## Better precision and liability with



## hydrostatic center work heads

## Spindle technic



## Why using hydrostatic center work head in cylindrical grinder or lathe?

- ✓ To clamp work piece in center and grind on both ends of use as hollow tailstock for inner grinding
- ✓ Rotary joint by air or hydraulic pressure to unclamp chuck.
- ✓ Runout < 0,2 to 0,5 $\mu$ m, for high form quality at work piece.
- ✓ Excellent damping for best surfaces, high form precision and high cutting power.
- ✓ Wear free hydrostatic bearings keeps grinding quality at highest level.
- ✓ High load capacity and stiffness by high rigid hydrostatic bearings with PM-flow controller
- ✓ For belt drive or with torque motor

bore	Ø100 mm	Ø150 mm	Ø200 mm	Ø250 mm	Ø300 mm
Max. speed <sup>1)</sup>	500-3.000 rpm	500-2500 rpm	500-2000 rpm	300-1500 rpm	250-1000 rpm
Length no drive	60mm	65 mm	70 mm	75 mm	80 mm
Max. radial force	1400 N	1.700 N	2.000 N	4.000 N	5.000 N
Max. axial force	+/- 2000 N	+/-2.500 N	+/-3.000 N	+/-4.500 N	+/-6.000 N
Max. tilt torque	60 Nm	100 Nm	200 Nm	400 Nm	500 Nm
axial stiffness	1000 N/µm	1200 N/µm	1400 N/µm	1600 N/µm	1800 N/µm
Radial stiffness	500 N/µm	550 N/µm	600 N/µm	700 N/µm	800 N/µm
oil flow at visc.	7 l/min	7 l/min	7,5l/min	8 l/min	8 l/min
VG5, 30°C	(max. 3000 rpm)	(max. 2000 rpm)	(max. 1000 rpm)	(max.500 rpm)	(max. 300 rpm)

<sup>1)</sup> Oil flow and oil viscosity will be adapted to max. speed <sup>2)</sup> Nm values at S1: 100% - you can select max. torque out of the range.

<sup>3)</sup> Radial force, axial force and tilt torque at 50bar can be applied together on the spindle nose. Values can be adapted to application

<sup>4)</sup> Gaps stiffness in bearing at 50bar pump pressure. Stiffness on spindle nose is lower.

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