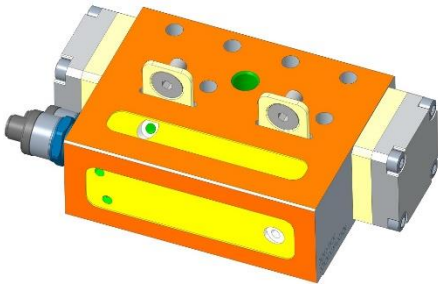
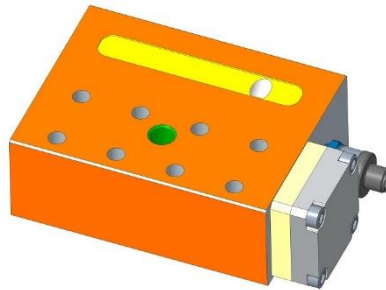


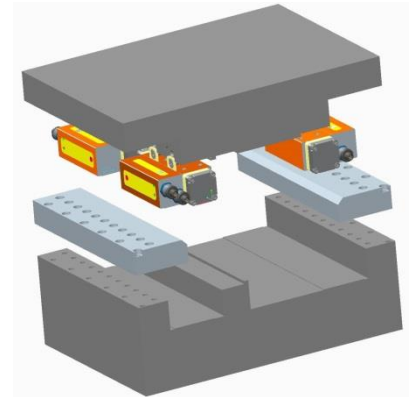
# HYDROSTATIC GUIDE SHOES



HS50-A/D 4 pockets



HS50-C/F 2 pockets



## 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 hydrostatic guide shoes size 50

	32 bar	50 bar	80 bar	32 bar	50 bar	80 bar
<b>pressure</b>	<b>32 bar</b>	<b>50 bar</b>	<b>80 bar</b>	<b>32 bar</b>	<b>50 bar</b>	<b>80 bar</b>
<b>shoe length</b>	<b>130 mm</b>	<b>130 mm</b>	<b>130 mm</b>	<b>200 mm</b>	<b>200 mm</b>	<b>200 mm</b>
<b>max. force F1↓<sup>①</sup></b>	12000 N	20000 N	30000N	20000 N	32000 N	45000N
<b>max. force F2↑<sup>①</sup></b>	5000 N	8000 N	13000 N	7500 N	12000 N	19000 N
<b>max. force F3→<sup>①</sup></b>	6500 N	9000 N	18000 N	11000 N	19000 N	28000 N
<b>max. force F4←<sup>①</sup></b>	6500 N	9000 N	18000 N	11000 N	19000 N	28000 N
<b>stiffness ↑↓<sup>②</sup></b>	1500N/μm	2200N/μm	3500N/μm	2300N/μm	3500N/μm	5500N/μm
<b>stiffness ↔<sup>③</sup></b>	1000N/μm	1500N/μm	2100N/μm	1500N/μm	2200N/μm	3500N/μm
<b>max. speed VG68<sup>④</sup></b>	25 m/min	30 m/min	35 m/min	25 m/min	30 m/min	35 m/min
<b>max. flow VG68<sup>⑤</sup></b>	0,08 l/min	0,12 l/min	0,18 l/min	0,10 l/min	0,16 l/min	0,27 l/min
<b>max. speed VG46<sup>④</sup></b>	40 m/min	50 m/min	55 m/min	40 m/min	50 m/min	55 m/min
<b>max. flow VG46<sup>⑤</sup></b>	0,11 l/min	0,20 l/min	0,28 l/min	0,15 l/min	0,23 l/min	0,40 l/min
<b>max. speed VG32<sup>④</sup></b>	60 m/min	70 m/min	80m/min	60 m/min	70 m/min	80m/min
<b>max. flow VG32<sup>⑤</sup></b>	0,16 l/min	0,29 l/min	0,39 l/min	0,21 l/min	0,33 l/min	0,55 l/min

- Calculate max. force, put safety factor on, select needed pressure according forces  
- select oil viscosity according needed speed.

<sup>①</sup>max. forces when function guaranteed. Theoretical limit is 40% higher.

<sup>②</sup>gap stiffness at force 20% of F1                      <sup>③</sup>gap stiffness at ON side force

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

<sup>④</sup> speed when oil heat by friction about 8°K                      <sup>⑤</sup>oil 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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