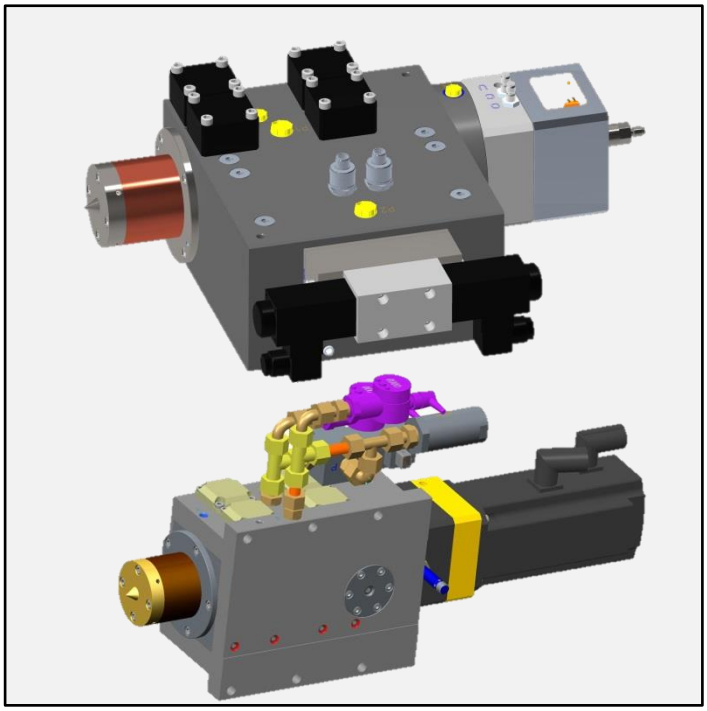
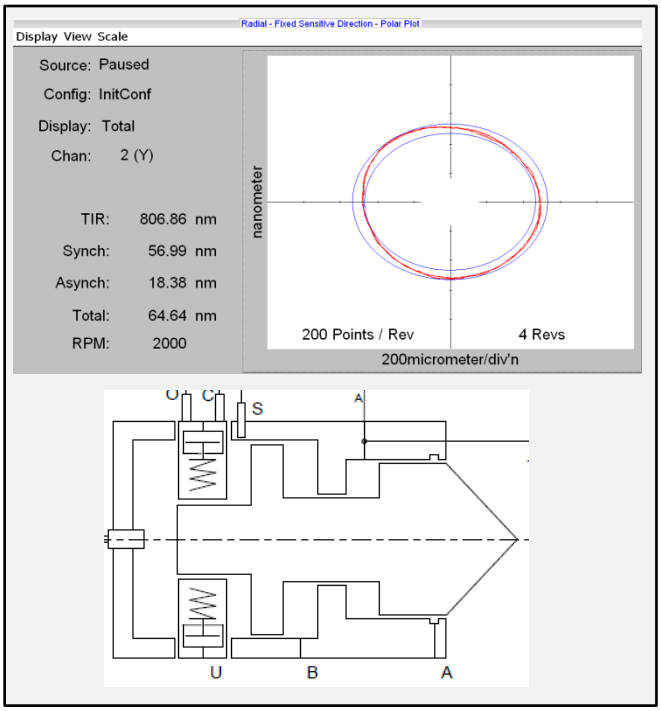
# Reliable better precision at shafts

## hydrostatic tailstocks

HYPROSTATIK®

Spindle technic






## Why using hydrostatic tailstocks?

- ✓ Using hydrostatic tailstock, roundness of grinded shafts depends not quality of center at work piece. By rotating quill, roundness 0,2µm can be reached independent of work piece center
- ✓ Heavy work pieces can be grinded between centers < 0,5µm.
- ✓ Shafts with big bores can be grinded between centers without any inserts with small centers.
- ✓ Clamping force is very constant and not changing during machining. Crank shafts and balancing shafts can be grinded in much higher quality.
- ✓ Hydrostatic bearings are wear free so good damping and excellent runout keep long time.
- ✓ Drive through work piece or with separate motor

| **Quill diameter** | **Ø35 mm** | **Ø50 mm** | **Ø70 mm** | **Ø100mm** |
|---|---|---|---|---|
| **Max. speed VG32** | 2000 pm | 1500 rpm | 1.000 rpm | 700 rpm |
| **Max. radial force 50bar** [2)] | 350 N | 1.000 N | 2000 N | 4.000 N |
| **Max. clamping force 50bar**[2)] | 350 N | 1.000 N | 2.000 N | 4.000 N |
| **Radial runout** | < 0,2µm | 0,2µm | 0,2µm | 0,25µm |
| **oil flow max. 32°C, VG32** [3)] | 2 + 2 l/min | 2,2 + 2,2 l/min | 2,5 + 2,5 l/min | 3 + 3 l/min |
| **Radial stiffness** [4)] | 140 N/µm | 220 N/µm | 600 N/µm | 1000 N/µm |
| **stroke** | 40 mm | 45 mm | 50 mm | 55 mm |

[1)] Higher speed possible with thinner oil [2)] Forces can increase at higher pump pressure.
[3)] oil flow can change, if pump pressure, oil viscosity or max. oil temperature change. Oil flow for hydrostatic bearing + oil flow for hydraulic cylinder [4)] Radial gap stiffness change with pump pressure and oil viscosity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