Process Description

Preheater made by CHAENG is classified as cement rotary kiln preheater and lime rotary kiln preheater. When the vertical preheater is used with the rotary kiln, it can make full use of the waste heat of the high-temperature flue gas at the kiln end, which is energy-saving and environmental protection.

The main function of vertical kiln preheater is to transport the cement raw material or limestone from the upper into the preheater body, at the same time preheat material evenly with the furnace hot waste gas discharged after calcining. In the preheating process, some materials are decomposed in the preheater, and then are pushed into the rotary kiln for calcining by the hydraulic push rod. This calcination process not only makes the calcining time greatly shortened, but also obtains a high degree of cement and lime products.

Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Quantity of push rod</th>
<th>Height (m)</th>
<th>Capacity (t/d)</th>
<th>Feed size (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>YRQ-04</td>
<td>4</td>
<td>4</td>
<td>200</td>
<td>10 ~ 50</td>
</tr>
<tr>
<td>YRQ-06</td>
<td>6</td>
<td>4</td>
<td>300</td>
<td>10 ~ 50</td>
</tr>
<tr>
<td>YRQ-08</td>
<td>8</td>
<td>4.4</td>
<td>400</td>
<td>10 ~ 50</td>
</tr>
<tr>
<td>YRQ-12</td>
<td>12</td>
<td>4.4</td>
<td>600</td>
<td>10 ~ 50</td>
</tr>
</tbody>
</table>

Features
1. Working under high temperature of 1000 ~ 1100 °C, with long time;

2. The structure design is novel and the sealing is good, which can ensure that the material is preheated evenly in the preheater and reaches the preheating temperature.

3. The effective recovery of heat from the exhaust emission of the kiln tail increases the system fuel efficiency and also helps to remove dust.

4. When the calcining system adopts the vertical preheater, it reduces the heat dissipation of the rotary kiln and save space.

5. The use of the vertical preheater system can achieve good comprehensive benefits, the capacity can be increased by 30%, and the thermal efficiency can be increased by 40%.

**Project Stories**

The vertical preheater by Great Wall machinery is used in the lime production line of 400,000 t/a.

![Image of vertical preheater system]

**About CHAENG**

Founded in 1958 and located in Xinxiang, Henan province, CHAENG has 60-year experience in equipment manufacturing with an area of 330,000 m² and 1 billion RMB of annual production value. The company is specialized in manufacturing ball mills, rotary kilns, vertical mills, large steel casting and can undertake the EPC projects of cement production lines, active lime production lines, blast furnace slag/ steel slag/ nickel slag grinding plants. Its products are sold to more than 50 countries and regions in Southeast Asia, Central Asia, South Asia, North America, South America and Europe.
Our long-term strategic partners: Arcelor Mittal, Tata Group, Pohang Iron and Steel Company, Germany CCE, Japan Chiba, Shanghai Baosteel, Voestalpine and Aosen steel.