FLOTTWEG DECANTERS FOR SURIMI PRODUCTION

Make the most out of our natural resources!
Surimi has been produced for centuries to serve as raw material for traditional Japanese fish products such as Kamaboko and Chico wa. In Western countries, it is also used as the base for crab legs or fish sticks. Surimi is processed from deboned and washed white flesh fish mince. After heading, gutting, filleting, and deboning, the fish mince is subject to a 2 or 3 stage wash to remove impurities such as blood and fat. The wash water is usually strained off through large rotary screens. The washed mince is pumped to refiners where impurities such as bones and black tissue are removed. In the conventional process, dehydration of the fish mince takes place in screw presses before it is mixed with cryoprotectants and then deep frozen. Critical points in surimi production are the yield in fish fibers, wash water demand, footprint of the equipment and safety against bacterial infection of the raw material. These items are considered the weak points in the classical process using screw presses. So there are more than enough reasons to look for alternative technologies in this industry.

The use of Flottweg Decanters does optimize the process significantly. Flottweg Decanters can be used for either recovery of fish fibers from wash water and/or to replace the screw presses, therefore, significantly increasing the overall yield of the surimi plant.
BENEFITS of the Flottweg Surimi Decanter

EFFICIENCY
- Variable Flottweg Simp Drive® for fully automatic operation of the machine
- Easy to operate even on fish species difficult to process
- Constant moisture content between 80 – 82 %
- High cleaning efficiency of the machine at low speed (tumbling effect) via completely independent drive systems for the bowl and scroll

FLEXIBILITY
- Optimum separation efficiency
- Maximum recovery rate on fish fibers from wash water
- Machine suitable for wash water and as a replacement for screw presses
- Machines for land-based or vessel operations for different capacities

HYGIENE
- All product wetted parts are made of high quality stainless steel (AISI 316 Ti/Duplex)
- Electro polished finish of scroll. Seal welded stainless steel bowl strips
- Hinged cover for easy access to housing interior and bowl during cleaning
- Programmable CIP-sequence

QUALITY “MADE IN GERMANY”
Flottweg is ISO 9001 certified and manufactures its products in compliance with the latest technical standards.

ENHANCED YIELD
Up to 50 % increase in overall yield of surimi plant by using Flottweg Decanters for recovery of fibers from wash water or as a replacement for the screw presses in the conventional process.

REDUCED OPERATIONAL COSTS
by fully automatic operation of the decanter.

HIGH AVAILABILITY
Easy to adapt to changing feed conditions (different fish species and/or market demands).

TECHNICAL DATA FOR THE FLOTTWEG SURIMI DECANTER

<table>
<thead>
<tr>
<th>Type</th>
<th>Z4E-4</th>
<th>Z5E-4</th>
<th>Z6E-4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bowl diameter</td>
<td>420 mm / 16&quot;</td>
<td>530 mm / 21&quot;</td>
<td>620 mm / 25&quot;</td>
</tr>
<tr>
<td>Bowl speed</td>
<td>4200 rpm / 4100 G-force</td>
<td>3500 rpm / 3600 G-force</td>
<td>3200 rpm / 3500 G-force</td>
</tr>
<tr>
<td>Differential speed</td>
<td>1 – 20 rpm</td>
<td>1 – 20 rpm</td>
<td>1 – 20 rpm</td>
</tr>
<tr>
<td>Materials of construction</td>
<td>All product wetted parts are made of high grade stainless steel such as Duplex, AISI 316 Ti and superior</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions* (L x W x H)</td>
<td>3493 x 1000 x 1200 mm</td>
<td>4185 x 1565 x 1141 mm</td>
<td>4804 x 1440 x 1290 mm</td>
</tr>
<tr>
<td>Gross weight*</td>
<td>3000 kg / 6600 lb</td>
<td>6200 kg / 13640 lb</td>
<td>9230 kg / 20306 lb</td>
</tr>
<tr>
<td>Motor for bowl drive</td>
<td>22 kW / 30 hp</td>
<td>45 kW / 60 hp</td>
<td>75 kW / 100 hp</td>
</tr>
<tr>
<td>Motor for scroll drive*</td>
<td>4 kW</td>
<td>5.5 kW</td>
<td>7.5 kW</td>
</tr>
<tr>
<td>Capacity**</td>
<td>0.6 – 1 m³/h</td>
<td>1 – 1.5 m³/h</td>
<td>1.5 – 2.2 m³/h</td>
</tr>
<tr>
<td>Design</td>
<td>Electro-polished finish/hinged cover/flushing device for housing + scroll</td>
<td></td>
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</tr>
</tbody>
</table>

* to be understood as guidelines / ** to be understood as guidelines, real capacity depends on composition of raw material
Flottweg Separation Technology – Engineered For Your Success