

What makes the world's best cutting technology?

Multi Ply Automated Cutting Machines



FASHION & APPAREL



TRANSPORTATION
INTERIORS



FURNITURE



LEATHER



COMPOSITES &
TECHNICAL TEXTILES



Pathfinder



M - SERIES

Multi-Ply Cutting Machines



Pathfinder
Cutting Technology

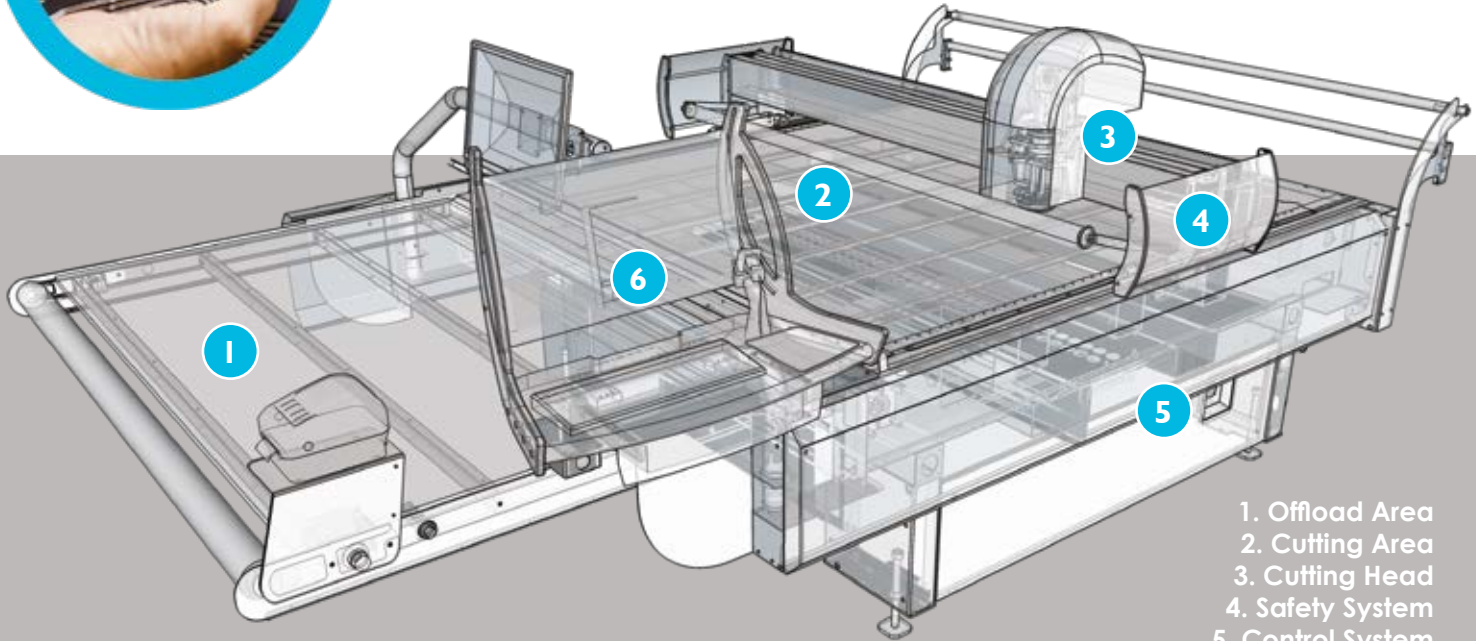
M-Series

MULTI PLY AUTOMATED CUTTING MACHINES



Engineered to Maximize Productivity

The Pathfinder M-Series® range of automated cutting machines are known for precision, very high productivity and reliability and lowest power consumption. All 16 models are easily configured to suit most cutting applications and, thanks to clever design, Pathfinder cutters require very little maintenance to continually deliver exceptional cut quality over a long working life.



1. Offload Area
2. Cutting Area
3. Cutting Head
4. Safety System
5. Control System
6. User Control

Loaded with Standard Features

Highest productivity is achieved by technology that delivers the best of multiple disciplines: **Speed, Motion Control, Ergonomics and Application specific features.** The M-series cutting system features groundbreaking technologies to ensure your productivity is boosted and profits are maximized.

Standard features to maximize your profit:

- Windows® operating system
- PathCut® cutter operating software
- Touch Screen user interface
- Utility drawer
- Digital Vacuum control
- Vacuum Re-sealing blind
- Dynamic vacuum monitoring & regulation
- Vacuum exhaust filter
- Vacuum Economiser® power saving function
- QuickDraw® automatic diamond sharpening system
- Automatic bristle cleaning
- Import standard industry files - DXF, HPGL, ISO RS274d, NTV, ESS1
- Common line deletion - dynamic 'on the fly' calculation
- Notch identification and transformation
- Drill hole identification and transformation
- Cut line proximity awareness
- Automatic cutting window calculation - 'Whole piece cutting' where possible.
- Zoom & Scroll graphic finger gesture's
- Piece & cut order identification
- Self diagnostics
- End Cut - Operator programmable
- Cutting small pieces first - user definable
- Automatic knife & sharpening stone wear compensation
- Pre-set cutting parameters
- Multi-level user access - parameter protection
- MultiCut™ queuing of nested files
- QuickPath™ automatic cut piece ordering to reduce dry haul
- Integration - automatic cut job queuing, cutting list status & Completed marker list
- Automatic Selvedge waste cut at programmable intervals
- Self Adjusting software parameters optimising cut quality
- Marker manipulation features, notch selection, rotation, flip, drill omission, scaling etc
- Conveyor advance pause - automatic user definable
- Automatic conveyor load assist - distance & time user definable
- Automatic pause at piece selected
- Selection of pieces - do not cut
- PPR - Pathfinder Proportional Reciprocation
- Automatic lay width checking
- System history file - production cut file verification
- Power Fail Re-start sequence - integrating intuitive operator prompts
- Maintenance Manager - automatic reporting of maintenance requirements and schedule
- Head parking - user definable
- Units display in metric, imperial/yards and inches
- Flaw avoidance - automatic piece movement avoiding material flaws
- Recut - Selection of single piece or from piece number
- Multi-language supported

What makes the world's best cutting technology?

World leading innovation

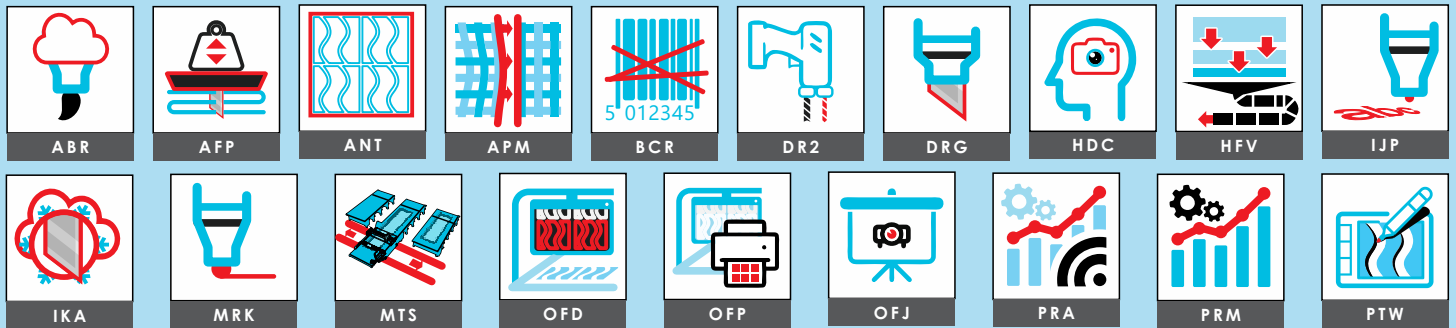
For more than 20 years Pathfinder have been developing breakthrough innovations in automated cutting.

Pathfinder first introduced:

- Integrated Synchronised Offload Display for piece sorting and picking
- Fully digital User Control
- Synchronised Offload Display Labelling System
- Integrated Piezo Inkjet System within the cutting head
- The QuickDraw® Sharpening System engineered with virtually no moving parts and no required adjustments.
- Pathfinder's unique Control System comprising only one (1) circuit board assembly means that there is less to go wrong and fewer places to look if it ever does.



Options for any application



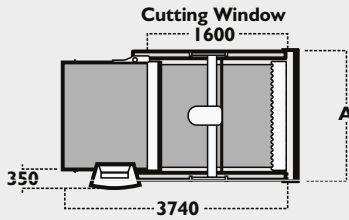
Pathfinder cutters have a reputation as being amongst the best, and that is because of the technical advances that we constantly strive for. Every Pathfinder cutting machine can be enhanced with a range of options to give you unparalleled flexibility in production and maximum return on investment.

- **ABR (Airbrush)** - non contact paint marking for difficult materials such as fibreglass
- **AFP (Automatic Foot Pressure)** - for special applications requiring multiple foot pressures
- **ANT (Automatic Nesting)**- automatic pattern nesting. (Available only with PTW)
- **APM (Adaptive Pattern Matching)** - Bow & Skew adjustments for stripes, motifs and pre-printed textiles
- **BCR (Barcode Reader)** - automatic opening of production using barcodes
- **DR2 (Secondary Drilling Unit)** - for drilling multiple hole sizes simultaneously
- **DRG (Drag Knife)** - ultra fine cutting tool for specialty materials
- **HDC (Head Camera)** - camera dynamically interacts with PathCut for Matching and other functions
- **HFV (High Flow Vacuum)** - used for specific applications where lofty materials used
- **IJP (Ink-Jet)** - mounted inside the cutting head used for printing part identification
- **IKA (IceKnife-Air)** - controlled delivery of air onto knife to cool and reduce fusing between parts
- **LSC (LS Convert)**- automatic conversion of native PLA & PLX file format
- **MRK (Marking)** - tool holder accepting a variety of standard marking pens-seam lines/text etc.
- **MTS (Machine Transfer System)** - allows machine to move laterally to service multiple tables
- **OFD (Offload Display)** - synchronised display of delivered cut parts
- **OFF (Offload Printer)** - adhesive label (50mm x 35mm) synchronised with OFD and delivered cut parts
- **OFJ (Offload Projector)** - synchronised projected display of delivered cut parts directly onto the material
- **PRA (Production Analyst)** - remote access to production manager data - standalone software
- **PRM (Production Manager)** - integrated production reporting
- **PTW (PathWorks®)** integrated within PathCut® enabling pattern creation and nesting
- **TR480** - Integrated Transformer 30KVA, 60 Hz, Autotransformer, Three phase. 480V(input) to 380V(output).



M-Series

Technical Specifications*



Model Name refers to cutting height in cm

		M3				M5			
Characteristics		M3-180	M3-220	M3-300	M3-390	M5-180	M5-220	M5-300	M5-390
Max. cut Width	(mm/in)	1800 / 71	2260 / 89	3000 / 118	3900 / 153	1800 / 71	2260 / 89	3000 / 118	3900 / 153
Cutting Height - max (Compressed)	(mm/in)	30 / 1.2	30 / 1.2	30 / 1.2	30 / 1.2	50 / 2	50 / 2	50 / 2	50 / 2
Spread Height - max	(mm/in)	100 / 3.9	100 / 3.9	100 / 3.9	100 / 3.9	120 / 4.7	120 / 4.7	120 / 4.7	120 / 4.7
Speed - max (per minute)	(m/ft)	54 / 177	54 / 177	54 / 177	54 / 177	54 / 177	54 / 177	54 / 177	54 / 177
Acceleration (max) - p/s ²	(m/in)	6 / 236	6 / 236	6 / 236	6 / 236	6 / 236	6 / 236	6 / 236	6 / 236
Width 'A'	(mm/in)	2350 / 92.5	2800 / 110	3540 / 139	4440 / 175	2350 / 92.5	2800 / 110	3540 / 139	4440 / 175
Working Height	(mm/in)	850-925 / 33-36	850-925 / 33-36	850-925 / 33-36	850-925 / 33-36	850-925 / 33-36	850-925 / 33-36	850-925 / 33-36	850-925 / 33-36
Weight	(Kg/Lb)	1500 / 3300	1700 / 3700	2300 / 5070	2600 / 5700	1500 / 3300	1700 / 3700	2300 / 5070	2600 / 5700
Supply									
Electrical / (1x3PH, 50/60Hz, 380V-440V) NB: 22KW when HFV Optioned.	(KW/Hp)	15 / 20	15 / 20	15 / 20	22 / 30	15 / 20	15 / 20	15 / 20	22 / 30
Compressed Air (6CFM, 170lts/min)	(bar/psi)	6.9 / 100	6.9 / 100	6.9 / 100	6.9 / 100	6.9 / 100	6.9 / 100	6.9 / 100	6.9 / 100
Operating Environment									
Operating temperature - max	(°C/°F)	41 / 104	41 / 104	41 / 104	41 / 104	41 / 104	41 / 104	41 / 104	41 / 104
Humidity - max (non-condensing)	%	80	80	80	80	80	80	80	80
Noise	dBa	78	78	78	78	78	78	78	78
		M7				M10			
Characteristics		M7-180	M7-220	M7-300	M7-390	M10-180	M10-220	M10-300	M10-390
Max. cut Width	(mm/in)	1800 / 71	2260 / 89	3000 / 118	3900 / 153	1800 / 71	2260 / 89	3000 / 118	3900 / 153
Cutting Height - max (Compressed)	(mm/in)	70 / 2.8	70 / 2.8	70 / 2.8	70 / 2.8	100 / 3.9	100 / 3.9	100 / 3.9	100 / 3.9
Spread Height - max	(mm/in)	140 / 5.5	140 / 5.5	140 / 5.5	140 / 5.5	170 / 6.7	170 / 6.7	170 / 6.7	170 / 6.7
Speed - max (per minute)	(m/ft)	54 / 177	54 / 177	54 / 177	54 / 177	54 / 177	54 / 177	54 / 177	54 / 177
Acceleration (max) - p/s ²	(m/in)	6 / 236	6 / 236	6 / 236	6 / 236	6 / 236	6 / 236	6 / 236	6 / 236
Width 'A'	(mm/in)	2350 / 92.5	2800 / 110	3540 / 139	4440 / 175	2350 / 92.5	2800 / 110	3540 / 139	4440 / 175
Working Height	(mm/in)	850-925 / 33-36	850-925 / 33-36	850-925 / 33-36	850-925 / 33-36	850-925 / 33-36	850-925 / 33-36	850-925 / 33-36	850-925 / 33-36
Weight	(Kg/Lb)	1500 / 3300	1700 / 3700	2300 / 5070	2600 / 5700	1500 / 3300	1700 / 3700	2300 / 5070	2600 / 5700
Supply									
Electrical / (1x3PH, 50/60Hz, 380V-440V) NB: 22KW when HFV Optioned.	(KW/Hp)	15 / 20	15 / 20	15 / 20	22 / 30	15 / 20	15 / 20	15 / 20	22 / 30
Compressed Air (6CFM, 170lts/min)	(bar/psi)	6.9 / 100	6.9 / 100	6.9 / 100	6.9 / 100	6.9 / 100	6.9 / 100	6.9 / 100	6.9 / 100
Operating Environment									
Operating temperature - max	(°C/°F)	41 / 104	41 / 104	41 / 104	41 / 104	41 / 104	41 / 104	41 / 104	41 / 104
Humidity - max (non-condensing)	%	80	80	80	80	80	80	80	80
Noise	dBa	78	78	78	78	78	78	78	78

Manufactured by

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*Specifications are subject to change