

[ 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 for CNC training 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

## [Work area]

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

## [Tool changer]

- 8 stations
- Swivel arm with pick-up system

## [Swivel table]

- Extensible drawer for PC keyboard
- Arranged ergonomically

## [Machine design]

- Stable, gray cast-iron construction

## [Machine base]

- With removable drawer
- Space for PC tower



Bracket



Piston





# [ Technical data ]

## CONCEPT MILL 55

Work area	
Travel in X longitudinal	190 mm (7.48")
Travel in Y latitudinal	140 mm (5.51")
Travel in Z vertical	260 mm (10.24")
Effective Z-stroke	120 / *190 mm (4.7 / 7.5")
Distance spindle nose - table	77 – 337 mm (3.03 x 13.26")
Table	
Clamping area (L x W)	420 x 125 mm (16.54 x 4.92")
Max. table load	10 kg
2 T-slots DIN 650	11 mm (0.43")
T-slot spacing	90 mm (3.54")
Milling spindle	
Bearing type	roller bearing
Tool change (Option)	
No. of tool stations	8
Max. tool weight	1 kg
Max. tool diameter	40 / *60 mm (1.6 / 2.4")
Motion speed tool swivel arm	10 m/min (0.39 ipm)
Tool clamping	automatic
Milling spindle drive	
Motor power 3 phase asynchronous motor	0.75 kW
Speed range	150 – 3500 rpm
Max. torque	3.7 Nm (2.72 ft/lbs)
Speed with optional engraving spindle	14000 min-1
Feed drive	
3 phase step motor in X / Y / Z axis with resolution	0,5 µm / 0,5 µm / 0,5 µm
Rapid motion speed and feed rate X / Y / Z	0 – 2 m / min (0 – 78.74 ipm)
Average positioning variation in VDI/DGQ 3441 in X / Y / Z	8 µm / 8 µm / 8 µm

Feed drive	
Feed power X / Y / Z [N]*	800 / 800 / 1000
Lubrication system	
Guideways	Oil lubrication
Main spindle bearing service life	Grease lubrication
Dimensions	
Dimensions W x D x H	960 x 1000 x 980 mm (37.76 x 39.33 x 38.55")
Total weight	220 kg
Electrical connection	
Voltage supply (adjustable)	1/N/PE [V] 115/230
Admissible voltage fluctuation	+5 / -10 %
Frequency	50/60 Hz
Connection value	0,85 kVA
Maximum pre-fusing of machine	12 A

\* without toolchanger

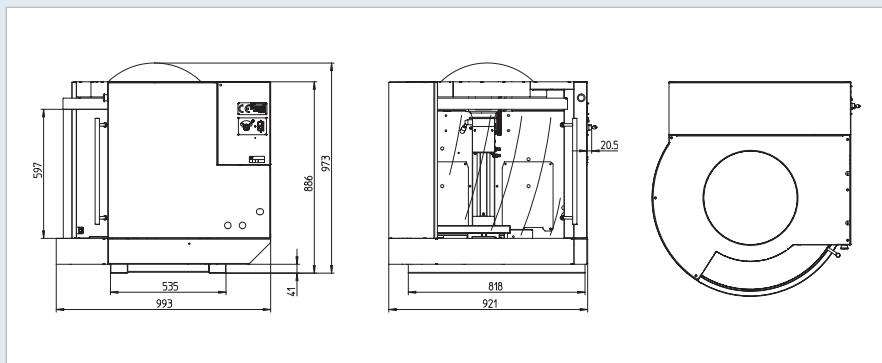
### EMCO WinNC control units

Sinumerik Operate 840D sl / 828D	FANUC Series 21
Sinumerik 810D / 840D	FANUC Siereis 0
Sinumerik 810 / 820	Emcotronic TM02
FAGOR 8055 MC	CAMConcept
FANUC Series 31i	Heidenhain TNC 426 / 430

### User Interface for Easy2control

Sinumerik Operate 840D sl / 828D	FANUC Series 31i
Siemens 810D / 840D	FAGOR 8055 TC
HEIDENHAIN TNC 426 / 430	

## Machine layout



## Power

