

PMM 1000

POWDER MARKING MACHINE

Powder Marking Machine **1000** series implements the reliable and proven powder marking technology for **hot Slabs**.

PMM 1000 uses a single nozzle to spray a continuous flow of ceramic powder by compressed air, which adheres firmly to the surface of the product.

The **slab marker** writes large, clear, highly visible characters, which can be easily read at a distance by the crane operators.



After about 10 years of operation

The system is mainly composed of:

- Robot arm which manipulates a writing device mounted on its wrist
- Electrical cabinets
- Powder feeding unit
- Fluids panel
- HMI

The marking system was designed specifically to operate in the harsh environment of the continuous casting line. Its relatively small base and long reach make it ideal for installation in existing lines, since just little layout modifications are required.

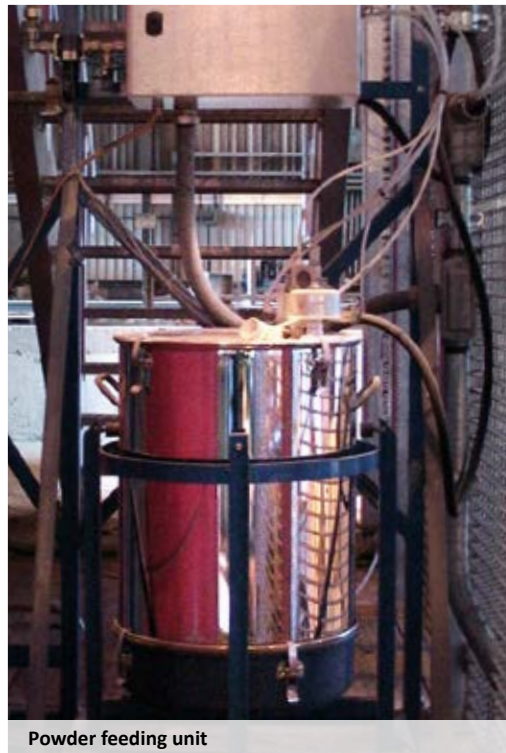
The system is fully automatic and equipped with advanced diagnostics, making the maintenance and troubleshooting easy.

The marker receives the marking data from the factory automation system or by HMI, then the marking zone is interlocked and the marking head moves towards the product, until the probe detects its exact position. Then the surface is descaled, if such operation has been enabled.

After descaling, the character string is written by spraying ceramic powder while moving the wrist of the robot so as to reproduce the contour of the characters. After marking, the robot arm moves back to the home position and the marking zone interlock is released.

The powder tank has a capacity to guarantee the marking of more than 5000 characters.





Powder feeding unit



PMM 1000 can be equipped with one of the following devices, to determine the position of the slab:

- Mechanical probe
- 1 laser sensor
- 2 laser sensors

Two laser sensors are used in case the slab could have variable inclination, guaranteeing to mark always at a constant distance from the slab surface.

Option:

- Special high pressure water de-scaler, **long service life** and **energy saver**.

Main Features:

- Character height, width and space are continuously and independently scalable
- Remote/automatic powder pump purge
- Remote/automatic powder nozzle/hose flushing

Typical Specifications:

- Product temperature: up to 1000 °C
- Markings: Alphanumeric characters
- Characters height: 80 – 150 mm (other on request)
- Powder consumption: 1,5 – 3 gr/ch (size depending)
- Cycle time: 50 – 90 s (depending on descaling/markings)

Contact us to know more about special versions.

PMM 1000 EN rev0



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