FOSECO continues innovation with STELEX* Pureflow filters for enhanced filtration efficiency of small steel castings

PRESS RELEASE
September 2021

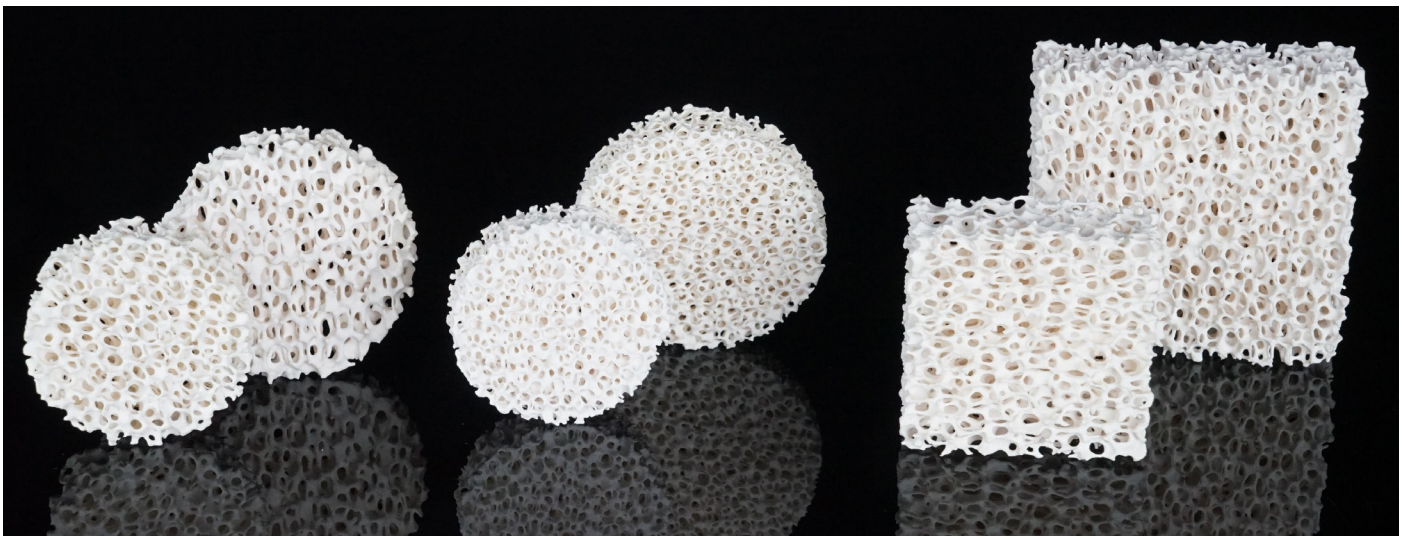
- New, highly efficient filter for producing clean small castings in steel and other high temperature alloys
- Extremely low friability and inclusion potential to minimize scrap castings
- Reduced steel foundry dependency on zirconia
- Optimised filtering innovation for highly demanding casting applications including automotive turbochargers and manifolds, and complex investment castings

FOSECO extends support for foundries to more effectively and efficiently answer accelerating demand for higher quality small steel castings with the launch of STELEX Pureflow high integrity ceramic foam filters. They open up opportunities to deliver cleaner, higher quality castings, with the potential to reduce scrap rates and the related productivity and sustainability advantages that brings.

The new range of filters, with maximum size 75x75mm, offers a unique set of advantages specifically for producing increasingly in-demand small components, like engine turbochargers, manifolds and investment castings, with fewer rejections.

With this innovation, FOSECO responds to a transition in steel for intricate, thin-walled castings that are able to withstand the higher temperature and demanding operating conditions of today's requirements.

Nick Child, International Marketing Manager, Clean Iron and Steel, FOSECO, comments: "*Filtration plays a crucial role in delivering components fit for increasing OEM & end-application requirements. For manufacturers of small castings to achieve high quality while also considering their production efficiency goals, they ideally need a filtration solution with minimal opportunity for friability or inclusion that could cause component defects and rejects. We developed our new STELEX Pureflow filters specifically to address all these aspects. This product is now available through the established Foseco supply routes and our technical experts will be pleased to advise on steel casting application*"



STELEX Pureflow Alumina Filters

Contact:
If you have any further questions about STELEX Pureflow, please contact your local Foseco team:

Nick Child
International Marketing Manager, Clean Iron and Steel
nick.child@vesuvius.com

VISIT WEBSITE

For more information on our new STELEX Pureflow filters, visit our web site

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FOSECO's choice of filter chemistry and an open, porous rigid structure and large surface area potentially enhances filtration effectiveness. Independent testing confirms the alumina content in STELEX Pureflow provides enhanced ability to capture dirt and debris in the filter structure. Finely dispersed inclusions are efficiently removed both on the surface and within the body of the filter. STELEX Pureflow filters also produce smooth, low turbulence filling of the casting cavity, reducing the potential of alloy reoxidation and moulding sand erosion, further helping to minimise defects.

Importantly, the new filters are also proven to demonstrate significantly lower friability during transport and in use. The potential for filter inclusion in the poured castings is therefore vastly reduced, providing a further quality boost.

The combination of benefits achieves cleaner small castings to support improved component quality. The resulting increase in higher quality castings also means less potential for scrap castings. Reduced rejection rates can contribute towards more efficient foundry operations. A further benefit is the improved sustainability of STELEX Pureflow over zirconia based filters. This is driven by the very high carbon dioxide footprint associated with zirconia production.

STELEX Pureflow filters are designed for the filtration of alloys with high melting and pouring temperatures for small sized applications and can be used as a drop-in alternative to zirconia and other ceramic filters. The maximum recommended pouring temperature is 1680 °C and maximum capacity 1.5kg/cm^2.

About FOSECO
FOSECO, the Foundry Division of VESUVIUS plc, is a global leader in products and solutions for improving foundry performance. Our aim is to enable improved foundry performance by working alongside our customers to develop and apply products and services that produce better casting quality and higher productivity at lower costs in a safe and healthy working environment.

About VESUVIUS
VESUVIUS PLC is a global leader in metal flow engineering, providing a full range of engineering services and solutions to its customers worldwide, principally serving the steel and foundry industries.

VESUVIUS PLC is a signatory to the United Nations Global Compact, making a formal public commitment to support its principles on human rights, labour, environment, and anti-corruption, and to engage in activities which advance the development of the UN's Sustainable Development Goals.

Our environmental objectives revolve around fighting climate change by reducing our own CO2 emissions and helping our customers reduce their own CO2 footprints. We have set ourselves the goal of reaching a net zero carbon footprint at the latest by 2050.

VESUVIUS: creating a Better Tomorrow for Our Planet, Our Communities, Our People and Our Customers.