Technical data.

**Twin-screw extrusion system.**

ECOtwin™

**Twin-screw extruder ECOtwin™**

<table>
<thead>
<tr>
<th>Type</th>
<th>Diameter (nominal)</th>
<th>Screw length (L : D ratio)</th>
<th>Screw speed variable</th>
<th>Standard main drive for 50 Hz / 1500 rpm</th>
<th>Max. allowable axial pressure</th>
<th>Max. allowable barrel temperature</th>
<th>Throughput up to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 125</td>
<td>125 mm</td>
<td>16–20 (2.0–2.5 m)</td>
<td>150–800 rpm</td>
<td>max. 450 kW</td>
<td>75 bar</td>
<td>180 °C</td>
<td>10 t/h</td>
</tr>
<tr>
<td>Type 175</td>
<td>175 mm</td>
<td>16–20 (2.8–3.5 m)</td>
<td>125–600 rpm</td>
<td>max. 900 kW</td>
<td>75 bar</td>
<td>180 °C</td>
<td>20 t/h</td>
</tr>
</tbody>
</table>

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The ECotwin™ extrusion system consists of the extruder, the preconditioner, and the peripheral devices. Its performance is tailored to the specific requirements of the petfood and industrial fish feed industries. Its modular design ensures the best possible customization to users’ needs.

The ECotwin™ extruder ECotwin™

The system is characterized by its excellent reliability and ease of operation. Every cleaning and accessibility of all critical zones ensure a high level of sanitation. The SME and Density Control modules guarantee excellent and reproducible product quality. The product characteristics can be adjusted during the production process and within a very short time. This does not require any costly screw reconfigurations or modification of other process parameters such as the water content or the screw speed.

Some features:

- The preconditioner with its separable mixing and retention zones guarantees homogeneous mixing and a narrow retention time range.
- The retention time in the preconditioner can be selected independently.
- The screw shafts are additionally supported by bearings at the die end. This reduces screw wear and prevents dry running.
- The overall height enables the complete system to be installed on a single building level. To prevent condensation and build-up, surfaces are either scraped or heated.
- All transitions are short and have large cross-sections.
- To prevent condensation and build-up, surfaces are moved pneumatically. In the start and stop phases, this cutter shows a cutter designed for fully automatic service. It can be for example for changing the die. The photograph on the right are available. The photograph on the left shows the standard cutter for the ECotwin™ extruder. It can be swung up by hand, moved pneumatically. In the start and stop phases, this cutter can be automatically opened and closed.

• Logging of process data and production statistics
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SME Control

The SME Control module enables accurate online monitoring of the bulk density independent of the SME selection. This is the first of its kind within the petfood industry. A heavy product can be created by returning of the steam to the preconditioner, or by generation of a vacuum (light product), or by generation of a vacuum (heavy product). A large portion of the thermal energy is returned to the process.

Density Control

The density control module allows accurate online monitoring of the density independent of the SME selection. This is the first of its kind within the petfood industry. A heavy product can be created by returning of the steam to the preconditioner, or by generation of a vacuum (light product), or by generation of a vacuum (heavy product). A large portion of the thermal energy is returned to the process.

Extrusion engineering laboratory

The functional extrusion engineering laboratory supports the practical development of new products, processes, and equipment as a supplement to the scientifc problem-solving approach. It allows various process operations to be simulated in isolation as well as in a wide variety of combinations.

Engineering

Our project engineers ensure smooth handling of your order and will make sure our systems are properly integrated in your production environment.

Installation and start-up

The installation and start-up specialists from the Extrusion Systems unit ensure competent installation and construction site management and smooth project processing up to the point of start-up.