

Roboharsh
CUSTOMIZABLE ROBOTIC WORKSTATION FOR THE
MAINTENANCE OF THE LADLE SLIDING GATE



Research Fund for Coal & Steel

Robotic workstation in harsh environmental conditions to improve safety in the steel industry G.A. n. 709553

CUSTOMIZABLE FUNCTIONALTIES

- 3D EXTERNAL SCANNING SLIDING GATE
- CYLINDER CONNECTION
- OXIGEN CLEANING NOZZLE
- SLIDE GATE OPENING
- 3D INTERNAL SCANNING SLIDE GATE -PLATE & NOZZLE-
- REFRACTORY PLATES REMOVAL
- 4.0 - 3D INTERNAL NOZZLE ANALYSIS (DIAMETER/OVALIZATION etc)
- INTERNAL NOZZLE REPAIRING WITH MORTAR OR REPLACEMENT
- GRAPHITE ADDUCTION
- REFRACTORY PLATES REPLACEMENT
- SLIDE GATE CLOSING
- 4.0 TEST DATA COLLECTION
- CYLINDER DISCONNECTION

MAIN TARGETS AND RELEVANT GOALS TO BE ACHIEVE

- To relieve the operator from the need of raising heavy weights.
- To replace the operator in those operations including long exposition to high temperatures and other harsh environmental conditions.
- To recover the used refractory components.
- To improve the repeatability and accuracy of the operations.
- To collect all the relevant data relating to the maintenance process.

