



Advantages of Hydrostatic Over Rolling Bearings

- Frictionless even at minute revolutions
- Transmits minute rotating motion
- No backlash when reversing direction
- Slip-stick effect is eliminated
- Wear is eliminated because there is no metal-to-metal contact during operation
- No loss of accuracy even after years of operation under full load
- No vibration as possible with bearings when ball direction is reversed
- Insensitive to dirt and contamination

Unique Technical Features

- Handles axial, radial and torque forces
- Ideal for one-sided guidance of the leadscrew
- Highly precise bearing system for the leadscrew
- Integral volume regulation
- Only one hydraulic connection needed
- Input and drain lines are on the flange
- Optional seal on one side, or labyrinth air purge
- Adaptable to a machine's parameters:
 - Axial, radial, and torque loads
 - Maximum RPM
 - Required stiffness
 - Viscosity and temperature of hydraulic oil

Sizes of Hydrostatic Universal Bearings†

Size	50	63	80	100	125	160
Maximum axial force at 100 bar with 50% reserve	22 kN	34 kN	51 kN	77 kN	120 kN	200 kN
Minimum axial stiffness at 100 bar	2.5 kN/μm	3.7 kN/μm	5.5 kN/μm	8.5 kN/μm	12.5 N/μm	20 kN/μm
n max. with VG68/100 bar	750 rpm					
n max. with VG68/100 bar	2000 rpm					
	3200 rpm					

Technical Features of Size 50‡

		max. axial force with 50% reserve	miminal axial stiffness	oil demand with VG32
Data for maximum axial force and axial stiffness for size 50	25 bar	5500 N	800 N/μm	0.9 l/min
	32 bar	7000 N	1000 N/μm	1.0 l/min
	40 bar	8800 N	1250 N/μm	1.3 l/min
axial force with 50% reserve	50 bar	11000 N	1600 N/μm	1.6 l/min
	63 bar	13800 N	2000 N/μm	1.9 l/min
at pump pressure	80 bar	17600 N	2500 N/μm	2.4 l/min
	100 bar	22000 N	3000 N/μm	3 l/min

‡All features can be changed, and can be adapted to a specific application.