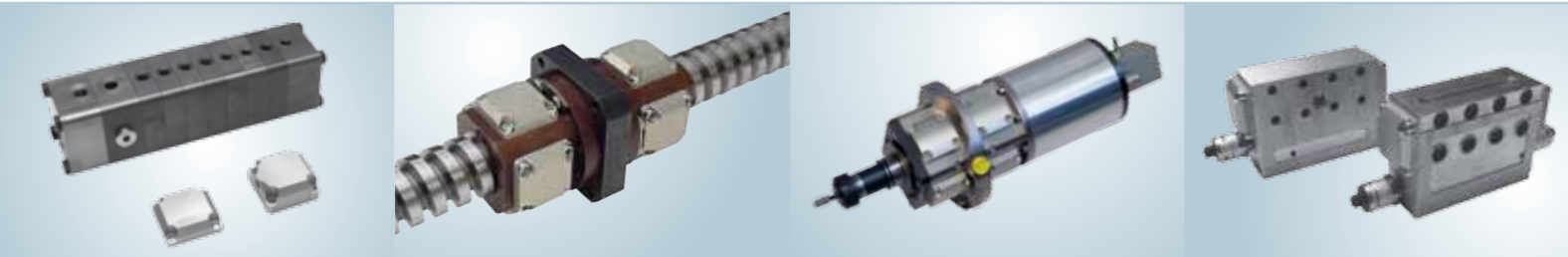


HYPROSTATIK®
Run smoothly with HYPROSTATIK

Perfect solution – hydrostatic guide shoes



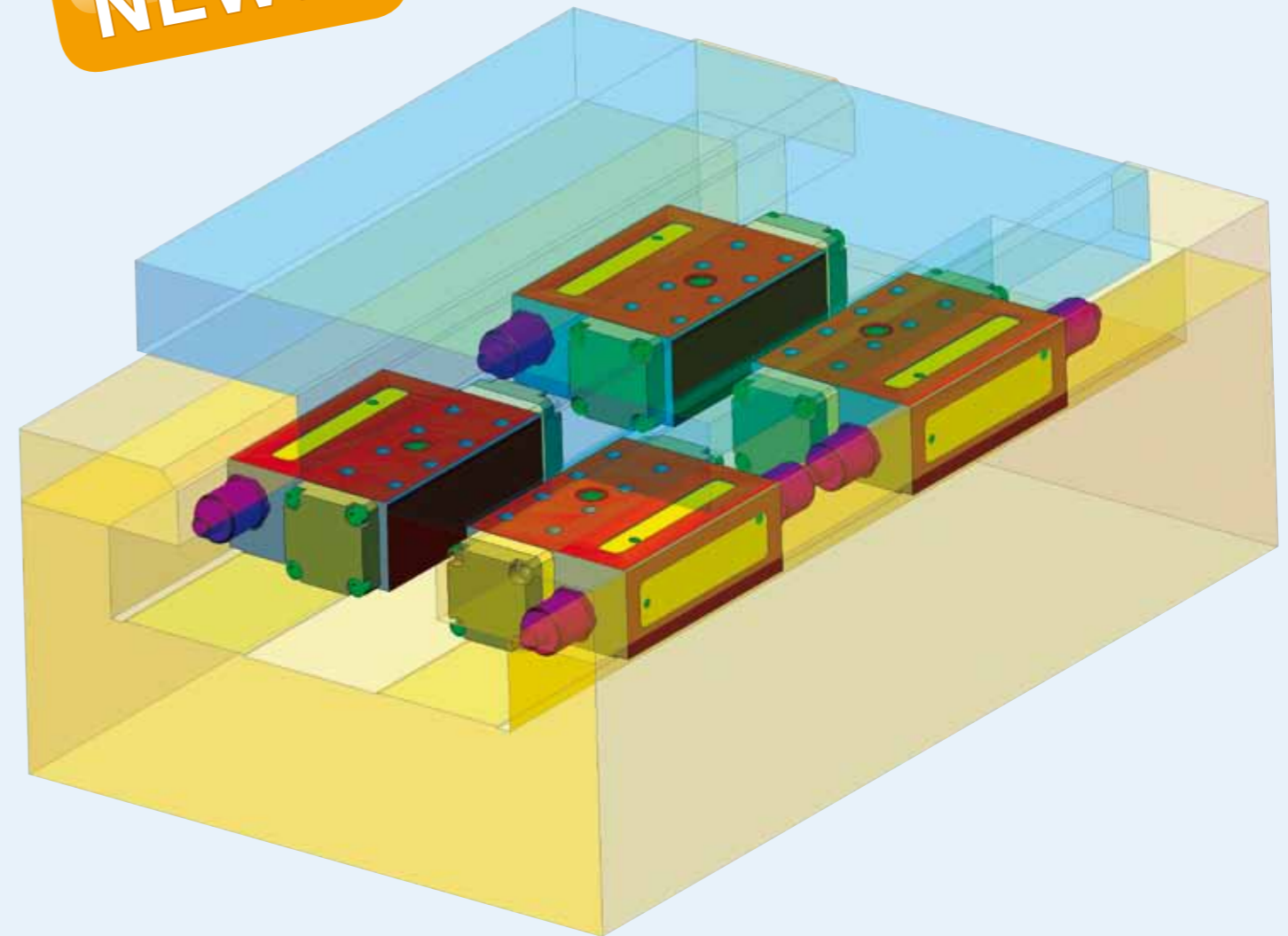
HYPROSTATIK – gain for your machine tool



HYPROSTATIK® Schönfeld GmbH
Felix-Hollenberg-Strasse 3
73035 Göppingen-Jebenhausen
Phone +49 (0)7161 - 96 59 59-0
Fax +49 (0)7161 - 96 59 59-20
E-Mail: info@hyprostatik.de

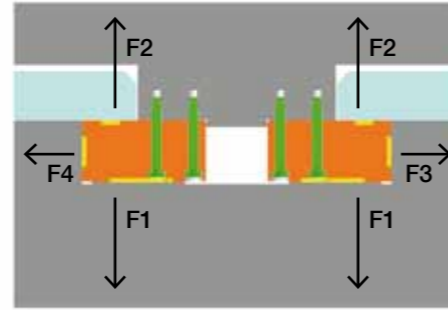
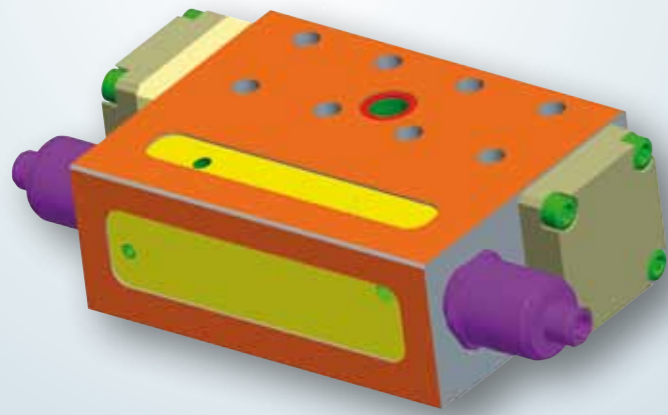
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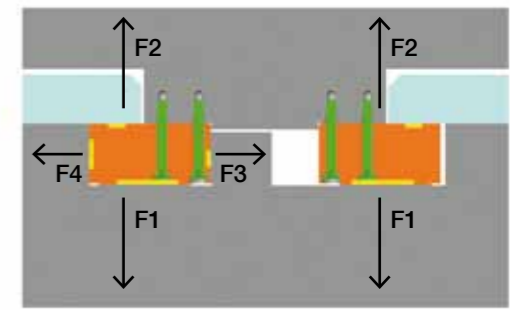
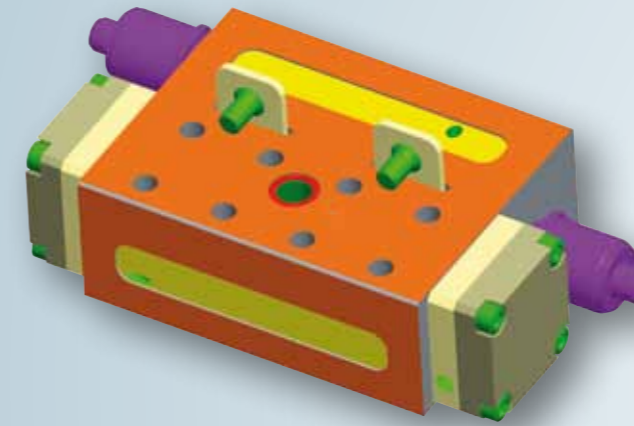


HYPROSTATIK®
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Symmetrical design HS50-B 50x100 mm



Asymmetrical design HS50-A/C 50x100 mm



Hydrostatic shoes in perfection

Uncomplicated and cost-efficient: With our hydrostatic guide shoe we have developed a **standardised design element** replacing the well-known linear guide. This reduce effort and time for developing new machines with hydrostatic: Machine designer can **independently** use it and easily set up its guide in modular type. This **trend-setting** complete construction element includes our patented progressive volume controller and is equipped with pressure sensors to monitor the pocket pressure. The following table provides an overview and orientation if you are looking for the ideal shoe for individual requirements; pump pressures of 32, 50 and 80 bar and length 130 and 200 are available to fit geometry and loads.

Use standard size is 50x100mm for tables starting with 400x400mm. For larger forces and bigger machines, size 70x140mm can be used.

Our guide shoes are available in two versions: The **symmetrical design** is suitable for narrow guides, both side steel or cast iron. The **asymmetrical design** is perfect for guides with wide distance or when slide and guide has different thermal material expansions. Of course, special designs are possible for specific applications. Moreover, other cross-section options and circle-ring segments for round tables can also be implemented.

Innovation in compact form

Unique products that pay off made our company the technological leader in the field of hydrostatics. With more than 25 years of experience and a team of specialists Hydrostatik develops and produces intelligent, innovative hydrostatic systems. **Minimum friction, no wear, high stiffness and precision** – our guides, screw drives

and spindles increase precision and reduce maintenance costs of machine tools worldwide while increasing their **life and efficiency**.

Now, we have expanded our product portfolio by another innovation: the compact **hydrostatic guide shoe**.

Selecting a guide shoe

Calculate max. forces on guide shoes by weight, cutting and acceleration forces for your axis. Select the shoe length and pump pressure according to your force requirements.

Use oil VG68, if axis has lower max. speed than mentioned

in list. If speed is higher, use thinner oil according list. Calculate max. oil flow of axis by multiplication of value in list with number of pockets of axis. If max. oil temperature is lower than 40°C, reduce needed max. oil flow according to relation of oil viscosities.

Technical data for hydrostatic guide shoes HS50-A/C 50x100 mm

Pressure	32 bar	50 bar	80 bar	32 bar	50 bar	80 bar
Shoe length	130 mm	130 mm	130 mm	200 mm	200 mm	200 mm
max. force F1 ↓	12000 N	20000 N	30000 N	20000 N	32000 N	45000 N
max. force F2 ↑	5000 N	8000 N	13000 N	7500 N	12000 N	19000 N
max. force F3 →	5500 N	9000 N	15000 N	9000 N	15000 N	23000 N
max. force F4 ←	5500 N	9000 N	15000 N	9000 N	15000 N	23000 N
Gap stiffness ↓	1500 N/μm	2200 N/μm	3500 N/μm	2300 N/μm	3500 N/μm	5500 N/μm
Gap stiffness ↔	1000 N/μm	1500 N/μm	2100 N/μm	1500 N/μm	2200 N/μm	3500 N/μm
max. speed VG 68	25 m/min	30 m/min	35 m/min	25 m/min	30 m/min	35 m/min
max. flow rate VG 68	0.08 l/min	0.12 l/min	0.18 l/min	0.10 l/min	0.16 l/min	0.27 l/min
max. speed VG 46	40 m/min	50 m/min	55 m/min	40 m/min	50 m/min	55 m/min
max. flow rate VG 46	0.11 l/min	0.20 l/min	0.28 l/min	0.15 l/min	0.23 l/min	0.40 l/min
max. speed VG 32	60 m/min	70 m/min	80 m/min	60 m/min	70 m/min	80 m/min
max. flow rate VG 32	0.16 l/min	0.29 l/min	0.39 l/min	0.21 l/min	0.33 l/min	0.55 l/min

Technical data for hydrostatic guide shoes HS50-B 50x100 mm

max. force F3 →	6500 N	13000 N	18000 N	11000 N	19000 N	28000 N
max. force F4 ←	6500 N	13000 N	18000 N	11000 N	19000 N	28000 N

Max. Forces values are defined with theoretical safety of approx. 40%.

Stiffness in vertical direction (F1, F2) was determined with 20% of the load F1 stated; stiffness in horizontal direction without load.

Maximum speed leads to a temperature increase by approx. 12°C at an oil temperature of 20°C. The maximum flow rate required is at an oil temperature of 40°C and maximum load.

Minimum flow rate is 16 to 20% of the max. flow rate at an oil temperature of 20°C.