

#### **ERTELALSOP.COM**

#### RECESSED CHAMBER FILTER PRESSES



INDUSTRIAL WASTEWATER
ENVIRONMENTAL REMEDIATION
METALS AND MINING
PETROCHEMICAL
PULP AND PAPER
FOOD AND BEVERAGE
BIODIESEL DRY WASH SEPARATION
ETHANOL FILTRATION



INDUSTRIAL WASTEWATER
PETROCHEMICAL
METALS AND MINING
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FOOD & BEVERAGE
PHARMACEUTICAL & CHEMICALS
BIODIESEL DRY WASH SEPARATION
ETHANOL FILTRATION

We observed, asked, and listened to hundreds of filter press owners and operators and incorporated their ideas and suggestions into our Recessed Chamber Line of presses which include fast acting hydraulic systems, uniform fill manifolds, safety lanyards, reverse core blow capability, chemically resistant painted surfaces, and four corner chamber discharge porting to reduce cycle time.

Our EA-Series presses provide a simple reliable method to dewater solids into cakes of 25-60% total concentration. This provides clearer filtrate solutions than systems removing only free water.

The EA-Series line is available in different sizes for solids handling ranging from press capacities of 1 ft<sup>3</sup> all the way to 300 ft<sup>3</sup>. 32mm caulk and gasketed polypropylene plates are standard on all models making these heavy-duty presses well suited for applications which require leak-free processing.

ErtelAlsop engineers will work with you to design and manufacture the optimum piece of equipment, and/or complete system, for any application with specific focus on quality, productivity improvement, cycle optimization, cost reduction, and safety.

Whenever you have a need for liquid depth filtration products, a lab or production filter press, filter media, a mixer, or filtration engineering assistance, please contact us with your requirement. We will be delighted to assist you.

Bill Kearney VP of Sales

Bob Scherrer Product Manager

# RECESSED CHAMBER FILTER PRESS



# WHY BUY AN ERTELALSOP FILTER PRESS

- · We engineer and manufacture our presses in the United States.
- · Our 6 year unconditional warranty on press frames.
- · We have the largest selection of filter plates and filter plate cloth.
- · We have full service laboratories in Kingston, NY.
- · We assist you to optimize productivity and/or reduce your cycle times.
- · We have manufactured the most 316L stainless steel filter presses in the US.
- · We have rental lab presses available to perform on site testing.
- · Our technical sales representatives are strategically placed to service you.
- · We offer start-up assistance with every filter press at a nominal cost.

# **EA-SERIES PRESS**

#### STANDARD FEATURES

- High Strength Carbon Steel Skeleton
- 304 Stainless Steel Side Bar Wear Strips
- Schedule 80 PVC Head Connections
- 4 Corner Discharge Porting
- Caulk & Gasketed Recessed Polypropylene Plates
- · 32mm Cake Thickness
- Manual Hydraulic Closure System
- Chemically Resistant Painted Framework
- · Full Six Year Framework Warranty

#### **OPTIONAL FEATURES**

- Flush Plate and Frames
- Membrane/Squeeze Plates
- Various Plate Materials
- Uniform Fill Manifold
- Cake Cart
- Cake Chute
- · Plate Shifter
- Leg Extensions
- Elevated Platforms
- Safety Gate
- Safety Lanyard

- Safety Light Curtain
- Stainless, Aluminum, Carbon Steel, FRP and CPVC Head Connections
- Splash Curtains
- Semi-automatic or Automatic Bombay Doors
- Feed Pumps: Air Operated Diaphragm (AOD)
- Automatic Pump Controller
- Blanking Plate
- Thorough Wash Capability
- · Expansion Capability

- Alternating Discharge (1B & 3B)
- Automatic Air/Oil Hydraulic Closure System
- Electric Hydraulic Closure with PLC Controls
- · Cake Thickness from 20-50 mm
- Membrane Water Squeeze System
- Wide Selection of Filter Media
- Cloth Washers
- · Cake Washing



#### 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, or
  - · Pounds of dry solids per time period.
- Number of hours per day, and days per week the process will operate.
- · % solids in slurry.
- Specific gravity of slurry if available
- Process operating temperature
- Density in lb./ft3 of wet filter cake if available
- % dry solids desired in filter cake (by weight)
- Chemical conditioning amounts if required (D.E., etc.)
- Will press be located inside or outside, and at what temperature extremes?
- Desired cake thickness (Std. is 32mm -1 1/4")
- Desired cycle time
- Desired closure & control automation: (Specify- Manual, Semi-Automatic or Automatic)
- Other: (Please specify from the options menu)

#### PRESS SIZING FORMULAS\*

1. Standard Slurries

Volume of slurry in gal. per cycle x % solids x 8.34 x SG

Density of wet cake in lb. per ft³ x % dry solids in filter cake

= Size Press Required

2. Metal Hydroxide Slurries

Volume of slurry in gal. per cycle x % solids in feed
2.89 = Size Press Required

\*Please obtain all possible slurry information as outlined above.

If one or more criteria are not available, we can test a sample of the slurry, and/or use some standard tabular published data.



	EA 102	EA 203
Std. Height:	9.8"/250mm	13.8"/350mm
Std. Width:	8"/200mm	12"/300mm
Range of Length:	9.5-20"/250mm-500mm	15.75-49"/400-1,250mm
Capacity:	0.01 ft <sup>3</sup> -0.05 ft <sup>3</sup>	0.03 ft <sup>3</sup> -0.29 ft <sup>3</sup>
Std Area/Chamber:	0.148 ft <sup>2</sup>	0.554 ft <sup>2</sup>
Plate Dimension:	4"/102mm	8"/203mm
Discharge Ports:	3 Corner	3 Corner
Std. Vol./Chamber:	0.0077 ft <sup>3</sup>	0.029 ft <sup>3</sup>

#### **OPTIONS SHOWN:**

203mm PP Membrane Squeeze Plates, SS Skeleton and Drip Tray, Hand Hydraulic Pump Closure, Tri-Clover (Sanitary) Head Connections

	EA 470	EA 630
Std. Height:	44.5"/1,130mm	50.25"/1,276mm
Std. Width:	22.5"/572mm	30"/762mm
Range of Length:	74-119"/880-3,023mm	89-153"/2,261-3,836mm
Capacity:	0.5 ft <sup>3</sup> -2.9 ft <sup>3</sup>	2.0 ft <sup>3</sup> -10.0 ft <sup>3</sup>
Std Area/Chamber:	2.3 ft <sup>2</sup>	6.4 ft <sup>2</sup>
Plate Dimension:	18.5"/470mm	24.8"/630mm
Discharge Ports:	4 Corner	4 Corner
Std. Vol./Chamber:	0.14 ft <sup>3</sup>	0.29 ft <sup>3</sup>

#### **OPTIONS SHOWN:**

630mm 316 SS Plates, 304 SS Skeleton, Safety Light Curtain, SS Self-Dumping Cake Carts with Fork Lift Tubes, Air/Oil Hydraulic Power Unit, SS Enclosure, 304 SS Removable Expansion Spacer

	EA 800	EA 1000	
Std. Height:	58"/1,473mm	66.5"/1,689mm	
Std. Width:	43.5"/1,105mm	51.5"/1,308mm	
Range of Length:	110-231"/2,794-5,868mm	156-280"/3,962-7,112mm	
Capacity:	5.2 ft <sup>3</sup> -30.0 ft <sup>3</sup>	16.4 ft <sup>3</sup> -60.0 ft <sup>3</sup>	
Std Area/Chamber:	10.0 ft <sup>2</sup>	16.9 ft <sup>2</sup>	
Plate Dimension:	31.5"/800mm	39.4"/1,000mm	
Discharge Ports:	4 Corner	4 Corner	
Std. Vol./Chamber:	0.5 ft <sup>3</sup>	0.82 ft <sup>3</sup>	

#### **OPTIONS SHOWN:**

1000mm PP Membrane Squeeze Plates, C1018 CS Skeleton, Safety Lanyard, Automatic Actuation and Controller, Electric Hydraulic Closure, Automatic CS Plate Shifter, CS Bombay Drip Tray, 316 SS Removable Expansion Spacer

Membrane Squeeze Fill Tank shown on opposite page.



#### **OPTIONS SHOWN:**

1200mm PP Plates, CS Skeleton, 304 SS Lined CS Semi-Automatic Bombay Drip Tray, Safety Lanyard, Air/Oil Hydraulic Power Unit with Automatic Controller, Semi-Automatic CS Plate Shifter



**EA 102 AND EA 203** 

# EA 470 AND EA 630

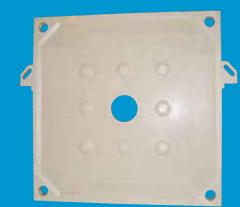


# **EA 800 AND EA 1000**

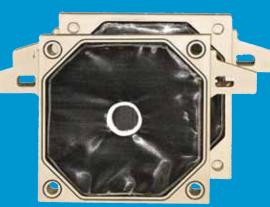


# EA 800 AND EA 1000

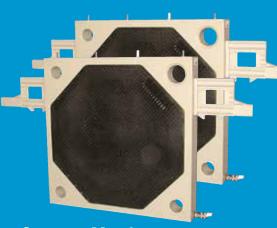




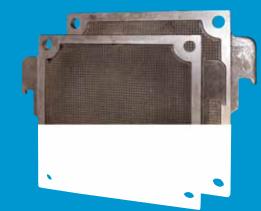
Center Feed Non-Gasketed Recessed Chamber



Center Feed Caulk & Gasketed Recessed Chamber



**Squeeze Membrane** 



**Cast 316 Stainless Steel** 

# PLATES AND OPTIONS

# PLATE TYPES

- Plate and Frame\*
- · Recessed Chamber
- · Caulk and Gasketed Recessed Chamber
- · Membrane Squeeze
- \* Maximum Pressure rating selections are 100 PSIG to 225 PSIG

#### PLATE MATERIALS

- Polypropylene Blends
- Nylon
- Kynar

- · Stainless Steel cast
- High Temperature Polypropylene Stainless Steel fabricated
  - Polypropylene Membrane on PP plates
  - Rubber Membrane on PP plates

# FILTER MEDIA

At ErtelAlsop the type of filter media chosen is based on your specific operating conditions, the performance required by the filtering media, and criteria given to us by you and/or by sample processing we do in our lab of your slurry.

Filter media comes in a variety of different materials including:

Polypropylene

Teflon

Polyester

Cotton

Nylon

Filter media is constructed from woven and nonwoven materials:

Monofilament

Needle-punched felts

Multifilament

- Spun-bonded
- Spun staple yarns
- Laminates

Should your process change, we recommend your media type be re-evaluated for optimum performance.

For additional information, please visit ErtelAlsop.com and request our Filter Media Brochure.

# MEDIA WASHER

Filter media provided with our EA-Series Press has been selected specifically for your dewatering process. Care and maintenance of the filter media is a very important factor influencing the performance of the filter press. The filter media is the initial barrier that separates solids from liquid; therefore, the filter cloth must remain porous to provide high filtration rates.

An automatic media washing system can be added to any ErtelAlsop plate shifter system. Washing the media at regular intervals not only improves the filter presses performance but prolongs the working life of the media as well. Operating in as little as 20 seconds per plate, the automatic media washing system can restore the filter media to like new condition.

## **CLOSING MECHANISMS**

With 100 PSI and 225 PSI designs ErtelAlsop has a closing mechanism that will fit your needs. From manual operation with an air/oil hydraulic closing system to a semi or fully automatic electric hydraulic system with PLC controls, ErtelAlsop presses are simple to use and require little training time.

#### PLATE SHIFTER

ErtelAlsop's mechanical plate shifters move individual plates along a stainless steal wear strip allowing rapid discharge of the dewatered cake between the plates. Plate shifter designs include hydraulic motor, chain drive, and dual

ErtelAlsop's plate shifters are available in either a semi-automatic or fully automatic style. With full automation, the transport speed is adjustable, but averages 6 to 8 plates shifted per minute.

#### SAFETY

ErtelAlsop offers many different safety features to help protect press operators and bystanders. Be sure to ask about our safety gates which protect surrounding areas at all times, or about our auto shut off safety lanyards which stop press functions with less than 2 lbs of pressure, or light curtains which stop the press functions when any object crosses between the infrared light bars. PLC controls can also have a 2 palm start up to prevent accidental operation while inspecting or cleaning.

# **COMMITMENT TO SERVICE**

Our commitment to quality is equaled only by our commitment to customer service and support. Your purchase includes more than the products - it includes the resources of the company.

- We believe that integrity and honesty are essential, and we will not compromise either in our business.
- We provide accurate information in plain language.
- We support our customers from conceptual design through the manufacturing cycle and beyond, with a dedicated level of field repair, replacement parts and support.
- · We continually strive to provide our customers with technology driven, cost effective, manufacturing solutions that are quality compliant and delivered on time.
- · Our product warranty and satisfaction guarantee continues for years after you take delivery of our presses.









#### THE FIRST NAME IN LIQUID FILTRATION

Our commitment to customer service and the willingness to modify our designs to meet customer requirements continues to make ErtelAlsop stand apart from our competitors.













TO VIEW OUR COMPLETE PRODUCT LINE VISIT

## **ERTELALSOP.COM**

LABORATORY FILTERS • PLATE & FRAME PRESSES

FILTER PADS & SHEETS • FILTER PAPER

PAK® LENTICULAR CARTRIDGES • FILTER HOUSINGS

MICROCAP™SINGLE-USE CAPSULES

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Since 1920, the world's most respected brands have used ErtelAlsop to help them get their projects done.

**ADM** 

ALOEVEN C.A.

**ASAHI** 

**ATLATEC** 

**AVON COSMETICS** 

**BACARDI** 

**BD DIAGNOSTICS** 

**COCA COLA** 

**COTT BEVERAGES** 

**DOW CORNING** 

**DUKE ENERGY** 

ESTEE LAUDER

**FOSTER'S WINE** 

**GIVAUDAN** 

**HALIBURTON** 

**IFF** 

**JACOB'S CREEK WINE** 

JIM BEAM

**JOHNSON & JOHNSON** 

LA GUITARRA MINERA

**MERCK** 

OLIN

**PEPSI** 

**PFIZER** 

**SEPOR** 

SANOFI

SAZERAC

**TEQUILA CUERVO** 

**TEQUILA SAUZA** 

TEVA PHARMACEUTICAL

WILD TURKEY

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