

SPRINT® 3000T



Gas Screen Printing Conveyor Dryer

FEATURES

- **Three-tier design fits 914 cm (30') of belt travel in the footprint of a 366 cm (12') heat chamber**
- **Enables high production speeds on water-based and other evaporative inks**
- **AccuSet™ 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**



Sprint 3000T is the most innovative gas conveyor dryer in the screen printing industry. It features three independent conveyor belts on three levels that deliver maximum drying capacity in a minimal footprint. In fact, Sprint 3000T manages to squeeze over 914 cm (30') of belt travel in the space required for a 366 cm (12') heat chamber. The infeed carries substrates to the top level and smoothly transfers them to the middle belt. The middle belt carries those substrates back through the chamber in the opposite direction before making another smooth transfer to the bottom belt. The bottom belt carries them through the heat chamber a third time before delivering them to the outfeed. Each level includes its own set of air knives, ensuring extremely consistent and effective heating of substrates. Sprint 3000T's color touchscreen interface displays real-time dryer performance data, including dryer temperature and dryer temperature history. It also includes Job Recall™, which allows operators to store operational parameters under operator-chosen alphanumeric names—and recall those named settings later for similar substrate/ink combinations.

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 T'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 silicone guide 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. It's the most precise dryer belt tracking available. Sprint 3000T also includes an integrated roll-down

outfeed hood, cleanout access panels on the sides of the burner sections and drone modules to simplify cleaning and maintenance, And to help keep Sprint 3000T operating at peak performance, M&R's Maintenance Minder™ System alerts operators when scheduled maintenance is due.

Available in liquid propane (LP) or Natural Gas (NG) versions, Sprint 3000T dryers utilize an exceptionally efficient high-performance burner 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 two separate blowers for circulation plus an exhaust blower, each designed for maximum efficiency on a wide range of inks and substrates. The 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. Sprint 3000T's heavy-duty thermal insulation with CoolSkin™ technology prevents heat from migrating from the conveyor dryer chamber into the workplace and leaves the dryer skin cool to the touch. Fast cure rates and high product throughput—especially on water-based and other evaporative inks—maximize dryer capacity and minimize per-unit cost. Sprint 3000T is simply the most innovative gas conveyor dryer for screen printing available today.

www.mrprint.com
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SPRINT® 3000T

STANDARD FEATURES

AIR HANDLING

- Enhanced airflow accelerates drying/curing
- High-volume circulation blowers reduce energy costs
- Stainless steel filters slide out for easy cleaning
- Four separate dedicated blowers: one combustion, two circulation, and one 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 (ALL MODELS)

- Automatic shutdown sequence keeps the blower and belt running until the conveyor dryer chamber has cooled
- Color touchscreen interface with Retention-Time™ belt speed control eliminates the need to convert feet per minute into the time substrates will spend in the heat chamber
- Graphic displays track dryer temperature and gas consumption in real time
- Job Recall™ allows users 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
- Touchscreen provides easy, direct access to alarm lists, service data, and all screen printing conveyor dryer functions
- Tower light indicates when temperatures are within user-set tolerances

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 reliable, heavy-duty, variable-speed brushless AC motors
- 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
- The red silicone guide 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
- Exhaust Drawer/Creosote Catcher

ENERGY EFFICIENCY

- Burner is 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
- Heavy-duty thermal insulation prevents heat from migrating from the conveyor dryer into the workplace
- Pressurized vector air knife sets on each level ensure extremely consistent and effective heating of substrates as they pass through the heat chamber
- Process temperature and set temperature are displayed and controlled digitally
- Sprint 3000T is the most energy-efficient gas screen printing conveyor dryer in its class

HEAT CHAMBER

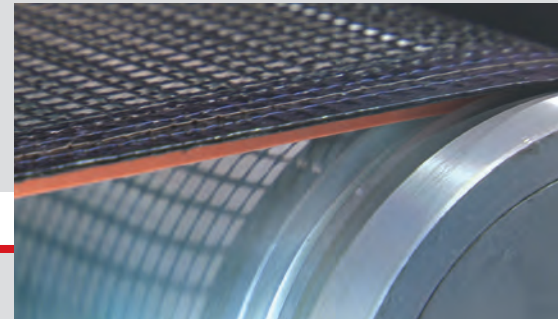
- Burners are available for liquid propane (LP) or natural gas (NG)
- Double-wall construction
- Galvanized steel interior
- Modular gas train simplifies maintenance

PRODUCTIVITY

- Sprint 3000T 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
- Two-year limited warranty



PATRIOT BELT™ CONVEYOR SYSTEM

OPTIONS

CONVEYOR SYSTEM

- Conveyor dryer extension sections are available

SPECIFICATIONS

	Sprint 3000T-72
Belt Width	183 cm (72")
Burner Input Maximum ¹	390 000 Btu
Burner Width	298 cm (117.5")
Electrical Requirements ¹	208/230 V, 3 ph, 39/38 A, 50/60 Hz, 9.3 kW 380/415 V, 3 ph, 22/21 A, 50 Hz, 9.3 kW
Exhaust Blower Size	30 cm (12")
Exhaust System Capacity @ 6 mm (1/4") Static Pressure ²	62298 l/min (2200 cfm)
Gas Input Size	2.54 cm (1")
Heat Chamber Length	366 cm (12')
Heat Chamber Width	241 cm (95")
LP/Natural Gas Input Pressure	.93 mm Hg (5" w.c.)
Overall Length	853 cm (28')
Shipping Weight	3855 kg (8500 lb)
Standard Infeed/Outfeed Length	274 cm (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 Measured at the Exhaust Discharge Port

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



INTEGRATED ROLL-DOWN OUTFEED HOOD



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