INSIGNIA[™] & INSIGNIA[™] B-Zero

UV Print/Cure System



• Three UV cure systems to choose from

M&R's most aggressively priced multi-color UV system prints and cures up to six colors simultaneously. Since substrates don't need to be dried and stacked between colors, they don't have to be handled repeatedly. This prevents dimensional changes to substrates, and is especially beneficial for fragile substrates like glass. Since Insignia delivers finished prints in one revolution, it's possible to do color and registration adjustments for customer approval prior to the production run.

Servo drive with adjustable index speed is standard. Insignia can index in either direction, and features automatically synchronized gear-driven screen peel and M&R's patented ink retrieval system. Insignias are available with maximum image areas of 63 x 96 cm (25" x 38"), 76 x 102 cm (30" x 40") and 102 x 155 cm (40" x 61"). Insignia B-Zero is sized to the ISO B0 standard of 100 x 141.4 cm (40" x 56"). Stationary lamps mounted between printheads provide exceptional curing. Each cure station features single-point focus adjustment so lamps can be optimized for materials of different thickness. Each lamp has independent wattage settings managed from the main control panel and is capable of fully independent operation.

Insignia's standard 118 watts/cm (300 watts/in) cure system can be set at 49, 79, 98, or 118 watts/cm (125, 200, 250, or 300 watts/in). Insignia also offers a 400-watt UV curing system and the M&R Switchback[™] UV curing system. The optional 157 watts/cm (400 watts/in) system can be set at 63, 79, 118, and 157 watts/cm (160, 200, 300, and 400 watts/in). The optional Switchback[™] UV cure system is infinitely adjustable from 63 to 157 watts/cm (160 to 400 watts/in), and accepts three types of UV lamps—Ferric/Iron Oxide, Gallium, and Mercury Vapor (standard) allowing operators to select the optimal curing source and intensity for even the most difficult ink/substrate combinations. Most models offer optional double lamps at each station to provide additional curing (Models 4056 & 4061 offer double lamps only at the last station).

www.mrprint.com

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INSIGNIA[™] & INSIGNIA[™] B-Zero

STANDARD FEATURES

Certification

 CE & UL compliant: Built to specifications established by the European Committee for Standardization[®] (CE) and Underwriters Laboratories[®] (UL)

Color Capacity

• 1-6 colors (6 colors standard)

Control Center

- Control panel is easy to navigate, with programming and prompts in plain language
- Digital microprocessor with self-diagnostics
- Dwell and load station vacuum times are independently managed from the control panel
- Flood/non-flood setting allows screens to be flooded or left unflooded after each print cycle
- Foot pedal pauses machine cycle, releases vacuum at the load table, and keeps paper locators firmly against vacuum bed
- Press can index in either direction so that during proofing the operator can alter the order of screen/color application on test prints without having to tear down and set up for each variation
- Production speed monitor ensures more accurate job costing

Cure System

- 118 watts/cm (300 watts/in) cure system can be set at 49, 79, 98, or 118 watts/cm (125, 200, 250, or 300 watts/in)
- Digital elapsed time meter monitors lamp life
- Easy-access housing simplifies maintenance and lamp changing
- Stationary lamps are positioned between printheads
- UV heads are independently controlled

Design & Construction

- Designed for everything from ultra-thin substrates to heavy board stock
- Maintenance-free, brushless AC electric motors with variable-frequency drives





Index System

• Servo drive with adjustable index speed ensures accurate, smooth travel

Ink Dip System

 Electronically adjustable ink retrieval system keeps ink in the print area (U.S. Patent No. 5,649,479)

Off-Contact

- Tool-free four-corner off-contact settings allow quick and accurate screen leveling
- Zero off-contact capability increases control over print quality

Peel System

- Automatically synchronized gear-driven peel
- Flat-flood capability
- Infinitely adjustable within range



Print Carriage

- Adjustable, tool-free front and rear sensors located on the printhead
- Dynamic braking prevents the print carriage from drifting into the printing area
- Independent drives for print carriage and head lift

Registration

 Master frame with micro-registration adjustments and visual guides allows quick and easy setup

Screen Clamps & Holders

- Adjustable screen holders accommodate a wide variety of screen sizes
- Front screen loading for fast screen changes
- Manual clamps lock frame securely in place
- Pneumatic screen clamps

Squeegee/Floodbar

- Calibrated independent and microadjustable pressure settings
- Park position simplifies squeegee and floodbar installation and removal, and allows flood and squeegee to be raised and moved to the front or rear without flooding or printing
- Squeegee and floodbar traverse speeds can be set individually
- Squeegee pressure equalizer regulator ensures uniform squeegee pressure
- Tool-free pneumatic squeegee/floodbar locks
- Tool-free pressure and angle adjustments are independently set

Vacuum System

- 5.08 cm (2") thick heavy-gauge anodized aluminum vacuum bed is drilled using computerized numerical control (CNC)
- Adjustable vacuum at load station aids operator in loading stock
- High-volume vacuum turbine system easily adjusts to different stock type and thickness
- Up-front access for easy setup and adjustment

Warranty, Service & Support

- 24-hour hotline is staffed 365 days a year
- Access to M&R's Training Center
- One-year limited warranty

M&R's most aggressively priced multi-color UV print/cure system prints and cures up to six colors simultaneously.

INSIGNIA" & INSIGNIA" B-Zero

OPTIONS

Automatic Takeoff System

 M&R's Porter[™] is a fully adjustable suction-style takeoff that adapts to virtually any substrate

Cure System

- 157 watts/cm (400 watts/in) UV cure system with settings of 63, 79, 118, and 157 watts/cm (160, 200, 300, & 400 watts/in)
- Double lamps at all stations (Models 4056 & 4061 have double lamps only at the last station)
- Dual UV lamps (individually controlled)
- Switchback Cure System—infinitely adjustable from 63 to 157 watts/cm (160 to 400 watts/in)—accepts three types of UV lamps: Mercury Vapor, Ferric/Iron Oxide, and Gallium, allowing operators to select the optimal curing source and intensity for even the most difficult ink/substrate combinations.

Load Station

• Above-table double-sided sheet locator allows operator to load from any corner for double-sided work





SPECIFICATIONS

	Insignia 2538	Insignia 2538	Insignia 3040	Insignia 3040	Insignia 4056 B-Zero	Insignia 4061
	Single-Lamp	Double-Lamp	Single-Lamp	Double-Lamp	Single-Lamp	Single-Lamp
Air @ 6,9 bar (100 psi)	340 I/min (12 cfm)	340 l/min (12 cfm)	340 l/min (12 cfm)	340 I/min (12 cfm)	425 l/min (15 cfm)	425 l/min (15 cfm)
Diameter	747 cm (24' 6")	884 cm (29')	930 cm (30' 6")			
Electrical Requirements @	208/230 V, 3 ph, 322/304 A,	208/230 V, 3 ph, 534/498 A,	208/230 V, 3 ph, 322/304 A,	208/230 V, 3 ph, 534/498 A,	208/230 V, 3 ph, 385/360 A,	208/230 V, 3 ph, 385/360 A,
118 watts/cm (300 watts/in) ¹	50/60 Hz, 125 kW	50/60 Hz, 205 kW	50/60 Hz, 125 kW	50/60 Hz, 205 kW	50/60 Hz, 149 kW	50/60 Hz, 149 kW
	400 V, 3 ph, 180 A,	400 V, 3 ph, 294 A,	400 V, 3 ph, 180 A,	400 V, 3 ph, 294 A,	400 V, 3 ph, 215 A,	400 V, 3 ph, 215 A,
	50/60 Hz, 125 kW	50/60 Hz, 205 kW	50/60 Hz, 125 kW	50/60 Hz, 205 kW	50/60 Hz, 149 kW	50/60 Hz, 149 kW
	460 V, 3 ph, 156 A,	460 V, 3 ph, 257 A,	460 V, 3 ph, 156 A,	460 V, 3 ph, 257 A,	460 V, 3 ph, 182 A,	460 V, 3 ph, 182 A,
	60 Hz, 125 kW	60 Hz, 205 kW	60 Hz, 125 kW	60 Hz, 205 kW	60 Hz, 149 kW	60 Hz, 149 kW
Electrical Requirements @	208/230 V, 3 ph, 387/363 A,	208/230 V, 3 ph, 664/616 A,	208/230 V, 3 ph, 387/363 A,	208/230 V, 3 ph, 664/616 A,	208/230 V, 3 ph, 468/437 A,	208/230 V, 3 ph, 468/437 A,
157 watts/cm (400 watts/in) ¹	50/60 Hz, 149 kW	50/60 Hz, 252 kW	50/60 Hz, 149 kW	50/60 Hz, 252 kW	50/60 Hz, 180 kW	50/60 Hz, 180 kW
	400 V, 3 ph, 215 A,	400 V, 3 ph, 364 A,	400 V, 3 ph, 215 A,	400 V, 3 ph, 364 A,	400 V, 3 ph, 260 A,	400 V, 3 ph, 260 A,
	50/60 Hz, 149 kW	50/60 Hz, 252 kW	50/60 Hz, 149 kW	50/60 Hz, 252 kW	50/60 Hz, 180 kW	50/60 Hz, 180 kW
	460 V, 3 ph, 183 A,	460 V, 3 ph, 311 A,	460 V, 3 ph, 183 A,	460 V, 3 ph, 311 A,	460 V, 3 ph, 220 A,	460 V, 3 ph, 220 A,
	60 Hz, 149 kW	60 Hz, 252 kW	60 Hz, 149 kW	60 Hz, 252 kW	60 Hz, 180 kW	60 Hz, 180 kW
Maximum Frame Size	132 x 132 x 5.7 cm	152 x 173 x 5.7 cm	152 x 188 x 5.7 cm			
	(52" x 52" x 2.25")	(60" x 68" x 2.25")	(60" x 74" x 2.25")			
Maximum Image Area	63 x 96 cm (25" x 38")	63 x 96 cm (25" x 38")	76 x 102 cm (30" x 40")	76 x 102 cm (30" x 40")	102 x 142 cm (40" x 56")	102 x 155 cm (40" x 61")
Shipping Weight	8165 kg (18,000 lb)	9072 kg (20,000 lb)	13608 kg (30,000 lb)			

¹ If incoming voltage differs from the voltage(s) listed in this brochure, calculate amperage accordingly. Other electrical configurations are available: contact The M&R Companies for details.

