



MULTIPLE FILTER APPLICATION FOR IRON & STEEL CASTINGS

HOLLOTEX* CFU

HIGH CAPACITY FILTRATION DEVICES FOR FOUNDRIES

Cleaner castings

Improved surface appearance

Reduced upgrading

Reduction of turbulence



High capacity filtration devices

Easily incorporated

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 HOLLOTEX CFU system has been developed to allow the simple and effective application of a filtration unit to large ferrous castings.

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

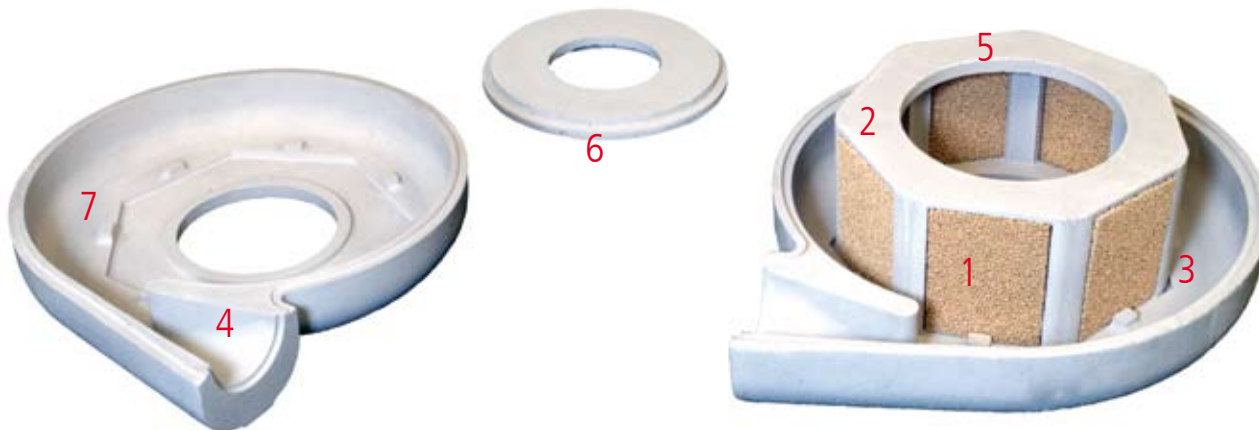
As the metal enters the HOLLOTEX CFU unit during mould pouring, the metal is directed to ensure rapid and complete priming of all the filters. This ensures ensuring steady and uninterrupted filling of the mould cavity. Centrifugal forces on the metal within the unit reduce the rate of filter blockage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

The largest HOLLOTEX CFU unit currently available incorporates seven 200 x 150 mm STELEX ZR filters and has a capacity of between 6 - 12 tonnes on molten iron or steel.

HOLLOTEX CFU

Fewer defects in 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; improves 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
 - Non-metallic inclusions separate from the melt via inertia, centrifugal & buoyancy forces
 - Designed to maximise filtration efficiency and reliability
4. Contoured entry choke
 - Avoids direct metal impingement of filters and reduces filter breakage
 - 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 holloware
7. Streamlined, symmetrical design
 - Lightest possible weight for ease of handling
 - No sharp edges
 - Allows orientation in mould for right and left hand spin



The balance of contaminants are trapped by STELEX filters



Surround gating tile system



Cast gating system including HOLLOTEX CFU unit

Application and services

Application

HOLLOTEX CFU units are easily integrated within ceramic holloware running systems using common elbows and joints.

HOLLOTEX CFU systems are manufactured so that no pre-heating of the holloware running system is required prior to pouring. Every effort should be made to avoid direct contact with water or other organic solvents prior to use.

When using HOLLOTEX CFU systems, the flow rate and filtration capacity achieved during pouring varies according to foundry practices, metal temperature, metal grade, metal head pressure and the relative cleanliness of liquid metal.

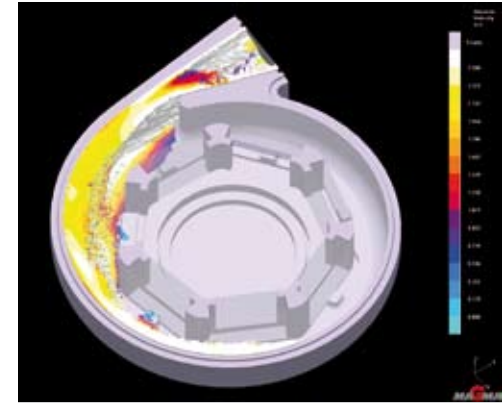
Service

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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COMMITTED TO FOUNDRIES

Foseco International Limited
Drayton Manor Business Park,
Tamworth, Staffordshire,
England B78 3TL
Phone: +44 (0)1827 262021
Fax: +44 (0)1827 283725
www.foseco.com
Please contact your local Foseco team

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