



## STABILISATION OF THE COATING PROCESS BY INTEGRATING DENSITY MEASUREMENT INTO A COMBINATION OF DIPPING AND FLOW TANK

**PARAMETER:**

Alloy:	Grey Iron - GJL
Coremaking:	Furan Sand
Moulding process:	Furan Sand
Casting weight:	500 - 10,000kg
Casting temp.:	1,280-1,380°C
Pouring weight:	max. 16 tonnes

### ICU - INTELLIGENT COATING UNIT

**FOUNDRY:**

The iron foundry Dinklage produces counterweights for forklifts, construction machinery and cranes. Castings weighing between 500 kilograms and 10 tonnes are produced in 3-shift operation. The shareholders are the forklift manufacturer Still and the excavator manufacturer Liebherr Emtec.

**FOSECO PRODUCTS**

- ICU - Intelligent Coating Unit
- SEMCO\* Tec 7802 H Coating
- TENO\* Tec 5800 B Coating
- TENO Coating ZKPX

**KEY BENEFITS**

- Combination of dipping and flowing in one unit
- Automation and control of the coating adjustment
- Reduction of coating related casting defects
- Facilitation of handling



Old dipping tank



ICU with integrated dipping tank



### THE CHALLENGE

The demand of Iron Foundry Dinklage to improve core shop quality without reducing productivity was the main challenge. The old conventional dip tank was manually operated, hence large variations in coating density were observed resulting in not acceptable coating layer thickness alterations. The process was irreproducible as a consequence cost and time intense rework were required.



### OUR SOLUTION

We worked together with the customer to supply a solution that was tailor-made. First, all process steps - from design and construction to installation - were jointly planned and carried out. The result: The ICU (Intelligent Coating Unit) integrated in the dip tank, an adapted combination of dipping and flow tank for all core sizes.



### THE OUTCOME

By using the ICU with flow tank, it was possible to stabilise the coating process, relieve the workload of the employees and significantly reduce rework - and thus also increase the performance of the foundry. In this case, the use of the ICU already paid off within the first year, as savings in the area of scrap and coating cost saved more than € 100,000.

COMMENT: Editorial policy is to highlight the latest Foseco products and technical developments. However, because of their newness, some developments may not be immediately available in your area. Your local sales organisation will be pleased to advise. No part of this publication may be reproduced, stored in a retrieval system of any nature or transmitted in any form or by any means, including photocopying and recording, without the written permission of the copyright holder. © Foseco International Ltd., 2019  
\*FOSECO, SEMCO and TENO are trade marks of the Vesuvius Group, registered in certain countries, used under licence.