

CUSHIONED CYLINDERS

FEATURES

- Easily accessible, stainless steel needle for fine adjustment of cushion
- Needle cannot be removed
- Long lasting Nitrile cushion seal
- Cushions the last 1/2" of stroke
- Available at either end or both ends of the cylinder
- Available with magnetic pistons
- Bumpers included on the non-cushioned end of the 1 1/16" and 1 1/2" bore cylinders with only one cushion

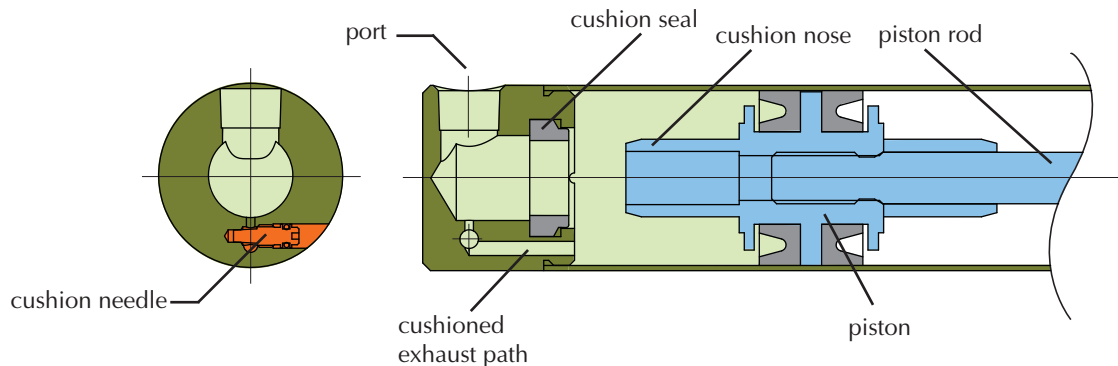
Option Suffix: "C" - Front/Rear Cushions
 "F" - Front Cushion only
 "R" - Rear Cushion only

Pneumatic cushions decelerate the piston and rod assembly at the end of the cylinders travel, reducing internal impact force/noise and enabling faster piston velocities. In fast cycling applications, cushioned cylinders will provide superior life and a better machine environment. Cushions cannot be added to existing cylinders because this option requires additional components and machining. A cushion nose is located on either or both sides of the piston, depending on which cushion option is selected.

The heads of a cushioned cylinder have a cushion pocket with a cushion seal. When the cushion nose enters the cushion seal, the air exiting the cylinder is trapped causing it to compress. This provides a resistance force that decelerates the piston. In this design, a needle valve in the head provides a parallel path for the air to exit, and is used to fine-tune the cushions' effectiveness. This needle design has a high flow gain, which allows the user to tune the cushion anywhere from little effect to actually stopping the cylinder. The cushion seal collapses when air coming through the adjacent port is introduced, allowing for a fast breakaway

Cushioned cylinders are not designed to decelerate machine members or take the place of shock absorbers in applications with high kinetic energy.

Note: Bumpers ("B" option) cannot be used with cushions but can be used opposite a cushion



SDR- models have side ported rear heads