

DIAMONDBACK® SERIES



Automatic Screen Printing Presses



FEATURES

- Available with up to 9 printheads and in 8 and 10-station configurations
- Maximum image areas from 35 x 28 cm (14" x 11") to 51 x 53 cm (20" x 21")
- M&R Revolver Print Program™

The Diamondback Series is M&R's line of versatile and highly-affordable entry-level automatic screen printing presses. Diamondbacks are available with up to 9 printheads and in 8 and 10-station configurations. Maximum image areas range from 35 x 28 cm (14" x 11") to 51 x 53 cm (20" x 21"). Diamondback screen printing presses feature servo-driven indexing to ensure smooth, accurate travel, and pneumatic screen clamps that facilitate rapid screen loading, hold roller frames without special adapters, and deliver excellent stability on a wide variety of screens. Each screen printing machine has pneumatically-driven printheads; pneumatic squeegee/floodbar clamps with tool-free angle adjustment; pneumatic screen frame clamps; and pneumatic squeegee pressure regulators with pressure gauges on each printhead for exceptional control of print pressure. Diamondback squeegee/floodbar systems offer independently-set angle and calibrated pressure adjustments; front or rear print carriage stop position that allows operator to leave screens clear or flooded; independent squeegee & floodbar speed adjustments; and visual reference marks every 5 degrees to simplify squeegee/floodbar angle adjustments. Adjustable rear stroke length with tool-free adjustment maximizes print speed. The squeegee/floodbar park feature facilitates setup and tear-down by simultaneously retracting the squeegee and floodbar and then moving them to the outside edge of the press for easy access.

The control center features touchscreen displays with onboard self-diagnostics; a Maintenance Minder™ system that alerts operators when scheduled maintenance is due; an independent print-start/print-finish setting that automatically activates and stops printheads at the beginning and end of screen print runs; multiple (1-9) print stroke capability; multi-print without lowering the indexer; real-time production data; and a countdown program that indicates when the operator-set index count has been reached. Control panels on Diamondback C, Diamondback S, and Diamondback XL automatic screen printing machines are mounted on pivoting arms for easy access. All presses include M&R's Revolver Print Program, which automatically operates individual printheads in programmed sequence and allows multiple flashing without losing a printing position. M&R's Laser Locator System speeds pallet positioning and changeover, and it assists operators in the precise positioning of garments and cut-piece goods. Options include M&R's Optical No-Shirt Detector, which automatically prevents the press from printing on empty pallets, reducing misprints and minimizing press stoppage because of improperly loaded shirts. Optional Foot Pedal Control allows indexing of the press using a foot pedal. The Skip-Shirt foot pedal feature allows operators to bypass empty pallets. Presses can be ordered in configurations that allow them to fit through a 79 cm (31") doorway. Diamondback C, Diamondback S, and Diamondback XL screen printing presses can be ordered with an additional printhead for placement at the unload station, creating 7-color/8-station or 9-color/10-station machines for additional versatility.

www.mrprint.com
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DIAMONDBACK® SERIES

DIAMONDBACK L



Diamondback L is a 6-color automatic screen printing press with a maximum image area of 35 x 28 cm (14" x 11") and fixed screen holders that accept 51 x 61 (20" x 24") screen frames. Truly unique, it's perfect for manual shops with limited space looking to break into automatic printing. At the same time, its high-speed servo and 259 cm (8' 6") diameter makes it ideal for larger shops interested in a press that requires little space—yet turns out tagless labels, pocket prints, and smaller-format images of exceptional quality. Diamondback L's heavy-duty casters make it easy to move around the shop—or out of the way when it's not in use.

DIAMONDBACK C



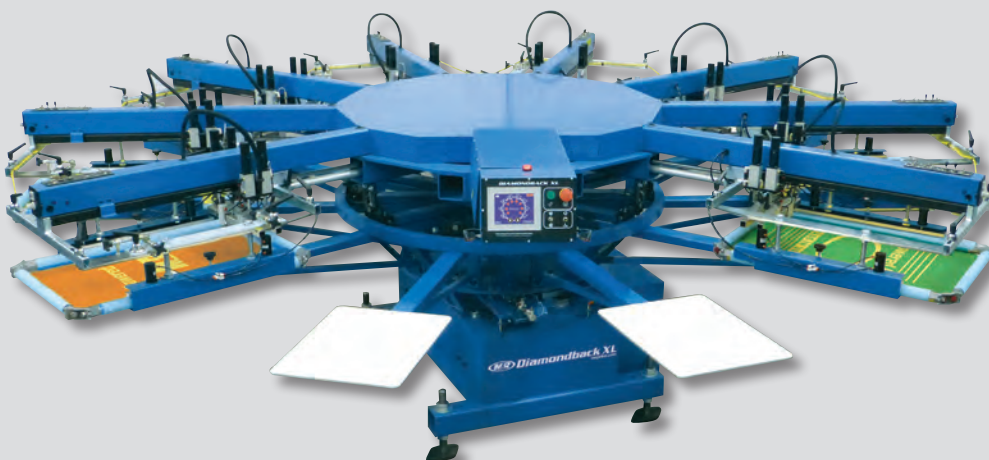
Diamondback C automatic screen printing press is similar to Diamondback L in size and affordability. It has a slightly larger diameter of 284 cm (9' 4"), but a correspondingly larger maximum image area of 38 x 41 cm (15" x 16"). Diamondback C is available in 6 or 7 colors, and it's perfect for those who need to print larger images, but only have room for a very compact press.

DIAMONDBACK S



Diamondback S automatic screen printing press was the first press to bring servo drive to the entry-level user. It's available in 6, 7, 8 or 9 colors. It has a maximum image area of 41 x 46 cm (16" x 18"), and can accept screen frames up to 58 x 84 x 4.5 cm (23" x 33" x 1.75"). For those waiting for the right price on an entry-level automatic, the wait is over.

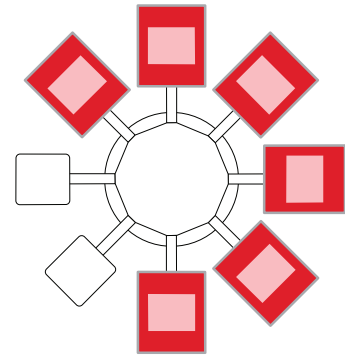
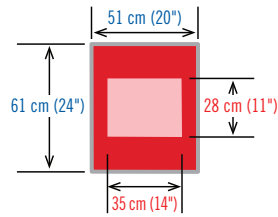
DIAMONDBACK XL



Diamondback XL automatic screen printing press combines servo drive, large image area, and affordability. Diamondback XL is available in 8 and 9 colors. It has a maximum image area of 51 x 53 cm (20" x 21"), and can accept screen frames up to 66 x 91 x 4.5 cm (26" x 36" x 1.75"). It's the ideal press for large images at a low cost.

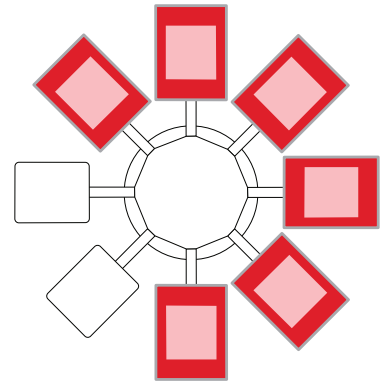
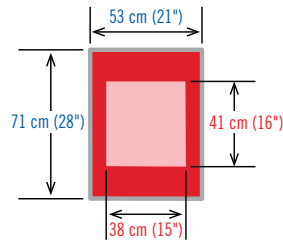
Diamondback L 8/6

Diameter	259 cm (8' 6")
Frame Size	51 x 61 x 4.5 cm (20" x 24" x 1.75")
Maximum Image Area	35 x 28 cm (14" x 11")
Standard Pallet Size	15 x 41 cm (6" x 16") 38 x 41 cm (15" x 16")



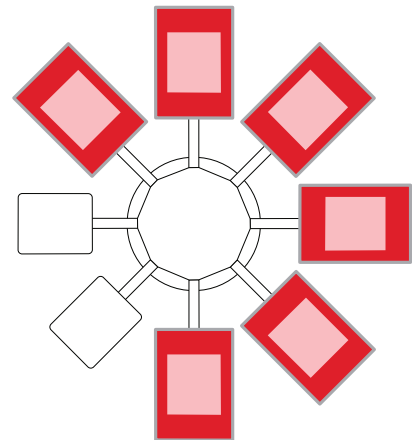
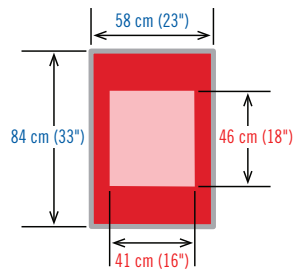
Diamondback C 8/6

Diameter	284 cm (9' 4")
Maximum Frame Size	53 x 71 x 4.5 cm (21" x 28" x 1.75")
Maximum Image Area	38 x 41 cm (15" x 16")
Standard Pallet Size	41 x 56 cm (16" x 22")



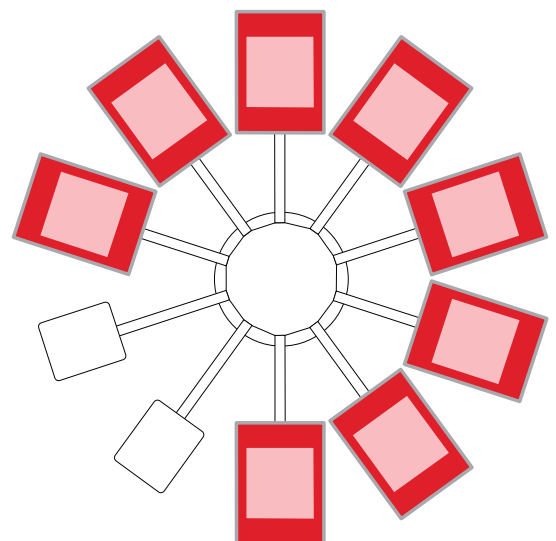
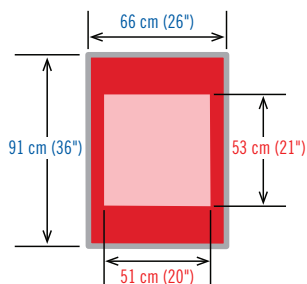
Diamondback S 8/6

Diameter	328 cm (10' 9")
Maximum Frame Size	58 x 84 x 4.5 cm (23" x 33" x 1.75")
Maximum Image Area	41 x 46 cm (16" x 18")
Standard Pallet Size	41 x 56 cm (16" x 22")



Diamondback XL 10/8

Diameter	404 cm (13' 3")
Maximum Frame Size	66 x 91 x 4.5 cm (26" x 36" x 1.75")
Maximum Image Area	51 x 53 cm (20" x 21")
Standard Pallet Size	41 x 56 cm (16" x 22")



DIAMONDBACK® SERIES

STANDARD FEATURES

CAROUSEL/INDEXER

- Clockwise or counterclockwise rotation

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
- Digital touchscreen control panel with icon-based labeling can display information and commands in multiple languages
- 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
- Swiveling control arm with touchscreen display (Diamondback C, Diamondback S & Diamondback XL)

DESIGN & CONSTRUCTION

- Heavy-duty casters make it easy to move the press around the shop—or out of the way when it's not in use (Diamondback L)

INDEX SYSTEM

- Servo drives combine higher screen printing press speeds with exceptional smoothness, consistency, and longevity

LASER LOCATOR SYSTEM

- Assists operators in the precise positioning of garments and cut pieces
- Speeds pallet positioning and changeover

PALLET SYSTEM

- 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/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
- Pneumatically-driven printheads

REGISTRATION

- Compatible with M&R's Tri-Loc® Rapid Registration System
- Enhanced micro-registration adjustments with visual guides

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 side clamps accommodate a wide variety of screen sizes (Diamondback C, Diamondback S & Diamondback XL)
- Clamping system holds roller frames without special adapters
- Pneumatic clamps hold frames tight and allow rapid screen loading

SQUEEGEE/FLOODBAR

- Angle and calibrated pressure adjustments are independently set
- 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
- Park feature facilitates setup and tear-down by simultaneously retracting the squeegee and floodbar and then moving them to the outside edge of the press for easy access
- Pneumatic squeegee/floodbar locks with tool-free angle adjustment
- Squeegee pressure regulator on each printhead offers exceptional control of print pressure
- Visual reference marks every 5 degrees simplify squeegee/floodbar angle adjustments

STROKE LENGTH ADJUSTMENT

- Adjustable rear stroke length with tool-free adjustment maximizes screen printing speed

WARRANTY, SERVICE AND SUPPORT

- 24-hour hotline is staffed 365 days a year
- Access to M&R's Training Center
- Parts & supplies are available online at store.mrprint.com
- Two-year limited warranty

OPTIONS

DESIGN & CONSTRUCTION

- Designed & disassembled to fit through a 79 cm (31") doorway

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

PRINTHEADS

- Additional printhead for placement at the unload station (Diamondback C, Diamondback S & Diamondback XL)

SPECIFICATIONS

	Diamondback L 8/6	Diamondback C 8/6	Diamondback C 8/7	Diamondback S 8/6	Diamondback S 8/7	Diamondback S 10/8	Diamondback S 10/9	Diamondback XL 10/8	Diamondback XL 10/9	
Air @ 6.9 bar (100 psi)	566 l/min (20 cfm)	510 l/min (18 cfm)	595 l/min (21 cfm)	566 l/min (20 cfm)	651 l/min (23 cfm)	765 l/min (27 cfm)	850 l/min (30 cfm)	906 l/min (32 cfm)	1019 l/min (36 cfm)	
Diameter	259 cm (8' 6")	284 cm (9' 4")	284 cm (9' 4")	328 cm (10' 9")	328 cm (10' 9")	373 cm (12' 3")	373 cm (12' 3")	404 cm (13' 3")	404 cm (13' 3")	
Electrical Requirements ^{1,2}	110 V, 1 ph, 10 A, 50/60 Hz, 0.46 kW 208/230 V, 1 ph, 5 A, 50/60 Hz, 0.46 kW	110 V, 1 ph, 10 A, 50/60 Hz, 0.46 kW 208/230 V, 1 ph, 5 A, 50/60 Hz, 0.46 kW	110 V, 1 ph, 10 A, 50/60 Hz, 0.46 kW 208/230 V, 1 ph, 5 A, 50/60 Hz, 0.46 kW	110 V, 1 ph, 10 A, 50/60 Hz, 0.46 kW 208/230 V, 1 ph, 5 A, 50/60 Hz, 0.46 kW	110 V, 1 ph, 10 A, 50/60 Hz, 0.46 kW 208/230 V, 1 ph, 5 A, 50/60 Hz, 0.46 kW	110 V, 1 ph, 10 A, 50/60 Hz, 0.46 kW 208/230 V, 1 ph, 5 A, 50/60 Hz, 0.46 kW	110 V, 1 ph, 10 A, 50/60 Hz, 0.46 kW 208/230 V, 1 ph, 5 A, 50/60 Hz, 0.46 kW	110 V, 1 ph, 10 A, 50/60 Hz, 0.46 kW 208/230 V, 1 ph, 5 A, 50/60 Hz, 0.46 kW	208/230 V, 1 ph, 5 A, 50/60 Hz, 0.46 kW	208/230 V, 1 ph, 5 A, 50/60 Hz, 0.46 kW
Maximum Frame Size ³	51 x 61 x 4.5 cm (20" x 24" x 1.75")	53 x 71 x 4.5 cm (21" x 28" x 1.75")	53 x 71 x 4.5 cm (21" x 28" x 1.75")	58 x 84 x 4.5 cm (23" x 33" x 1.75")	58 x 84 x 4.5 cm (23" x 33" x 1.75")	58 x 84 x 4.5 cm (23" x 33" x 1.75")	58 x 84 x 4.5 cm (23" x 33" x 1.75")	66 x 91 x 4.5 cm (26" x 36" x 1.75")	66 x 91 x 4.5 cm (26" x 36" x 1.75")	
Maximum Image Area	35 x 28 cm (14" x 11")	38 x 41 cm (15" x 16")	38 x 41 cm (15" x 16")	41 x 46 cm (16" x 18")	41 x 46 cm (16" x 18")	41 x 46 cm (16" x 18")	41 x 46 cm (16" x 18")	51 x 53 cm (20" x 21")	51 x 53 cm (20" x 21")	
Shipping Weight	1295 kg (2850 lbs)	1338 kg (2950 lb)	1383 kg (3050 lb)	1415 kg (3120 lb)	1483 kg (3270 lb)	1656 kg (3650 lb)	1724 kg (3800 lb)	2159 kg (4760 lb)	2268 kg (5000 lb)	
Standard Pallet Size	15 x 41 cm (6" x 16") 38 x 41 cm (15" x 16")	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")	41 x 56 cm (16" x 22")	41 x 56 cm (16" x 22")	41 x 56 cm (16" x 22")	
Stations/Colors	8/6	8/6	8/7	8/6	8/7	10/8	10/9	10/8	10/9	

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

² 110 V configurations require an external transformer. Contact The M&R Companies for details

³ Diamondback L has fixed screen holders that accept 51 x 61 cm (20" x 24") screen frames in thicknesses up to 4.5 cm (1.75")



The M&R Companies
M&R • NUARC • AMSCOMATIC

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