

Ultra-High Accuracy Hydrostatic Spindles



- For a perfect finishing surface
- For the best precision
- For a faster production process
- For an eternal lifetime

Parameter		120k	140k	250k
Maximal speed	<i>rpm</i>	120'000	140'000	250'000
Tool Interface, Pilot diameter	<i>mm-thread</i>	7.5-M7x1	7.5-M7x1	5.5-M5x0.8
Continuous power at maximal speed	<i>kW</i>	6	3.5	1.2
Supply pressure	<i>bars</i>	60	60	60
Radial error motion	μ	<0.08	<0.08	<0.10
Axial error motion	μ	<0.10	<0.10	<0.10
Oil pumping power	<i>kW</i>	0.31	0.24	0.23
Axial stiffness	<i>N/μm</i>	24	25	12
Radial stiffness at the shaft front end	<i>N/μm</i>	22	10	4.5

TDM present new generation of Ultra-High Speed Internal Grinding Hydrostatic Spindles with extremely high speed: 120'000 rpm, 140'000 rpm and 250'000 rpm.

Work Heads Grinding Spindles

- For a perfect roundness
- For a high extremely rigidity
- For a vibration less rotation

Parameter		
Maximal speed	<i>rpm</i>	6'000
Constant continuous torque	<i>Nm</i>	10
Maximal continuous power	<i>kW</i>	6
Supply pressure	<i>bars</i>	60
Radial error motion	μ	< 0.04
Axial error motion	μ	< 0.10
Oil pumping power	<i>kW</i>	0.31
Axial stiffness	<i>N/μm</i>	350
Axial load capacity	<i>N</i>	3'200
Radial stiffness at the shaft front end	<i>N/μm</i>	200
Radial load capacity at the shaft front end	<i>N</i>	2'400



Ultra-high precision work head hydrostatic spindle was developed and manufactured with maximal speed of 6'000 rpm and load capacity of over 0.5 tons in both radial and axial directions. Spindle has an optional coolant supply through the rotating shaft.



Made in Switzerland

