# **ALPHA 8**<sup>TM</sup>

### **Automatic Screen Printing Press**





Alpha 8 is M&R's exciting new take on the oval-shaped screen printing press. It's modular and expandable—and can be configured for almost any production requirement. Since Alpha 8's oval shape takes up less floor space than comparable carousel screen printing presses, it makes more efficient use of available production area. Oval shape also allows Alpha 8 to fit into spots where no carousel screen printing press could. Alpha 8 is available in three models: Alpha 8 5070, Alpha 8 6080, and Alpha 8 80110. These offer maximum image areas of  $50 \times 70 \text{ cm}$  $(20" \times 28")$ ,  $60 \times 84 \text{ cm}$   $(24" \times 33")$  and  $80 \times 110 \text{ cm}$   $(31.5" \times 43.5")$ , respectively. Double-index mode on alternating printheads can produce screen print images up to 99 cm x 70 cm (39" x 28") on the 5070, 109 cm x 84 cm (43" x 33") on the 6080, and 114 x 110 cm (45" x 43.5") on the 80110. The 8-station Base/Drive Module supports up to four printheads, while M&R's Plug & Print<sup>™</sup> modular design provides for expansion—in six-station increments—up to 62 stations on Alpha 8 5070 & 6080, and up to 50 stations on Alpha 8 80110. Alpha 8's digital touch-screen control panel with icon-based labeling can display information and commands in numerous languages, simplifying screen printing press operation and training anywhere in the world.

The Alpha 8 automatic screen printing press incorporates a sophisticated servo-drive indexing system that combines extremely high screen printing speed with smooth operation and precise control. It also incorporates multiple-indexing capability, which allows virtually unlimited load/unload scenarios. Alpha 8's design allows users to start with as many—or few—printheads as they need, and add more as their needs change. Other than the end stations, there are no restrictions on printhead placement. All other stations can support printheads—and any station can be left open. Alpha 8 even allows screen printers to change the placement of load/unload stations

for maximum efficiency. No screen printing press is more flexible. Hooded sweatshirts, pant legs, cut pieces, T-shirts, and most other types of textile substrates can be easily loaded and properly located on Alpha 8, maximizing production and flexibility. Alpha 8 is also an ideal screen printing press for oversize printing. Alpha 8's printheads are driven by fast, reliable variable-frequency AC drive motors, and include simple print-stroke adjustment, allowing very high screen print production rates. These printheads also incorporate an elegantly simple method of adjusting off-contact at all four corners of the screen frame quickly and independently—all without tools. Alpha 8's high-lift mode simplifies access to the underside of the screen and allows fast, tool-free placement of flash cure units at any station. Rear microregistration and locking front micro-registration with visual guides help ensure ultra-precise screen positioning.

The Alpha 8 5070 and 6080 models leave the front of the pallet and the pallet arm assembly free of obstruction, allowing it to easily handle almost any type of item. Due to their larger print areas, Alpha 8 6080 and 80110 models include a wider print carriage. The 80110 model also includes larger, stronger pallet arms; wider pallet-leveling brackets; and a printhead lockdown/pallet-arm support feature for greater stability and enhanced print quality. Alpha 8, with its expandable, changeable configuration; efficient design; and high production speed is the most versatile oval automatic screen printing press on the market today.

www.mrprint.com store.mrprint.com

### **STANDARD FEATURES**

#### **CERTIFICATION**

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

#### **CONTROL CENTER**

- Digital microprocessor with self-diagnostics
- Digital touchscreen control panel with icon-based labeling can display information and commands in numerous languages, simplifying automatic screen printing press operation and training anywhere in the world
- Independent print-start/print-finish setting automatically activates and stops printheads at the beginning and end of screen printing runs
- Jog-left/jog-right controls
- Multiple (1-9) print stroke capability
- Production speed monitor ensures more accurate job costing
- Test print setting turns individual printheads on/off during test print cycle
- Versatile pedestal-mounted control panel

#### **DESIGN & CONSTRUCTION**

- 8-Station Base/Drive Module supports up to 4 printheads
- Built of heavy-duty steel and premium components
- Design allows users to change the placement of printheads and load/unload stations for custom configurations
- Expandable in 6-station modules
- Oval shape takes up less floor space than comparable carousel automatic screen printing presses
- Printheads and pallet arms provide the stability necessary for exceptional screen print quality
- Printheads can be added on site as needs change
- Stations (maximum): 62 on Alpha 8 5070 and 6080 and 50 on Alpha 8 80110

#### **INDEX SYSTEM**

- Allows quick adjustment of indexing parameters tailored to various pallet sizes
- Clockwise or counterclockwise rotation
- Multiple-indexing capability allows virtually unlimited load/unload scenarios
- Servo drive offers multi-index capability
- Servo drives combine higher screen printing press speeds with exceptional smoothness, consistency, and longevity

#### **OFF-CONTAC**

• Calibrated and tool-free four-corner off-contact settings allow fast and accurate screen leveling

#### **OPTICAL NO-SHIRT DETECTOR**

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

#### **PALLET SYSTEM**

- Precise three-point pallet leveling system
- Tool-free quick release pallet locks
- Wider pallet supports provide enhanced stability (Alpha 8 80110)

#### PALLETS

 A wide range of pallet sizes complements Alpha 8's wideranging capabilities (Your M&R Representative can help you select the pallet size and type that best fits your needs)

#### PRINTHEADS

- Brushless and maintenance-free electric-drive motors deliver smooth screen print strokes and exceptional control
- Designed to leave the front of the pallet and the pallet arm assembly clear of obstruction, allowing the press to easily handle almost any type of item (Alpha 8 5070 and 6080)
- Independent print and reset buttons on each printhead
- Independent print/flood speed controls on each printhead simplify press setup
- Lockdown feature provides enhanced stability (Alpha 8 80110)
- Printhead high-lift mode simplifies screen loading, unloading, inspection and cleaning
- Wider print carriage enhances screen print quality (Alpha 8 6080 and 80110)

#### REGISTRATION

- Compatible with M&R's Tri-Loc® & Double Tri-Loc® Rapid Registration Systems
- Enhanced front micro-registration adjustments with visual guides
- Rear micro-registration
- Unique, innovative pallet registration system offers exceptional accuracy

#### **SCREEN CLAMPS & HOLDERS**

- Adjustable rear screen holders accommodate a wide variety of screen sizes
- Clamping system holds roller frames without special adapters
- Pneumatic screen clamps facilitate rapid screen loading and deliver excellent stability on a wide variety of screens

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

#### STROKE LENGTH ADJUSTMENT

 Calibrated front & 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



Digital touch-screen control panel with icon-based labeling can display information and commands in numerous languages, simplifying press operation and training anywhere in the world.



Printhead high-lift mode simplifies screen loading, unloading, inspection and cleaning.

### **OPTIONS**

#### **EXPANSION MODULES**

- Modules can be ordered with as many—or few printheads as needed
- Plug & Print™ modular design provides for virtually limitless expansion in six-station increments

#### **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

#### **PALLETS**

- M&R offers a wide range of sizes and styles
- M&R's All-Over-Print (AOP) Pallets give operators oversize and all-over-print capability, and are available in a range of sizes

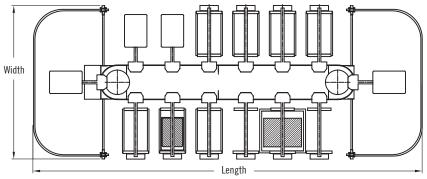
#### **SLEEVE TRAYS**

 Under-pallet trays designed to gather/protect longsleeves during indexing

### **DIMENSIONS**

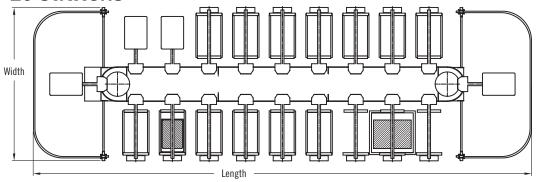


### **14 STATIONS**

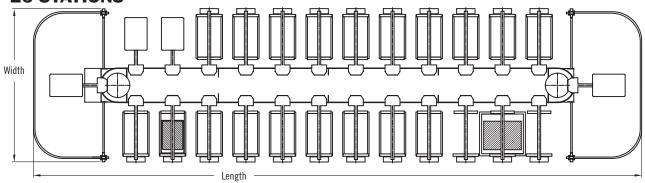


	OVERALL SIZE (Length x Width)					
	Alpha 8 5070	Alpha 8 6080	Alpha 8 80110			
14 Stations (Base + 1	932 x 384 cm	958 x 409 cm	1339 x 516 cm			
Expansion Module)	(367" x 151")	(377" x 161")	(527" x 203")			
20 Stations (Base + 2	1207 x 384 cm	1232 x 409 cm	1750 x 516 cm			
Expansion Modules)	(475" x 151")	(485" x 161")	(689" x 203")			
26 Stations (Base + 3	1481 x 384 cm	1506 x 409 cm	2162 x 516 cm			
Expansion Modules)	(583" x 151")	(593" x 161")	(851" x 203")			
32 Stations (Base + 4	1755 x 384 cm	1781 x 409 cm	2573 x 516 cm			
Expansion Modules)	(691" x 151")	(701" x 161")	(1013" x 203")			
38 Stations (Base + 5	2029 x 384 cm	2055 x 409 cm	2985 x 516 cm			
Expansion Modules)	(799" x 151")	(809" x 161")	(1175" x 203")			
44 Stations (Base + 6	2304 x 384 cm	2329 x 409 cm	3396 x 516 cm			
Expansion Modules)	(907" x 151")	(917" x 161")	(1337" x 203")			
50 Stations (Base + 7	2578 x 384 cm	2604 x 409 cm	3807 x 516 cm			
Expansion Modules)	(1015" x 151")	(1025" x 161")	(1499" x 203")			

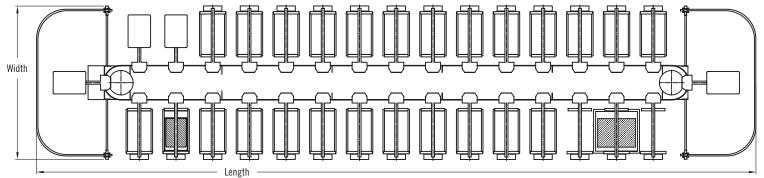
### **20 STATIONS**



### **26 STATIONS**



### **32 STATIONS**



## **ALPHA 8™**

### **SPECIFICATIONS**

	Alpha 8 5070 14/10	Alpha 8 5070 20/14	Alpha 8 5070 26/20	Alpha 8 5070 32/26	Alpha 8 5070 38/30	Alpha 8 5070 44/34	Alpha 8 5070 50/38
Air @ 6,9 bar (100 psi) 3,4	651 I/min (23 cfm)	906 I/min (32 cfm)	1274 I/min (45 cfm)	1671 I/min (59 cfm)	1926 I/min (68 cfm)	2180 I/min (77 cfm)	2435 I/min (86 cfm)
Electrical Requirements 1, 2	208/230 V, 3 ph, 45 A, 50/60 Hz, 9 kW 380/415 V, 3 ph, 26 A, 50/60 Hz, 9 kW	208/230 V, 3 ph, 53 A, 50/60 Hz, 10 kW 380/415 V, 3 ph, 30 A, 50/60 Hz, 10 kW	208/230 V, 3 ph, 65 A, 50/60 Hz, 12 kW 380/415 V, 3 ph, 37 A, 50/60 Hz, 12 kW	208/230 V, 3 ph, 77 A, 50/60 Hz, 15 kW 380/415 V, 3 ph, 44 A, 50/60 Hz, 15 kW	208/230 V, 3 ph, 110 A, 50/60 Hz, 21 kW 380/415 V, 3 ph, 63 A, 50/60 Hz, 21 kW	208/230 V, 3 ph, 118 A, 50/60 Hz, 23 kW 380/415 V, 3 ph, 67 A, 50/60 Hz, 23 kW	208/230 V, 3 ph, 126 A, 50/60 Hz, 24 kW 380/415 V, 3 ph, 72 A, 50/60 Hz, 24 kW
Max. Frame Size (Alternating Printheads)	114 x 109 cm (45" x 43")	114 x 109 cm (45" x 43")	114 x 109 cm (45" x 43")	114 x 109 cm (45" x 43")	114 x 109 cm (45" x 43")	114 x 109 cm (45" x 43")	114 x 109 cm (45" x 43")
Max. Image Area (Alternating Printheads)	99 x 70 cm (39" x 28")	99 x 70 cm (39" x 28")	99 x 70 cm (39" x 28")	99 x 70 cm (39" x 28")	99 x 70 cm (39" x 28")	99 x 70 cm (39" x 28")	99 x 70 cm (39" x 28")
Max. Std Frame Size	66 x 109 cm (26" x 43")	66 x 109 cm (26" x 43")	66 x 109 cm (26" x 43")	66 x 109 cm (26" x 43")	66 x 109 cm (26" x 43")	66 x 109 cm (26" x 43")	66 x 109 cm (26" x 43")
Max. Std 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")	50 x 70 cm (20" x 28")	50 x 70 cm (20" x 28")
Overall Size (LxW)	932 x 384 cm (367" x 151")	1207 x 384 cm (475" x 151")	1481 x 384 cm (583" x 151")	1755 x 384 cm (691" x 151")	2029 x 384 cm (799" x 151")	2304 x 384 cm (907" x 151")	2578 x 384 cm (1015" x 151")
Servo Drives	1	1	1	1	2	2	2
Shipping Weight	5670 kg (12500 lb)	8255 lb (18200 lb)	10523 kg (23200 lb)	13154 kg (29000 lb)	16148 kg (35600 lb)	20865 kg (46000 lb)	26309 kg (58000 lb)
Stations/Colors	14/10	20/14	26/20	32/26	38/30	44/34	50/38

	Alpha 8 6080 14/10	Alpha 8 6080 20/14	Alpha 8 6080 26/20	Alpha 8 6080 32/26	Alpha 8 6080 38/30	Alpha 8 6080 44/34	Alpha 8 6080 50/38
Air @ 6,9 bar (100 psi) 3,4	651 I/min (23 cfm)	906 l/min (32 cfm)	1274 I/min (45 cfm)	1671 I/min (59 cfm)	1926 I/min (68 cfm)	2180 I/min (77 cfm)	2435 I/min (86 cfm)
Electrical Requirements <sup>1, 2</sup>	208/230 V, 3 ph, 45 A, 50/60 Hz, 9 kW 380/415 V, 3 ph, 26 A, 50/60 Hz, 9 kW	208/230 V, 3 ph, 53 A, 50/60 Hz, 10 kW 380/415 V, 3 ph, 30 A, 50/60 Hz, 10 kW	208/230 V, 3 ph, 65 A, 50/60 Hz, 12 kW 380/415 V, 3 ph, 37 A, 50/60 Hz, 12 kW	208/230 V, 3 ph, 77 A, 50/60 Hz, 15 kW 380/415 V, 3 ph, 44 A, 50/60 Hz, 15 kW	208/230 V, 3 ph, 110 A, 50/60 Hz, 21 kW 380/415 V, 3 ph, 63 A, 50/60 Hz, 21 kW	208/230 V, 3 ph, 118 A, 50/60 Hz, 23 kW 380/415 V, 3 ph, 67 A, 50/60 Hz, 23 kW	208/230 V, 3 ph, 126 A, 50/60 Hz, 24 kW 380/415 V, 3 ph, 72 A, 50/60 Hz, 24 kW
Max. Frame Size (Alternating Printheads)	114 x 121 cm (45" x 48")	114 x 121 cm (45" x 48")	114 x 121 cm (45" x 48")	114 x 121 cm (45" x 48")	114 x 121 cm (45" x 48")	114 x 121 cm (45" x 48")	114 x 121 cm (45" x 48")
Max. Image Area (Alternating Printheads)	99 x 84 cm (39" x 33")	99 x 84 cm (39" x 33")	99 x 84 cm (39" x 33")	99 x 84 cm (39" x 33")	99 x 84 cm (39" x 33")	99 x 84 cm (39" x 33")	99 x 84 cm (39" x 33")
Max. Std Frame Size	79 x 121 cm (31" x 48")	79 x 121 cm (31" x 48")	79 x 121 cm (31" x 48")	79 x 121 cm (31" x 48")	79 x 121 cm (31" x 48")	79 x 121 cm (31" x 48")	79 x 121 cm (31" x 48")
Max. Std Image Area	60 x 84 cm (24" x 33")	60 x 84 cm (24" x 33")	60 x 84 cm (24" x 33")	60 x 84 cm (24" x 33")	60 x 84 cm (24" x 33")	60 x 84 cm (24" x 33")	60 x 84 cm (24" x 33")
Overall Size (LxW)	958 x 409 cm (377" x 161")	1232 x 409 cm (485" x 161")	1506 x 409 cm (593" x 161")	1781 x 409 cm (701" x 161")	2055 x 409 cm (809" x 161")	2329 x 409 cm (917" x 161")	2604 x 409 cm (1025" x 161")
Servo Drives	1	1	1	1	2	2	2
Shipping Weight	5851 kg (12900 lb)	8528 kg (18800 lb)	10932 kg (24100 lb)	13608 kg (30000 lb)	16692 (36800 lb)	21545 kg (47500 lb)	27170 kg (59900 lb)
Stations/Colors	14/10	20/14	26/20	32/26	38/30	44/34	50/38

	Alpha 8 80110 14/10	Alpha 8 80110 20/14	Alpha 8 80110 26/20	Alpha 8 80110 32/26	Alpha 8 80110 38/30	Alpha 8 80110 44/34	Alpha 8 80110 50/38
Air @ 6,9 bar (100 psi) 3,4	510 I/min (18 cfm)	736 l/min (26 cfm)	1076 I/min (38 cfm)	1331 I/min (47 cfm)	1529 I/min (54 cfm)	1756 I/min (62 cfm)	1954 I/min (69 cfm)
Electrical Requirements 1, 2	208/230 V, 3 ph, 45 A, 50/60 Hz, 9 kW	208/230 V, 3 ph, 60 A, 50/60 Hz, 12 kW	208/230 V, 3 ph, 87 A, 50/60 Hz, 17 kW	208/230 V, 3 ph, 99 A, 50/60 Hz, 20 kW	208/230 V, 3 ph, 124 A, 50/60 Hz, 25 kW	208/230 V, 3 ph, 132 A, 50/60 Hz, 27 kW	208/230 V, 3 ph, 140 A, 50/60 Hz, 28 kW
	380/415 V, 3 ph, 26 A, 50/60 Hz, 9 kW	380/415 V, 3 ph, 33 A, 50/60 Hz, 12 kW	380/415 V, 3 ph, 49 A, 50/60 Hz, 17 kW	380/415 V, 3 ph, 56 A, 50/60 Hz, 20 kW	380/415 V, 3 ph, 69 A, 50/60 Hz, 25 kW	380/415 V, 3 ph, 73 A, 50/60 Hz, 27 kW	380/415 V, 3 ph, 78 A, 50/60 Hz, 28 kW
Max. Frame Size (Alternating Printheads)	170 x 152 cm (67" x 60")	170 x 152 cm (67" x 60")	170 x 152 cm (67" x 60")	170 x 152 cm (67" x 60")	170 x 152 cm (67" x 60")	170 x 152 cm (67" x 60")	170 x 152 cm (67" x 60")
Max. Image Area (Alternating Printheads) <sup>5</sup>	114 x 110 cm (45" x 43.5")	114 x 110 cm (45" x 43.5")	114 x 110 cm (45" x 43.5")	114 x 110 cm (45" x 43.5")	114 x 110 cm (45" x 43.5")	114 x 110 cm (45" x 43.5")	114 x 110 cm (45" x 43.5")
Max. Std Frame Size	107 x 152 cm (42" x 60")	107 x 152 cm (42" x 60")	107 x 152 cm (42" x 60")	107 x 152 cm (42" x 60")	107 x 152 cm (42" x 60")	107 x 152 cm (42" x 60")	107 x 152 cm (42" x 60")
Max. Std Image Area	80 x 110 cm (31.5" x 43.5")	80 x 110 cm (31.5" x 43.5")	80 x 110 cm (31.5" x 43.5")	80 x 110 cm (31.5" x 43.5")	80 x 110 cm (31.5" x 43.5")	80 x 110 cm (31.5" x 43.5")	80 x 110 cm (31.5" x 43.5")
Overall Size (LxW)	1339 x 516 cm (527" x 203")	1750 x 516 cm (689" x 203")	2162 x 516 cm (851" x 203")	2573 x 516 cm (1013" x 203")	2985 x 516 cm (1175" x 203")	3396 x 516 cm (1337" x 203")	3807 x 516 cm (1499" x 203")
Servo Drives	1	1	2	2	2	2	2
Shipping Weight	8051 kg (17750 lb)	11794 kg (26000 lb)	19958 kg (44000 lb)	24041 kg (53000 lb)	28123 kg (62000 lb)	32205 lb (71000 kg)	36288 kg (80000 lb)
Stations/Colors	14/10	20/14	26/20	32/26	38/30	44/34	50/38

- <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> Electrical requirements per printhead (all models): 208/230 V, 3 ph, 1.63 A, 50/60 Hz, 0.37 kW; 380/415 V, 3 ph, 1 A, 50/60 Hz, 0.37 kW
- $^3$  Air requirement per printhead: 5070/6080 Models: 64 l/min (2.25 cfm); 80110 Models: 51 l/min (1.8 cfm)
- $^4$  5070/6080 Models are rated at 85 dozen per hour. 80110 Models are rated at 60 dozen per hour
- <sup>5</sup> Width shown is recommended maximum (contact M&R for details)



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