

# PRODUCT LINE REPORT

## REFURBISHED ROTARY VALVE

**ADVANCED  
TECHNOLOGY  
PROVEN DESIGN**



Rotary Valve as received from customer



Rotary Valve with drive removed



View of the rotor (note bent blade)

In 1990, Young Industries manufactured several 20" Model LH Rotary Valves for handling abrasive corn-based powder. These valves were manufactured with heavy wall housings with interior bore hard surfaced with Stellite.

In 2017 our Engineers were contacted by the user to discuss a change in the application for one of the 20" rotary valves. For this application the rotary valve would be required to comply with NFPA 69 standards. After the initial discussions with the user it was decided that one of the 20" Model LH Rotary Valves would be returned to Young Industries for an evaluation to determine if it could be refurbished and used for the application.

Once Young Industries received the rotary valve, it was completely dis-assembled, and all critical dimensions checked. Our engineer prepared a proposal for the customer for items needed to refurbish the valve. Below is a list of what was needed to re-work the Rotary Valve.

- a. Rotor blades were bent and worn. A new rotor was needed.
- b. Valve bore was worn in spots and would require machining to bring back to being round.
- c. The end plates required new Stellite hard surfacing and re-machining to match the new bore diameter of the housing
- d. The housing had some weld repair needed and machining of the inlet and discharge flanges.
- e. New bearings and seals would be needed.
- f. The Gearmotor ran smoothly and would be re-used
- g. The Roller Chain Drive and components would be replaced with new components.
- h. The Chain guard was missing and was replaced.

# PRODUCT LINE REPORT

## REFURBISHED ROTARY VALVE

**ADVANCED  
TECHNOLOGY  
PROVEN DESIGN**



Rotary Valve housing after bead blasting

It was determined that the rotary valve could successfully be re-worked to bring back to new condition and maintain internal close clearances to comply with NFPA 69 regulations. Once the rotary valve bore was machined to get into proper tolerance for being concentric, the end plate and rotor dimensions were finalized. The end plates were machined and resurfaced to new condition. A new rotor was manufactured due to wear on the blades and shaft. The 20" Model LH Rotary Valve originally manufactured in 1990 was refurbished in 2017 and resulted in a big cost savings to our customer.



Inlet view of valve with new rotor installed

### FINAL COST COMPARISON:

The rugged construction features of this rotary valve gave our customer 27 years of reliable service. The refurbished rotary valve will extend the life of this valve many years and result in a cost savings to the user.

The refurbished 20" Model LH Rotary Valve was **55% the cost for a new rotary valve**. The rugged construction of this Young Industries Rotary Valve gave 27 years of service before being refurbished in 2017. This rotary valve will now continue to give the user many additional years of reliable service.



### Completed Rotary Valve



16 PAINTER STREET, MUNCY, PA 17756

(800) 546-3165 | WWW.YOUNGINDS.COM