

the programmable economy model for industrial use with 5.5" monochrome display.

## Customer benefits

- Extended operating life of the knife as well as faster knife change thanks to POLAR OptiKnife with knife fine adjustment in the lower dead end
- Greatest cutting accuracy due to the POLAR-Positioning-System DPS with a mechanical positioning accuracy of 1/100 mm
- Highly reliable in daily use and long lifespan as a result of the stability of the one-piece machine frame, knife drive with worm gear drive and compact closed hydraulic system



## Description of the 78 ECO

The High-Speed Cutter POLAR 78 ECO is mainly used in the half-size range. Formats up to a diagonal of 780 mm can be easily handled and turned in the high-speed cutter. Cutting material with larger formats can only be turned on the front table.

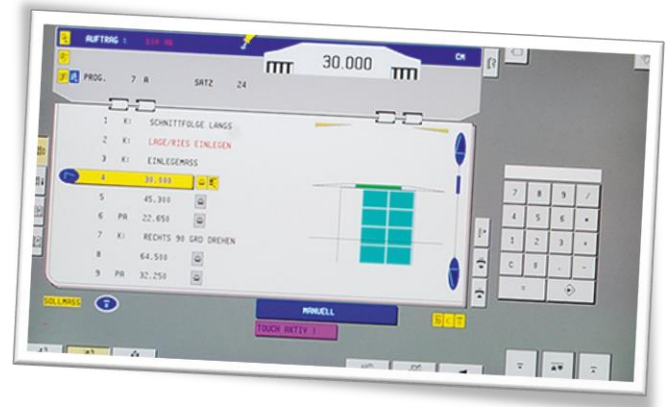
The high-speed cutter can be upgraded with peripheral equipment (lift, jogger) to a cutting system.

## Technical data

Cutting width	780 mm   30.71 in
Feeding depth	780 mm   30.71 in
Loading height max.	120 mm   4.72 in
Safety clamp pressure	30 daN   66 lbs
Clamp pressure, min	150 daN   331 lbs
Clamp pressure, max	3.000 daN   6,614 lbs
Backgauge speed on return way (0 - ...)	300 mm/sec   11.81 in/sec
Knife speed	45 cycles/min
Smallest cut, automatically, without false plate	20 mm   0.79 in
Smallest cut, automatically, with false plate	70 mm   2.76 in

Further technical data are available for download on our website.

the programmable all-round model with a capacitive 18.5" Touch-Screen display for all standard cutting work with graphical programming automation for an extensive automated workflow.



## Customer benefits

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- High productivity by a great number of programmable additional functions
- Shortest make ready times thanks to intuitive cutting program generation via block programming or even Compucut
- Greatest cutting accuracy due to the POLAR-Positioning-System DPS with a mechanical positioning accuracy of 1/100 mm
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## Description High-Speed Cutter N 78

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The High-Speed Cutter has extensive features in the standard equipment already which can increase the productivity up to 20%.

The high-speed cutter can be upgraded with peripheral equipment (lift, jogger) to a cutting system.

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the programmable high performance model with a capacitive 21.5" Touch-Screen display and real image preview for high-end applications thanks to job specific programmable parameter, label and distortion correction as well as an extended range of options.



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## High-Speed Cutter Options










Productivity	Quality	Ergonomics	Option	Customer benefit	available for			Retrofitable
					N PLUS	N PRO HD	N AT HD	
x			Autotrim	Up to 40% greater productivity by automatic waste removal	—	○ 115 - 176	● 115 - 176	—
x		x	Autoturn PACE	Up to 20% greater productivity by automatic turning of the ream on the rear table	—	○ 137 - 176	○ 137 - 176	—
x			Optimized Cutting Cycle	Up to 10% greater productivity when cutting equal sizes in a sequence	—	○ 115 - 176	○ 115 - 176	—
		x	Progressive central lubrication	machine can be greased easily via one greasing point on front side	○ 115 - 155 ● 176	○ 115 - 155 ● 176	○ 115 - 155 ● 176	—
x		x	Process visualisation	Reduced risk of mistakes by means of graphical operator guidance	○ 78 - 176	● 78 - 176	● 115 - 176	✓
x			Carbide tipped knives instead of HSS quality	Up to 10 times longer knife life by means of harder knife quality	○ 78 - 176	○ 78 - 176	○ 115 - 176	✓
	x		Adjustable knife speed 100-50%	The knife speed is easily adjusted to different materials, for example plastic panels	○ 92 - 137	○ 92 - 137	○ 115 - 137	—
x	x	x	 Downholder in front of knife	Prevents mixing and shingling of multiple ups when cutting	—	○ 92 - 176	○ 115 - 176	—
x	x		Programmable pressure regulation	Accurate clamp pressure can be programmed to each single cut position ► longer knife life	○ 92 - 137 ● 155 - 176	○ 92 - 137 ● 155 - 176	○ 115 - 137 ● 155 - 176	—
x	x	x	 Automatic pressure regulation	Sensors in machine table ensure ideal clamp pressure ► higher cutting accuracy, longer knife life	—	○ 115 - 176	○ 115 - 176	—
	x		False plate 40 mm (cutting width 50 mm)	Small formats (e.g. business cards) can be cut without loss of quality	○ 78 - 137	○ 78 - 137	○ 115 - 137	✓
	x		False plate 60 mm (cutting width 70 mm)	Small formats can be cut without loss of quality	○ 155 - 176	○ 155 - 176	○ 155 - 176	✓
x	x		 OptiClamp	for optimisation the cutting of challenging cutting material, e.g. UV-coated material	—	○ 115 - 137 ● 155 - 176	○ 115 - 137 ● 155 - 176	—
x	x		 TwinClamp	For cutting of material with height differences, e.g. banknotes ► Up to 100% greater productivity	—	○ 115 - 137	○ 115 - 137	—

 USP - exclusively by POLAR

○ optional | ● standard | — not available



# High-Speed Cutter Options

Productivity	Quality	Ergonomics	Option	Customer benefit	available for			Retrofitable
					N PLUS	N PRO HD	N AT HD	
	x		Swivel backgauge	Simple correction for squareness by motor driven backgauge adjustment	—	○ 92 - 176	○ 115 - 176	—
	x		Tilting backgauge	Simple correction of over- and undercut by motor driven backgauge adjustment	—	○ 115 - 176	○ 115 - 176	—
	x	x	 Downholder at backgauge	Holds down curly sheets for better aligning at backgauge	—	○ 115 - 176	○ 115 - 176	—
x		x	 AntiStickKnife	Knife with special coating prevents buildup of glue ▶ Up to 30% greater productivity	○ 78 - 176	○ 78 - 176	○ 115 - 176	✓
x		x	 AirKnife	Prevents static loaded material or plastic sheets from sticking to the knife	—	—	○ 115 - 155	—
x		x	 Separate air control for front table	Eases the unloading of cut material while material on the rear table is fixed	○ 115 - 137 ● 155 - 176	○ 115 - 137 ● 155 - 176	● 115 - 176	✓
		x	 ErgoFrontTable	Machine front table is extended by 500 mm by two tiltable air tables ▶ Eases loading / unloading	○ 155 - 176	○ 155 - 176	○ 155 - 176	✓
		x	Firmly mounted lift	Lift directly mounted to the frame ▶ space saving alternative compared to free-standing lift	—	○ 115 - 155	○ 115 - 155	✓
x		x	Rear table guard movable	Enables easy access to the knife from rear, e.g. for cleaning when cutting post-it's	○ 78 - 137 ● 155 - 176	○ 78 - 137 ● 155 - 176	○ 115 - 137 ● 155 - 176	✓
x		x	Compucut®	Transfer of prepress-data for external cutting program generation ▶ reduces make-ready times down to zero	○ 78 - 176	○ 78 - 176	○ 115 - 176	✓
x		x	 Barcode	Enables automatic loading of the appropriate cutting program	○ 78 - 176	○ 78 - 176	○ 115 - 176	✓
x		x	 CutManager	Workflow integration with interface to prepress and HD Postpress-Manager for job data and production data	—	○ 78 - 176	○ 115 - 176	✓
	x	x	 Guillo-Crease	Unique creasing system that transforms your cutter quickly and easily into a creasing machine	○ 78 - 176	○ 78 - 176	○ 115 - 176	✓
x		x	 knock up block "WiMotion"	Eases the work on the cutter because the operator can activate certain functions directly via WiMotion.	○ 78 - 176	○ 78 - 176	○ 115 - 176	✓

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Machine functions	EM/EMC1+2	EMC Mon	E/ED	X/XT	N PRO HD
Real image preview					
Job oriented cutting program management					
Animated icons for easy explanation of functions					
extended block program even for combination sheets					
USB-port					
Stand-By Function to save energy					
Long lasting LED illuminants					
P-Net capable					
Barcode reader					
OptiKnife - Knife fine adjustment from front					
Touch Screen for ergonomic operation					
Branch table					
Options PDR, AT, Downholder in front of knife					
Knife cycle speed	37 cycles/min	37 cycles/min	45 cycles/min	45 cycles/min	45 cycles/min
Light barrier	6-channels	6-channels	20-channels	20-channels	20-channels
Spindlenut with recirculating ball bearings					
Catch device for clamp					
Nickel refinded table standard					
Remote prepared					
Clear text informations		partly			
Two channel hydraulic					
Backgauge pos. / no reference move					
Knife change with automatic lower dead point					
Knife lift					
Label and distortion correction					
Lay correction					
Backgauge speed	15,6 cm/sec	15,6 cm/sec	30 cm/sec	30-60 cm/sec	30-60 cm/sec
Display	segment	monitor	10,4" TFT	15" TFT	21,5" TFT
Memory	99	198	198	1998	~

not available

available

