

CONQUEST™



UV Print/Cure System

FEATURES

- Prints and cures up to six colors simultaneously
- UV cure stations operate independently
- Maximum image areas from 64 x 97 cm to 97 x 127 cm (25" x 38" to 38" x 50")



Conquest is M&R's versatile multi-color UV carousel printing system. Its unique design reduces labor costs by printing and curing 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 Conquest delivers finished prints in one revolution, it's possible to do color and registration adjustments for customer approval prior to the production run.

Conquest can index in either direction, and features automatically synchronized gear-driven screen peel and M&R's patented ink retrieval system. UV cure stations operate independently and ensure uniform coverage by traversing the substrate during the print cycle. Traverse speed is independently controlled at each station. Wattage settings for each station are independent, and are controlled at the main panel. Each lamp has independent wattage settings and is capable of fully independent operation. Conquest'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). Conquest 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 system is infinitely variable 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.

Conquest's optional above-table double-sided sheet locator allows operators to load from any corner for double-sided work. Porter™ M&R's fully adjustable suction-style takeoff, adapts to virtually any substrate. All this adds up to print quality and UV curing performance simply unobtainable with other manufacturers' carousel print/cure systems. The product image includes the optional Porter Automatic Takeoff System.

www.mrprint.com

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CONQUEST™

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)
- Delivers optimal cure to heat-sensitive and heat-resistant stock
- Digital elapsed time meter monitors lamp life
- Easy-access housing simplifies maintenance and lamp changing
- UV heads are independently controlled
- UV units shuttle across substrates concurrent with print strokes to sustain cycle speed and provide uniform coverage





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-driven index 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 variable 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 micro-adjustable 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 versatile Conquest multi-color UV print/cure system simultaneously prints and cures up to six colors.

CONQUEST™

OPTIONS

Automatic Takeoff System

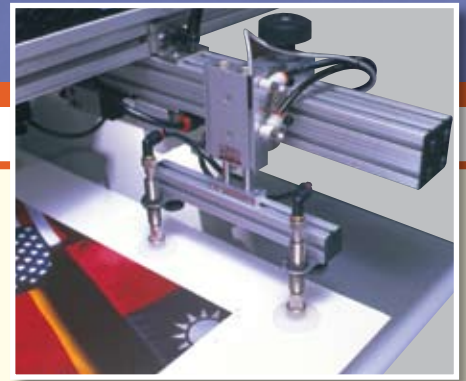
- M&R's Porter™ is a fully adjustable suction-style takeoff that adapts to virtually any substrate

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)
- Switchback Cure System—infinately 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

| | Conquest 2538 | Conquest 3040 | Conquest 3850 |
|---|---|---|---|
| Air @ 6,9 bar (100 psi) | 340 l/min (12 cfm) | 340 l/min (12 cfm) | 340 l/min (12 cfm) |
| Diameter | 861 cm (28' 3") | 861 cm (28' 3") | 1011 cm (33' 2") |
| Electrical Requirements @ 118 watts/cm (300 watts/in) ¹ | 208/230 V, 3 ph, 294/277 A, 50/60 Hz, 113 kW 400 V, 3 ph, 164 A, 50/60 Hz, 113 kW 460 V, 3 ph, 138 A, 60 Hz, 113 kW | 208/230 V, 3 ph, 294/277 A, 50/60 Hz, 113 kW 400 V, 3 ph, 164 A, 50/60 Hz, 113 kW 460 V, 3 ph, 138 A, 60 Hz, 113 kW | 208/230 V, 3 ph, 339/318 A, 50/60 Hz, 130 kW 400 V, 3 ph, 188 A, 50/60 Hz, 130 kW 460 V, 3 ph, 159 A, 60 Hz, 130 kW |
| Electrical Requirements @ 157 watts/cm (400 watts/in) ¹ | 208/230 V, 3 ph, 350/329 A, 50/60 Hz, 134 kW 400 V, 3 ph, 194 A, 50/60 Hz, 134 kW 460 V, 3 ph, 164 A, 60 Hz, 134 kW | 208/230 V, 3 ph, 350/329 A, 50/60 Hz, 134 kW 400 V, 3 ph, 194 A, 50/60 Hz, 134 kW 460 V, 3 ph, 164 A, 60 Hz, 134 kW | 208/230 V, 3 ph, 412/384 A, 50/60 Hz, 156 kW 400 V, 3 ph, 226 A, 50/60 Hz, 156 kW 460 V, 3 ph, 192 A, 60 Hz, 156 kW |
| Maximum Frame Size | 112 x 147 x 5 cm (44" x 58" x 2") | 112 x 147 x 5 cm (44" x 58" x 2") | 132 x 173 x 5 cm (52" x 68" x 2") |
| Maximum Image Area | 64 x 97 cm (25" x 38") | 76 x 102 cm (30" x 40") | 97 x 127 cm (38" x 50") |
| Shipping Weight | 7711 kg (17,000 lb) | 8165 kg (18,000 lb) | 9072 kg (20,000 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.



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