

CHALLENGER® II & II OS



Automatic Screen Printing Presses



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 and Challenger II OS are M&R's most affordable large-format high-performance automatic screen printing presses. Designed for quick setups and high-speed production, they're loaded with timesaving, output-enhancing features, making them outstanding performers in any screen printing 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 Challenger II automatic screen printing machines feature servo-driven indexers, electric printheads, and multiple print-stroke capability.

Challenger II and Challenger II OS presses are compatible with most screen registration systems, including M&R's Tri-Loc® and Double Tri-Loc®. Standard pneumatic screen clamps hold frames tight and allow rapid screen loading. Standard features include independent squeegee & floodbar speed adjustments; adjustable rear screen holders; and 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 make setup easy. Challenger II/II OS screen printing presses include user-friendly LCD touchscreen control panels with extensive

onboard self-diagnostics, real-time production data, and easy print parameter adjustment. The independent print-start/print-finish setting saves time by automatically activating and stopping printheads at the beginning and end of production runs.

The tool-free pallet locator system, quick release pallet locks, digital squeegee/floodbar speed display, and enhanced front micro-registration adjustments simplify press operation, and central off-contact permits fast adjustment of all stations simultaneously. M&R's Revolver Print Program™ automatically operates individual printheads in programmed sequence and allows multiple flashing without losing a printing position. M&R's Transformer Printheads give standard Challenger II 12, 14, 16, and 18-color screen printing machines a 100 cm (41") print stroke without increasing press diameter. For example, Transformer Printheads enable the standard Challenger II press to print oversize and all-over images up to 94 x 99 cm (37" x 39") on alternating printheads. Challenger II and Challenger II OS options include M&R's Optical No-Shirt Detector, which minimizes the misprints and press stoppage that result from improper T-shirt loading. Ruggedly built and loaded with features, Challenger II and Challenger II OS are M&R's most affordable high-production automatic screen printing presses.

www.mrprint.com
store.mrprint.com

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 Certified: Built to specifications established by the European Committee for Standardization® (CE)

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 screen printing runs
- Maintenance Minder™ System alerts operators when scheduled maintenance is due
- Multiple (1-9) print stroke capability
- Onboard self-diagnostics
- Provides control of multi-print functionality
- 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 drives combine higher screen printing press speeds with exceptional smoothness, consistency, and longevity

INK DIP SYSTEM

- Retrieval system keeps ink in the print area

PALLET SYSTEM

- Locator system speeds pallet changeover
- Precise three-point pallet leveling system
- Tool-free quick release pallet locks

PALLETS

- Solid-aluminum, low-profile, rubber-coated screen printing pallets

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
- Multi-print without lowering the indexer

REGISTRATION

- Compatible with M&R's Tri-Loc® & Double Tri-Loc® Rapid Registration Systems
- 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 screen printing position
- Touchscreen display with simplified programming provides easy setup of the Revolver Sequencing Program

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 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
- Pneumatic squeegee/floodbar clamps with tool-free angle adjustment
- Squeegee air regulator with a pressure gauge on each printhead
- Visual reference marks every 5 degrees simplify squeegee/floodbar angle adjustments

STROKE LENGTH ADJUSTMENT

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

TRANSFORMER PRINTHEADS

- Enable standard Challenger II automatic screen printing presses to print up to 104 cm (41") long without increasing press diameter, and to print images up to 94 x 99 cm (37" x 39") on alternating printheads, adequate for oversize and all-over prints

WARRANTY, SERVICE AND SUPPORT

- 24-hour hotline is staffed 365 days a year
- Access to M&R's Training Center
- M&R OEM parts—including genuine M&R pallets & platens—and screen printing supplies are available online at store.mrprint.com
- 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 screen printing on empty pallets

OPTICAL NO-SHIRT DETECTOR

- Automatically prevents the press from screen printing on empty pallets
- Reduces misprints and minimizes press stoppage because of improperly loaded shirts

PALLETS

- M&R aluminum pallets and platens come in a wide range of sizes and styles

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/m (18 cfm)	510 l/m (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 ¹	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) ²	114 x 109 x 5 cm (45" x 43" x 2")	114 x 137 x 5 cm (45" x 54" x 2")	114 x 137 x 5 cm (45" x 54" x 2")	114 x 137 x 5 cm (45" x 54" x 2")	114 x 137 x 5 cm (45" x 54" 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) ²	94 x 71 cm (37" x 28")	94 x 99 cm (37" x 39")	94 x 99 cm (37" x 39")	94 x 99 cm (37" x 39")	94 x 99 cm (37" x 39")	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

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.

² When equipped with Transformer Printheads



The M&R Companies
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