

WMS 8000

PIPE LENGTH, WEIGHT AND MARKING SYSTEM

Weight Marking System **8000** series is a modular combination of machines, able to execute different types of markings and measurements on **Pipes** and **Tubes** according to the customer needs. Main markings and measurements are listed below.

Markings:

- Lengthwise (outer)
- Circumferential (Inner/Outer)
- Coloured Bands
- Couplings
- Inner Coloured Spot
- Stamping
- Frame around Stamping Area

Measurements:

- Weight
- Length



The markings can contain any alphanumeric character, logos, **Data Matrix** or **IMTS Special Code** for automatic reading. The implemented marking technologies are:

- Drop On Demand (Ink or Paint)
- Paint Spraying
- Pin Stamping

(for details, visit our website or see brochures PSS 2000, SPM 3000 and SDS 7000).

IMTS Special Codes listed below:

- **IBC25SP** (fixed number of bars)
- **IRBC2000SP** (erasure tolerant)

were specifically developed to survive the product handling, making the codes readable along the production process even if partially damaged.

The weighing system is multi-cell. Each load cell is individually calibrated and acquired by the controller, to **obtain high accuracy weight**, immediate and clear diagnostics. In function of the handling speed and product straightness, a special mechanical compensator can be installed to protect each load cell and to equalize the load distribution.

The length measurement is done by moving laser sensors over the stationary product. The sensors detect the position of the product ends and the length is calculated as the difference between them. This method, implemented on a rugged and machined mechanical structure, allows to **obtain high accuracy and repeatability of the length measurement** while making periodic calibration unnecessary.



Marking and reading systems for metallurgical products



Marking trolley with 3 heads



Walking Beam Module

The lay-out of the complete WMS 8000 is flexible and customizable in function of the customer requirements. Typical composition of the system is:

- Walking Beam (electric or hydraulic) with load cells
- Bridge with 3 trolleys, for: longitudinal marking and frame around stamping area; length measurement; stamping
- Bands marker
- Fluids and electrical cabinets skid
- Hydraulic skid (in case of hydraulic WB only)
- HMI

The marking trolley can be equipped with one or more marking heads, in function of the size and number of simultaneous rows required.

The system is specifically designed for harsh environments as steel plants, operating with high reliability over long periods even in extreme conditions.

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

The system receives the marking data from the factory automation system or by HMI.

Options:

- Advanced Cleaning System for Marking Head (7 phases)
- Anti-scratch Product Cleaning System (to improve markings strength)
- Mechanical compensator for load cell
- Data Matrix Printing Function
- IMTS Special Code Printing Function
- Reading System
- Camera System (to show complete lengthwise markings on HMI)
- Tracking and Data Base of the products

Typical main specifications:

- Markings: Alfanum. Char. (Latin, Cyrillic etc.), Logos, Data Matrix, IMTS Special Code (Ink/Paint only)
- Marking media: Ink, Paint, PIN Stamping
- Character height: 20 – 80 mm (INK-Paint); 5 – 10 mm (PIN Stamping)
- Colored band width: 10 – 50 mm (adjustable)
- Weight accuracy: +/- 10 N (or better on request)
- Length accuracy: +/- 2 mm
- **Min. Inner Diameter** (for inner marking): **100 mm**