

# SMARKLase - BILLET MARKING TECHNOLOGY



# THE SMARKLase PROCESS



**01** High pressure water descaling.



**02** Temperature laser reactive coating.



**03** Laser imaging the text & Datamatrix code.



**04** Verify the correct marking of every single billet.

# DIRECT MARKING

## DIRECT MARKING

Direct Marking on the surface of the billet.  
High Temperature Marking up to 1200°C.  
No tags attached that fall off the billet.  
No pollution at the rolling mill with metal tags.



## QUALITY & CONTRAST

High resolution laser marking technology.  
Easily readable mark by humans and machines.



## ROUGH SURFACES

Contactless marking.  
Human readable marks on bad oxy-cut billets.  
High reading ratio even on really rough surfaces.



## HIGH RESISTANCE MARKING

High resistance to mechanical scratch.  
Non removable marks tested at 80 bar water jet pressure.  
Long lasting marks in outdoors stocking conditions.



# CUSTOMIZED INTEGRATIONS

## MODELS

Gantry type structures with 2 carriages to cover 6 strands, marking the face of the billets.

Single Marking units on the side of the colling bed to mark the face of the billets on the individual notches.

6-axes robots installed inside a container at the billet bed to mark the face and the top of the billets.

Multiple marking units installed at the strand stoppers for high throughput individual billet marking on the face and/or the top of the billets.

Semi automatic Jib crane Laser marker (for limited production manual marking).

## MAIN FEATURES

- ▶ Heavy duty construction designed for the mill environment.
- ▶ Integrated descaling unit including a 200 bar pressure pump and valve control.
- ▶ Dedicated chiller unit to water cool the equipment.
- ▶ Automatic cleaning station for the spray guns.
- ▶ User friendly Touch screen HMI.



SMARKLase Gantry Type Billet Marking.



SMARKLase Axial System.



SMARKLase Multiple container Axial Systems.



SMARKLase Robot in Container.

# BILLET TRACEABILITY AT THE ROLLING MILL

## MAIN ADVANTAGES

- ▶ Automatic billet traceability at the entrance of the furnace.
- ▶ Data capturing vision systems for automatic tracking the billets, reading both:
  - 2D datamatrix codes.
  - OCR human character reading.
- ▶ The vision system includes:
  - Mechanical integration in the area.
  - Set of Vision camera with lens and filter.
  - Stainless steel protective housing.
  - Dedicated Lighting system to avoid reflections and enhance camera operation.
  - Blowing nozzle to automatically remove dust from the lens.
  - Control cabinet with PLC for the integration of vision system.

## VERIFICATION OF THE CODE RIGHT AFTER MARKING

A Vision system installed in the Marking unit will verify the content of the code right after marking every single billet .





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