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.