

# THE FINAL CUT IN DIGITAL PRINTING



The POLAR Group is an independent family-owned and operated company based in Hofheim am Taunus. The international group of companies specializes in designing innovative and future-proof solutions in the areas of postpress and packaging technology. Approximately 500 employees work at the three production locations of Hofheim, Hochheim and Shanghai (China).

The group emerged from Adolf Mohr Maschinenfabrik, which was founded in 1906. Industrial cutting machines have been produced here for over 70 years, which are sold around the world under the brand name POLAR. The range of products includes components and systems, which cover all postpress processes: loading, transferring, jogging, cutting, die-cutting, unloading, finishing, banding, networking and automating.

**MOHR** has been another brand of Adolf Mohr Maschinenfabrik since 2012. In the "Cutting on Demand" area, MOHR offers a new dimension of cutting machines - specifically tailored to the digital market.

Additional information about the products and company are available at: **mohr-postpress.com/en/** 

## TOPSTARS IN FINISHING

#### **Curtains up...**

If 'final cut' and 'stars' makes you think of Hollywood, you're not that far off: **MOHR cutting machines** don't shy away from being compared to the big performance. In use worldwide, absolute professionals in their field, intelligent in their interaction – with excellent properties and highly praised. Oscar-worthy, you could say.

The philosophy behind the **MOHR Cutter** is precise cutting of sizes 56 cm and 66 cm up to size 80. Besides the basic ECO version, every model is available as the networkable variant PLUS.

For adhesive-bound or saddle-stitched print products the **Three-Side Trimmer BC 330** offers convincing production features.

**Compucut**® offers a smart networking concept for the modern printer.

The software uses prepress data to automatically generate cutting programs.



## The smallest member of our ensemble. Very sharp.

...and extremely well networked.



### **MOHR Cutters**

MOHR Cutters are durable, programmable cutting machines with hydraulic drive. Quick-print shops, copy shops, commercial print shops, in-house printers value not only the uncomplicated operation, but also the long service life of the cutting machine. The unique cutting precision is obtained by the sturdy construction and the direct measurement.

The precise and gentle **bevel swing cut is carried out hydraulically on all of our models.** This allows
adjusting the dwell time of the knife in the lower dead
end to the respective material. The corrosion free **table surface provides excellent gliding properties**which makes the material easy to handle. On Mohr
Cutter 80, this effect is even supported by air jets. On
models 56 and 66, air jets are optional. The clamping
pressure can be continuously adjusted within a large
range by means of a turning knob with scale to suit any
material to be cut.

A variable pre-clamping time control optimizes cutting quality when dealing with different materials.

Luminous LEDs indicate the cutting line to the operator.

#### The highlights

- Wide range of programming options
- Easy knife changing with automatic shutoff in lower dead end and fine adjustment from the front
- A machine frame with optimized stability takes the forces produced during the cutting process in the best possible way and guarantees maximum cutting precision
- Minimum expenditure of maintenance thanks to innovative materials
- Digital workflow integration (only PLUS model) with Compucut® software

#### Premium Carbide-Tipped Knives

are an in-house development of POLAR based on many years of cutting experience. They are especially suitable for materials in the area web-to-print and labels.



## MOHR Cutter **All angles covered.**

D 56

Cutting width: 560 mm Feeding depth: 560 mm Feeding height: 80 mm

D 66

Cutting width: 670 mm Feeding depth: 670 mm Feeding height: 80 mm

D 80

Cutting width: 800 mm Feeding depth: 800 mm Feeding height: 100 mm

- ✓ low-maintenance
- ✓ sturdy
- ✓ networkable

#### ECO

The machine is operated via an ergonomically arranged control panel with 5.5" monochrome display and extralow-profile keyboard. The cutting programs are either generated manually or menu-driven and intuitive block programming.

#### **Funktions:**

- Low-profile keyboard with easy-to-understand symbols
- Menu-driven knife change
- Programming during cutting
- Block programming available
- Format tables
- 198 program memory locations
- Program information with plain text
- Cutting cycle shown with symbols
- Programmable jogging mark
- Clamping time before cutting
- Programmable ejector
- Protect program
- · Lubrication interval signal

#### **PLUS**

The machine is operated via an ergonomically arranged 18.5" touch-sensitive display. Due to digital workflow integration Compucut® takes the cutting data supplied as ppf or jdf files directly from the prepress stage and generates the cutting program automatically. In order to start the cutting program automatically, the machine is equipped with a bar-code reader. This allows setup times to be reduced to almost zero. The process visualization gives the operator a graphic indication of the material handling. This minimizes the proneness to errors significantly.

### Additional functions as compared with ECO:

- Prepress data is taken as a basis for generating cutting programs (Compucut® software)"
- A bar-code reader facilitates easy loading of cutting programs
- Process visualization for a graphic indication of material handling reduces the proneness to errors
- Production report for acquiring the machine performance data
- 1,998 program memory positions
- Progress control
- Copy program

#### MOHR Cutter D 66 ECO For extended assignments:

With this model formats of up to 67 cm are possible. Shown here in the ECO version with monochrome display



### MOHR Cutter D 80 PLUS The Champion:

Extra wide, extra strong and the (usually optional) air jets are included. Shown here in the PLUS version with 18" touch screen





Linear ball bearing – maintenancefree and extremely precise



Backgauge rakes with plastic gliders treat the table surface with care



LED cuttingline indicators ensure optimum illumination, even when lighting is poor.
The indicator is clearly visible on

many materials



A cutting stick ejector eases and abbreviates the exchange

## One - two - three... Action!

**Getting started without set-up times.** 



## MOHR Three-Side-Trimmer

The robust, networkable MOHR Three-Side-Trimmer is the machine for automatically cutting perfect-bound or saddlestitched products. In contrast to other book cutters, it operates with only one knife.

#### Workflow

- A gripper puts the product into the cutting position.
   The cut is hydraulic, which facilitates to adapt the knife's resting time in the lower dead end to be adapted to the material.
- The robust cutting unit guarantees a precise cut that is gentle on the material. The applied pressure is adaptable to every material to be cut within a large adjustment range.
- To increase performance, several products, stacked on top of each other, can be cut simultaneously.
   The container for waste is accessible from the outside.
- The machine is operated using an ergonomically positioned 18.5" touchscreen display.
- Recurring cut sizes can be stored and adapted at any time.
- The machine can be equipped with a bar-code reader to automatically launch the cutting program.
   This reduces the set-up time to practically zero.

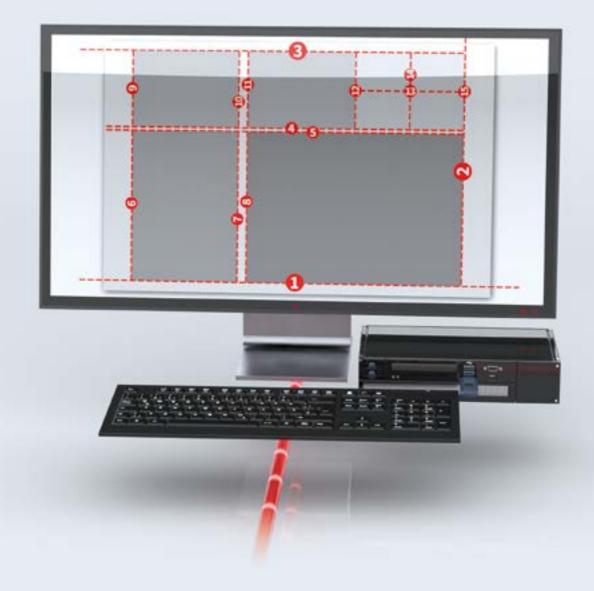
#### **Highlights**

- Integration in the digital workflow
- Format can be varied from product to product
- Cutting unit easily accessible enabling a swift and simple knife change
- Minimum maintenance required due to the use of high-quality materials
- 18.5" touchscreen display



## Nominated in the category: Best cut.

Zero waste. Zero make-ready time.



## Software Compucut®

With Compucut®, it has been possible to create cutting programs outside the high-speed cutter for over 30 years. The software has been continuously developed during this time period. Today it is a crucial part of the infrastructure in the networked smart print shop.

Compucut® uses prepress data (CIP 3/4) to create cutting programs automatically and transfers these either directly to networking-capable cutting machines or to the external cutting program administration (ESPV). Every cutting machine integrated into the network can access the cutting programs stored in the external cutting program administration.

An optional barcode scanner makes it possible to automatically load the assigned cutting program.

Cutting with Compucut® is much easier. The cutting programs process can be displayed with a process visualization. The real image representation on the cutting machine display ensures that the operators always know which cut has to be made next. This means that even new or inexperienced employees can perform cutting jobs.

The clear operator guidance rules out expensive errors and reduces waste.

Since Compucut® makes manual programming on the high-speed cutter redundant, the set-up time is eliminated.

#### The right version for every need:

#### • Compucut® GO

runs directly on a USB stick and is not installed on the PC. It is possible to process homogeneous shapes and gang runs.

#### • Compucut® CONTROL

offers the full range of functions with real image display and the possibility to manually modify the sheet.

#### • Compucut® AUTO-CONTROL

can, in addition to CONTROL, create cutting programs completely autonomously, i.e. without any manual intervention. The software automatically creates the optimal cut sequence with the fewest turns and cuts.





MOHR Online offers over 130 items at the click of a mouse: For example...



Original POLAR wooden knock-up block for aligning the cutting material before and after cutting.



Original POLAR cutting strips provide the optimal cutting result and extend the knife's working life.



PROTEKTOPUR®
The special care product for all hard surfaces made of chrome, nickel and stainless steel - ideal for cleaning and maintaining cutting machines.

#### Trust the original service that keeps its promises

Our after sales service, which is supported by more than 30 MOHR representatives worldwide, is also of great importance. Service technicians are uexperts in installing new plants and systems. Practical user courses are held for machine operators.

The modular system guarantees high spare part availability. The fully automated high-rack warehouse in Hofheim provides 95 percent availability for our current series. Deliveries within Europe take place within 24 hours.

For customers within the EU, the MOHR shop offers numerous consumables and original accessories for MOHR Cutter and POLAR high-speed cutters online as well. The range currently includes more than 130 items, including machine knives in various quality grades (HSS, carbide, premium), plastic and nylon cutting strips, "Guillo-Crease" creasing strips, or utility angles for aligning the cutting material.

Information: www.mohr-shop.com/shop/en/

## Technical specifications

#### Your contact for further information

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#### MOHR Cutter ECO and PLUS

Device data		D 56	D 66	D 80
Cutting width	mm	560	670	800
Feeding width	mm	560	670	800
Feeding height max.	mm	80	80	100
Front table length	mm	670	670	670
Table height	mm	900	900	900
Clamp pressure min. – max.	daN	200-1.200	200-1.500	180-2.700
Backgauge speed (o)	mm/sec	70	70	130
No. of cuts	cuts/min	20	20	20
Smallest cut, w/o false clamp plate	mm	15	15	15
Smallest cut, with false clamp plate	mm	50	50	50

Installation information		D 56	D 66	D 80
Width	mm	1.150	1,250	1.430
Depth	mm	1.670	1.825	1.970
Height	mm	1.500	1.500	1.500
Weight, nets	kg	575	620	900
Electric power consumption (apparent power)	kVA	2,2	2,4	4,0
Heat output	BTU/h	7.135	7.784	12.973
Noise emissions (according to EN 13023)	dB(A)	76,5	76,5	76,5

#### MOHR Compucut® – from the prepress to the cutting machine

#### Realized prepress connections

Agfa	Apogee
Creo/Kodak	Pandora 2.0 Pro und Preps 4.2 Pro and higher
EskoArtwork	ArtPro
Efi	Matrix
Heidelberg	Prinect Signa Station, Version 6.1 and higher
Hewlett Packard	Direct2Finish Workflow (HP Smart Stream Production Pro Print Server)
Krause	Krause Imposition Manager
One Vision	Speedflow Impose, Version 4.0
Screen	Flatworker



#### MOHR Book-Cutter with 18,5" touchscreen

evice data Three-Side-Trimmer BC 3			immer BC 330
Power (single/multiple block), min./max.	books/h	200	600
Book block untrimmed, min./max.	mm	107 x 152	305 x 330
Book block trimmed, min./max.	mm	105 x 148	303 x 326
Head and foot trim, min./max.	mm	2	91
Front trim, min./max.	mm	2	200
Book thickness, min./max.	mm	2	51
Pressure, min./max.	daN	200	600

Installation information			
Width	mm		1.830
Depth	mm		2.220
Height	mm		1.580
Weight, net / with transportation pallet	kg	1.230	1.500
Electric power consumption (apparent power)	kVA		3,5
Heat output	BTU/h		11.946
Noise emissions (according to EN 13023)	dB(A)		< 80 dB





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