

PRESS RELEASE

ROBOT CASTING TECHNOLOGY for Turret Back Side – Enhancing Safety, Efficiency, and Automation in Steel Casting

In line with the accelerating global trend toward industrial automation, Vesuvius introduces **ROBOT CASTING TECHNOLOGY – BACK SIDE (RCT-BKS)**, a cutting-edge robotic solution designed to revolutionize turret back side operations in the steel casting process.

As digitalization and automation continue to reshape heavy industries, the implementation of robotic systems is crucial to improving process efficiency and ensuring operator safety. According to the International Federation of Robotics, industrial robot installations are steadily increasing worldwide—underscoring a major shift in how industries approach complex and hazardous operations.

RCT-BKS automates the traditionally manual and high-risk tasks on the turret back side, including the **connection and disconnection of hydraulic cylinders, media lines (air and argon), and electrical systems** such as slag detectors. This fully automated solution ensures **safe and precise ladle installation before casting, and seamless removal afterward**.

Scope of Functions:

- Automated handling of **hydraulic cylinder connections**
- **Media coupling** and disconnection (air, argon)
- Automated **electrical signal interface** for slag detection

Main Benefits:

- Operator safety through **remote control and risk-free positioning**
- Elimination of **heavy and strenuous manual tasks**
- Reduced manpower and **streamlined turret operations**
- Enhanced **consistency, traceability, and repeatability**
- Optimized integration with **digital process monitoring**

Key Features:

- Custom-engineered **robot-handled cylinder**
- Intelligent **Media Coupling Platform (MCP)** with:
 - Argon and air cooling lines
 - Slag detection integration
- Proprietary **robot tooling system**
- Vision-based robotic alignment for **hazardous turret positioning**
- Complete **remote control of casting sequences**



Vesuvius remains at the forefront of steel industry innovation, committed to delivering technologies that not only boost performance but also redefine workplace safety standards.

For further information and to explore how RCT – BKS can revolutionise your steel production, visit www.vesuvius.com.

