

DMC 635 V **eco**  
DMG**ECO**LINE

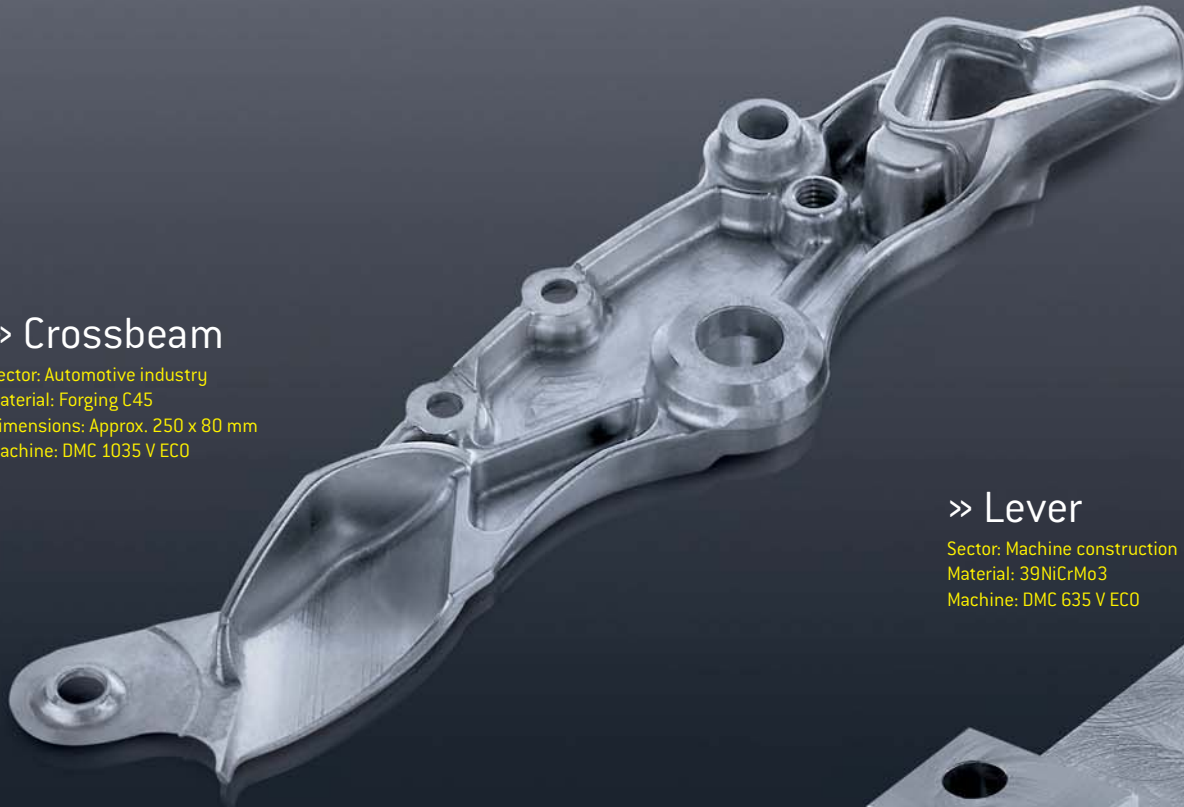
| HIGH-TECH MACHINES AT AN AFFORDABLE PRICE |

DMC 635 V **ECO** | DMC 1035 V **ECO**

- 02 | 03 Applications and Parts
- 04 | 07 Machine and Technology
- 08 | 09 Controls
- 10 | 11 Floor Plans and Technical Data

## » Crossbeam

Sector: Automotive industry  
Material: Forging C45  
Dimensions: Approx. 250 x 80 mm  
Machine: DMC 1035 V ECO



## » Lever

Sector: Machine construction  
Material: 39NiCrMo3  
Machine: DMC 635 V ECO



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## » Holding-down clamp

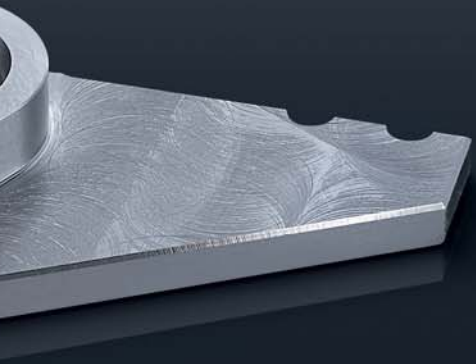
Connecting piece for a hitch-device  
Sector: Automotive industry  
Material: C45  
Dimensions: Approx. 200 x 120 mm  
Machine: DMC 1035 V ECO



| THE NEW DMG ECOLINE |

## »AN UNPARALLELLED ENTRY LEVEL SOLUTION FOR COMPACT VERTICAL MACHINING CENTRES.«

Increased competitiveness, global markets and increasing demands for quality and flexibility require new ideas that incorporate the best technology at the best price. With the DMC 635 V ECO / 1035 V ECO vertical milling machines, you receive top-notch performance at an entry-level price, giving you the competitive edge for a fast return on investment on the machines.



### » Milling setup-head

Sector: Machine construction  
Material: 39NiCrMo3  
Machine: DMC 635 V ECO

**High-tech machines for a limited budget:** The DMC 635 V ECO Universal Milling Machine and the larger DMC 1035 V ECO are equipped with standard top-of-the-line high-tech components. The sturdy C-frame design, a large, easily accessible work area and the powerful spindle are only a few of the productivity-increasing high-tech features that come as standard in the basic version.



> Powerful spindle

> Visual support for setup and diagnostics

> Tool magazine for 20 tools with a fast double gripper



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> ShopMill software for easy programming with 3D-simulation

# DMC 635 V ECO

## 3-axis vertical milling with 3D-simulation.

The DMC 635 V ECO 3-axis Vertical Milling Machine, with its work area of 635 x 510 x 460 mm, offers a combination of standard productivity-increasing high-tech features that are unparalleled in the entry-level vertical milling sector.

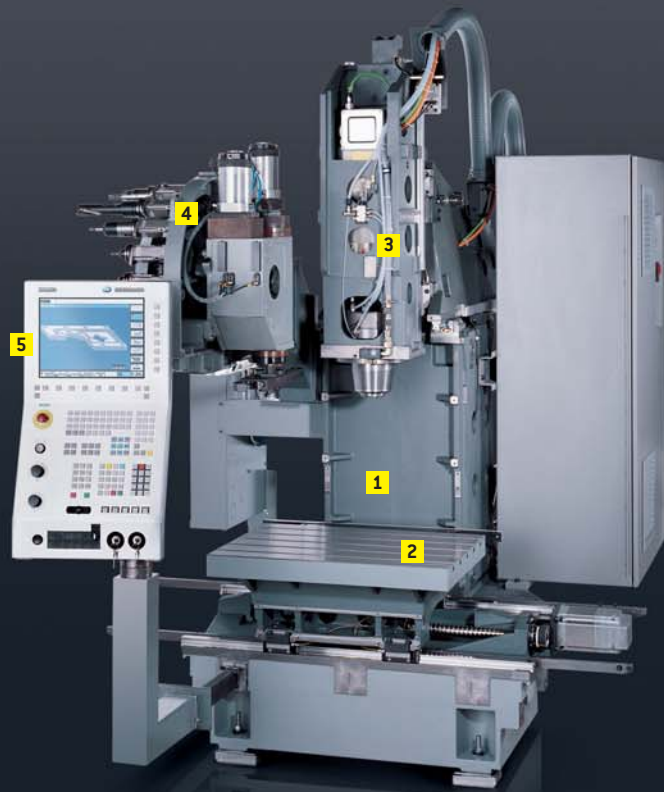


In terms of its design, the new DMC V ECO series has a sturdy cast-iron C-frame foundation **1** with the X-axis in the table **2**. The X-axis meets maximum rigidity requirements and ultimately forms the basis for exceptional precision during highly efficient milling. Sturdiness and precision are also ensured with roller guideways in all axes and the proven 3-point support of the machine, which also simplifies installation and reduces setup time. Additional features are the powerful 8,000 rpm milling spindle **3** with 83 Nm torque, the 20x tool magazine **4** with a double gripper

for short exchange times of only 1.6 seconds and the dynamic axis drives for feeds up to 25 m/min. The easily accessible work area offers the perfect environment for short set-up times. In addition, the DMC V ECO series comes with state-of-the-art control technology **5** with 3D-simulation and visual support during setup and for diagnostics. As standard, the series is equipped with ShopMill (Siemens 810D) or Manual Guide i (Fanuc Oi-MC).



> Large work area for workpieces up to 600 kg



### TECHNOLOGICAL HIGHLIGHTS

- >> Powerful spindle (8,000 rpm / 83 Nm (40 % DC) / 13 kW)
- >> Tool magazine for 20 tools with a fast double gripper

- >> Large, easily accessible work area (X / Y / Z = 635 / 510 / 460 mm)
- >> Reduced idle times: 25 m/min rapid traverse, 1.6 sec. tool-exchange time
- >> Excellent rigidity, precision and minimum space requirements due to the C-frame design

### OPTIONS

#### Precision package

Direct measuring system, BLUM laser

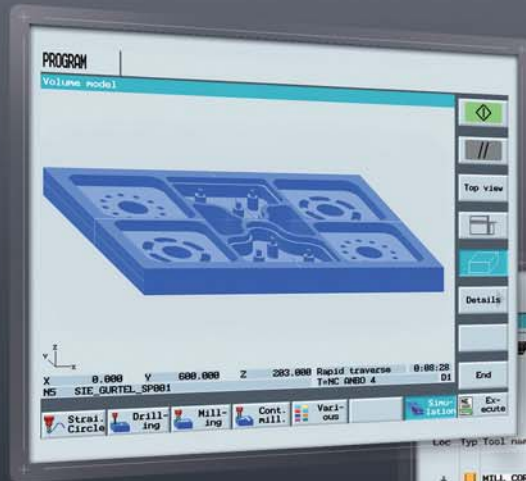
#### Chip disposal package

Hinged chip conveyor, coolant rinsing pistol and a 4-colour signal lamp

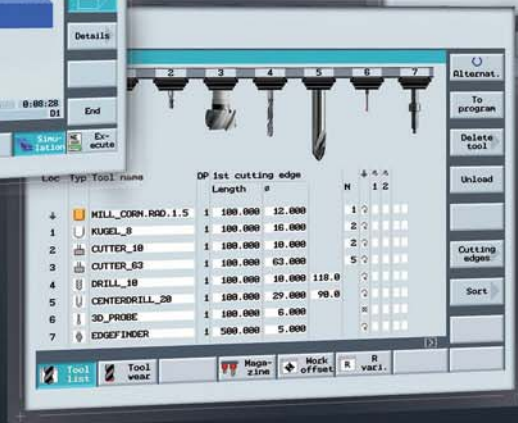
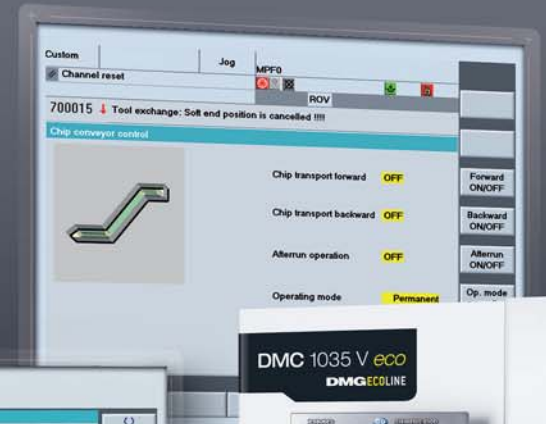
### ADDITIONAL OPTIONS

- >> Heidenhain TS 640 v infrared touch probe
- >> Heidenhain TT 130 tool touch probe
- >> Coolant/pressurised air changeover
- >> 10 free M-functions for Siemens
- >> Safety package for power outages
- >> Switched-in isolating transformer for power supply with voltages other than 400 V / 50 Hz
- >> Additional transformer for a 230 V power supply

> Visual support for setup



> ShopMill software for easy programming with 3D-simulation



> Comprehensive tool management with visual representation



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# DMC 1035 V ECO

## Advanced features with standard 15" screen and 3D-software.

The DMC 1035 V ECO offers an extensive basic equipment package with numerous technological highlights, including that large work area of 1035 x 560 x 510 mm. The product range of the Vertical Milling Machines is significantly enhanced by a number of intelligent expansion options and special devices. For example the direct measuring systems in all axes, touch probes and, with a view to international markets, alternative spindle systems with sizes CAT 40 and BT 40 respectively, as well as an active control cabinet cooling device for reliable utilisation in tropical areas.

> Large work area for workpieces up to 1,000 kg



> Tool magazine for 20 tools with a fast double gripper



**DMC V ECO – SANDVIK COROMANT TOOL PACKAGE**

- >> Four high quality milling tools from the CoroMill® series
- >> Four tool fittings (optionally ISO 40, BT 40, CAT 40)
- >> 30 high performance milling cutting inserts

07

**TECHNOLOGICAL HIGHLIGHTS**

- >> Powerful spindle (8,000 rpm / 83 Nm [40% DC] / 13 kW)
- >> Tool magazine for 20 tools with a fast double gripper

- >> Large, easily accessible work area (X / Y / Z = 1,035 / 560 / 510 mm)
- >> Reduced idle times: 25 m/min rapid traverse, 1.6 sec. tool-exchange time
- >> Excellent rigidity, precision and minimum space requirements due to the C-frame design

**OPTIONS**

**Precision package**

Direct measuring system, BLUM Laser

**Chip disposal package**

Hinged chip conveyor, coolant rinsing pistol, 4-colour signal lamp

**ADDITIONAL OPTIONS**

- >> CAT 40 / BT 40 tool clamping
- >> Freely programmable M-functions
- >> Heidenhain TT 130 broken drill touch probe
- >> Heidenhain TT 130 tool touch probe
- >> Rinsing pistol
- >> Safety package for power outages
- >> Liquid/air cooling switching

| DMG CONTROLS |

## »STATE-OF-THE-ART CONTROL TECHNOLOGY AND 3D-SIMULATION.«

Both the DMC 635 V ECO and the DMC 1035 V ECO are equipped with high-tech 3D-CNC controls from Siemens or Fanuc. Up to a 15" colour screen, a full keyboard and the electronic hand wheel form the basis for a completely convincing hardware performance. Numerous software features contribute to creating a comfortable environment for the operator in the shop-floor sector. This is especially true for the ShopMill software in the Siemens control or respectively the Manual Guide i software in the Fanuc CNC. Both systems ensure the fastest way from the drawing to the finished workpiece for the operator. Additional remarkable features of the controls are the extensive tool management, visually supported setup and the comprehensive diagnostic functions.





## SIEMENS 810D WITH SHOPMILL

### Highlights

- >> Visual programming with ShopMill in the standard version
- >> Comprehensive tool management with visual representation
- >> Visual representation of maintenance and diagnostics
- >> New, well laid-out screen design
- >> Full keyboard and electronic hand wheel
- >> Absolute axis measuring systems
- >> 15" TFT-screen

## FANUC 0I-MC WITH MANUAL GUIDE I

### Highlights

- >> Visual programming with Manual Guide i in the standard version
- >> Comprehensive tool management with visual representation
- >> Tool service life management for maximum machine utilisation
- >> Numerous machining cycles and large program memory already in the standard version
- >> Electronic hand wheel in the standard version
- >> 10.4" TFT-screen



### Customer benefits

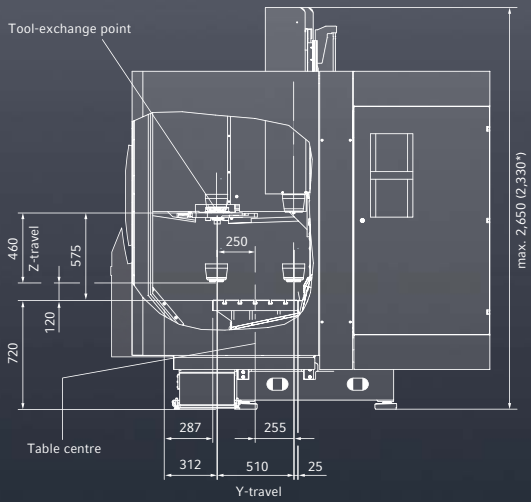
- >> Easy programming with 3D-simulation
- >> Visual support for fast setup
- >> Ethernet interface for fast data transfer
- >> Unique shop-floor programming for the fastest way from the drawing to finished workpiece
- >> External programming via control-identical training software SinuTrain

### Customer benefits

- >> Easy programming with 3D-simulation
- >> Visual support for fast setup
- >> Ethernet interface for fast data transfer (optional)
- >> Easy operation due to the PCMCIA slot
- >> Expanded help function and alarm / operation log
- >> Training software NC Guide

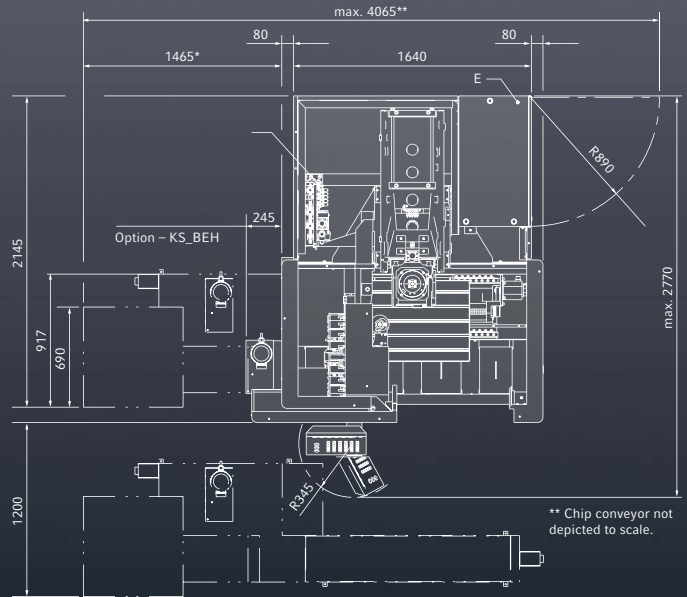
# FLOOR PLANS

DMC 635 V ECO, Side View



\* Transport height with a cable duct.

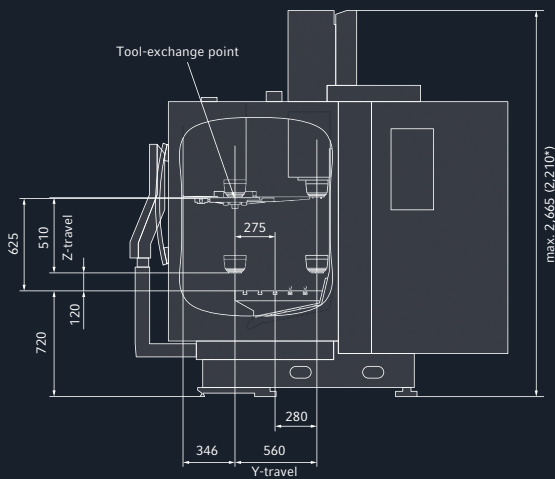
Top View



\*\* Chip conveyor not depicted to scale.

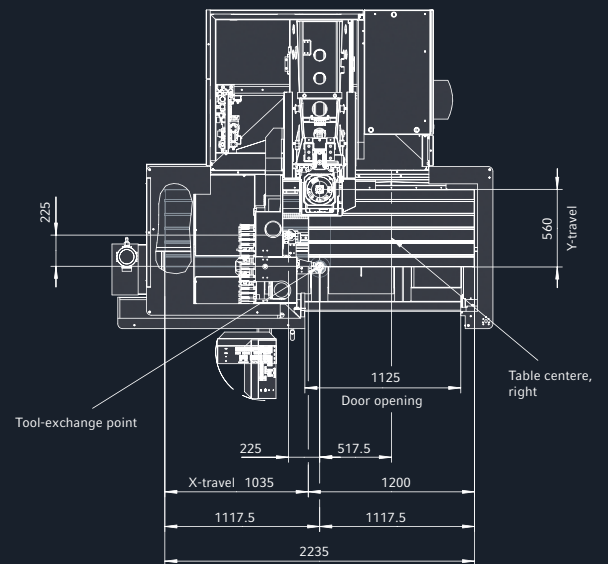
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DMC 1035 V ECO, Side View



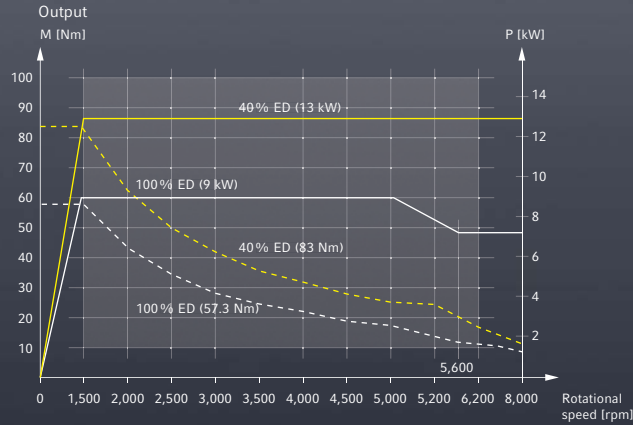
\* Transport height with a cable duct.

Top View



# PERFORMANCE DIAGRAM

DMC 635 V ECO / 1035 V ECO <sup>[2]</sup>



## TECHNICAL DATA

		DMC 635 V ECO	DMC 1035 V ECO
<b>Working range</b>			
Travel X-axis	mm	635	1035
Travel Y-axis	mm	510	560
Travel Z-axis	mm	460	510
<b>Feed</b>			
Feed power	N	4,000	4,000
Feed velocity	m/min	20	20
Rapid traverse	m/min	25	25
<b>Positioning accuracy</b>			
Pmax. according to VDI /DG0 3441 (in- /direct measuring system)	mm	0.020 / 0.008	0.020 / 0.008
Pmax according to JIS B6330-1980 (in- / direct measuring system)	mm	0.010 / 0.005	0.010 / 0.005
<b>Work spindle (standard)</b>			
Rotational speed, max.	rpm	8,000	8,000
Drive power (40 % / 100 % DC)	kW	13 <sup>[2]</sup> / 9 <sup>[2]</sup>	13 <sup>[2]</sup> / 9 <sup>[2]</sup>
Torque (40 % / 100 % DC)	Nm	83 <sup>[2]</sup> / 57 <sup>[2]</sup>	83 <sup>[2]</sup> / 57 <sup>[2]</sup>
Tool fitting		SK 40 / CAT 40 <sup>[1]</sup> / BT 40 <sup>[1]</sup>	SK 40 / CAT 40 <sup>[1]</sup> / BT 40 <sup>[1]</sup>
<b>Tool magazine / tool changer (Pick-up)</b>			
Number of tools		20	20
Max. tool diameter	mm	80	80
Max. tool diameter for vacant adjacent pockets	mm	130	130
Max. tool length	mm	300	300
Tool-exchange time	s	1.6	1.6
Chip-to-chip time	s	5	5
<b>Table design</b>			
Clamping surface with T-grooves	mm	790 x 560	1,200 x 560
Loading height (upper table edge)	mm	720	720
Table load (loading weight)	kg	600	1,000

<b>Control</b>			
Siemens	Type	Siemens 810D with ShopMill	Siemens 810D with ShopMill
Fanuc	Type	Fanuc Oi-MC with Manual Guide i	Fanuc Oi-MC with Manual Guide i

[1] Optional. [2] Technical data for Siemens 810D.

# SERVICE FROM DMG: ANYWHERE AND AT ANYTIME.

DMG Service Solutions give you service support and product support worldwide with customised service solutions and service products throughout the entire life of your machine tool.



## DMG Training SECURE YOUR ESSENTIAL COMPETITIVE ADVANTAGE

We are your reliable, competent partner for efficient training in programming, setup and operation for optimal machine utilisation, increased productivity and increased employee knowledge.

### ECO TRAINING PACKAGE

- >> Training for two participants
- >> Free ECO workshop
- >> 60-day trial version  
DMG Programming/Training Software\*

\* Currently only available for Siemens CNC.

## DMG Microset EXPERTISE IN TOOL PRESETTING EQUIPMENT

With many years of experience and unique expertise, DMG Microset is a full-line supplier in the tool measurement sector, offering a versatile, flexible and uniquely broad range of solutions. Whether you require individual products, vertical or horizontal units – DMG Microset offers the right solution for all types of applications and tool sizes.

### UNO 115 THE ENTRY-LEVEL MODEL WITH SUPERB FEATURES

- > For tool measurements up to  $\varnothing$  230 mm and measuring lengths up to 370 mm
- > Microvision I with a 10.4" screen
- > Edge-Finder for fast focusing of the tool cutting-edge
- > Pneumatic axis-clamping in both axes
- > Smooth running roller guideways
- > Protected glass gauges

### VIO 210 UNIVERSAL PRESETTING EQUIPMENT FOR EVERY USER

- > For tool sizes up to  $\varnothing$  420 mm and measuring lengths of 465 / 700 mm.
- > Pneumatic axis clamping, individually adjustable for all axes
- > Reflected light cutting-edge detection
- > Intelligent image processing systems for contour evaluation: Microvision II, available in more than 20 different languages Microvision III, with integration into the DMG Tool Manager for efficient tool management