

PROFIMAT MC/RT

The compact
production machine



More than Precision

PROFIMAT MC

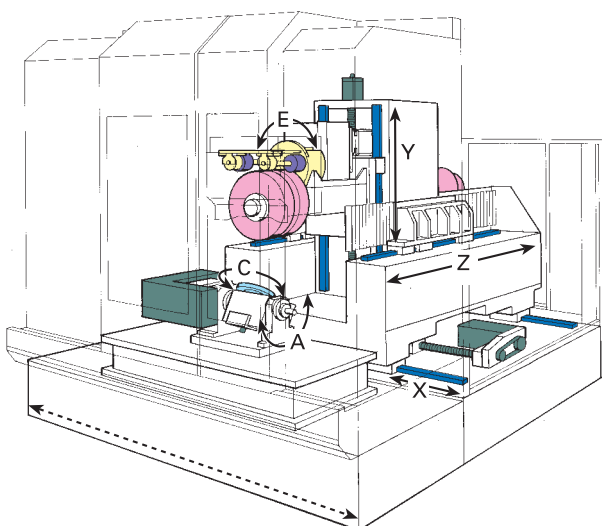
The solution for production applications

The BLOHM PROFIMAT MC has been developed with the aim to meet the "LEAN APPROACH" concept and is an extremely compact and heavy duty production grinding machine for the flexible use of the latest grinding technologies.

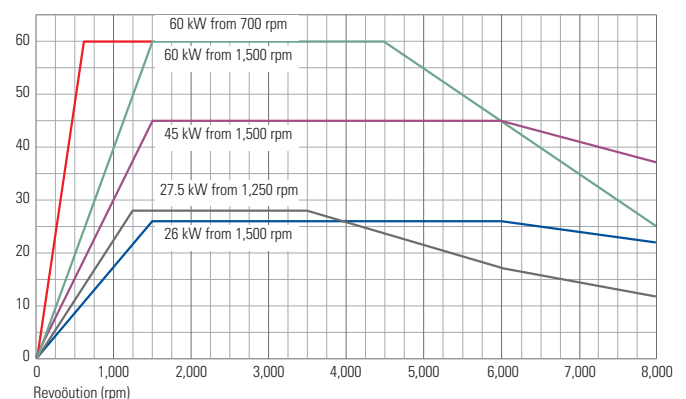
All machines of this series feature the travelling column design and various configurations with stationary table (MC, MC VG), rotary table (MC VS) or index table (RT) are available and present an optimum solution for your grinding tasks.

Grinding spindle drives with a power of up to 60 kW and a max. cutting speed of 170 m/s guarantee outstanding performance using conventional, CD- or IPD as well as any CBN grinding methods.

The CNC control Siemens 840D or GE-Fanuc, including extensive operator guidance takes care for an optimal application oriented operation of the Profimat MC.



Power (kW)



Schleifspindelantriebe mit optimaler Leistungscharakteristik

High flexibility with a modular platform concept



Rigid construction due to wide spacing of guideways



Z-axis with linear guideways, ground re-circulating ballscrews and linear glass measuring system.



Z-axis with parallel drive system for increased rigidity (optional)



X-axis with linear guideways, ground re-circulating ballscrews



Cartridge type spindle with short taper for repeatable grinding wheel positioning

Technical Data

PROFIMAT		MC 407	MC 607	MC 610	MC 607 VG	MC 610 VS	RT 1000	
Machine table size	mm	400 x 700	600 x 700	600 x 1,000	600 x 700	600 x 1,000	—	
Indexing table, Diameter, max	mm	—	—	—	—	1,200	1,000	
X-axis, column longitudinal travel	mm	700	700	1,000	700	1,000	700	
Y-axis, wheel head vertical travel	mm	550*	550*	550*	520	550*	550	
Z-axis, column cross travel	mm	320	520	520	480	320	320	
A-axis, indexer range (Opt.)	deg	+ 105 / -90						
C-axis, indexer, range (Opt.)	deg	360						
E-axis, stroke of head mounted dresser (Opt.)	mm	—	—	—	190	—	—	
V-axis, stroke of head mounted dresser (Opt.)	mm	130	130	130	—	—	130	
Grinding spindle drive, power, Revolution	kW/rpm	up to 60/8,000						
Grinding wheel D x B x d max.	mm	500x200x127	500x200x127	500x200x127	500x220x127	500x100x127	500x200x127	
Abmessungen	Width	mm	2,000	2,000	2,380	2,000	2,380	2,000
	Depth	mm	3,750	3,950	3,950	3,950	3,950	4,100
	Height	mm	2,900	2,900	3,000	2,900	3,000	2,900
Weight (machine without electr. cabinet)	kg	5,600	5,800	7,500	8,500	9,000	6,700	

* Option 800 mm

Subject to technical alterations

Process optimized accessories



Single spindle CD- dressing system mounted on wheel head



Double spindle CD- dressing system mounted on wheel head



*Tool changing systems with up to 24 tools
12 x D=300 or 8 x D=400*



*Tool changing systems with up to 20 tools
20 x D=400 or 10 x D=500*



*Double CNC indexing table for 5-axes continuous
path controlled profile grinding*

Tool changing systems with up to 24 tools permit complete machining of complex parts in one set-up using conventional and CBN grinding wheels as well as drilling and milling tools.

Accessories like linear speed stroke table, single or double CNC indexing tables, integrated automatic gauging systems, dressing systems mounted on the machine table and/or grinding wheel head offer a wide variety of customer specific solutions.



Versions of the MC 610VS

Die **PROFIMAT MC 610VS**, konzipiert für das Innen- und/ oder Außenrundscheifen von rotationssymmetrischen Werkstücken bis 1200 mm Durchmesser ist mit einer feststehender, alternativ NC-schwenkbarer Vertikalspindel ausgerüstet erweitern den Anwendungsbereich.

PROFIMAT MC 610VS with CNC controlled tilting grinding spindle

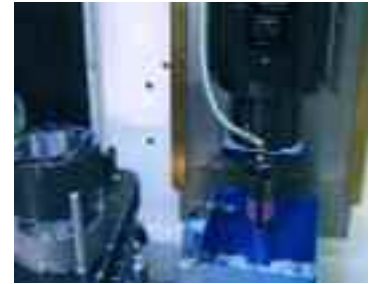


CNC dressing with rotary diamond disk

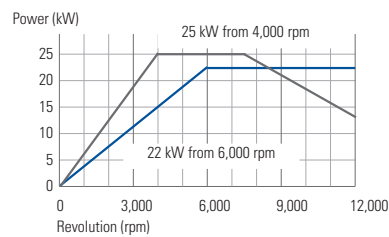


Curvic coupling face gear

PROFIMAT MC 610VS with vertical grinding spindle

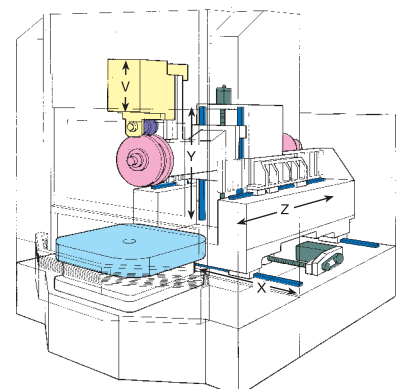


CNC dressing with single point diamond



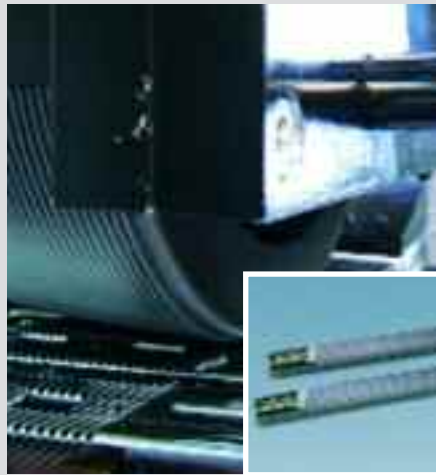
Version RT1000

The **PROFIMAT RT** features an indexing table and reduces non-productive times due to loading/unloading while grinding.



BLOHM solutions

Automotive industry and sub-suppliers



Steering racks (MC 607)



Piston rack nut (RT 1000)



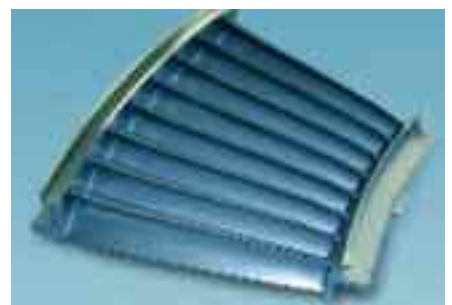
Turbine blade (MC 607)

Turbine industry

Stationary gas turbine blade MC 607



Turbine vane segment (MC 607 VG)



Machine building

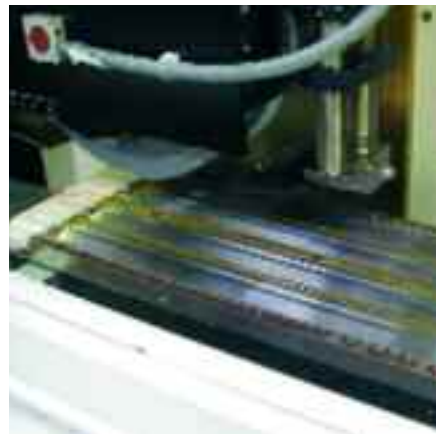


Connecting rod for marine diesel engine (MC 610VS)



Transfer drum (MC 407)

Tool and Die



Knife (RT 1000)



Press break tool (RT 1000)



Press break tool (MC 607)



PROFIMAT MC/RT

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