

KES

**Sand Remover
(KNOCK OUT M/C)**

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1. Scope of application

This standard shall be applied to the equipment (Called knock out M/C from now on) specification destroying the core sand of Cylinder Head that is the product cast made of Aluminum alloy materials in the production factory.

2. The definition of terms

2.1 Core sand

The core means the thing to make the water hole and oil hole inside Cylinder Head (Called Work from now on) and the sand of which the core is made is Core sand (Coated sand).

2.2 Coated sand

This is the thing to coat adhesive agent Resin sand with general sand and the resin, heat thermosetting rosin, should take on the characteristics of being congealed in case of being heated.

2.3 Air Hammer

This is the machine to generate the repetitive vibration by the air pressure and this plays a role in removing the core by giving a blow to Work.

2.4 Bath hole

This is the shape formed on the pathway through which the solution bath goes into the metal frame casting the Work and this is called bath hole that is redundant for the product.

3. Equipment structure and explanation

3.1 Body parts

Body parts comprise Frame, sand removal Station, Transfer Part, Work Clamper etc..

3.1.1 Frame

This is the iron structure supporting body parts.

3.1.2 Sand removal station

This plays a role in destroying and removing the core sand inside the Work by giving a blow to the Work with the Air Hammer.

3.1.3 Transfer Part

This is the equipment transferring the Work to each station from the bring-in of main equipment to the bring-out.

3.1.4 Work Clamper

This plays a role in arranging the accuracy of position of work before giving a blow to the Work at the sand removal station and preventing the deviation of work during the blow.

3.2 Soundproof Room (Cabinet)

This plays a role of the Hood of dust collector that prevents the noises and collects the dust at the time of blow with air hammer.

3.3 Oil pressure Unit

As the drive source of basic motion of equipment, this comprises oil pressure pump, Motor, Tank, SOL' V/V, oil pressure Cylinder etc..

3.4 Control unit

This is the place at which to control and manipulate each motion of equipment and this comprises only one unit in combination of each electric machine.

3.5 Other auxiliary equipment

There are the dust collector, sand collect conveyor as the auxiliary equipment.

3.5.1 Dust collector

This is the equipment that is needed to collect the dust generated at the time of knock out M/C as the equipment for preventing the pollution.

3.5.2 Sand collect conveyor

This is the conveyor collecting the falling sand destroyed and removed in the sand removal station to the one place.