



# FAST POURING NOZZLE CHANGE WHILE LADLE IS STILL HOT

# **INNOVATION & TECHNOLOGY**



#### THE CHALLENGE

Fundicion Cascara is looking for long performance Flow Control solution. They are using bottom pour ladle system with a cast lining so they can pre-heat the ladle and stopper/nozzle at the same time. They would also like to use the same ladle along the full shift of production so need a stopper & nozzle system that can withstand several usages and remain hot.

#### **FOUNDRY:**

Fundicion En Cascara, S.A. MEIN was founded in 1942. Over the years, it has specialised in the production of high or low alloy iron and steel castings in medium and large batches. The unitary weight of the pieces ranges from 2 kg to 2000 kg. The annual capacity is in the region of 4000 tonnes.

#### **PARAMETER**

- Bottom pouring ladle of 2500 kg capacity
- Monobloc stopper technology -915mm long
- Carbon steel & low alloy steel, tapping Temperature 1630 °C
- Induction furnace melting practise

#### **FOSECO PRODUCTS**

BP 00755 - 915 mm long stopper

VQ 07864 - Base nozzle

VQ 08088 - Pouring nozzle - diameter 30mm

VQ 07896 - pouring nozzle - diameter 40 mm

### OUR SOLUTION

VISO monobloic stopper in combination with new VAPEX Fosflow nozzle offer the possibility to tap several heats without dismantling the stopper & nozzle system. Both stopper and base nozzle remain in the hot ladle during the full shift. From outside the ladle we can exchange the pouring nozzle if a different pouring diameter is needed or if there is too much slag build up that can disturd the good flow when filling the moulds.

## THE OUTCOME

VISO monobloc stopper and base nozzle are used up to 5 heats with no removal. Generating lot of savings in manpower and energy as we do not need to cooldown the ladle. Each heat can allow up to 50 opening. Pouring nozzle is changed on a regular basis. Other induce saving are the overall ladle lining performance by reducing the thermal cycles. After being removed the VISO monobloc stopper can be machined and nose reshape in order to be used again for another cycle.

#### **KEY BENEFITS**

- Multi use of the stopper nozzle assembly
- Fast change of pouring nozzle diameter



Base nozzle & Pouring nozzle Assembly



Pouring nozzle change while ladle still hot

# > LET'S LEARN MORE

THINK BEYOND. SHAPE THE FUTURE.



VESUVIUS GROUP COMPANY

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., 2023 \*FOSECO and VAPEX are trade marks of the Vesuvius Group, registered in certain countries, used under licence.





