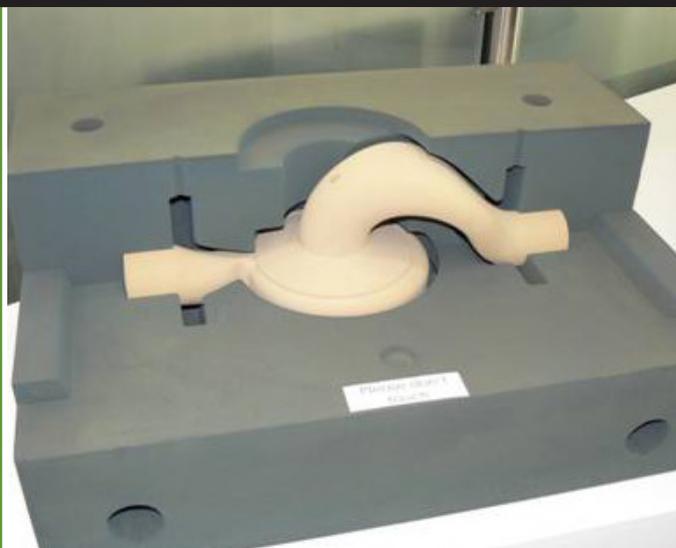


Pump Manufacturer

Save Significant Time and Cost in Spare Part Production

Leading pump manufacturer saved over 75% in costs and significantly reduced time for product development.



Customer Challenge

The manufacturer needed to quickly and economically create complex prototypes and spare parts to meet tight production schedules.

The Solution

Printed sand components were assembled to form a complete package, creating various pump designs for multiple pump applications (chemical, water, mining, oil submersibles, etc.).

ExOne Competitive Advantage

Additive manufacturing offers shorter lead times and drastically reduced costs, without patterns, maintenance or storage space requirements.

Conclusion

With ExOne's digital printing process, superior results were achieved for both time and cost compared to conventional as well as other additive technologies for castings.

About ExOne

ExOne digital part materialization uses three-dimensional printing to create complex molds and cores directly from CAD data for a variety of industries, with accuracies of ± 0.011 in. or ± 0.3 mm. The ExOne process achieves geometric complexity and scale unmatched using conventional casting techniques. The process produces accurate, uniform cores and molds rapidly, significantly reducing lead times.

ExOne operates facilities across the Americas, Europe and Asia.

Specifications

Part: Various pumps

Batch Size: up to 5 pieces

Part Size: 400 x 400 x 400 mm
to 1000 x 1000 x 2500 mm

Material Cast: Various steel casting alloys for multiple pump applications

Traditional Method

Several patterns, tools and models for mold and core making.

Time: Several weeks for manufacturing

Cost per Lot: 8,000 - 40,000 € based on size & complexity

ExOne® Sand Printing Method

Production Time: 30 min-48 hrs

Cost per Part: 240 - 10,000 €