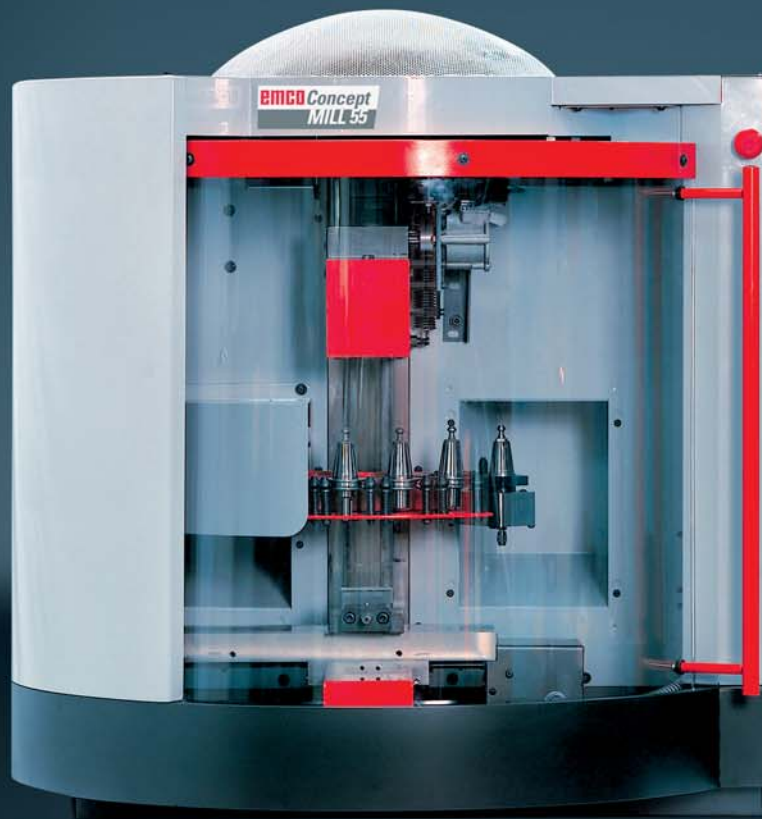


[ E[M]CONOMY ]  
means:

**emco** industrial  
training

Designed for your profit



## Small Machine. Great Performance. CONCEPT MILL 55

CNC training with  
industrial performance

# Concept MILL 55

This compact milling machine is well suited to the training bench and has almost all the features of an industrial machine: optional with 8-station tool changer with swivel arm and pick-up system, NC indexing device as fourth axis, minimum quantity lubrication and latest state-of-the-art control technology.

## [Main drive]

- Infinitely variable main drive
- Three-phase asynchronous motor

## [Working area]

- Full cover of working area
- Large safety glass window in door
- All-round protection against chips

## [Machine base]

- With removable drawer
- Space for PC tower

## [Tool changer]

- 8 stations
- Swivel arm with pick-up system

## [Machine design]

- Stable, gray cast-iron construction

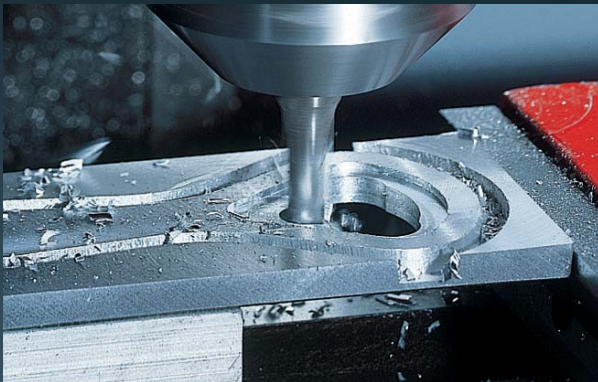


Attachment

Piston

Milled part

# [Technical]



## Highlights

- Stable, gray cast iron construction, suitable for industrial use
- Clockwise/anticlockwise spindle rotation
- Infinitely variable main drive
- Automatic reference points
- Fully covered working area
- Made in the Heart of Europe



## Options

- 8-station tool changer
- Minimum quantity lubrication
- Electronic handwheel
- Engraving spindle attachment
- NC indexing attachment as optional fourth axis
- DNC robotics interface for integration in FFS or CIM systems
- Machine base with swivel table

## [The interchangeable control]

The unique concept of the interchangeable control can be fitted in all Concept machines. In doing so, the user is trained on all CNC industry control units that are common on the market. Up to eight different control units can be installed and taught on one single machine at present.

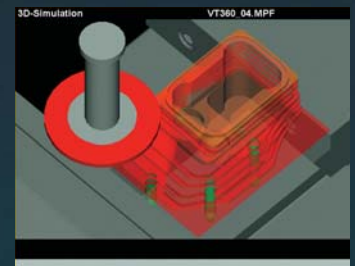
The result: All CNC technicians can be applied more flexibly. And this is a decisive plus: for the qualified employees as well as for the business.



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



Simple to program using the EMCO WinNC control units



Simulation suitable for training using Win3D-View

# [Technical Data]

## CONCEPT MILL 55

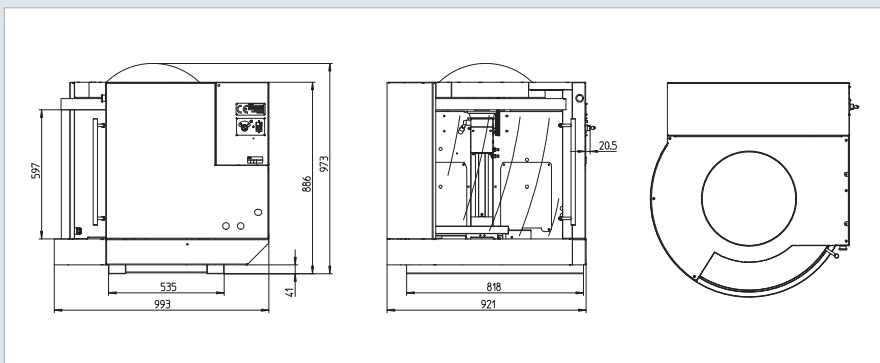
Working area	
Positioning range X axis longitudinal	190 mm (7.48")
Positioning range Y axis latitudinal	140 mm (5.51")
Positioning range Z axis vertical	260 mm (10.24")
Effective Z axis travel	120 mm (4.72")
Spindle nose-table distance	77 - 337 mm (3.03 - 13.26")
Milling table	
Clamping area (L x W)	420 x 125 mm (16.54 x 4.92")
Maximum table load	10 kg
2 T-slots to DIN 650	11 mm (0.43")
T-slots gap	90 mm (3.54")
Milling spindle	
Bearing type	tapered roller bearings
Tool changer (optional, ex works)	
Number of tool stations	8
Max. tool weight	1 kg
Max. tool diameter	Ø 40 mm (1.57")
Tool swivel arm traverse speed	10 m/min (0.39 ipm)
Tool clamping	automatic
Milling spindle drive	
Three-phase asynchronous motor, power rating	0,75 kW
Milling spindle drive	
Speed range (infinitely variable)	150 – 3500 min <sup>-1</sup>
Torque max.	3,7 Nm (2.72 ft/lbs)
Speed with optional run-up spindle	14 000 min <sup>-1</sup>
Feed drives	
3-phase step motors in X/Y/Z axes with step resolution	0,5 µm

Feed drives	
Working feed and rapid traverse in X/Y/Z axes	0 – 2 m/min (0-78.74 ipm)
Average positioning variation to VDI 3441 in X/Y/Z	8µm/ 8µm/ 8µm
Maximum feed power X/Y/Z [N]"	800/ 800/ 1000
Lubrication system	
Guideways	Oil lubrication
Main spindle bearing service life	Grease lubrication
Dimensions/Weight (Approximate values)	
Overall height	980 mm (38.55")
Installation area B x W	960 x 1000 mm (37.76 x 39.33")
Total weight of machine incl. tool changer	220 kg
Power supply	
Power supply (reversible)	1/N/PE [V] 115/230
Max. voltage fluctuations	+5/-10 %
Frequency	50/60 Hz
Connected load for machine	0,85 kVA
Max. power fuse for the machine	12 A

### EMCO WinNC control units

Siemens 810D/840D	GE FANUC Series 21
Siemens 820	GE FANUC Series 0
Siemens 810	Fagor 8055
Heidenhain TNC 426/430	Emcotronic TM 02
CAMConcept	

## Machine layout



## Power

