

# SDS 7000

## SMART DOD SYSTEM

Smart DOD System 7000 series is our reliable solution to mark **Pipes (in/out), Plates, Bars, Beam, Sheet of Steel, Tubes and Coils.**

The system uses the Drop On Demand technology, to mark dot matrix of INK or Paint on moving or standing still products.

The proven quality of DOD allows to mark clean characters, logos, **Data Matrix** and **IMTS Special Codes.**

Data Matrix and IMTS Special Codes allow the automatic reading of the product code, making the **tracking systems** incredibly reliable.



Inner diameter 100 mm only!

Different print head models are available, having 7 up to 64 nozzles. The choice depends on the character size and on the number of lines to be marked simultaneously.

**A special slim head** is available to mark inside of small pipes with **inner diameter of 100 mm only!**

Inner/outer marking, 360° circumferentially around stationary pipes, is possible.

**SDS 7000** consists mainly of:

- Print head manipulated by a robotPrint head controller
- Ink/paint supply unit
- HMI
- Device to accurately locate the product to be marked

The system is specifically designed for harsh environments like 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.

SmartMetalMarkers™  
FAMILY



Marking and reading systems for metallurgical products



On fly marking of Plates - Data Matrix 64 digits



In/Out Pipe Marker with Slim Head



Solvent and Cleaning tanks



Special valves for automatic cleaning on robot arm

The system receives the marking data from the factory automation system or by HMI and detects the product position, then the marking head is positioned and starts to print.

After marking, the camera checks the code readability and allows the product evacuation.

The ink/paint supply unit, typically with a 2 litre tank, guarantees the markings of more than 100.000 characters (size/resolution depending).

The **Advanced Cleaning System** (7 phases), entirely designed by IMTS, reduces considerably the manual cleaning rate of the head, guaranteeing high and constant marking quality resulting in a great advantage, especially in case of automatic reading. IMTS Advanced Cleaning System consumes very small quantity of ink/paint and solvent, saving money and resulting **environmentally friendly** at the same time.

It automatically executes the phases to set the head for long stop (cleaning, purge and filling with solvent) according to set-up parameters on the HMI.

To improve the markings strength, IMTS developed a specific device to **clean the surface** to be marked with a mechanical **anti-scratch tool**. The device, particularly suitable in case of automatic reading, is mounted just before the marking head.

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.

**Options:**

- Advanced Cleaning System for Marking Head
- Anti-scratch Product Cleaning System
- Data Matrix Printing Function
- IMTS Special Code Printing Function
- Reading System

**Typical specifications:**

- Marking media: Ink or Paint
- Nozzles: Ink (7 – 64); Paint (16)
- Product temperature: up to 180 °C (other on request)
- Dot Diameter: 2 – 3 mm
- Print height: 20 – 140 mm (single head)
- Simultaneous marking lines: up to 8
- Printing speed: up to 600 m/min

*Note: not all combinations of the above specifications are possible. Contact us for more details.*

SDS 7000 EN rev0

