S-Print[™] Phenolic



Improved Productivity and Flexibility in a Compact Design

The S-Print[™] Phenolic, suited for sand casting foundries, creates complex sand cores and molds directly from CAD data, eliminating the need for a physical pattern to create a core or mold. Phenolic binder is the ideal solution for high temperature pouring. Due to the high heat strength of the core, very thin walls or narrow pipes can be easily printed.



Key features

- Bending strength up to 1160.30 psi (800N/cm²)
- Produce thin walls, pipes and intricate shapes
- Easy curing with microwave technology

Industry proven casting materials

No foundry changes required

High productivity

- Flexible job box can print one prototype or short runs of multiple cores
- Changes can be made quickly
- On-demand sand supply management system
- High-speed printing and easy unloading
- Cores ready for immediate casting

Varied casting applications

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

S-Print[™] Phenolic consumables¹

- ExOne® Phenolic Binder / Activator / Cleaner
- ExOne® Solvent Binder / Activator / Cleaner
- ExOne[®] Ceramic Beads (280, 380 µm)
- ExOne® Chromite
- ExOne® Zircon



TECHNICAL SPECIFICATIONS

Process cell including job box and roller conveyor	
Build volume	l x w x h 31.5 x 19.7 x 15.8 in.
	(800 x 500 x 400 mm)
Build speed	0.57–1.27 ft³/h (16–36 L/h)
Layer thickness	0.009 in. (240 µm)
Print resolution	X/Y/Z 0.004 in. (100.0 μm)
External dimensions	l x w x h 128.7 x 100.0 x 112.6 in.
	(3270 x 2540 x 2860 mm)
Weight	7,717 lbs (3500 kg)
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

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¹ Other materials and particle sizes available – please contact your sales rep.

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. ExOne is the optimal partner for any industrial manufacturer who is transitioning their manufacturing business to the digital age.

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