



Custom-Built Pneumatic Actuator System Eliminates Problem at Tubular Steel Products Plant

PROBLEM ▼

A BDI steel plant customer was purchasing 10-12 electromechanical actuators each month for its cassette lifter. (The cassettes are the containers in which the finished steel pipes are stacked to be moved to other departments in the plant.) The hooks moved by the actuators were hitting the cassette, resulting in a shock load that would break the actuators. When this occurred, the units had to be scrapped.

THE SOLUTION:

BDI worked with the customer's engineering and maintenance departments to devise a pneumatic actuator unit that is able to absorb the shock load. This solution's low-maintenance design allows for the entire pneumatic system to be mounted on the cassette, including the air compressor. The first unit was ordered and installed over a holiday shutdown at the plant and a total of three units are now in service utilizing the pneumatic system. There have been no issues with the new design. In fact, the customer ordered two new cassettes, specifying the new design on those units.



SUCCESS MADE EASIER:

The customer's satisfaction with BDI's solution was further confirmed by a recent order to convert two more units to the new design. BDI provided all of the parts necessary for the conversion, which include specially designed Yates cylinders, FRL (filter, regulators and lubricators), fittings and tubing, and Ingersoll Rand compressors. BDI and the customer are also looking at adding air dryers to these units as a future enhancement.

The conversion has resulted in an operating cost reduction to date for this customer of **\$76,130** based on reduced consumption of the actuator, reduced downtime and reduced maintenance cost. Prior to the new design, 108 actuators were used in a 10-month period. Additional savings will also be realized based on the new design allowing for rebuild, as opposed to simply scrapping and replacing the failed electromechanical actuators.

Contact your local BDI branch for more information on pneumatic products and other BDI Solutions.