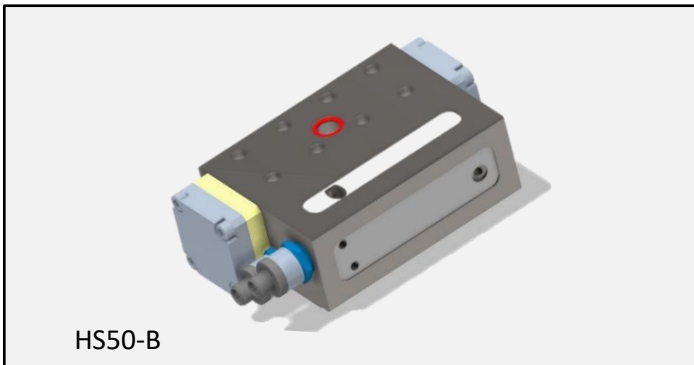


Max. Precision at linear motion !

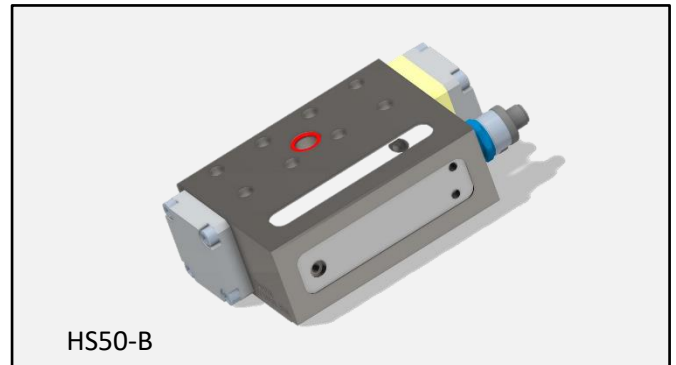
HYPROSTATIK®

Linear guidesystems

Hydrostatic guide shoes



HS50-B



HS50-B

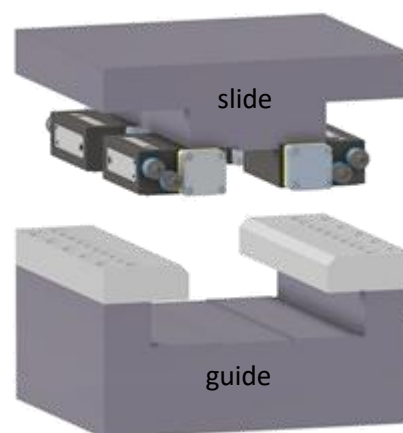
Advantage

- **wear free**
=> life unlimited
=> machine quality does not change
- **no friction at slow move – no stick slip effect**
=> positioning precision no more limited by guide.
=> very small steps and very slow move possible
- **no vibration by rolling elements**
=> improved surface quality
=> sound free move
- **excellent damping**
=> improve surface quality at work piece
=> longer tool life
- **very high load capacity by large pocket surface**
- **very high stiffness by using PM-flow controller**
- one oil enter with constant pressure
- attached PM-flow controller
- attached pressure sensors can supervise forces
- no deformation of screws in rails
- simple design of slide parts and rails
- available for different pressure and oil type

Technical data of hydrostatic guide shoes size 50

Symmetric design

pressure	32bar	50bar	80bar
max. force F1↓ ^①	12000 N	19000 N	30000N
max. force F2↑ ^①	5000 N	8000 N	13000 N
maxforce F3→ ^①	6500 N	11500 N	18000 N
maxforce F4← ^①	6500 N	11500 N	18000 N
stiffness↑↓ ^②	1800N/μm	2200N/μm	3500N/μm
stiffness ↔ ^③	1000N/μm	1500N/μm	2100N/μm
max. speed VG68 ^④	25 m/min	35 m/min	40 m/min
max. flow VG68 ^⑤	0,08 l/min	0,14 l/min	0,24 l/min
max. speed VG46 ^④	45 m/min	55 m/min	70 m/min
max. flow VG46 ^⑤	0,12 l/min	0,20 l/min	0,35 l/min
max. speed VG32 ^④	60 m/min	80 m/min	100m/min
max. flow VG32 ^⑤	0,18 l/min	0,29 l/min	0,49 l/min



Calculate max. forces, put safety factor on, select needed pressure according forces.

Select oil viscosity according needed speed.

①max. forces with guaranteed function.

Theoretical limit is 40% higher.

②gap stiffness at force 20% of F1

③gap stiffness at 0N side force

Total stiffness is reduced by deformation, depending rigidity of slide and guide.

④speed when oil heat by friction about 8°K

⑤oil flow per pocket at max. 40°C

Oil flow at 20°C is about 35% of oil flow at 40°C.

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