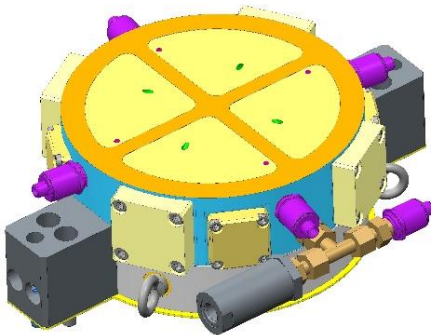


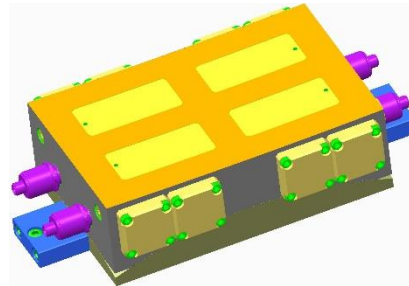
Better precision and liability with hydrostatic components



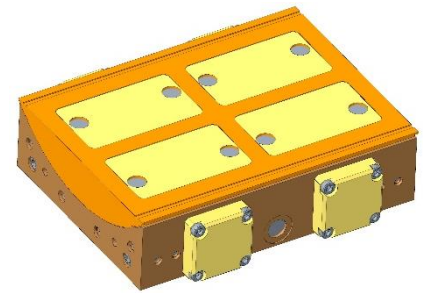
Swivel units



for axial bearing of big rotary tables



for big ring bearing radial bearing of big rotary tables



Tilting pocket For lower support of Z-axis RAM

Why using hydrostatic swivel units?

- ✓ Hydrostatic pocket pockets need very parallel gap to avoid contact.
- ✓ Production tolerances and deformation of table and base result parallel errors of gap.
- ✓ Using swivel unit with hydrostatic sphere in between, pocket adjust automatically parallel.
- ✓ Big rotary table with swivel units works very reliable, contact free, independent of deformation of base and table.
- ✓ Using smaller gaps than standard pockets, smaller hydraulic unit and smaller cooling unit with less power and oil flow can be used, or with same flow, larger speed is possible.
- ✓ Swivel units used for vertical lathes, big telescopes (ELT) or testing machines or moving bridges.
- ✓ Tilting pockets, with cylinder shape in between, used for lower support of RAM, where bending angle is can be large by large cutting forces.

Swivel pocket axial	Ø 150 mm	Ø 250 mm	Ø 320 mm	Ø 400 mm	Ø 580 mm
Max. force 100bar ¹⁾	120 kN	370 kN	620 kN	900 kN	2000 kN
Max. speed VG46 ²⁾	6 m/s	5,5 m/s	5,5 m/s	5,5m/s	5.000 N
Oil flow 100bar ³⁾	1-4 l/min	2-9 l/min	2-10 l/min	3-15 l/min	3,5 – 17 l/min
Max. speed VG15 ²⁾	16 m/s	13 m/s	13 m/s		
Oil flow 100bar ³⁾	2 -9 l/min	4 -18 l/min	4 -19 l/min		
axial gap stiffness ⁴⁾	1,5 28 kN/µm	6-80 kN/µm	8-100 kN/µm	14-180 kN/µm	10-350 kN/µm

Oil viscosity, oil temperature range, oil flow and oil pressure is adapted to forces and speed for every application.

¹⁾ max. theoretic force at where pocket pressure 90% of pump pressure ²⁾ max. speed at 15°K heating by friction

³⁾ Oil flow at max. force at 30°C with oil viscosity VG46 ⁴⁾ at 30% of Fmax. With synthetic oil with high VI-Index.

Swivel pocket	280x180mm	170x248mm	170x318mm	200x340mm	
Type, inside geometry	Radial R5000 spherical	RAM 250 mm cylindrical	RAM 320 mm cylindrical	RAM 400 cylindrical	
Max. force 100bar ¹⁾	300 kN	2x 120 kN	2x 170 kN	440 kN	
Max. speed VG46 ²⁾	5 m/s	40 m/min	40 m/min	40 m/min	
Oil flow 100bar ³⁾	9-16 l/min	0,4-2 l/min	0,5- 2,5 l/min	0,3-1,2	
axial gap stiffness ⁴⁾	3-25 kN/µm	1,5-400 kN/µm	2-500 kN/µm	3-800kN/µm	