

Pneumatic Power Cylinders

The Power to Hold

Destaco's pneumatic power cylinder is a double acting mechanism, based on a wedge lever principle design that delivers a double stroke action in two stages. First is a forward stroke that moves the rod a predetermined distance, then a power stroke applies amplified forces at the end of the full stroke. The power stroke delivers a mechanical advantage of up-to 10:1 Maximum.

The pneumatic power cylinder is offered in three standard models, two round cylindrical bodies, and one rectangular body with double rods. There are several sizes and strokes available and the cylinder can be positioned precisely by the flange mounting on the cylinder head. Because the cylinder works in any position, the pneumatic power cylinder can be used in a wide range of applications.



Product Highlights/Options

- Mechanical advantage: 10:1
- Three standard models available
- Piston rod with male thread or ISO fit
- Optional proximity sensor available





Features, Markets and Applications



- Double acting cylinder produces a maximum mechanical advantage of 10:1
- Power stroke provides an amplified force in a short distance
- Cylinder works in any position



- High durability due to solid, maintenance-free wedge lever mechanics
- Rectangular body with double piston rods prevent twisting



- Power cylinder can be precisely positioned by mounting to flange of cylinder head
- End position can be controlled by optional magnetic field sensing





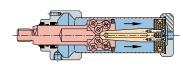


Designed to Hold

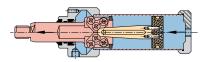
Type K/WK/WR Operation Principle (Type K/WK Shown)





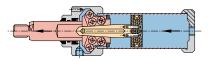


Retracted Position



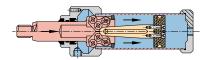
Forward Stroke

Piston force is identical to the force of a typical pneumatic cylinder with similar piston diameter



Power Stroke

Beginning of mechanical force amplification, Mechanical advantage increases to 10:1 Max.

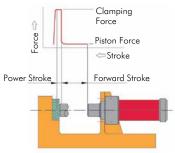


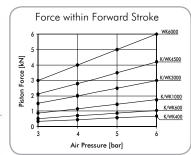
Return Stroke

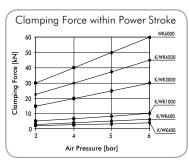
The return stroke can be initiated in any position of piston. The force during return stroke is approx. half of the piston force.

Pneumatic power cylinders can be used as the power element of machines, tools, and other devices for the following applications: clamping, punching, stamping, notching, coining, riveting, pressing, and clinching.

Type K/WK Piston and Clamping Forces (See Catalog for Type WR)







Type K/WK Application Examples using Pneumatic Power Cylinders



Radius clinching unit



Special punching unit



Device for Ø8 holes in sheet metal





Special device for Ø12mm holes



Mobile punching unit



Stamping units placed in line



Welding fixture

Dimensions and technical information are subject to change without notice.

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