

To: All Distributor Personnel

Monthly bulletin: Number 6

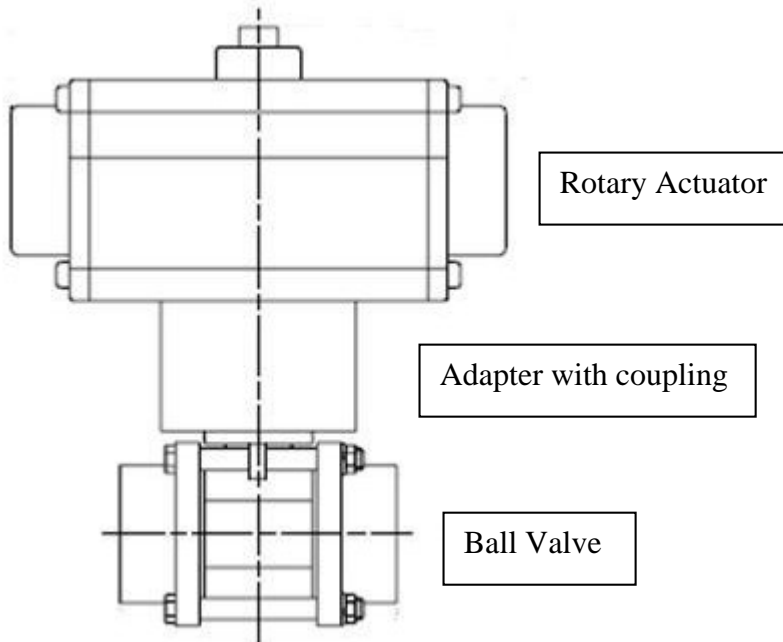
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Date: April 2006

Subject: Quarter Turn Ball Valve/Actuator Replacement

This month's bulletin discusses the way in which Lexair, Inc. Poppet or Tube-O-Matic series valves can be utilized as economical replacements for actuated ball valves that are being used for on/off service. There are many different brands, styles and types of actuated ball valves on the market. The quarter turn actuation may be achieved by using one of many types of rotary actuators that are pneumatically driven or by using an electric motor to turn the ball. We will focus on pneumatically driven units for our purposes.

In the generic example below, we see the rotary actuator stacked on top of an adapter with a coupling to convert the output of the actuator to the shaft that actually rotates the ball valve element. What we do not see below is the pneumatic directional control valve that is also needed to operate the rotary actuator itself. Therefore, to achieve an on/off action, three items are required – a control valve, a rotary actuator and the ball valve. This assembly adds up to considerable size and cost.



After examining models from several different manufacturers, we are pleased to offer the cost comparison information on page two.



Single Acting/Spring to open or close

Size	Competition's List Price Range	Poppet N/O	Lexair, Inc. List price	
			Poppet N/C	Tube-O-Matic*
1/4" NPT	\$162 through \$221	\$107	\$119	\$126/218
3/8" NPT	Same as above	Same as above		
1/2" NPT	\$164 through \$221	Same as above		
3/4" NPT	\$167 through \$250	\$139	\$174	\$187/279
1" NPT	\$209 through \$310	\$177	\$230	\$187/279
1-1/4" NPT	\$266 through \$356	\$246	\$330	\$332/424
1-1/2" NPT	\$305 through \$407	\$285	\$391	\$332/424
2" NPT	\$334 through \$520	\$444	\$526	\$663/755

*Tube-O-Matic prices are shown without/with solenoid operators

The competitor's pricing shown above does not include the required directional control valve which ranged from \$58 through \$158 in addition to the prices shown above. We too would need a 3-way directional control valve for actuation. However, if you look at the costs above, you will note that we are substantially lower in price through the 1" NPT range and very competitively priced in the larger sizes depending upon the manufacturer and type.

To give you a simple real life application example, a customer that makes floral arrangement packaging machines was using several quarter turn ball valves/actuators for the task of watering plants before packaging them in boxes for shipment to florists. They were using American made brand "X" ball valves and had been experiencing leakage in the form of dripping at several of their customer's locations. The leakage was being caused by foreign material being passed through the valves that was actually hanging on the ball as it turned to close which in turn scored the ball's seal allowing the valves to drip. Their first solution was to find another (cheaper) brand of ball valves. They tried some that were made in a "Third World Country" which eased their outlay on warranty replacements but also proved to be less durable than what they had replaced (due to other issues that lead to binding). We suggested that they use our normally closed, 1/2" NPT standard ratio Poppet Valve (part number 331408) with a list price of \$119.00. They had an existing directional control valve that was being used to operate their ball valves that could now be used to operate ours so there was no additional cost involved in making the switch. They tried our valves and have had no problems with them (poppet valves are very tolerant of foreign material which can pass readily through them when the poppet is opened). Brand "X" was costing the customer around \$229.00 each so even selling ours at list price to the customer, he saves \$110.00.



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Additional problems that can exist with quarter turn ball valves/actuators include:

- Corrosion of the shaft that actuates the ball – causes higher than normal actuation forces and sticking
- Binding of the shaft or coupling due to misalignment between the rotary actuator and the ball actuation shaft which causes that same problems noted above
- Damaged or worn seals on the balls and shafts are often hard to replace and expensive
- Rotary actuator portion can be expensive to repair/replace – often one of our valves is a cheaper alternative than repairing of existing equipment
- The whole assembly can become quite large and heavy

Industries that process product in batches are excellent candidates for on/off quarter turn valves and hence good targets for replacement with our products. These would include but not be limited to the food and beverage industry, pulp and paper processing, pharmaceutical processing and chemical mixing and dispensing applications.

Happy Selling !!!!

If you have any questions or need further assistance, please contact me by phone at 859-255-5001 (office) or 859-338-0008 (cell) or via email.

Sincerely,

John W. Jennings