



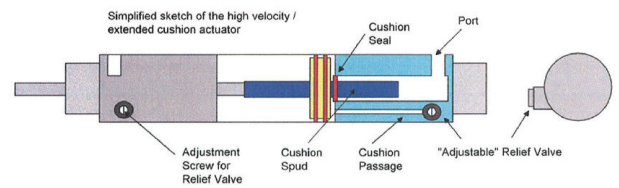
Tool Changing Cylinder Handles High Velocities, High Loads

Challenge:

A customer needed a way to handle both high velocity and a heavy load in a tool changing application.

Solution:

Bimba developed a cylinder that reduced bounce and provided enough distance for smooth deceleration. The cylinder featured a longer cushion spud and a fully adjustable relief valve that allowed the operator to control the deceleration rate. When the cylinder retracts, the cushion spud approaches and enters the cushion seal, forcing air through the cushion passage to the adjustable relief valve. The cylinder is decelerating the load and the extended cushion is absorbing kinetic energy. When the piston bottoms out, the rear cylinder port can be pressurized to extend the cylinder, causing the cushion seal to collapse and allowing the full flow of air to the piston seals.



Benefits:

- Reduces bounce.
- Controllable deceleration rate.

Other Applications:

- Palletizing
- Packaging
- Opening/Closing Doors