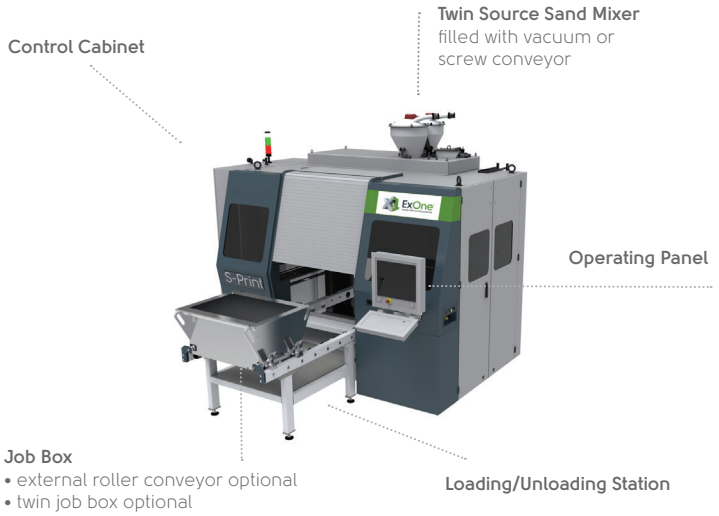
S-Print™ Furan

ExOne
DIGITAL PART MATERIALIZATION

Improved Productivity and Flexibility in a Compact Design

The S-Print Furan, suited for sand casting foundries, creates complex sand cores and molds directly from CAD data, eliminating the need of a physical pattern to create a core or mold. The system manufactures even the most complex cores with furan binder, giving the ability to produce castings for a wide range of applications.



Industry proven casting materials
- No foundry changes required
- On-demand sand supply management system

High productivity
- Flexible job box can print one prototype or short runs of multiple cores
- Changes can be made quickly
- High-speed printing
- Easy unloading
- Cores ready for immediate casting

High accuracy
Highly accurate printing process guarantees highly accurate cores

Suited for complex geometry
- Greater design freedom
- Produce intricate cores

Varied casting applications
Suited for light metals, non-ferrous metals, cast iron and steel

TECHNICAL SPECIFICATIONS

Process cell including job box and roller conveyor	
Build volume	l x w x h 800 x 500 x 400 mm (31.5 x 19.68 x 15.75 in.)
Build speed	20,000 to 36,000 cm^3/h (0.71 to 1.27 ft^3/h)
Layer thickness	0.28 to 0.50 mm (0.011 to 0.0197 in.)
Print resolution	X/Y 0.1 mm / 0.1 mm (0.004 in. / 0.004 in.)
External dimensions	l x w x h 3270 x 2540 x 2860 mm (10.7 x 8.3 x 9.4 ft.)
Weight	3500 kg (7,717 lbs)
Electrical requirements S-Print	400V 3-Phase/N/PE / 50-60 Hz, max. 6.2 kW
Electrical requirements heater	400V 3-Phase/PE / 50-60 Hz, max. 6.3 kW
Data interface	STL

CONSUMABLE MATERIALS

FS001: ExOne casting media, silica sand for 0.28 mm layer thickness
FS003: ExOne casting media, silica sand for higher core permeability and higher layer thickness of 0.38 mm
FS005: ExOne casting media, silica sand for 0.50 mm layer thickness
FA001: ExOne Activator, matched to the chemistry and specifications of FB001
FB001: ExOne Binder, furan resin system optimized for low gas emissions and high part strength
FC005: ExOne Cleaner, required for all automated and in-process maintenance operations, dissolves FB001
MI001: Magnesium Inhibitor, to be used with the Mg dosing unit (available as an option) in the sand mixer, inhibits mold reaction with magnesium

All ExOne materials and delivery systems are designed and engineered for the ExOne process and equipment. The materials include ExOne binder and activator which are specially formulated to be used with ExOne sand.

**We reserve the right to change or update the information on this datasheet at any time and without prior notice. Actual systems may differ from model shown.*

With decades of manufacturing experience and significant investment in research and product development, ExOne has pioneered the evolution of nontraditional manufacturing. This investment has yielded a new generation of rapid production technology in the field of additive manufacturing as well as advanced micromachining processes. ExOne is the optimal partner for any industrial manufacturer who is transitioning their manufacturing business to the digital age.

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