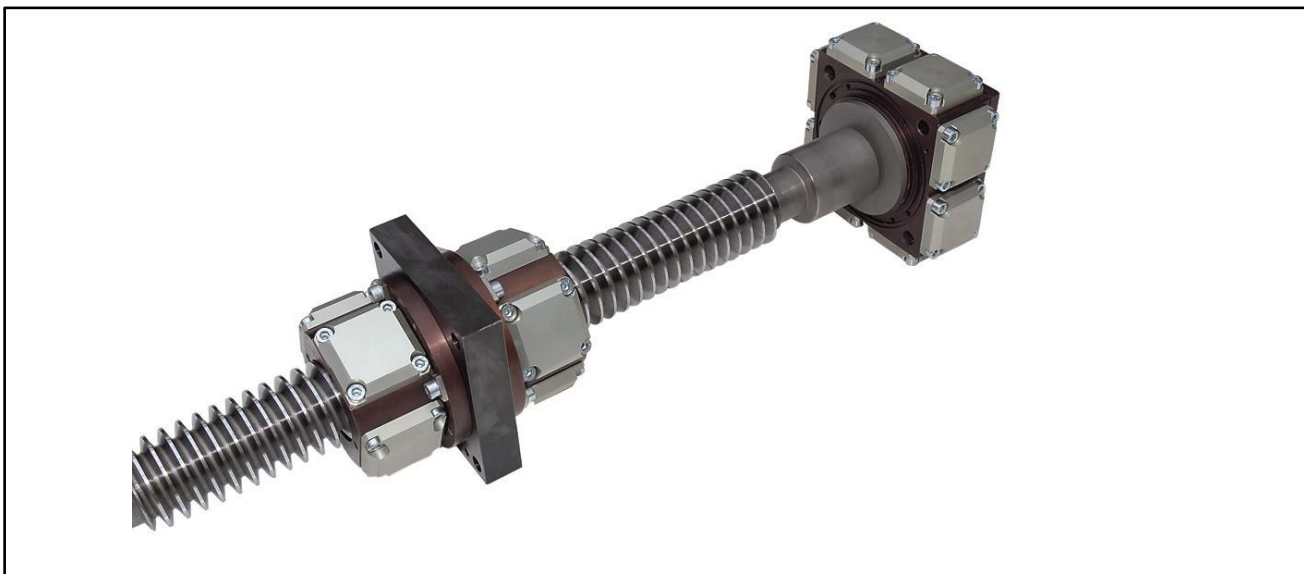


Max. Precision at linear motion!

Hydrostatic lead screw + bearing



hydrostatic lead screw features:

- higher precision than linear motor because it is free of friction and backlash
- precision keep constant by no wear even at continuous use with max. speed at max. force
- interchangeable with ball screw by same geometry of screw ends and length using adapter for nut
- Useful for high continuous drive forces (100to) which enable high force cutting, high dynamic of heavy slides. Most vertical axis need no weight balance.
- for high speed and high acceleration
- excellent damping of nut and bearing keep slide position even with oscillation force on slide, which allow higher quality surface.
- very high stiffness of hydrostatic gap for highest precision at work piece
- hydrostatic lead screw and bearing are free of vibration and have no noise for best surface quality on work piece.
- Hydrostatic fluid continuous clean and cool lead screw and bearing for lowest thermal effects on position

O.D. of thread	40 mm	52 mm	65 mm	80 mm	100 mm	125 mm	160 mm
Standard pitch	8, 16 mm	10, 20, 30mm	12, 25, 40mm	15, 25, 40mm	18, 30,50 mm	25, 40mm	30,50mm
Max. screw length	1000mm	2500mm	4000mm	6000mm	6000mm	6000mm	6000mm
load capability / flow	2.600 N	4.000 N	8.000 N	13.000 N	18.000 N	32.000 N	60.000 N
32bar 4 turns VG46	1,8 l/min	2,5 l/min	3,6 l/min	5,4 l/min	6,7 l/min	10,3 l/min	14 l/min
stiffness, max. speed	900 N/μm	1500 N/μm	1650 N/μm	1800 N/μm	2800 N/μm	3600 N/μm	5200 N/μm
32bar 4 turns VG46	2800rpm	2000rpm	1700rpm	1400rpm	1000rpm	900rpm	750rpm
load capability / flow	5.800 N	8.000 N	14.000 N	22.000 N	32.000 N	58.000 N	100.000 N
50bar 4 turns VG46	2,5 l/min	3,0 l/min	4,8 l/min	6,4 l/min	1 l/min	11,9 l/min	16 l/min
stiffness, max. speed	1100 N/μm	1800 N/μm	1900 N/μm	2100 N/μm	3400 N/μm	4000 N/μm	5500 N/μm
50bar 4 turns VG46	3000rpm	2100rpm	1800rpm	1400rpm	1000rpm	900rpm	750rpm
load capability / flow	9.000 N	15.000 N	24.000 N	38.000 N	54.000 N	100.000 N	180.000 N
80bar 4 turns VG46	3,9 l/min	4,3 l/min	5,4 l/min	7,1 l/min	8,7 l/min	13 l/min	17,5 l/min
stiffness, max. speed	1200 N/μm	1900 N/μm	2300 N/μm	2800 N/μm	4200 N/μm	4100 N/μm	5600 N/μm
80bar 4 turns VG46	3000rpm	2200rpm	1800rpm	1400rpm	1100rpm	900rpm	750rpm

Higher forces possible by pump pressure up to 200bar and more tread turns in nut. Higher speed is possible by thinner oil, less thread turns of nut or more flow. Hydrostatic screws are adapted to application. For vertical axis, one nut can have more turns for lifting slide. Oil exit both side of nut – return oil with channel below to hydraulic unit without pollution. Critical speed depends limit depends on length of screw. Bearing and nut must be aligned parallel to slide move. Oil flow at max. 32°C using oil HLP46, force with 30% safety factor, gap stiffness at low speed. At large pitch, load capacity is less by less turns.