

VDF BOEHRINGER

VDF 350 TM^{SHOP} TURN-MILL CENTER



Modular Machine Construction for High Quality at Low Cost



VDF 350 TM^{SHOP} Turn-Mill Center

The New Standard in Complete Machining

Benefits of the new VDF Boehringer Turn-Mill Center

The new VDF 350 TM^{SHOP} by VDF Boehringer for complete machining of complex workpieces in one clamping.

This multifunctional turn-mill center achieves an unbeatable price performance ratio by combining the strengths of the well-known VDF Boehringer and the capacities of the Fair Friend Group.

As a powerful and reliable shop machine for demanding work in various industries, the VDF 350 TM^{SHOP} provides a real competitive advantage through lower workpiece costs.

The VDF withstands the tough continuous operation through accessible, reliable and proven components as well as sophisticated design, robust ball screws, linear guides and the optionally available powerful gear spindle.

Identical control and drive concepts as well as standardized operator interfaces facilitate daily work.



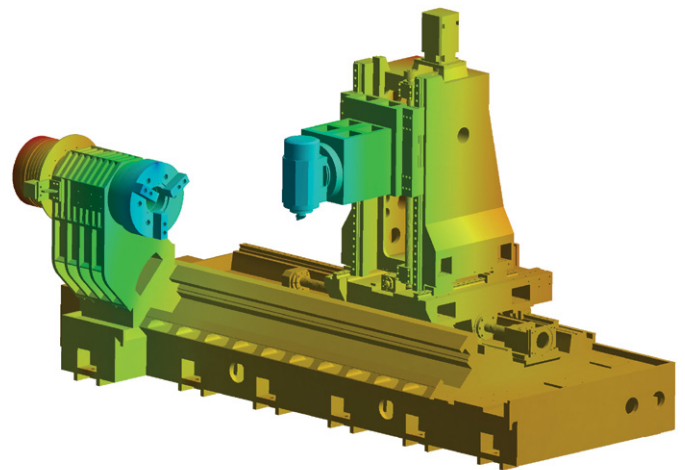
VDF 350 TM^{SHOP} Turn-Mill Center

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VDF 350 TM^{SHOP} basic design –

Innovative VDF Boehringer / FFG Technology

The modular machine design provides identical parts in various machine series of the FFG Group. This makes a decisive contribution to high quality, fast production time and low cost. The common parts strategy also reduces the customer's storage costs for spare and wear parts.



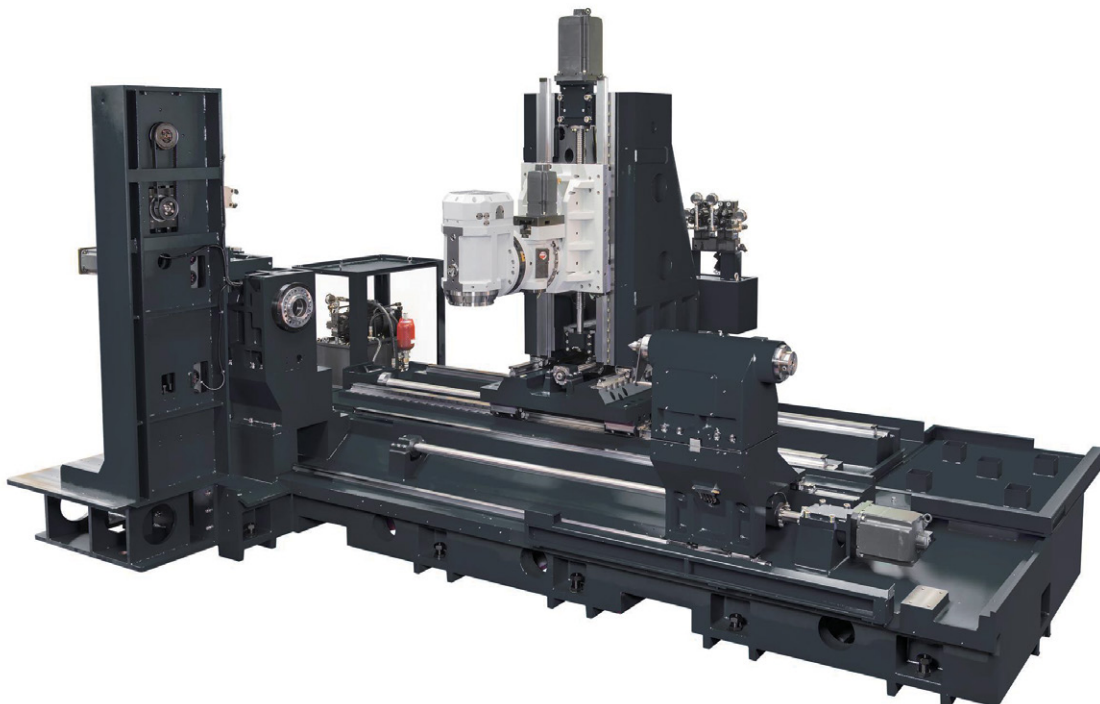
Advantages of the basic structure

One-piece, inherently rigid machine bed

- ▶ Extensively ribbed, one-piece machine bed in cast version with high damping properties
- ▶ Vibration-dampening installation, no ground anchoring necessary

FEM calculated and checked with modal analysis

- ▶ Optimum chip fall
- ▶ Well suited for dry machining
- ▶ Free access during tool changing or measuring without entering the machine



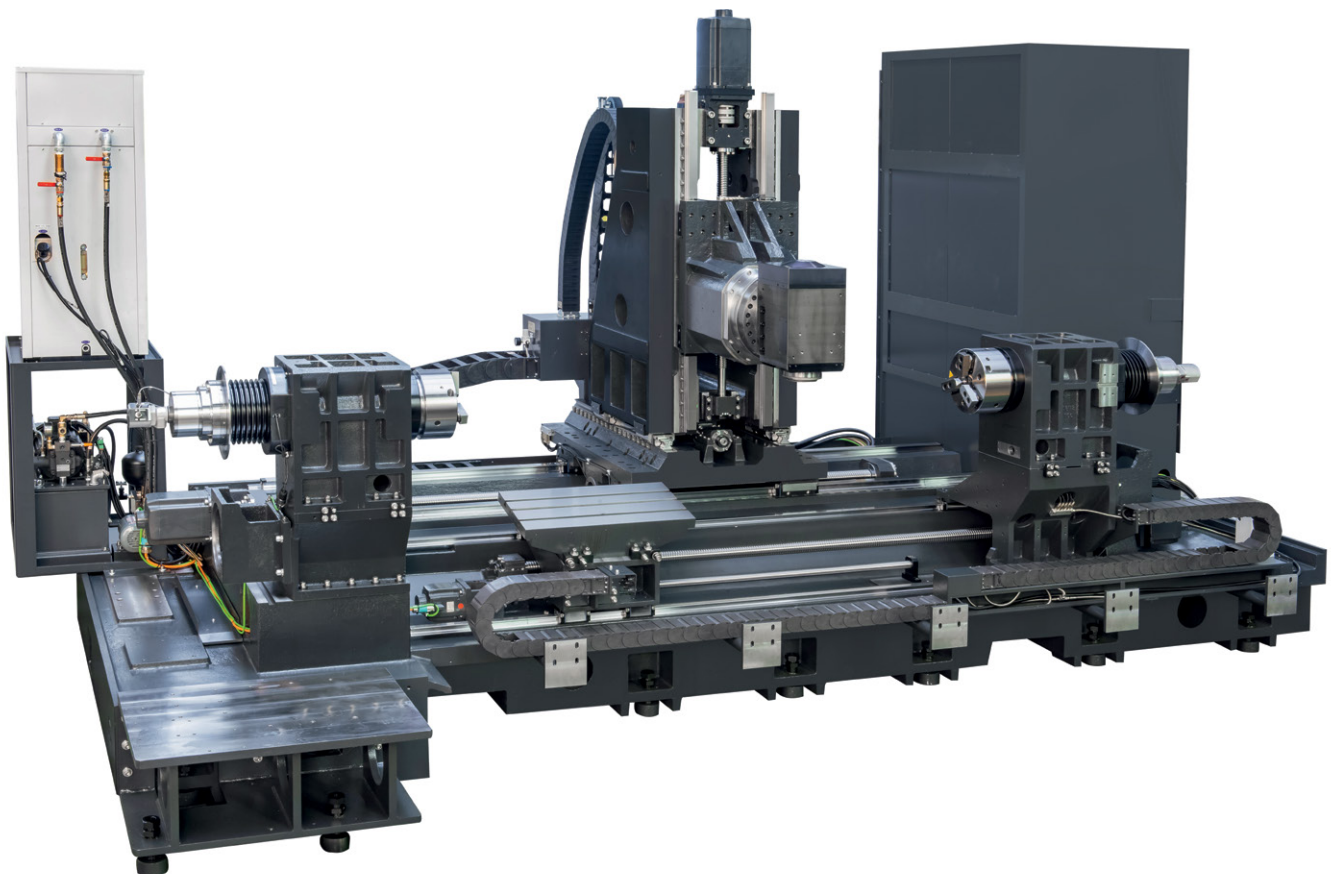
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Advantages of the VDF 350 TM^{SHOP}

The comprehensive scope of the new VDF machine offers unique advantages:

- ▶ Reduction of costs per part by 5-sided complete machining in one clamping
- ▶ Exceptional cutting volume for roughing and high surface quality during finishing due to high clamping forces in the rotary axes
- ▶ Maximum dimensional stability of the workpiece due to thermally stable machine
- ▶ Wide range of workpieces, materials from light metal to titanium, inconel and hard machining are possible
- ▶ High tool capacity and set-up comfort through convenient tool magazine technology
- ▶ Perfect, ergonomic accessibility during operation and maintenance



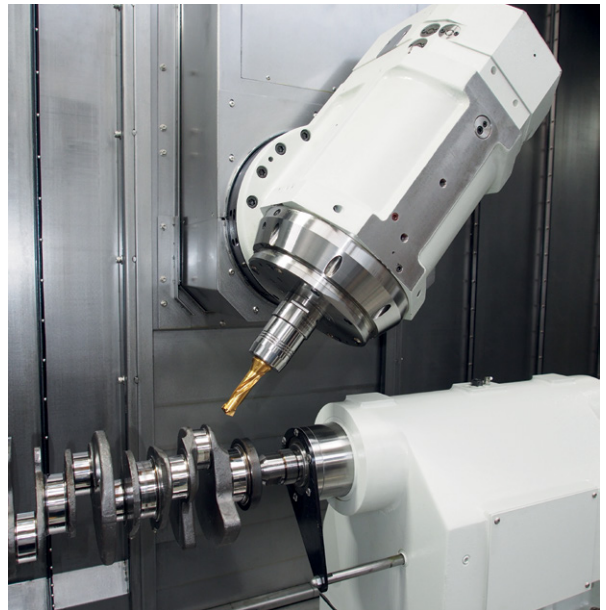
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For Effective 5-Axis Machining

B-axis

Motor spindle swivels on the Y-axis. The complete machining of challenging workpiece geometries is possible together with the main spindle C-axis.

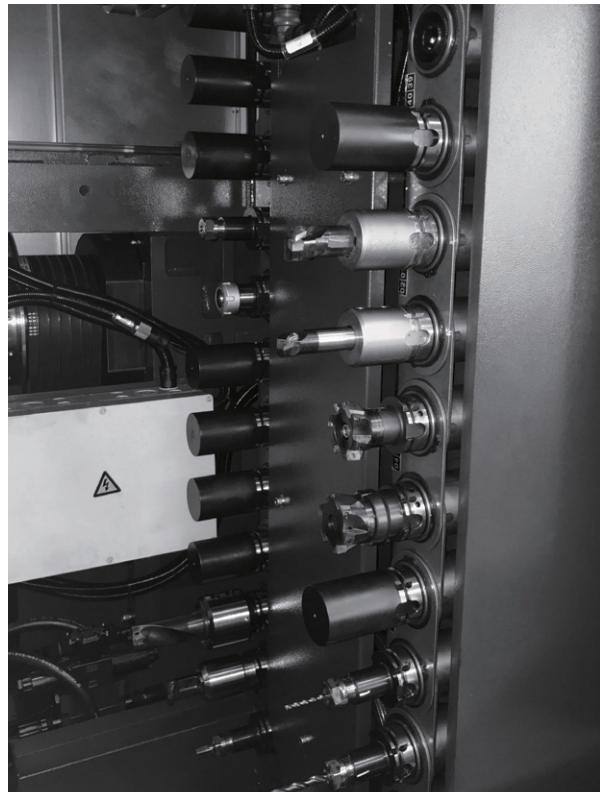
- ▶ 2 different versions (Sauter / Holdwell) available



Tool magazines

The tool magazines are fully integrated into the machine and take up no extra space. Optionally, the machine can be equipped with up to 120 tools (Capto C6).

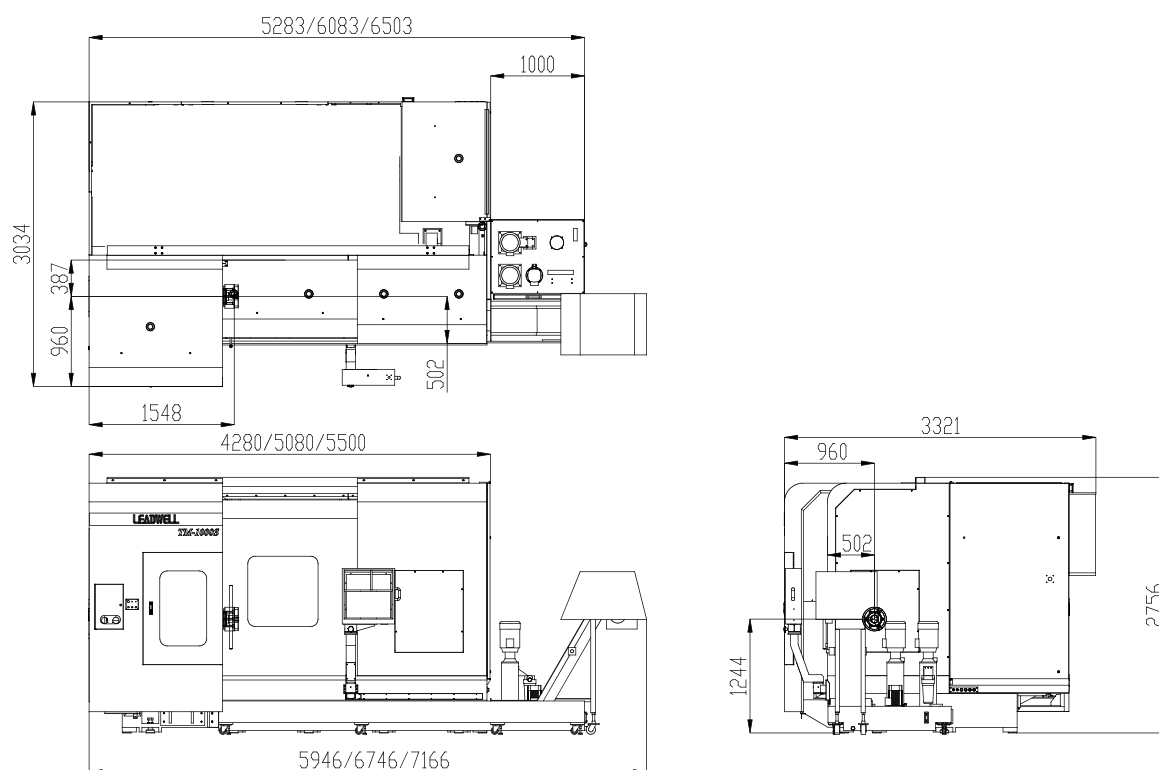
- ▶ max. tool length: 350 mm
- ▶ max. tool-Ø: 90 mm
- ▶ max. tool weight: 8 kg



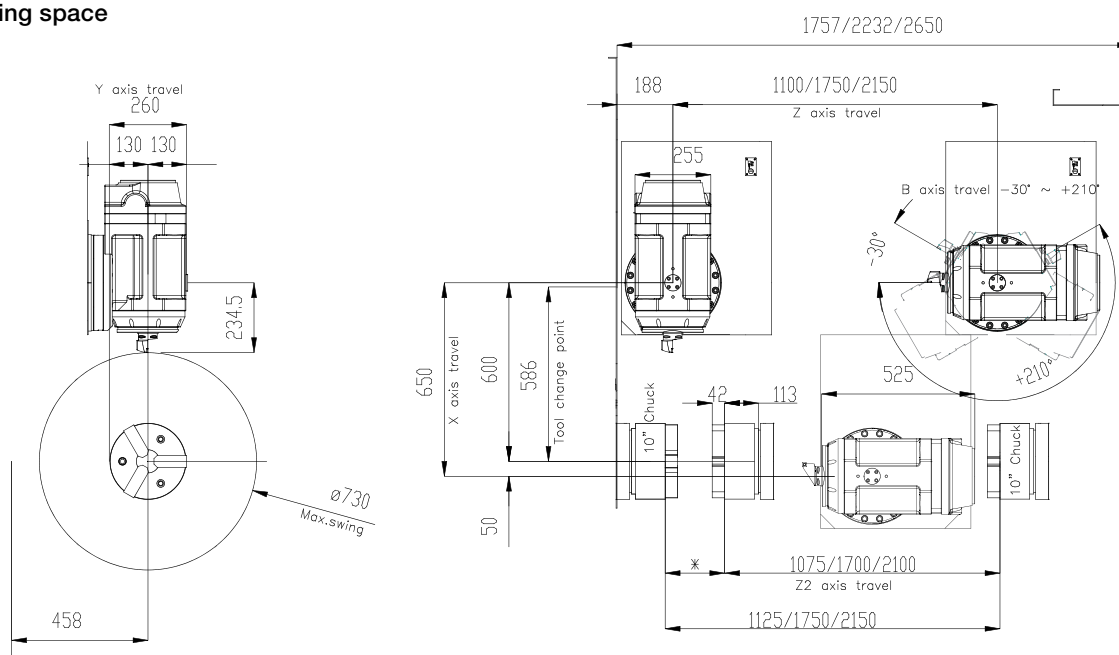
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Machine Main Dimensions and Working Space

Dimensions / Machine layout



Working space



Technical Data

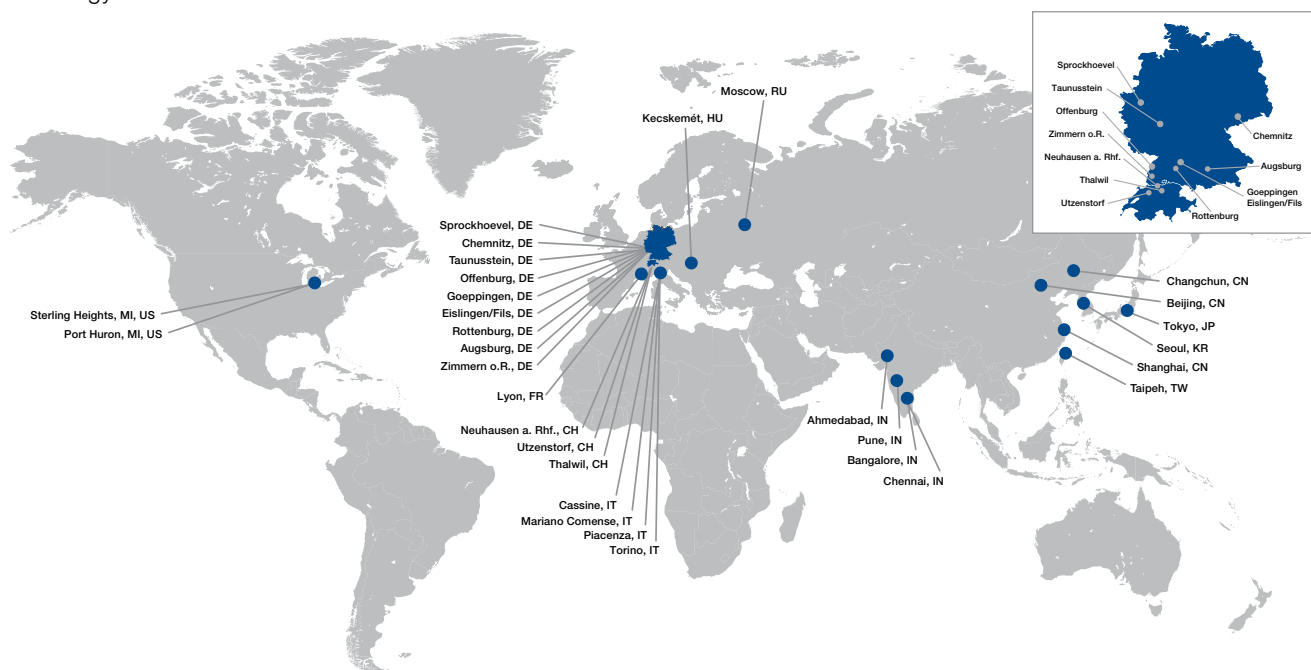
Machine type		VDF 350 TM ^{SHOP} 1000	VDF 350 TM ^{SHOP} 1700	VDF 350 TM ^{SHOP} 2000
Working range				
Turning length	mm	1000	1700	2000
Swing Ø over bed	mm	750	750	750
Turning diameter	mm	730	730	730
X-stroke	mm	600 + 50	600 + 50	600 + 50
Z-stroke	mm	1100	1750	2050
Main spindle				
Spindle head	size	A8	A8	A8
Chuck Ø, max.	mm	250	250	250
Speed, max.	rpm	3500	3500	3500
Drive power	kW	26	26	26
Feed drives				
Rapid traverse speed (X- / Z-axis)	m/min	30	30	30
Rapid traverse speed (Y-axis)	m/min	24	24	24
B-axis				
Y-axis	mm	± 130	± 130	± 130
Swivel angle	deg.	240 (-30 / +210)	240 (-30 / +210)	240 (-30 / +210)
Tooling system	size	Capto C6	Capto C6	Capto C6
Rotary speed	rpm	12 000	12 000	12 000
Drive power (type1 / type2)	kW	21 / 45	21 / 45	21 / 45
Torque (type1 / type2)	Nm	62 / 109	62 / 109	62 / 109
Power requirements				
Power supply	kVA	95	95	95
Dimensions				
Length (without chip conveyor)	mm	6100	6900	7500
Width (control panel)	mm	3320	3320	3320
Height (height of overrun loader)	mm	2730	2730	2730
Weight	t	15	16,8	19

Technical alterations reserved

**VDF BOEHRINGER****HESSAPP****meccanodora****MORARA****Pfiffner****TACCHELLA****WITZIG & FRANK**

About FFG Europe & Americas

FFG Europe & Americas unite major players from the German, Italian, Swiss and American machine tool industry with a broad range of milling, turning, grinding, and gear manufacturing technology, and the knowhow of the renowned machine tool brands VDF Boehringer, Hessapp, IMAS, Jobs, MAG, Meccanodora, Modul, Morara, Pfiffner, Rambaudi, Sachman, Sigma, SMS, Tacchella and Witzig & Frank. Since 1798, these brands have substantially contributed to the progress in industrial manufacturing and are well known as reliable and innovative equipment and systems solutions suppliers for the automotive and truck, aerospace, machine building, general machining, railway industry, energy and heavy engineering industries. While being an independent group, these entities benefit from the strengths and opportunities of the global Fair Friend Group. They stand for premium technology within FFG.



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