



# ENVIRO SOLUTIONS

A DIVISION OF LST INDUSTRIES L.L.C.

Systems and equipment for industrial wastewater treatment, recycling, and reuse.

## 2020 Catalog







# ENVIRO SOLUTIONS

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Hablamos Español

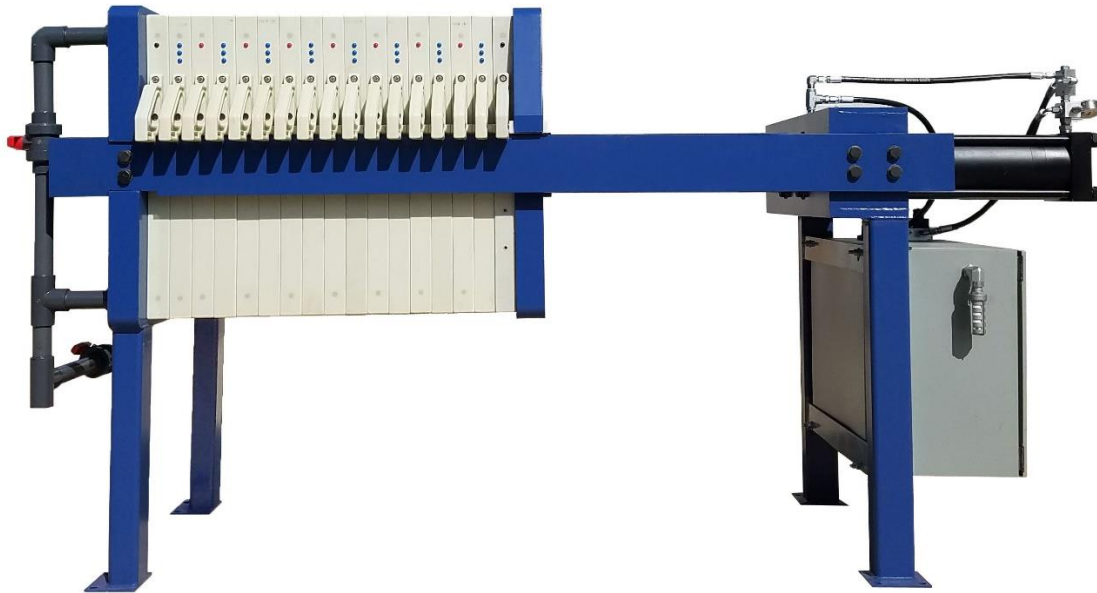
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## Filter Presses



Pictured Above: FP-008-0800-P



Pictured Above: FP-015-0800-R



## Model Code

**FP** - **015** - **0800** - **P**

1      2      3      4      5

### 1.      **Product**

**FP**      Filter Press

### 2.      **Capacity**

**2 - 200** cubic feet

### 3.      **Plate Size**

**0630**    630mm x 630mm x 32mm

**0800**    800mm x 800mm x 32mm

**1000**    1000mm x 1000mm x 32mm

**1200**    1200mm x 1200mm x 32mm

### 4.      **Line**

**P**      Premier

**R**      Ring of Steel

### 5.      **OPTION - Frame Construction Material**

-      Standard Carbon Steel

**SS**    304 Stainless Steel



## Filter Press Models

Capacity and Filtration Area are based upon 32mm (1.25") filter cake thickness.

Our 3 to 5 cubic feet 630mm and 5 to 15 cubic feet 800mm filter presses are also available as a Ring of Steel type, highlighted in gray.

### 630mm Filter Press Frames

Model	Nominal Capacity (ft³)	Actual Capacity (ft³)	Number of Plates	Filtration Area (ft²)	Dimensions (inches)
FP-003-0630-X	3	3.0	11	64	95 x 36 x 62
FP-004-0630-X	4	4.2	15	89	95 x 36 x 62
FP-005-0630-X	5	5.1	18	108	95 x 36 x 62
FP-006-0630-X	6	6.0	22	134	111 x 36 x 62
FP-008-0630-X	8	8.1	28	172	129 x 36 x 62

### 800mm Filter Press Frames

Model	Nominal Capacity (ft³)	Actual Capacity (ft³)	Number of Plates	Filtration Area (ft²)	Dimensions (inches)
FP-005-0800-X	5	5.10	11	109	101 x 43 x 58
FP-006-0800-X	6	6.12	13	130	105 x 43 x 58
FP-008-0800-X	8	8.16	17	173	113 x 43 x 58
FP-010-0800-X	10	10.20	21	217	121 x 43 x 58
FP-015-0800-X	15	15.30	31	325	141 x 43 x 58
FP-020-0800-X	20	20.40	41	433	171 x 43 x 58
FP-025-0800-X	25	24.99	50	530	191 x 43 x 58



Pictured Above: FP-003-0630-R



### 1000mm Filter Press Frames

Model	Nominal Capacity (ft <sup>3</sup> )	Actual Capacity (ft <sup>3</sup> )	Number of Plates	Filtration Area (ft <sup>2</sup> )	Dimensions (inches)
FP-020-1000-X	20	20.40	25	419	156 x 52 x 67
FP-030-1000-X	30	30.60	37	628	185 x 52 x 67
FP-040-1000-X	40	39.95	48	818	213 x 52 x 67
FP-050-1000-X	50	50.15	59	1029	242 x 52 x 67

### 1200mm Filter Press Frames

Model	Nominal Capacity (ft <sup>3</sup> )	Actual Capacity (ft <sup>3</sup> )	Number of Plates	Filtration Area (ft <sup>2</sup> )	Dimensions (inches)
FP-060-1200-X	60	60.76	63	1575	237 x 60 x 75
FP-080-1200-X	80	80.36	83	2083	276 x 60 x 75
FP-100-1200-X	100	100.94	104	2617	315 x 60 x 75





## **All Filter Presses**

Carbon steel frame construction

Carbon steel tail plate with eyelet for lifting and maintenance

304 stainless steel sidebar caps

Schedule 80 PVC air blow down manifold

Hydraulic closure cylinder

Extended sidebars for easy strap lifting

Full stack of polypropylene filter press plates

Full set of polypropylene filter press cloths pre-installed

Feet with lips for bolting down the equipment to floor

Center feed, four-corner discharge

Digital and physical owner's manual

## **Premiere Line**

Double-acting hydraulic closure package

Hydraulic closure package enclosure cabinet

Easy open/close operation with one toggle switch

## **Ring of Steel Line**

Pedestal-type single-acting hydraulic closure package

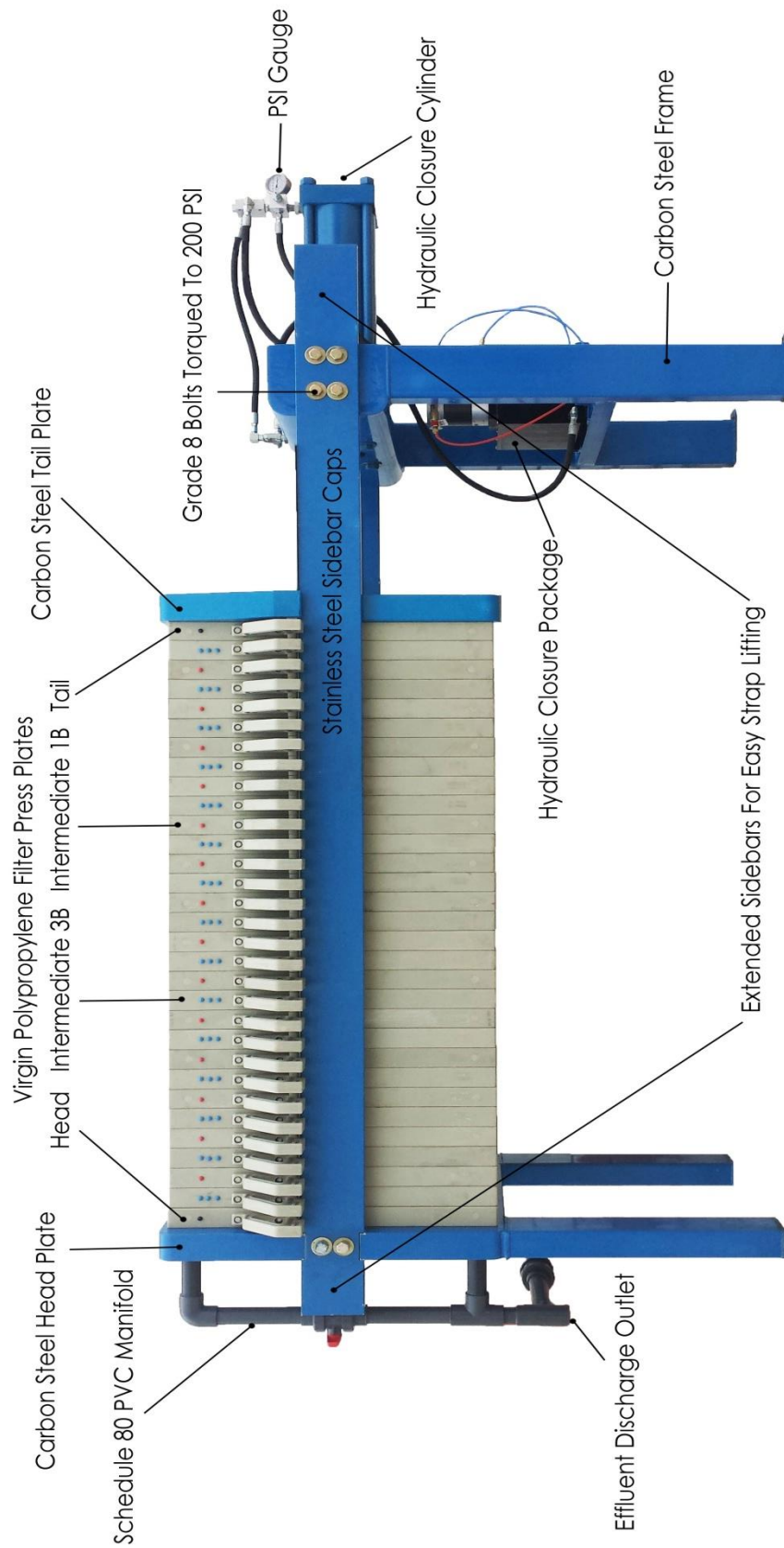
630mm 3-4 cubic foot presses are expandable to 5 cubic feet by removing the included extension piece

## **OPTION**

304 stainless steel frame – ideal for locations such as food processing facilities

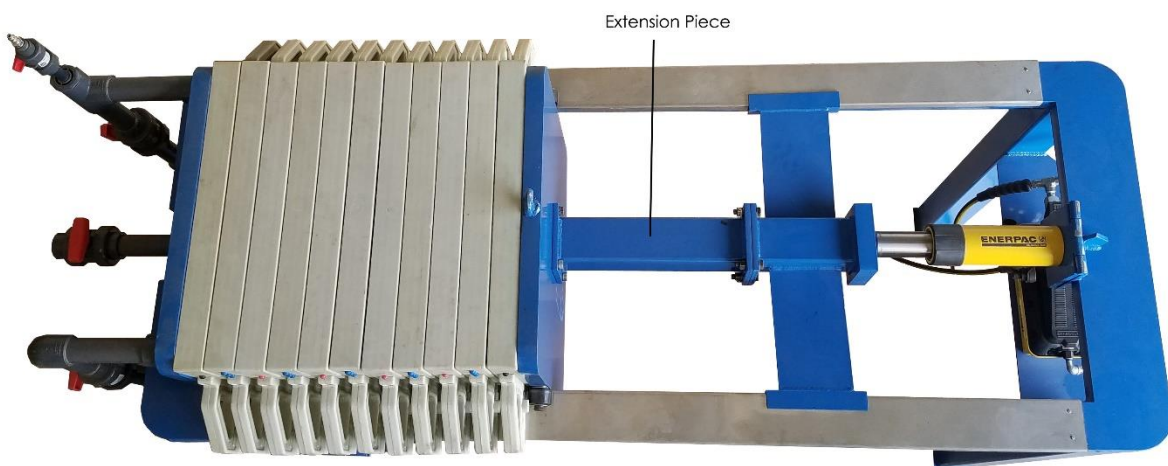


Pictured below: FP-0800-015-P (no enclosure cabinet)





Pictured Below: FP-003-0630-R







## Filter Press Cloths



Pictured: FPC-0630-G-I-S



## Model Codes

**FPC** - **0630** - **G** - **I** - **O**

1            2            3    4    5            6

### 1. Product

**FPC** Filter Press Cloth

### 2. Size

<b>0320</b>	320mm	32 cm	12.60 in
<b>0470</b>	470 mm	47 cm	18.50 in
<b>0630</b>	630 mm	63 cm	24.80 in
<b>0800</b>	800 mm	80 cm	31.50 in
<b>1000</b>	1000 mm	100 cm	39.37 in
<b>1200</b>	1200 mm	120 cm	47.24 in
<b>1500</b>	1500 mm	150 cm	59.06 in

### 3. Plate Type

**G** Gasketed (CGR plates)

**N** Non-Gasketed (NCGR plates)

### 4. Type

**I** Intermediate

**E** End

### 5. Weave

- **Standard** Satin

**O** Oxford

### 6. Color

- **Standard** White

**B** Black – UV Resistant for filter presses operating outdoors



## 1. Filter Press Cloths

Model	Size	Plate Type	Type
FPC-0320-G-I	320mm	Gasketed (CGR)	Intermediate
FPC-0320-N-I	320mm	Non-Gasketed (NCGR)	Intermediate
FPC-0320-G-E	320mm	Gasketed (CGR)	End
FPC-0320-N-E	320mm	Non-Gasketed (NCGR)	End
FPC-0470-G-I	470mm	Gasketed (CGR)	Intermediate
FPC-0470-N-I	470mm	Non-Gasketed (NCGR)	Intermediate
FPC-0470-G-E	470mm	Gasketed (CGR)	End
FPC-0470-N-E	470mm	Non-Gasketed (NCGR)	End
FPC-0630-G-I	630mm	Gasketed (CGR)	Intermediate
FPC-0630-N-I	630mm	Non-Gasketed (NCGR)	Intermediate
FPC-0630-G-E	630mm	Gasketed (CGR)	End
FPC-0630-N-E	630mm	Non-Gasketed (NCGR)	End
FPC-0800-G-I	800mm	Gasketed (CGR)	Intermediate
FPC-0800-N-I	800mm	Non-Gasketed (NCGR)	Intermediate
FPC-0800-G-E	800mm	Gasketed (CGR)	End
FPC-0800-N-E	800mm	Non-Gasketed (NCGR)	End
FPC-1000-G-I	1000mm	Gasketed (CGR)	Intermediate
FPC-1000-N-I	1000mm	Non-Gasketed (NCGR)	Intermediate
FPC-1000-G-E	1000mm	Gasketed (CGR)	End
FPC-1000-N-E	1000mm	Non-Gasketed (NCGR)	End
FPC-1200-G-I	1200mm	Gasketed (CGR)	Intermediate
FPC-1200-N-I	1200mm	Non-Gasketed (NCGR)	Intermediate
FPC-1200-G-E	1200mm	Gasketed (CGR)	End
FPC-1200-N-E	1200mm	Non-Gasketed (NCGR)	End
FPC-1500-G-I	1500mm	Gasketed (CGR)	Intermediate
FPC-1500-N-I	1500mm	Non-Gasketed (NCGR)	Intermediate
FPC-1500-G-E	1500mm	Gasketed (CGR)	End
FPC-1500-N-E	1500mm	Non-Gasketed (NCGR)	End



### Item Code: FP-SS

Filter Press Sludge Scraper

40" overall length

Polypropylene construction

\$50.00 USD

Always in stock!



## Cloth Services

When ordering cloths from Enviro Solutions, you have the option to ship your plates to our warehouse for filter press cloth installation.

<b>FPP-CS</b>	Filter Press Plate – Cleaning Service	<b>\$30.00 x Quantity of Plates</b>
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Service Includes:

- Safely removing and disposing of old cloths
- Power washing surface and caulking groove
- Plate inspection to check for damaged plates

<b>FPC-IS</b>	Filter Press Cloth – Installation Service	<b>\$30.00 x Quantity of Plates</b>
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Service Includes:

- Installing cloths onto new or cleaned plates

### Ship To Address:

Enviro Solutions  
625 Humble Ave.  
San Antonio, TX 78225  
U.S.A.

### Shipping Hours:

9:30 A.M. – 3:30 P.M.  
Central Time





## **Choosing the Proper Filter Cloth**

It's probably time to change your cloths when you see abrasion, stretchiness, folding, holes, poor cake, dirty filtrate or when conventional cleaning techniques don't restore the performance of your filter press.

To select the correct type of filter cloth to match your needs, the first step we must take is to determine the type of process or application performed by the filter press, the operating environment, and the performance required of the filter cloths.

Your process could also determine the length of life of your filter cloths. They could last as little as six months or as long as five years. It depends on many things such as, how often you run your filter press, what you run through your filter press and how well you maintain your filter cloths.

These filter cloths come in many different materials including polypropylene, polyester, cotton, and other synthetic materials. Mesh opening, or pore size, is also an important consideration when selecting the proper filter cloths for a particular application.



### 3. Plate Type

#### **G Gasketed (CGR)**

The gasketed plate allows less leakage than the non-gasketed plate due to an o-ring seal around the chamber and filtration ports. The gasketed cloth has a high-density sash cord sewn around the cloth's perimeter that is caulked into a groove on the plate.



Gasketed plate and cloth

#### **N Non-Gasketed (NCGR)**

Cloths for non-gasketed plates are hung over the plate, extending from top to bottom, and are held in place by hook and loop fasteners or eyelets that fit over the cloth-dogs (pins) on top of the plates.



Non-gasketed plate and cloth



## 5. Weave

### Satin Weave

Sludge releases easier, less time spent cleaning between openings, less durable

Composition:	100% Polypropylene
Weight - oz / sq. yd:	9
CFM:	3-5
Weave:	Satin
Warp:	Monofilament
Weft:	Multifilament
Finish:	Scoured heat set, Calandered

### O Oxford Weave

More difficult to clean as sludge is more likely to cling to the cloth once the filter press has opened, more durable

Composition:	100% Polypropylene
Weight - oz / sq. yd:	13.9
CFM:	2-4
Weave:	Oxford
Warp:	Multifilament
Weft:	Multifilament
Finish:	Heat set, Calandered

## 6. Color

**White** For filter presses in use indoors or outdoors in a well-covered environment.

**B Black** UV Resistant for filter presses operating outdoors. In NCGR cloths, sun-appropriate latex is applied.



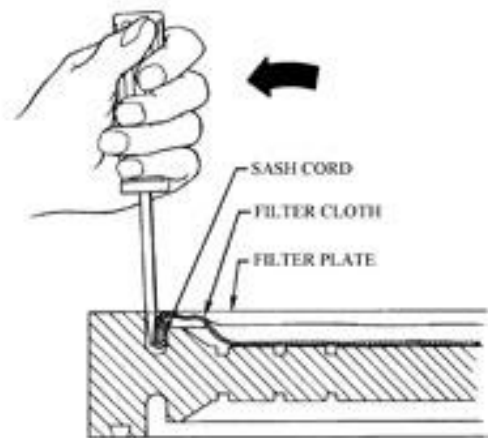
## Filter Press Cloth Maintenance

### Removal of Cloths from Intermediate Plates

#### Removing Cloths from A Gasketed (CGR) Plate:

<https://youtu.be/zkp1xWU34LM>

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



#### Removing Cloths from A Non-Gasketed (NCGR) Plate:

To remove a filter cloth from a non-gasketed plate, use diagonal cutters or snips to cut the ties (if supplied) on the vertical sides and lift each side of the cloth off the cloth-pins on the top edge of the plate. Pull the cloth through the center feed eye of the plate.



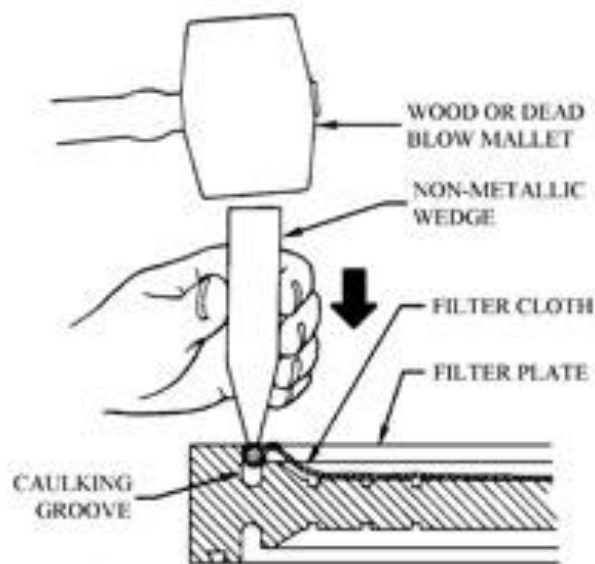
### **Installation of Cloths onto Intermediate Plates:**

On both gasketed and non-gasketed plates having a center feed eye with sewn centers, you will need to fold the cloth on one side into a small section so that it can be inserted through the center feed eye. Once you pull the cloth through the eye, unfold it for caulking on the gasketed plate, or hanging on the non-gasketed plate.

### **Installation of Cloth on a Gasketed (CGR) Plate:**

<https://youtu.be/oAZDNhDkuD4>

On gasketed plates, place the cloth against the plate and tap in a small section of the sash cord or O-ring on the top to hold the cloth in position. Line up and caulk the diagonal sections first to ensure proper alignment of the cloth. Distribute the caulking one the sides, top and bottom by caulking in the center of these long sections first. Proceed to insert the balance of the caulking, ensuring that the caulking is distributed evenly. Even though there may appear to be a surplus of material, this can be worked in easily.



The tool for installing the retaining material (O-ring caulking and sash cords) is a simple wedge of polypropylene, a medium hardness air hammer, or some other non-shattering type material. The recommended size for the tool is 25mm thick x 75mm wide x 200mm long with one end tapered down to 5/16" (8mm) thick. Do not use a metal wedge since this may damage the cord or filter cloth.

### **Installation of Cloths on a Non-Gasketed (NCGR) Plate:**

Lift the cloth over the cloth dogs on top of the plate. Then join the two edges on the sides of the filter plate with wire ties or similar clips.



## **Installation of Head and Tail Cloths**

Unlike intermediate filter cloths, the end-plate (head and tail) cloths do not have a sewn-in center feed eye. The end-plate cloths would be installed as described in the previous question; however, the head-plate cloth must have the center feed hold cut before installation.

To do this, remove the old head cloth by first removing the center feed assembly's clip nut. Then, tap the corners of the new end-cloth into the head-plate making sure it is positioned correctly. Cut out the cloth around the center feed pipe using the equivalent of a hot knife, soldering gun or the like. This will seal the edges of the cut to prevent possible fraying of threads in the cloth. After the hole has been cut, finish installing the head cloth, then re-attach the clip nut.

## **Washing Cloths**

Washing cloths may be necessary for several reasons; i.e., blinding of the cloth through the use of lime or dirt. Filter cloths should be washed when the initial filter feed pressure exceeds 40-50 psig, as this indicates the cloths are plugged or blinded.

## **Power Washing**

Cloths can be washed with a high-pressure spray gun while they are still on the plates.

## **Washing Machine**

It may be necessary to first use an HCL treatment beforehand if there is lime or chemicals in the cloth. First wash a tail cloth as a test to make sure detergent is not so strong as to damage the fibers of the cloth. Polypropylene or polyamine cloths should not be washed in a temperature above 120°F, as they may shrink. Do not put cloths in a dryer, the heat may cause shrinkage.

An HCL treatment consists of first washing the cloths with water, then letting cloths remain in a 1-5% HCL solution until the bubbling stops, followed by a second washing with water.



## Filter Press Plates



Pictured: FPP-0630-G-I-1B



## Model Code

**FPP** - **0630** - **G** - **I** - **1B**

1      2      3      4      5

### 1. Product

**FPP** Filter Press Plate

### 2. Size

**0470** 470mm x 470mm x 32mm

**0630** 630mm x 630mm x 32mm

**0800** 800mm x 800mm x 32mm

**1000** 1000mm x 1000mm x 32mm

**1200** 1200mm x 1000mm x 32mm

**1500** 1500mm x 1500mm x 32mm

### 3. Plate Type

**G** Gasketed (CGR plates)

**N** Non-Gasketed (NCGR plates)

### 4. Type

**I** Intermediate

**E** End

### 5. Configuration

**1B** 1 Button (Red)

**3B** 3 Button (Blue)

**H** Head Plate

**T** Tail Plate





## Filter Press Plates

Model	Size (mm)	Filtration Area (ft <sup>2</sup> )	Chamber Volume (ft <sup>3</sup> )	Weight (lbs.)	Plate Type	Type	Config.
FPP-0470-G-I-1B	470	3.33	.15	14.33	CGR	Inter.	1B
FPP-0470-G-I-3B	470	3.33	.15	14.33	CGR	Inter.	3B
FPP-0470-N-I	470	3.33	.15	14.33	NCGR	Inter.	N/A
FPP-0470-G-E-H	470	3.33	.15	18.74	CGR	End	Head
FPP-0470-G-E-T	470	3.33	.15	18.74	CGR	End	Tail
FPP-0470-N-E-H	470	3.33	.15	18.74	NCGR	End	Head
FPP-0470-N-E-T	470	3.33	.15	18.74	NCGR	End	Tail
FPP-0630-G-I-1B	630	6.35	.30	24.03	CGR	Inter.	1B
FPP-0630-G-I-3B	630	6.35	.30	24.03	CGR	Inter.	3B
FPP-0630-N-I	630	6.35	.30	24.03	NCGR	Inter.	N/A
FPP-0630-G-E-H	630	6.35	.30	33.84	CGR	End	Head
FPP-0630-G-E-T	630	6.35	.30	33.84	CGR	End	Tail
FPP-0630-N-E-H	630	6.35	.30	33.84	NCGR	End	Head
FPP-0630-N-E-T	630	6.35	.30	33.84	NCGR	End	Tail
FPP-0800-G-I-1B	800	10.81	.51	39.02	CGR	Inter.	1B
FPP-0800-G-I-3B	800	10.81	.51	39.02	CGR	Inter.	3B
FPP-0800-N-I	800	10.81	.51	39.02	NCGR	Inter.	N/A
FPP-0800-G-E-H	800	10.81	.51	56.11	CGR	End	Head
FPP-0800-G-E-T	800	10.81	.51	56.11	CGR	End	Tail
FPP-0800-N-E-H	800	10.81	.51	56.11	NCGR	End	Head
FPP-0800-N-E-T	800	10.81	.51	56.11	NCGR	End	Tail
FPP-1000-G-I-1B	1000	17.44	.85	66.14	CGR	Inter.	1B
FPP-1000-G-I-3B	1000	17.44	.85	66.14	CGR	Inter.	3B
FPP-1000-N-I	1000	17.44	.85	66.14	NCGR	Inter.	N/A
FPP-1000-G-E-H	1000	17.44	.85	83.78	CGR	End	Head
FPP-1000-G-E-T	1000	17.44	.85	83.78	CGR	End	Tail
FPP-1000-N-E-H	1000	17.44	.85	83.78	NCGR	End	Head
FPP-1000-N-E-T	1000	17.44	.85	83.78	NCGR	End	Tail
FPP-1200-G-I-1B	1200	25.4	.98	96.34	CGR	Inter.	1B
FPP-1200-G-I-3B	1200	25.4	.98	96.34	CGR	Inter.	3B
FPP-1200-G-N	1200	25.4	.98	96.34	NCGR	Inter.	N/A
FPP-1200-G-E-H	1200	25.4	.98	99.21	CGR	End	Head
FPP-1200-G-E-T	1200	25.4	.98	99.21	CGR	End	Tail
FPP-1200-N-E-H	1200	25.4	.98	99.21	NCGR	End	Head
FPP-1200-N-E-T	1200	25.4	.98	99.21	NCGR	End	Tail



### Plate Characteristics:

Material of Construction:	Virgin Polypropylene
CGR O-Ring:	One Sided
CGR Gasketing Size :	5/16" EPDM
PSI Feed:	100 PSI
Center Feed Hole:	Straight
Plate Edges:	Square
Plate Surface:	Dots/Pips
Handles:	Removable, Adjustable Height
Cake:	32 mm
Configuration:	1B & 3B



## Plate Type

### **G Gasketed (CGR)**

The gasketed plate allows less leakage than the non-gasketed plate due to an o-ring seal around the chamber and filtration ports. The gasketed cloth has a high-density sash cord sewn around the cloth's perimeter that is caulked into a groove on the plate.



A gasketed (CGR) style plate and cloth

### **N Non-Gasketed (NCGR)**

Cloths for non-gasketed plates are hung over the plate, extending from top to bottom, and are held in place by eyelets that fit over the cloth dogs (cloth-pins) on top of the plates. With the non-gasketed plate, the filter cloth provides the seal between the plates. Leakage will occur during operation even if you are supplied with non-gasketed plate cloths with latex edging. The latex will cut down the wicking action somewhat but will not eliminate it.



A non-gasketed (NCGR) style plate and cloth



## Plate Maintenance: Gasketing

On gasketed (CGR) plates, the rubber o-ring seal around the chamber and filtration ports will wear out after several closures of your filter press.

When the rubber gasketing feels flat against the plate instead of slightly protruding, it is time to replace the gasketing.

<b>FPP-G516</b>	1 roll of 100 feet 5/16" EPDM O-Ring gasketing	<b>\$100.00 USD</b>
<b>FPP-G275</b>	1 roll of 100 feet 7 mm (.275") EPDM O-Ring gasketing	<b>\$110.00 USD</b>

If the O-ring gasket around the periphery of a filter plate or around the ports is frayed, shredded, worn or damaged, it should be replaced in the following manner: Remove the old gasket material. Thoroughly clean all surfaces. Make certain that the starting end of the new gasket material is cut square, and then insert it in the gasket groove, starting at the bottom center of the filter plate. Use a wood or plastic mallet to drive the gasket into the groove. Do not stretch the material to make it easier to install, as it may shrink over time, opening the end joint.

When the gasket groove has been completely filled, overlap the remaining material about one half inch before cuffing it off. (Make sure that this end is also cut square.) Use a quick setting rubber cement to bond the two ends together and hold them for a minute or two for the cement to set. Then force the excess material into the groove. This will ensure that the ends do not separate later.

## Gasket Replacement Service

When ordering gasketing from Enviro Solutions, you have the option to ship your plates to our warehouse for filter press gasket replacement.

<b>FPP-GRS</b>	Filter Press Plate – Gasket Replacement Service	<b>\$15.00 x Quantity of Plates</b>
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Service Includes:

- Removing and disposing of old gasket
- Cleaning gasket groove
- Installing new gasketing



# Industrial Waste Water Treatment Systems

## Batch Type



Pictured Left:  
BT-2500S-HMP

A 2,500 Gallon  
Simplex Tank Batch-  
Type Waste Water  
Treatment System  
for treating heavy  
metals



Pictured Left:  
BT-0500D-HMPCN

A 500 Gallon Duplex  
Tank Batch-Type  
Waste Water  
Treatment System  
for treating heavy  
metals and cyanide



## Model Code

**BT** - **0500** **S** - **HMP CR CN**

1      2      3      4

### 1. Waste Water Treatment System

**BT**    Batch Type

### 2. Tank Size

500 – 8,250 Gallons

### 3. Number of Tanks

**S**      Simplex - One Tank

**D**      Duplex - Two Tanks

### 4. Contaminant Type

**HMP**   Heavy Metals Precipitation

**CR**    Hexavalent Chrome Reduction

**CN**    Cyanide Destruction

If your plant requires a high GPM and less than 20 GPM of Cyanide Destruction, a flow through system with accompanying batch system may be recommended.

Please call for pricing. Your quote will be application specific and may have more or less items than shown on this informational sheet.



Pictured Left:  
BT-0500S-HMPCRCN-FP

A 500 Gallon Simplex Tank  
Batch-Type Waste Water Treatment  
System for treating heavy metals,  
chrome, and cyanide, with an  
integrated 2 cu. Ft. Ring of Steel-type  
filter press



## Batch Type Waste Water Treatment Systems

Model	Tank Qty - Size (Gal.)	Batch Size (Gal)	GPM*	Dimensions (in.)**
BT-0500S-HMP	1-500	400	0.83	89" L x 72" W x 104" H
BT-0500S-HMPCR	1-500	400	0.83	89" L x 72" W x 104" H
BT-0500S-HMPCN	1-500	400	0.83	89" L x 72" W x 104" H
BT-0500S-HMPCRCN	1-500	400	0.83	89" L x 72" W x 104" H
BT-0500D-HMP	2-500	800	1.67	143" L x 72" W x 104" H
BT-0500D-HMPCR	2-500	800	1.67	143" L x 72" W x 104" H
BT-0500D-HMPCN	2-500	800	1.67	143" L x 72" W x 104" H
BT-0500D-HMPCRCN	2-500	800	1.67	143" L x 72" W x 104" H
BT-1000S-HMP	1-1,000	800	1.67	101" L x 72" W x 124" H
BT-1000S-HMPCR	1-1,000	800	1.67	101" L x 72" W x 124" H
BT-1000S-HMPCN	1-1,000	800	1.67	101" L x 72" W x 124" H
BT-1000S-HMPCRCN	1-1,000	800	1.67	101" L x 72" W x 124" H
BT-1000D-HMP	2-1,000	1,600	3.33	167" L x 72" W x 124" H
BT-1000D-HMPCR	2-1,000	1,600	3.33	167" L x 72" W x 124" H
BT-1000D-HMPCN	2-1,000	1,600	3.33	167" L x 72" W x 124" H
BT-1000D-HMPCRCN	2-1000	1,600	3.33	167" L x 72" W x 124" H
BT-1490S-HMP	1-1,490	1,192	2.48	101" L x 72" W x 158" H
BT-1490S-HMPCR	1-1,490	1,192	2.48	101" L x 72" W x 158" H
BT-1490S-HMPCN	1-1,490	1,192	2.48	101" L x 72" W x 158" H
BT-1490S-HMPCRCN	1-1,490	1,192	2.48	101" L x 72" W x 158" H
BT-1490D-HMP	2-1,490	2,384	4.97	167" L x 72" W x 158" H
BT-1490D-HMPCR	2-1,490	2,384	4.97	167" L x 72" W x 158" H
BT-1490D-HMPCN	2-1,490	2,384	4.97	167" L x 72" W x 158" H
BT-1490D-HMPCRCN	2-1,490	2,384	4.97	167" L x 72" W x 158" H
BT-2500S-HMP	1-2,500	2,000	4.17	128" L x 91" W x 134" H
BT-2500S-HMPCR	1-2,500	2,000	4.17	128" L x 91" W x 134" H
BT-2500S-HMPCN	1-2,500	2,000	4.17	128" L x 91" W x 134" H
BT-2500S-HMPCRCN	1-2,500	2,000	4.17	128" L x 91" W x 134" H
BT-2500D-HMP	2-2,500	4,000	8.33	221" L x 91" W x 134" H
BT-2500D-HMPCR	2-2,500	4,000	8.33	221" L x 91" W x 134" H
BT-2500D-HMPCN	2-2,500	4,000	8.33	221" L x 91" W x 134" H
BT-2500D-HMPCRCN	2-2,500	4,000	8.33	221" L x 91" W x 134" H
BT-4900S-HMP	1-4,900	3,920	8.17	139" L x 102" W x 182" H
BT-4900S-HMPCR	1-4,900	3,920	8.17	139" L x 102" W x 182" H
BT-4900S-HMPCN	1-4,900	3,920	8.17	139" L x 102" W x 182" H
BT-4900S-HMPCRCN	1-4,900	3,920	8.17	243" L x 102" W x 182" H
BT-4900D-HMP	2-4,900	7,840	16.33	243" L x 102" W x 182" H
BT-4900D-HMPCR	2-4,900	7,840	16.33	243" L x 102" W x 182" H
BT-4900D-HMPCN	2-4,900	7,840	16.33	243" L x 102" W x 182" H
BT-4900D-HMPCRCN	2-4,900	7,840	16.33	243" L x 102" W x 182" H

\*GPM based on 1 batch per 8-hour shift and whether your system is a Simplex or Duplex reactor tank WWTS. Most processes allow for more than 1 batch per 8-hour shift.

\*\* If your system has a filter press, add 48" to the "L" Length dimension.





### **Tank Specification Sheet**

CB0500-45	500-gallon tank, 45° cone bottom, 52" $\phi$ x 81" H, 92" H overall, 132 lbs., 312 lbs. overall, flat top, 12" lid, 2" fitting, 2.0 Specific Gravity
CB1000-45	1,000-gallon tank, 45° cone bottom, 64" $\phi$ x 98" H, 112" H overall, 252 lbs., 572 lbs. overall, dome top, 16" lid, 2" fitting, 1.7 Specific Gravity
CB1490-45	1,490-gallon tank, 45° cone bottom, 64" $\phi$ x 132" H, 146" H overall, 342 lbs., 662 lbs. overall, dome top, 16" lid, 2" fitting, 1.7 Specific Gravity
CB2500-15	2,500-gallon tank, 15° cone bottom, 91" $\phi$ x 111" H, 122" H overall, 437 lbs. 817 lbs. overall, dome top, 16" lid, 2" fitting, 1.7 Specific Gravity
CB4900-15	4,900-gallon tank, 15° cone bottom, 102" $\phi$ x 159" H, 170" H overall, 1,302 lbs, 1,942 lbs. overall, dome top, 16" lid, 2" fitting, 1.7 Specific Gravity



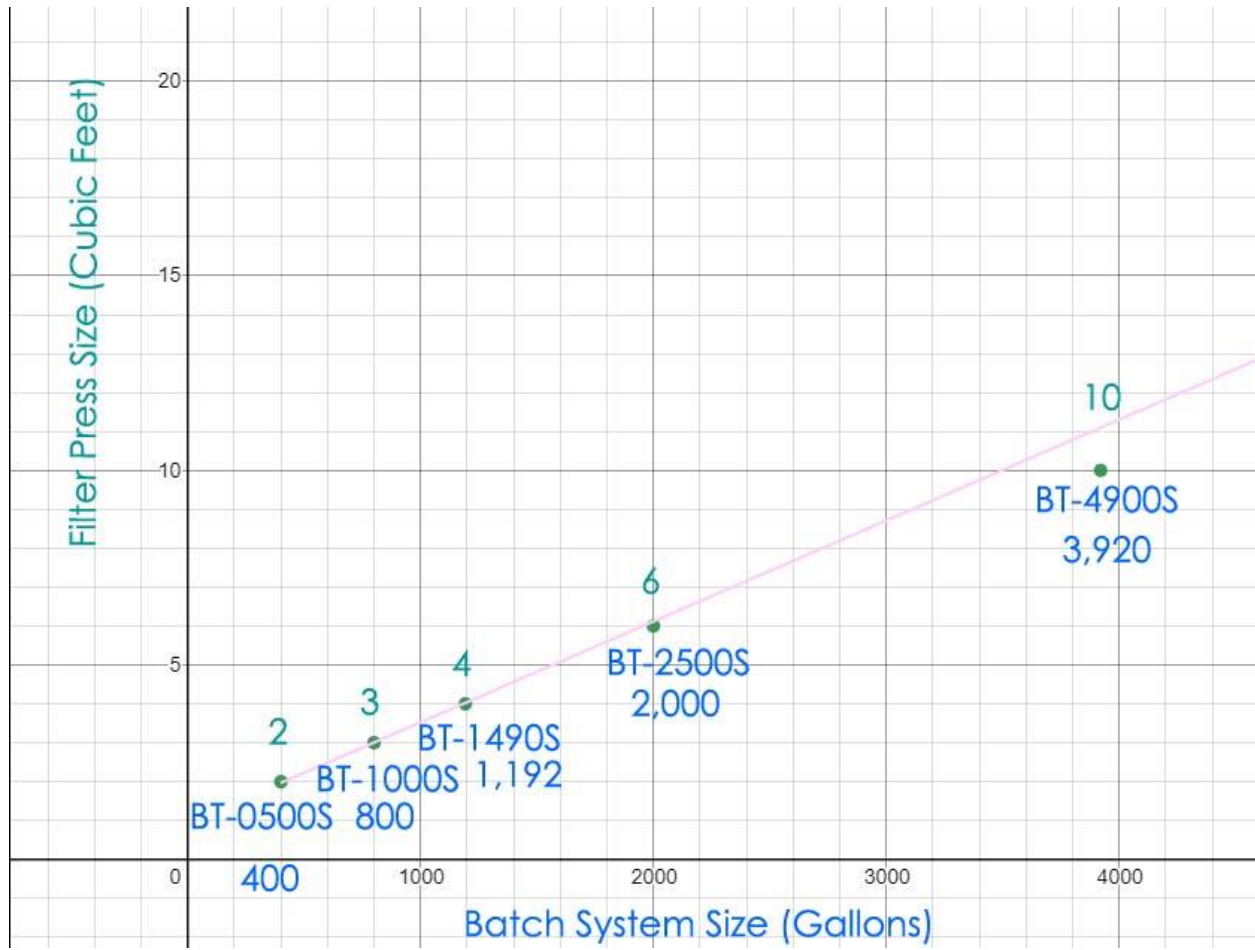


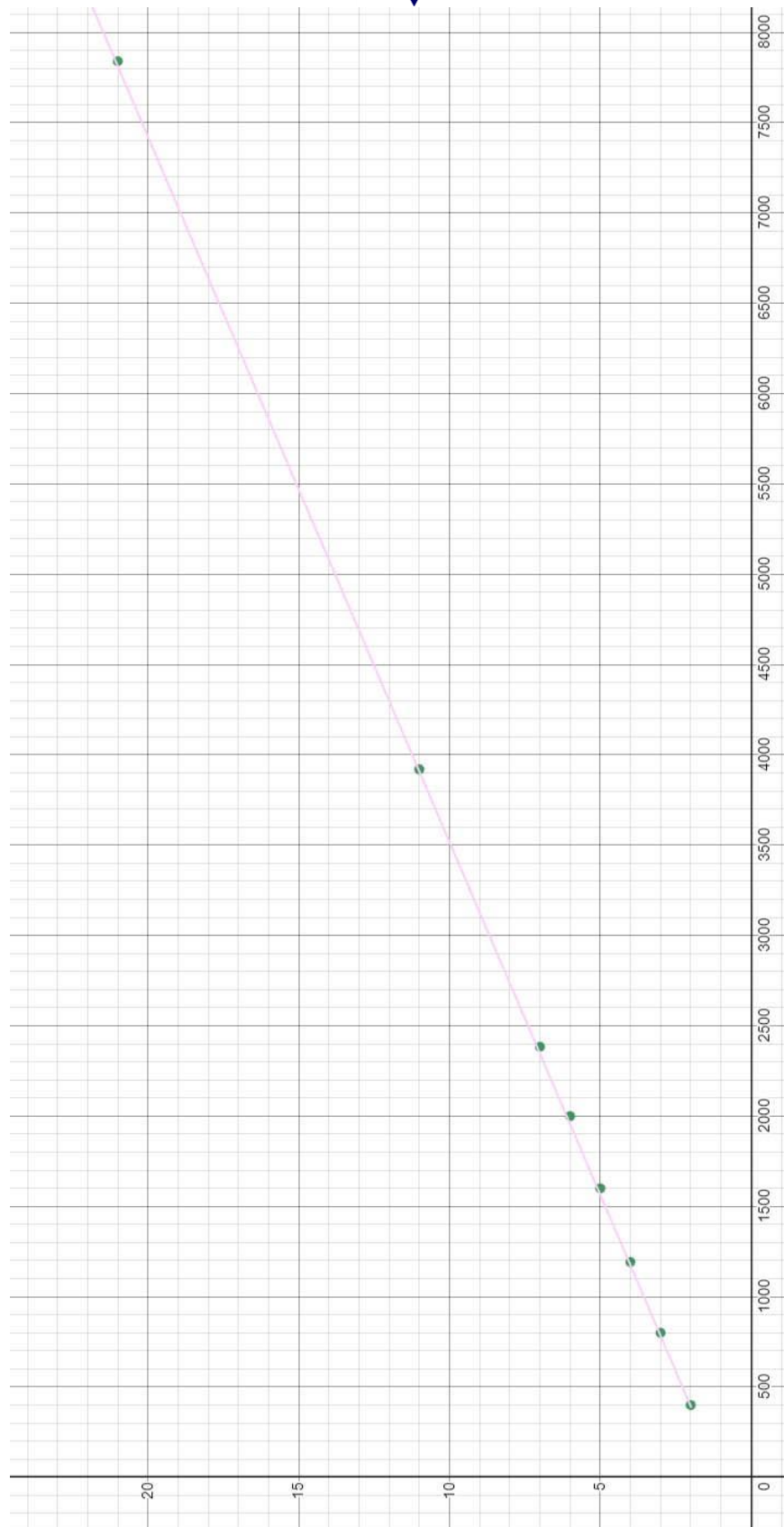
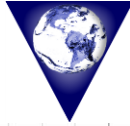
### Recommended Filter Press Size Table

<b>Batch Model</b>	<b>Gal Processed</b>	<b>Required FP</b>	<b>Recommended FP</b>
<b>BT-0500S</b>	400	2	FP-004-0630-R
<b>BT-1000S</b>	800	3	FP-004-0630-R
BT-0500D	800	3	FP-004-0630-R
<b>BT-1490S</b>	1,192	4	FP-004-0630-R
BT-1000D	1,600	5	FP-005-0800-R
<b>BT-2500S</b>	2,000	6	FP-006-0800-R
BT-1490D	2,384	7	FP-008-0800-R
<b>BT-4900S</b>	3,920	11	FP-015-0800-R
BT-2500D	4,000	11	FP-015-0800-R
BT-4900D	7,840	21	FP-020-0800-P



## Filter Press Sizing Chart for Batch WWTS Systems







## **Characteristics of Batch-Type Waste Water Treatment Systems**

High Density Cross-Linked Polyethylene Cone Bottom Reactor Tank

Modularized Carbon Steel Frame

Touch Screen Master Control Panel

Bilingual English/Spanish standard

Available in up to 8 languages

Air-Operated Mixer

pH / ORP sensors

Air-Operated Chemical Feed Pumps For:

Acid

Caustic

Polymer

Coagulant

Air Operated Diaphragm Sludge Pump

Centrifugal Transfer Pump

Digital and physical owner's manual

### **Requires:**

(1) Electrical input

(1) 100 PSI air line

(1) Incoming waste water line

### **Options:**

Integrated dual tank for collection, reaction, or sludge thickening

Filter press – integrated or separate

Your preference of electrical service



## Waste Water Treatment Systems

### Flow Through Type



Pictured: FT-030-HMP



## Model Code

**FT** - **010** - **HMP**

1      2      3

**1. Waste Water Treatment System**

**FT**      Flow Through Type

**2. Capacity**

**20 - 450** Gallons per minute

**3. Contaminant Type**

**HMP**      Heavy Metals Precipitation

**CR**      Hexavalent Chrome

If your plant requires a high GPM and less than 20 GPM of Cyanide Destruction, a flow through system with accompanying batch system may be recommended.



## Flow Through Type Waste Water Treatment Systems

Please call for pricing. Your quote will be application specific and may have more or less items than shown on this informational sheet.

Model	GPM	Clarifier Model	Filtering Area (ft <sup>2</sup> )	Clarifier Dimensions (ft)
FT-020-X	20	20/55	98	5'x8'x9'H
FT-040-X	40	40/55	192	5'x8'x10'H
FT-060-X	60	60/55	288	5'x10'x12'H
FT-080-X	80	80/55	384	6'x9'x12'H
FT-100-X	100	100/55	480	6'x10'x12'H
FT-150-X	150	150/55	640	6'x11'x13'H
FT-200-X	200	200/55	960	6'x15'x13'H
FT-275-X	275	275/55	1344	6'x14'x14'H
FT-350-X	350	350/55	1696	9'x14'x17'H
FT-450-X	450	450/55	2176	9'x16'x18'H

## Contaminant Types

Code	Contaminants
HMP	Heavy Metals Precipitation
HMP CR	Heavy Metals Precipitation, Hexavalent Chrome Reduction



## **Characteristics of Flow-Through Waste Water Treatment Systems**

Modularized carbon steel frame

Inclined Plate Clarifier

- 1/4" Carbon steel construction

- Inclined 55°, 3/16" removable PVC settling plates

- Feed baffle and discharge flumes

- Internal sludge thickening cone

- Flash and flock chamber

- Sand blasted and primed with two-part high build epoxy paint finish

Touch-screen master control panel

- Bilingual English/Spanish standard

- Available in up to 8 languages

High and low speed air mixers

pH and ORP sensors

Air-operated chemical feed pumps for polymer, acid, caustic, and coagulant

Air-operated diaphragm sludge pump

Centrifugal transfer pump

Digital and physical owner's manual

### **Requires:**

- (1) Electrical input

- (1) 100 PSI air line

- (1) Incoming waste water line

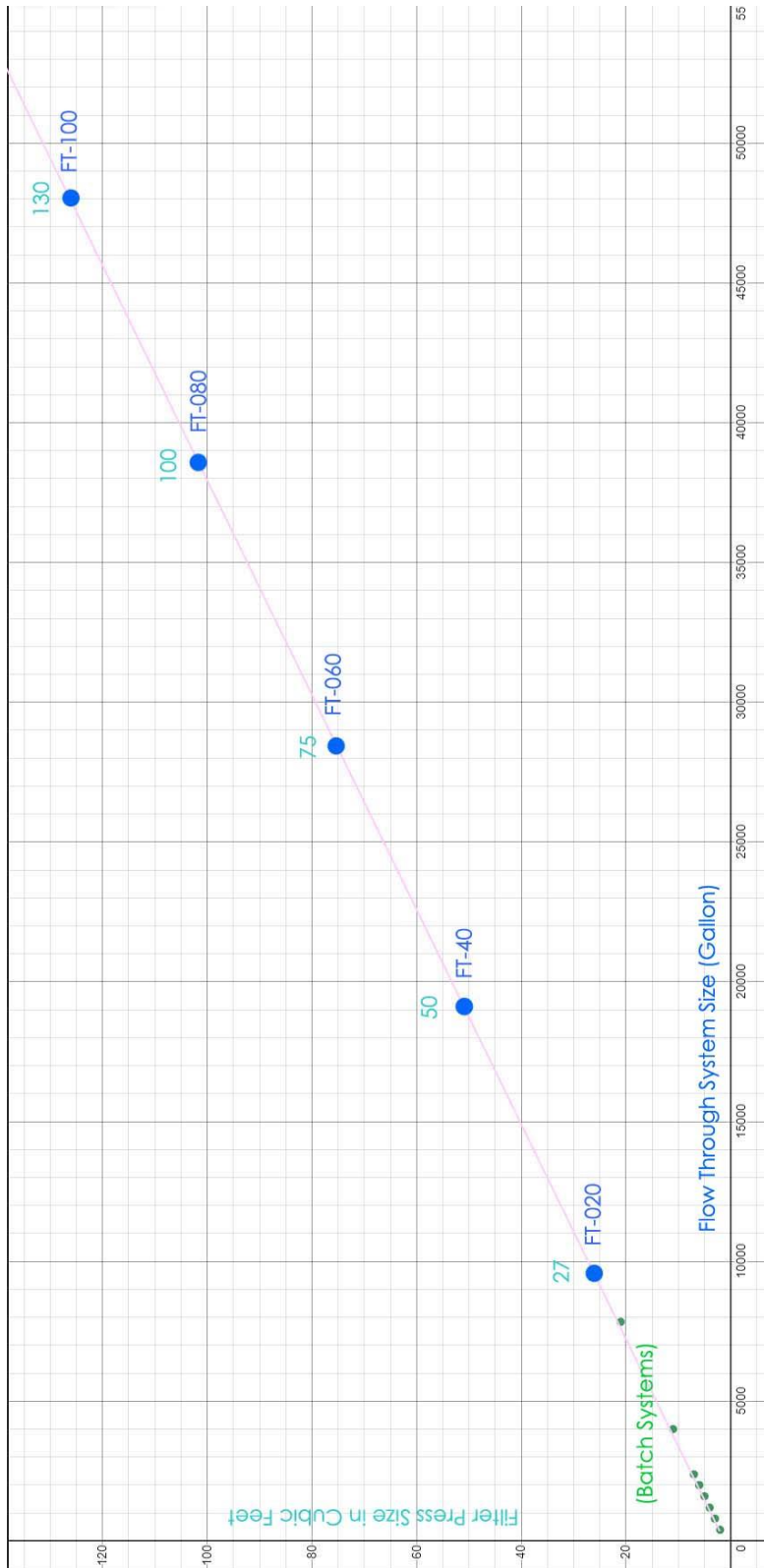
### **Options:**

Final pH adjustment chamber in the clarifier portion of the waste treat system

Filter press – integrated or separate

Your preference of electrical service





**Model: FT-020**

20 GPM = 9,600 GPD

Recommended Filter Press:

FP-030-0800-P

**Model: FT-040**

40 GPM = 19,200 GPD

Recommended Filter Press:

FP-050-1000-P

**Model: FT-060**

60 GPM = 28,800 GPD

Recommended Filter Press:

FP-080-1200-P

**Model: FT-100**

100 GPM = 48,000 GPD

Recommended Filter Press:

FP-130-1500-P





## Spare Parts Lists

### Filter Press - Ring of Steel Line

Description	Mfg Part #	ES Part #
Hydraulic Cylinder – 630mm Frame	RC256	FPR-C
Hydraulic Cylinder – 800mm Frame	RC506	
Seal kit for cylinders w/ prod code beginning w/ "C"	RC25K52	
Seal kit for cylinders w/ prod code beginning w/ "O, A, or B"	RC2510K	
Hydraulic Pump 1/4"F x 3/8"F	PATG-1102N	FPR-P
Hydraulic Pump repair kit	PATG1100K	
Hydraulic Hose 3/8"M	HC-9206	FPR-H
Hydraulic Air Connection 1/4"M	G2270624	
Hydraulic Street Elbow 1/4"M x 1/4"F	G059002	
Hydraulic Needle Valve 3/8"M x 3/8"F	VNC02-038	
Hydraulic Branch Tee 3/8"M x 3/8"F x 3/8"F	5604-06-06-06	
Hydraulic Reducer 3/8"M x 1/4"F	5406-06-04	
Hydraulic Pressure Gauge 1/4"M	G5119241	
Manifold 1.5" PVC Sch 80 Pipe per foot	800-015	
Manifold 1.5" PVC Sch 80 Elbow	3629-015	
Manifold 1.5" PVC Sch 80 12" Nipple	886-120	
Manifold 1.5" PVC Sch 80 Tee	801-015S	
Manifold 1.5" PVC Sch 80 True Union Ball Valve	3629-015	
Manifold 1.5" to 1" PVC Sch 80 Coupling		
Manifold 1" PVC Sch 80 Pipe per foot	800-010	
Manifold 1" PVC Sch 80 True Union Ball Valve	3629-010	
Manifold PVC Primer, 1 quart	P70QV	
Manifold PVC Cement, 1 quart	711QG	
Filter Press Cloths – Please see section on cloths		
Filter Press Plates – Please see section on plates		
Filter Press Gasketing – Please see section on plates		



## Filter Press - Premier Line

Description	Mfg Part #	ES Part #
Hydraulic Cylinder	HP28600A	
Hydraulic Cylinder Rod Eye	C1900-65	
Hydraulic Cylinder Clevis Bracket	C1900-78	
Hydraulic Cylinder Repair Kit	SEF4846-RK	
Hydraulic Cylinder Seal Kit	SEF4846-SK	
Hydraulic Cylinder End Cap	SEF4846-1	
Hydraulic Pump	GX40-SPV-T10	
Hydraulic Pump Valve	MDCM045NO	
Hydraulic Pump ¾" Regulator	R706N	
Hydraulic Pump Subplate	AD03-SP-SB6S	
Hydraulic Pump Overhaul Kit	GS40-XPV-OK	
Manifold 1.5" PVC Sch 80 Pipe per foot	800-015	
Manifold 1.5" PVC Sch 80 Elbow	3629-015	
Manifold 1.5" PVC Sch 80 12" Nipple	886-120	
Manifold 1.5" PVC Sch 80 Tee	801-015S	
Manifold 1.5" PVC Sch 80 True Union Ball Valve	3629-015	
Manifold 1.5" to 1" PVC Sch 80 Coupling		
Manifold 1" PVC Sch 80 Pipe per foot	800-010	
Manifold 1" PVC Sch 80 True Union Ball Valve	3629-010	
PVC Primer, 1 quart	P70QV	
PVC Cement, 1 quart	711QG	
Filter Press Cloths – Please see section on cloths		
Filter Press Plates – Please see section on plates		
Filter Press Gasketing – Please see section on plates		



## Waste Water Treatment System Spare Parts

Description	Mfg Part #	ES Part #
pH sensor (perishable)	OCPF81-NN11E21	
ORP sensor (perishable)	OCPF82-PE11E21	
pH/ORP sensor additional wire per foot		
Mini float, 15' cable	PM-15 NC/NO	
Mini float, 25' cable	PM-25 NC/NO	
Mini float, 50' cable	PM-50 NC/NO	

## Sludge Pumps

Description	Mfg Part #	ES Part #
1" Diaphragm Sludge Transfer Pump Non-Metallic	PD10P-FPS-PAA	
1" NM Fluid Section Service Kit	637396-AA	
1" NM Air Section Repair Kit	637397	
1" NM Seat	94707-1	
1.5" Diaphragm Sludge Transfer Pump Non-Metallic	PD15P-FPS-PAA	
1.5" NM Fluid Section Service Kit	637391-AA	
1.5" NM Air Section Repair kit	637389	
1.5" NM Seat	96070-1	
1" Diaphragm Sludge Transfer Pump Metallic	PD10A-AAP-GGG	
1" M Fluid Section Service Kit	637401-GG	
1" M Air Section Repair Kit	637397	
1" M Seat	96152-G	
1.5" Diaphragm Sludge Transfer Pump Metallic	PD15-AAP-GGG	
1.5" M Fluid Section Service Kit	637375-GG	
1.5" M Air Section Repair Kit	637389	
1.5" M Seat	95825-G	



### Chemical Feed Pumps

Alkaline Chemical Feed Pump 3.2 GPM BCFP32 Spare Parts Kit	EWN-B31VCUR N21VC-PK
Alkaline Chemical Feed Pump 4.3 GPM BCFP43 Spare Parts Kit	EWN-C31VCUR N31VC-PK
Alkaline Chemical Feed Pump 6.7 GPM BCFP67 Spare Parts Kit	EWN-C36VCUR N36VC-PK
BCFP Injection Valve BCFP Foot Valve	CAN-2VCL-8 E90016
Caustic Chemical Feed Soda Pump 3.2 GPM CCFP32 Spare Parts Kit	EWN-B31VEUR N31VE-PK
Caustic Chemical Feed Soda Pump 4.3 GPM CCFP43 Spare Parts Kit	EWN-C31VEUR N31VE-PK
Caustic Chemical Feed Soda Pump 6.7 GPM CCFP67 Spare Parts Kit	EWN-C36VEUR N36VE-PK
CCFP Injection Valve CCFP Foot Valve	CAN-2VEL-8 E90037
Acid Chemical Feed Pump 3.2 GPM ACFP32 Spare Parts Kit	EWN-B31FCUR N31FC-PK
Acid Chemical Feed Pump 4.3 GPM ACFP43 Spare Parts Kit	EWN-C31FCUR N31FC-PK
Acid Chemical Feed Pump 6.7 GPM ACFP67 Spare Parts Kit	EWN-C36FCUR N36FC-PK
ACFP Injection Valve ACFP Foot Valve	E90022 E90275
Sodium Metabisulfite Chemical Feed Pump 3.2 GPM SCFP32 Spare Parts Kit	EWN-B31PCUR N31PC-PK
Sodium Metabisulfite Chemical Feed Pump 4.3 GPM SCFP43 Spare Parts Kit	EWN-C31PCUR N31PC-PK
Sodium Metabisulfite Chemical Feed Pump 6.7 GPM	EWN-C36PCUR



SCFP67 Spare Parts Kit	N36PC-PK
SCFP Injection Valve	CAN-2PCL-8
SCFP Foot Valve	E90018
Polymer Chemical Feed Pump 2.3 GPM	EWN-C31P6URV
PCFP23 Spare Parts Kit	N31P6V-PK
Polymer Chemical Feed Pump 4.0 GPM	EHE36E1-HV
PCFP40 Spare Parts Kit	E36HV-PK
Polymer Chemical Feed Pump 15.9 GPM	LKN45C-VS
PCFP15 Spare Parts Kit	L4VS-PK
Pump Connector Pulse In/Out/Stop Output, Req'd for EWN CFP	E90495
Pump Cable Digital/Analog Input per foot	102588
Pump Cable Digital/Analog Input per 15 feet	
3/8" LDPE Tubing – 20'	E00002-020
3/8" LDPE Tubing – 50'	E00002-050
3/8" LDPE Tubing – 100'	E00002-100
3/8" LDPE Tubing – 500'	E00002-500
1/2" LDPE Tubing – 20'	E00001-020
1/2" LDPE Tubing – 50'	E00001-050
1/2" LDPE Tubing – 100'	E00001-100
1/2" LDPE Tubing – 500'	E00001-500