Overview

Vertical shaft impact crusher is also called sand maker which is highly efficient stone crushing equipment with domestic and international leading level researched and manufactured by Hongxing Machinery on the basis of introducing the famous “stone impacting stone” crusher principle and technology of American Barmac Company and combing with the actual condition of the domestic sand making industry. It is suitable for the medium and fine crushing of various hard and crisp materials such as various rocks, abrasive materials, refractory, cement clinker, quartz stone, iron ore and concrete aggregate, and especially suitable for making building sand and road paving sand and stone.

The Handling Materials and Application of Sand Making Machine:

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The Inner Structure of Sand Making Machine:

Sand Making Machine is mainly composed of feeding device, distributor, and whirling motion crushing chamber, impeller, principal axis assembly, pedestal driving device and motor.
**Features**

1. This machine is a new type medium and fine stone crushing machine developed in the 1990s and also the machine type that is widely used to replace cone crusher, double-roll crusher and ball mill in the world.

2. It has novel and unique structure and stable operation.

3. This machine is low in energy consumption, high in output and big in crushing ratio.

4. The equipment is small in size, simple and easy in operation and convenient in installation and maintenance.

5. It has the function of reshaping, and the final products are in the shape of cube and big in stacking density.

6. During the production process, the stone materials can form a protective basement, so that the machine has no abrasion and is durable in use.

7. The few easy-wearing spare parts are made of super-hard wear-resisting materials, so that the machine is small in size, light in weight and convenient in spare part changing.
Characteristics:

- Processing ability: 0.26–30 m³
- Rotate speed: 200–530 r/min
- Diameter: 240–850 mm
- Applied material: pebble, calcite, granite, quartz, concrete, dolomite, bluestone, iron ore, limestone.

Working principle:

The materials go into the crusher from the feed hopper and are separated into two parts by the distributor. One part goes into the impeller rotating with high speed from the middle of the distributor, and is quickened inside the impeller, and the acceleration can reach hundred times of the acceleration of gravity, and then the materials will cast from the three uniformly distributed runners of the impeller at a speed of 60–70 m/s, and impact and crush with the other part of materials which fall from around the distributor and then they will together impact to the material lining inside the vortex cavity. Bounced from the material lining, the materials will impact obliquely upward to the top of the whirling motion chamber which will change their movement direction again, so that materials will move down, and the materials launching from the runners of the impeller will form a continuous material curtain. In this way, the materials will get two times or more hitting, friction, grinding and crushing effect inside the whirling motion crushing chamber. The crushed materials will be discharged from the bottom discharging mouth. This process will form a closed-circuit system together with the cyclic screening system and generally speaking, after three times of cycle, the materials will be crushed below 20Moh.

In the whole crushing process, the materials impact and crush with each other without directly contacting the metal spare parts, and just impact and grind with the material lining to be crushed, thus extending the abrasion time of the machine. The ingenious airflow self cycle inside the whirling motion chamber eliminates powder dust pollution.

Technical data:

<table>
<thead>
<tr>
<th>Model</th>
<th>Meshing size (mm)</th>
<th>Power (kw)</th>
<th>Rotation speed of impeller (r/min)</th>
<th>Capacity (t/h)</th>
<th>Dimensions (L×W×H) (mm)</th>
<th>Total weight (kg)</th>
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<tbody>
<tr>
<td>FTM-06</td>
<td>35</td>
<td>31-55</td>
<td>2000-3000</td>
<td>12-30</td>
<td>2500×1620×2600</td>
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<td>45</td>
<td>55-75</td>
<td>1500-2500</td>
<td>25-55</td>
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<td>110-150</td>
<td>1200-2000</td>
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<td>264-320</td>
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<td>800-1193</td>
<td>200-360</td>
<td>5200×2700×3800</td>
<td>27600</td>
</tr>
</tbody>
</table>
**Pre-sale services: enthusiasm**

We provide you with the prophase plan, process flow design and manufacturer equipment according to your special demand.

**Sale services: servant**

Send technicians to the jobsite for guiding the installation and adjustment, training operators and finishing the check and accept together with you.

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