



THE NEXT STEP FOR 3D SAND **MOLD & CORE BUILDING**

IRV-BUILDER® B-Series

3D sand mold and core building is now affordable & economical, faster, and greener, enabling leaner processes and lighter castings. The IRV-BUILDER® is sand agnostic, utilizes BlueNano® binder, infrared, and bidirectional single pass building for maximum efficiency. The removable job box enables swap-out, swap-in continuous production, and the optional de-sanding station simplifies build clean out. No post processing in microwaves or ovens is required.

With **BLUENANO®**

Industry's first and only water soluble, plant-based, domestically sourced, non-toxic, non-hazardous, sustainable binder. No post-processing (oven/microwave) and simple depowdering. BlueNano® offers good shakeout and casting finish with ferrous and non-ferrous cast alloys, and is thermally reclaimable at low temperature (below 1000°F) after building/casting.





TECHNICAL DATA

Job box (L x W x H)	48 x 20 x 10 in (1219 x 508 x 254 mm)	External dimensions (L x W x H)	13 x 6 x 7 ft (3962 x 1829 x 2134 mm)
Build volume	5.6 ft ³ (157 l)	Binder system	BlueNano®
Build rate*	Up to 2.8 ft ³ /h (80 l/h)	Print media	Sand, Ceramic, Reclaimed
Layer height	0.01 - 0.02 in (0.3 - 0.5 mm)	Build resolution	600 DPI
		Electrical requirements	460 V, 3 ph, 100 amps

Specifications are subject to change without notice. Some data may be dependent on other factors such as material or utilization.

* Depending on job box utilization, sand type, layer height, resolution & environmental conditions.

SYSTEM BENEFITS

FASTER

- Bidirectional single pass building
- Faster build speeds
- Streamlined product development
- Volume production
- Easy and quick depowdering

GREENER

- Sand can be raw/untreated/uncoated and/or reclaimed
- Sand is reclaimable at low temperature after building/casting
- Plant-based, unregulated binder
- Non-toxic, non-hazardous

AFFORDABLE & ECONOMICAL

- Lower capital investment
- Lower operating costs
 - Untreated/Reclaimed sand
 - Easy depowdering & shakeout
 - No post-processing required (ovens, microwaves, etc)
- No expensive hard tooling to procure or warehouse
- Greater design freedom for lightweight, integral, near net shape castings

LEANER & LIGHTER

- Advanced design geometries, degrees of freedom for lightweight castings
 - Integral cores, undercuts, no draft
 - Simple depowdering for small, blind cavities
 - Nearer net shape to minimize or eliminate post-processing

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