FCB Horomill® grinding plant

The FCB Horomill® provides solutions for multipurpose or specific needs.

- The Twin-FCB Horomill® for high capacity grinding plants
- The FCB Aerodecantor to handle products up to 20% moisture
- TYPICAL SIZES

<table>
<thead>
<tr>
<th>Types</th>
<th>Production range (tph)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM</td>
<td>kW</td>
</tr>
<tr>
<td>2000</td>
<td>450</td>
</tr>
<tr>
<td>2400</td>
<td>700</td>
</tr>
<tr>
<td>2800</td>
<td>1100</td>
</tr>
<tr>
<td>3400</td>
<td>1800</td>
</tr>
<tr>
<td>3800</td>
<td>2400</td>
</tr>
<tr>
<td>4000</td>
<td>2800</td>
</tr>
<tr>
<td>4200</td>
<td>3000</td>
</tr>
<tr>
<td>4400</td>
<td>3400</td>
</tr>
<tr>
<td>4600</td>
<td>3800</td>
</tr>
<tr>
<td>4800</td>
<td>4200</td>
</tr>
<tr>
<td>5000</td>
<td>4600</td>
</tr>
</tbody>
</table>

The Twin-FCB Horomill®: production x2

Cement | Minerals

FCB Horomill®, a breakthrough technology to enhance grinding plant operation and sustainability

- The lowest energy consumption
- Zero water consumption
- Better finished product quality even with higher cement/clinker ratio
- The highest flexibility for operation with various products/additives
- Production capacity that is not sensitive to the wear of lining
FCB Horomill® is an advanced technology in bed comminution that enables producers to face the challenges of the industry – Energy Cost and Sustainability – while achieving utmost flexibility and full automation.

**ADVANTAGES**
- Best product quality with higher cement/clinker ratio
- Zero-water consumption
- No need for grinding aid for blended cements or slag
- Higher cement quality with less Blaine
- Production capacity that is not sensitive to the wear of lining
- Flexible operation:
  - Same machine for raw meal, cement and slag grinding
  - Automatic change of recipe within 5 to 10 minutes without surge hopper
- Low level of noise
- Compact installation

**ENERGY SAVINGS**
As a grinding technology by bed compression, FCB Horomill® covers the same application fields than conventional ball mills, vertical roller mills or roller presses.

Industrial results have shown energy savings ranging between 35% and 60%.

**KEY COMPONENTS**
- **ULTIMATE GRINDING TECHNOLOGY**
  - In-bed compression comminution for energy savings
  - Multicompression during one pass through the mill for a better cement quality
  - Material centrifugation for operation stability

**FCB Horomill® is a proven technology adopted by the major cement producers**

---

### Grinding Plant Consumption

<table>
<thead>
<tr>
<th></th>
<th>OPC</th>
<th>Blended</th>
<th>Slag</th>
<th>Raw</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ball mill</td>
<td>44.0</td>
<td>34.5</td>
<td>75.7</td>
<td>20.5</td>
</tr>
<tr>
<td>VRM</td>
<td>34.0</td>
<td>27.0</td>
<td>47.0</td>
<td>14.8</td>
</tr>
<tr>
<td>FCB Horomill®</td>
<td>28.4</td>
<td>21.8</td>
<td>39.4</td>
<td>12.3</td>
</tr>
</tbody>
</table>

**Simple plant design**
- Installation within limited space
- Low quantity of material in the circuit
- Fully automated sequences and recipe changes
- Standardized plant layout and options

**FCB Horomill®**
- A shell driven at supercritical speed
- A roller applied on the material bed by means of hydraulic jacks
- Material fed from one side and ground several times between the shell and the roller
- Compact integrated drive (similar to ball mill)

**FCB TSV™ Classifier**
The FCB Horomill® performance is enhanced with the FCB 3rd generation TSV™ Classifier that separates the fine product (for improved product quality) and the coarse material (for improved grinding efficiency and minimum mill power consumption).

**Process filters**
The grinding plant can be fitted with a high efficiency gas treatment system to clean the gas emissions throughout the installation. Fives process filters use the latest technology in terms of filtration and scrubbing, to achieve a very high level of pollutant removal.