

# MultiROB

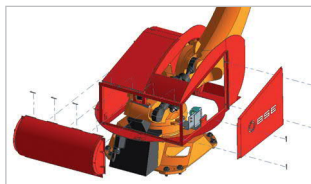
**M**ultifunctionality  
**R**apidness & Reliability  
**O**perator Safety  
**B**est Technology



## Principles.

- Implementation of a standard industrial robot upgraded with special equipment and features for steel plant operation.
- Installation at any kind of EAF, LF or BOF. Easily adjustable to new situations.
- Basic functions:
  - Temperature and sample taking
  - Automatic cartridge exchange
- **Tool exchange**
- **Furnace inspection with camera**
- Wide range of further development options and applications

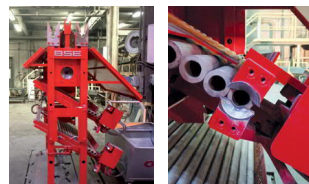
**NEW!**



*Intelligent casing design for effective heat protection and reliable operation.*

## Concept.

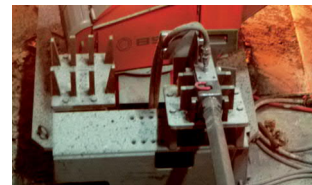
- Remote controlled from the operator room.
- Intelligent detection of collision risks stops the robot and retracts it back into parking position automatically.
- Cartridge exchange either manually by operator in safe distance or automatically, based on a classical cartridge rack enabling the concurrent storage/usage of different cartridge types.
- Tool exchange by mechanical clamping of two plates equipped with pins and holes.
- Detailed furnace inspection with camera tool for detection of skulls, hazardous water leakages, bath level and refractory status.



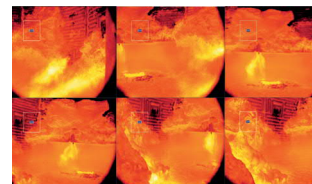
*Cartridge exchange rack for automatic sample taking/temperature measuring cycle.*

## Advantages.

- Massive improvement of safety and work conditions.
- Minimum space requirement.
- Reliable operation – heat and dust protection of relevant parts.
- Quick and easy maintenance.
- Increase of flexibility – tool exchange provides for multiple functions with solely one robot.
- No interruption of power-on cycle and foaming slag practice during temperature and sample taking.



*Fully automatic tool exchange...*



*...also enables the usage of a camera tool for furnace inspection.*

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# BSE

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**From Steelmaker to Steelmaker**