## Rotary kiln tyre structure and material

There are two main types of rotary kiln tyres: solid rectangle and hollow box. The shape of the solid rectangular tire is simple. Because the section is integral, the casting defects are not very prominent and the cracks are less, but the rigidity of the solid rectangular tire of the same weight is smaller than that of the hollow box-shaped tire. The hollow box-shaped tire has high rigidity, which can increase the rigidity of the cylinder and use less material, but the external size is large, the cross-sectional shape is complex, and defects such as cracks are easily generated during the casting process, or even the cross-section is broken.

The rotary kiln tyre mainly bears three forces during the operation of the kiln body: temperature difference stress, bending stress and contact stress. If these stresses are too large, the tyre will be damaged or even broken. When the rotary kiln is running, the cylinder will drive the wheel belt to rotate, and the wheel belt and the supporting roller will produce friction, which will cause the tyre to wear to a certain extent. Therefore, the material selection and casting of the wheel belt should ensure its wear resistance.

Great Wall Casting (CHAENG) adopts ZG45 and ZG42CrMO materials, which can ensure the strength and toughness of the tire belt, so as to better play a supporting role. The wheel belt of Great Wall Cast Steel has been treated by double medium quenching process, and all parts are cast evenly. It has the characteristics of high quenching hardness and high toughness value, so that the wheel belt has good wear resistance and can adapt to various harsh working environments.



CHAENG can process various specifications of rotary kiln tyres according to customer's drawings, please feel free to consult!

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