

Locking and breaking

The static locking force corresponds to 7 bar pressure. Under certain circumstances, the lock can also be used as a brake for positioning or similar applications. The maximum values set out in the graph must not be exceeded.

Use as a break

The table shows the maximum values for speed and braking mass if the cylinder is used as a brake. The cylinder should not be exposed to additional compressive forces as this significantly reduces the external mass that can be braked. The cylinder does not act as a motor during braking. Heat is generated if the brake is used frequently, and this must be taken into account too.



Cushioning Characteristics

Air cushion is used to absorb kinetic energy due to load and speed at both end of stroke. This typically consists of a threaded needle screw that adjusts into an orifice in the cylinder end plate. By adjusting the screw further into the orifice you lessen the amount of air that can escape in a given time. Slowing the exhaust of air creates back pressure which slows the piston as it enters into the end cushioning seal.

The graph is valid for an horizontal movement and the pressure of 6 bar.

The mass is the sum of internal and external friction, plus any gravitational forces.

Work out your expected moving mass and read off the maximum permissible speed at start of cushioning. Alternatively, take your desired speed and expected mass and find the cylinder bore size required.

Please note that piston speed at start of cushioning is typically approx. 50 % higher than the average speed and that it is this higher speed which determines the choice of cylinder.

Separate Rod Locking Device

Separate Rod Locking to be mounted on a standard P1F. The cylinder needs to have extended piston rod. Note! Chromium plated piston rod must be used.

Cyl.-bore [mm]	Rod [mm]	Rod extension [mm]	Weight [kg]	Order Code
Ø32	12	48	0.60	KC8227
Ø40	16	55	0.80	KC8228
Ø50	20	70	1.00	KC8229
Ø63	20	70	1.20	KC8230
Ø80	25	90	1.40	KC8231
Ø100	25	92	1.60	KC8232
Ø125	32	122	1.80	KC8233

