

A STROKE OF INNOVATION

Pneumatic Power Solutions

Pneumatic Double Action Power Cylinders



Type K



Type WK

Three (3) standard models available:

Type K Round body, piston rod with male thread

Type WK Round body, piston rod with ISO Fit

Type WR Rectangular body with double piston rod

Type K and WK features:

Maximum mechanical advantage of 10:1

Double-action stroke delivered in two stages: a **Forward Stroke** to move rod a predetermined distance, and a **Power Stroke** applying amplified forces at the end of the full stroke.

Exact positioning of cylinder by flange mount on cylinder head.

Cylinder works in any position

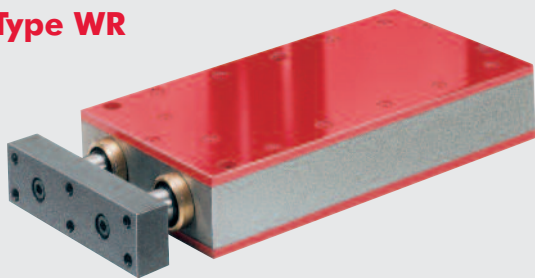
Maintenance-free wedge-lever design

High durability

Technical Information

Power Forces @ 6 Bar:	4-60 kN
Forward Strokes:	15-200mm
Power Strokes:	6 and 7mm*
Air Pressure:	3 bar (min)/6 bar (max)
Mechanical Advantage:	10:1 (max)
<i>Requires clean, oil and moisture-free air</i>	
<i>(*)Power strokes up to 12mm (max) upon request</i>	

Type WR



Double Piston Rod Design prevents twisting during stroke. Offered in one size with five total stroke options. (See catalog for complete details)



Sensing Options:

End Position Control with the use of optional magnetic field sensors. (Pneumatic power cylinder shown with aluminum cylinder tube.)

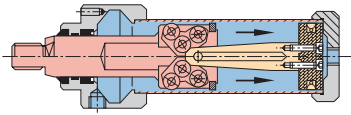
Optional T-Slot Proximity Sensor and T-Slot sensor mounting cage. (Not Shown)

Applications: Clamping • Punching • Stamping • Notching • Coining • Riveting • Pressing • Clinching

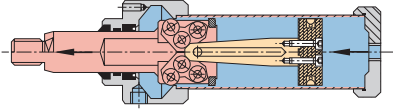


Pneumatic Double-Action Power Cylinders

Type K/WK/WR Operating Principle (Type K/MK Shown)

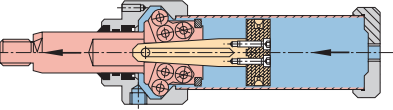


Retracted position



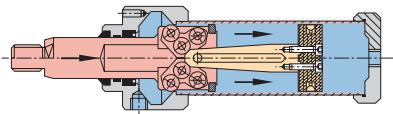
Forward Stroke

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



Power Stroke

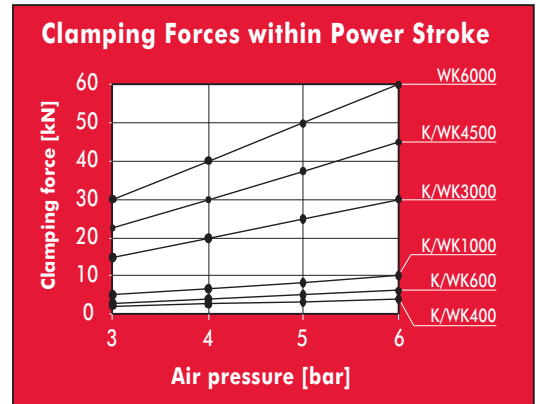
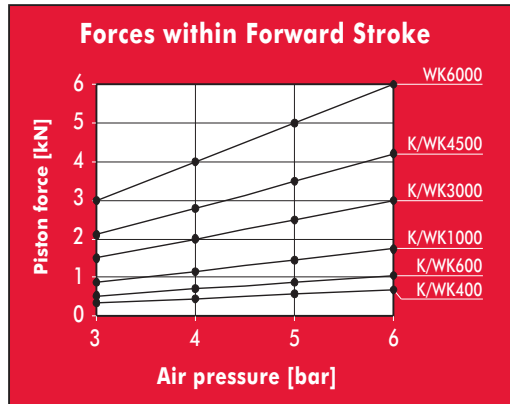
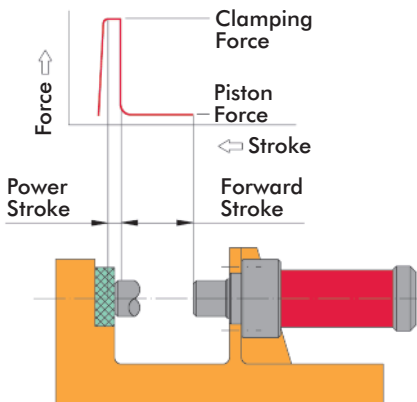
Beginning of mechanical force amplification. Mechanical advantage increases to 10:1 maximum.



Return Stroke

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

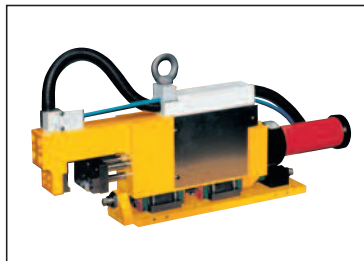
Type K/WK Piston (Forward Stroke) and Clamping (Power Stroke) Forces (See Catalog for Type WR)



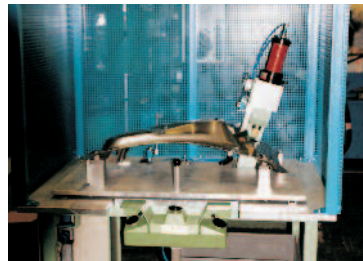
Application Examples using Pneumatic Power Cylinders



Radius clinching unit



Special punching unit



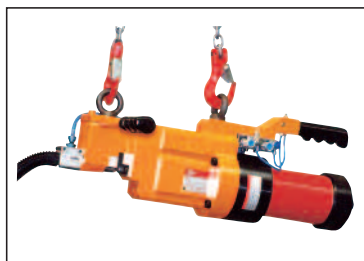
Device for Ø8 holes in sheetmetal



Stamping units placed in line



Special device for Ø12mm holes



Mobile punching unit



Stamping unit placed in line



Welding Fixture