

Automated coating application of alcohol based coating by the installation of Intelligent Coating Unit (ICU Pro)

INNOVATION & TECHNOLOGY

THE CHALLENGE

To meet the latest quality demands Metso:Outotec was challenged to improve coating application consistency, reduce casting defects, at the same time automate coating control and adjustment and to improve quality control.

FOUNDRY:

Metso:Outotec is a Finnish company specialised in mining equipment. Metso:Outotec has a global footprint with 15,000 employees in over 50 countries and provides sustainable technologies, end-to-end solutions, and services to the aggregates, minerals processing, and metals refining industries. The Metso:Outotec foundry in Prerov, Czech Republic produces metallic waer parts for Metso Outotec's mining customers.

PARAMETER

Alloy: Predominantly CrMo Steel (minority Mn Steel)
Coremaking: CO₂-resol, PUR cold box
Moulding process: Alkaline phenolic binder technology
Casting temp.: 1,480-1,520°C
Pouring weight: max. 8 tonnes

FOSECO PRODUCTS

ICU Pro unit
TENOX* coating 5000 A-80
FENOTEC* 280 ES binder
FENOTEC HC 10, 20, 30, 35, 45 binders
STELEX* PrO filters
KALMINEX* XTA sleeves

OUR SOLUTION

The Intelligent Coating Unit (ICU) automates the process of measuring and controlling the dilution of refractory coatings to ensure the correct consistency is maintained and the properties required for optimum application are achieved. The ICU is fully ATEX certified and ensures the safest operation with solvent coating.

KEY BENEFITS

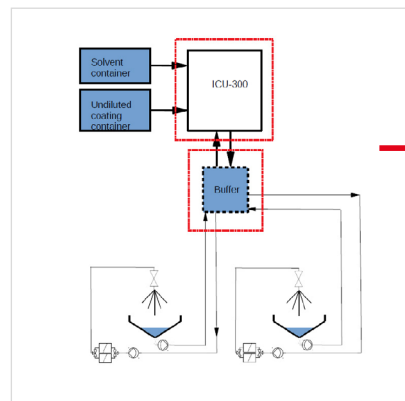
- Operator independent
- Uniform and consistent layer thickness
- Data recording for audits
- System is almost maintenance free

> LET'S LEARN MORE

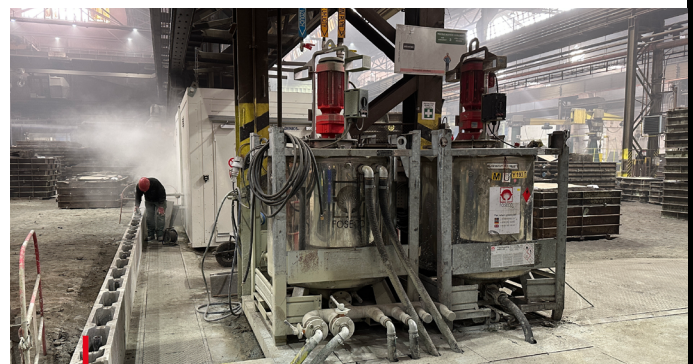


THE OUTCOME

The use of the ICU unit resulted in a uniform coating layer thickness, reduced coating waste, removed sand particles in the coating and increased core shop productivity by 25%. Casting scrap and rework levels were also reduced.



Viewing / data logging



ICU connected to container - automated preparation and application

THINK BEYOND. SHAPE THE FUTURE.



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