



IMA SCHELLING
GROUP

BIMA Cx40

Mass production to batch size 1

imaschelling.com

BIMA CX40
EN 09/22



ENERGIEEFFIZIENZ

Energy-efficient production

Protection of the environment and energy efficiency are standard features of the BIMA Cx40 series: Examples of this include the integrated standby mode, optimized extraction of the processing units, minimal usage of compressed air, and energy-efficient drive technology.



EUROPÄISCHE UNION
Investition in unsere Zukunft
Europäischer Fonds
für regionale Entwicklung

BIMA Cx40

4- and 5-axes CNC-processing centre

BIMA Cx40 – the new series of ergonomic CNC machining centres with integrated C-axis for high-quality and flexible processing of furniture components and internal construction parts in individual small batch production and › lot size 1‹ fabrication. An intelligent machine concept with minimum processing times for maximum economy.



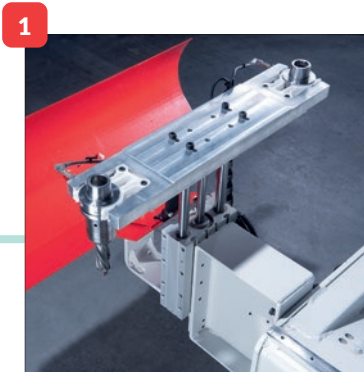
OVERVIEW

The optimal combination of high-quality machine construction and intelligent process control in all system parts allows every customer-specific solution.



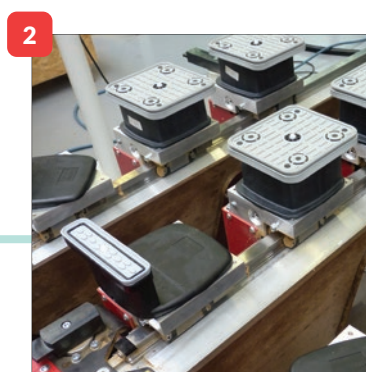
TOOL CHANGE POSITION

with extension onto Pick-up
for e. g. 350 mm saw blade



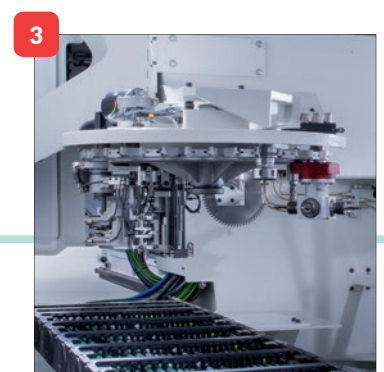
CONSOLE TABLE or automatic setting table

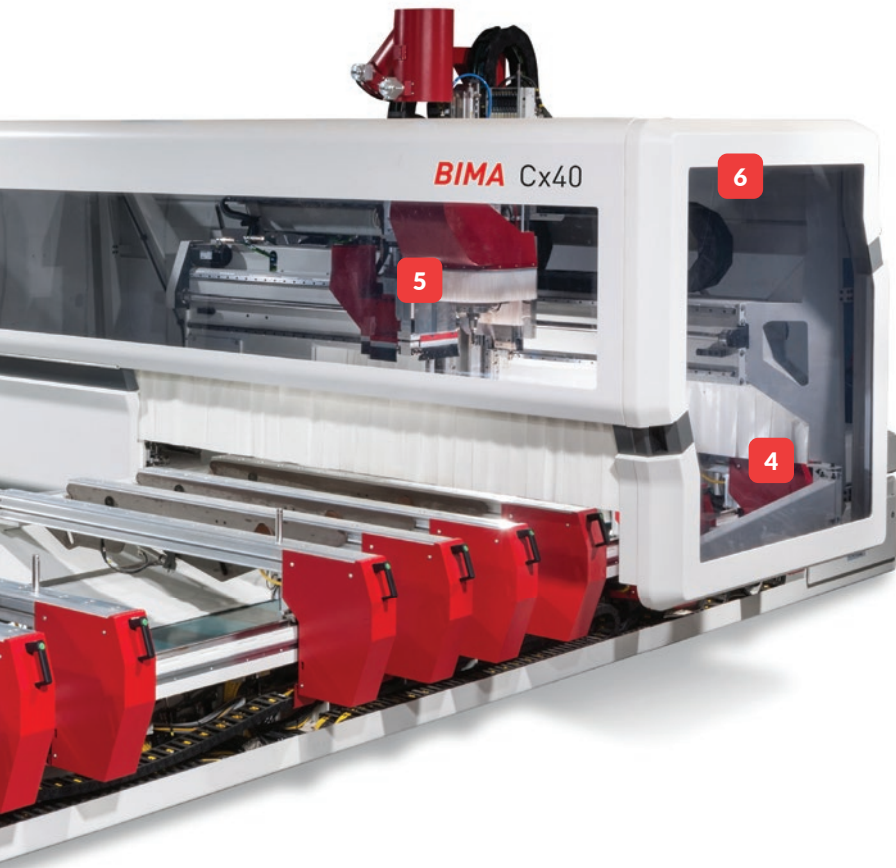
or automatic setting table



TOOL CHANGER

with 18 to 40 tool slots





OPTIMAL VIEWING

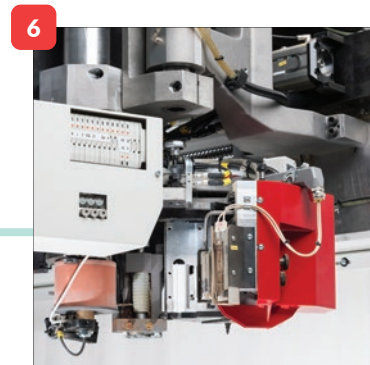
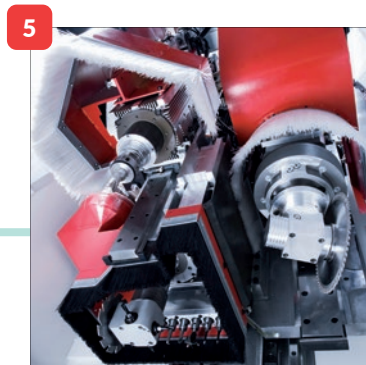
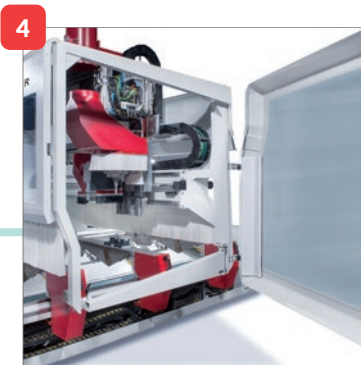
and user-friendly inspection of the machining area

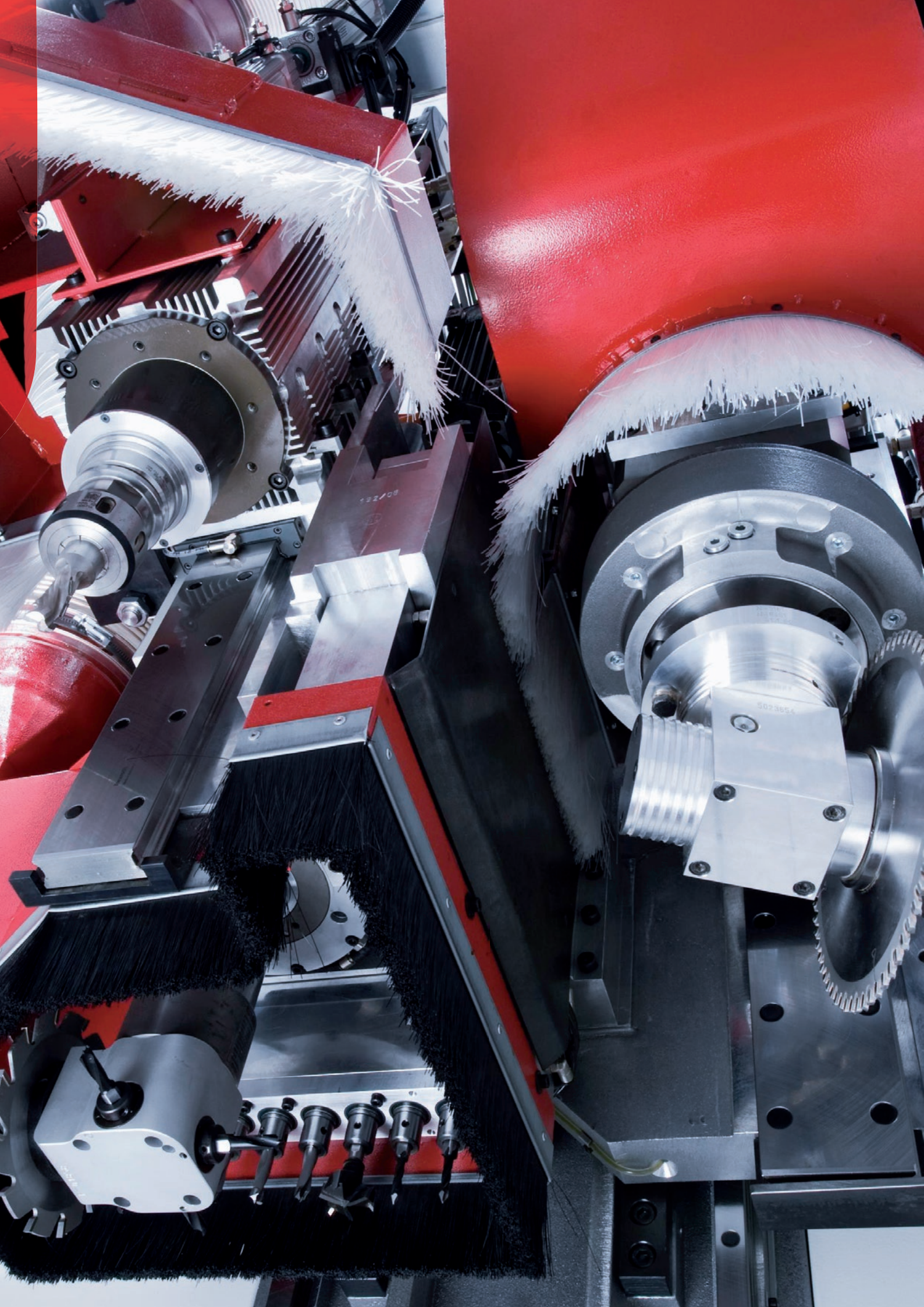
MACHINING UNIT

customer-specific mounting

EDGING UNIT

VT series, laser unit or combined unit





DETAILS OF MODEL RANGE

The BIMA Cx40 series stands for maximum flexibility in complete processing on a minimum setup area. With the option to be set up as a milling, banding or 5-axis machine, the BIMA Cx40 series offers leading edge technology.

BIMA CX40 MILLING

For sophisticated "batch size 1" fabrication and small batch production:

- stairs
- windows
- external doors
- internal doors
- furniture fronts
- furniture components
- worktops
- lightweight construction boards
- aluminium sections
- frontage elements

! 4.5-axis machining with optional Vario-NC

BIMA CX40 E EDGING

Exactly tailored to your customers' needs: The wide choice of various edge banding units as well as laser units allows optimal complete processing of:

- furniture fronts & furniture components
- worktops
- lightweight construction boards

! 4.5-axis machining with optional Vario-NC

BIMA CX40 R 5-AXIS MACHINING

The extremely stable machine for extreme milling tasks with powerful 5-axis head such as:

- stairs
- windows
- external doors
- internal doors
- aluminium sections
- frontage elements

! 5-axis router spindle

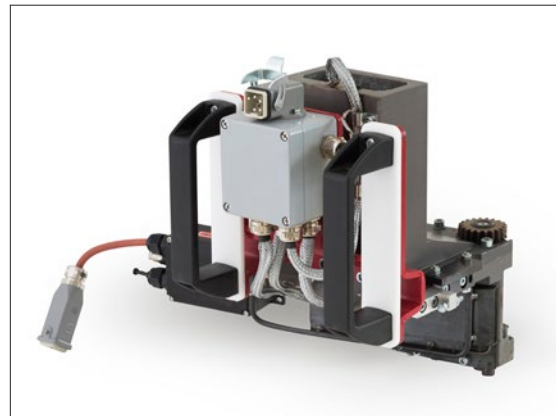


EDGING

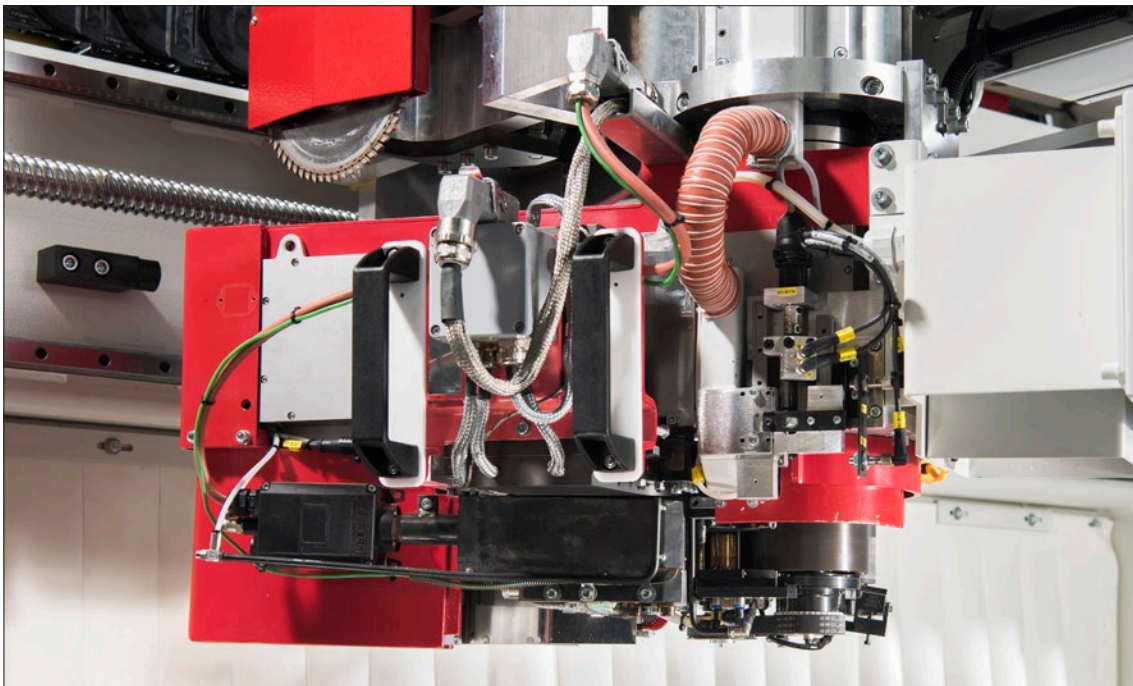
The high-performance and flexible machining centre for complete processing. In addition to sizing and milling operations, it gives you the possibility to band decorative and functional edging materials to the side faces of straight or curved parts.

LASER EDGING UNIT FREE-FORM PARTS

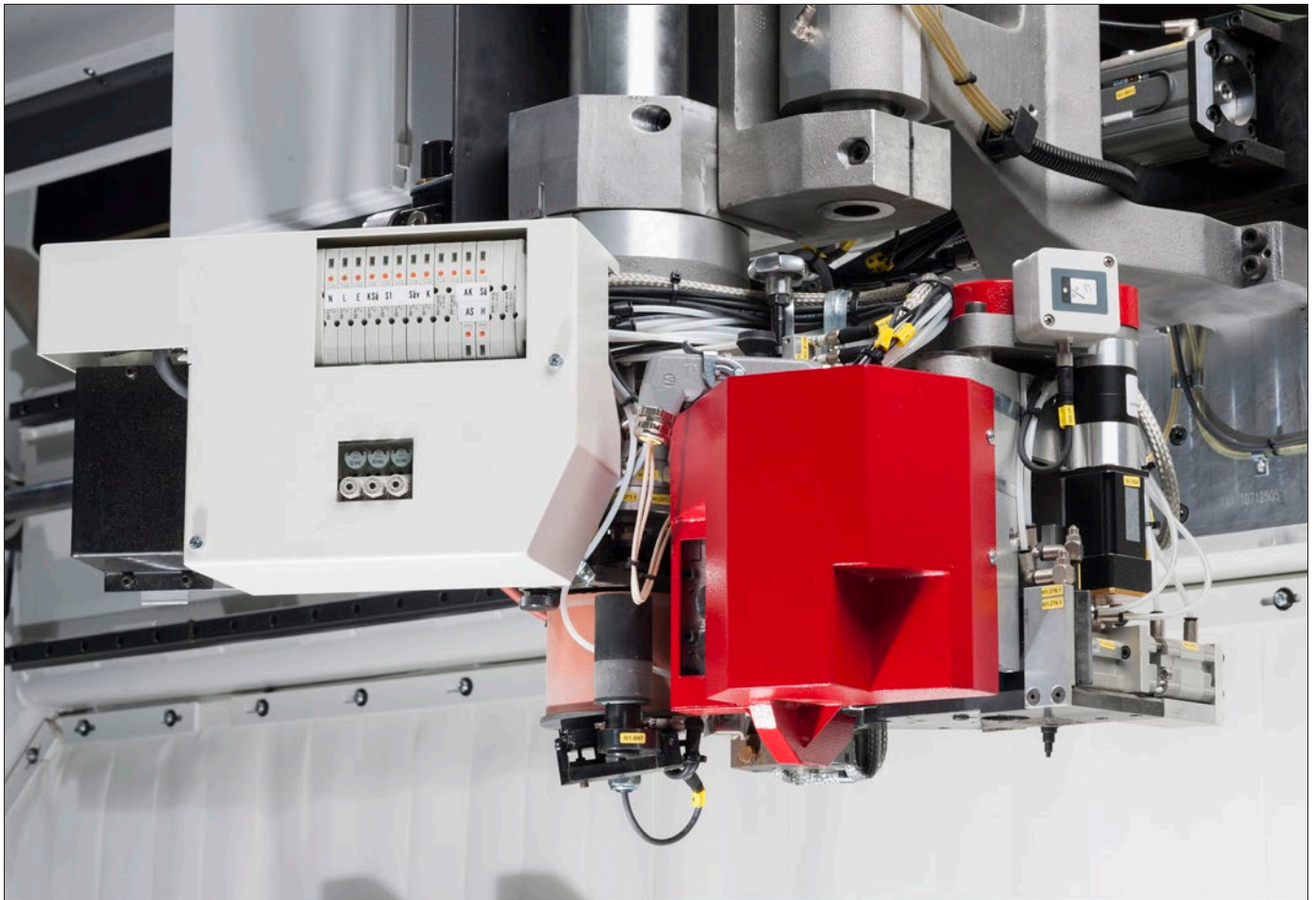
- combined unit for EVA, PUR and laser edging by manual conversion for full flexibility in future
- patented collision control for damage protection
- all required adjustments on the unit are program controlled
- wear-free laser system thanks to fixed optics
- manually changeable pressing roll from 100 mm to 50 mm



manual tooling unit for conventional edging within the laser unit



combined unit for EVA, PUR and laser edging



EDGE BANDING UNIT VT 50

- easy to open to allow quick cleaning (patent)
- large package of optional features to extend capabilities
- butt-joint edge banding is possible
- max. banding height 60 mm

EDGE BANDING UNIT VT 100

the professional solution for premium edge banding quality.

- easy to open to allow quick cleaning (patent)
- with fast access and high availability through a fixed structure (hence, reduction of production costs)
- integrated collision monitoring
- max. banding height 60 mm
- optional automatically angled gluing section (45°) VT 100/100 with max. gluing height 100 mm

DRILLING/MILLING

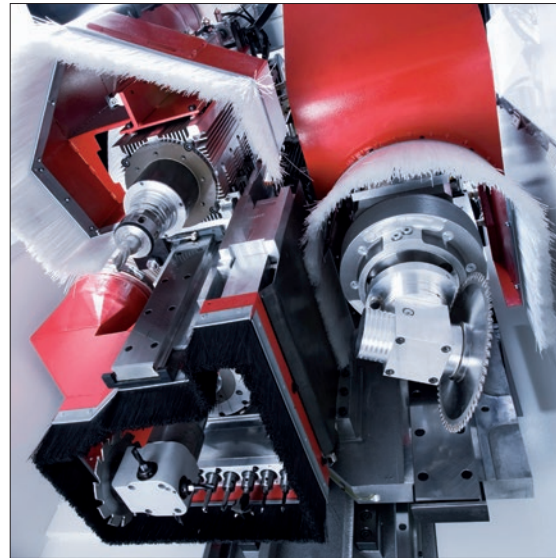
4-axis machining centre BIMA Cx40 for milling, sizing, profiling, grooving, sawing and boring of wooden, plastic, composite and lightweight materials.

ADVANTAGES DRILLING

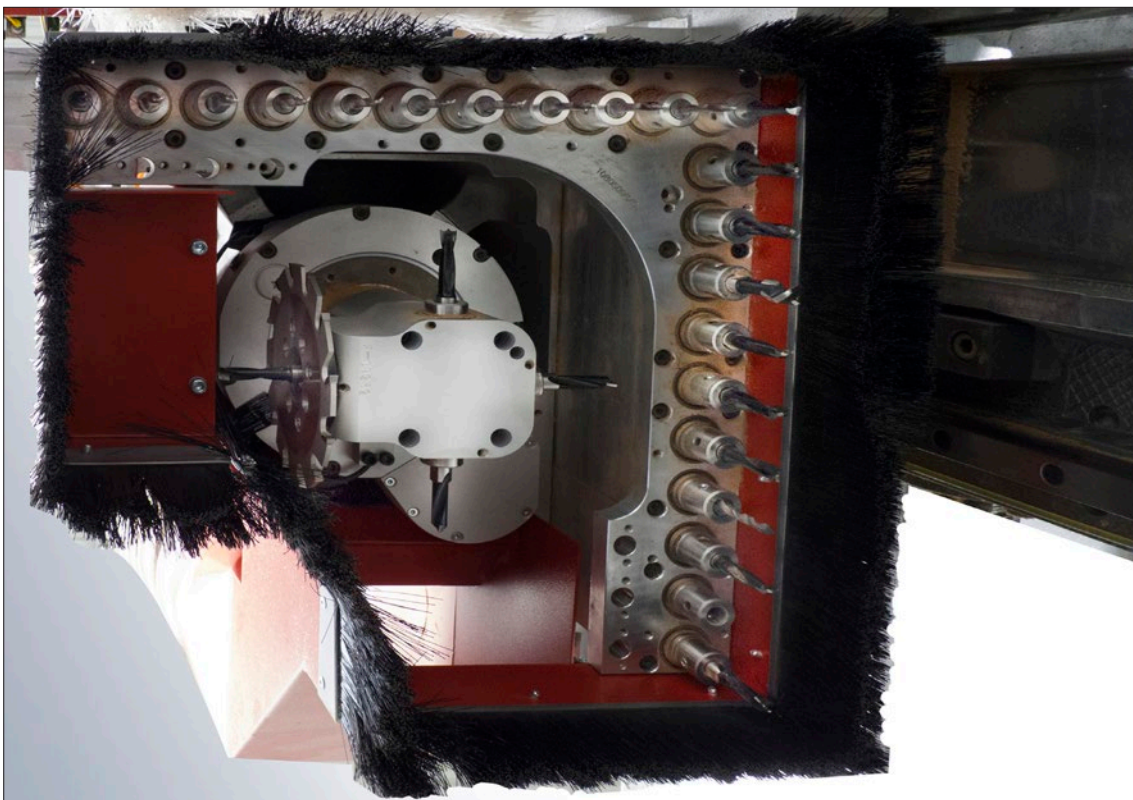
- high performance drill head with 3000 – 9000 rpm for industrial application
- drive power 4 x 1,4 kW
- only right-handed drill only, thus lower tool inventory

ADVANTAGES MILLING

- re-milling machining depth in Y up to 2000 mm with tool diameter 20 mm
- high-quality milling spindle with 10 kW (S6) air cooled or 18 kW (S6) water cooled
- optional vibration sensor to protect against tool imbalance
- adequate additional milling spindle with optional access to tool changer
- optional electrical sensor



high-performance router spindle



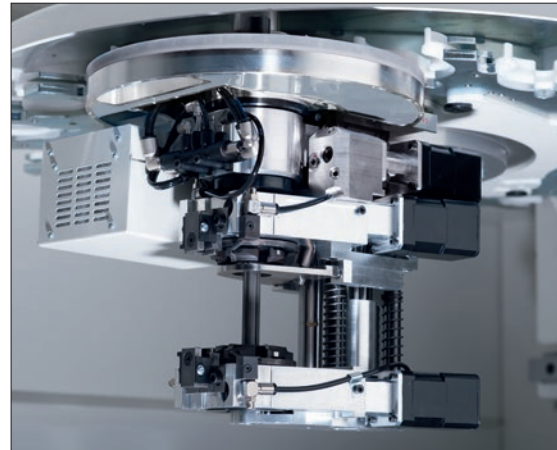
drilling unit with attachment units cross-head

HIGHEND - FINISH

A perfect finishing creates perfect results for your working pieces. Success with high-tech solutions from IMA Schelling.

AEK (PATENT)

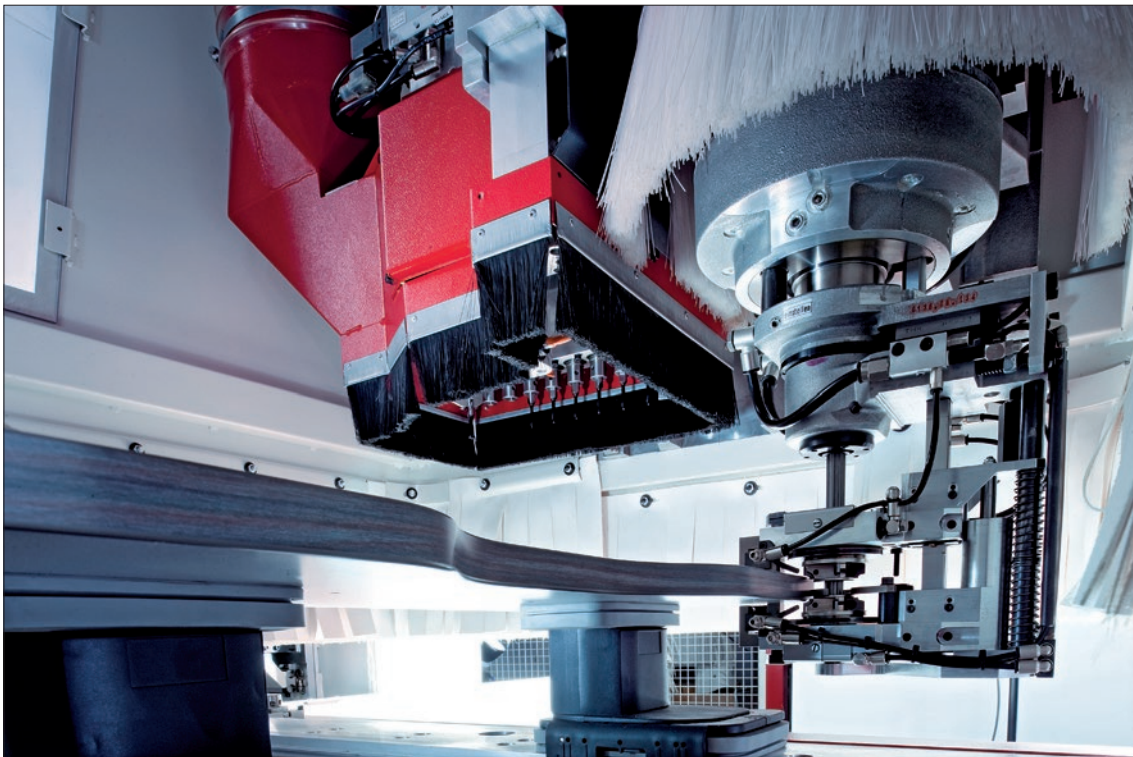
- fully automatic processing combi unit
- patented new development of a future oriented technology
- up to 3 different profiles without tool change and without manual adjustments in one unit
- flush milling, profile scraping and optional glue scraper, three working processes with only one tool change
- automatic adjustment by control software and component-based data filling
- clear reduction of setup and tool change time for the highest possible availability of the machine
- optional edge thickness measuring for perfect results of every possible contour



fully automatic processing combi unit AEK

COMBI UNIT

- patented combi unit
- 3 processes (flush milling, section drawing and glue scraping) in one unit with only one tool change



combi unit tracing finishing operation

5-AXIS MACHINING

The high-performance machining centre BIMA Cx40 R for flexible 3-D processing and all milling works:

Equipped for all future tasks:

- compact 5-axis robot head from IMA Schelling
- swivel range of the A axis between +90° and -10°
- interface that enables adapter units or tools with integrated compressed air or coolant supply to be fitted to the tool holder in an automatic process
- router spindle power 8.5 kW and 18 kW (S6), vector controlled max. speed 24000 rev/min.
- extraction hood control as a function of the application through Z-axis (optional)
- power-optimised central dust extraction

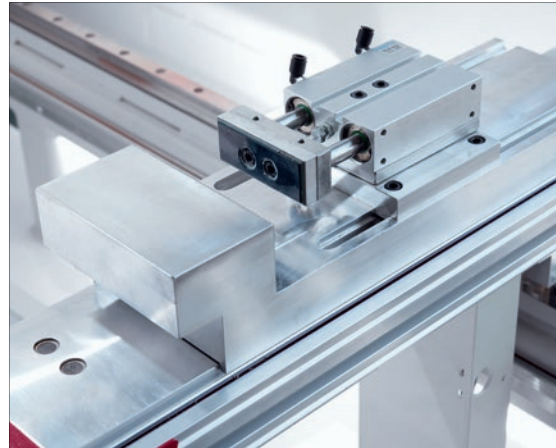


EFFICIENT PRODUCTION

The BIMA Cx40: thanks to its flexible unit mounting and variable clamping possibilities, it meets all requirements.



work holding clamp for heavy duty milling



horizontal work - holding clamp



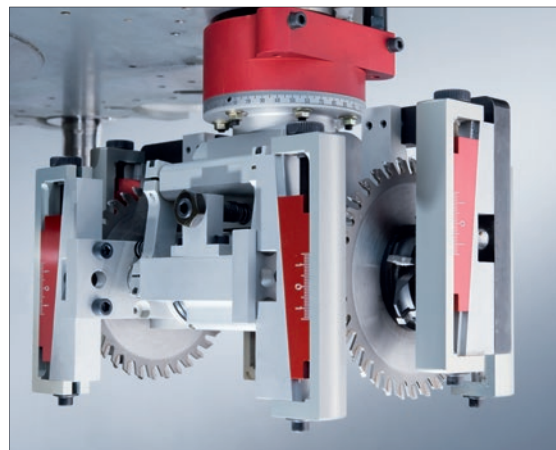
sawing /milling /drilling unit 0-100° manual



tracing milling unit



crosshead



end trimming and corner rounding

TABLE DESIGNS

The right worktable system, created for your work tools. The various systems of the BIMA Cx40 assure a customised solution.



CONSOLE TABLE

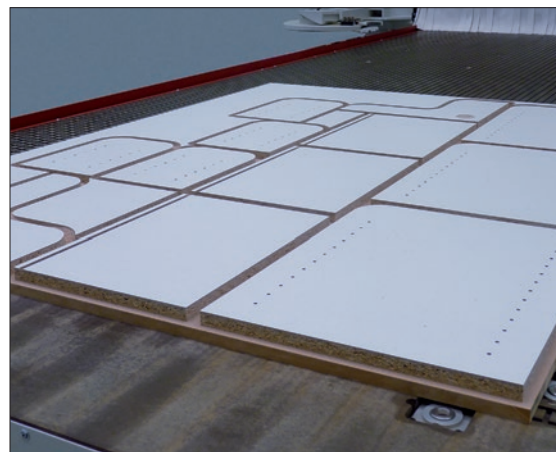
- quick and safe, manual setup
- significant reduction in setup time (up to 70%) and increase in machine availability in contrast to conventional systems
- automatic suggestion for vacuum setting with IMA-WOP
- free space under the consoles for simple debris and waste disposal

AUTOMATIC SETTING TABLE

- fully automatic setup systems, no manual intervention required
- maximum positioning accuracy with positioning on linear guides for failure free operation and economic lifetime
- minimum positioning times to increase the productivity of the machine
- maximum independent positioning dynamics thanks to vacuum clamping block with separate Y drive (DynaPoint only)
- free space under the consoles for simple debris and waste disposal
- extraction in pattern of 15 ° for optimal flexibility



optimal swarf and waste disposal under the consoles



pattern table for maximum flexibility



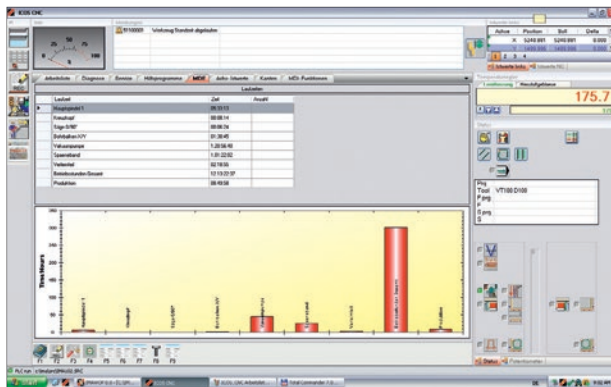
IMAWOP

IMAWOP is the optimal part programming software which has proven itself in all kinds of applications and enables flexible production of miscellaneous parts. It is currently equipped with canned cycles for automatic setup and processing. Tool movements and processing operations can be simulated in 3D – for the highest possible process security.

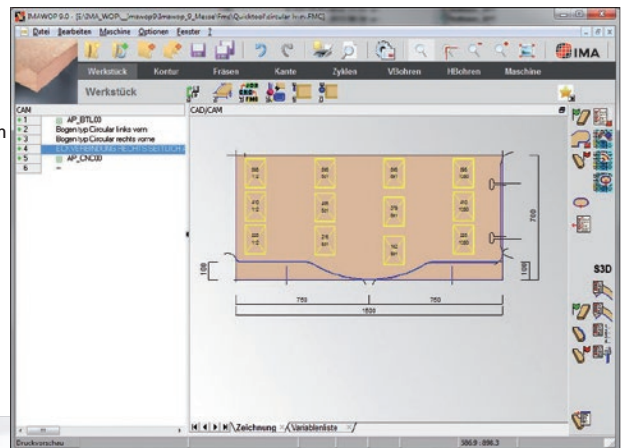
IMAWOP PROGRAMMING SYSTEM AT A GLANCE

- easy to use graphical user interface – operator-friendly control of the machine
- barcode, wireless handheld scanner
- 5-side processing
- CAD drawings of the parts can be created or taken from other software when needed
- dynamic 3D views facilitate intuitive data entry
- secure and easy operation thanks to 3D simulation, automatic vacuum block computing and a graphical setup manager
- Quicktool for fully automated machine-neutral CNC part programming for batch-size 1
- optimisation of the processing sequence and processing time
- 3D interface with SolidWorks® and TopSolid®
- time recording
- DXF data interface
- control system that is compatible with all common network solutions
- Windows®-based user interface

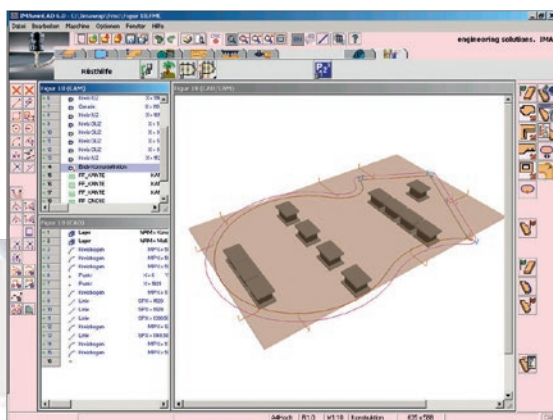




MDE Basic acquisition of process and production data in the standard system



Quicktool: easy program generation of complete and complex programs; an all-encompassing program is created with just a few entries or mouse clicks



graphical 3D simulation of machining with tool and Table display during programming



3D collision monitoring and verification of the workflow already in the office



Status	Wartung
Frist bereits abgelaufen	0
Dringend	0
Todo	13

SERVICE PLATFORM ZIMBA

The ZIMBA service platform is an agreement with which we shape our relationship: 100% transparency, 100% modularity and almost 100% efficiency - from the first to the last production day of your plant.

In addition to the classic ticket and hotline modules, further services are available via ZIMBA that extend the production quality and efficiency as well as the service life of your IMA Schelling machines and systems.



ZIMBA.PORTAL

is the entry into the ZIMBA world and includes:

- Documentation
- Administration
- User management & administration
- Security Updates
- Installations & connection fee
- Ongoing updates and data connection checks



ZIMBA.TICKET

offers fast and qualified support through the ticket system and spare parts management. It includes:

- 24h online ticket system
- Telephone accessibility
- E-parts
- Digital machine documentation
- Ticket history
- Remote Assist



ZIMBA.MAINTENANCE

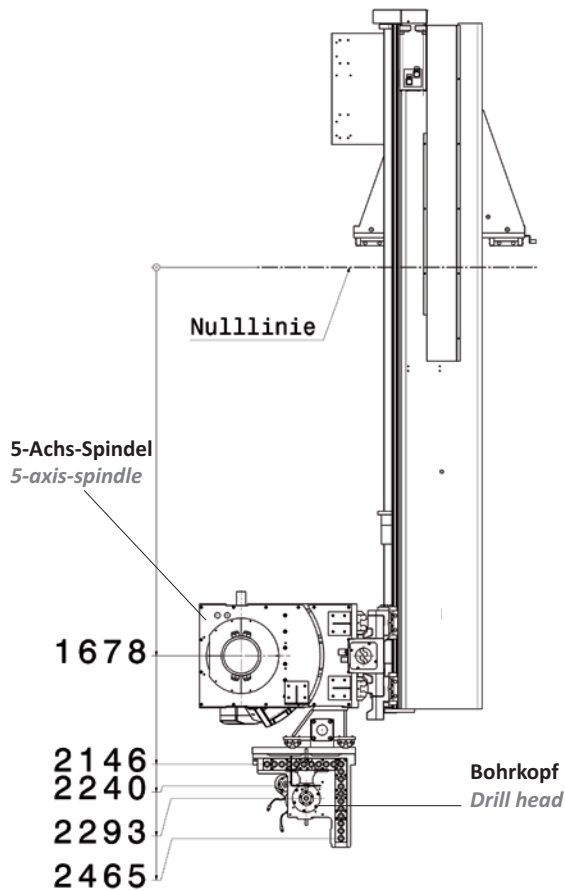
is the time-based maintenance manager. Maintenance can be scheduled & documented on time and assigned to staff. This includes:

- Automatic maintenance messages
- Automatically generated knowledge articles for the maintenance messages
- Creation of maintenance lists
- Documentation of the maintenance carried out

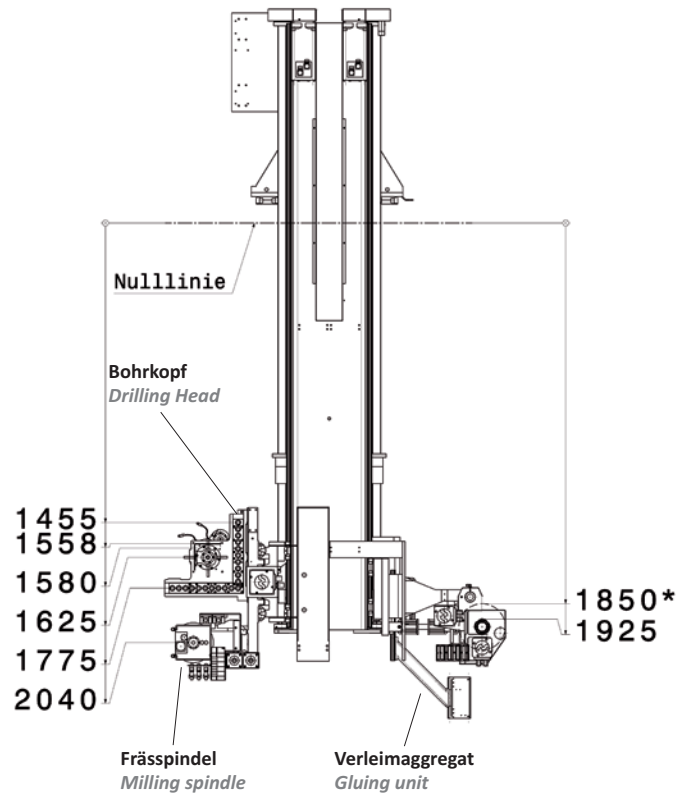
SERIES CX40

The complex BIMA Cx40 type requires little space and is equipped with an ideal dust extraction system. It shows high flexibility due to several different high-output adapter units. The complex gear units create a high dynamic in all axes.

	BIMA Cx40	BIMA Cx40 E	BIMA Cx40 R
X-direction	3.300 mm 4.300 mm 5.300 mm 6.300 mm 7.300 mm	3.100 mm 4.100 mm 5.100 mm 6.100 mm	3.000 mm 4.000 mm 5.000 mm 6.000 mm 7.000 mm
Y-direction	re-milling machining depth in Y up to 2000 mm with tool diameter 20 mm 1450 mm with all units	re-milling machining depth in Y up to 2000 mm with tool diameter 20 mm 1450 mm with all units 1925 mm glueing	1450 mm (5-axis machining) 1600 mm (4-axis machining)
Z-direction	225 mm (incl. clamping device)		350 mm (incl. clamping device)
machine			
Main spindle	10 / 18 / 27 kW		18 kW
Tool changer	18- or 40-fold (optionally 18-fold moving in Y)		
C-axis	360°		5-axis robot head with cardan joint bearing
Vertical drilling spindles	14 or 21		
Horizontal drilling spindles	max. 12		
Edging	VT50 / VT100 / VT/100/100 - alternative Laser Edging Unit		
Sound level	Operation without processing 80 dBA [dependent on tools, feed speed and material]		
Central dust extraction connection	Ø 250 mm with slider control		
Software	office version IMAWOP		
Tools	1 set of machining tools		



travelling distance in Y BIMA Cx40 R



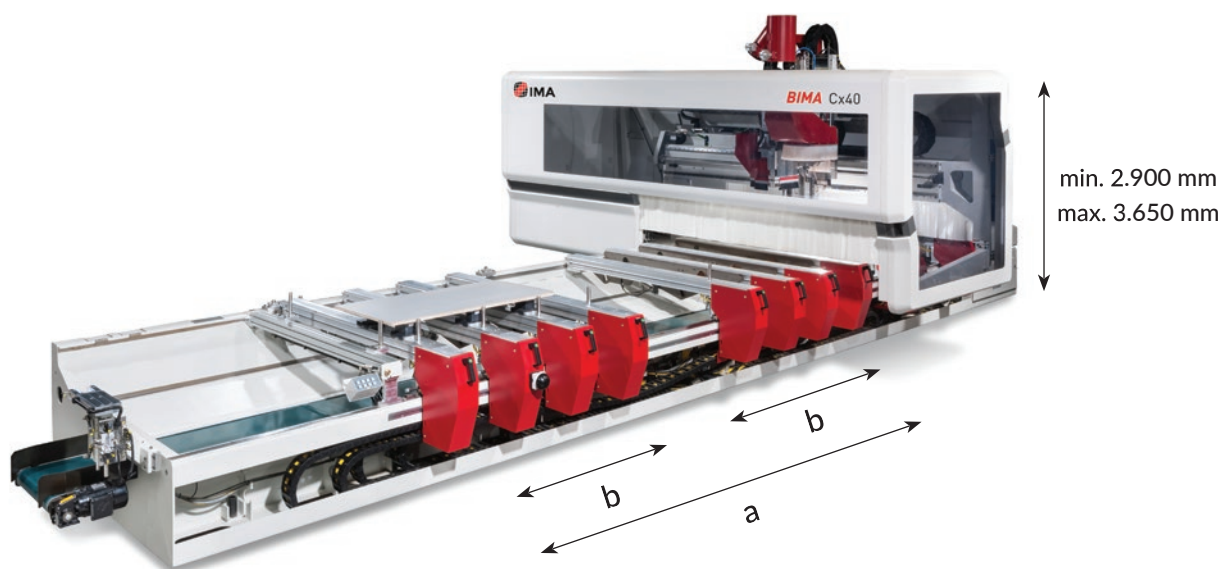
travelling distance in Y BIMA Cx40 / Cx40 E

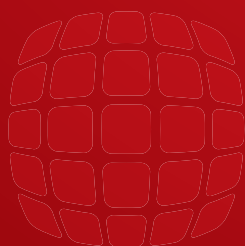
INDIVIDUAL EQUIPMENT POSSIBILITIES

- working area in X between 3000 mm and 7300 mm
- LED setup aid for up to 12 support bars
- automatic setup table / Dynapoint table
- 18 kW main spindle in S6 operation (for a 5-axis machine)
- additional spindle with complete functionality with capability to access the tool changer
- drilling unit with 14 to 24 vertical drill spindles (L-shaped layout)
- special drilling units
- attachment units
- 18- or 40-station tool changer (18-station tool changer optionally travelling with the head assembly in Y-direction)
- pressure safety mats
- central extraction
- template connection
- touch-trigger probe for measurement points in X, Y and Z directions
- automatic centralized lubrication
- UPS (uninterruptible power supply)
- remote service VPN/basic system
- various special equipment for Non-Wood processing

TECHNICAL DATA

Type	A single	B alternating	C dimension x	D dimension y
BIMA CX40				
145/330	3.300 mm	900 mm	8.600 mm	individual specification
145/430	4.300 mm	1.400 mm	9.600 mm	
145/530	5.300 mm	1.900 mm	10.600 mm	
145/630	6.300 mm	2.300 mm	11.600 mm	
145/730	7.300 mm	2.800 mm	12.600 mm	
BIMA CX40 R				
145/300	3.000 mm	750 mm	8.600 mm	individual specification
145/400	4.000 mm	1.250 mm	9.600 mm	
145/500	5.000 mm	1.750 mm	10.600 mm	
145/600	6.000 mm	2.250 mm	11.600 mm	
145/700	7.000 mm	2.750 mm	12.600 mm	
BIMA CX40 E				
145/310	3.100 mm	800 mm	9.850 mm	individual specification
145/410	4.100 mm	1.300 mm	10.850 mm	
145/510	5.100 mm	1.800 mm	11.850 mm	
145/610	6.100 mm	2.300 mm	12.850 mm	





The IMA Schelling Group is a reliable partner for implementing of sophisticated system solutions.
The demands of our customers are a daily challenge to us, our know-how and creativity! We work with you to develop innovative and unique solutions for wood processing.

www.imaschelling.com

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The protection device is part of the scope of delivery. Photos could also be options, not being part of the scope of delivery and are not binding in detail.



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