HORIZONTAL TYPE FILTER PRESS
Sparkler Zero Hold - Reverse Type Pressure Filtration

FOR CHEMICALS, OIL, FOOD & BREWERY, PHARMACEUTICALS INDUSTRIES

EXPERT IN FILTRATION UNIT
The Akshar Engineering Works offer a wide range of sparkler filter press in India consisting of stainless steel shells with bolted top cover. This feature helps the filter press to create and maintain its pressure. Several disc type filter plates are arranged horizontally in the filter cartridge assembly with perforated supporting screens, filter media and interlocking cups. The whole assembly shell stands on S.S. trolley and structured with pump and piping connection.

**WORKING PRINCIPLE**

The main operation of sparkler filter press is to filter the impure liquid. Arriving on top of each horizontal plate with increasing pressure, the filter media holds back the impurities and allows the filter to pass through centre by interlocking cups, which takes the filtrate to the outlet of the filter. The cake formed between the horizontal plates can also be obtained. The function of filtration process becomes slow when the liquid reached its holding capacity into the cake.

**SPARKLER PRESSURE FILTER**

18” x 23 PLATES
6800 LPH
The Akshar Engineering Works – manufacturer and supplier of zero hold up filter press in India that is made up of high quality stainless steel having customized finished design. The cartridge assembly consists of plates, perforated screens, spacers and filter media stands on S.S. trolley. The whole assembly complete with attached pump and pipe lines through welding.

**WORKING PRINCIPLE**

The zero hold up filter press having exactly the opposite direction of flow of liquid to the flow in standard filter. The unfiltered liquid is fed into central part of the machine giving high pressure from bottom inlet. The filter media filters the liquid when the whole liquid spreads out equally on each plate. Solids remain on filter media and filtrate liquid collects in the shell, which then comes out through the outlet. After the completing of filtration process the cake is cleaned from filter material and can be recycled.

8” x 6 PLATES 400 LPH

14” x 10 PLATES 2000 LPH
## TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>DIA. OF PLATES (INCHES)</th>
<th>NO. OF PLATES</th>
<th>HEIGHT OF PLATES (MM)</th>
<th>FILTRATION AREA (Sq. Mtr.)</th>
<th>Cake Holding Capacity SD*</th>
<th>RF^</th>
<th>FLOW RATE ~ Ltrs/Hr.</th>
<th>SIZE OF PUMP</th>
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</table>

Filter comes with inlet, outlet, pressure gauge, bypass, air valve, centrifugal pump with mechanical seal & SS trolley.

**MAX. Working Pressure:** 2 Kg/cm

**MAX. Working Temperature:** 100 - 200 °C

**NOTE:**
- D=Deep Plate for High volume Cake Holding Capacity
- S=Shallow Plate for small volume Cake Holding Capacity
FILTER PRESS

SALIENT FEATURES FOR SPARKLER (PRESSURE) FILTER PRESS

• GMP Models stands for SS trolley.
• There are two types of filter plates are available – Deep and Shallow Plates.
• Manufactured using quality raw material such as S.S. 304/316/316L M.O.C.
• Having M.S./S.S. Double Jacket for hot filtration.
• Available in various sizes and different diameters having numerous number of plates.
• It also provides the Back wash facility for continuous operations.
• The horizontal filter plates prevent the cake dropping from the shell.

SALIENT FEATURES FOR ZERO HOLD UP (REVERSE FLOW) FILTER PRESS

• Complete filtration process without any hold up of unfiltered liquid.
• The opposite direction of flow saves large time and cost.
• Single pass filtration with no solid bypass.
• Gives crystal filtration by filtering particles up to 1 micron size.
• Full batch recovery, no need of separate scavenging system.
• Proper sealing which allows filtration of toxic, hazardous and explosive liquids.
• Available with different diameters and numbers of plates.

OPTIONAL FEATURES FOR SPARKLER & ZERO HOLD UP FILTER PRESS

• Flame Proof Motors & Starters.
• SS 304 Double Jacketed for Hot Filtration.
• Backwash facility for Zero Hold Filter Press to take no. of batches without opening the filter
• Centrifugal, Gear, Lobe, Alfa Laval Pumps for different liquid filtration.
• Sight Glass at the Top of filter tank to seeing the flow.
• Compounding Pressure Gauge, Air valve & Safety valve.
• PP, halar coating, PTFE, PVDF coating / lining can be done on Contact parts of liquid flow
  through filtration corrosive chemicals

ZERO HOLD
24” x 18 PLATES
ZERO HOLD UP FILTER PRESS
HORIZONTAL PLATE (REVERSE FLOW FILTER PRESS)
PRESSURE FILTRATION

SALIENT FEATURES FOR REVERSE FLOW (ZERO HOLD) FILTER PRESS

Central Feeding Ensures:
• No solid inside the filter tank.
• Complete recovery of liquids.
• Uniform distribution of cake on each plate.
• Uniform filter-aid bed can be formed.
• Cake solid can be maximum dried with N₂.
• Complete cake retains over the plate.
• Reduce the cost of expensive solvents products.

Closed System Ensures:
• Filtration of toxic, hazardous, explosive materials.
• Efficiently cleaned and sterilized.

Plate Pack Arrangement Ensures:
• Any type of filtering media singularly or in combination, can be used to achieve required micron efficiency.
• Easy removal and cleaning of the cartridge assembly.

APPLICATIONS:
Pharmaceutical, fine wine, alcohol, fine chemicals, perfumes, resins, food industries, distillery industries, paint, honey, varnish, sugar syrup etc....

The valves of “Flow Rates” mentioned in technical specifications have been estimated for the following operating parameters:

a) Fluid : Water
b) Insoluble : Carbon
c) Filter Media : Non woven polypropylene cloth of 418 grade
d) Carbon loading : 5kg/m² filtration area.

The actual flow-rate will differ from the estimated valve depending on the operating variable.

APPLICATION AREA
• Pharmaceutical Industries
• Chemical Industries
• Food Processing Industries
• Cement Industries
• Distillation Plants
• Oil Industries
• Dairy Industries
• Paint Industries
• Beverages

SYRUP FILTRATION
APPLICATIONS FOR SPARKLER ZERO FILTER PRESS

The Sparkler Filter Press is used in various industries such as pharmaceutical, chemical, beverages, food, cement and distillation plants. Following are the industries where the Sparkler Filter Press is used to filter the liquid slurry and produce the clean liquid.

Pharmaceutical
This is the main industrial area of Sparkler Filter Press and it can filter out the foreign particles from the liquid slurry and make the liquid crystal clear. There are so many pharmaceutical industries in India and they produce pharma liquids in the form of solid liquid slurry.

Chemical
To filter the chemical liquids, it is important to take care of temperature of filter press that is suitable for chemical. Make sure the quality remains same during filtration and at the end, you will get crystal clear liquid.

Food & Beverage
Sparkler Filter Press is also used in food and beverage industries for the production of clean liquid food. The most food products are edible oils, juice, cold drinks, wine and many more.

Distillation
In distillation plants, the sparkler filter press is one of the main components of whole plant. To produce the distillate water, the sparkler filter press used, as filter media and helps to produce the pure water at the end of distillation.

<table>
<thead>
<tr>
<th>Pharmaceutical</th>
<th>Chemical</th>
<th>Food</th>
<th>Beverages</th>
<th>Paint</th>
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<td>Honey</td>
<td>Alcohol</td>
<td>Color</td>
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<tr>
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<td>Acetone</td>
<td>Lactose</td>
<td>Alcohol Extracts</td>
<td>Thinner</td>
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<td>Acrylic Acid</td>
<td>Bake Oil</td>
<td>Beer</td>
<td>Varnish</td>
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<td>Fatty Acids</td>
<td>Beet Sugar</td>
<td>Milk</td>
<td>Paint Color</td>
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<td>Bleaching Earth</td>
<td>Apple Juice</td>
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<td>Brine Solutions</td>
<td>Apple Wine</td>
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<td>Acetylene</td>
<td>Cacao Butter</td>
<td>Lime Juice</td>
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<td>Calcium Salts</td>
<td>Grape Juice</td>
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<tr>
<td>Ink</td>
<td>Alkyd Resin</td>
<td>Cane Sugar</td>
<td>Guava Juice</td>
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</table>

APPLICATION AREA

• Pharmaceutical Industries
• Chemical Industries
• Food Processing Industries
• Cement Industries
• Distillation Plants
• Oil Industries
• Dairy Industries
• Paint Industries
• Beverages
SPARKLER FILTER PRESS

SIZE

8"
14"
18"
24"
33"

www.sparklersfilterpress.com

AKSHAR
Zero Hold Up Filter Press
Model: 14” x 10 Plates
Output 900 LPH Gear Pump
Output 1800 LPH Centrifugal Pump

18” x 15 PLATES - 5000 LPH

www.zeroholdfilterpress.com

www.sparklertypefilterpress.net