

# DURBIN INDUSTRIAL VALVE

*Innovation Through Flow*



## SYNERGY SERIES

**Digitized Intelligent Valves** are cutting edge technology for industrial sustainability. The Durbin **Synergy Series** is a plug and play PLC direct connect valve. This intelligent airless smart valve contains all the known quality that Durbin has provided for over 40 years. Mating digital technology to our trusted mechanical valve makes the **Synergy Series** simple to install and even simpler to operate. **Synergy Series** is the fastest, most repeatable, and accurate valve line on the market. Let us help you reduce energy, increase throughput, and improve the overall quality of your products. Contact us today for your free evaluation.



### SIMPLIFIED MAINTENANCE

Take the guess work out of troubleshooting. Easily identify problematic areas with your valve & process through intelligent feedback.



### POWER OF RESEATING

Customer initiated command increases torque on valve sealing edge to regenerate Class VI Positive Shutoff.



### SIMPLICITY

Modular 3-piece design allows individual components to be field replaceable.



### RELIABILITY

**5X** Service life over pneumatic valves. Resilient to extreme harsh industrial environments.



### SPEED & ACCURACY

PLC direct connect allows for instantaneous response with extreme precision.

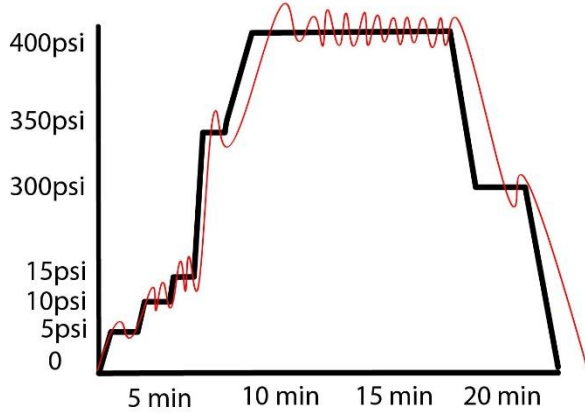


### PRODUCT SUPPORT

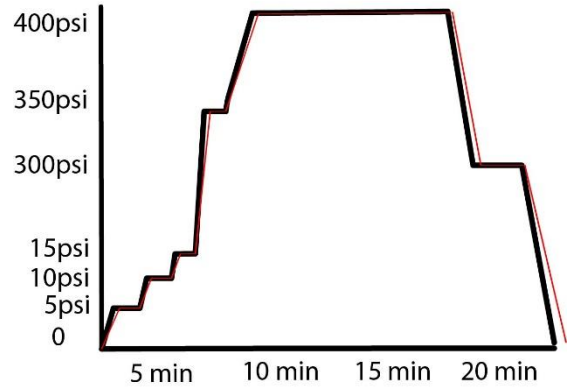
**3 Year Unconditional Warranty**

## Cure Time Optimization, Realization, & Reduce Energy Consumption

### Traditional "Vintage" Pneumatic Valve



### Digitized Intelligent Valve



**Cure Time Optimization & Realization:** Pneumatic valves suffer from losses in both time and accuracy caused by stick slip and hysteresis. Also, repeatability is lost due to inconsistencies in traditional pneumatic actuated systems. Synergy Series eliminates these problems and ensures exact position control to maximize the cure model.

**Reduced Energy Consumption:** Synergy Series eliminates the need for compressed air valve actuation. This significantly reduces energy bills and large capital investments associated with air compressors, air dryers, compressed air piping, solenoid valves, I/P's etc.

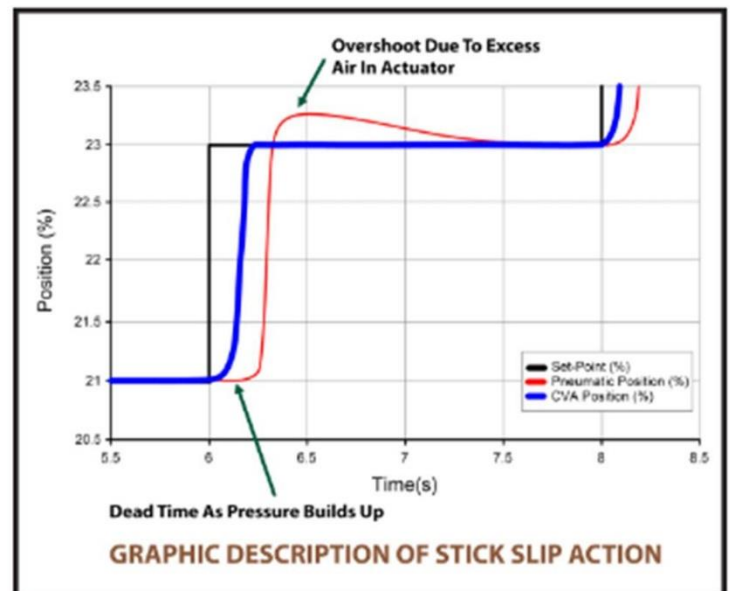


### SPEED & ACCURACY

PLC Direct Connect allows for instantaneous response with extreme precision.

### Benefits of the Synergy Series

- Reduced Dead Time (0.075 second)
- Eliminates overshoot stick slip inherent with pneumatic valves
- 41,000 dedicated positions with every 1/2" stem travel
- Significantly reduce hysteresis
- High resolution encoder determines absolute position of valve stem
- Allows for proprietary reseating function and 4X packing





## SIMPLIFIED MAINTENANCE

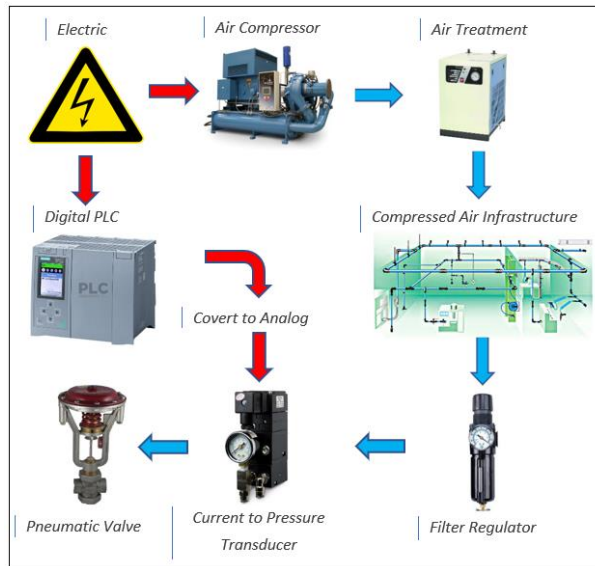
Take the guess work out of troubleshooting. Easily identify problematic areas with your valve & in your process with intelligent feedback.



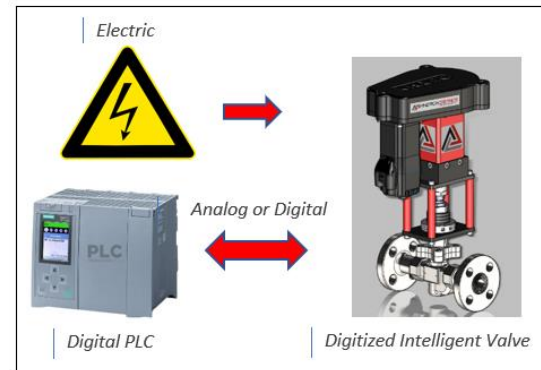
## SIMPLICITY

Modular 3-piece design allows individual components to be field replaceable.

### Traditional Pneumatic System

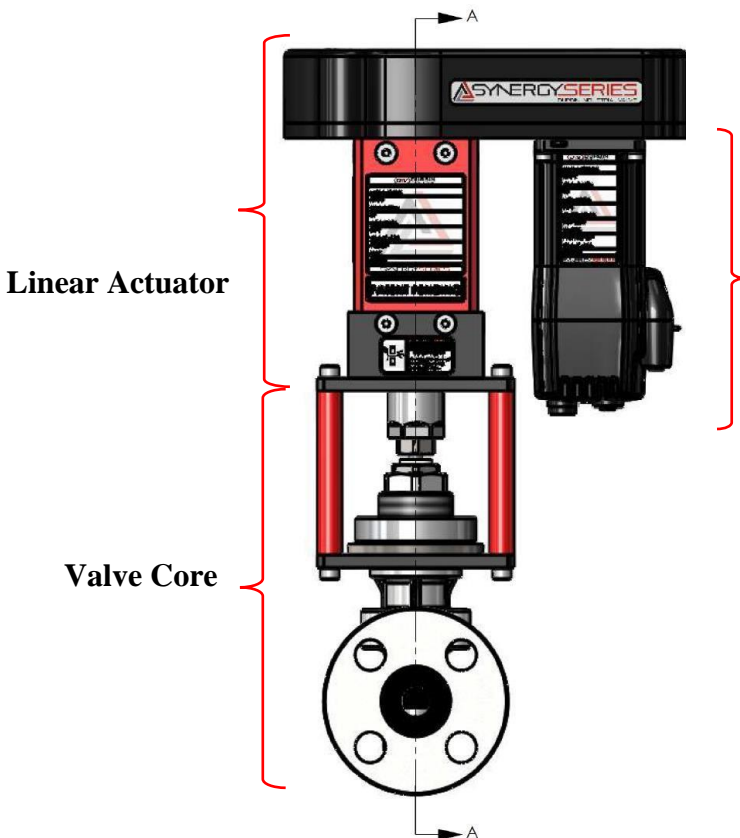


### Electric Actuated System



### Benefits of the Synergy Series

Eliminate inaccurate and expensive compressed air



### Durbin Motor

- Digital Step and Direction
  - Ethernet
  - Ethernet/IP
  - ProfiNet
  - Modbus TCP
  - EtherCat
  - CANopen
  - RS-485
  - Internally pre-programmed routines
- Analog 0-20 mA
  - Analog 4-20 mA
  - Analog 0-10 Volts
  - Analog 0-24 Volts

### Benefits of the Synergy Series

- Simple Plug and Play
- Direct Connect valve to PLC with two wire configurations
- 24 Volt DC power
- No additional programming required
- Automatic initialization for easy setup



## RELIABILITY

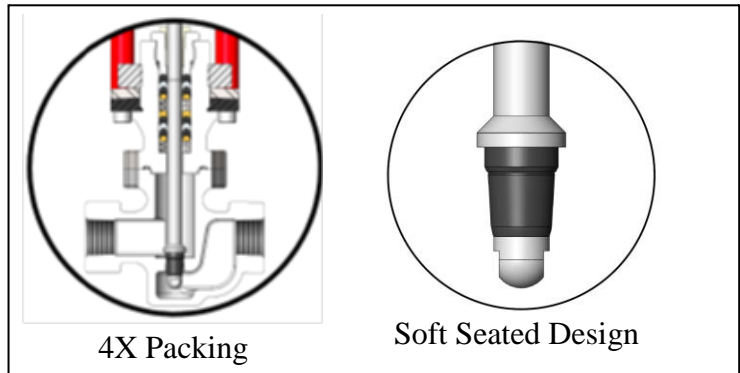
5X Service life over pneumatic valves. Resilient to extreme harsh industrial environments.

## Synergy Series Mean Time Between Failure

Item	Minimum (yrs)	Maximum (yrs)	Average (yrs)	Unconditional Warranty
Motor	8	12	10.00	3 Years
Actuator	Ball Screw	25	17.50	3 Years
	Bearing	20		
Valve Core	5	10	7.5	3 Years

### Benefits of the Synergy Series

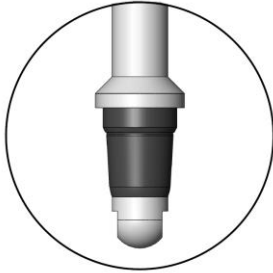
- 5X the Service Life (10+ Years) of pneumatic valves
- Ability to **reseat** establishes ANSI Class VI Shutoff throughout the life of valve
- 4X Packing
- Latest in soft seal technology provides maximum durability and



## POWER OF RESEATING

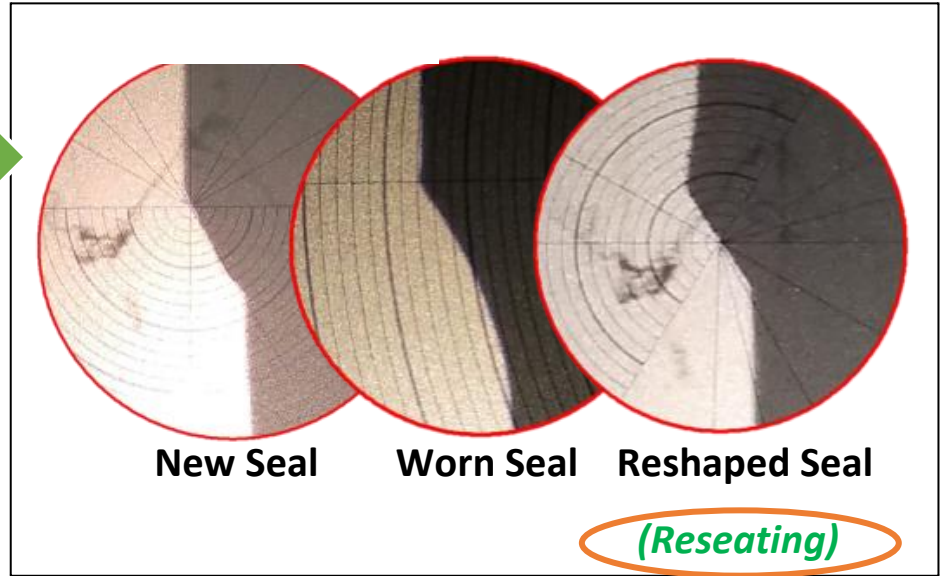


Customer initiated command increases torque on valve sealing edge to regenerate Class VI Positive Shutoff.



### Benefits of the Synergy Series

- 1 command instantaneously results
- Executed with valve in service
- Scheduled Preventative Valve Maintenance
- Eliminate downtime
- Prolonged seal life



**Synergy Series** by Durbin Industrial Valve is an all new intelligent valve that has revolutionized manufacturing processes.

**Synergy Series** servomotor actuated valves are digitally controlled with the ability to utilize digital or analog signals allowing these valves to deliver high accuracy, speed, repeatability, and reliability. Utilize valve feedback and performance data to include: valve position, torque, module temperature, **reseating**, rehoming, etc. for process analytics.

Through the logging of digital data, one can evaluate valve health, monitor performance for troubleshooting and preventative maintenance. The use of live data allows for the identification of changes in actual valve position over time, potentially identifying a leak.

Manufacturers utilizing this technology have realized the following:



Durbin Industrial Valve is eager to provide any additional information specific to your company. We would like to work with you to schedule time to demonstrate the Synergy Valve and review and discuss current processes and applications where the **Synergy Series** would be beneficial.

**Synergy Series** trials prove to be an effective way to capture data and review areas where process improvements could be realized. Durbin can also accurately assess the ROI of **Synergy Series** implementation and determine if this solution is right for you and your manufacturing process.

Durbin Industrial Valve has the ability to modify components to fit a wide variety of applications, contact a specialist for a consultation today.