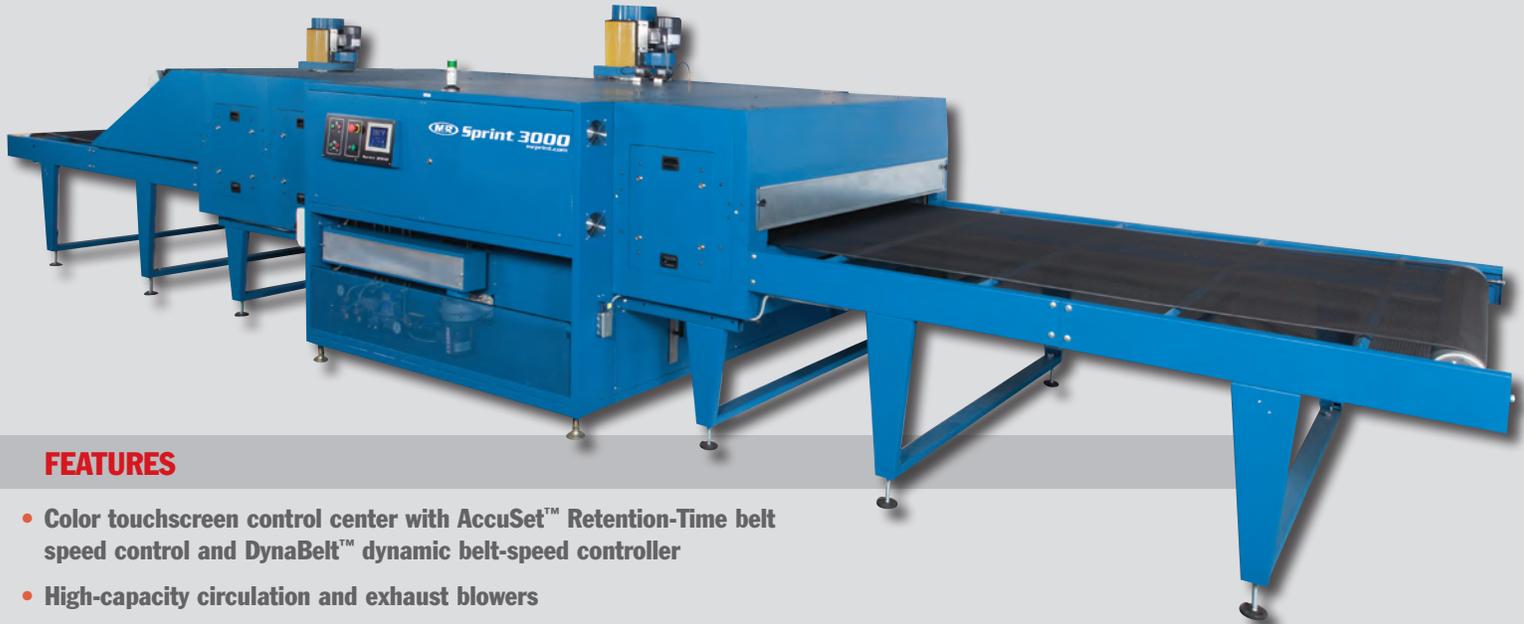


SPRINT® 3000



Gas Screen Printing Conveyor Dryer



FEATURES

- Color touchscreen control center with AccuSet™ Retention-Time belt speed control and DynaBelt™ dynamic belt-speed controller
- High-capacity circulation and exhaust blowers
- Integrated roll-down outfeed hood

Sprint 3000 is the latest incarnation of the most innovative and dependable line of gas conveyor dryers in the screen printing industry. For over twenty years, M&R's venerable Sprint Series has been the overwhelming choice of professional screen printers who demand quality, consistency, and efficiency in their equipment and in the output they generate. Sprint 3000's large color touchscreen control center features icon-based labeling and can display information and commands in multiple languages. The control center displays real-time dryer performance data, including dryer temperature, dryer temperature history; and output from the included temperature probe, which can be used to track substrate temperature as it passes through the dryer.

M&R's AccuSet™ retention-time belt-speed controller makes it easy to duplicate settings and eliminates the need to convert feet per minute into the time substrates will spend in the heat chamber (U.S. Patent Pending). And M&R's DynaBelt™ dynamic belt-speed controller shortens warmup and cooldown times and reduces overall energy consumption by automatically setting the conveyor belt to its minimum speed upon dryer startup and to its maximum speed upon dryer shutdown. In addition, raising or lowering dryer temperature by more than ten degrees during operation results in DynaBelt™ initiating a proportional decrease or increase in conveyor belt speed until the desired temperature has been attained (U.S. Patent Pending).

Sprint 3000's reliable, heavy-duty, variable-frequency AC-drive motor powers M&R's Teflon-coated fiberglass Patriot Belt™ with the SureTrak™ roller system. The red flexible bead stitched along one edge of the Patriot Belt™ rides in grooves machined into the large anodized aluminum SureTrak™ rollers, keeping the belt where it belongs (U.S. Patent Pending). It's the most precise dryer belt tracking available. The Patriot Belt and SureTrak systems also led to the creation of M&R's Crossover Belt System™, a major improvement over traditional split-belt systems. The Crossover System provides for independently variable speeds and instant change of direction on double or triple-belt drives. Double-belt drives are available on belt widths of 122 cm (48") and wider and triple-belt drives are available on models with belt widths of 183 cm (72") and 213 cm (84").

Other features include high-capacity circulation and exhaust blowers designed for maximum efficiency on a wide range of inks and substrates; an integrated roll-down outfeed hood with exhaust blower; adjustable entry and exit openings to fit a wide range of substrates; and cleanout access panels on the sides of the burner sections and drone modules to simplify cleaning and maintenance. M&R's Job Recall™ feature allows operators to store operational parameters under

operator-chosen alphanumeric names—and recall those named settings later for similar substrate/ink combinations. And M&R's Maintenance Minder™ System alerts operators when scheduled maintenance is due.

Available in liquid propane (LP) or Natural Gas (NG) versions, all Sprint 3000 dryers utilize exceptionally efficient high-performance burners with ample capacity. The burner system includes its own combustion air blower, allowing precise metering of the air-to-fuel mixture to achieve optimum efficiency. A high-volume forced air system quickly brings the conveyor dryer chamber to the desired temperature, speeding the start of production. Process temperatures and set temperatures are controlled digitally. Temperature consistency is ensured by a fuzzy-logic controller, which responds to ambient temperature changes by keeping chamber heat within 1° of target temperature at the thermocouple. A tower light shows when temperatures are within user-set parameters. When readings fall outside those settings, a temperature monitor issues visible and audible alarms. An automatic shutdown sequence keeps the blower and belt running until the chamber has cooled, minimizing or eliminating the need to monitor conveyor dryer shutdown.

Dryers in the Sprint 3000 line are available in a wide variety of configurations, belt widths, and chamber lengths, including multi-burner models of 12.2 meters (40 feet) or more for slow-curing inks and a 6.1 meter (20 foot) heat chamber that requires only a single burner. Sprint 3000 dryers have the highest production capacity in their class and are the most energy efficient. Heavy-duty thermal insulation prevents heat from migrating from the conveyor dryer chamber into the workplace, while CoolSkin™ technology leaves the dryer skin cool to the touch. Fast cure rates and high product throughput maximize dryer capacity and minimize per-unit cost. With its unrivaled set of standard features and timesaving, output-enhancing exclusives, and efficient design, Sprint 3000 Series is simply the industry's most sought after line of high-production gas screen printing conveyor dryers.

SPRINT 3000 E

M&R also makes a limited-edition electric convection screen printing conveyor dryer. Contact M&R for details.

www.mrprint.com
store.mrprint.com

SPRINT® 3000

STANDARD FEATURES

AIR HANDLING

- Enhanced airflow accelerates drying/curing
- Four separate dedicated blowers (combustion, circulation, exhaust & outfeed hood exhaust)
- High-volume circulation blower reduces energy costs
- Integrated roll-down outfeed hood with exhaust blower
- Stainless steel filter slides out for easy cleaning



INTEGRATED ROLL-DOWN OUTFEED HOOD



OUTFEED HOOD INCLUDES POWERED EXHAUST BLOWER

CERTIFICATION

- CE Certified: Built to specifications established by the European Committee for Standardization® (CE)
- CSA Certified: Built to specifications established by the CSA Group (models sold in Australia are AGA Certified: Built to specifications established by the Australian Gas Association)
- UL Listed: Built to specifications established by Underwriters Laboratories® (UL)

COLOR TOUCHSCREEN CONTROL CENTER

- Automatic shutdown sequence keeps the blower and belt running until the conveyor dryer chamber has cooled
- Displays key operational information—including heat chamber temperature and retention time—and gives operators complete control of all screen printing conveyor dryer functions
- Graphic display tracks dryer temperature and substrate temperature in real time
- Job Recall™ allows operators to store operational parameters under operator-chosen alphanumeric names—and recall those named settings later for similar substrate/ink combinations
- Maintenance Minder™ system alerts operators when scheduled maintenance is due
- Temperature monitor issues visible and audible alarms when readings fall outside user-specified parameters
- Tower light indicates when temperatures are within user-set tolerances

OPTIONS

CONVEYOR SYSTEM

- Infeed and outfeed conveyor extension sections are available in 122 cm (48") increments

HEAT CHAMBER

- 61 cm (24") expansion modules enable heat chamber lengths up to 610 cm (20") with a single burner section
- 61 cm (24") infrared pre-heat module speeds throughput

CONVEYOR SYSTEM

- AccuSet™ retention-time belt-speed controller makes it easy to duplicate settings and eliminates the need to convert feet per minute into the time substrates will spend in the heat chamber (U.S. Patent Pending)
- Driven by a reliable, heavy-duty, variable-frequency AC-drive motor
- DynaBelt™ dynamic belt-speed controller shortens warmup and cooldown times and reduces overall energy consumption by automatically setting the conveyor belt to its minimum speed upon dryer startup and to its maximum speed upon dryer shutdown—and raising or lowering dryer temperature by more than ten degrees during operation results in DynaBelt™ initiating a proportional decrease or increase in conveyor belt speed until the desired temperature has been attained (U.S. Patent Pending)
- The Patriot Belt™ is made of heat-resistant, Teflon®-coated fiberglass



PATRIOT BELT™ CONVEYOR SYSTEM

- The red flexible bead stitched along one edge of the Patriot Belt™ rides in grooves machined into the large anodized aluminum SureTrak™ Rollers, providing the most precise belt tracking available (U.S. Patent Pending)

DESIGN & CONSTRUCTION

- Adjustable entry/exit openings
- Air-cooled cabinet ensures long life for electrical components
- Bearings are designed for high speeds and high temperatures
- Circuit breakers allow easy reset



CLEANOUT ACCESS PANEL

- Cleanout access panels on the sides of the burner sections and drone modules simplify cleaning and maintenance
- Exhaust Drawer/Creosote Catcher
- Low-profile design makes it easier to see over the screen printing dryer
- Modular design and specialized fasteners make it easy to attach additional 61 cm (24") expansion modules

CROSSOVER BELT SYSTEM™

- Available on belt widths of 122 cm (48") and wider
- Crossover belt drive offers variable speed and direction on double or triple-belt drives
- Crossover conveyor belts are available in a 61 cm (24") minimum width; wider belts are available in 30 cm (12") increments
- M&R's Patriot Belt™ and SureTrak™ belt-tracking system makes it possible to change belt directions and speeds instantly—and without the need to re-track belts

ENERGY EFFICIENCY

- Burners are designed with excess capacity that far exceeds consumption rates under normal operating conditions
- Controller ensures consistency by keeping dryer chamber heat within 1° of target temperature at the thermocouple
- CoolSkin™ technology leaves the conveyor dryer skin cool to the touch
- Fast curing rates and high product throughput maximize conveyor dryer capacity and minimize per-unit cost
- Fast Warmup/Cooldown shortens warmup and cooldown times by automatically setting the conveyor belt to its minimum speed upon dryer startup and setting the conveyor belt to its maximum speed upon dryer shutdown, reducing overall energy consumption. In addition, raising or lowering dryer temperature by more than ten degrees during operation results in a proportional decrease or increase in conveyor belt speed until the desired temperature has been attained
- Heavy-duty thermal insulation prevents heat from migrating from the conveyor dryer into the workplace
- Pressurized vector air knives provide consistent and uniform temperatures throughout the drying chamber
- Process temperature and set temperature are displayed and controlled digitally
- Sprint 3000 models are the most energy-efficient gas screen printing conveyor dryers in their class

HEAT CHAMBER

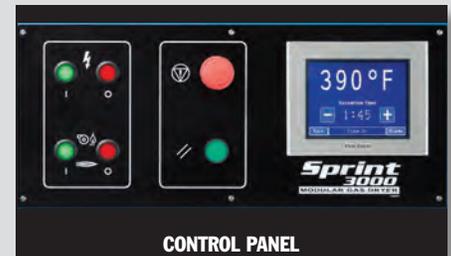
- Burners are available for liquid propane (LP) or natural gas (NG)
- Double-wall construction
- Galvanized steel interior
- Modular gas train simplifies maintenance

PRODUCTIVITY

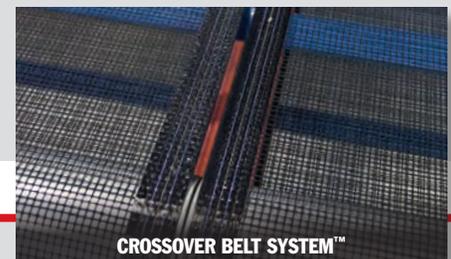
- Sprint 3000 models have the highest production capacity of any gas screen printing conveyor dryer in their class

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



CONTROL PANEL

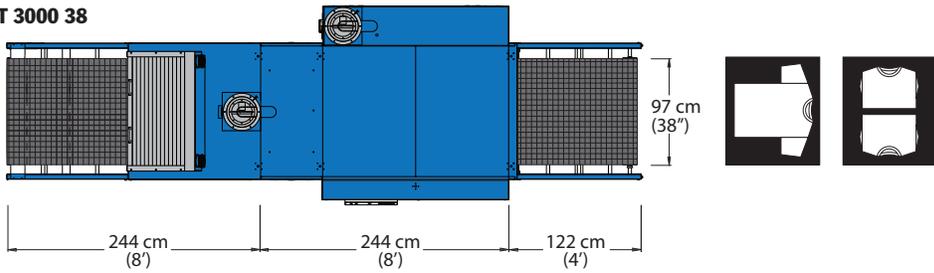


CROSSOVER BELT SYSTEM™

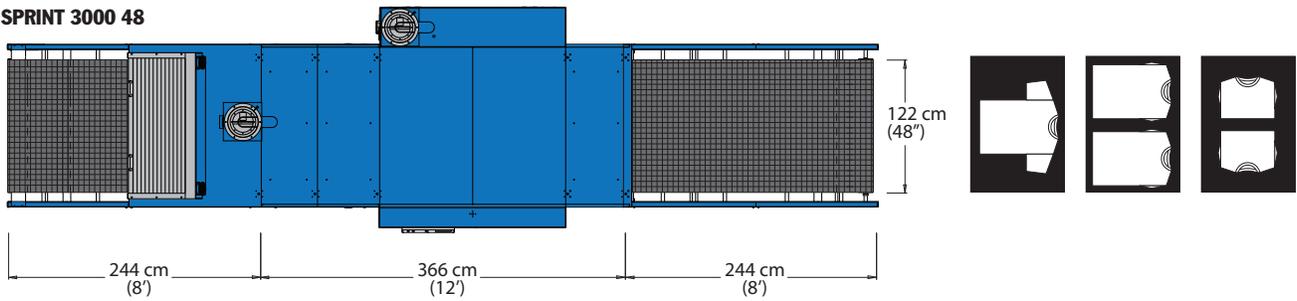
- Previously lost space between belts has been reduced and belts widened due to M&R's superior belt-tracking methods
- Standard configurations place the narrowest belt closest to the control panel side
- Triple-belt drives are available on models with belt widths of 183 cm (72") and 213 cm (84")
- Twin-belt drives are available on models with belt widths of 122 cm (48"), 152 cm (60"), 183 cm (72"), and 213 cm (84")

DIMENSIONS

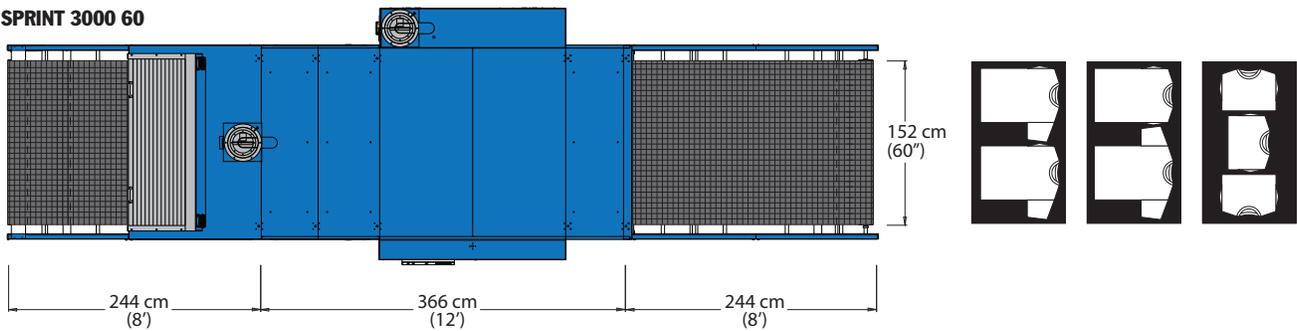
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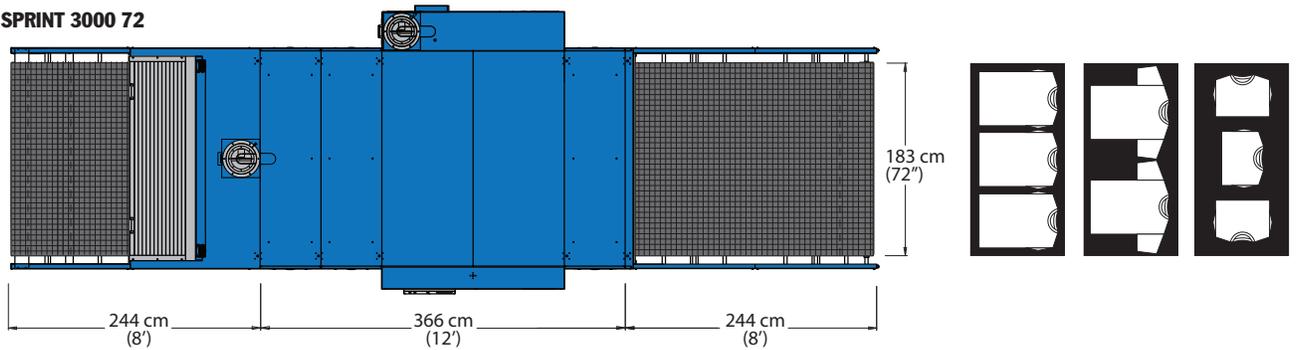
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SPRINT 3000 60

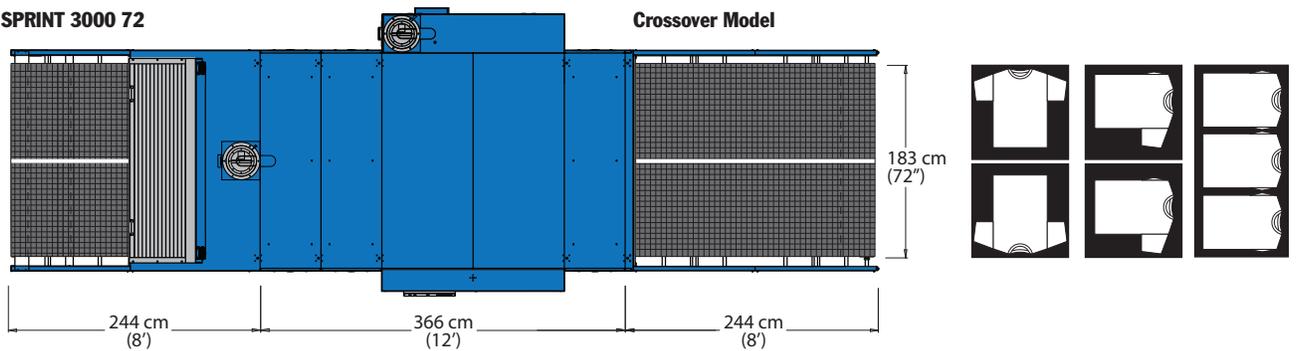


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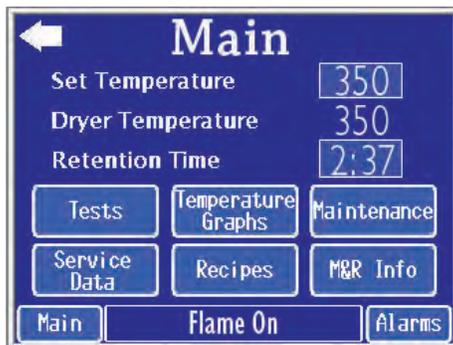
SPRINT 3000 72

Crossover Model



SPRINT® 3000

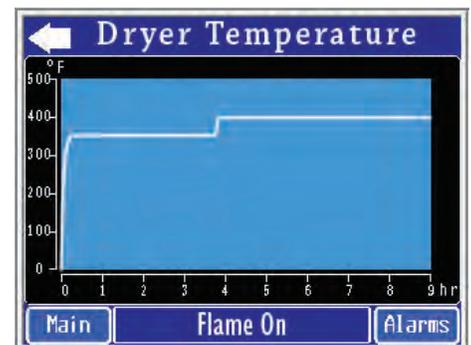
TOUCH SCREEN CONTROL PANEL



Color touchscreen control center displays key operational information



Job Recall™ allows operators to store operational parameters and recall those named settings later



Graphic display tracks dryer temperature and substrate temperature in real time

SPECIFICATIONS

| | Sprint 3000-38 | Sprint 3000-48 | Sprint 3000-60 | Sprint 3000-72 | Sprint 3000-84 |
|---|--|--|--|--|--|
| Belt Width | 96 cm (38") | 122 cm (48") | 152 cm (60") | 183 cm (72") | 213 cm (84") |
| Burner Input Maximum ³ | 200 000 Btu | 300 000 Btu | 300 000 Btu | 300 000 Btu | 300 000 Btu |
| Burner Width | 197 cm (77.5") | 222 cm (87.5") | 253 cm (99.5") | 283 cm (111.5") | 314 cm (123.5") |
| Electrical Requirements ¹ | 208/230 V, 1 ph, 19/18 A, 50/60 Hz, 2.9 kW 208/230 V, 3 ph, 12/11 A, 50/60 Hz, 2.9 kW 380/415 V, 3 ph, 10 A, 50 Hz, 2.9 kW | 208/230 V, 3 ph, 24/23 A, 50/60 Hz, 5.8 kW 380/415 V, 3 ph, 18 A, 50 Hz, 5.8 kW | 208/230 V, 3 ph, 24/23 A, 50/60 Hz, 5.8 kW 380/415 V, 3 ph, 18 A, 50 Hz, 5.8 kW | 208/230 V, 3 ph, 34/33 A, 50/60 Hz, 7.7 kW 380/415 V, 3 ph, 21 A, 50 Hz, 7.7 kW | 208/230 V, 3 ph, 36/35 A, 50/60 Hz, 8.4 kW 380/415 V, 3 ph, 22 A, 50 Hz, 8.4 kW |
| Electrical requirements for 61 cm (24") | 208/230 V, 1 ph, 19/21 A, 50/60 Hz, 3.7 kW | 208/230 V, 3 ph, 15/17 A, 50/60 Hz, 5 kW | 208/230 V, 3 ph, 19/21 A, 50/60 Hz, 6.2 kW | 208/230 V, 3 ph, 21/23 A, 50/60 Hz, 7.4 kW | 208/230 V, 3 ph, 25/27 A, 50/60 Hz, 8.5 kW |
| Optional Radiant Section ¹ | 208/230 V, 3 ph, 11/12 A, 50/60 Hz, 3.7 kW 380/415 V, 3 ph, 8 A, 50 Hz, 3.7 kW | 380/415 V, 3 ph, 9 A, 50 Hz, 5 kW | 380/415 V, 3 ph, 11 A, 50 Hz, 6.2 kW | 380/415 V, 3 ph, 13 A, 50 Hz, 7.4 kW | 380/415 V, 3 ph, 14 A, 50 Hz, 8.5 kW |
| Exhaust Blower Size | 30 cm (12") | 30 cm (12") | 30 cm (12") | 30 cm (12") | 30 cm (12") |
| Exhaust System Capacity @ 6 mm (1/4") Static Pressure | 50970 l/min (1800 cfm) | 50970 l/min (1800 cfm) | 50970 l/min (1800 cfm) | 50970 l/min (1800 cfm) | 50970 l/min (1800 cfm) |
| Expansion Heat Modules | 61 cm (24") | 61 cm (24") | 61 cm (24") | 61 cm (24") | 61 cm (24") |
| Gas Input Size | 2.54 cm (1") | 2.54 cm (1") | 2.54 cm (1") | 2.54 cm (1") | 2.54 cm (1") |
| Heat Chamber Length | 244 - 610+ cm (8' - 20+') | 244 - 610+ cm (8' - 20+') | 244 - 610+ cm (8' - 20+') | 244 - 610+ cm (8' - 20+') | 366 - 610+ cm (12' - 20+') |
| Heat Chamber Width | 135 cm (53") | 160 cm (63") | 191 cm (75") | 221 cm (87") | 251 cm (99") |
| LP/Natural Gas Input Pressure | .93 mm Hg (5" w.c.) | .93 mm Hg (5" w.c.) | .93 mm Hg (5" w.c.) | .93 mm Hg (5" w.c.) | .93 mm Hg (5" w.c.) |
| Overall Length | 610 - 1097+ cm (20' - 36+') | 732 - 1524+ cm (24' - 50+') |
| Shipping Weight ⁴ | 1496 kg (3300 lb) | 1678 kg (3700 lb) | 1860 kg (4100 lb) | 2177 kg (4800 lb) | 2494 kg (5500 lb) |
| Standard Infeed/Outfeed Length | 122 cm (48") / 244 cm (96") | 244 cm (96") / 244 cm (96") | 244 cm (96") / 244 cm (96") | 244 cm (96") / 244 cm (96") | 244 cm (96") / 244 cm (96") |

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 Measured at the Exhaust Discharge Port

³ Normal usage varies, but is significantly lower than the stated maximum

⁴ Weight applies to models with a 244 cm (96") heat/expansion chamber



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

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