

# CHALLENGER® II & II OS



## Automatic Textile Press



### FEATURES

- 8-18 colors
- Maximum image area  
50 x 70 cm (20" x 28") or  
70 x 100 cm (28" x 41")
- Standard pallet size  
41 x 56 cm (16" x 22") or  
76 x 114 cm (30" x 45")

Challenger II is M&R's affordable, high-performance automatic textile press. Designed for quick setups and high-speed production, it's loaded with timesaving, output-enhancing features, making it a star producer in any print shop. Challenger II is available in 10, 12, 14, 16, and 18-color models with a 50 x 70 cm (20" x 28") maximum image area. Challenger II OS is available in 8, 10, and 12-color models with an oversize 70 x 100 cm (28" x 41") maximum image area. All models feature servo-driven indexers, electric printheads, and multiple print-stroke capability.

The press is compatible with most registration systems, including M&R's Tri-Loc® and Newman Pin-Lock®. Standard pneumatic screen clamps hold frames tight and allow rapid screen loading. Standard features include independent squeegee & floodbar speed adjustments; adjustable rear screen holders; independently-set, and calibrated squeegee and floodbar angles. Calibrated pressure adjustments offer the ultimate in control. Independent print, reset, and print/flood speed controls on each printhead further simplify setup. Other standard features include a user-friendly control panel with an LCD touch screen that includes extensive onboard self-diagnostics, real-time production data, and easy print parameter adjustment.

An independent print-start/print-finish setting that automatically activates and stops printheads at the beginning and end of production runs saves time. Also standard are a tool-free pallet locator system, quick release pallet locks, digital squeegee/floodbar speed display, and enhanced front micro-registration adjustments. Central Off-Contact permits fast adjustment of all stations simultaneously. M&R's exclusive patented Revolver Print Program™ automatically operates individual printheads in programmed sequence and allows multiple flashing without losing a printing position.

Options include M&R's patented Optical No-Shirt Detector and Transformer Printheads. The No-Shirt Detector minimizes the misprints and press stoppage that result from improper shirt loading. The Transformer-Printhead Option gives Challenger II presses (excluding the 10-color model) a 100 cm (41") print stroke without increasing press diameter. This allows Transformer-Printhead-enabled presses to print images up to 109 x 91 cm (43" x 36") on alternating printheads, adequate for oversize and all-over prints. The ideal companion for automatic textile presses is M&R's Tri-Loc Rapid Registration System, which can reduce setup time by as much as 95 percent.

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# CHALLENGER® II & II OS

## STANDARD FEATURES

### Carousel/Indexer

- Clockwise or counterclockwise rotation
- Freewheel capability

### Central Off-Contact

- Permits fast, incremental single-lever adjustment of all stations simultaneously

### Certification

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

### Control Center

- Countdown program indicates when operator-set index count has been reached
- Independent print-start/print-finish setting automatically activates and stops printheads at the beginning and end of production runs
- Multiple (1-9) print stroke capability
- Multi-print in the up position
- Onboard self-diagnostics
- Real-time production data
- Test print setting turns individual printheads on/off during test print cycle
- User-friendly touch-screen control panel

### Index System

- Double-Index capability increases maximum image area
- Servo drive is standard
- Servo drives combine higher press speeds with exceptional smoothness, consistency, and longevity

### Ink Dip System

- Retrieval system keeps ink in the print area (U.S. Patent No. 5,649,479)

### Pallet System

- Precise three-point pallet leveling system
- Solid-aluminum, low-profile, rubber-coated pallets
- Tool-free pallet locator speeds pallet changeover
- Tool-free quick release pallet locks

### Printheads

- Four-point off-contact adjustment
- Independent print button on each printhead
- Independent print/flood speed controls on each printhead simplify press setup
- Independent reset button on each printhead allows operator to lower the pallets and freewheel the carousel

### Registration

- Compatible with numerous registration systems, including M&R's Tri-Loc® and Newman Pin-Lock®
- Enhanced front micro-registration adjustments with visual guides
- Locking rear micro-registration

### Revolver Print Program

- Automatically operates individual printheads in programmed sequence and allows multiple flashing without losing a printing position (U.S. Patent No. 5,595,113)

### Screen Clamps & Holders

- Adjustable rear screen holders accommodate a wide variety of screen sizes
- Clamping system holds roller frames without special adapters
- Flip-up front screen holders (patented) speed setup
- Pneumatic clamps hold frames tight and allow rapid screen loading

### Squeegee/Floodbar

- Angle and calibrated pressure adjustments are independently set
- Digital squeegee/floodbar speed display
- Front or rear print carriage stop position allows operator to leave screens clear or flooded (great for water-based inks)
- Independent squeegee & floodbar speed adjustments
- Visual reference marks every 5 degrees simplify squeegee/floodbar angle adjustments

### Stroke Length Adjustment

- Calibrated front & rear stroke length with tool-free adjustment maximizes print speed

### Warranty, Service and Support

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

## OPTIONS

### Foot Pedal Control

- Allows indexing of the press using a foot pedal
- Skip-Shirt foot pedal feature allows operators to avoid printing empty pallets

### Optical No-Shirt Detector

- Automatically prevents the press from printing on empty pallets (U.S. Patent No. 5,383,400)
- Reduces misprints and minimizes press stoppage because of improperly loaded shirts

### Screen Clamps & Holders

- Side screen clamps

### Squeegee/Floodbar

- Pneumatic squeegee/floodbar locks with tool-free angle adjustment
- Squeegee air regulator with a pressure gauge on each printhead

### Transformer Printheads

- Enable Challenger II models to print up to 100 cm (41") long without increasing press diameter, and to print images up to 109 x 91 cm (41" x 36") on alternating printheads, adequate for oversize and all-over prints

## SPECIFICATIONS

	Challenger II 12/10	Challenger II 14/12	Challenger II 16/14	Challenger II 18/16	Challenger II 20/18	Challenger II OS 10/8	Challenger II OS 12/10	Challenger II OS 14/12
Air @ 6,9 bar (100 psi)	510 l/m (18 cfm)	595 l/m (21 cfm)	595 l/m (21 cfm)	595 l/m (21 cfm)	595 l/m (21 cfm)	510 l/min (18 cfm)	510 l/min (18 cfm)	595 l/m (21 cfm)
Diameter	518 cm (17')	549 cm (18')	594 cm (19' 6")	640 cm (21')	683 cm (22' 6")	594 cm (19' 6")	648 cm (21' 3")	711 cm (23' 4")
Electrical Requirements <sup>1</sup>	208/230 V, 3 ph, 34 A, 50/60 Hz, 7.5 kW 400 V, 3 ph, 21 A, 50/60 Hz, 7.5 kW	208/230 V, 3 ph, 39 A, 50/60 Hz, 8.2 kW 400 V, 3 ph, 23 A, 50/60 Hz, 8.2 kW	208/230 V, 3 ph, 42 A, 50/60 Hz, 8.9 kW 400 V, 3 ph, 23 A, 50/60 Hz, 8.9 kW	208/230 V, 3 ph, 45 A, 50/60 Hz, 9.6 kW 400 V, 3 ph, 32 A, 50/60 Hz, 9.6 kW	208/230 V, 3 ph, 48 A, 50/60 Hz, 10.4 kW 400 V, 3 ph, 34 A, 50/60 Hz, 10.4 kW	208/230 V, 3 ph, 33 A, 50/60 Hz, 6.6 kW 400 V, 3 ph, 20 A, 50/60 Hz, 6.6 kW	208/230 V, 3 ph, 34 A, 50/60 Hz, 7.5 kW 400 V, 3 ph, 21 A, 50/60 Hz, 7.5 kW	208/230 V, 3 ph, 39 A, 50/60 Hz, 8.2 kW 400 V, 3 ph, 23 A, 50/60 Hz, 8.2 kW
Maximum Frame Size	66 x 109 x 5 cm (26" x 43" x 2")	66 x 109 x 5 cm (26" x 43" x 2")	66 x 109 x 5 cm (26" x 43" x 2")	66 x 109 x 5 cm (26" x 43" x 2")	66 x 109 x 5 cm (26" x 43" x 2")	86 x 142 x 5 cm (34" x 56" x 2")	86 x 142 x 5 cm (34" x 56" x 2")	86 x 142 x 5 cm (34" x 56" x 2")
Maximum Frame Size (Alternating Printheads) <sup>2,3</sup>	135 x 109 x 5 cm (53" x 43" x 2")	135 x 127 x 5 cm (53" x 50" x 2")	135 x 127 x 5 cm (53" x 50" x 2")	135 x 127 x 5 cm (53" x 50" x 2")	135 x 127 x 5 cm (53" x 50" x 2")	135 x 127 x 5 cm (53" x 50" x 2")	135 x 127 x 5 cm (53" x 50" x 2")	135 x 127 x 5 cm (53" x 50" x 2")
Maximum Image Area	50 x 70 cm (20" x 28")	50 x 70 cm (20" x 28")	50 x 70 cm (20" x 28")	50 x 70 cm (20" x 28")	50 x 70 cm (20" x 28")	70 x 100 cm (28" x 41")	70 x 100 cm (28" x 41")	70 x 100 cm (28" x 41")
Maximum Image Area (Alternating Printheads) <sup>2,3</sup>	109 x 71 cm (43" x 28")	109 x 91 cm (43" x 36")	109 x 91 cm (43" x 36")	109 x 91 cm (43" x 36")	109 x 91 cm (43" x 36")	109 x 91 cm (43" x 36")	109 x 91 cm (43" x 36")	109 x 91 cm (43" x 36")
Shipping Weight	3221 kg (7100 lb)	3496 kg (7700 lb)	3791 kg (8350 lb)	4445 kg (9800 lb)	4989 kg (11000 lb)	3674 kg (8100 lb)	3946 kg (8700 lb)	4534 kg (9600 lb)
Standard Pallet Size	41 x 56 cm (16" x 22")	41 x 56 cm (16" x 22")	41 x 56 cm (16" x 22")	41 x 56 cm (16" x 22")	41 x 56 cm (16" x 22")	76 x 114 cm (30" x 45")	76 x 114 cm (30" x 45")	76 x 114 cm (30" x 45")
Stations/Colors	12/10	14/12	16/14	18/16	20/18	10/8	12/10	14/12

<sup>1</sup> 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.

<sup>2</sup> When equipped with optional Transformer Printheads (excludes Challenger II 12/10 model).

<sup>3</sup> Contact your M&R representative for details.



**The M&R Companies**  
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