

SPRINT® SERIES DRYERS



Textile Gas Dryers



FEATURES

- Belt widths from 97 to 213 cm (38" to 84")
- Heat chamber length 244 to 610 cm (8' to 20') or more
- CoolSkin™ Technology

SPRINT INTERNATIONAL

M&R's Sprint Series is the industry's most efficient, innovative, and affordable line of high-production textile gas dryers. All Sprints are available in a wide variety of configurations, with belt widths from 97 to 213 cm (38" to 84"). Not only does each Sprint model have the highest production capacity in its class, each is also the most energy efficient. Heavy-duty thermal insulation prevents heat from migrating 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.

Available in liquid propane (LP) or Natural Gas (NG) versions, all Sprint models 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. There are also separate blowers for circulation and exhaust, each designed for maximum efficiency on a wide range of inks and substrates. A high-volume forced air system quickly brings the 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 (excludes Mini Sprint 2000). When readings fall outside those settings, a temperature monitor issues visible and audible alarms. The entry and exit

openings are adjustable to fit a wide range of substrates. The large belt rollers are machined with a slight crown to ensure positive belt tracking. An easy-to-read digital belt-speed display makes it easy to duplicate settings. An automatic shutdown sequence keeps the blower and belt running until the chamber has cooled, minimizing or eliminating the need to monitor dryer shutdown.

SPRINT INTERNATIONAL

Sprint International is the world's first line of computer-controlled gas textile dryers, providing real-time dryer performance data, including dryer temperature, gas consumption, and the temperature of substrates as they travel through the heat chamber and as they exit the chamber. This information allows the operator to achieve exceptional curing accuracy and consistency, and can be used to program one of the thirty Job Recall™ settings. Those settings can be recalled later for any job with similar substrate/ink combinations. The LCD touch-screen monitor displays key operational information—like heat chamber temperature, belt speed, and outfeed temperature—and gives operators complete control of parameters, alarms, and service data. Whether you need a high-performance gas dryer that fits in tight places and tight budgets—or the world's first completely computer-controlled gas textile dryer, and the most innovative, affordable, and energy-efficient dryer in its class—there's a Sprint for you.

SPRINT 2000 E

M&R also makes a limited-edition electric dryer. Contact M&R for details.

www.mrprint.com
store.mrprint.com

SPRINT® SERIES DRYERS

STANDARD FEATURES

Air Handling

- Enhanced airflow accelerates drying/curing
- Heat efficiency system reduces operating expenses by using outgoing combustion gas to heat incoming air
- High-volume circulation blower reduces energy costs
- Stainless steel filter slides out for easy cleaning
- Three separate dedicated blowers (combustion, circulation & exhaust)

Certification

- CE & UL compliant: Built to specifications established by the European Committee for Standardization® (CE) and Underwriters Laboratories® (UL)
- CSA Certified and built to meet or exceed AGA & CGA standards

Control Center (All Models)

- Automatic shutdown sequence keeps the blower and belt running until the chamber has cooled
- Control panel rotates for visibility and access
- Fuzzy-logic digital temperature controller (Mini Sprint 2000/Sprint 2000/Sprint 2000 HO)
- Temperature monitor issues visible and audible alarms when readings fall outside user-specified parameters
- Tower light indicates when temperatures are within user-set tolerances (excludes Mini Sprint 2000)

Control Center (International Models)

- Graphic displays track dryer temperature and gas consumption in real time
- Job Recall™ allows operators to store up to 30 (15 on split-belt models) temperature/belt speed settings under operator-chosen alphanumeric names, and recall those named settings later for similar jobs
- LCD touch-screen monitor displays key operational information—like heat chamber temperature, belt speed, and outfeed temperature—and gives operators complete control of all dryer settings
- Touch-screen provides easy, direct access to alarm lists, service data, and all dryer functions

Conveyor System

- Conveyor belt is made of heat-resistant, Teflon®-coated fiberglass
- Digital belt speed readout makes it easy to duplicate speed settings
- Driven by a reliable, heavy-duty, variable-speed DC motor
- Large anodized aluminum rollers are crowned for positive belt tracking
- Minimum belt speed: 91 cm (36") per minute

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
- Exhaust Drawer/Creosote Catcher
- Low-profile design makes it easier to see over the dryer
- Modular design and specialized fasteners make it easy to attach additional heat chamber units

Energy Efficiency

- Burners are designed with excess capacity that far exceeds consumption rates under normal operating conditions
- CoolSkin™ technology leaves the dryer skin cool to the touch
- Each Sprint model is the most energy-efficient dryer in its class
- Fast curing rates and high product throughput maximize dryer capacity and minimize per-unit cost
- Fuzzy-Logic controller ensures consistency by keeping heat within 1° of target temperature at the thermocouple
- Heavy-duty thermal insulation prevents heat from migrating 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

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

- Each Sprint model has the highest production capacity in its class

Temperature Monitoring (International Models)

- Dual monitoring methods allow operators to fine tune set temperatures and dryer speeds to optimize dryer performance and store settings that can be recalled on subsequent jobs
- Infrared outfeed sensors let operators continuously monitor the set temperature for a specific amount of time
- Probe placed on the substrate's ink lets operators monitor and graph surface temperatures as the substrate passes through the chamber
- Temperature alarm parameters—including acceptable temperature range, time between initial warning (audible beep) and steady alarm, and the arming/disarming of temperature sensors—can be set and changed by the operator

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

Air Handling

- AC variable-speed circulation blower (not available on Mini Sprint & Mini Sprint International)

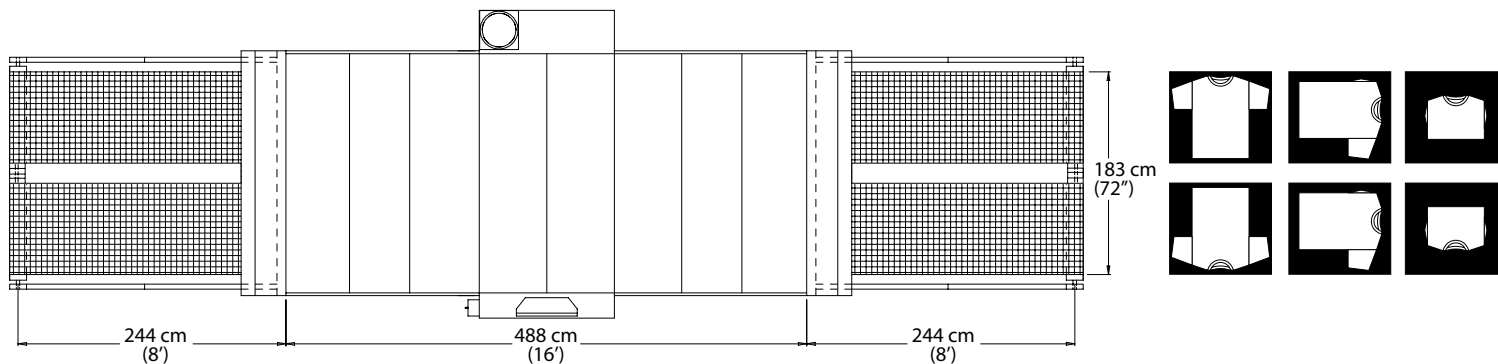
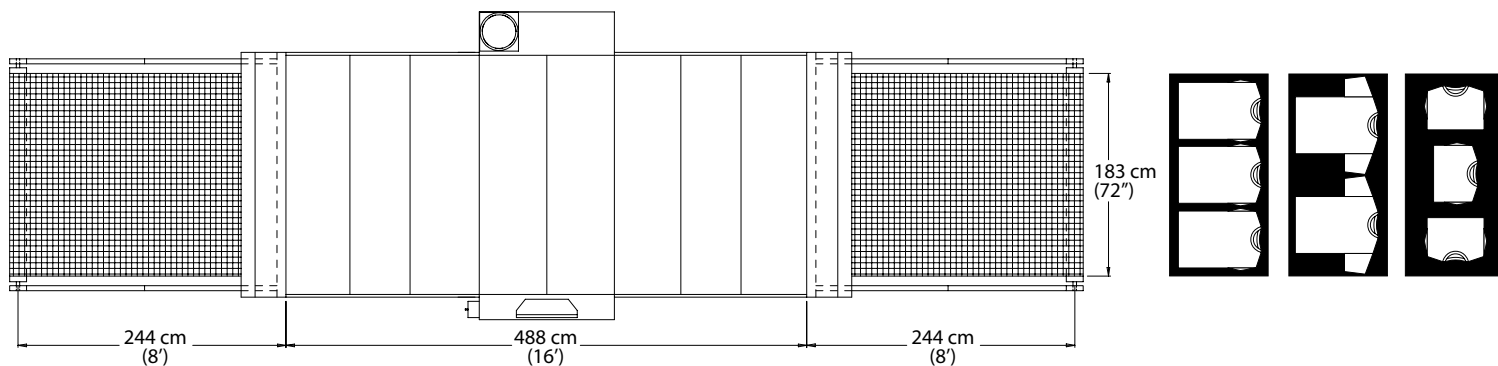
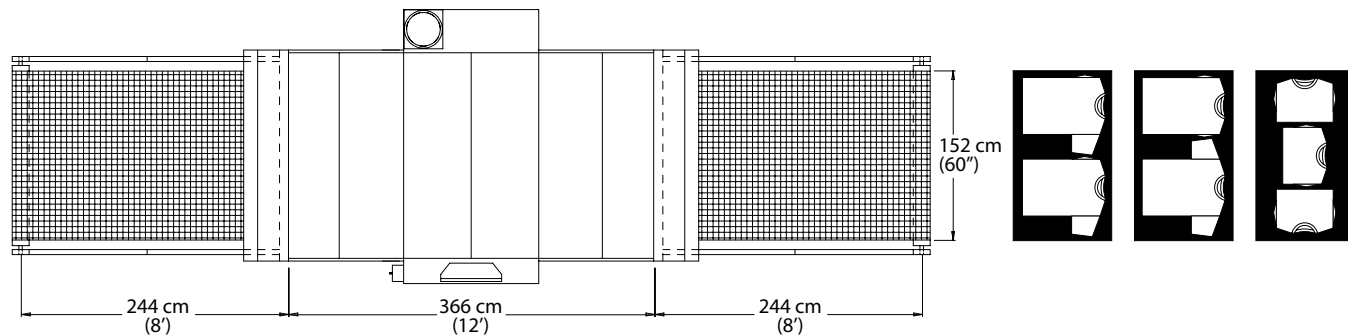
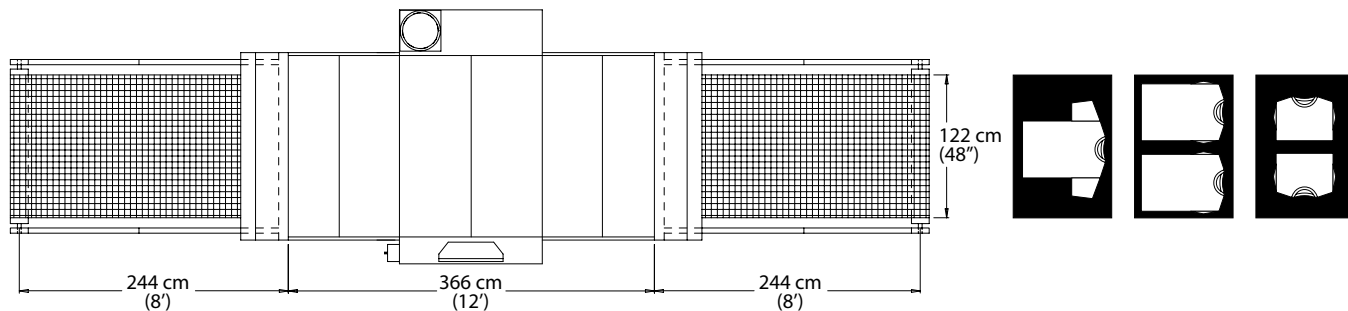
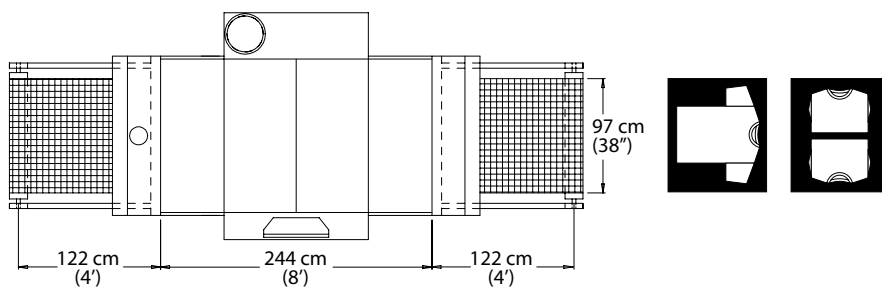
Conveyor System

- Alternate drive systems accommodate exceptionally short or exceptionally long curing times
- Conveyor extension sections are available in 122 cm (48") increments
- Split-belt model with independent drives and variable speed—available on models with belt widths of 183 cm (72") or more (Sprint 2000/Sprint 2000 HO/Sprint International/Sprint International HO)

Heat Chamber

- Additional 61 cm (24") sections are available
- 61 cm (24") infrared pre-heat module speeds throughput
- Cooling fan mounted over outfeed

DIMENSIONS



SPRINT® SERIES DRYERS

SPECIFICATIONS

	Mini Sprint 2000-38 Mini Sprint Int'l-38	Sprint 2000-48 Sprint Int'l-48	Sprint 2000-60 Sprint Int'l-60	Sprint 2000-72 Sprint Int'l-72	Sprint 2000 HO-48 Sprint Int'l HO-48	Sprint 2000 HO-60 Sprint Int'l HO-60	Sprint 2000 HO-72 Sprint Int'l HO-72	Sprint 2000 HO-84 Sprint Int'l HO-84
Belt Width	97 cm (38")	122 cm (48")	152 cm (60")	183 cm (72")	122 cm (48")	152 cm (60")	183 cm (72")	213 cm (84")
Burner Input Maximum³	200 000 Btu	300 000 Btu	300 000 Btu	300 000 Btu	390 000 Btu	390 000 Btu	390 000 Btu	390 000 Btu
Burner Width	191 cm (75")	217 cm (85.5")	248 cm (97.5")	278 cm (109.5")	217 cm (85.5")	248 cm (97.5")	278 cm (109.5")	309 cm (121.5")
Electrical Requirements¹	208/230V, 1 ph, 15/14 A, 50/60 Hz, 2.3 kW 208/230V, 3 ph, 10/9 A, 50/60 Hz, 2.3 kW 400V, 3 ph, 8 A, 50 Hz, 2.3 kW	208/230 V, 3 ph, 22/21 A, 50/60 Hz, 5.3 kW 400 V, 3 ph, 16 A, 50 Hz, 5.3 kW	208/230 V, 3 ph, 22/21 A, 50/60 Hz, 5.3 kW 400 V, 3 ph, 16 A, 50 Hz, 5.3 kW	208/230V, 3 ph, 32/31 A, 50/60 Hz, 7.2 kW 400V, 3 ph, 19 A, 50 Hz, 7.2 kW	208/230V, 3 ph, 25/24 A, 50/60 Hz, 5.9 kW 400V, 3 ph, 17 A, 50 Hz, 5.9 kW	208/230V, 3 ph, 25/24 A, 50/60 Hz, 5.9 kW 400V, 3 ph, 17 A, 50 Hz, 5.9 kW	208/230V, 3 ph, 34/33 A, 50/60 Hz, 7.8 kW 400V, 3 ph, 20 A, 50 Hz, 7.8 kW	208/230V, 3 ph, 34/33 A, 50/60 Hz, 7.8 kW 400V, 3 ph, 20 A, 50 Hz, 7.8 kW
Electrical Requirements for 61 cm (24") Optional Radiant Section	208/230 V, 1 ph, 19/21 A, 50/60 Hz, 3.7 kW 208/230 V, 3 ph, 11/12 A, 50/60 Hz, 3.7 kW 400 V, 3 ph, 8 A, 50 Hz, 3.7 kW	208/230 V, 3 ph, 15/17 A, 50/60 Hz, 5 kW 400 V, 3 ph, 9 A, 50 Hz, 5 kW	208/230 V, 3 ph, 19/21 A, 50/60 Hz, 6.2 kW 400 V, 3 ph, 11 A, 50 Hz, 6.2 kW	208/230 V, 3 ph, 21/23 A, 50/60 Hz, 7.4 kW 400 V, 3 ph, 13 A, 50 Hz, 7.4 kW	208/230 V, 3 ph, 15/17 A, 50/60 Hz, 5 kW 400 V, 3 ph, 9 A, 50 Hz, 5 kW	208/230 V, 3 ph, 19/21 A, 50/60 Hz, 6.2 kW 400 V, 3 ph, 11 A, 50 Hz, 6.2 kW	208/230 V, 3 ph, 21/23 A, 50/60 Hz, 7.4 kW 400 V, 3 ph, 13 A, 50 Hz, 7.4 kW	208/230 V, 3 ph, 25/27 A, 50/60 Hz, 8.5 kW 400 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")	30 cm (12")	30 cm (12")	30 cm (12")
Exhaust System Capacity @ 6 mm (1/4") Static Pressure²	33 980 l/min (1200 cfm)	50 970 l/min (1800 cfm)	50 970 l/min (1800 cfm)	50 970 l/min (1800 cfm)	62 297 l/min (2200 cfm)	62 297 l/min (2200 cfm)	62 297 l/min (2200 cfm)	62 297 l/min (2200 cfm)
Expansion Heat Modules	61 cm (24")	61 cm (24")	61 cm (24")	61 cm (24")	61 cm (24")	61 cm (24")	61 cm (24")	61 cm (24")
Gas Input Size	1.9 cm (.75")	2.54 cm (1")	2.54 cm (1")	2.54 cm (1")	2.54 cm (1")	2.54 cm (1")	2.54 cm (1")	2.54 cm (1")
Heat Chamber Length	244 - 488 cm (8' - 16')	244 - 610+ cm (8' - 20+')	244 - 610+ cm (8' - 20+')	244 - 610+ cm (8' - 20+')	244 - 610+ cm (8' - 20+')	244 - 610+ cm (8' - 20+')	244 - 610+ cm (8' - 20+')	244 - 610+ cm (8' - 20+')
Heat Chamber Width	137 cm (54")	160 cm (63")	191 cm (75")	221 cm (87")	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.)	.93 mm Hg (5" w.c.)	.93 mm Hg (5" w.c.)	.93 mm Hg (5" w.c.)
Overall Length	488 - 732 cm (16' - 24')	732 - 1097 cm (24' - 36')	732 - 1097 cm (24' - 36')	732 - 1097 cm (24' - 36')	853 - 1097 cm (28' - 36')	853 - 1097 cm (28' - 36')	853 - 1097 cm (28' - 36')	853 - 1097 cm (28' - 36')
Shipping Weight⁴	1452 kg (3200 lb)	1678 kg (3700 lb)	1860 kg (4100 lb)	2177 kg (4800 lb)	1678 kg (3700 lb)	1860 kg (4100 lb)	2177 kg (4800 lb)	2404 kg (5300 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")

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



MINI SPRINT 2000



SPRINT 2000



SPRINT 2000 HO



The M&R Companies
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