

POLAR 58

**The quality-cutter
for small sizes
from the world's
largest manufacturer
of cutting machines.**



POLAR 58

**POLAR –
the best-selling
cutter world-wide.**

Technical data

Cutting width		58 cm/22 7/8"
Clamp opening		10 cm/3 15/16"
Feed depth		58 cm/22 7/8"
Power required		1,5 kW/2 HP, with 60 Hz: 1,8 kW/2,48 HP
Weight, net		520 kg/1150 lbs
Machine width		115 cm/45 1/4"
Length		135 cm/53 1/8"
Height		136 cm/53 9/16"
Front table length		42,5 cm/16 3/4"
Table height		90 cm/35 1/2"
Clamp pressure	min.	200 daN/440 lbs
	max.	1500 daN/3300 lbs
Knife thickness		9,75 mm/3/8"
Grinding reserve	max.	2,2 cm/7/8"
Smallest cut	without false clamp	1,5 cm/9/16"
	with false clamp	5 cm/1 15/16"
Backgauge speed		1,4/2,3 cm/sec.

Standard equipment

Electrical drive for 220/380 V, 3 phase, 50 Hz
Main switch with lock
Overload switch for main- and backgauge motor
Illumination of working table and optical cutting line indicator
Digital measurement indication in mm or cm and direct linear measuring system
Measuring system metric/inch resp. Shaku, interchangeable
Inch-fraction input with automatic decimal conversion
Keyboard for entering measurements with stationary backgauge
Automatic single measurement setting (positioning)
Key for fast approach while positioning according to print image
Manual fine adjustment with hand-wheel
Power driven backgauge/microcomputer controlled
Repeat processor ELTROTACT
Programming with cuts
Single programme protection
Clamping without cut
Hydraulic clamp system (incl. oil filling)
Overload device (pressure limit valve)
Two-hand cut release with time limitation and non-repeat device
Integrated electronic calculator (+/-/x/:) with memory
Machine table incl. side extensions on both sides, noncorrosive
Table side gauges, right and left
Rear table protection
False clamp plate (to be inserted from the front)
2 knives ORIGINAL-POLAR in safety box
30 ORIGINAL-POLAR-SINUS cutting sticks
Tools, operating instructions, spare parts book, check list, wiring diagram

Optional equipment

Electrical equipment for different voltage/frequency
AC-version (single-phase operation)
Flexible false clamp
Light barrier
Lockable rollers (moveable version)
Carbide-tipped knives
Waste container



POLAR-MOHR
Postfach 1220
D-6238 Hofheim/Ts. 1
Tel. (061 92) 204-0
Telex 4072218 pomo d
Telefax (061 92) 221 93

These are the advantages of POLAR 58:

1. It can easily be operated by anybody right away –
2. It needs very little maintenance –
3. It runs without noise and saves energy (the motor only runs during cut and backgauge movement) –
4. It cuts everything (paper, cardboard, foils) –
5. It has 10 cm/3¹⁵/₁₆" clamp opening –
6. It cuts for years with the same precision (wear-free, direct linear measuring system, rugged quality design) –
7. It needs very little space – only 1,55 m² (16,7 sq.ft.)
8. It is ready to cut at any time (all data set before switching the machine off appear again after switching on) –
9. It is reasonably priced, due to economical manufacturing.

POLAR 58 EM (Eltromat Memory)

The microcomputer controlled, programmable cutter. Cutting sequences can be stored and repeated automatically as often as necessary. Storing capacity: 99 programs, 999 steps. With POLAR EM measurements can be stored without backgauge movement. Program limits and backgauge movement are automatically determined. Stored measurements can easily be corrected, added to or erased. Other standard features: Programmable data protection and repetition processor which permits any desired size- and trim-cut combination.

For jobs "in-between" simply select the individual measurement to be cut via the numerical keyboard. The backgauge is automatically moved with the shortest possible delay and accurate to 1/100 mm to the desired measurements.

What can POLAR 58 cut?

The range of application of the POLAR 58 starts with offices (cutting up forms and lists, cutting pads) and extends to trimming proof prints in colour separation firms. In print shops and binderies the POLAR 58 is used for small sized jobs. Silkscreen printers and manufacturers of name plates use it for cutting different materials. Some typical materials: Bristol board, copying papers, continuous stationary, EDP-papers, felt, photographic papers, rubber, gummed papers, hard cardboards, index board, cork, art papers, plastic foils, leather, metal foils, films, textiles, transparent papers.

POLAR 58

Built with state-of-the-art technology extremely quiet and requires little floor space. With 58 cm (22 7/8") cutting width and accuracy it is the ideal cutter for jobbing work,



POLAR 58: State-of-the-Art Technology

POLAR High-Speed-Cutters are of rigid construction but still need little space. Important units are directly accessible for easier maintenance.

Measuring system: The direct linear scale system is not effected by wear on the lead screw or by changes in the backgauge drive mechanism. Therefore, the highest possible precision is maintained for many years.

Adjustment of measurement:

Manual:

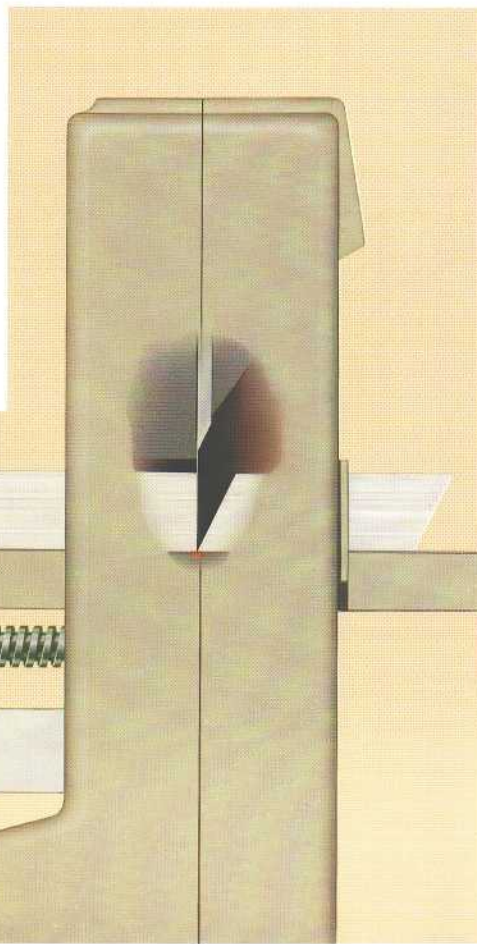
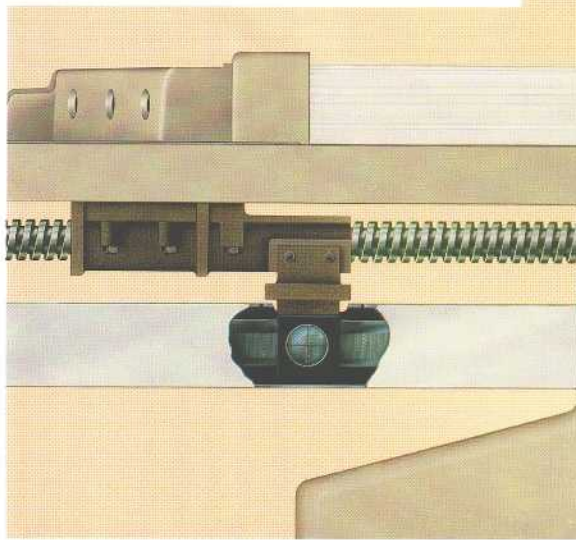
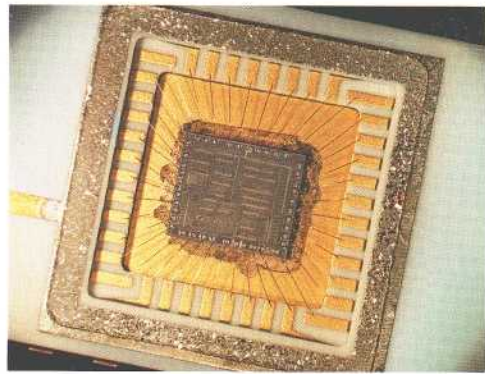
With backgauge movement keys for measurement setting according to print. Automatically:

1. Entry of single measurements with the numerical keyboard (without programming).
2. After calculating by means of the "integrated pocket calculator" (initial cuts, trim cuts, repeat cuts).
3. According to programming.

Measurement display: Digitally. With moveable decimal-point, in metric or inch system (resp. Shaku). Special advantage: You can enter fractions, important when working in inches.

it is simple and safe to operate,
or space.

10 cm (3¹⁵/₁₆") clamp opening
ists, forms etc.



Knife: ORIGINAL-POLAR-knives, extra thick and solid. With high grinding reserve. Double-side ground guide. Easy and fast knife change. No twisting or turning by hand. Knife fine adjustment from the front.

Cutting stick: ORIGINAL-POLAR-SINUS cutting sticks can be changed in seconds and used several times. They are of a special material suitable for POLAR-knives.

Machine table: The working surface of POLAR 58 is resistant against corrosion. No table slot as on other cutters.

Safety: POLAR is leading in the development and application of safety devices. Not only are today's mandatory safety features incorporated in every POLAR cutter, but possible future requirements have also been met.

Two-hand cut release, timed, with non-repeat device. Infrared light barrier* with permanent self-check.

Hydraulic overload protection, reliable in any knife position. Self-diagnosing system, error codes are displayed digitally in the read-out panel of the cutter.

POLAR knows how to achieve the best results. You can take advantage of this experience by buying POLAR cutters.

Cutting line indicator: Optical and mechanical. Standard equipment.

Backgauge drive: By motor with automatic brake and automatic play adjustment. Ground lateral guide-rails with narrowly spaced rake fingers for precise operation.

Hydraulic clamp pressure adjustment: Infinitely variable. It is easy to adjust for any kind of cutting material with a precision pressure scale. Wide range of pressure. Low minimum pressure. False clamp to protect sensitive material (fitted from the front).

Cut: Smooth swing cut. From left to right. The material is not forced against the normal side guide. Advantages: Smooth material flow, less paper congestion in front of the knife. Thus it remains sharp longer.

Hydraulic knife drive: Rugged, strong, safe and almost maintenance free. Therefore with POLAR cutters – longer maintenance intervals.

Photos:

Left – control panel of POLAR 58. Measurement indication in inches: After entering fractions, conversion into decimals is done automatically.

Center above – The "heart" of a micro-computer. In an area of 4 x 5 mm several thousand transistor functions are integrated.

Right – The POLAR 58 has the same direct measuring system as the bigger POLAR. Being an independent system it always works perfectly irrespective of backgauge spindle conditions. Therefore: constant high accuracy for years.

* Please see index for "Standard equipment/Optional equipment".