NETZSCH Classifier Mill CSM CERAMIC
Impact Grinding without Metal Contamination
NETZSCH Classifier Mill CSM CERAMIC

Grinding without Contamination

With the CERAMIC-execution of the CSM classifier mill, dry fine-grinding is possible without metal contamination of the grinding product! All machine parts in contact with the grinding product are completely made of ceramic or have a ceramic lining.
The classifier mill CSM combines an impact grinding mechanism with an integrated dynamic air classifier. Using this air classifier a very fine final fineness of less than 10 µm can be obtained, without the disadvantage of an external grinding and classifying circuit. The internal circulation of the coarse product in the classifier is self-adjusting, which ensures a steady, energy and space saving operation. The grinding is carried out between a peripheral milling track and the beating tools.

Thanks to the highly-developed classifier technology with vertical classifier wheel, a rotationally symmetrical classification can be achieved, which guarantees a very high fineness with precise upper particle size limit, as well as an even loading of the classifier wheel.
Focus on your Advantages

- Impact rotor mill with integrated dynamic air classifier for steep particle size distribution with precisely defined maximum particle size.
- Highest product finenesses without metal contamination.
- Minimal warming of the grinding product due to controlled air ventilation.
- Closed-loop system to maintain low moisture content (as an option).
- Fast and easy cleaning and maintenance due to optimal access of the grinding chamber and classifier.
- Application-oriented product feeding via gravimetric dosing or injector system.
- No nonferrous metals (Copper, Zinc) or nonferrous alloys for product- and process gas contacted parts
- Variable installation possibilities and minor spatial requirements.
NETZSCH Classifier Mills CSM 260 Ceramic
## Applications and Technical Data

<table>
<thead>
<tr>
<th>Technical Data</th>
<th>CSM 50</th>
<th>CSM 80</th>
<th>CSM 165</th>
<th>CSM 260</th>
<th>CSM 360</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power factor</td>
<td>--</td>
<td>--</td>
<td>0.3</td>
<td>0.5</td>
<td>1</td>
</tr>
<tr>
<td>Grinding disc diameter</td>
<td>mm</td>
<td>146</td>
<td>182</td>
<td>300</td>
<td>406</td>
</tr>
<tr>
<td>Classifier wheel diameter</td>
<td>mm</td>
<td>80</td>
<td>120</td>
<td>170</td>
<td>260</td>
</tr>
<tr>
<td>Mill speed max.*</td>
<td>min⁻¹</td>
<td>15 000</td>
<td>12 000</td>
<td>3 800</td>
<td>2 800</td>
</tr>
<tr>
<td>Mill driving power max.</td>
<td>kW</td>
<td>1.1</td>
<td>2.2</td>
<td>5.5</td>
<td>15</td>
</tr>
<tr>
<td>Classifier speed max.</td>
<td>min⁻¹</td>
<td>12 000</td>
<td>6 500</td>
<td>4 500</td>
<td>4 200</td>
</tr>
<tr>
<td>Classifier driving power max.</td>
<td>kW</td>
<td>0.55</td>
<td>1.5</td>
<td>2.2</td>
<td>4</td>
</tr>
<tr>
<td>Air volume flow max.</td>
<td>m³h⁻¹</td>
<td>70</td>
<td>180</td>
<td>700</td>
<td>1 400</td>
</tr>
<tr>
<td>Fineness d₉₇**</td>
<td>µm</td>
<td>9 - 150</td>
<td>9 - 150</td>
<td>9 - 150</td>
<td>9 - 150</td>
</tr>
</tbody>
</table>

* at a max. feed size of 1 mm (free of foreign particles)
** based on limestone (density 2.7 kg/l)

- Activated carbon
- Aluminum oxide
- Anhydrite
- Antimony
- Barium sulphate
- Battery materials
- Bentonite
- Bismuth oxide
- Boron nitride
- Calcium carbonate
- Dolomite
- Iron oxide
- Fly ash
- Flux powder
- Plaster
- Graphite
- Charcoal
- Slaked lime
- Limestone
- Terra alba
- Catalysts
- Cobalt metal
- Cobalt oxide
- Coal
- Coconut shells
- Lithium Cobalt Oxide (LCO)
- Lithium Iron Phosphate (LFP)
- Lithium Manganese Oxide (LMO)
- Lithium Nickel Cobalt Aluminum Oxide (NCA)
- Lithium Nickel Manganese Cobalt Oxide (NMC or NCM)
- Manganese phosphate
- Metal powder
- Neodymium
- Nickel
- Nickel hydroxide
- Nickel alloys
- Nickel compounds
- Beaded carbon black
- Carbon black
- Silica
- Silica gel
- Soapstone
- Titanium dioxide
- Vulcanite
- Tungsten carbide
- Wollastonite
Grinding plant for inert gas loop operation

1. Dosing
2. Rotary valve
3. Blower
4. Classifier Mill CSM CeramIC
5. Fully-automatic filter
6. Safety filter
7. Blower
8. Overflow valve
9. Heat exchanger
Business Unit Grinding & Dispersing –
The World’s Leading Grinding Technology

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