The J-Press sidebar filter press is the cost-effective solution for producing high solids filter cake with extremely high clarity in the liquid effluent. Considered by industry professionals as the premier sidebar filter press, the J-Press combines rugged construction, precision engineering, ease of operation and a wide range of feature and options to tackle the most difficult dewatering problems.

The J-Press is one of the most versatile filtration devices on the market, being used in a wide variety of industrial and municipal applications. The J-Press can be used to recover both solids and liquids from a waste or process stream. With superior materials of construction the J-Press is especially useful in the filtration of aggressive acid and alkali suspensions.

Available in a wide range of sizes and styles, the J-Press can be configured to provide a dewatering solution to most all process flows from as little as 25 gallons to 1,000,000 gallons per day. It produces consistent results under varying influent conditions.
A HISTORY OF LEADERSHIP

**J-Press — The Industry Leader**

Founded in 1978 as JW I, USFilter Dewatering Systems revolutionized the industry with the introduction of the J-Press. The J-Press was the first to feature, in a single design, a self compensating air/hydraulic closure system for ease of maintenance, gasketed filter plates for leak free filtration, semi-automatic plate shifting for labor savings and safety, automatic pump controls for unattended operation and a superior paint system that provided the highest level of protection from corrosion. The J-Press quickly set the benchmark for filter press performance.

In the ensuing years, the J-Press evolved, offering options for fully automatic plate shifting, automatic cloth washing, PLC controls and a full complement of ancillary slurry processing and cake handling systems. Being the industry standard, the J-Press line is now the most versatile on the market today, from a manual 320mm pilot press that processes less than 2 lbs of dry solids per batch, to the monster 2m fully automatic maxi press that can produce over 10,000 lbs of dry solids per cycle.

The J-Press can be configured with highly sophisticated manifolds, controls and cake discharge systems, such as this 2m x 2m J-Press built for a prominent municipal wastewater treatment plant.

USFilter sidebar presses are available in sizes ranging from 250mm to 2 meter designs, with working pressure ratings of 100 psi (7 bar) and 225 psi (16 bar).
Because the J-Press is a batch filtration system, the press capacity can be easily adjusted by changing the effective volume of the filter pack. A back-up plate, in conjunction with the tail plate, can be inserted to reduce the number of chambers used during dewatering.

The J-Press is simple to operate. A single switch activates the pneumatic or electrically actuated hydraulic system. The plate stack forms a series of chambers, each covered with a filter cloth. With the plate stack clamped tightly in place, a solids-laden slurry is pumped, under pressure, into the plate chambers through a central feed connection.

The solids continue to fill the plate chambers and are compacted in the press by the feed pump until the chambers are completely full. The feed cycle is discontinued and an air blow down is initiated for 5-15 minutes to remove any freestanding water within the cake and the press.

The hydraulic closure of the press is then retracted, the individual filter elements are separated and the solids are discharged as "dry" filter cake to an appropriate receptacle or conveyance system.

The J-Press may also be equipped with diaphragm (or membrane) squeeze plates that allow for a mechanical compression of the filter cake, yielding higher dry solids before the cake is discharged from the filter press.

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The inherent flexibility of the J-Press makes it ideal for recovering solids, liquids or both. In processes where the filter cake may need treatment prior to discharge, the J-Press cake wash/air blowdown manifold can be used to force wash liquid through the cake. The manifold consists of piping and valves connecting the four corner filtrate ports into a common discharge pipe. By closing the appropriate valves, a wash liquid is pumped through the filter cake, and discharged out the diagonally opposed port. This can be followed by a compressed air blowdown, further removing moisture from the cake and filter plate drainage channels.
1. Modularized Hydraulic Closure Systems — Available with either pneumatic or electric power, the modular power pack delivers up to 5,000 psi of hydraulic pressure to the hydraulic cylinder. The unit automatically compensates for thermal expansion and contraction of the filter pack due to changes in process temperature. Designed to minimize power consumption, the power pack features color coded connections for quick and easy removal and replacement during service and maintenance. The hydraulic pump and associated components are fully enclosed in a steel cabinet for protection from contamination and accidental damage, yet are easily accessible for maintenance through the full width cabinet door.

2. Future Expandability — The J-Press can be equipped with an optional expansion piece for future expansion of operating capacity by up to 50% with no need for costly sidebar replacements or frame exchanges. Expanding the capacity is as easy as adding additional filter plates.

3. Automatic Pump Control System (APCS) — The APCS automatically controls the filling cycle of the J-Press gradually increasing the feed pressure of the slurry feed pump to ensure a uniform formation of filter cake in the filter plate chambers. The uniform cake formation enhances the filterability of the incoming slurry. The APCS includes a hydraulic pressure safety device that shuts down the feeding cycle if a loss in hydraulic pressure occurs.

4. Plate Shifter/Cloth Washing — The J-Press is available with either semi-automatic or fully automatic plate shifting systems (depending on size). The semi-automatic plate shifter is an operator driven plate shifting device that reduces manpower requirements during cake discharge. Further reductions in manpower are available with fully automatic shifting systems. The patented USFilter pry and bump system offers the additional advantage of positive cake discharge from each chamber further reducing the requirement for operator interface with the filter press during cake discharge.

A cloth washing system can also be added to the automatic plate shifting system to provide a periodic high pressure cleaning cycle for the filter cloths. Operating in as little as 20 seconds per plate, the automatic high pressure cloth washing system can restore the porosity of the filter cloths to like new condition. Washing the cloths at regular intervals not only improves performance but prolongs the working life of the cloth as well.
5. Numerous Filter Pack Options — A wide selection of filter plate materials and styles make the J-Press one of the most versatile filtration devices on the market. With materials of construction ranging from polypropylene, to stainless steel, to rubber covered steel, the J-Press can be designed to handle virtually any feed slurry no matter how corrosive or chemically aggressive. Filter plates are available in recessed gasketed, recessed non-gasketed and membrane squeeze designs that can filter everything from difficult organic solids to the easiest metal hydroxide slurry. The J-Press can readily adapt to changes in product and process applications by simply changing the filter cloths or the filter plates, giving the system great operational flexibility.

6. Robust Frame Construction — The J-Press is a ruggedly built unit made of fabricated steel plate. Precision alignment and machining of the structural components provide for even distribution of all pressures and stresses generated during operation. Frame strength is based upon the filter press operating pressure of either 100 psi (7 bar) or 225 psi (16 bar).

7. Manifold Piping — Like the filter plates, manifold piping is supplied in a variety of non-metallic and metallic materials suited to meet the rigors of the application. Manifolds can also be configured in a variety of inlet, discharge and valve options to maximize the versatility of the filter press. With the appropriate manifold, a filter press can be designed to perform both pre and post filtration operations that enhance both the filterability of the material and the quality of the final cake.

8. Control Systems — Filter press control can be as simple as a single switch for opening and closing to as complex as a fully integrated PLC with Ethernet or wireless capabilities for remote monitoring and operation. The PLC system provides the most advanced and complete press operation available, from automatic feed pressure adjustment, to cycle frequency, cake discharge, cloth wash and air blowdown.

9. Superior Paint System — Each J-Press is sandblasted to an SSPC-10 near white finish before being primed and finished with 3 coats of an acrylic urethane paint system that results in a durable, chemically resistant finish averaging over 4 mils in thickness (other paint systems are available on request).
The J-Press installation can be configured to accommodate a wide range of material handling systems for discharged cake. Dumpsters, equipped with casters and self-dumping forklift mounts are the most common method for smaller presses. The drum disposal system, also for smaller presses, allows easy removal of discharged cake. This system includes a series of chutes that catch the filter cake as it falls from the press and directs it into 55-gallon (200L) drums. The J-Press is typically mounted on a platform, with catwalks, railings and stairs. For larger presses, or presses that require transfer to downstream drying systems, USFilter can engineer a belt or screw conveyance as an integrated component of your process configuration. Roll off container and truck-loading systems are also available. Your USFilter representative works closely with you to design, install and support the most efficient handling system for your specific needs.
USFilter Dewatering Systems has the expertise and engineering capabilities to manufacture filter presses to meet the demands of your particular operation. Adaptability to applications, processes and conditions is the underlying value of J-Press features, many of which include:

- Full range of capacities: 250mm to 2m x 2m
- Low and high pressure: 100 psi (7 bar), 225 psi (16 bar), higher pressure available — consult factory
- Standard Plate Packs:
  - Non-Gasketed Plates
  - Gasketed Plates
  - Diaphragm Squeeze Plates
  - SRRM Plates
  - Filter Plate and Frame
- Open/Closed Filtrate Discharge
- Stainless Steel Sidebar Covers
- Closure Systems:
  - Manual
  - Automatic Closure (Air/Hydraulic)
  - Automatic Closure (Electric/Hydraulic)
- Control Systems:
  - Standard Control Panel
  - APCS Control
  - PLC Control
- Std. Manifolds:
  - Air Blow Down Manifold
  - Double End Feed Manifold
  - Core Blow Down Manifold
  - Cake Wash Manifold
  - Precoat Manifold
  - (other configurations available — consult factory)
- Expansion options for future capacity
- Plate Shifting:
  - Air Operated Semi-Auto Plate Shifter
  - Fully Automatic Shifter
  - Automatic Shifter with Pry and Bump
  - Automatic Shifter with Pry, Bump and Weigh (ACDDS)
  - Multi-Plate Pull
- Automatic Cloth Washing
- Material Handling:
  - Filter Cake Dumpster
  - Extended Legs and Chute Disposal System
  - Platform, Roll-off Container System
- Manual Drip Trays
- Automatic Drip Trays
- Spread Leg Design
- Safety:
  - Splash Curtain
  - Safety Guard
  - Safety Light Curtains
  - Deadman Control Button
  - Safety Tripwire
  - Hyd. Clamp Pressure/Feed Pump Interlock
  - Hyd. Control System/Press Pressure Interlock
  - Hyd. Clamp Pressure/Squeeze System Interlock
- Complete Dewatering Systems
  - Plant Control and Feedback
- Custom Paint Systems:
  - Niclad 2000

Exclusive integrated hydraulic circuit technology automatically compensates for varying pressures and temperatures. The enclosed steel cabinet and leak-free design minimize maintenance.

Interactive touch screen PLC control panel provides fully programmable control over all J-Press functions.

Semi-automatic plate shifter

Fully automatic plate shifter

Fully automatic cloth washer
USFilter maintains a fully-staffed, state-of-the-art laboratory for determining the most effective liquid/solids separation techniques for your specific application. Capabilities range from feasibility testing of your materials to providing portable pilot units for on-site testing. This customer-focused resource produces tangible results: we can determine the most effective feed pressures, fill times, filter media and sludge conditioning.

In addition to ensuring a better informed equipment purchase, this valuable service is also available to help you maintain maximum performance of your J-Press.

Preventative Maintenance Services — We can customize a cost-effective program for your specific equipment, application, and environment that translates into lower maintenance cost and years of worry-free operation.

Parts Repair Service — Our professional service staff can quickly and reliably answer your technical questions and troubleshoot your specific requirements, schedule parts shipments, and arrange for an on-site service call. Our factory-trained and qualified service engineers travel throughout the world to help ensure equipment runs efficiently. From basic maintenance to complex Program Logic Control (PLC) interfaces and beyond, we have the experience and capability.

Refurbishment Services — We can provide a partial or complete rehabilitation of your equipment to a warranted like-new condition, at your site or ours.

For more information on our Aftermarket Services, call 800.245.3006.
The following formula may be used for establishing J-Press volume (ft³) (L) for most dewatering applications:

\[
\text{Volume} = \frac{\text{Total Filter Press Volume (ft³) (L)}}{\text{Density of wet filter cake (lbs/ft³) (kg/L)}} \times \text{Specific gravity of wet filter cake (see²)} \times \text{Percentage of product feed (% solids)} \times \frac{8.34 \text{ (lbs per gallon of water)}}{\text{Density of water (gallon of water)}} \times \text{Gravity of feed slurry (see²)}
\]

Density of wet filter cake = Specific gravity of wet filter cake x the density of water

For filtration applications where feed solids are less than 1%, the filtration area is the controlling parameter rather than volume. For such applications, contact USFilter for size recommendations. Also, for advice on sizing for any application, contact USFilter or our authorized representative.

* % concentration should be expressed in decimal form (e.g. 2% = .02).

### PRESS MEASUREMENT MINIMUM MAXIMUM

<table>
<thead>
<tr>
<th>PRESS MEASUREMENT</th>
<th>MINIMUM</th>
<th>MAXIMUM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Volume (ft³) (L)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Height 15” (381mm)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Width 18.5” (470mm)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>260mm</strong></td>
<td>0.1</td>
<td>0.4</td>
</tr>
<tr>
<td><strong>Volume (L)</strong></td>
<td>2.8</td>
<td>11.3</td>
</tr>
<tr>
<td><strong>Length (in)</strong></td>
<td>24.0</td>
<td>38.0</td>
</tr>
<tr>
<td><strong>Length (mm)</strong></td>
<td>607.0</td>
<td>975.0</td>
</tr>
<tr>
<td><strong>320mm</strong></td>
<td>0.2</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Volume (L)</strong></td>
<td>5.7</td>
<td>14.2</td>
</tr>
<tr>
<td><strong>Height 17.8” (451mm)</strong></td>
<td>26.0</td>
<td>37.0</td>
</tr>
<tr>
<td><strong>Width 21.3” (541mm)</strong></td>
<td>661.0</td>
<td>931.0</td>
</tr>
<tr>
<td><strong>470mm</strong></td>
<td>0.5</td>
<td>4.0</td>
</tr>
<tr>
<td><strong>Volume (L)</strong></td>
<td>14.2</td>
<td>113.0</td>
</tr>
<tr>
<td>**Height 45.8” (1162mm)</td>
<td>41.0</td>
<td>93.0</td>
</tr>
<tr>
<td><strong>Width 33.0” (838mm)</strong></td>
<td>1041.0</td>
<td>2362.0</td>
</tr>
<tr>
<td><strong>630mm</strong></td>
<td>2.0</td>
<td>8.0</td>
</tr>
<tr>
<td><strong>Volume (L)</strong></td>
<td>57.0</td>
<td>227.0</td>
</tr>
<tr>
<td>**Height 51.0” (1299mm)</td>
<td>85.0</td>
<td>129.0</td>
</tr>
<tr>
<td><strong>Width 36.0” (916mm)</strong></td>
<td>2168.0</td>
<td>3277.0</td>
</tr>
<tr>
<td><strong>800mm</strong></td>
<td>8.0</td>
<td>25.0</td>
</tr>
<tr>
<td><strong>Volume (L)</strong></td>
<td>227.0</td>
<td>706.0</td>
</tr>
<tr>
<td>**Height 58.0” (1473mm)</td>
<td>122.0</td>
<td>196.0</td>
</tr>
<tr>
<td><strong>Width 43.5” (1105mm)</strong></td>
<td>3099.0</td>
<td>4978.0</td>
</tr>
<tr>
<td><strong>1000mm</strong></td>
<td>25.0</td>
<td>55.0</td>
</tr>
<tr>
<td><strong>Volume (L)</strong></td>
<td>708.0</td>
<td>1558.0</td>
</tr>
<tr>
<td>**Height 66.5” (1689mm)</td>
<td>175.0</td>
<td>260.0</td>
</tr>
<tr>
<td><strong>Width 51.5” (1308mm)</strong></td>
<td>4445.0</td>
<td>6604.0</td>
</tr>
<tr>
<td><strong>1200mm</strong></td>
<td>50.0</td>
<td>125.0</td>
</tr>
<tr>
<td><strong>Volume (L)</strong></td>
<td>1416.0</td>
<td>3540.0</td>
</tr>
<tr>
<td>**Height 74.5” (1892mm)</td>
<td>217.0</td>
<td>356.0</td>
</tr>
<tr>
<td><strong>Width 60.0” (1524mm)</strong></td>
<td>5512.0</td>
<td>9042.0</td>
</tr>
<tr>
<td><strong>1500mm</strong></td>
<td>130.0</td>
<td>270.0</td>
</tr>
<tr>
<td><strong>Volume (L)</strong></td>
<td>3682.0</td>
<td>7646.0</td>
</tr>
<tr>
<td>**Height 95.7” (2432mm)</td>
<td>313.0</td>
<td>500.0</td>
</tr>
<tr>
<td><strong>Width 74.9” (1903mm)</strong></td>
<td>7950.0</td>
<td>12700.0</td>
</tr>
<tr>
<td><strong>1.5 x 2.0M</strong></td>
<td>275.0</td>
<td>350.0</td>
</tr>
<tr>
<td><strong>Volume (L)</strong></td>
<td>7788.0</td>
<td>9912.0</td>
</tr>
<tr>
<td>**Height 136.6” (3470mm)</td>
<td>430.0</td>
<td>507.0</td>
</tr>
<tr>
<td><strong>Width 79.0” (2007mm)</strong></td>
<td>10922.0</td>
<td>14097.0</td>
</tr>
<tr>
<td><strong>2.0 x 2.0M</strong></td>
<td>300.0</td>
<td>600.0</td>
</tr>
<tr>
<td><strong>Volume (L)</strong></td>
<td>8496.0</td>
<td>16992.0</td>
</tr>
<tr>
<td>**Height 174.0” (4420mm)</td>
<td>438.0</td>
<td>690.0</td>
</tr>
<tr>
<td><strong>Width 133.7” (3395mm)</strong></td>
<td>11125.0</td>
<td>17520.0</td>
</tr>
</tbody>
</table>

**Notes:**
- Additional sizes and capacities available — consult factory.
- All dimensions are approximate and should only be used for reference.
- Dimensions do not include optional equipment such as plate shifters, cloth washers or piping manifolds.
USFilter thickeners, belt presses, filter presses, centrifuges, drying filter presses and sludge dryers have demonstrated proven performance in thousands of industrial and municipal applications. Each offers its own merits as a stand-alone product, while creating additional synergy of cost-reduction and dewatering effectiveness when integrated into a turnkey system.

You can rely on USFilter Dewatering Systems for full project management and performance guarantees. Whether your dewatering requirements are organic or inorganic, wastewater or process, industrial or municipal, our team of experts can help you achieve your goals for efficiency, cost-reductions, compliance, or reuse.