



solving problems

...upstream

...downstream

PROBLEM: Inadequate Air Pressure for Clamping **SOLUTION:** A Pneumatic Booster



The job at hand for this machine center was to produce pneumatic valve bodies. The problem? Inadequate air pressure. Because of the extreme distance away from the factory's main compressor, pressure at the machine had dropped too low for its pneumatic vise to hold parts securely during a vital thread milling operation that was creating 1/4 NPT ports.

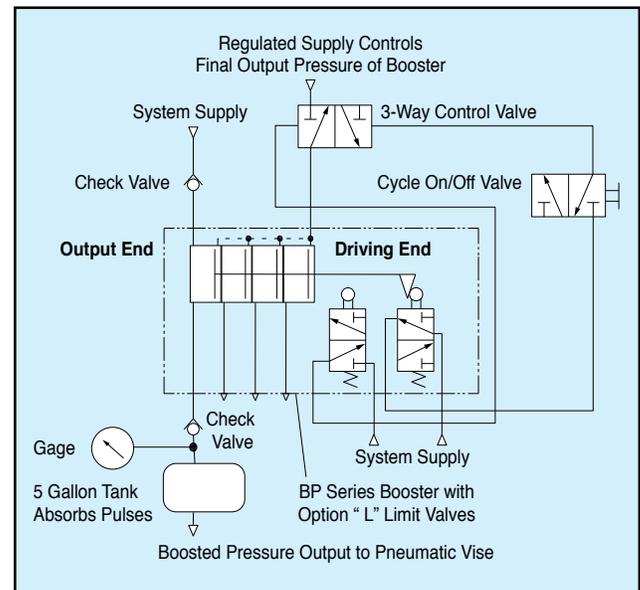
Inadequate clamping forces from the vise was putting valuable CNC tooling at risk and, of course, risked damaging the workpieces at a late stage in their production.

A Multi-Power® pressure booster provided a convenient, low-cost solution that brought production up to speed producing defect-free threads with no rejected parts.

In general, the media input to a Multi-Power® Booster can be oil, other liquid, air or any compatible gas up to 150 psi. Multiple pistons compress the media in the output end of the booster raising the output pressure to 500 psi max. Check valves insure the direction of media flow. The output pressure of the booster can be accurately set by regulating its supply pressure, noting that $(\text{supply pressure}) \times (\text{the booster's power factor}) = (\text{output pressure})$.

In this application air was the media. In addition to the booster, a 5-gallon tank, a 3-way valve, two check valves, a regulator and an extra pressure gauge were all that it took to remedy the clamping problem.

The simple circuit shown below was "teed" into the existing supply line to maintain the pressure required for reliable vise operation.



The booster chosen was a 2-1/2" bore, 2-piston unit having a power factor of 1.9. Adjusting the supply regulator to roughly 74 psi produced the desired pressure of 140 psi in the reservoir tank assuring that the clamps would hold securely. Nice!

Fabco-Air solves problems. Let us help.

FABCO-AIR, Inc.

www.fabco-air.com
service@fabco-air.com