' ring. The cloth attaches to the plate by driving the caulking rope or 'O' ring into a mating groove of the plate. Edge seal is significantly improved. An advantage of this plate is the complete containment of filtrate and/or fumes.

Recessed plates are designed for 7, 15 and 20 bar operation (100/225/300psi).
Recessed plates are available for sidebar or overhead press designs.
Mounting hangers or side handles can accommodate any brand of filter.

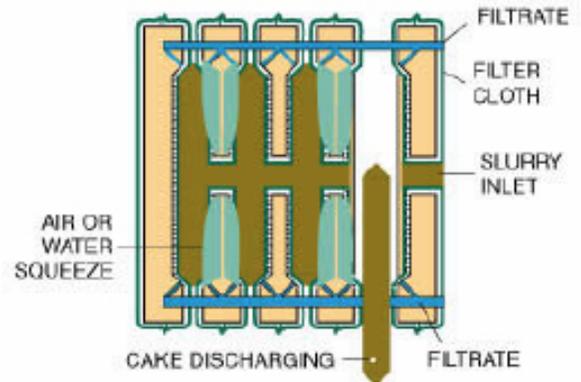
VACUUM MEMBRANE PLATE

Vacuum/Membrane filter press plates have a chamber below the drainage surface that is inflated after the filter cake is formed. Heated water 175F°-230F° (higher temperatures may be used with metal cores) is pumped through this cavity, both inflating the membrane against and transferring heat into the filter cake. A constant pressure is generated by water flow, which keeps the membrane face against the filter cake as it shrinks during the drying process. A vacuum applied within the filtration chamber draws out moisture from the filter cake and will, with sufficient time, produce a bone dry product.

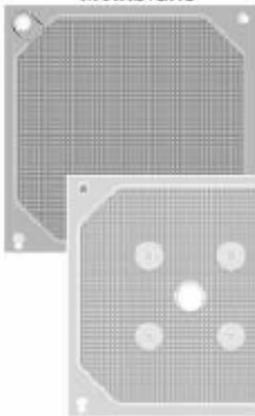


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MEMBRANE PLATE



Corner Feed Membrane



Center Feed Membrane

Membrane Recessed Plates

Membrane filter press plates have a chamber below the drainage surface that may be inflated. The common method used is water pressure, which is generated by pumping it into the squeeze cavity to inflate the face of the plate against the filter cake. Air may also be used with care. Membrane plates are used to reduce the cake moisture content or shorten the filtration cycle time. They may be retrofit to existing filters.

Mixed pack membranes are the most common configuration i.e. one recessed plate then one membrane plate alternating in the press plate pack. Usually the final result is good and savings are made in the overall plate pack cost. In some rare cases, an all membrane press pack may be required to achieve a specific results.

Membrane plates usually operate at a feed pressure of up to 7 bar and squeeze pressure to 15 bar. Special plates can be manufactured to accept higher feed and squeeze pressures.

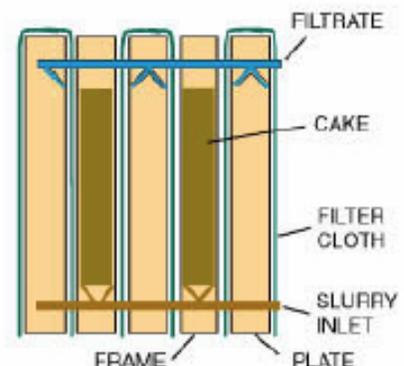
Two types of membrane plate designs are used; fixed and replaceable.

Fixed Membranes are most commonly 100% polypropylene, but thermoplastic rubber is also available. The plate is manufactured by molding the face membranes and a core plate separately. The face membranes are then joined to the core by means of heat welding to form a homogeneous plate. This type of membrane is suitable for many applications, but has advantages in food applications where the lack of joints will avoid contamination. The disadvantage, if short membrane life is expected, is that the whole plate must be replaced when a leak occurs.

Replaceable Membranes use a polypropylene core, which is machined to accept the connection and seal of a rubber membrane. These replacement faces are easily removed and reinstalled. Thermoplastic and other rubber compounds are used for specific conditions. Savings in operation can be achieved in difficult environments, and the membranes superior flexibility make it the best design for many installations.

PLATE & FRAME

Plate & Frame filter plates are an old design and predecessor to recessed plates. The chamber is formed by a flat plate on each side of a frame. Cake is collected in the frame. This type of plate is used today for polishing applications, when a large filtration area is more important than volume.



ACCESSORIES

Plate Handles

2 and 3 Bolt Handles



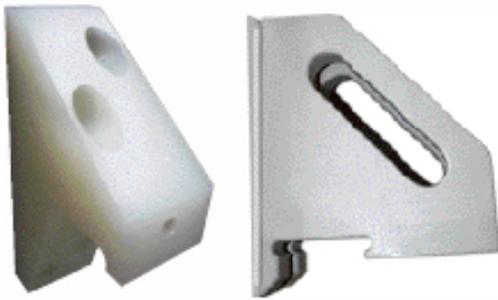
Liner Pipes



Plate Feed Nozzles

Plate Spigots

Open/Close and 3 Way Spigots



Custom and Manual Handles



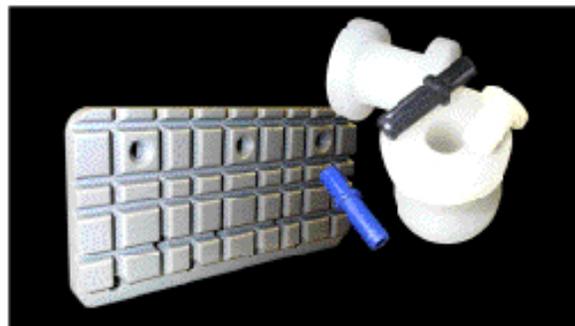
Distribution Rings



Cloth Scrapers



Gasketing 'O' Ring
Metric and Inch Dimensions



Filtrate Wear Piece
Plate Rollers • Cloth Pegs