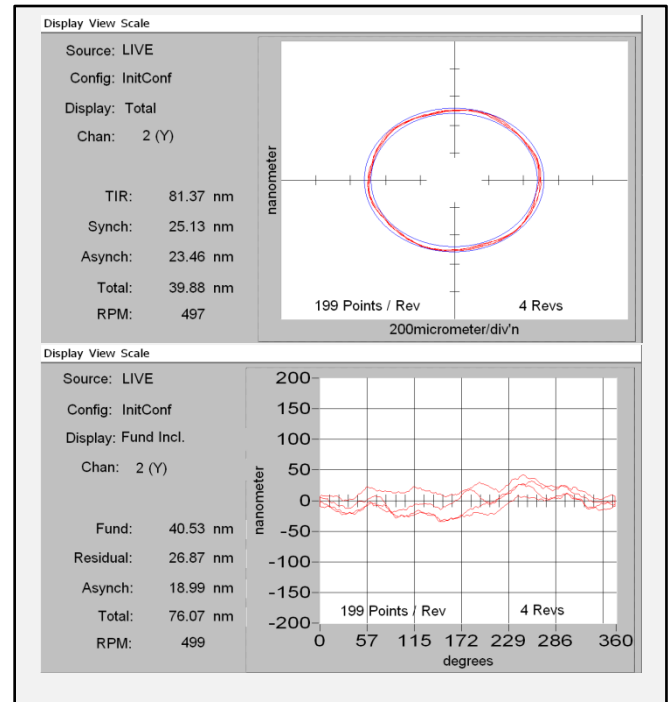
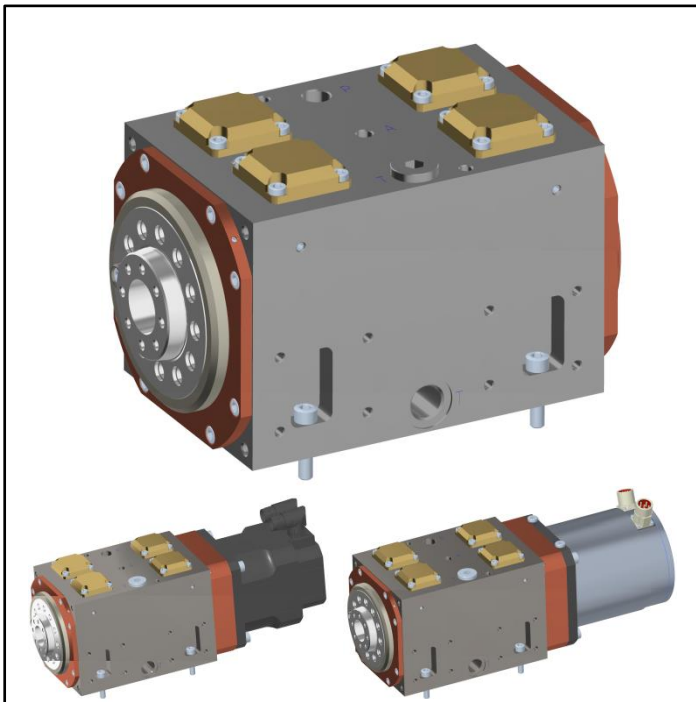


Better precision and liability with



hydrostatic work head 150mm

Spindle technic



Why using hydrostatic work head in cylindrical grinder?

- ✓ Spindle nose short taper ISO 702-1 size 4 and MK4 DIN 228, for horizontal rotation axis.
- ✓ Axial and radial position variation of spindle nose < 0,25µm, optional ultraprecision type <0,10µm
- ✓ Excellent damping for best surfaces, high form precision and high cutting power.
- ✓ Wear free hydrostatic bearings keeps grinding quality at highest level without time limit
- ✓ Very high load capacity and stiffness by high rigid hydrostatic bearings with PM-flow controller
- ✓ Without drive or with coupled self-cooled servo motor or with water cooled torque motor.
- ✓ With magnetic or optical angle measurement system, absolute or incremental useful for rotation with very constant speed or C-axis positioning.
- ✓ Nickel coated housing, fixed by 4 screws M8 to vertical wall or horizontal surface
- ✓ With contact free gap seals, supported by air blow. Optional PTFE radial seals for low speed.

Pump pressure ¹⁾	32 bar	32 bar	32 bar	50 bar	50 bar	50 bar
Oil viscosity ²⁾	HLP-PAO 46	HLP-PAO 32	HLP-PAO 15	HLP-PAO 46	HLP-PAO 32	HLP-PAO 15
Max. speed	500 rpm	1000 rpm	2000 rpm	500 rpm	1000 rpm	2000 rpm
Max. radial force ³⁾	1.000 N	1.000 N	1.000 N	2.100 N	2.100 N	2.100 N
Max. axial force ³⁾	+/- 800 N	+/-800 N	+/-800 N	+/-1.600 N	+/-1.600 N	+/- 1.600 N
Max. tilt torque ³⁾	300 Nm	300 Nm	300 Nm	550 Nm	550 Nm	550 Nm
Radial stiffness ⁴⁾	350 N/µm	350 N/µm	350 N/µm	600 N/µm	600 N/µm	600 N/µm
axial stiffness ⁴⁾	550 N/µm	550 N/µm	550 N/µm	1000 N/µm	1000 N/µm	1000 N/µm
oil flow max. 30°C	2,2 l/min	3,2 l/min	7,2 l/min	3,1 l/min	4,6 l/min	10,4 l/min
Friction torque at max. speed 18°C ⁵⁾	2,5 Nm	3,1 Nm	3,0 Nm	2,4 Nm	3,2 Nm	3,0 Nm

All data approximate values, which can change depending on detail use! ¹⁾ Other oil pressure available on request

²⁾ Synthetic oil based on PAO, to get out air and for long life at oil enter temperature 18 to 30°C

³⁾ Radial force, axial force and tilt torque can be applied together on center of spindle. Calculate these values by Excel sheet by weights, forces and distances. Values can be adapted to application on request.

⁴⁾ Gaps stiffness in bearing at low speed. Stiffness on spindle nose is lower depending on distance to bearings

⁵⁾ Friction at min. oil enter temperature 18°C. Friction torque is about 60%at max. speed. Friction torque is almost proportional to speed