



High-Speed Cutter POLAR N 115 PLUS

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

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
- 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
- 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 machine

The High-Speed Cutter POLAR N 115 PLUS is mainly used in the print format class 70 × 100 cm | 40" in. Formats up to a diagonal of 1,150 mm | 45.28 in. 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 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, buffer, transport grippers, loading and unloading system) to a cutting system.

Technical data

| | |
|--|---------------------------|
| Cutting width | 1,150 mm 45.28 in |
| Feeding depth | 1,150 mm 45.28 in |
| Loading height max. | 165 mm 6.50 in |
| Safety clamp pressure | 30 daN 66 lbs |
| Clamp pressure, min | 150 daN 331 lbs |
| Clamp pressure, max | 4,500 daN 9,921 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 | 25 mm 0.98 in |
| Smallest cut, automatically, with false plate | 95 mm 3.74 in |

Further technical data are available for download on our website.



High-Speed Cutter POLAR N 115 PRO

the programmable high performance model with 18.5" color display and Touch-Screen operation for high-end applications thanks to job specific programmable parameter, label and distortion correction as well as a extended range of options.

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
- 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
- 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 machine

The High-Speed Cutter POLAR N 115 PRO is mainly used in the print format class 70 × 100 cm | 40" in. Formats up to a diagonal of 1,150 mm | 45.28 in. 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 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, buffer, transport grippers, loading and unloading system) to a cutting system.

Technical data

| | |
|--|---------------------------|
| Cutting width | 1,150 mm 45.28 in |
| Feeding depth | 1,150 mm 45.28 in |
| Loading height max. | 165 mm 6.50 in |
| Safety clamp pressure | 30 daN 66 lbs |
| Clamp pressure, min | 150 daN 331 lbs |
| Clamp pressure, max | 4,500 daN 9,921 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 | 25 mm 0.98 in |
| Smallest cut, automatically, with false plate | 95 mm 3.74 in |

Further technical data are available for download on our website.



High-Speed Cutter POLAR N 115 AT

the programmable high performance model with automatic trim removal and Touch-Screen operation for high-end applications thanks to job specific programmable parameter, label and distortion correction as well as a extended range of options.

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
- The automatic trim removal can increase your productivity up to 30%
- 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
- 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 machine

The High-Speed Cutter POLAR N 115 AT is mainly used in the print format class 70 × 100 cm | 40" in. Formats up to a diagonal of 1,150 mm | 45.28 in. 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, buffer, transport grippers, loading and unloading system) to a cutting system or with a turning gripper to a PACE-system.





Technical data

| | |
|--|---------------------------|
| Cutting width | 1,150 mm 45.28 in |
| Feeding depth | 1,150 mm 45.28 in |
| Loading height max. | 165 mm 6.50 in |
| Safety clamp pressure | 30 daN 66 lbs |
| Clamp pressure, min | 150 daN 331 lbs |
| Clamp pressure, max | 4,500 daN 9,921 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 | 25 mm 0.98 in |
| smallest cut, automatically, with false plate | 95 mm 3.74 in |

Further technical data are available for download on our website.



High-Speed Cutter Options

| Productivity | Quality | Ergonomics | Option | Customer benefit | available for | | | Retrofitable |
|--------------|---------|------------|---|--|---------------------------|----------------------------|----------------------------|--------------|
| | | | | | N PLUS | N PRO | N AT | |
| x | | | Autotrim | Up to 40% greater productivity by automatic waste removal | — | ○ 115 - 176 | ● 115 - 176 | — |
| x | | x | Autoturn | 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 | | x |  AntiStickKnife | Knife with special coating prevents buildup of glue ▶ Up to 30% greater productivity | ○ 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 | — |

 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 | N AT | |
| x | x | | TwinClamp | For cutting of material with height differences, e.g. banknotes ▶ Up to 100% greater productivity | — | ○ 115 - 137 | ○ 115 - 137 | — |
| | x | | Swivel backgauge | Simple correction for squareness by motor driven backgauge adjustment | — | ○ 115 - 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 | Retractable small format guide* | Prevents small ups from jamming in between front and rear side gauge on right side | — | — | ○ 115 - 155 | — |
| x | | x | AirKnife | Prevents static loaded material or plastic sheets from sticking to the knife | — | — | ○ 115 - 155 | — |
| x | | x | Super air table | Increased air cushion for easier handling of heavy material | ○ 155 ● 176 | ○ 155 ● 176 | ○ 155 ● 176 | — |
| 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 | CutManager | Workflow integration with interface to prepress and HD Postpress-Manager for job data and production data | — | ○ 78 - 176 | ○ 115 - 176 | ✓ |
| x | | x | Barcode | Enables automatic loading of the appropriate cutting program | ○ 78 - 176 | ○ 78 - 176 | ○ 115 - 176 | ✓ |

USP - exclusively by POLAR

○ optional | ● standard | — not available

* only in connection with programmable or automatic pressure regulation