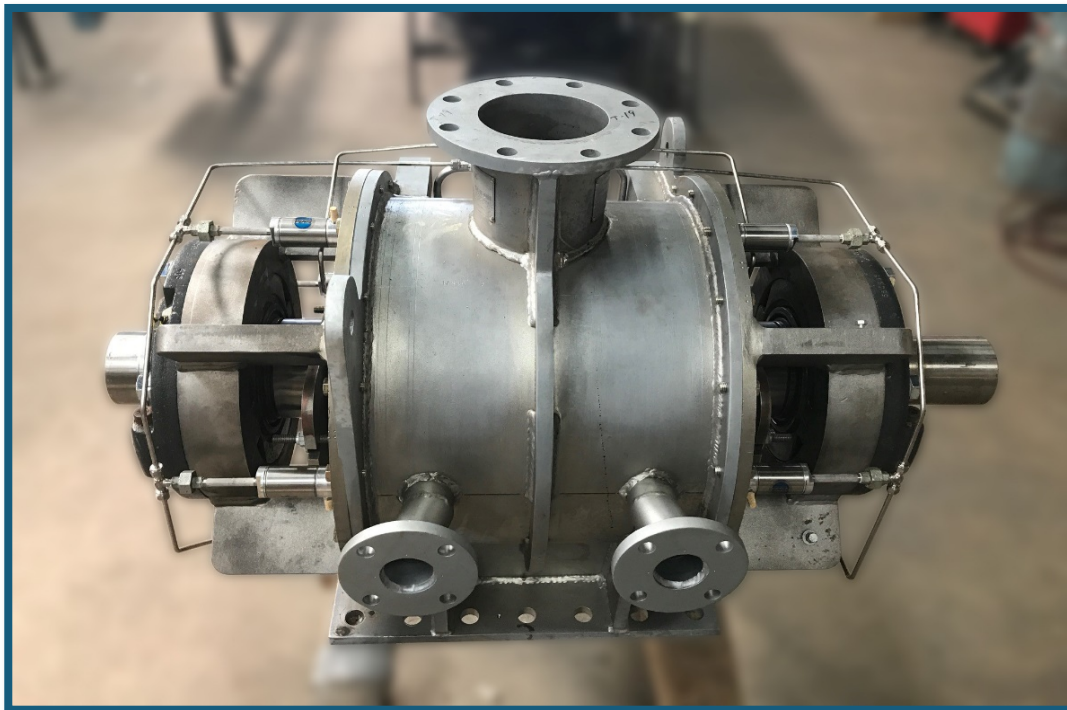


## PROCESS SPECIFIC - ROTARY VALVE

### **REQUIREMENT:**

A major supplier of digestive health products utilizes Young Industries Rotary Valves throughout their facility. One of their processes required a very unusual Rotary Valve, and based on their experience with Young Industries, they contacted our application staff for assistance. A rotary valve was needed to fit into a pre-determined space with round flanged inlet and rectangular flanged discharge. The valve would need to operate at elevated temperature with high differential internal pressures but also provide minimal gas leakage from inlet to discharge.



### **ENGINEERING AND DESIGN STAGE:**

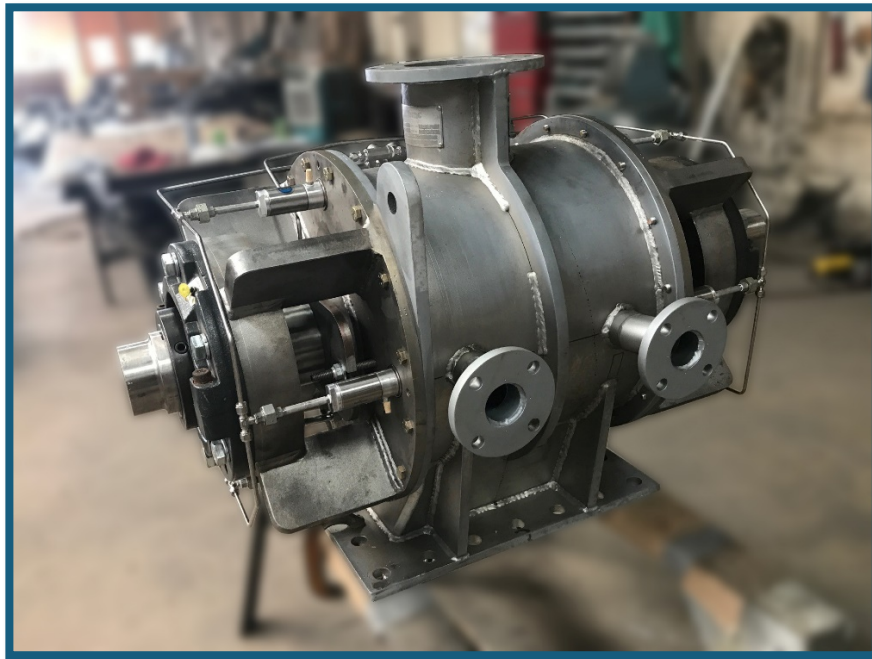
During the initial discussions regarding the application and design requirements of the valve, it was apparent that there was much work to be done to finalize the engineered design of the equipment. An Engineering Contract was awarded to Young Industries for the Engineering and Design stage of the Rotary Valve project. Our design engineers met with the customer to help determine what features would be needed to meet the design requirements.

Detailed assembly drawings were prepared by Young Industries Engineers and presented to the customer. The resulting design would have the following features:

- Round Flanged inlet connection to meet process dimensions
- Rectangular Flanged discharge connection to meet process dimensions
- 60 PSIG internal and differential pressure rating requiring large diameter rotor shaft and special low-clearance piloted Double Roller Bearings
- 500 degrees F. operating temperature
- Pressure purges in the housing
- Patented End Seal Design to minimize gas leakage across the rotor.
- Scalloped rotor pockets for better product release
- Abrasion resistant coating on the housing bore

#### **CONSTRUCTION:**

After the engineering was finalized, Young Industries fabricated four of these valves. The 304S/S Rotary Valves were constructed referencing ASME standards. Each valve was test run at our facility prior to shipment and when placed in the customers process conditions, performed as designed.



**YOUNG INDUSTRIES HAS THE EXPERTISE TO DESIGN AND FABRICATE CUSTOM ROTARY VALVES TO MEET PRECISE PROCESS CONDITIONS.**