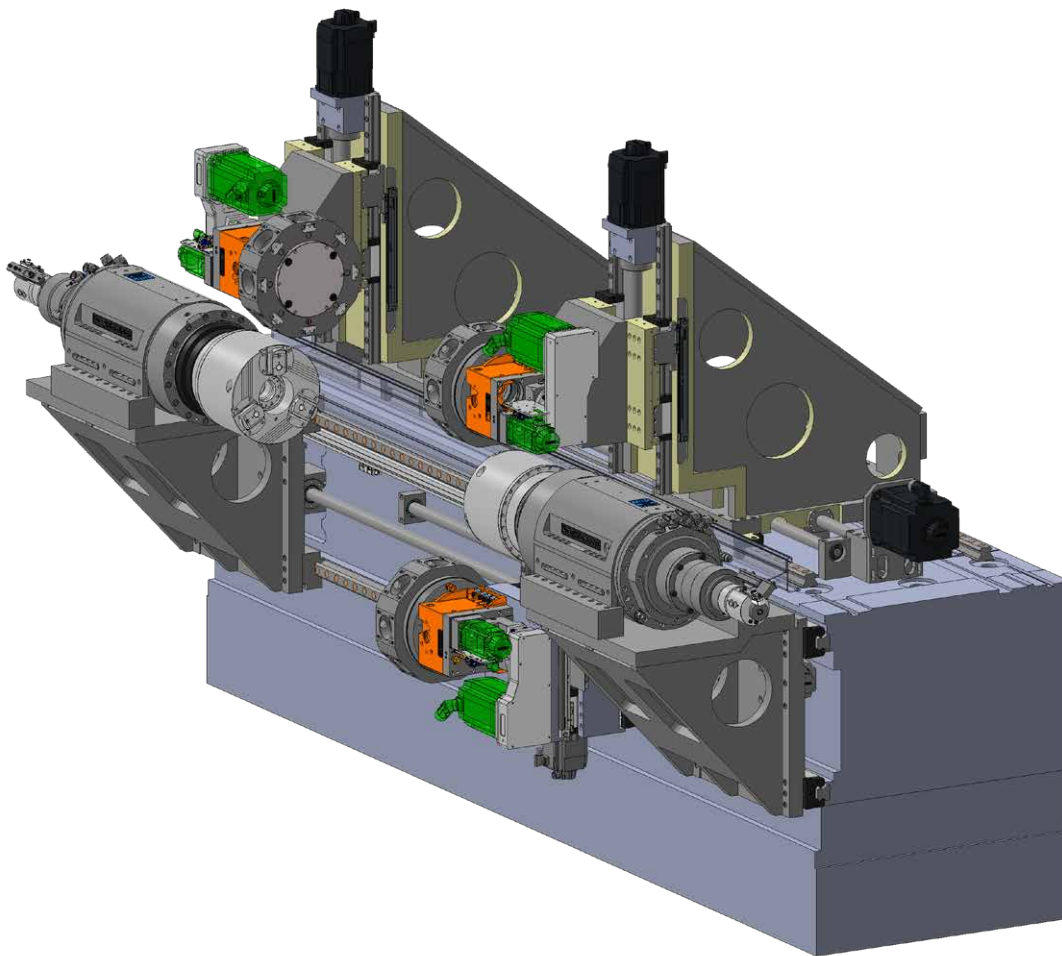




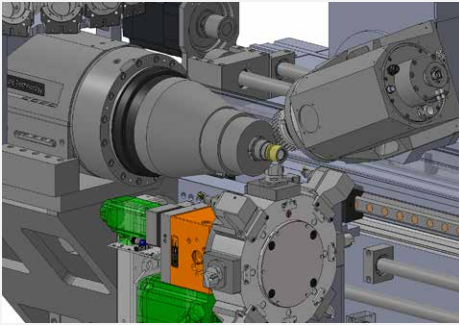
V300 O

Horizontal Turning Centre with 3 Turrets

The modular system of the V300 enables the realization of robust, rigid and precise machine variants with high availability.

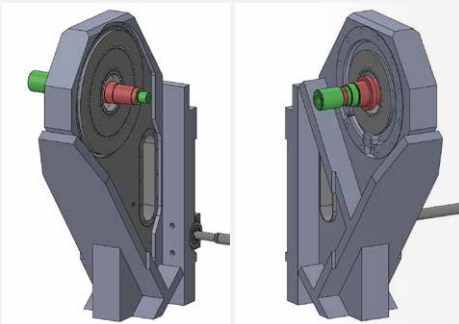


Highlights



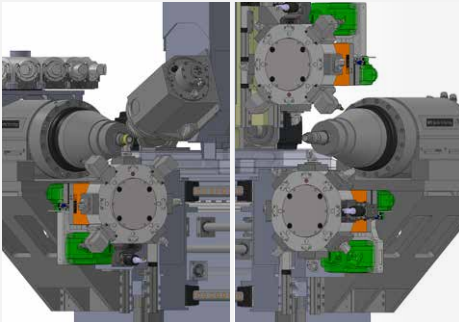
Turning, milling and gear cutting of shafts in one set-up

skiving and hobbing up to module 6 with the robust motorized milling spindle.



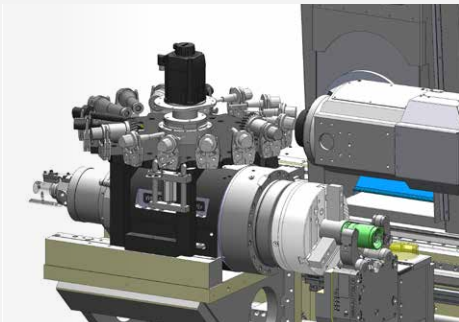
Center drive technology

highly efficient complete machining of shafts by simultaneous machining of both shaft ends by turning, milling and gear cutting



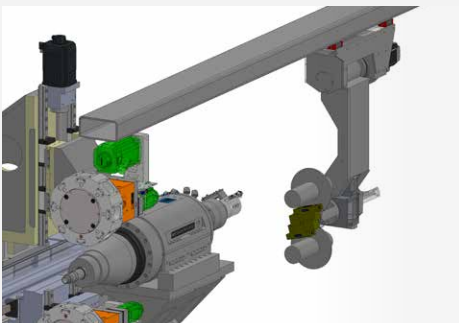
6-side machining

with robust and powerful motorized milling spindles and turrets on main and counter spindles



Automatic tool change in 7 sec.

by disc magazine at the work area - supported by background magazine if necessary



Integrated automation for fast workpiece change

Workpieces



E-rotor shaft

Material	20 MnCr5
Workpiece dimensions	ø 58 × 303 mm
Processing time	05:55 min
Highlight	6-sided complete machining incl. gear cutting



Gear shaft

Material	16MnCr5
Workpiece dimensions	ø 88 × 343 mm
Processing time	07:45 min
Highlight	6-sided complete machining incl. gear cutting



Truck transmission shaft

Material	16MnCr5
Workpiece dimensions	ø 275 × 385 mm
Processing time	05:15 min
Highlight	Complete turning fully auto- matic



Truck transmission shaft

Material	42CrMo4
Workpiece dimensions	ø 186 × 462 mm
Processing time	08:30 min
Highlight	6-sided complete machining incl. gear cutting



Truck transmission shaft

Material	16MnCr5S
Workpiece dimensions	ø 125 × 500 mm
Processing time	03:00 min
Highlight	Complete turning machining in OP10 and OP 20

Technical Specifications

6-side workpiece machining

Main and counter spindle

3 turrets optional with live tools

Y-axis optional for upper slides

Machine dimensions

length without (with) chip conveyor	[mm]	4500 (6550)	
height	[mm]	2850	
depth without (with) e-cabinet chiller	[mm]	2950 (3100)	
weight	[kg]	21000	

Max. workpiece dimensions

spindle nose to counter spindle nose distance	[mm]	2100	
max. workpiece length (assumed chuck height of 200 mm)	[mm]	1700	
max. chuck diameter	[mm]	315	
max. Workpiece diameter	[mm]	300	

W1+W2: Upper ZYXB slide with milling spindle

Z1 Upper slide Z travel	[mm]	1600	
Y1 Upper slide Y travel	[mm]	200	OPTION
X1 Upper slide X travel	[mm]	300	

W3+W4: Lower ZX turret slide

Z3 Lower slide Z travel	[mm]	1550	
X3 Lower slide YX travel	[mm]	215	

Axis force / feed

Slides

max. acceleration	[m/s ²]	5	
max. feed speed	m/min	30	
continious / max. feed force	[N]	7500 / 15000	

Spindles

Turning spindle 1 (1093-6WV11), grease lubrication

	[1/min]	6000	
front bearing ID	[mm]	100	
continious / max. torque	[Nm]	100 / 130	
continious / max. power	[kW]	17 / 22	

Turning spindle 2 (1147-8WS11), grease lubrication

	[1/min]	3500	
front bearing ID	[mm]	150	
continious / max. torque	[Nm]	820 / 1100	
continious / max. power	[kW]	58 / 65	

Milling spindle 202B, C8 (HSK100), grease lubrication	[1/min]	4500	
front bearing ID	[mm]	120	
continious / max. torque	[Nm]	136 / 210	
continious / max. power	[kW]	24 / 32	
clamping torque for turning / MultiTool-Operation	[mm]	900	OPTION
Milling spindle AS180, HSK63/C6, oil-air-lubrication	[1/min]	20000	
front bearing ID	[mm]	80	
continious / max. torque	[Nm]	85 / 130	
continious / max. power	[kW]	25 / 35	
clamping torque for turning / MultiTool-Operation	[Nm]	600	OPTION
Milling spindle AS180, HSK63/C6, oil-air-lubrication	[1/min]	20000	
front bearing ID	[mm]	80	
continious / max. torque	[Nm]	85 / 130	
continious / max. power	[kW]	25 / 35	
clamping torque for turning / MultiTool-Operation	[Nm]	600	OPTION
Spindles for inner / outer grinding available on request			
ATC			
Tool disc magazin			
no. of tools C8 / HSK63	[-]	16	
max. tool diameter / length (depends on the size of neighbour tools)	[mm]	120 / 300	
max. tool weight	[kg]	10	
Higher tool capacity by background ATC (on request)			
no. of tools HSK63 / C6	[-]	60 / 90 / 120	
no. of tools HSK100 / C8	[-]	24 / 48 / 72	
max. tool dimensions / weight		see above	
Turrets (examples)			
VDI 40 Turret			
no. of tools / interface	[-]	12 x VDI 40	
max. tool length upper / lower slide	[mm]	240 / 180	
continious / max. torque	[Nm]	25 / 45	OPTION
continious / max. power	[kW]	5 / 10	OPTION
tool drive max. rot. speed	[1/min]	4000	OPTION
VDI 50 Turret			
no. of tools / interface	[-]	12 x VDI 50	
max. tool length upper / lower slide	[mm]	240 / 180	
continious / max. torque	[Nm]	28 / 55	OPTION
continious / max. power	[kW]	6 / 12	OPTION
tool drive max. rot. speed	[1/min]	4000	OPTION
CDI-, CAPTO-Interfaces on request			

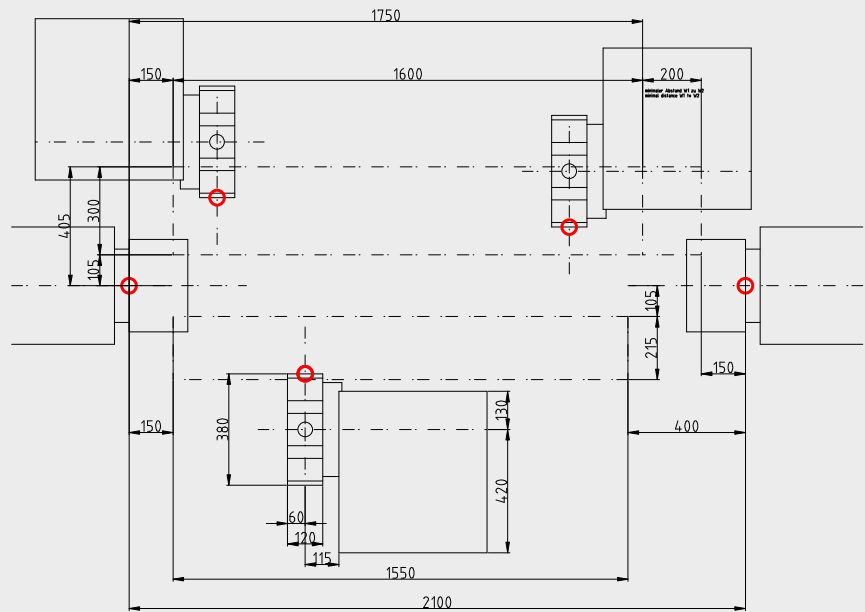
Technical drawing of a three-hole flange (Flansch) showing front and side views with dimensions.

Front View (Top):

- Overall width: 800
- Overall height: 740
- Top flange thickness: 10
- Distance from top flange to first hole center: 210
- Distance between hole centers: 180
- Distance from second hole center to bottom flange: 380
- Bottom flange thickness: 4,05
- Distance from bottom flange to third hole center: 300
- Overall height including bottom flange: 1050
- Inner hole diameter: $\varnothing 100$
- Outer hole diameter: $\varnothing 120$
- Material: ALU 6063
- Surface treatment: ANODIERT

Side View (Bottom):

- Overall width: 740
- Distance from top flange to first hole center: 180
- Distance between hole centers: 380



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