

## Ultra-High Accuracy Hydrostatic Spindles



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

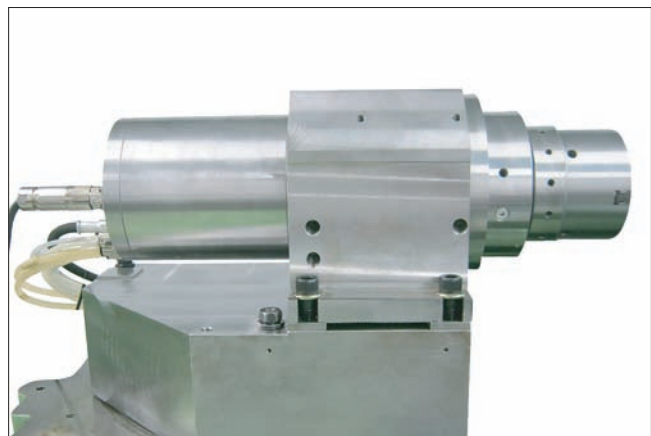
| Parameter                               |                            | 120k     | 140k     | 250k       |
|---|----------------------------|----------|----------|------------|
| Maximal speed                           | <i>rpm</i>                 | 120'000  | 140'000  | 250'000    |
| Tool Interface, 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                     | $\mu$                      | <0.08    | <0.08    | <0.10      |
| Axial error motion                      | $\mu$                      | <0.10    | <0.10    | <0.10      |
| Oil pumping power                       | <i>kW</i>                  | 0.31     | 0.24     | 0.23       |
| Axial stiffness                         | <i>N/<math>\mu</math>m</i> | 24       | 25       | 12         |
| Radial stiffness at the shaft front end | <i>N/<math>\mu</math>m</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                         | $\mu$                      | < 0.04 |
| Axial error motion                          | $\mu$                      | < 0.10 |
| Oil pumping power                           | <i>kW</i>                  | 0.31   |
| Axial stiffness                             | <i>N/<math>\mu</math>m</i> | 350    |
| Axial load capacity                         | <i>N</i>                   | 3'200  |
| Radial stiffness at the shaft front end     | <i>N/<math>\mu</math>m</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

