Routing viscous product through pipework and cleaning that pipework, with minimal pressure and product loss, is a challenge when using traditional ball, butterfly or plug valves. Though some strides have been made, 100 percent cleaning is impossible, thus exposing the system to product contamination and quality issues.

The design of ball, butterfly and plug valves results in pockets where CIP does not clean. To be 3-A compliant these valves must be removed during line cleaning, disassembled and washed manually. This reduces efficiency, results in equipment damage from the frequent disassembly and is operator dependent.

**Solution**

The Arc Valve eliminates the limitations and unsanitary conditions of old technology and is 3-A* 51.01 compliant. The Arc Valve can be cleaned in place with the pipework, as there is zero overlap with the shutter design, ensuring 100 percent contact of CIP fluid with all surfaces and complete cleaning.

With no threads in the product contact area, bacteria cannot grow and contaminate the product stream. The large unrestricted open bore ensures virtually zero pressure drop. Use of the DMV silicone pig in combination with the Arc Valve ensures 99.9 percent product recovery. The Arc Valve allows routing the pigs to multiple locations without manual disconnects, which increases plant and personnel efficiency, reduces product waste and plant effluent, and eliminates safety concerns associated with manual hook ups.

**General Product Information**

- Zero Overlap
  - Max. 1/4 of valve circle perimeter
  - Valve Casing
  - No Overlap
  - Shutter

**Benefits**

- Simple design
- 100% unrestricted open bore through valve
- Zero overlap of shutter in any position ensuring 100% cleanability
- Fully drainable with correct field installation
- Can be used as regulating valve with actuator and positioner
- Allows routing of pig to multiple lines for product recovery

*The Arc Valve, made by LIAG – LAEUFER International, is sold by Pentair in North America. LIAG - Rounds International is 3-A Symbol licensee for this equipment.*
## STANDARD SPECIFICATIONS

**Materials**
- Product contact: 316L (1.4404)
- Non-product contact: 304 (1.4301)

**Seals**
- Standard: EPDM
- Optional: FPM (Fluoro-Rubber)
- Shutter: Dyneon™ TFM 1600

**Operating Pressure**
- Standard: w/Hostaflon® shutter (PTFE)
  - 145 psi behind the arc
  - 45 psi in front of the arc
- Optional: w/Alternative shutter material
  - 290 psi behind the arc

**Operating Temperatures**
- Standard: 230 °F
- Optional: 302 °F

**Shutter**
- Standard: Hostaflon® (PTFE TFM1600)
- Optional: Glass fiber re-enforced
  - Teflon® (GL25)
  - Techtron
  - Tecapeek™

**Connections**
- Sanitary O.D. tube butt weld -1-6 inches
- Sanitary O.D. tube tri-clamp
- Optional: DIN, SMS

**Finish**
- <= 32 Ra product contact
- <= 64 Ra product contact

## OPTIONS

- Improved mechanical polish/ electropolish
- Proximity feedback (24VDC & 110VAC)
- Stem barrier sterilization chamber
- Heat jacketed housing
- Multiple shutter materials
- Pneumatic and electrical actuators

## APPLICATIONS

- 3-A compliant industries with viscous products: cream, cottage cheese, ice cream, cheese curd, yogurt
- Confectionery, cookie dough, candy, gum
- High dollar, low volume products: face cream, toothpaste, detergent, fabric softener

### 2-way Actuator: 90°/180°

### 3-way Actuator: 90°/180°

### 4-way Actuator: 90°/180°

### 90°/120° Pigging Valve