

Title (en)

HIGH-SPEED CUP-SHAPED WHEEL COOLING STRUCTURE

Title (de)

BECHERFÖRMIGE HOCHGESCHWINDIGKEITS-RADKÜHLSTRUKTUR

Title (fr)

STRUCTURE DE REFROIDISSEMENT DE ROUE CUPULIFORME À GRANDE VITESSE

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Application

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Abstract (en)

The present invention relates to a cooling structure of a high-speed cup-shaped wheel. The cooling structure includes a base and a blade ring, wherein the blade ring is arranged on the base and is fixedly connected to the base; the blade ring is provided with a plurality of water channel groups, which is sequentially arranged at intervals in a circumferential direction of the blade ring; and each of the water channel groups includes two or more inner water channels, which are sequentially arranged at intervals in the circumferential direction of the blade ring, the width of each of the two or more inner water channels in a radial direction of the blade ring being gradually increased. Compared with the prior art, the cooling structure of the present invention allows cooling water to cover the entire working surface to improve the cooling efficiency for the working surface and also to effectively improve the utilization efficiency of the cooling water, and can also reduce the influences from machining parameters to advantageously improve the grinding stability and grinding quality, thereby enabling the cup-shaped wheel to adapt to high-speed grinding.

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