

Schütte

CNC Universal Tool and Cutter Grinder

WU 305 *linear*

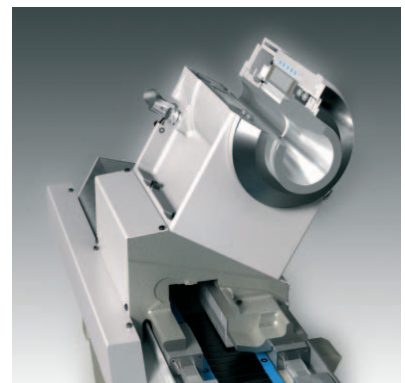


Even more complex is the manufacture of form tools with both radial and axial clearance angles. It calls for the wheel to be swung into the tool, and that requires a grinder with 5 CNC axes.

A multi-axis linear CNC grinder can only carry out these tasks efficiently if its linear axes are designed to oscillate rapidly. The WU 305 *linear* is equipped with AC direct drives in all of its five CNC axes and is suitable not only for the usual tool grinding tasks but also for pendulum grinding operations.

Great dynamics and remarkable contour integrity

Depending on their geometry, today's ever more demanding tool profiles can only be successfully machined with profile grinding wheels. Manufacturing them in smaller batches frequently proves uneconomical, as grinding wheel costs soon escalate. It is here that linear, multi-axis CNC grinding with plain wheel geometries offers itself as the solution.



The design features are:

- Linear drives in all axes
- Excellent repeating accuracy
- Max. acceleration of up to 1g
- Great dynamic response
- Five magazine positions to accommodate your grinding wheel sets
- Grinding spindle speeds of up to 24,000 min⁻¹

The task becomes more difficult with tools that feature all-round profiles, as in the case of blanking punches, especially if they also happen to be asymmetrical. This requires the wheel to be held in a CNC rotary axis mounted on a pendulum slide.

The grinding wheel changer with its five magazine positions offers ample scope for the economical machining of demanding tools, and our software system SIGS supports it in every way.

Machine	WU 305 <i>linear</i>	
Linear axes:		
play-free, temperature-controlled AC direct drive with closed loop control		
Stroke:		
X-axis (longitudinal travel)	mm inch	400 15.75
Y-axis (cross travel)	mm inch	250 10
Z-axis (vertical travel)	mm inch	250 10
Resolution:		
X-, Y- and Z-axis	mm inch	< 0,0001 < 0,000004
Feed rate:		
X-axis	mm/min inch/min	max. 48000 max. 1880
Y- and Z-axis	mm/min inch/min	max. 24000 max. 940
Acceleration:		
X-axis	m/s ² inch/s ²	10 0.39
Y- and Z-axis	m/s ² inch/s ²	5 0.2
Rotary axis and universal rotary axis* (A-axis):		
play-free, temperature-controlled AC direct drive with closed loop control		
Resolution in indexing mode	Grad degree	< 0,0001
Speed range rotary axis	min ⁻¹ rpm	0 to ±200
Speed range universal rotary axis*	min ⁻¹ rpm	0 to ±2500*
Receptor to DIN 2080		steep taper 50
Torque	Nm	48
Workholding		manual/pneumatic*
Swivel axis for wheelhead (C-axis):		
play-free, temperature-controlled AC direct drive with closed loop control		
Swivel range	Grad degree	225
Resolution	Grad degree	< 0,0002
Swivel speed	Grad/s degree/s	360
Grinding spindle:		
Speed	min ⁻¹ rpm	0 to ± 12000
Motor spindle power rating	kW HP	15 21
Spindle receptor		HSK 50 E
Clamping system for grinding wheel arbor and coolant distributor		automatic
Workholding:		
Max. machinable workpiece diameter	mm inch	235 9.3
Centre height above floor	mm inch	1100 44
Machine weight:		
excluding auxiliary equipment	kg	2800
Optional equipment*:		
Pick-up loader, grinding wheel changer with 5 magazine positions, alternative grinding spindle with speed to 24000 min ⁻¹ , automatic steady or tailstock, dressing attachment, high-pressure open-jet nozzle, resharpening etc.		
* Option		

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