LSM 40 (Lamella Settler Module 40 mm)
is a lamella pack obtained by the assembly of PVC thermoformed sheets with a parallel channel design.
This product is also available in a crossed channel design (please refer to TFM 27 data sheet)

Design
The product has been studied to maximize the projected surface without limiting the wastewater free passage.
The channels have a arrow shape in order to allow the best solid Flow.
LSM lamella pack can be made of different sizes.
Furthermore it is possible to cut them to size: all these customization possibilities make the product easy to adapt to any kind of plant or basin, including circular ones.
All these customization possibilities make this product easily adaptable to any type of plant or basin, including the older Dortmund Clarifiers.
The structure is self-supporting, so it is not necessary to use metal frames.

Principal Applications:
The channels sizes and the considerable projected surface allow this product to find a wide use in many applications in wastewater treatment, among with :
❖ primary and secondary clarifiers (settlers) in wastewater treatment plants;
❖ clariflocculation;
❖ oil and water separation systems;

PVC Characteristics:
The PVC used to make this fill media comply with the most restrictive standards, such as the CTI rule 136 and the ASTM E-84, presenting many advantages:
❖ Lightness, which allows an easy handling;
❖ Self-extinguishing and fire resistant (ASTM E-84);
❖ High mechanical resistance, in particular to compression;
❖ Resistance to the majority of chemicals and to the biological aggression;
❖ It is an hydrophilic material, this is why water forms a well distributed liquid film while flowing on it.

<table>
<thead>
<tr>
<th>Material</th>
<th>colour</th>
<th>Standard Thickness Range</th>
<th>Working Temperature Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVC</td>
<td>Black</td>
<td>450-700 micron</td>
<td>-5°C °C 60°C</td>
</tr>
</tbody>
</table>

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Available Sizes

Sheets sizes depend on the mould size and from the possibilities given by our thermoforming machines. On request we can supply cut to size blocks.

TFM 27 can be supplied both in pre-assembled blocks and sheets to be assembled on site. The latter option allow to optimize the freight volume and consequently to reduce the transport costs. The assembly process can be chemical, using a solvent glue, which doesn’t leave any residual in the finished product, or thermal, by welding. Refill-tech can supply the suitable machines to make these operations.

<table>
<thead>
<tr>
<th>Standard Blocks Sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width B</td>
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<tr>
<td>Depending on the sheet number Pitch 30 mm</td>
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</tbody>
</table>

Hydraulic Data

<table>
<thead>
<tr>
<th>Hydraulic Radius</th>
<th>Hydraulic Diameter</th>
<th>Flute Sizes</th>
<th>Flute Shape</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,3 cm</td>
<td>5,26 cm</td>
<td>68 x 60 mm</td>
<td>Irregular Hexagon</td>
</tr>
</tbody>
</table>

* Projected Specific Surface (m²/m³) can be increased of 10% by thermoforming process respect the mentioned values.