



## High Speed Cutter 78 S·E



For format A2 ...



- ▲ POLAR 78 E
- ◀ POLAR 78 S

Optional: EC safe

## Technical Data **POLAR 78**

Cutting width		78 cm/30 <sup>11</sup> / <sub>16</sub> "
Clamp opening		12 cm/4 <sup>3</sup> / <sub>4</sub> "
Feeding depth		78 cm/30 <sup>11</sup> / <sub>16</sub> "
Power required		2,4 KW/3,3 H.P.
Net weight		1300 kg/2963 lbs
Machine width		155 cm/61"
Depth		191,5 cm/75 <sup>3</sup> / <sub>8</sub> "
Height		145 cm/57 <sup>1</sup> / <sub>16</sub> "
Front table length		65 cm/25 <sup>1</sup> / <sub>16</sub> "
Table height		90 cm/35 <sup>1</sup> / <sub>2</sub> "
Clamp pressure	min.	150 daN/330 lbs
	max.	3000 daN/6600 lbs

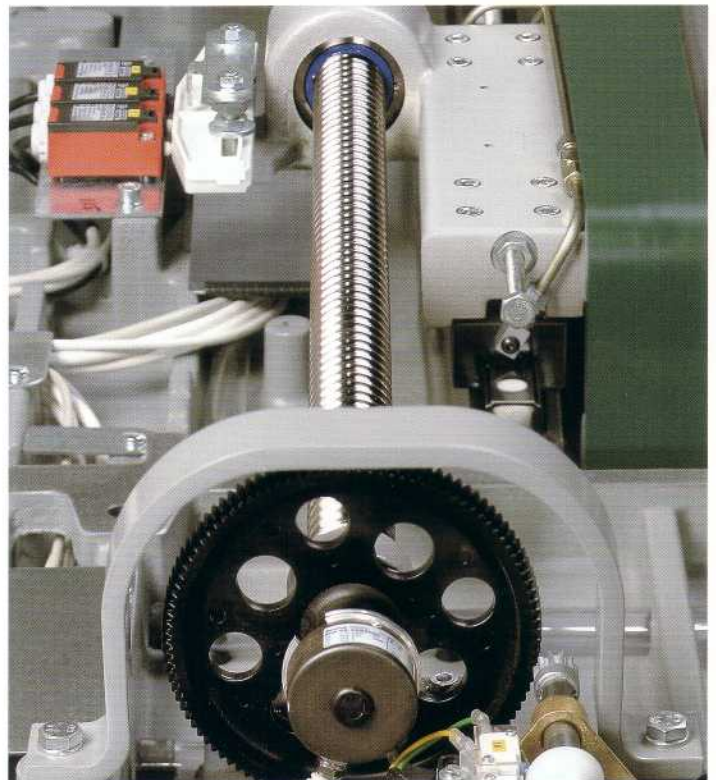
Additional data and standard/optional equipment: please refer to separate data sheet

For format A2 ...

# ... POLAR 78: The prod

POLAR has developed the new high speed cutters to meet current and future demands, setting new standards in the process. POLAR has adapted its high speed cutters to the changing conditions: different material to be cut, shorter delivery times, reduction in production costs – and gone beyond them. The new generation POLAR models have been

redesigned. The most important visible difference, after the reshaped contours, is the new operating panel with integrated display. The POLAR 78 comes in two model variations: the 78 S standard model and the 78 E basic model for normal cutting. With the most important functions for progressive automatic order sequences.



## Safety

A most noticeable feature of the new appearance is the new self-monitoring light curtain with side finger protection. All POLAR high speed cutters thus correspond with EC-Regulations (safety package for European and EC-conforming countries). Also included in the EC safety package: 2 channel hydraulics with knife upstroke control, rear table protection, knocking block and finger protection at the pressure clamp. The two-hand cut release, simultaneous controls and non-repeat function are available to every POLAR user for additional safety during the cutting process. POLAR high speed cutters fulfil EC Safety as well as other regulations. Furthermore POLAR high speed cutters have been awarded the official German Safety Certificate (GS). Greater operating comfort is ensured due to the extension of the work surface in front of the knife by 165 mm / 6 1/2" and the positioning of the light barriers at the extremities of the machine front.

## Direct POLAR Precision

POLAR high speed cutters distinguish themselves with their optimal cutting precision. This stems from their robust construction and their superior technical solutions, some new and trendsetting (e.g. the direct measuring system). With this positioning system, a pulse generator developed especially for POLAR, sits directly on the rotating spindle without any intermediate connection. In this way any measuring discrepancy in transmission is eradicated from the outset. The backgauge is driven by a frequency-controlled DC-motor. The backgauge position is therefore more quickly and smoothly achieved since the drive speed adapts according to the distance to be covered. Ultimate precision is achieved both in this way and through a precision spindle with recirculating ball bearings, the play-free linear guidance and automatically monitored machine functions.

# ction machine

## Field of application:

The POLAR 78 is the high speed cutter for DIN A2 (up to 43 x 61 cm / 16 15/16" x 24"). For all fields of application as it cuts a variety of materials (Paper, card, cardboard, foil).

## Range of sizes:

Halving: Sheets with a width of up to 78 cm / 30 11/16".

Cutting size: Sheets with a diagonal of up to 78 cms / 30 11/16" (for sheets with a greater diagonal: turn on the front table).

The control panel with integrated, backlit, 6.1" Monochrome LC Display is at a convenient height for the operator.

00	21.248	CM
P:4A	S:4	46.630
1	8.000	
2	46.630	
3	64.200	
AUTOMAT		

00	8.365	INC
P:4A	S:4	18.558
1	3.149	
2	18.558	
3	25.275	
AUTOMAT		

## Easy to operate

The operator panel with flatkeys is supremely robust and hardwearing. The display, that emits neither X-rays nor electrostatic rays, provides legible information in large letters using "Window"-technology. A movable decimal point allows you to choose between centimetre and millimetre readings. Furthermore, readings can be displayed in inches or in the Shaku-system. When working in inches, fractions can be entered which are automatically converted into decimals.

## POLAR 78 S

The high speed cutter for operations wanting to quickly process small quantities. Simply enter the cutting measurements on the numerical keyboard. The automatic positioning system guides the backgauge to within 1/100 mm of the desired position.

## POLAR 78 E

POLAR's top of the range model in this size range. It affords the possibility,

over and above the technology of the S-Model, of storing recurring cutting sequences and of calling them up, as and when required. Stationary backgauge programming possible.

Programme limits and backgauge movement are automatically determined. Stored data can be corrected, added to, or deleted. Also standard: Eltrotact for label / trim-out repeat combinations, programming while cutting, clamp pressure without cutting.



POLAR 78 S

## Cutting line indicators

Optical and mechanical. Standard!

## Backgauge Drive

Frequency-controlled drive, higher backgauge speed (20 cm/sec).

## Clamping pressure

Fully adjustable. Hydraulic. Wide range with low minimum clamp pressure for sensitive materials. Variable clamping time.

## Knife

Convenient knife change (pressure clamp acts as knife lift) with knife change control, operator guidance, automatic stop at the lower dead point and fine adjustment from the front. No fat required for knife guidance. Standard: HSS knife.

## Self-Diagnosis System

The most important machine functions are constantly monitored. Any malfunction is displayed and a signal to alert a service technician appears if necessary, to whom an in-depth diagnosis is then made available.

# Advantages of the new POLAR 78:

1. Shorter production times due to an optimized production flow (e.g. frequency-driven backgauge motor)
2. Increased cutting length (78 cm / 30<sup>11</sup>/<sub>16</sub>").
3. Higher clamp opening (120 mm / 4<sup>3</sup>/<sub>4</sub>").
4. Increased efficiency from clamping bigger reams (max. 3000 daN / 6610 lbs.).
5. Easy knife change (knife change control with operator guidance, automatic stop at lower dead point, knife adjustment from the front).
6. Longer service intervals due to improved technology (Lubrication for the table: only one lubricant, service-free bearings and guidance systems).
7. High-precision positioning based on the new backgauge drive (direct precision measuring system, linear backgauge guidance and wear-free ball bearing spindle).
8. Hardwearing operator panel (Flat-keys).
9. Radiation-free LC-data display with backlight.
10. Consistent cutting precision (self-monitoring functions).
11. More user-friendly (operator panel with flat-keys).
12. Complete dialogue with the machine (easily accessible "Window"-technology)
13. Easy material handling (Big front table, light barriers at the sides)
14. Future-orientated controls (modular system for all machines, highly integrated).
15. Self-monitoring light barriers (own power circuit and processor).
16. Safety package for Europe (Non-european countries: available as an option).
17. High backgauge speed (20 cm/sec).
18. New design (light colour, solid, smooth surfaces).



The number one in cutting systems worldwide