



Print Head Positioning and Fail-safe Offers Height Adjustment on the Fly

Challenge:

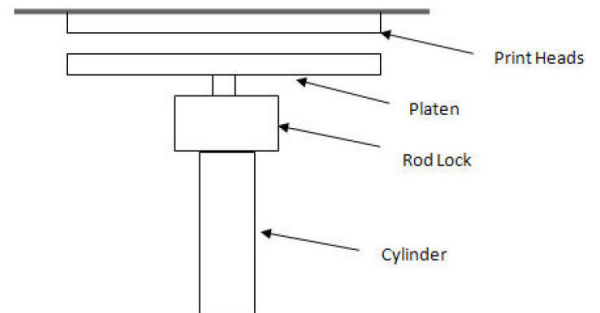
A printer manufacturer needed a closed loop pneumatic position control system to raise and lower a platen underneath print heads. The actuator must be able to maintain the platen within a fraction of an inch of the printer heads in the event of a power failure to prevent ink from drying. The customer was frustrated by the field problems caused by power outages.

Solution:

Bimba's solution to their problem was a PFCNL with the "YQ" option, which is a pneumatic cylinder with internal non-contact magnetostrictive probe and rod-lock mechanism with a matched closed loop controller. This provided many unique benefits that other sources couldn't provide. The adjustable platen height could be changed on the fly as the process requires.

The rod lock mechanism clamped the platen close to the printer heads in the event and kept it there. When the machine is reset, a simple cleaning procedure restored the print heads.

The magnetostrictive probe provided longer life and more reliable operation for the life of the machine because the probe did not wear. Because of the cylinder's reliability, the cylinder could be buried in the machine without regard for accessibility.



Benefits:

- Adjustable platen height allows changes on the fly.
- Magnetostrictive probe provides longer life and more reliability.

Other Applications:

- Conveyor Rail Adjustment and Lock
- Clamp and Hold
- Lift Table
- Door Opening/Closing