

Reducing Casting Delivery Times with Sand 3D Printing

K.B. Hanssons Metal Foundry invests in the first ExOne binder jetting system in Denmark to offer on-demand precision sandcasting tooling to the domestic market



CUSTOMER

K.B. Hanssons Metalstøberi ApS

LOCATION

Aars, Denmark

INDUSTRIES SERVED

Maritime, pump, heavy machinery, offshore engineering, art

APPLICATIONS

Precision products with intricate cores and large-format, low-volume components

WEBSITE

www.kbhm.dk

K. B. HANSSON^S
METALSTØBERI

Challenge

Long delivery times that delayed customers from getting products to market required Hanssons foundry in Denmark to investigate new production solutions. Supporting industries with large components, like marine applications, require the company to deliver high-quality precision parts even at small production quantities.



“The large-format size to build molds and cores and the fast production speeds attracted us to ExOne’s binder jetting solutions”

Thomas Nielsen, CEO Hanssons



Fast core production



Thomas Nielsen, CEO of Hanssons Foundry

Solution

Hanssons Foundry has supplied international companies around Europe with precision prototypes and production castings for decades. The team prides itself on being a qualified partner supporting customers through the entire manufacturing process, from planning and mold preparation to casting execution.

As a supplier of certified precision castings from impellers and propellers to manifolds, Hanssons aims to quickly adjust to any production need of a customer. Long core lead times that delayed deliveries led the foundry to research solutions to provide faster turnarounds. “We sourced 3D printing services before we invested in our own system, so we knew we could drive down time and costs,” said Thomas Nielsen, CEO of Hanssons. “The large-format size to build molds and cores and the fast production speeds attracted us to ExOne’s binder jetting solutions.”

Hanssons installed an S-Max® Pro premium binder jetting system in 2020 and began providing precision tooling without the long wait and high cost of traditional patterns and core boxes.

Nielsen admits it takes time for customers to embrace the new technology but sees 3D printing growing as more companies see the benefits for rapid prototype castings. Hanssons also impresses clients with the high-quality and fine detail of the 3D printed cores that the team can deliver fast, even for single-piece production.

Being the first foundry in Denmark with an in-house sand 3D printer is a source of pride and a business opportunity. “Someone had to be the first,” Nielsen said. Hanssons 3D prints molds and cores not only for its casting customers, but also to supply other foundries with on-demand tooling for production. “We can offer local solutions to the market, and it helps reduce delivery times and ease supply chains even more when we can produce domestically for industrial buyers so they don’t have to order abroad.”

ABOUT EXONE

ExOne has facilities and representatives around the world. To reach us, feel free to call or email us at the locations below, or visit us at exone.com/locations.

ExOne is now part of Desktop Metal’s group of #TeamDM brands, which exist to make Additive Manufacturing 2.0 a reality so we can unlock the vast benefits of 3D printing at meaningful production volumes.

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Fast Mold and Core Production with 3D Printing

CUSTOMER

K.B. Hanssons Metalstøberi ApS

FOUNDED

1959

EXONE BINDER JETTING SYSTEM

S-Max® Pro

MATERIALS PRINTED

Silica sand with furan binder

ALLOYS POURED

Various metals, including bronze and copper alloys

INDUSTRIES SERVED

Maritime, pump, heavy machinery, offshore engineering, art

APPLICATIONS

Precision products with intricate cores and large-format, low-volume components