

emcogroup

Designed for your profit



CONCEPT TURN 60

CNC training with
industrial performance

TURNING
EMCO-WORLD.COM

CONCEPT TURN 60

The Concept TURN 60 is a PC-controlled 2-axis CNC tabletop turning machine conforming to the industry standard in terms of design and function. Based on the successful CT 55 the new CT 60 offers the user more functionality and an even better performance, in accordance with the demands of ISO23125. All the key processes in modern manufacturing can be illustrated using this device and comprehended in a practical and realistic way. With appropriate simplification, clear machine design and ease-of-operation, operators will quickly learn how to use it successfully.

1 MAIN SPINDLE

- Max. speed 4200 rpm
- Clockwise/Counterclockwise spindle rotation
- Spindle bore Ø 16 mm

2 WORK AREA

- Fully enclosed work area
- Large safety glass window in door
- All-round protection against chips

3 MACHINE BASE

- With extensible drawer
- Additional space for PC tower

4 TOOL TURRET

- Disc turret
- 8 stations

5 MAIN DRIVE

- Infinitely adjustable main drive
- 3-phase AC asynchronous motor
- High-resolution axis motors

6 SAFETY

- In accordance with ISO 23125
- Door lock
- Standstill and speed limit monitoring

7 SWIVEL TABLE

- Extensible drawer for PC keyboard
- Arranged ergonomically

8 EMCO EASY2CONTROL

- On-screen control keyboard in conjunction with Easy2operate
- Operation is also possible using a 16:9 full-HD touchscreen

9 MACHINE DESIGN

- Industry-standard inclined-bed design
- Core components made from stable cast iron

10 OPERATION

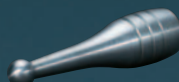
- Enabling key
- Emergency stop pushbuttons
- Mode selection



Machine with optional equipment



Round-head bolt



Pin



Attachment
(only turning process)

[Engineering]

Highlights

- The most compact table-top CNC turning machine
- Industry-standard inclined-bed design
- High-resolution axis motors
- Clockwise/counterclockwise spindle rotation
- Infinitely adjustable main drive
- Automatic 8-position tool turret: above the center of rotation for improved chip removal and optimal reachability of the workpiece by the operator
- Automatic referencing
- Profile rail guides (linear guides)
- Premium industrial Components
- Safety technology according to the latest lathes standard

Options

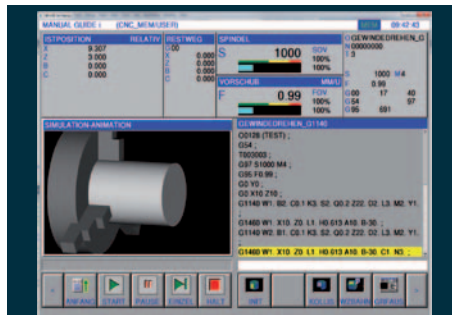
- Mechanical tailstock
- Robotik-Interface
- DNC-interface (for integration in FMS and CIM)
- Automatic clamping devices
- Automatic door and electromechanical tailstock
- Electronic handwheel
- Minimal quantity lubrication
- Machine base with swivel table
- Easy2operate

[The interchangeable control]

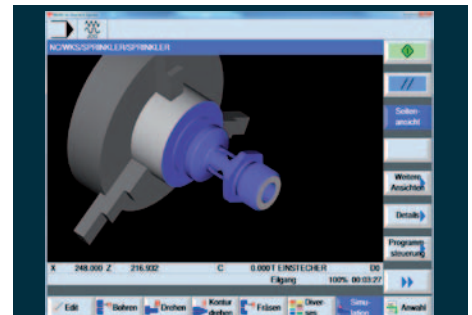
The unique concept of the interchangeable control can be fitted to all Concept machines. In doing so, the user is trained on all CNC industry controls that are common on the market. The result: All CNC technicians can be applied more flexibly. And this is a decisive plus: for qualified employees as well as for the business.



The conversion to another control system is carried out within a minute by calling up the respective software and by simply replacing the controller specific module.



Simple to program using the EMCO WinNC control units



Simulation suitable for training using Win3D-View

[Easy2control: New operating concept]

Optional it is possible to equip the machine with the latest software of the interchangeable control, with which control specific and machine keyboards of the WinNC can be displayed on a 16:9 Full-HD screen – Easy2control. The different panels for machine, control and quick access can be switched via tabs. The buttons and rotary knobs can either be operated by using the mouse or in case a Full HD touchscreen is used directly on the keys and switches on the monitor. To operate the software on the Concept machine a license dongle and a small machine control panel – „Easy2operate“ – is required.



Easy2control with Easy2operate

CONCEPT TURN 60

Technical data



Work area

Distance between spindle noses	335 mm (13.2")
Swing over bed	130 mm (5.1")
Max. turning diameter	60 mm (2.36")
Max. part length	215 mm (8.5")

Travel

Travel X / Z	60 / 280 mm (2.36 / 11.0")
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Main spindle

Spindle bore	16 mm (0.6")
Spindle diameter at front bearing	30 mm (1.2")
Speed range	300 – 4200 rpm

Main Power

Power (3 phase asynchronous motor)	1.1 kW (1.47 hp)
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Feed drives

Rapid motion speed X / Z	3 m/min (118.1 ipm)
Feed force X / Z	1000 N
Positioning variation Ps (acc. VDI 3441) in X / Z	8 µm (0.0003")

Tool turret

No. of tool stations	8
Tool-cross section	12 x 12 mm (0.5 x 0.5")
Shank diameter for boring bars	10 mm (0.4")

Tailstock

Quill stroke	35 mm (1.4")
Quill diameter	22 mm (0.9")

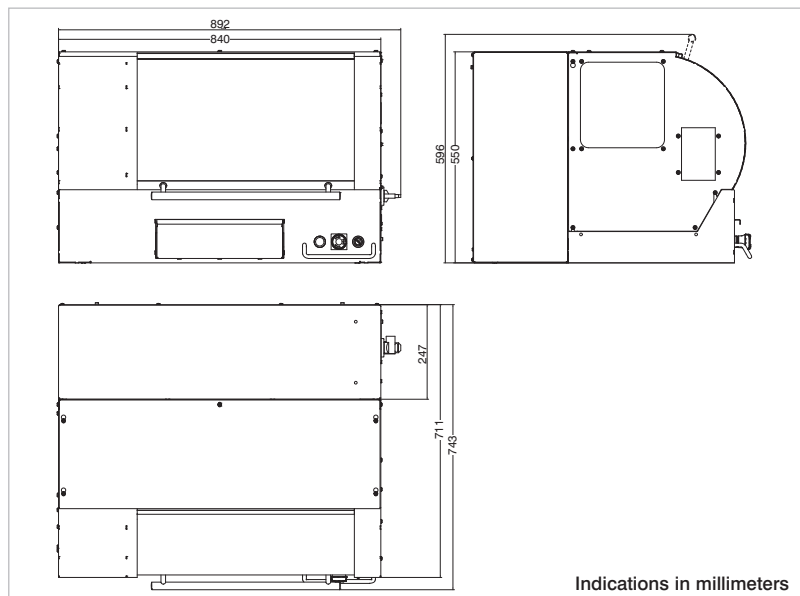
Dimensions

Height of center above floor	325 mm (12.8")
Dimensions W x D x H	895 x 745 x 550 mm (35.2 x 29.3 x 21.6")
Total weight	150 kg (330.7 lb)

EMCO WinNC controls

Sinumerik Operate 840D sl / 828D
Fanuc Series 31i
Fagor 8055
CAMConcept

Machine layout



Torque

