



## HOLLOTEX\* CFU 7

High capacity filtration systems for foundries

VESUVIUS



# High capacity filtration systems

## Simple application

The filtration of ferrous metals is an established technology for improving steel and iron casting quality and performance.

Application of filters to large iron and steel castings has until now been complicated and with a risk of filter failure. The HOLLTEX CFU 7 (Centrifugal Filtration Unit) system has been developed to allow the simple and effective application of a filtration unit to large ferrous castings.

The HOLLTEX CFU 7 system is a self contained unit incorporating seven STELEX\* ZR filters. The system is incorporated into the castings running system.

As the metal enters the HOLLTEX CFU 7 unit during mould pouring, the metal is directed to ensure rapid and complete priming of all the filters. This promotes steady and uninterrupted filling of the mould cavity. Centrifugal forces on the metal within the unit reduce the rate of filter clogging providing a high filter capacity before blockage occurs. Castings up to 40 tonne poured weight have been produced using multiple HOLLTEX CFU 7 units in one mould.

The largest HOLLTEX CFU 7 unit currently available incorporates seven STELEX ZR 150 x 200 x 30 / 10 ppi filters. It provides a capacity of between 6 - 12 tonnes for molten iron and steel.

### Key Benefits

- + Cleaner castings: less fettling, welding and inspection of castings required
- + Reduced scrap
- + Reduced machining allowance: Reduction in man-power, energy and consumables
- + Interchangeable clean-out port and exit port adapter features allow HOLLTEX CFU 7 systems to be used in both right and left spin applications

# HOLLOTEX CFU 7

Higher quality for large steel and iron castings

## 1. STELEX ceramic foam filters

- + Remove non-metallic inclusions through complex filtration mechanisms
- + Reduce generation of re-oxidation products through a reduction in turbulence
- + Reduce cleaning, welding and inspection costs
- + Reduce machining allowance; improve yield
- + Reduce machining costs

## 2. One-piece filter support

- + Eliminates metal by-pass
- + Maximises filter efficiency
- + Minimises risk of filter breakage during pouring

## 3. Contoured internal flow channel

- + Promotes non-metallic inclusions, separation from the melt from centrifugal & buoyancy forces
- + Maximises filtration efficiency and reliability

## 4. Contoured entry choke

- + Avoids direct metal impingement on filters
- + Acts as a choke in the running system to ensure flow rate consistency

## 5. Clean-out port

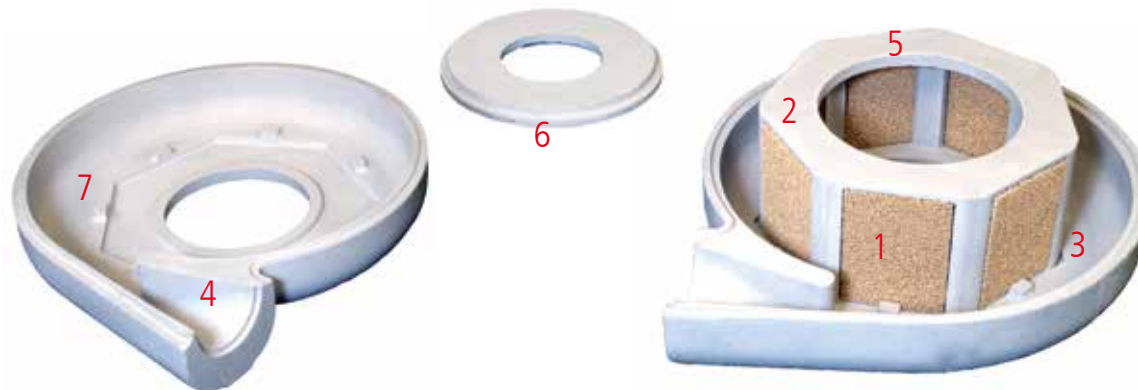
- + Allows filters to be realigned and removal of sand and other contaminants during moulding

## 6. Exit port adapter

- + Offers maximum flexibility when choosing hollow-ware

## 7. Streamlined, symmetrical design

- + Lightest possible weight for ease of handling
- + No sharp edges
- + Allows for right and left hand spin



The balance of contaminants are trapped by STELEX filters



Application of a HOLLOTEX CFU 7



Cast gating system including HOLLOTEX CFU 7 unit

# Application and services

## Application

HOLLOTEX CFU 7 units are easily integrated within ceramic hollow-ware running systems using common elbows and joints.

HOLLOTEX CFU 7 systems do not require pre-heating prior to pouring.

When using HOLLOTEX CFU 7 systems, the flow rate and filtration capacity achieved will depend on foundry and casting variables including metal temperature, metal grade, metal head pressure and the cleanliness of liquid metal.

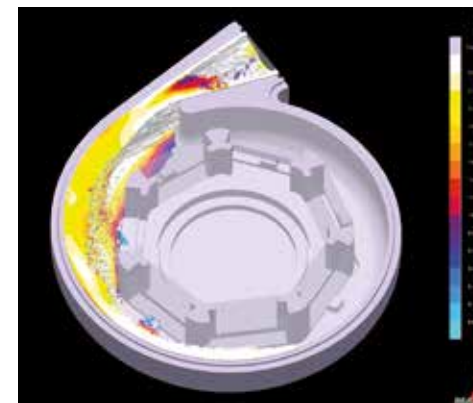
## Service

Our engineers and product managers work in partnership with our customers to help them improve productivity, process control, casting quality and the working environment.

## Simulation

Solidification simulation is an essential tool for the modern methods engineer. All our experts have access to the latest simulation technology through our alliance with MAGMA® GmbH, the world leader in solidification and Flow Simulation technology for the foundry industry.

Simulation support



Application advice



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