



Fluid Power Cylinder Design Terminology

Acceleration: Rate of change of velocity; the speeding up of a motion.

Back Pressure: The pressure of fluid in the exhaust lines tending to restrict the cylinder motion or force.

Blowby: A seal failure condition wherein air pressure readily blows past the piston.

Breakaway: The initial movement of the piston of a cylinder; particularly, of an unloaded cylinder from rest.

Breakout: Same as breakaway.

Burst Pressure: The pressure at which the cylinder will rupture. It is usually eight to ten times the rated pressure of the cylinder.

Cushion: Controlled deceleration at the termination of the cylinder stroke.

Cycle: A complete operation of a cylinder, including return to the initial conditions.

Deceleration: Negative acceleration; a slowing of the speed of a motion.

Double Acting: A cylinder which is driven in both the extending and retracting directions by fluid pressure.

Dynamic: In motion, changing, as in dynamic friction or dynamic conditions.

Extending: Outward stroke of a cylinder.

Friction: The resistance to motion when one object slides against or rubs against another.

Power Factor: The area of the piston of a cylinder. The power factor multiplied times the pressure applied to the cylinder yields the force the cylinder will exert at that pressure.

The information presented is in Bimba's best engineering opinion and should be used for reference only. Recommendations derived should be verified under actual operating conditions. Bimba reserves the right to change specifications without prior notice.

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