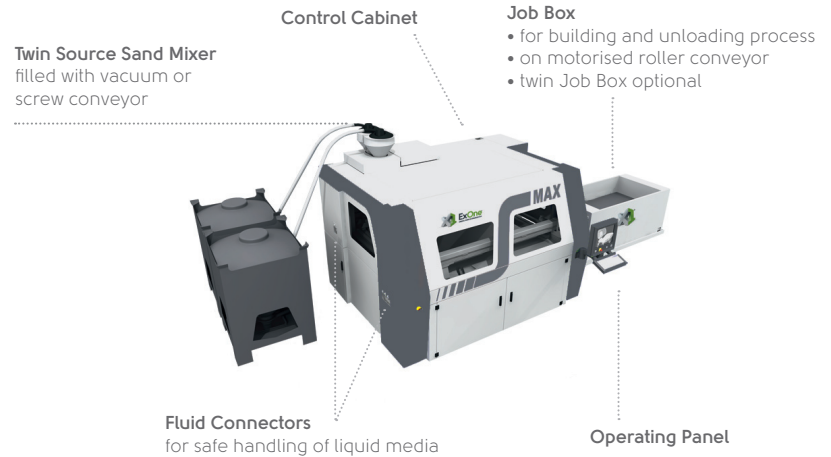


S-Max™



The Ultimate in Production Flexibility & Efficiency

The S-Max, suited for foundries and design facilities, creates complex sand casting cores and molds directly from CAD data, eliminating the need for a physical pattern to create a core or mold. The ability to cast in hours without hard tooling improves the entire casting process chain.



Flexible batch production

- Each part can be different (i.e. with serial numbers)
- Changes can be made quickly
- Small production lots
- No tools and storage necessary

High productivity

- Large Job Box
- 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

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 1800 x 1000 x 700 mm (70.9 x 39.37 x 27.56 in.)
Build speed	59 400 to 165 000 cm ³ /h (2,10 to 5,83 ft ³ /h)
Layer thickness	0.28 to 0.50 mm (0.011 to 0.0197 in.)
Print resolution	X/Y 0.07 mm / 0.98 mm (0.003 in. / 0.038 in.)
External dimensions	l x w x h 7000 x 3586 x 2860 mm (275.6 x 141.2 x 112.6 in.)
Weight	6500 kg (14 330 lbs)
Electrical requirements	400 V / 3 phases, max. 5 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 FS001, FS003 and FS005
- FB001:** ExOne Binder, furan resin system optimized for low gas emissions and high part strength
- FC002:** 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 reactivity 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.

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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