

HPC

HARD PRISMATIC CLAMPS



INTEGRATED METAL WIPER



HYDROBLOCK offers its customers a new prismatic clamping arm guide system of type HPC-HARD PRISMATIC CLAMP to be used in combination with the unique compensation system all cylinders of the SR COMPENSATION SYSTEM series are equipped with. Thanks to the high angular accuracy guaranteed by the compensation system, the clamping arm is perfectly guided by the precise surfaces of the prismatic guiding system mounted to the cylinder body.

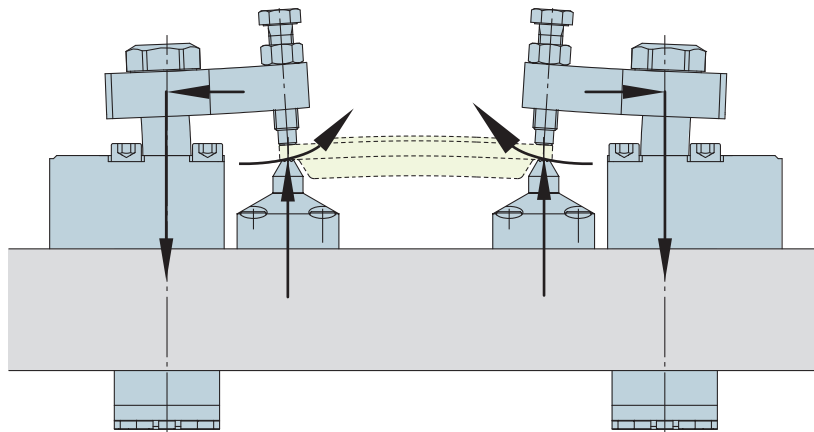
THE INNOVATIVE HPC SYSTEM OFFERS MANY BENEFITS

1. Linear guide to absorb the radial forces acting on the clamping arm: The clamping arm/piston rod configuration is only minimally bent, which drastically reduces the tension exerted on the clamped workpiece during machining. This ensures unparalleled manufacturing quality within narrow tolerances.
2. Prism guide to absorb the torque: The clamping arm mounted to the piston rod remains perfectly aligned even when subjected to radial thrust and does not transmit the swing torque to the internal guiding system of the piston rod. The rod is thus protected against damage caused by excessively high torque and undesired forces or vibrations acting on the workpiece are excluded.
3. Alignment of the clamping arm on the cylinder body: Incorrect mounting of the clamping arm to the rod is excluded. **Correct installation is automatically ensured.** An additional alignment is no longer required and grooves are not necessary.
4. Protection of the cylinder swinging system: The internal swinging system cannot be damaged during mounting. When tightening the threaded nut at the clamping arm, the prismatic guide prevents any undesired transmission of the tightening torque to the swinging system.
5. A 8% increase in the effective clamping force on the machined workpiece is achieved or alternatively a longer clamping arm at the same operating pressure.

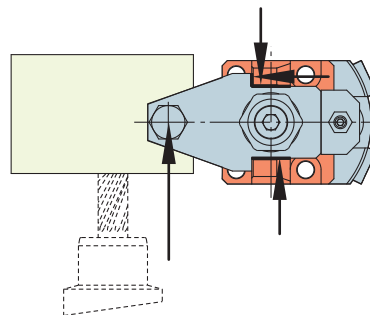
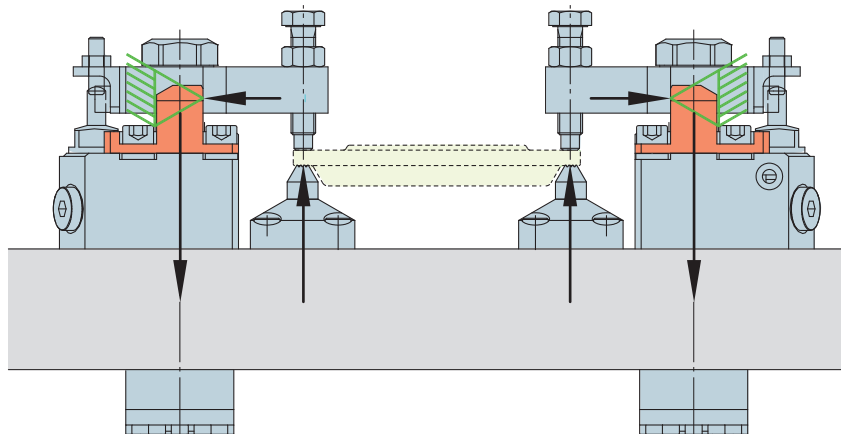
NOTE: The swing torque transmitted to the clamping arms of swing clamp cylinders is the main reason for damage to the cylinder and the resulting vibrations of the clamped workpiece!



SWING CLAMP CYLINDERS WITHOUT HPC SYSTEM



HYDROBLOCK SWING CLAMP CYLINDERS WITH HPC SYSTEM



BENEFITS OF THE HPC-SYSTEM:

- Higher stability during machining
- High rigidity
- Efficient compensation of lateral forces
- Enhanced vibration dampening