

**[ That's  
E[M]CONOMY: ]**

**emco** group

Designed for your profit



## **Design to Cost. EMCOTURN E25**

**CNC turning center for bar stock work up to  
Ø 25 mm (1") and also chucking work**

# EMCOTURN E25

## [ Work area ]

- Free chip fall
- Best ergonomics
- Total protection from flying chips
- Large safety-glass door

## [ Main spindle ]

- High power
- Thermostable construction
- Large range of speeds
- Bar capacity Ø 25 mm (1")

## [ Tool changer ]

- 12 positions VDI 16 axial
- With 6 driven positions on request
- Polygonal turning
- Synchronised tapping

## [ Control ]

- Cutting-edge digital control technology
- Sinumerik 828D or Fanuc Oi TD includes ShopTurn or ManualGuide i
- Colour LCD monitor

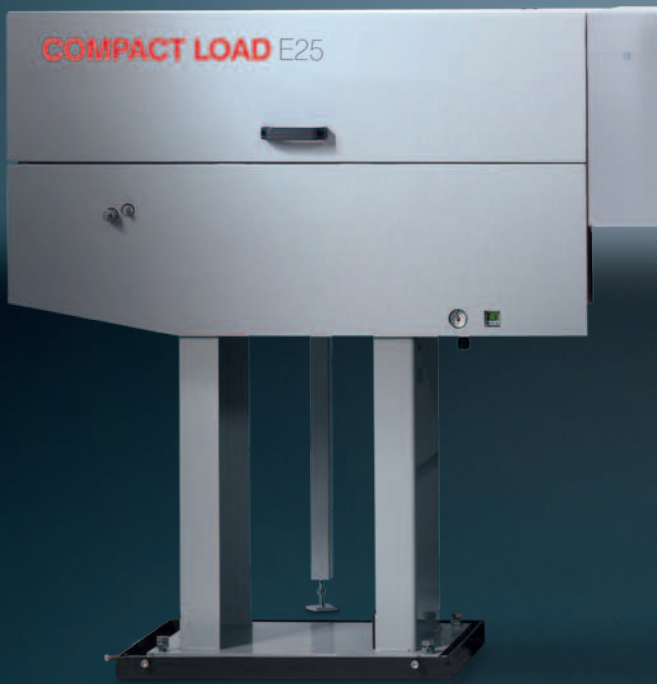


Photo shows machine with options

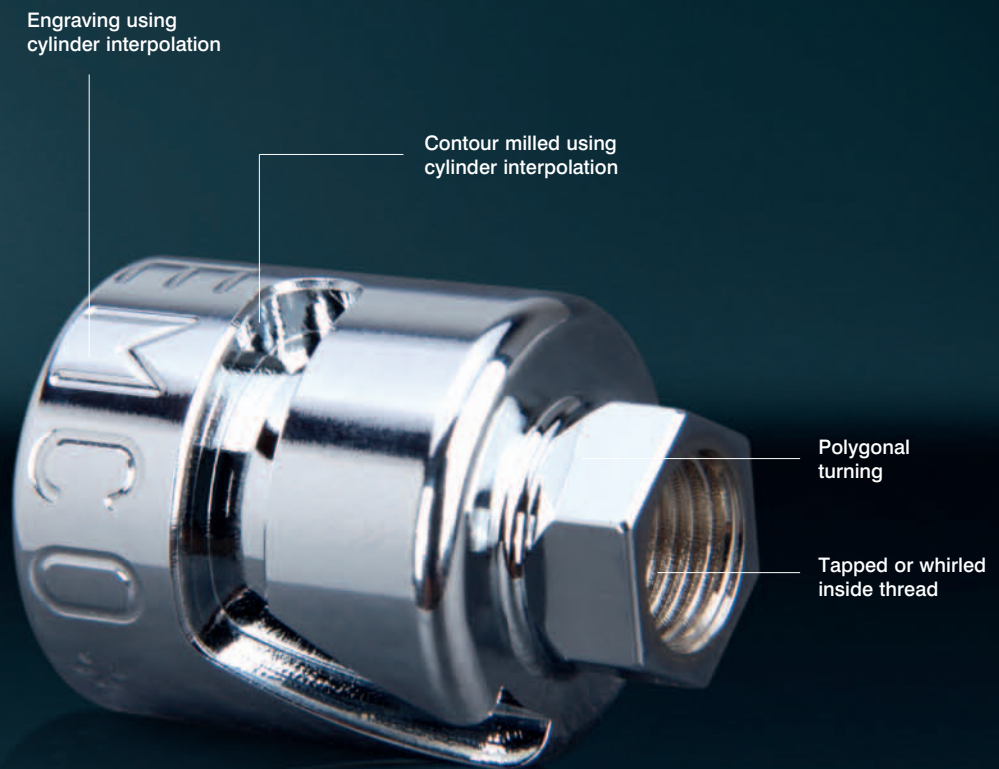


## [ Machine stand ]

- Small footprint
- Easy transport
- Large coolant reservoir
- Easy to clean

Uncompromising quality right down to the last detail at a very reasonable price. With an extremely solid machine base, a thermosymmetric spindle headstock, high-precision spindle bearings, preloaded roller guideways in all axes, a fast tool turret and your choice of Sinumerik 828D or Fanuc Oi TD – with dialogue programming.

# [Workpieces]



Tensile test  
(Brass)



Fitting  
(Stainless steel)



Ring  
(Gold)



Valve cap  
(Stainless steel)



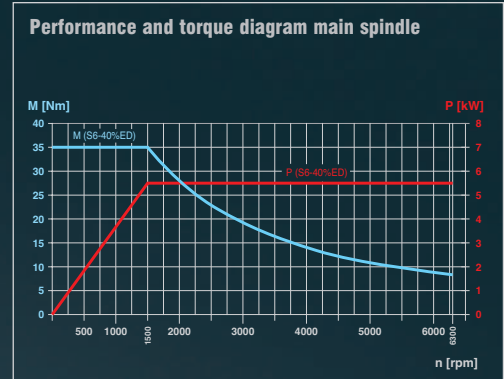
Plug  
(Stainless steel)

# [Engineering]

## Highlights

- Extremely solid machine base, highest thermostability
- Best machining precision
- Most compact machine construction
- Cutting-edge control technology with Sinumerik 828D or Fanuc 0i TD with ShopTurn or ManualGuide i
- Made in the Heart of Europe

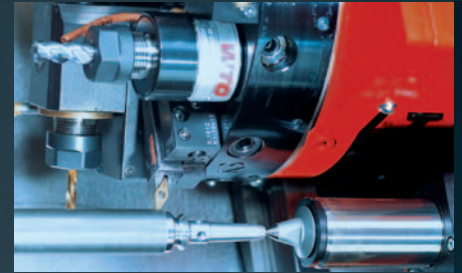
## Power



With a bar capacity of 25 mm (1") the EMCOTURN E25 is the ideal turning center for machining small parts.



With 12 stationary and up to 6 driven tools, the EMCOTURN E25 offers an astonishing cutting performance – with top precision.

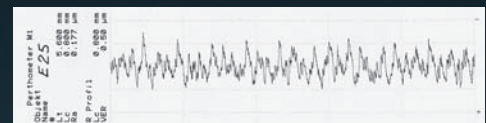
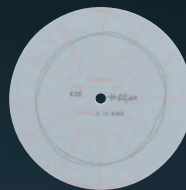


Long workpieces can be precisely turned with the support of a tailstock.

# [Validated Quality]

## Roundness and surface quality

Material:	Brass (Cu Zn 40 Pb 2 )
Cutting tool:	Carbide insert CCGX 09 T3 04-AL
Turning diameter:	ø 35 mm
Cutting speed:	300 m/min
Feedrate:	0,025 mm/rev
Cutting depth:	0,03 mm



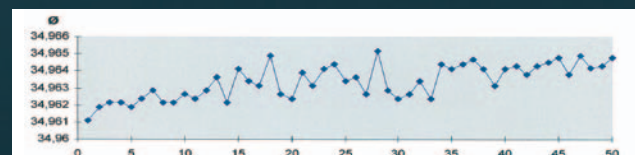
As measured:	
Roundness:	0,5 μm
Surface finish:	Ra = 0,177 μm

## Repeat accuracy

Material:	Steel – 16 Mn Cr 5
Turning diameter:	ø 35 g6
Tolerance:	16 μm
Spindle speed:	2000 rpm
Feedrate:	0,08 mm/rev
Cutting depth:	0,2 mm

As measured:	
Variation:	4 μm
Cm-value:	2,62

Long term machining accuracy: 4 μm







# [Technical data]



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## EMCOTURN E25

Work area	
Swing over bed	250 mm (9.8")
Swing over cross slide	85 mm (3.35")
Maximum distance between centers	405 mm (15.9")
Maximum turning diameter	85 mm (3.35")
Maximum turning length	255 mm (10.04")
Maximum bar-stock diameter	25.5 mm (1")
Travel	
Travel in X	100 mm (3.94")
Travel in Z	300 mm (11.8")
Main spindle	
Speed range	60 – 6300 rpm
Drive performance	5.5 kW (7.4 hp)
Spindle torque	35 Nm (25.8 ft/lbs)
Spindle nose	Ø 70 h5
Spindle bearing (inner diameter at front)	50 mm (2")
Spindle bore	30 mm (1.2")
C axis	
Resolution	0.001°
Rapid motion speed	1000 rpm
Spindle indexing	3°
Tool turret	
Number of tool positions	12
Tool holding shaft in accordance with VDI (DIN 69880)	VDI 16
Tool cross-section for square tools	12 x 12 mm (0.47 x 0.47")
Shank diameter for boring bars	16 mm (0.63")
Driven tools	
	<b>DIN 5480</b>
Number of stations	6
Drive performance	1.2 kW (1.6 hp)
Maximum torque	4 Nm (2.95 ft/lbs)
Speed range	0 – 6000 rpm

Feed drives	
Rapid traverse X/Z	15/24 m/min (590.55 / 944.9 ipm)
Feed force in the X/Z axis	3000/3500 N (674.4 / 786.8 lbs)
Position variation Ps in accordance with VDI 3441 in X/Z	0.003/0.004 mm (0.00011/0.00015)
Tailstock	
Quill stroke	120 mm (4.7")
Quill diameter (live center integrated)	35 mm (1.4")
Quill thrust	800 – 2500 N (179.8 – 562 lbs)
Quill bore taper	integrated live-centre
Coolant system	
Tank volume	140 liters (37.03 gal)
Pump performance	0.57 kW (0.76 hp)
Dimensions and weight	
Height of spindle center	1131 mm (44.5")
Machine height	1820 mm (71.65")
Required space for machine L x D	1700 x 1270 mm (66.9 x 50")
Total weight	1100 kg (2425.06 lb)

## EMCO COMPACT LOAD E25

Bar length	100 – 600 mm (3.9–23.6")
Bar diameter	6 – 25 mm (2.6–1")
Material storage	23 bars of Ø 25 mm (1")
Length	1200 mm (47.4")
Width	1100 mm (43.3")
Weight	approx. 330 kg (727.5 lb)



EN4651 - 12/16 - Subject to change. We can accept no liability for printing errors.

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