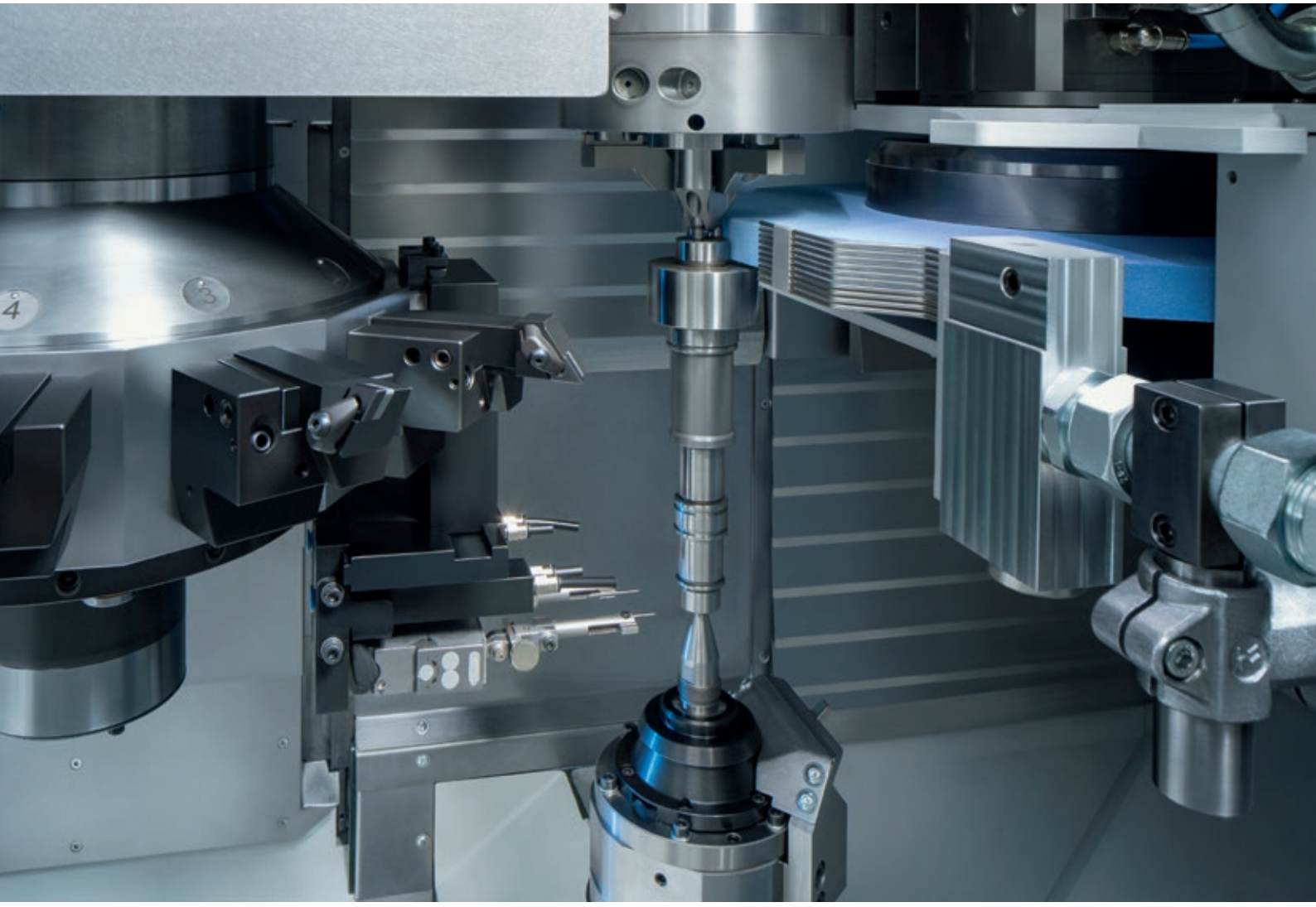
VTC 100 GT – VERTICAL TURNING & GRINDING IN ONE MACHINE





EMAG

VTC 100 GT

The Versatile Solution for Productive Shaft Manufacturing

The VTC 100 GT offers quick processes for hard turning and grinding. The tool turret completes all turning operations followed by grinding at a second station.

Gearbox shafts, rotor shafts, pump shafts, engine shafts, propeller shafts and balancing shafts differ greatly. For example, the strength of the component plays a decisive role. While strong workpieces with a defined blade can be finish-machined by hard turning or using scroll-free turning technology, a final grinding process is the method of choice for thinner, more fragile parts. The required component quality, machining time (and therefore machining costs), tool costs and energy consumption differ depending on the process used and can be optimized with the VTC 100 GT.

The VTC 100 GT adapts optimally to the respective machining requirements.

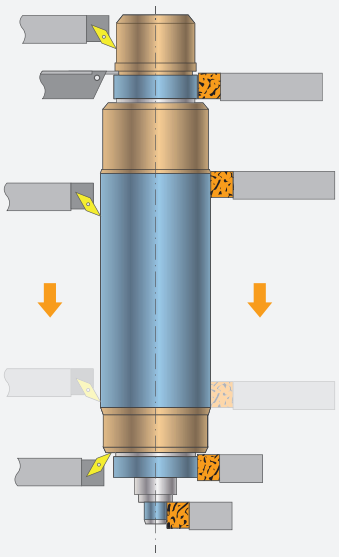
PERFECT SHAFT PRODUCTION FOR E-MOBILITY

Turret Configuration:

+ 4 x turning tools
+ 1 x in-process gage
+ 1 x axial positioning probe
+ 1 x gripper

Grinding Wheel:

+ Ø 400 mm
+ Vitrified bonded CBN



Clamping at ID pitch cycle with clamping mandrel











Option

TURRET WITH TWO WORKPIECE GRIPPERS

Reduction of loading/ unloading time

BENEFITS

+ PRECISE
Complete machining ensures high component quality

+ INTEGRATED
Loading and unloading with the turret from the integrated raw and finished parts storage facility

+ RELIABLE
Vertical design prevents chip clusters

+ COMPLETE
Grinding (aluminium oxide or CBN), hard turning and machining with driven tools (including the Y-axis) – all hard processes can be run on a single machine

+ COMPACT
Machine has a small footprint

+ FAST
The tailstock and steady rests can be moved under the control of the CNC unit, thus reducing tooling and retooling times

TECHNICAL DATA

Chuck diameter, max.	mm inch	160 6
Workpiece diameter, max.	mm inch	100 4
Workpiece length, max.	mm inch	400 16
X-axis travel	mm inch	340 13
Z-axis travel	mm inch	660 26
Main spindle		
» Power rating, 40 % / 100 %	kW hp	17 / 11,5 23 / 15
» Torque 40 % / 100 %	Nm ft-lb	70 / 48 52 / 35
» Speed, max.	1/min	6,000
Turret tool stations	Qty	12 (1 x Gripper)
Grinding wheel diameter, max.	mm inch	400 16
Grinding wheel width, max.	mm inch	80 3
Number of revolutions of driven tools	1/min	12,000
Torque of driven tools, 30 % / 100 %	Nm ft-lb	30 / 16 22 / 12

At Home All Over The World.



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