



Volumetric Driver Cylinder Provides Adjustable Stroke to Increase Productivity by 10%

Challenge:

A customer was searching for a solution to give their filling machine more flexibility. Each time they needed to change the filling volume, they had to adjust the cylinder and their position sensing switches to a new 'end of stroke' that was based on the filling volume. To add to the complexity, the cylinder they were using was mounted to a sanitary adapter before being mounted to the filling machine's volume chamber.

Solution:

Bimba developed an adjustable stroke cylinder, complete with a sanitary mounting front head. This design eliminated the need for the sanitary fitting adapter that was added to each cylinder. Additionally, the stroke adjusting component, a threaded rod and hard stop, was modified to include the circuit board of a position sensing switch. The result was a position sensing switch that always indicated the end of stroke, regardless of the stroke adjusted position. This increased productivity by 10%.

The piston rod of the "driver cylinder" is mechanically connected to the piston rod of the "filler cylinder". Sometimes a Tri-Clover Sanitary connector is used to join the two cylinders together again for ease of clean up. The stroke adjustment screw and a front head to accommodate a Tri-Clover style sanitary connector are all available as specials from Bimba.

Benefits:

- Eliminates external hydraulic tanks and pumps, which saves \$500-\$1000 per system.
- Integral hydraulic reservoir eliminates the need for a larger compressor to achieve higher pressures.
- Compact design cuts down on floor space.

Other Applications:

- Fluid Displacement Pump
- Liquid Dispensing
- Multiple Filling Applications
- Volumetric Displacement
- Clamping

