

SWITCHBACK™ / VITRAN™ II



UV Curing Systems

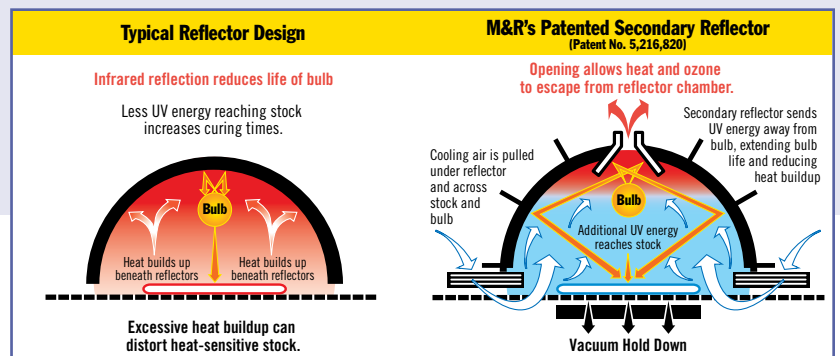


FEATURES

- The finest UV cure system available
- Belt widths from 61 cm to 213 cm (24" to 84")
- Patented dual-reflector technology

Switchback and Vitran II are the finest UV cure systems available. M&R's patented dual-reflector technology delivers faster curing, lower energy costs, and cooler operation. Each system uses a secondary reflector—positioned at the top of the primary reflector—to capture the energy that normally bounces down onto the lamp. The secondary reflector redirects this UV energy onto the substrate, speeding the curing process while saving energy and prolonging lamp life. Open-top reflector chambers allow heat and ozone to escape. Powerful turbines hold down even lightweight substrates while drawing cool air under the reflector and across the belt and lamps. Adjustable UV lamps can be focused to cure heat-sensitive substrates (like vinyl) or unfocused for heavier substrates (like glass or metal).

M&R's SystemSaver™ automatic shutdown sequence keeps the blower and belt running until the chamber has cooled. Switchback and Vitran II also feature a digital elapsed time meter to monitor lamp life, digital belt speed readout, digital amp meter, hinged housings for easy access to lamps, and a moveable control cabinet for easy maintenance. Both cure systems are driven by a reliable, heavy-duty, variable-speed DC electric motor, with large anodized aluminum rollers, crowned for positive belt tracking.



Vitran II is available in eight standard belt widths, from 61 cm (24") to 213 cm (84"). Every model offers the choice of 118 watts/cm (300 watts/in) or 157 watts/cm (400 watts/in) maximum power settings—in single and double lamp versions. Vitran II-300 can be set at 49, 79, 98, or 118 watts/cm (125, 200, 250, or 300 watts/in). Vitran II-400 can be set at 63, 79, 118, and 157 watts/cm (160, 200, 300, and 400 watts/in). Switchback is infinitely adjustable from 63 to 157 watts/cm (160 to 400 watts/in), and accepts three types of UV lamps—Ferric/Iron Oxide, Gallium, and Mercury Vapor (standard)—allowing operators to select the optimal curing source and intensity for even the most difficult ink/substrate combinations. Switchback's optional dual-lamp system enables operators to keep a different lamp in each reflector. When successive jobs require a different UV source but only one lamp, operators can simply activate the appropriate lamp. The ability to easily select the right lamp and to fine-tune wattage enables the dual-lamp Switchback to provide the optimal cure at the fastest possible speeds.

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SWITCHBACK™ / VITRAN™ II

STANDARD FEATURES

Air Handling

- Powerful turbines help keep substrates cool while firmly holding down even lightweight stock
- Unique reflector-top opening design purges heated air and ozone

Certification

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

Control Center

- Automatic shutdown sequence keeps the blower and belt running until the chamber has cooled
- Digital amp meter
- Digital temperature display
- Mobile control cabinet for easy operator access

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 electric motor
- Large anodized aluminum rollers are crowned for positive belt tracking

Cure System

- Adjustable-focus UV lamps adapt to substrates of varying thickness
- Choice of single lamp or double lamp design
- Delivers optimal cure to heat-sensitive and heat-resistant stock
- Digital elapsed time meter monitors lamp life
- Dual UV lamps (individually controlled)
- Easy-access housing simplifies maintenance and lamp changing
- Switchback Cure System—infinately adjustable from 63 to 157 watts/cm (160 to 400 watts/in)—accepts three types of UV lamps: Mercury Vapor, Ferric/Iron Oxide, and Gallium, allowing operators to select the optimal curing source and intensity for even the most difficult ink/substrate combinations
- Vitran II Cure System—118 watts/cm (300 watts/in) cure system can be set at 49, 79, 98, or 118 watts/cm (125, 200, 250, or 300 watts/in) (Accepts Mercury Vapor Lamps only)
- Vitran II Cure System—157 watts/cm (400 watts/in) UV cure system with settings of 63, 79, 118, and 157 watts/cm (160, 200, 300, & 400 watts/in) (Accepts Mercury Vapor Lamps only)

Design & Construction

- Air-cooled cabinet ensures long life for electrical components
- Dual-Reflector System (U.S. Patent No. 5,216,820) speeds curing and saves energy
- Entry/exit openings and UV shields are adjustable
- Interlock system with audible alarm automatically shuts down lamp when reflector hood is lifted

Warranty, Service & Support

- 24-hour hotline is staffed 365 days a year
- Access to M&R's Training Center
- One-year limited warranty

OPTIONS

Lamp Types

- Ferric/Iron Oxide (Switchback)
- Gallium (Switchback)
- Mercury Vapor (Switchback & Vitran II)

SPECIFICATIONS

	Switchback 24-10 Vitran II 24-10	Switchback 24-15-2 Vitran II 24-15-2	Switchback 30-10 Vitran II 30-10	Switchback 30-15-2 Vitran II 30-15-2	Switchback 38-10 Vitran II 38-10	Switchback 38-15-2 Vitran II 38-15-2	Switchback 48-10 Vitran II 48-10	Switchback 48-15-2 Vitran II 48-15-2
Lamps	1	2	1	2	1	2	1	2
Shipping Weight³	907 kg (2000) 635 kg (1400 lb)	1542 kg (3400 lb) 998 kg (2200 lb)	955 kg (2105 lb) 680 kg (1500 lb)	1610 kg (3550 lb) 1066 kg (2350 lb)	998 kg (2200 lb) 726 kg (1600 lb)	1678 kg (3700 lb) 1134 kg (2500 lb)	1089 kg (2400) 816 kg (1800 lb)	1814 kg (4000 lb) 1270 kg (2800 lb)
Electrical Requirements @ 118 watts/cm (300 watts/in)^{1,2} <i>Vitran II only</i>	208/230 V, 1 ph, 51/48 A, 50/60 Hz, 11 kW 208/230 V, 3 ph, 49/45 A, 50/60 Hz, 10.5 kW 400 V, 3 ph, 30 A, 50 Hz, 10.5 kW 460 V, 3 ph, 23 A, 50/60 Hz, 10.5 kW	208/230 V, 1 ph, 102/96 A, 50/60 Hz, 22 kW 208/230 V, 3 ph, 98/90 A, 50/60 Hz, 21 kW 400 V, 3 ph, 60 A, 50 Hz, 21 kW 460 V, 3 ph, 46 A, 50/60 Hz, 21 kW	208/230 V, 1 ph, 60/56 A, 50/60 Hz, 13 kW 208/230 V, 3 ph, 57/53 A, 50/60 Hz, 12 kW 400 V, 3 ph, 35 A, 50 Hz, 12 kW 460 V, 3 ph, 27 A, 50/60 Hz, 12 kW	208/230 V, 1 ph, 120/112 A, 50/60 Hz, 26 kW 208/230 V, 3 ph, 114/106 A, 50/60 Hz, 24 kW 400 V, 3 ph, 70 A, 50 Hz, 24 kW 460 V, 3 ph, 54 A, 50/60 Hz, 24 kW	208/230 V, 1 ph, 74/69 A, 50/60 Hz, 16 kW 208/230 V, 3 ph, 71/65 A, 50/60 Hz, 15 kW 400 V, 3 ph, 43 A, 50 Hz, 15 kW 460 V, 3 ph, 34 A, 50/60 Hz, 15 kW	208/230 V, 1 ph, 148/138 A, 50/60 Hz, 32 kW 208/230 V, 3 ph, 142/130 A, 50/60 Hz, 30 kW 400 V, 3 ph, 86 A, 50 Hz, 30 kW 460 V, 3 ph, 68 A, 50/60 Hz, 30 kW	208/230 V, 1 ph, 96/88 A, 50/60 Hz, 20 kW 208/230 V, 3 ph, 89/81 A, 50/60 Hz, 19 kW 400 V, 3 ph, 54 A, 50 Hz, 19 kW 460 V, 3 ph, 43 A, 50/60 Hz, 19 kW	208/230 V, 1 ph, 192/176 A, 50/60 Hz, 40 kW 208/230 V, 3 ph, 178/162 A, 50/60 Hz, 38 kW 400 V, 3 ph, 108 A, 50 Hz, 38 kW 460 V, 3 ph, 86 A, 50/60 Hz, 38 kW
Electrical Requirements @ 157 watts/cm (400 watts/in)¹ <i>Switchback & Vitran II</i>	208/230 V, 1 ph, 65/61 A, 50/60 Hz, 14 kW 208/230 V, 3 ph, 61/58 A, 50/60 Hz, 13 kW 400 V, 3 ph, 36 A, 50 Hz, 13 kW 460 V, 3 ph, 28 A, 50/60 Hz, 13 kW	208/230 V, 1 ph, 130/122 A, 50/60 Hz, 28 kW 208/230 V, 3 ph, 122/116 A, 50/60 Hz, 26 kW 400 V, 3 ph, 72 A, 50 Hz, 26 kW 460 V, 3 ph, 56 A, 50/60 Hz, 26 kW	208/230 V, 1 ph, 76/70 A, 50/60 Hz, 16 kW 208/230 V, 3 ph, 73/67 A, 50/60 Hz, 15 kW 400 V, 3 ph, 43 A, 50 Hz, 15 kW 460 V, 3 ph, 35 A, 50/60 Hz, 15 kW	208/230 V, 1 ph, 152/140 A, 50/60 Hz, 32 kW 208/230 V, 3 ph, 146/134 A, 50/60 Hz, 30 kW 400 V, 3 ph, 86 A, 50 Hz, 30 kW 460 V, 3 ph, 69 A, 50/60 Hz, 30 kW	208/230 V, 1 ph, 95/87 A, 50/60 Hz, 20 kW 208/230 V, 3 ph, 91/83 A, 50/60 Hz, 19 kW 400 V, 3 ph, 52 A, 50 Hz, 19 kW 460 V, 3 ph, 41 A, 50/60 Hz, 19 kW	208/230 V, 1 ph, 190/174 A, 50/60 Hz, 40 kW 208/230 V, 3 ph, 182/166 A, 50/60 Hz, 38 kW 400 V, 3 ph, 104 A, 50 Hz, 38 kW 460 V, 3 ph, 82 A, 50/60 Hz, 38 kW	208/230 V, 1 ph, 122/112 A, 50/60 Hz, 25.5 kW 208/230 V, 3 ph, 114/104 A, 50/60 Hz, 24 kW 400 V, 3 ph, 66 A, 50 Hz, 24 kW 460 V, 3 ph, 52 A, 50/60 Hz, 24 kW	208/230 V, 1 ph, 244/224 A, 50/60 Hz, 51 kW 208/230 V, 3 ph, 228/208 A, 50/60 Hz, 48 kW 400 V, 3 ph, 132 A, 50 Hz, 48 kW 460 V, 3 ph, 104 A, 50/60 Hz, 48 kW
Lamp & Belt Width	61 cm (24")	61 cm (24")	76 cm (30")	76 cm (30")	97 cm (38")	97 cm (38")	122 cm (48")	122 cm (48")
Belt Length	305 cm (10')	457 cm (15')	305 cm (10')	457 cm (15')	305 cm (10')	457 cm (15')	305 cm (10')	457 cm (15')

	Switchback 54-10 Vitran II 54-10	Switchback 54-15-2 Vitran II 54-15-2	Switchback 60-15 Vitran II 60-15	Switchback 60-15-2 Vitran II 60-15-2	Switchback 72-15 Vitran II 72-15	Switchback 72-15-2 Vitran II 72-15-2	Switchback 84-15 Vitran II 84-15	Switchback 84-15-2 Vitran II 84-15-2
Lamps	1	2	1	2	1	2	1	2
Shipping Weight³	1225 kg (2700 lb) 953 kg (2100 lb)	1951 kg (4300 lb) 1406 kg (3100 lb)	1315 kg (2900 lb) 1043 kg (2300 lb)	2041 kg (4500 lb) 1497 kg (3300 lb)	1542 kg (3400 lb) 1270 kg (2800 lb)	2359 kg (5200 lb) 1814 kg (4000 lb)	1906 kg (4201 lb) 1482 kg (3267 lb)	2672 kg (5891 lb) 2117 kg (4667 lb)
Electrical Requirements @ 118 watts/cm (300 watts/in)^{1,2} <i>Vitran II only</i>	208/230 V, 1 ph, 106/97 A, 50/60 Hz, 22 kW 208/230 V, 3 ph, 98/90 A, 50/60 Hz, 20.5 kW 400 V, 3 ph, 59 A, 50 Hz, 20.5 kW 460 V, 3 ph, 48 A, 50/60 Hz, 20.5 kW	208/230 V, 1 ph, 212/194 A, 50/60 Hz, 44 kW 208/230 V, 3 ph, 196/180 A, 50/60 Hz, 41 kW 400 V, 3 ph, 118 A, 50 Hz, 41 kW 460 V, 3 ph, 96 A, 50/60 Hz, 41 kW	208/230 V, 1 ph, 116/106 A, 50/60 Hz, 24 kW 208/230 V, 3 ph, 108/98 A, 50/60 Hz, 22.5 kW 400 V, 3 ph, 65 A, 50 Hz, 22.5 kW 460 V, 3 ph, 52 A, 50/60 Hz, 22.5 kW	208/230 V, 1 ph, 232/212 A, 50/60 Hz, 48 kW 208/230 V, 3 ph, 216/196 A, 50/60 Hz, 45 kW 400 V, 3 ph, 130 A, 50 Hz, 45 kW 460 V, 3 ph, 104 A, 50/60 Hz, 45 kW	208/230 V, 1 ph, 134/124 A, 50/60 Hz, 28 kW 208/230 V, 3 ph, 130/118 A, 50/60 Hz, 27 kW 400 V, 3 ph, 73 A, 50 Hz, 27 kW 460 V, 3 ph, 60 A, 50/60 Hz, 27 kW	208/230 V, 1 ph, 268/248 A, 50/60 Hz, 56 kW 208/230 V, 3 ph, 260/236 A, 50/60 Hz, 54 kW 400 V, 3 ph, 146 A, 50 Hz, 54 kW 460 V, 3 ph, 120 A, 50/60 Hz, 54 kW	Not Applicable Not Applicable 400 V, 3 ph, 85 A, 50 Hz, 32 kW 460 V, 3 ph, 67 A, 50/60 Hz, 32 kW	Not Applicable Not Applicable 400 V, 3 ph, 170 A, 50 Hz, 64 kW 460 V, 3 ph, 134 A, 50/60 Hz, 64 kW
Electrical Requirements @ 157 watts/cm (400 watts/in)¹ <i>Switchback & Vitran II</i>	208/230 V, 1 ph, 134/124 A, 50/60 Hz, 28 kW 208/230 V, 3 ph, 126/116 A, 50/60 Hz, 27 kW 400 V, 3 ph, 73 A, 50 Hz, 27 kW 460 V, 3 ph, 57 A, 50/60 Hz, 27 kW	208/230 V, 1 ph, 268/248 A, 50/60 Hz, 56 kW 208/230 V, 3 ph, 252/232 A, 50/60 Hz, 54 kW 400 V, 3 ph, 146 A, 50 Hz, 54 kW 460 V, 3 ph, 114 A, 50/60 Hz, 54 kW	208/230 V, 1 ph, 147/135 A, 50/60 Hz, 31 kW 208/230 V, 3 ph, 139/127 A, 50/60 Hz, 29.5 kW 400 V, 3 ph, 80 A, 50 Hz, 29.5 kW 460 V, 3 ph, 63 A, 50/60 Hz, 29.5 kW	208/230 V, 1 ph, 294/270 A, 50/60 Hz, 62 kW 208/230 V, 3 ph, 278/254 A, 50/60 Hz, 59 kW 400 V, 3 ph, 160 A, 50 Hz, 59 kW 460 V, 3 ph, 126 A, 50/60 Hz, 59 kW	208/230 V, 1 ph, 172/158 A, 50/60 Hz, 36 kW 208/230 V, 3 ph, 164/150 A, 50/60 Hz, 34.5 kW 400 V, 3 ph, 94 A, 50 Hz, 34.5 kW 460 V, 3 ph, 74 A, 50/60 Hz, 34.5 kW	208/230 V, 1 ph, 344/316 A, 50/60 Hz, 72 kW 208/230 V, 3 ph, 328/300 A, 50/60 Hz, 69 kW 400 V, 3 ph, 188 A, 50 Hz, 69 kW 460 V, 3 ph, 148 A, 50/60 Hz, 69 kW	Not Applicable Not Applicable 400 V, 3 ph, 107 A, 50 Hz, 40 kW 460 V, 3 ph, 87 A, 50/60 Hz, 40 kW	Not Applicable Not Applicable 400 V, 3 ph, 214 A, 50 Hz, 80 kW 460 V, 3 ph, 174 A, 50/60 Hz, 80 kW
Lamp & Belt Width	137 cm (54")	137 cm (54")	152 cm (60")	152 cm (60")	183 cm (72")	183 cm (72")	213 cm (84")	213 cm (84")
Belt Length	305 cm (10')	457 cm (15')	457 cm (15')	457 cm (15')	457 cm (15')	457 cm (15')	457 cm (15')	457 cm (15')

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.

² 118 watts/cm (300 watts/in) models only available on Vitran II

³ Switchback weights are listed first



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