

# SPRINT® 2000



## Gas Screen Printing Conveyor Dryers



### FEATURES

- Belt widths from 97 to 183 cm (38" to 72")
- Heat chamber length 244 to 610 cm (8' to 20') or more
- CoolSkin™ Technology

SPRINT 2000

Sprint is the most venerated name in gas dryers, with more than two decades leading the industry in innovation, efficiency, durability, and affordability. And Sprint 2000 high-production screen printing conveyor dryers are worthy heirs to that tradition. Sprint 2000 models are available in a wide variety of configurations, with dryer belt widths from 97 to 183 cm (38" to 72"). Not only does each Sprint 2000 model have the highest production capacity in its class, each is also 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.

Available in liquid propane (LP) or Natural Gas (NG) versions, all Sprint 2000 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. 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 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 (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 conveyor dryer shutdown.

[www.mrprint.com](http://www.mrprint.com)  
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# SPRINT® 2000

## STANDARD FEATURES

### AIR HANDLING

- Enhanced airflow accelerates drying/curing
- High-volume circulation blower reduces energy costs
- Stainless steel filter slides out for easy cleaning
- Three separate dedicated blowers (combustion, circulation & exhaust)

### 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)

### CONTROL CENTER

- Automatic shutdown sequence keeps the blower and belt running until the conveyor dryer chamber has cooled
- Control panel rotates for visibility and access
- Fuzzy-logic digital temperature controller
- 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)

### CONVEYOR SYSTEM

- Conveyor dryer belt is made of heat-resistant, Teflon®-coated fiberglass
- Digital belt speed readout makes it easy to duplicate conveyor dryer 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 screen printing dryer
- Modular design and specialized fasteners make it easy to attach additional 61 cm (24") expansion modules

### ENERGY EFFICIENCY

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

- 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

### 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 of any gas screen printing conveyor dryer in its 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](http://store.mrprint.com)
- Two-year limited warranty



MINI SPRINT 2000

## OPTIONS

### AIR HANDLING

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

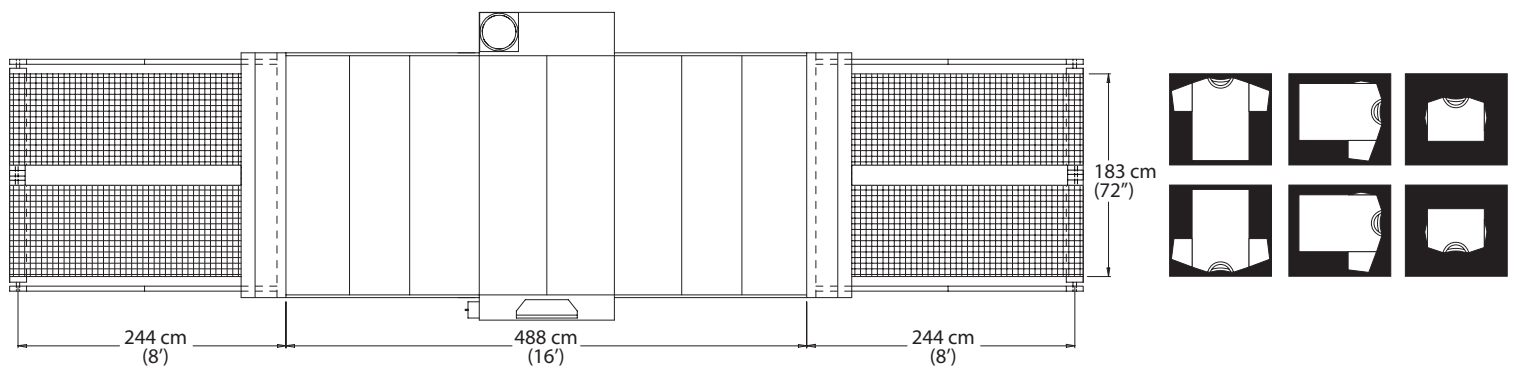
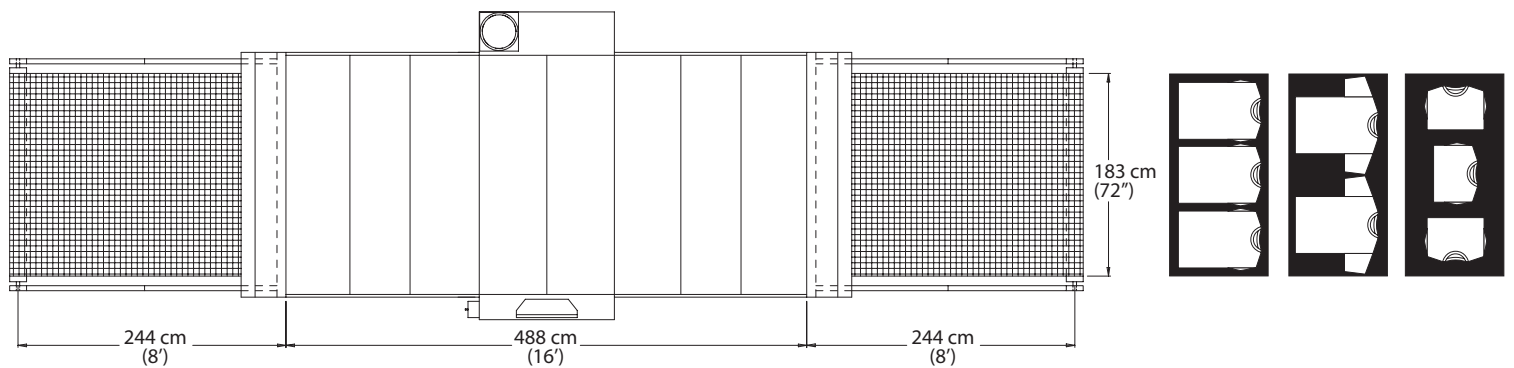
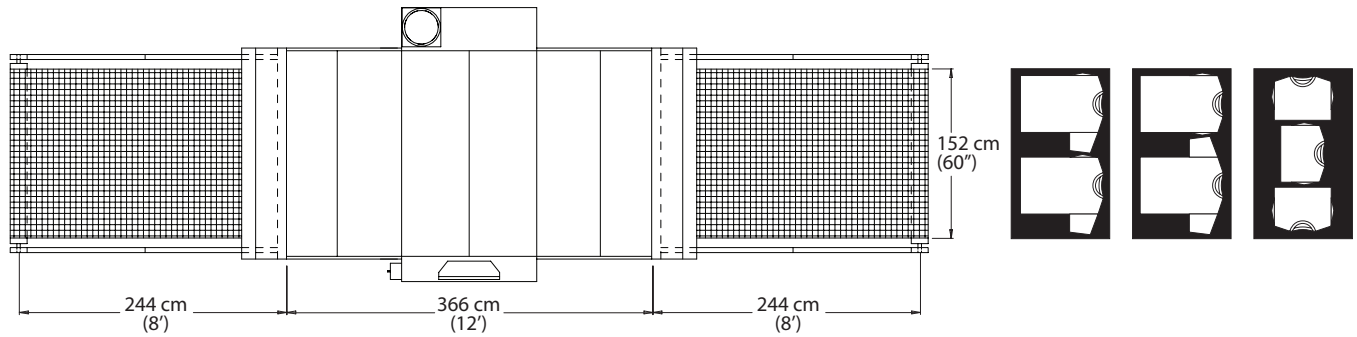
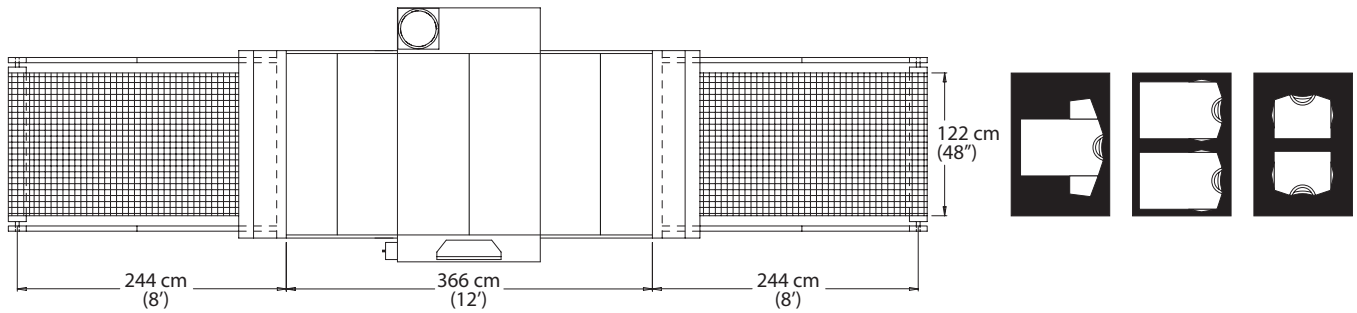
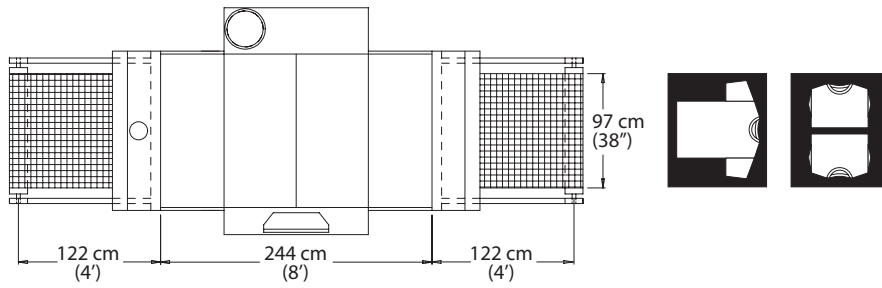
### CONVEYOR SYSTEM

- Alternate conveyor dryer drive systems accommodate exceptionally short or exceptionally long curing times
- Infeed and outfeed conveyor extension sections are available in 122 cm (48") increments
- Split-belt conveyor with independent drives and variable speed—available on models with belt widths of 183 cm (72") or more

### HEAT CHAMBER

- 61 cm (24") expansion modules enable heat chamber lengths up to 488 cm (16') with a single burner section
- 61 cm (24") infrared pre-heat module speeds throughput
- Cooling fan mounted over conveyor dryer outfeed

# DIMENSIONS



# SPRINT® 2000

## SPECIFICATIONS

	Mini Sprint 2000-38	Sprint 2000-48	Sprint 2000-60	Sprint 2000-72
<b>Belt Width</b>	97 cm (38")	122 cm (48")	152 cm (60")	183 cm (72")
<b>Burner Input Maximum<sup>3</sup></b>	200 000 Btu	300 000 Btu	300 000 Btu	300 000 Btu
<b>Burner Width</b>	191 cm (75")	217 cm (85.5")	248 cm (97.5")	278 cm (109.5")
<b>Electrical Requirements<sup>1</sup></b>	208/230 V, 1 ph, 15/14 A, 50/60 Hz, 2.3 kW 208/230 V, 3 ph, 10/9 A, 50/60 Hz, 2.3 kW 380/415 V, 3 ph, 8 A, 50 Hz, 2.3 kW	208/230 V, 3 ph, 22/21 A, 50/60 Hz, 5.3 kW 380/415 V, 3 ph, 16 A, 50 Hz, 5.3 kW	208/230 V, 3 ph, 22/21 A, 50/60 Hz, 5.3 kW 380/415 V, 3 ph, 16 A, 50 Hz, 5.3 kW	208/230 V, 3 ph, 32/31 A, 50/60 Hz, 7.2 kW 380/415 V, 3 ph, 19 A, 50 Hz, 7.2 kW
<b>Electrical Requirements for 61 cm (24") Optional Radiant Section</b>	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 380/415 V, 3 ph, 8 A, 50 Hz, 3.7 kW	208/230 V, 3 ph, 15/17 A, 50/60 Hz, 5 kW 380/415 V, 3 ph, 9 A, 50 Hz, 5 kW	208/230 V, 3 ph, 19/21 A, 50/60 Hz, 6.2 kW 380/415 V, 3 ph, 11 A, 50 Hz, 6.2 kW	208/230 V, 3 ph, 21/23 A, 50/60 Hz, 7.4 kW 380/415 V, 3 ph, 13 A, 50 Hz, 7.4 kW
<b>Exhaust Blower Size</b>	30 cm (12")	30 cm (12")	30 cm (12")	30 cm (12")
<b>Exhaust System Capacity @ 6 mm (1/4") Static Pressure<sup>2</sup></b>	33 980 l/min (1200 cfm)	50 970 l/min (1800 cfm)	50 970 l/min (1800 cfm)	50 970 l/min (1800 cfm)
<b>Expansion Heat Modules</b>	61 cm (24")	61 cm (24")	61 cm (24")	61 cm (24")
<b>Gas Input Size</b>	1.9 cm (.75")	2.54 cm (1")	2.54 cm (1")	2.54 cm (1")
<b>Heat Chamber Length</b>	244 – 488 cm (8' – 16')	244 – 610+ cm (8' – 20+')	244 – 610+ cm (8' – 20+')	244 – 610+ cm (8' – 20+')
<b>Heat Chamber Width</b>	137 cm (54")	160 cm (63")	191 cm (75")	221 cm (87")
<b>LP/Natural Gas Input Pressure</b>	.93 mm Hg (5" w.c.)	.93 mm Hg (5" w.c.)	.93 mm Hg (5" w.c.)	.93 mm Hg (5" w.c.)
<b>Overall Length</b>	488 - 732 cm (16' - 24')	732 - 1097 cm (24' - 36')	732 - 1097 cm (24' - 36')	732 - 1097 cm (24' - 36')
<b>Shipping Weight<sup>4</sup></b>	1452 kg (3200 lb)	1678 kg (3700 lb)	1860 kg (4100 lb)	2177 kg (4800 lb)
<b>Standard Infeed/Outfeed Length</b>	122 cm (48")	244 cm (96")	244 cm (96")	244 cm (96")

<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> Measured at the Exhaust Discharge Port

<sup>3</sup> Normal usage varies, but is significantly lower than the stated maximum

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



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