



**M80**

**M80-G**

- ONE MILLION POSSIBILITIES
- A CUT ABOVE THE REST
- RIGID, PRECISE AND FLEXIBLE

**CLAMP ONCE - MACHINE COMPLETE**

**M80 | M80-G**

[DE] [EN] [FR] [IT] [ES] [RU] [CN] [JP]

## The new M80 Millturn



### One million possibilities

An essential feature of the M80 MILLTURN is the enormous building variety out of the modular machine concept together with the best sizing for the individual machine configurations. The machine concept is based on minimized distances of tool and work piece and widest possible guideway distances resulting in an optimum in rigidity at ideal geometries.

The machine control is the Siemens SINUMERIK 840D SOLUTION LINE in combination with the new Sinamic drives.

Core equipment of the machine is the Turning-Boring-Milling-Unit which has been developed in dimension and performance for very heavy machining. Proven options like the heavy duty boring bar changer or the U-axis are part of the modular machine system. On top of that more machining units can be incorporated on an additional top slide.



Ergonomic design



Easy access to tool magazine

## A cut above the rest

All center distances (except 1000mm) are also available in a double spindle version and for a further productivity enhancement an additional tool turret can be offered. Due to the innovative machine design the bottom guideways do not require any telescopic covers. Just straight stainless steel sheet metal makes a perfect chip flow.

The minimum distance between steady rest slide and any neighboring equipment is only 50 mm and results in short clamping distances. Steady rest slide and tailstock are equipped with own NC drives and can be positioned in program individually and simultaneous.

## Rigid, precise and flexible

The new tool magazine is accessible from the front of the machine and is a compact, stable and truly maintenance free unit.

A highly dynamic tool shuttle with rack and pinion drive is equipped with linear axes thus avoiding any centrifugal forces caused by rotation so even tools with 35 kg in weight are handled safely and quick.

In general special attention was paid towards design solutions with a maximum in reliability and durability and simultaneously good maintainability.



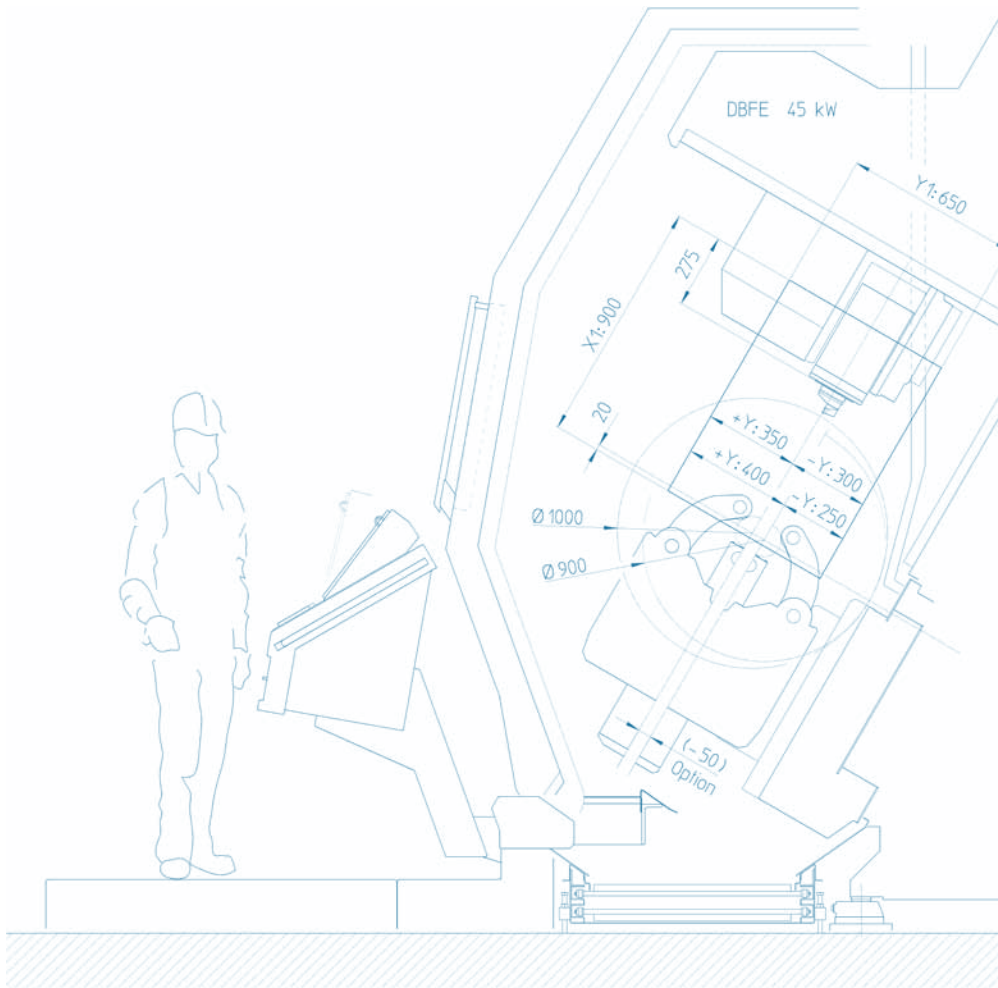
■ Highest stability



■ Designed for heavy cutting



# M80 MILLTURN



Turning

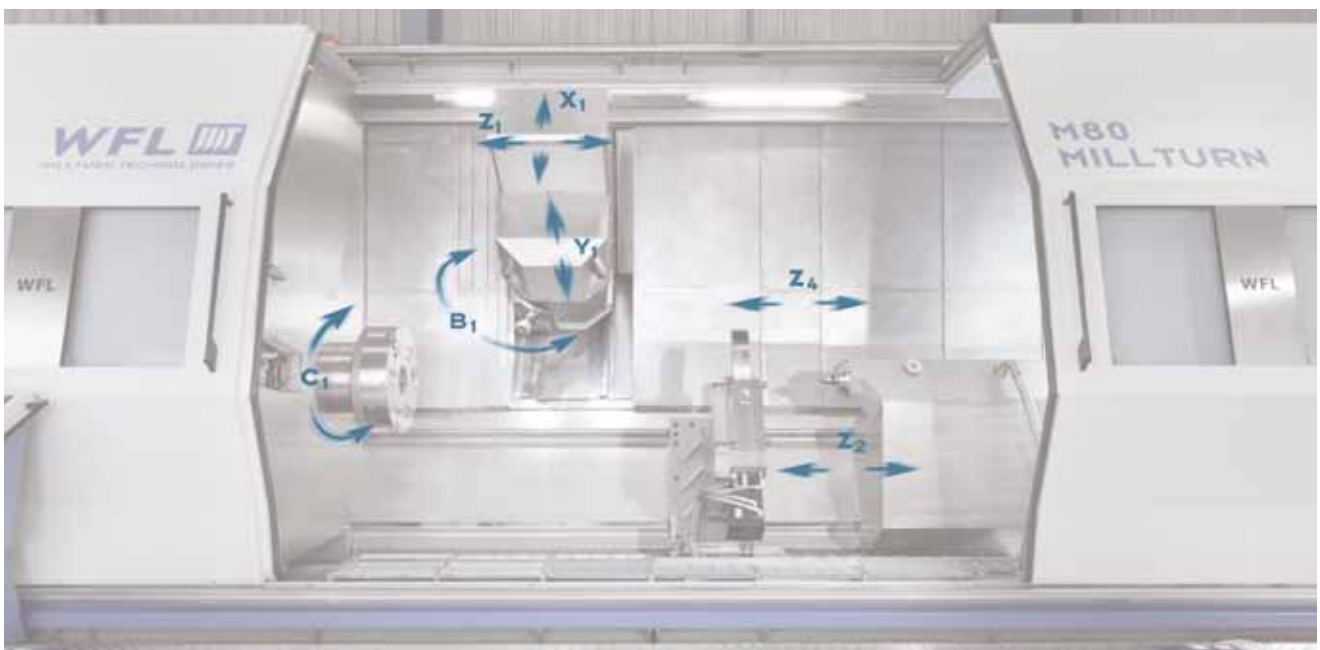


Boring

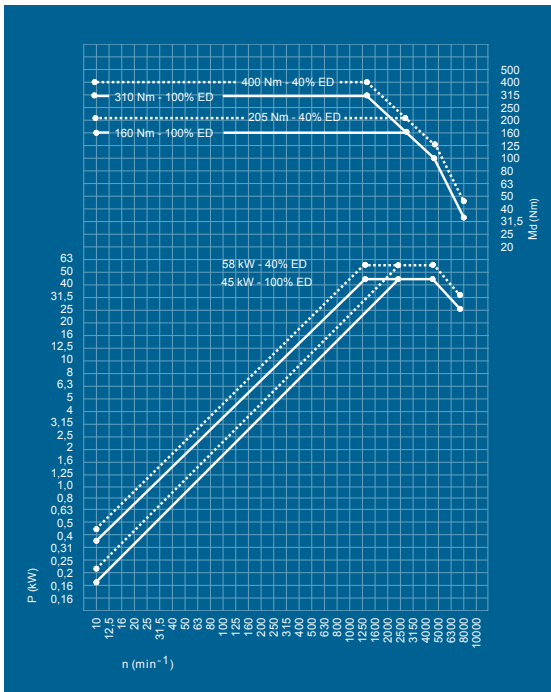


Milling

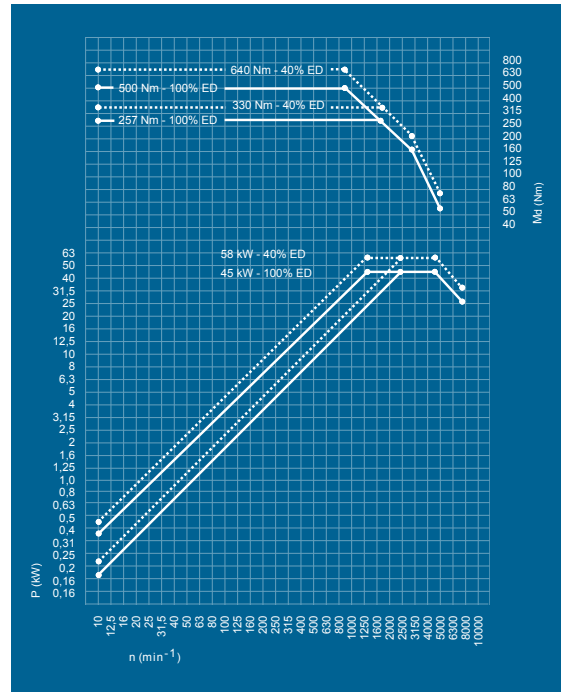
## Axes scheme



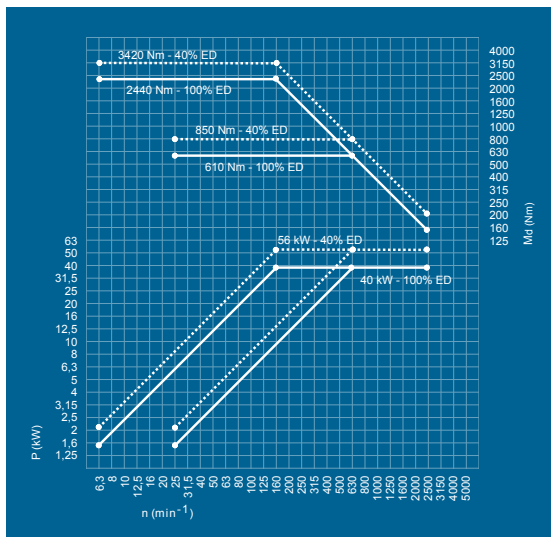
M80 MILLTURN



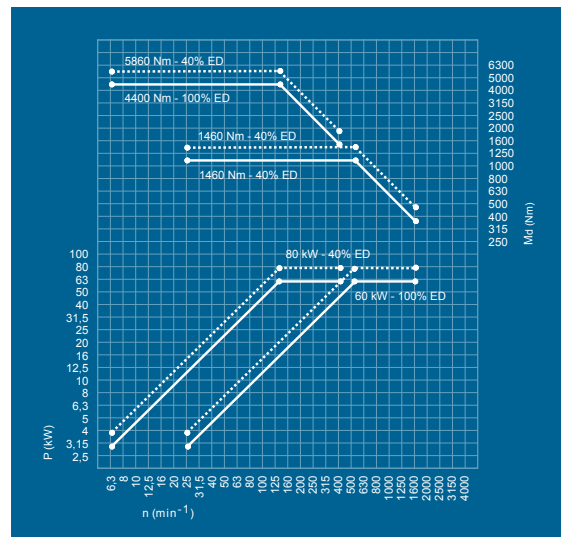
Milling spindle 45 kW - 8000 min<sup>-1</sup>



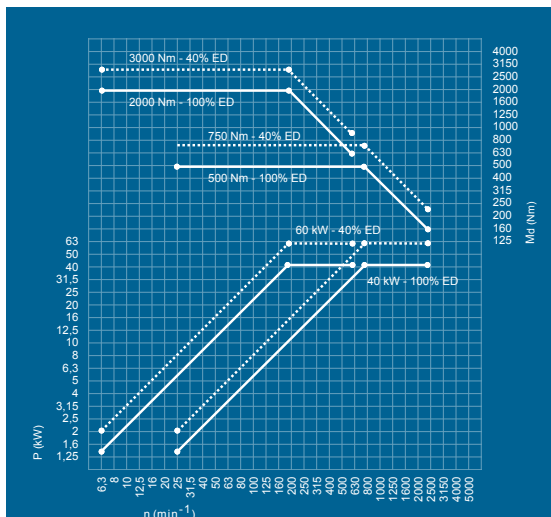
Milling spindle 45 kW - 5000 min<sup>-1</sup>



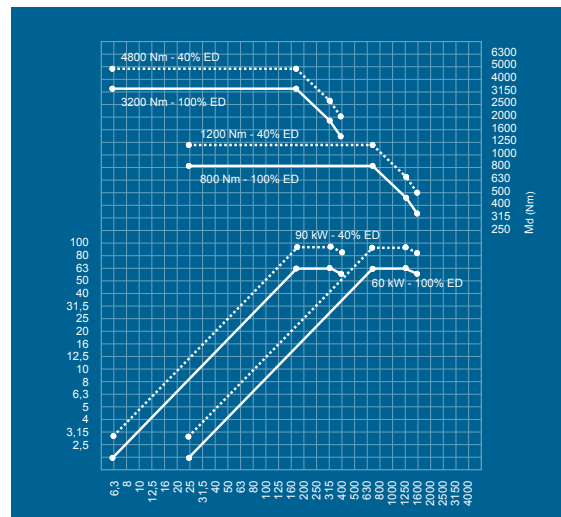
Main spindle left 40 kW - 2400 min<sup>-1</sup>



Main spindle left 60 kW - 1600 min<sup>-1</sup>



Main spindle right 40 kW - 2400 min<sup>-1</sup>



Main spindle right 60 kW - 1600 min<sup>-1</sup>

## Technical data

M80 MILLTURN

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### Working range

Nominal center distance	mm		
Turning length (depending on clamping device)	mm		
Max. Turning - diameter	mm		

Turning spindle LEFT - RIGHT		L	L // R
Spindle head DIN 55026	Size		
Spindle bore	mm		
Spindle - diameter in front bearing	mm		

Main drive LEFT - RIGHT		L	L // R
Max. power, 40% (100%) duty cycle	kW		
Max. spindle speed	min <sup>-1</sup>		
Max. torque, 40% (100%) duty cycle	Nm		

C - Axis		L	L // R
Max. spindle speed	min <sup>-1</sup>		
Max. torque	Nm		
Max. torque with disc brake engaged	Nm		
Smallest programmable increment	Degrees		

Tailstock - Mechatronic / movement via NC-servodrive (Z)			
Max. feed force (adjustable) (min. 15% max. 100%)	kN		
Live center	MT		

Steady rest			
Swing over steady rest slide (standard)	mm		

Turning - Boring - Milling unit (top)			
Max. power, 40% (100%) duty cycle	kW		
Max. spindle speed	min <sup>-1</sup>		
Max. torque, 40% (100%) duty cycle	Nm		
Milling spindle - diameter at front bearing	mm		