emco group

Designed for your profit

E[M]CONOMY moves!

www.emco-world.com

Create and use synergies! The EMCO Group.

The EMCO Group is an association of top suppliers from the machine tool industry. The companies associated work together in a network of European manufacturers on intelligent and innovative production solutions for the metal-cutting industry. There are always new possibilities for the whole group due to the various competences of the individual entrepreneurs, their resources, and the transfer of know-how amongst the companies within the group.

The EMCO Group headquarters and central production facilities are located in Salzburg. There are also further production facilities in Germany, Italy and Russia, as well as corporate sales offices in Germany, Italy, the Czech Republic and the USA. EMCO is represented internationally in all major markets with over 140 sales and services offices. At the present time, the EMCO Group employs around 690 committed and well skilled employees.

emco group
Designed for your profit

EMCO

EMCO is Austria‘s largest machine tool manufacturer. EMCO has earned an international reputation with innovative solutions for turning, milling, and complete machining together with a leading training program world-wide.

emco famup
Designed for your profit

Famup

Famup is one of the leading manufacturers of CNC machining centers. Product range: vertical CNC milling centers with X travel from 350 to 3200 mm for effective industrial production.

emco MECOF
Designed for your profit

Mecof

MECOF is one of the leading manufacturers of high-speed, high-precision milling and boring machining centers. With longstanding experience and expert knowledge, MECOF is well placed to meet the requirements of both small companies and the large OEM groups in the automotive and aerospace industries.

emco magdeburg
Designed for your profit

Magdeburg

EMCO – Magdeburg is an EMCO subsidiary where the vertical lathes and vertical mills are produced. Also its specialist in customized technological solutions.

With regard to productivity: the divisions of the EMCO Group.

The EMCO Group has two essential divisions that pursue a common goal worldwide: more productivity for the metal-cutting industry.

Perfect engineering for all requirements: EMCO Innovative Machine Tools

The EMCO Group develops and produces innovative high-tech machine tools for the metal-cutting industry. The product range is unique in Europe. From conventional turning and milling machines, through cycle-controlled machines, universal CNC turning machines, CNC milling and turning centers to high-speed milling and drilling machining centers for economic complete machining: The EMCO Group provides the industry with custom-made, highly efficient solutions for all requirements.

From the industry, for the industry: EMCO Industrial Training

For more than 35 years, EMCO Industrial Training has trained both company employees and future specialists from around the world in the use of state-of-the-art CNC machines. As one of the leading European manufacturers of high-tech machines for the metal-cutting industry the EMCO Group has first-hand experience of the success factors for professional training. With its comprehensive training concept including Concept machines, software for the simulation of industrial requirements, and perfectly coordinated training documents - multimedia training program EMCO CAMPUS - EMCO Industrial Training represents the world market leader of CNC training.

When everything fits together: That’s E[M]CONOMY!

The whole is more than the sum of its parts: The EMCO Group offers economic efficiency that is unique in its industry worldwide. Maximum efficiency and maximum customer benefits are the decisive building blocks of a corporate philosophy that not only envisions top-quality machines. The aim of the EMCO Group is solutions that are custom-made to customers’ quality and productivity requirements and budget.

[Efficient engineering]

The EMCO Group is always striving towards the most economic solution. The principle of „standardized components – individual machines" means that machines are created that are not only more cost effective but also more productive at the same time.

[Modular automation]

Every EMCO machine can be extended to a fully automatic manufacturing cell using a large variety of automation components. The modular structure of the automation concept of the EMCO Group enables particularly cost effective and individually optimized solutions.

[Consulting for all areas]

Whether it is a matter of machine configuration, manufacturing logistics, automation, budget planning, or financial advice, the EMCO Group works with a worldwide network of specialists for all relevant areas.

Optimum quality

EMCO is certified to the latest quality standard ISO 9001:2008. The certification procedure involves a detailed examination of all quality-related business processes. This approach is also designed to orientate the company towards providing maximum customer benefit. This year's supervisory audit was performed by the accredited certification body TÜV Austria, which again confirmed the implementation of standards-compliant processes and workflows.

Organization, implementation, and training

The specialists in the EMCO Group guarantee optimum implementation of the machines and automation solutions in accordance with the individual, configured concept. Furthermore, EMCO application engineers teach customers the best way to operate the machines in custom-made training sessions.

Made in the Heart of Europe

All EMCO Group machines are developed and produced in Central Europe with the exclusive use of European branded components. This guarantees best European processing quality, top quality standards, and maximum productivity.

Network of service offices

The companies in the EMCO Group provide a dense network of service offices. Highly qualified engineers soon arrive on site with spare parts and guarantee minimum machine downtimes.

Quality components

MADE IN THE HEART OF EUROPE

[Machine bases and slides]

When matching components, we place great value on high stability, good damping characteristics, and a thermoneutral design. We achieve high stability through a shorter force flow, thermal stability through symmetry, and dampening through the materials and interfaces selected.

www.emco-magdeburg.de

[Headstocks]

The design and manufacture of headstocks are two of EMCO's core competencies. During engineering, the focus is on precision, robustness, high rigidity, precise rotational characteristics, and a long service life.

www.emco-magdeburg.de

[Tool turret]

Rapid-indexing turrets with adjustable swivel speeds and milling drives represent the current state of the art. The backlash-free milling drive is not only ideal for milling and drilling, but also for rigid tapping, hobbing, and polygonal turning.

www.sauter-feinmechanik.com

[Tool holder]

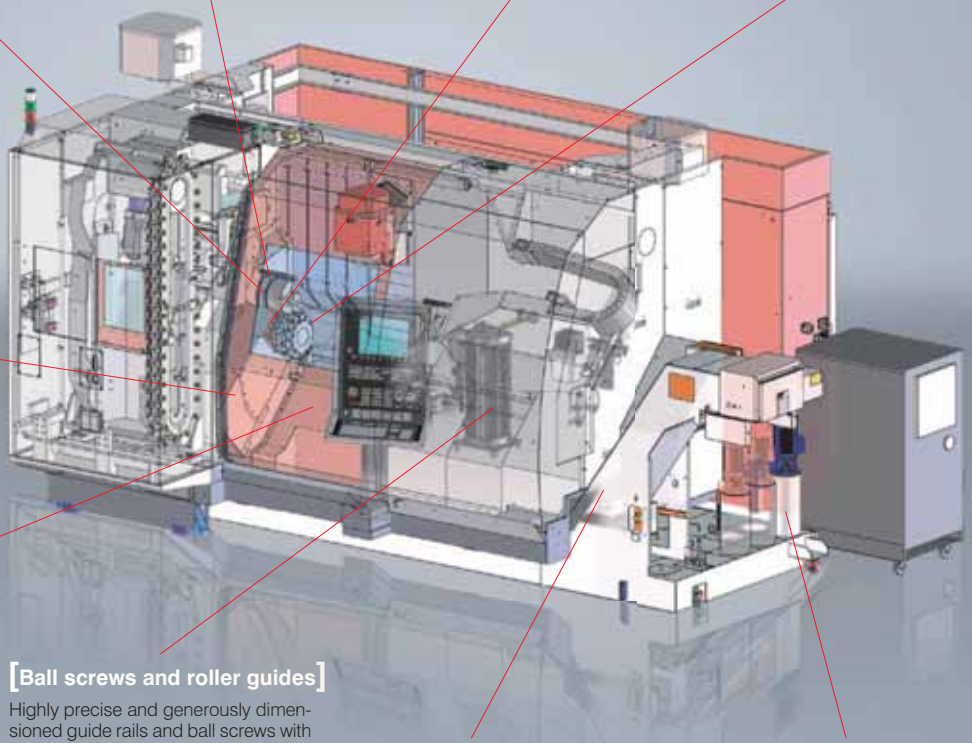
Innovative, fully developed tool holder systems form the basis for cost-effective machining. High changeover accuracy and stability result in short setup and cycle times.

www.wto.de

[Clamping cylinder / chuck]

Hydraulically activated clamping cylinders and chucks guarantee the precise, safe clamping of work pieces. Programmable sensors are used for stroke monitoring. There is no need for time-consuming adjustments of contactless limit switches.

www.roehm.biz



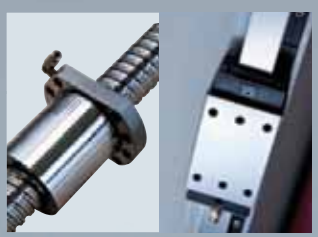
[Hydraulic systems]

Compact dimensions, quiet operation, and high energy efficiency - just some of the advantages of the hydraulic assemblies used by EMCO. Monitored pressure switches prevent the need for time-consuming manual pressure adjustments.

www.hawe.de

[Ball screws and roller guides]

Highly precise and generously dimensioned guide rails and ball screws with optimal pretensioning form the basis for the machining of precision parts.



www.boschrexroth.com

[Chip conveyor]

Slat band conveyors allow for flexible implementation and the safe removal of chips. A monitored overload clutch prevents damage from improper use.

www.knollmb.de

[Coolant pumps]

Low-maintenance immersion pumps for pressures of up to 25 bar and flow rates of up to 1500 l/min provide optimum conditions for machining and enable reliable chip transportation.

www.grundfos.at

Minimum use of resources for maximum profit.

E[M]COLOGY
Designed for Efficiency

At EMCO, we take a consistent, responsible approach to the use of resources in machine tools in order to safeguard long-term investments. From the development of our machines through to their construction and manufacture, we place a strong focus on the sensible and sparing use of raw materials and energy. This enables us to achieve parallel savings in two areas:

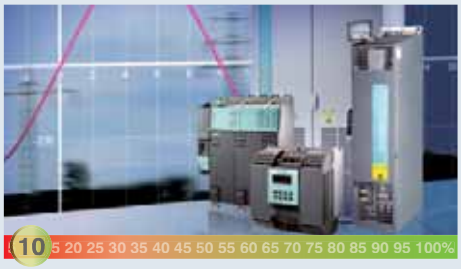
1. Reduction in the basic power consumption of machine tools, e.g. assemblies are switched on and off as required and the installed connected loads are kept to a minimum.

2. Reduction in variable consumption: This can be seen in the lighter axes, energy recovery system, increased rate of good parts, and the shorter process chain enabled by complete machining.

Through these measures, which are constantly being refined and further optimized, EMCO truly demonstrates that its slogan of „Designed for your Profit“ is not just an empty promise: EMCO products help save the environment and provide intelligent customer savings without compromising on quality and flexibility.

[Regenerative drive system]

Kinetic energy is converted into electrical energy and fed back into the grid.
Savings of up to 10%



[Compact hydraulics unit with pressure accumulator]

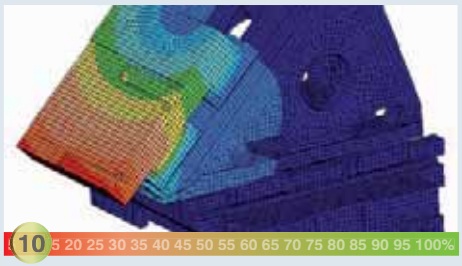
Thanks to its accumulator charging system, the pump only runs when required. If the pressure accumulator is full, the pump switches over to closed loop circulation.
Savings of up to 90%

[Roller guides]

Extremely low friction losses thanks to rolling friction. Highly dynamic performance with minimal lubricant consumption.
Savings of up to 50%

[Structurally optimized mechanics]

FEM analysis is used to optimize the relevant components in terms of their rigidity while simultaneously reducing their weight.
Savings of up to 10%

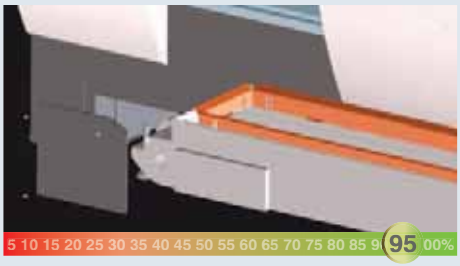


[Highly efficient motors]

The use of energy-efficient motors (IE2) in the coolant preparation area guarantee highly cost-effective operation.
Savings of up to 10%

[Synchronized chip conveyor]

Programmable interval times enable optimal use of the chip conveyor independently of of the machining process.
Savings of up to 95%



[Intelligent standby concepts]

Reduced consumption by automatically switching off ancillary units and machine space/screen illumination after a defined period of inactivity on the control panel.
Savings of up to 50%

[Virtual machine]

Significant reduction in the setup and running-in times on the machine through the use of highly developed simulation and programming software.
Savings of up to 85%

[Intelligent energy management]

Intuitive data entry screens for activating the individual energy-saving functions.
Savings of up to 70%

Product Range Turning

EMCO HYPERTURN

Multitasking machine with high-performance milling spindle and tool magazine
for the flexible complete machining of highly complex workpieces


HYPERTURN 65 Powermill


HYPERTURN 95 Powermill


HYPERTURN 110 Powermill

CNC Turn-Mill centers with turrets including driven tools and Y-axis
for the highly productive complete machining of complex workpieces


HYPERTURN 45


HYPERTURN 65 Duoturn


HYPERTURN 65 Tripleturn

EMCO MAXXTURN

High performance CNC turning centers with driven tools and Y-axis
For the versatile machining of chuck, shaft and rod parts Part size up to Ø 680 mm (26.8“), bar capacity Ø 25 (1“) to 110 mm (4.3“)


MAXXTURN 25


MAXXTURN 45


MAXXTURN 65

EMCO VERTICAL

Vertical pick-up turning machines
For chuck parts up to Ø 400 mm (15.75“)


EMCO VERTICAL VT 160


EMCO VERTICAL VT 260

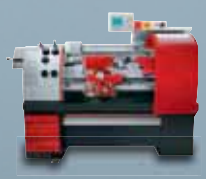

EMCO VERTICAL VT 400

EMCOMAT

Universal manual lathes
Center height: 140 to 200 mm (5.51 to 7.87“)
Center distance: 650 to 1000 mm (25.59 to 39.37“)


EMCOMAT-14 D


EMCOMAT-17 D


EMCOMAT-20 D

Precision cycle controlled lathes
Center height: 200 to 430 mm (6.30 to 16.92“)
Center distance: 1000 to 6000 mm (39.37 to 236.22“)


EMCOMAT E-200 MC with Siemens / E300 - 400 with Siemens or Fagor

HYPERTURN 200 Powermill

HYPERTURN 95

HYPERTURN 110

HYPERTURN 150

MAXXTURN 95

MAXXTURN 110

EMCOTURN

CNC turning centers with driven tools

CNC turning centers for the most economical machining of chuck, shaft and rod parts.
Part size up to Ø 500 (19.7"), bar capacity: Ø 25 (1") to 65 mm (2.6")

EMCOTURN E25

EMCOTURN E45

EMCOTURN E65

EMCO CONCEPT TURN

CNC turning centers

With interchangeable control units Part size up to 220 mm (8.66“) diameter, bar stock capacity up to 45 mm (1.77“)

CONCEPT TURN 60

CONCEPT TURN 105

CONCEPT TURN 260

CONCEPT TURN 460

Product Range Milling

[EMCO]

EMCO MMV

Travelling column machining center

For manufacturing of large workpieces also available as 5-axis version.
Travel in X-axis 2000 – 3200 mm (78,7 – 126“)

MMV 2000

MMV 3200

EMCO MAXXMILL

5 axes machining center

For 5-side operation of workpieces with an edge length up to 500 x 500 x 475 mm (19,7 x 19,7 x 18,7“)

MAXXMILL 400

MAXXMILL 500

EMCOMILL

Vertical milling machine designed as C-frame or as moving column centre

Vertical machining for small to medium number of pieces

EMCOMILL E350

EMCOMILL 750

EMCOMILL 1200

EMCOMAT

Universal manual and Precision cycle controlled milling machines

Travel in X from 300 (11.81“) to 600 mm (23.62“)

EMCOMAT FB-3 L

EMCOMAT FB-450 MC with Siemens or Heidenhain

EMCOMAT FB-600 MC with Siemens or Heidenhain

EMCO CONCEPT MILL

CNC milling centers

With interchangeable control units, Travel in X from 190 (7.5“) to 350 mm (13.78“)

CONCEPT MILL 55

CONCEPT MILL 105

CONCEPT MILL 260

[MECOF]

MECOF Horizontal Spindle machines

X axis: from 6000 mm (236“) and over

ECOMILL

X axis: from 6000 mm (236“) and over

ECOMILL PLUS

X axis: from 6000 mm (236“) and over

MECMILL

X axis: from 6000 mm (236“) and over

MECMILL PLUS

MECOF Vertical Spindle machines

X axis: from 2500 mm (98“) and over

LINEARMILL

X axis: from 4550 mm (179“)
(in steps of 2500 mm (98"))

DYNAMILL

X axis: from 7500 mm (295“) and over

MEGAMILL

X axis: 6000 mm (236“) and over

POWERMILL

Portal milling machine for 5-axis machining

X axis: 1800 mm (71")

UMILL 1800

UMILL 1800

Application fields: Precision General Engineering, Moulds, Dies and Models, Aerospace, Power Generation

Technical data	UMILL 1800
X-axis	1800 mm (71")
Y-axis	2150 mm (85")
Z-axis	1250 mm (50")
Rapid motion speed	60 m/min
Milling head with mechanical spindle	38 KW / 600 Nm / 6000 rpm (51 HP / 221,5 lbf ft / 6000 rpm)
Milling head with high-speed spindle	45 KW / 300 Nm / 12000 rpm (60 HP / 443 lbf ft / 12000 rpm) or 50 kW / 100 Nm / 20000 rpm (66,7 HP / 148 lbf ft / 20000 rpm)
Undercut	15°
Rotary table for milling and turning	ø 1800 mm (71"), load capacity 5 tons, 250 rpm
Rotary table for milling	ø 1700 x 1400 mm (67 x 55"), load capacity 10 tons, 10 rpm

High performances and efficiency for your production

UMILL 1800

New MECOF Portal milling machine for 5-axis machining

- Milling and turning operations in one setting for the complete machining of complex workpieces up to ø 2500 x 1250 mm
- Undercut up to 15°
- Axes travels: 1800 x 2150 x 1250 mm
- Rotary table for milling ø 1700 x 1400 mm, for workpieces of 10 t
- High perfomance spindle (12000 rpm), high torque 300 Nm (S1), milling capacity of 45 kW (S1)
- Automatic tool change system up to 228 pockets
- State-of-the-art control: Heidenhain TNC 640 HSCI or Siemens 840D sl
- No foundation necessary

[Horizontal spindle machines]

ECOMILL

Application fields: General Engineering, Moulds, Dies and Models

ECOMILL PLUS

Application fields: General Engineering, Moulds, Dies and Models, Aerospace

Technical data	ECOMILL	ECOMILL PLUS
X axis	from 6000 mm (236") and over	from 6000 mm (236") and over
Y axis	1300 mm (51")	1600 mm (63")
Z axis	2500 mm (98.4")	3000 mm (118")
Spindle motor	60 kW / 600 Nm (81 HP / 443 lbf-ft)	base 60 kW / 600 Nm (81 HP / 443 lbf-ft) option 40 kW / 1200 Nm (54 HP / 885 lbf-ft)
Axes feed rate	30 m/min (1181 ipm)	30 m/min (1181 ipm)
Power milling heads	3+2 axes up to 38 kW / 600 Nm / 6000 rpm 51 HP / 443 lbf-ft / 6000 rpm	3+2 axes up to 38 kW / 1000 Nm / 6000 rpm 51 HP / 738 lbf-ft / 6000 rpm
High speed spindle with special support	40,5 kW / 35,4 Nm / 18000 rpm 54,7 HP / 26,1 lbf-ft / 18000 rpm	High speed full 5 axes heads up to 42 kW / 120 Nm / 24000 rpm 56 HP / 89 lbf-ft / 24000 rpm
Boring Spindle		

[Vertical spindle machines]

LINEARMILL

Application fields: Moulds, Dies and Models, Aerospace

DYNAMILL

Application fields: Moulds, Dies and Models, Aerospace

Technical data	LINEARMILL	DYNAMILL
X axis	from 2500 mm (98") and over	from 4550 mm (180") and over (in steps of 2500 mm (98"))
Y axis	2200 – 3000 mm (87 - 118")	3000 – 4000 mm (118 - 158")
Z axis	1000 – 1500 mm (39 - 59")	1500 – 2500 mm (59 - 98")
Spindle motor		60 kW / 600 Nm (81 HP / 443 lbf-ft)
Axes feed rate	100 m/min (3937 ipm)	40 m/min (1575 ipm)
Power milling heads		3+2 axes and/or 5 axes up to 38 kW / 600 Nm / 6000 rpm 51 HP / 443 lbf-ft / 6000 rpm
High speed spindle with special support	5 axes heads up to 42 kW / 67 Nm / 24000 rpm 56 HP / 50 lbf-ft / 24000 rpm	5 axes heads up to 42 kW / 120 Nm / 24000 rpm 56 HP / 89 lbf-ft / 24000 rpm

MECMILL

Application fields: Precision General Engineering, Moulds, Dies and Models, Power Generation

MECMILL
from 6000 mm (236") and over
1600 mm (63")
3500 mm (138")
40 kW / 1200 Nm (54 HP / 885 lbf-ft)
30 m/min (1181 ipm)
3+2 axes and/or 5 axes up to 38 kW / 1000 Nm / 6000 rpm 51 HP / 738 lbf-ft / 6000 rpm
5 axes heads up to 42 kW / 120 Nm / 24000 rpm 56 HP / 89 lbf-ft / 24000 rpm

MECMILL PLUS

Application fields: Precision General Engineering, Aerospace, Power Generation

MECMILL PLUS
from 6000 mm (236") and over
1600 - 1800 mm (63 - 71")
4000 - 5000 mm (158 - 197")
40 kW / 1200 Nm (54 HP / 885 lbf-ft)
25 m/min (985 ipm)
3+2 axes and/or 5 axes up to 38 kW / 1000 Nm / 6000 rpm 51 HP / 738 lbf-ft / 6000 rpm
5 axes heads up to 42 kW / 120 Nm / 24000 rpm 56 HP / 89 lbf-ft / 24000 rpm
diameter 130 mm (5.2") - W axis travel 700 mm (28") 45 kW / 2000 Nm / 2000 rpm 60 HP / 1475 lbf-ft / 2000 rpm

MEGAMILL

Application fields: Precision General Engineering, Moulds, Dies and Models, Aerospace, Power Generation

MEGAMILL
from 7500 mm (295") and over
4000 – 5000 – 6000 – 7000 mm (158 – 197 – 236 – 276")
1500 – 2000 mm (59 – 79")
40 kW / 1200 Nm (54 HP / 885 lbf-ft)
30 m/min (1181 ipm)
3+2 axes and/or 5 axes up to 38 kW / 1000 Nm / 6000 rpm 51 HP / 738 lbf-ft / 6000 rpm
5 axes heads up to 42 kW / 120 Nm / 24000 rpm 56 HP / 89 lbf-ft / 24000 rpm

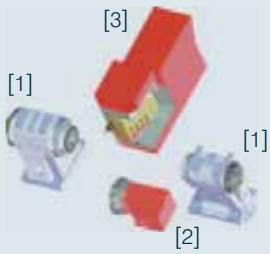
POWERMILL

Application fields: Precision General Engineering, Moulds, Dies and Models, Aerospace, Power Generation

POWERMILL
from 6000 mm (236") and over
4000 – 5000 – 6000 – 7000 mm (158 – 197 – 236 – 276")
1500 – 2000 mm (59 - 79")
40 kW / 1200 Nm (54 HP / 885 lbf-ft)
30 m/min (1181 ipm)
3+2 axes and/or 5 axes up to 38 kW / 1000 Nm / 6000 rpm 51 HP / 738 lbf-ft / 6000 rpm
5 axes heads up to 42 kW / 120 Nm / 24000 rpm 56 HP / 89 lbf-ft / 24000 rpm

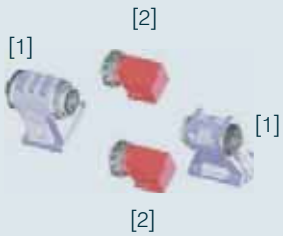
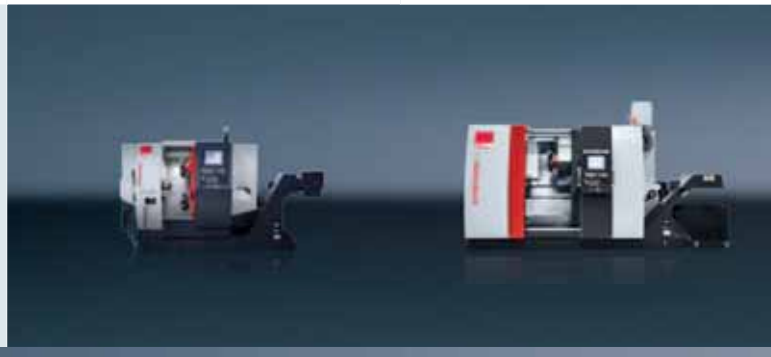
[Turning]

EMCO HYPERTURN POWERMILL

Highlights	Machine concept	HYPERTURN 65 PM	HYPERTUR
■ Powerful main and counter spindles [1] ■ Milling spindle with direct drive [3] ■ 24/40/80-slot or 50/100/200-slot tool magazine (depending on machine model) ■ NC-steady-rest ■ 12-station tool turrets with 12 driven tool positions [2] ■ Linear guides in all axes ■ EMCO Automation			

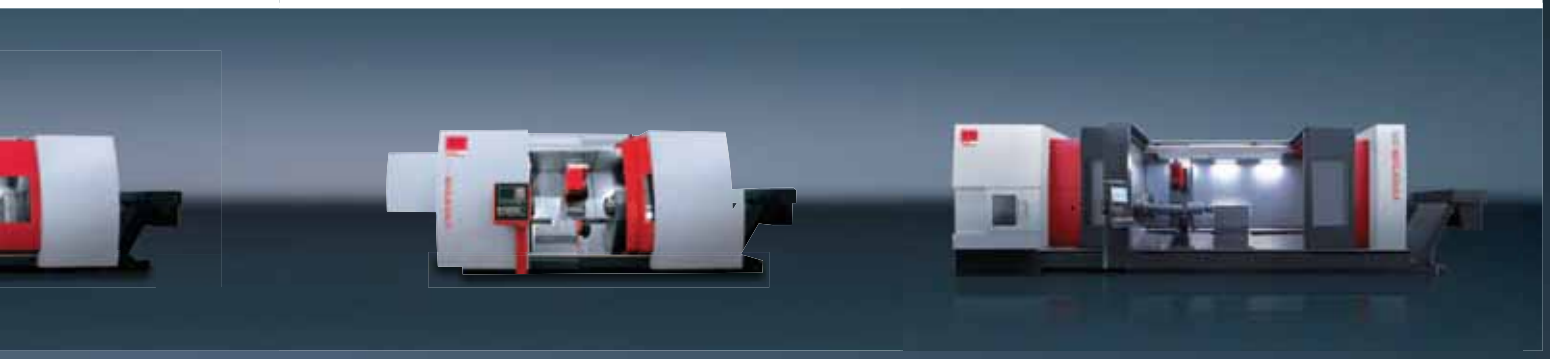
Technical data		HT 65 PM	HT 95 PM
Bar capacity	mm (inch)	65 (76,2 / 95) (2.5 (3.0 / 3.7"))	95 (3.7")
Swing Ø over bed	mm (inch)	500 (19.7")	720 (28.3")
Chuck size	mm (inch)	200 (250) ((7.1 (9.8"))	315 (400) (12.4" (15.7"))
Travel in X / Y / Z	mm (inch)	405 / 220 / 1050 (15.9 / 8.7 / 41.3")	550 and 300 / 240 / 1340 – 1940 (21.6 and 11.8 / 9.4 / 52.7 – 76.4")
Rapid motion speed in X / Y / Z	m/min (ipm)	30 / 12 / 30 (1181 / 472.5 / 1181)	30 / 30 / 30 (1181 / 1181 / 1181)
Speed range	rpm	0 – 5000	0 – 3500
Drive power / Torque	kW (hp) / Nm	29 / 37 (39 / 50) / 250	33 (44.2) / 800
Driven tools		24 / 40 / 80	40 / 80

EMCO HYPERTURN

Highlights	Machine concept	HYPERTURN 45	HYPERTURN 65 DT
■ Powerful main and counter spindles [1] ■ 2(3) x 12-station tool turrets [2] ■ 2(3) x 12 driven tool positions ■ BMT-tool turret with direct drive motor (optional) ■ Linear guides in all axes ■ EMCO Automation			

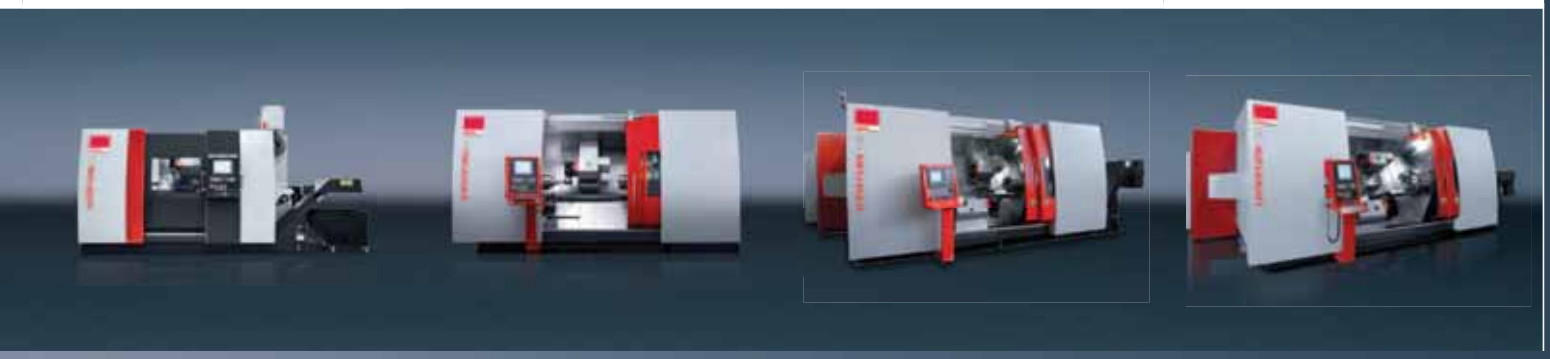
Technical data		HT 45	HT 65 DT
Bar capacity	mm (inch)	45 (1.7") (51 (2.0")) / A2-5	65 (76,2 / 95) (2.5 (3.0 / 3.7")) A2-6, -8
Swing Ø over bed	mm (inch)	430 (16.9")	660 (26.0")
Chuck size	mm (inch)	160 (6.3")	200 (250) (7.8 (9.8"))
Travel in X / Y / Z	mm (inch)	160 / 70 / 510 (6.3 / 2.7 / 20.1")	260 / 100 / 800–1050 (10.2 / 3.9 / 31.5–41.3")
Rapid motion speed in X / Y / Z	m/min (ipm)	30 / 15 / 45 (1181.1 / 590.5 / 1771.6)	30 / 12 / 30 (1181 / 472.5 / 1181)
Speed range	rpm	0 – 7000	0 – 5000
Drive power / Torque	kW (hp) / Nm	15 (20.1) / 100 Nm	29 / 37 (39 / 50) / 250
Driven tools		2 x 12	1, 2, 3 x 12

RN 95 PM	HYPERTURN 110 PM	HYPERTURN 200 PM



	HT 110 PM	HT 200 PM
	110 (4.3")	
	720 (28.3")	1050 (41.3")
	400 (630) (15.7" (24.8"))	500 (800) (19.7 – (28.3"))
	550 and 300 / 240 / 1340 – 1940 (21.6 and 11.8 / 9.4 / 52.7 – 76.4")	915 / 600/ 3100 – 6100 (36.0 / 32.6 / 122.0 240.2")
	30 / 30 / 30 (1181 / 1181 / 1181)	30 / 30 / 30 (1181 / 1181 / 1181)
	10 – 2500	10 – 1800
	52 (69.7) / 2400	84 (112.6) / 6400
	40 / 80	50 / 100 / 200

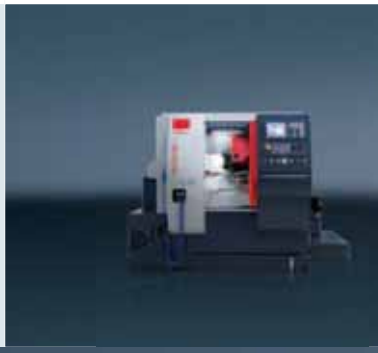
HYPERTURN 65 TT	HYPERTURN 95	HYPERTURN 110	HYPERTURN 150



	HT 65 TT	HT 95	HT 110	HT 150
	65 (76,2 / 95) (2.5 (3.0 / 3.7")) A2-6, -8	95 (3.7") / A2-8	110 (4.3") / A2-11	A2-15
	660 (26.0")	720 (28.3")	720 (28.3")	720 (28.3")
	200 (250) (7.1 (9.8"))	315 (400) (12.4" (15.7"))	400 (630) (15.7" (24.8"))	630 (24.8")
	260 / 100 / 800–1050 (10.2 / 3.9 / 31.5–41.3")	340 and 300 / 240 / 1340 – 1940 (13.4 and 11.8 / 9.4 / 52.7 – 76.4")	340 and 300 / 240 / 1340 – 1940 (13.4 and 11.8 / 9.4 / 52.7 – 76.4")	340 and 280 / 240 / 1940 (13.4 and 11.0 / 9.4 / 76.4")
	30 / 12 / 30 (1181 / 472.5 / 1181)	30 / 30 / 30 (1181 / 1181 / 1181)	30 / 30 / 30 (1181 / 1181 / 1181)	30 / 30 / 30 (1181 / 1181 / 1181)
	0 – 5000	0 – 3500	0 – 2500	0 – 2000
	29 / 37 (39 / 50) / 250	33 (44.2) / 800	52 (69.7) / 2480	52 (69.7) / 3400
	1, 2, 3 x 12	2 x 12	2 x 12	2 x 12

[Turning]

EMCO MAXXTURN

Highlights	Machine concept	MT 25	MT 45
■ Powerful main spindle [1] ■ Fully functioning counter spindle ■ Automatic tailstock [2] ■ 12-station tool turret [3] ■ VDI rapid-change system ■ Driven tools ■ Stable Y axis ■ NC-controlled steady [4] ■ Linear guides in all axes ■ EMCO Automation			

Technical data		MT 25	MT 45
Bar capacity	mm (inch)	25.4 (1.0")	45 (51) (1.7 (2.0"))
Swing Ø over bed	mm (inch)	325 (12.8")	430 (16.9")
Chuck Ø	mm (inch)	95 (3.7")	160 (200) (6.3 (7.9"))
Travel in X / Y / Z	mm (inch)	100 / 35 / 320 (3.9 / 1.4 / 12.6")	160 / 70 / 510 (6.3 / 2.8 / 20.0")
Rapid motion speed in X / Y / Z	m/min (ipm)	20 / 10 / 30 (787.4 / 393.7 / 1181)	24 / 10 / 30 (944.9 / 393.7 / 1181)
Speed range	rpm	0 – 8000	0 – 6300 (5000)
Drive power	kW (hp)	6.5 (8.7)	13 (17.4)
Driven tools		6	12

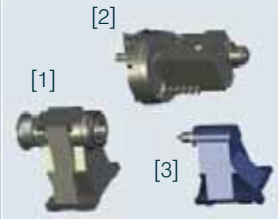
EMCO VERTICAL VT

Highlights	VT 160	VT 260	VT 400
■ Ready for heavy machining ■ Small footprint ■ Self-loading automation included ■ New Siemens control ■ Free chip fall ■ Milling tools and Y axis optionally ■ Made in the Heart of Europe			

Technical data		VT 160	VT 260	VT 400
Max. work piece length	mm (inch)	150 (5.9")	180 (7.1")	200 (7.9")
Max. work piece diameter	mm (inch)	160 (6.3")	260 (10.2")	400 (15.7")
Chuck size	mm (inch)	160 (6.3")	260 (10.2")	400 (15.7")
Travel in X / Y / Z	mm (inch)	620 / + - 65 / 310 (24.4 / + - 2.6 / 12.2")	660 / +70 -90 / 310 (26.0 / +2.8 - 3.5 / 12.2")	960 / + - 90 / 400 (37.8 / + - 3.5 / 15.7")
Rapid motion speed in X / Y / Z	m/min (ipm)	60 / 15 / 30 (2362 / 590 / 1180)	60 / 15 / 30 (2362 / 590 / 1180)	45 / 15 / 30 (1770 / 590 / 1180)
Speed range	rpm	0 – 7000	0 – 5000	0 – 4000
Drive power	kW (hp)	21 (28.2)	29 (38.9)	36 (48)
Driven tools		12	12	12

	MT 65	MT 95	MT 110
			
	MT 65	MT 95	MT 110
	65 / 76 / 95 (2,5 / 3,0 / 3,7")	95 (3.7")	95 / 110 (3.7 / 4.3") (optional)
	660 (26")	700 (27.6")	820 (32.3")
	200 (250) (7.9 (9.8"))	315 / 400 (12.4 / 15.7")	315 / 400 (12.4 / 15.7")
	260 / 100 / 800 (10.2 / 3.9 / 31.5")	318 / 140 / 1360 (12.5 / 5.5 / 53.5")	420 / 180 / 1560 - 3560 (16.5 / 7.0 / 61.4 - 140.1")
	30 / 12 / 30 (1180 / 590 / 1575)	24 / 12 / 30 (944.9 / 472.5 / 1181)	24 / 12 / 30 (944.9 / 472.5 / 1181)
	0 – 5000	0 – 3500	0 – 3500 / 2500
	29 (37) (38.9 (49.6))	33 (44.3)	33 / 52 (44.2 / 69.7)
	12	12	12

EMCOTURN E-series

Highlights	Machine concept	E25	E45	E65
■ Powerful main spindle [1] ■ 12-station tool turret [2] ■ VDI rapid-change system ■ Driven tools ■ Tailstock [3] ■ Linear guides in all axes ■ EMCO Automation				

Technical data		E25	E45	E65
Bar capacity	mm (inch)	25.5 (1.0")	45 (51) (1.7 (2.0"))	65 (95) (2.5"(3.7"))
Swing Ø over bed	mm (inch)	250 (9.8")	430 (16.9")	610 (24.0")
Chuck size	mm (inch)	95 (3.7")	160 / 200 (6.3 / 7.8")	200 / 250 (7.8 / 9.8")
Travel in X / Y / Z	mm (inch)	100 / 300 (3.9 / 11.8")	160 / +40 -30 / 510 (6.3 / +1.8 -1.2 / 20.1")	210 / +- 40 / 610 (8.3 / +- 1.6 / 24.0")
Rapid motion speed in X / Y / Z	m/min (ipm)	15 / 24 (590.5 / 944.9)	24 / 10 / 30 (944.9 / 393.7 / 1180)	30 / 15 / 30 (1180 / 590.5 / 1180)
Speed range	rpm	60 – 6300	0 – 6300 (5000)	0 – 5000 (3500)
Drive power	kW (hp)	5.5 (7.4)	13 (17.4)	22 (29.5)
Tools / driven		12 / 6	12 / 6 or 12/12	12 / 12

[Milling]

EMCO MMV

MMV 3200 / 2000

Highlights

- Extremely solid machine design for machining large and heavy workpieces
- High rapid motion speed up to 50 m/min
- Moving column machining center with B axis and rotary table
- High cutting power
- Top surface finish quality
- Pendulum operation possible (only for the 3-axis version)

Technical data		MMV 3200	MMV 2000
Travel X / Y / Z	mm (inch)	3200 / 1000 / 950 (126 / 39.4 / 37.4")	2000 / 800 / 750 (78.7 / 31.5 / 29.5")
Rapid motion speed X / Y / Z	m/min (ipm)	50 / 40 / 40 (1969 / 1575 / 1575)	50 / 50 / 50 (1969 / 1969 / 1969)
Clamping area	mm (inch)	3500 x 1050 (137.8 x 41.3")	2400 x 950 (94.5 x 37.4")
Table load	kg (lb)	5000 (11022)	2200 (4850)
Speed range	rpm	50 – 15000 / 18000	50 – 15000 / 18000
Drive power	kW (hp)	46 (61.7)	46 (61.7)
Tool magazine	spaces	40 / 60 - 120	40 (80)
Tool holder		ISO40 (BT40, HSK A63)	ISO40 (BT40, HSK A63)

EMCO MAXXMILL

MAXXMILL 500

Highlights

- 5-axis machining in just one operation
- Top thermostability
- Top cutting precision
- Mechanical or motor spindle
- Compact machine design
- Cutting-edge control technology from Siemens and Heidenhain
- Very attractive price

Technical data		MAXXMILL 500
Travel X / Y / Z	mm (inch)	650 / 550 / 500 (25.6 / 21.6 / 19.7")
Rapid motion speed X / Y / Z	m/min (ipm)	30 / 30 / 30 (1181 / 1181 / 1181)
Tool magazine	spaces	30 (40)
Clamping area	mm (inch)	600 x 600 (23.6 x 23.6")
Table load	kg (lb)	250 (551.1)
Speed range	rpm	50 – 10000 / 15000
Drive power	kW (hp)	15 / 20 (20.8 / 26.8)
Tool holders		ISO40 (BT40, HSK-A63)

MAXXMILL 400

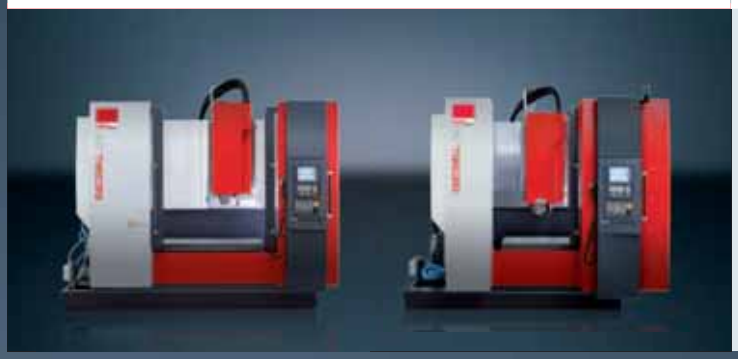
Highlights

- 5-axis machining in a single set-up
- Top thermostability
- Top machining precision
- Modern moving column concept
- Massive swivel-rotary table with ø 400 mm provides high stability and precision

Technical data		MAXXMILL 400
Travel X / Y / Z	mm (inch)	350 / 250 / 300 (13.8 / 9.8 / 11.8")
Rapid motion speed X / Y / Z	m/min (ipm)	30 / 30 / 30 (1181 / 1181 / 1181")
Tool magazine	spaces	20 (30, 50)
Table diameter	mm (inch)	Ø 400 mm (15.7")
Table load	kg (lb)	80 (176.3)
Speed range	rpm	50 - 12000 / 24000
Drive power	kW (hp)	7 (9.4) / 16 (21.5)
Tool holders		20 (30, 50) ISO30, 30 (50) HSK-A40

EMCOMILL

EMCOMILL 1200 / 750



Highlights

- High-performance milling spindles
- Flexible tool system
- Large work area and wide machine doors
- Solid fixed table for workpiece weights up to 1500 kg
- State-of-the-art control technology from SIEMENS and FANUC
- Large number of options
- Best price-performance ratio

Technical data		EM1200	EM750
Travel X / Y / Z	mm (inch)	1200 / 600 / 500 (47.2 / 23.6 / 21.6")	750 / 550 / 500 (29.5 / 21.6 / 19.7")
Rapid motion speed X / Y / Z	m/min (ipm)	30 / 30 / 30 (1,181.1 / 1,181.1 / 1,181.1)	30 / 30 / 30 (1,181.1 / 1,181.1 / 1,181.1)
Clamping area	mm (inch)	1300 x 630 (51.2 x 24.8")	900 x 630 (35.4 x 24.8")
Table load	kg (lb)	1500 (3307)	800 (1764)
Speed range	rpm	50 – 10000 / 15000	50 – 10000 / 15000
Drive power	kW (hp)	15 / 20 (20,8 / 26,8)	15 / 20 (20,8 / 26,8)
Tool magazine	spaces	30 (40)	30 (40)
Tool holders		ISO40 (BT40, HSK-A63)	ISO40 (BT40, HSK-A63)

EMCOMILL E350

Highlights

- Extreme thermostability
- Extreme machining precision
- Mechanical spindle
- State-of-the-art control technology from Siemens
- JobShop programming software

Technical data		E350
Travel X / Y / Z	mm (inch)	350 / 250 / 300 (13.8 / 9.8 / 11.8")
Rapid motion speed X / Y / Z	m/min (ipm)	24 / 24 / 24 (945 / 945 / 945)
Clamping area	mm (inch)	500 x 300 (19.7 x 11.8)
Table load	kg (lb)	100 (220.5)
Speed range	rpm	50 – 10000
Drive power	kW (hp)	7 (9.4)
Tool magazine	spaces	20
Tool holders		SK 30 DIN 69871

[Turning & Milling] conventional

EMCOMAT

EMCOMAT E-300 / -360 / -400

Highlights

- Stable machine construction
- Easy to operate
- Maximum flexibility
- Easy to maintain
- Ergonomic operation
- Cycle control with teach-in functionality
- High operating safety

E-200 MC / EM-17 D

Technical data		E-360 / 400	E-300	E-200 MC	EM-20 D	EM-17 D	EM-14 D
Center height	mm (inch)	380 / 430 (15.0 / 16.9")	275 (10.8")	200 (7.9")	200 (7.9")	170 (6.7")	140 (5.5")
Distance between centers	mm (inch)	2000 / 4000 / 6000 (78,7/157.5/236.2")	1500 (59.0")	1000 (39.4")	1000 (39.4")	700 (27.6")	650 (25.6")
Spindle bore	mm (inch)	153 (6.0")	108 (4.2")	53 / 50 (2.1 / 2.0")	50 (1.9")	50 (1.9")	40 (1.5")
Chuck Ø	mm (inch)	500 (19.7")	315 (12.4")	200 (7.9")	200 (7.9")	200 (7.8")	140 (5.5")
Gear steps		2	1	1	4	4	2
Speed range	rpm	0 – 1200	0 – 2500	50 – 4000	40 – 3000	40 – 3000	60 – 4000
Drive power	kW (hp)	33 (44.2)	25 (33.5)	7.5 (10.0)	5.3 (7.1)	5.3 (7.1)	7.5 (10.0)
Digital Readout					EMCO	EMCO	EMCO
Control		SIEMENS 840D sl FAGOR 8055i	SIEMENS 840D sl FAGOR 8055i	Sinumerik 828D			

EMCOMAT

EMCOMAT FB-600 MC

Highlights

- Retractable workspace for optimum accessibility
- Operation with the door open as manual machine
- In automatic mode, with closed Workspace guard
- Max. table load of 300 kg
- With Sinumerik 828D or Heidenhain TNC620
- Made in the Heart of Europe

FB-450 MC / FB-3 L

Technical data		FB-600 MC	FB-450 MC	FB-3 L
Travel X	mm (inch)	600 (23.6")	450 (17.7")	300 (11.8")
Travel Y	mm (inch)	400 (15.7")	350 (13.7")	200 (7.9")
Travel Z	mm (inch)	400 (15.7")	400 (15.7")	350 (13.7")
Clamping area	mm (inch)	800 x 400 (31.5 x 15.7")	800 x 400 (31.5 x 15.7")	600 x 200 (23.6 x 7.9")
Gear steps/control		1	1	8 / mechanical
Speed range	rpm	10 – 5000	10 – 5000	80 – 2200
Drive power	kW (hp)	13 (17.4)	10 (13.4)	1.4 (1.8)
Control		Heidenhain TNC620, Sinumerik 828D	Heidenhain TNC620, Sinumerik 828D	Heidenhain

[Industrial Training]

EMCO CONCEPT TURN

CONCEPT TURN 460 / 260	Highlights CT 460 / CT 260	Highlights CT 105 / CT 60	CT 105 / CT 60
 	■ CNC training at industrial level ■ Interchangeable WinNC control ■ High machining accuracy ■ 12-station tool turret ■ Driven tools ■ C-axis ■ Profile rail guides ■ Digital drive technology ■ Industrial-level performance ■ Extremely high thermostability ■ Wide range of automation options ■ Speed range max. 6300 rpm	■ Compact CNC machine ■ Essential functions of an industrial machine ■ 8-station tool changing system ■ Slant-bed design ■ Fully enclosed work area ■ Wide range of automation options	 

Technical data		CT 460	CT 260	CT 105	CT 60
Swing Ø over bed	mm (inch)	430 (16.9")	250 (9.8")	180 (7.1")	130 (5.1")
Max. turning diameter	mm (inch)	220 (8.7")	85 (3.3")	75 (2.9")	60 (2.4")
Distance between centers	mm (inch)	670 (26.3")	405 (15.9")	236 (9.3")	335 (13.2")
Travel X / Z or X / Y / Z	mm (inch)	160 / 510 (6.3 / 20.1")	100 / 300 (3.9 / 11.8")	55 / 172 (2.2 / 6.7")	60 / 280 (2.4 / 11.0")
Rapid motion speed in X / Z	m/min (ipm)	24 / 30 (944.9 / 1181.1)	15 / 24 (590.5 / 944.9)	5 (196.85)	3 (118.1)
Main drive	kW (hp)	13 (17.4)	5.5 (7.4)	1.9 (2.55)	1.1 (1.5)
Speed range	rpm	0 – 6300	60 – 6300	150 – 4000	300 – 4200
Tools/driven		12 / 6	12 / 6	8 / 0	8 / 0

EMCO CONCEPT MILL

CONCEPT MILL 260	Highlights CM 260	Highlights CM 105 / CM 55	CM 105 / CM 55
	■ CNC training at industrial level ■ Interchangeable WinNC control ■ 20-station tool changing system ■ Wide range of automation options ■ Optimal view despite fully enclosed work area ■ Dividing attachment as fourth axis ■ Optional: nc tilting rotary table as 4th and 5th axis ■ Profile rail guides ■ Digital drive technology	■ Compact CNC machine ■ Essential functions of an industrial machine ■ Optimal view despite fully enclosed working area ■ CM 55 with 8-station tool changing system (optional) ■ CM 105 with 10-station tool turret ■ Engraving spindle attachment (optional) ■ Dividing attachment as 4th axis	 

Technical data		CM 260	CM 105	CM 55
Travel X / Y / Z	mm (inch)	350 / 250 / 300 (13.8 / 9.8 / 11.8")	200 / 150 / 250 (7.9 / 5.9 / 9.8")	190 / 140 / 260 (7.5 / 5.5 / 10.2")
Rapid motion speed X / Y / Z	m/min (ipm)	24 (944.9)	5 (196.8)	2 (78.7)
Main drive	kW (hp)	6.8 (9.1)	1.1 (1.47)	0.75 (1.0)
Speed range (option)*	rpm	150 - 10000	150 – 5000 (20000)*	150 – 3500 (14000)*
Number of tools		20	10	8

[Automation]

GANTRY LOADER

GANTRY LOADER MT 95 / 110 / Hyperturn 110

Profile

The EMCO loading gantry solution provides maximum flexibility in terms of weight and machine size. It allows the integration of various automated systems such as a shaft conveyor, circulating magazine, robot, or measurement station. This enables various combinations of minimally staffed complete solutions to be implemented in line with customer requirements.

Finished parts conveyor

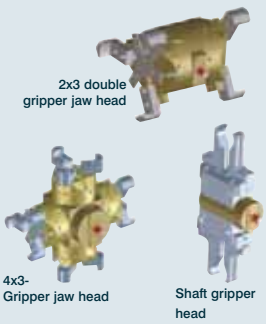
Technical data:

Traverse speed			
Horizontal	80 m/min / (3150 ipm)	Vertical	40 m/min / (1575 ipm)
Application example: Maxxturn 95			
Workpiece dimensions for flanged parts		Workpiece dimensions for shaft parts	
Max. diameter	250 mm (9.8")	Max. diameter	180 mm (7.1")
Max. length	100 mm (3.9")	Max. length	800 mm (31.5")
Max. weight	25 kg (55.1 lb)	Max. weight	150 kg (330.7 lb)

GANTRY LOADER

EMCO GANTRY LOADER

Gripper heads



Profile

Manufacturing processes can be significantly shortened with the EMCO gantry loader - a decisive contribution to increasing economic viability. They are well coordinated to the respective machines, thereby producing a harmonious, highly productive system.

Pallet attachments


4-station pallet attachment for valve caps


6-station pallet attachment for joint yokes


20-station pallet magazine with customer-specific removable pallets


20-station pallet magazine with customer-specific removable pallets

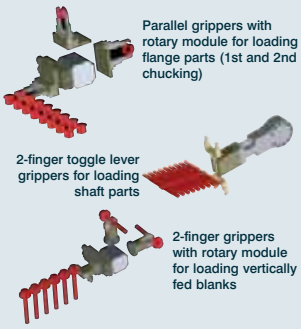
Technical data

Traverse speed		Workpiece dimensions 4 x 3 gripper jaws	
Horizontal	120 m/min (4724 ipm)	Diameter max.	120 mm (4.7")
Vertical	60 m/min (2362 ipm)	Length max.	100 mm (3.9")
		Weight max.	5 kg (11.0 lb)
Workpiece dimensions 2 x 3 Gripper jaws		Workpiece dimensions 2 x 2 Gripper jaws	
Diameter max.	220 mm (8.7")	Diameter max.	100 mm (3.9")
Length max.	100 mm (3.9")	Length max.	300 mm (11.8")
Weight max.	10 kg (22.0 lb)	Weight max.	10 kg (22.0 lb)

SWING LOADER

EMCO SWING LOADER

Grippers



Profile

The swing loader is a universal loading device for all types of pre-formed parts. A large variety of gripper and handling systems enables highly individual coordination of the system to the respective operating requirements.

Blank feed systems


Chain feeding system for loading blanks with the correct orientation


Multiple infeed chutes for loading rotationally-symmetrical blanks


Chain feeding system with V-supports for preformed shaft parts of various shapes

Technical data

Motion speed		2-finger toggle lever grippers	
Horizontal	60 m/min (2362 ipm)	Diameter max.	ca. 30 mm (1.1")
Swing movement	180°/sec	Length max.	ca. 200 mm (7.8")
		Weight max.	2 kg (4.4 lb)
Parallel grippers with rotary module		2-finger grippers with rotary module	
Diameter max.	ca. 60 mm (2.3")	Diameter max.	ca. 60 mm (2.3")
Length max.	ca. 100 mm (3.9")	Length max.	ca. 100 mm (3.9")
Weight max.	2 kg (4.4 lb)	Weight max.	2 kg (4.4 lb)

BAR LOADER

EMCO TOP LOAD 10-65/3300

EMCO LM1200

Profile

Depending on the space available on site, EMCO can offer either the TOP LOAD for 3 meter bar material or the LM for short bar material. Connection to the respective machine is free-of-charge. A „Plug & Play" solution ex works.

Technical data		TOP LOAD 4-25	TOP LOAD 8-42	TOP LOAD 10-65	LM800	LM1200	LM1500
Bar diameter Ø	mm (inch)	4 – 25 (0.1 – 0.9")	8 – 42 (50) (0.3 – 1.65 (1.9"))	10 – 65 (75) (0.3 – 2.5 (2.9"))	6 – 45 (52) (0.2 – 1.8"(2.1))	8 – 65 (95) (0.31 – 2.5"(3.7))	16 – 95 (0.6 – 3.7")
Max. bar length	mm (inch)	3300 (129.9")	3200 (126")	3300 (129.9")	800 (31.5")	1200 (47.2")	1500 (59.0")
Min. bar length	mm (inch)	1500 (59.0")	1500 (59.0")	1500 (59.0")	100 (3.9")	150 (5.9")	150 (5.9")
Material support	mm (inch)	350 (13.7")	350 (13.7")	350 (13.7")	550 (21.6")	550 (21.6")	550 (21.6")
Feed speed	m/min (ipm)	0 – 100 (0 – 3937)	0 – 30 (0 – 1181)	0 – 30 (0 – 1181)	0 – 60 (0 – 2362)	0 – 60 (0 – 2362)	0 – 60 (0 – 2362)
Bar changing time	sec.	30	70	75	10	12	14
Dimensions (L x B)	mm (inch)	4390 x 867 (172.8 x 34.1")	4310 x 790 (169.6 x 31.1")	4410 x 1090 (173.6 x 42.9")	1200 x 1100 (47.2 x 43.3")	1700 x 1100 (66.9 x 43.3")	2000 x 1100 (78.7 x 43.3")
Weight	kg (lb)	1100 (2425)	1200 (2645)	2200 (4850)	330 (727.5)	535 (1179)	550 (1212)

Designed for your profit

EN2801 · 03 /17 Subject to change due technical progress. Errors and omissions excepted.

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