

Piper Valve

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Piper Valve





PIPER VALVES Design Philosophy & Value



Casting Free Construction Valves are Machined from Bars or Forgings Wide Range of Material Options

NACE MR-0175 Compliant

Match Face-to-Face of Gate Valve For Retrofits & Replacements

Field Repairable Two Bolt Body Access for Repair Similar Repair Time and Complexity As Kimray Dump Valve

Compact Design, Low Weight 50% the Size of API 6D Gate Valves 40% the Weight of API 6D GV



PIPER VALVES Flexible End Connections



Check Valve Combo Flanged









Check Valve Combo Flanged w Connector



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PIPER VALVES Common Actuator Packages







Electric Spring Return Options

Triac SRX Linear Spring No Override Wheel included Can be added w Clutch Makes the Unit even taller



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Bernard Clock-wound Spring Override Wheel included Less Amp Draw to hold Spring

Pressure Pilot Switch

Install on Inlet Flange Drill & Tap at our In-House Machine Shop Winters [or equivalent]: SS-E Electric Pressure Switch Model 4E02

ESD PACKAGES Spring Return vs Battery Backup Actuation



Spring Return Actuation

Mechanical Spring Closure Power loss = Immediate Close

Faster Closing Speed

As Fast as Two Seconds Versus 25-40 seconds in Battery Backup

Most Reliable Actuation Guaranteed Closure upon Power Loss

Maintenance Free No Battery to Replace

Suited for High Risk Applications High H²S, Residential Proximity

Not Environmentally Friendly If Pneumatically Actuated w Field Gas

Battery Backup Actuation

Lower Cost

Typically 1/4 to 1/3 the cost of Spring Return

Less Power Required

Less In Rush Less Constant Power Required Like a Transmitter Great for Solar applications

More Versatile Modbus communications [optional] Universal Input Power 12VDC, 24VDC, 110VAC, 220VAC

More Compact

Lighter Weight



Piper/AirTorque v Slab Gate Pneumatic What's Better?

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ESD PACKAGES Slab Gates v HP Compact Ball Valve

Slab Gates

Typical Wellhead ESD Valve

Competition

Indian or Chinese Slab Gates: Cheap

Sand Builds Up, Positive Shutoff Issues Usually mounted sideways or other orientation Prevents sand from building up below the gate Prevents Valve from fully closed Sand Build up in Stem and/or Cavity of Body

Other Issues

Not Field Repairable No Position Feedback unless have costly Proxs Gas or Air Supply Line subject to Freezing





ESD PACKAGES Slab Gates v HP Compact Ball Valve



High Pressure Compact Ball Valve Same Upfront Cost as Slab Gates Lower priced than Cameron!!

No Place for Sand to Collect Much Fewer Field Issues

Field Repairable Very Inexpensive & Easy to Repair

Low Torque ¼ Turn, Smaller Actuators

Flexible Actuator Choices Available Pneumatic, Spring Return FS Battery Backup FS, Supercapacitor FS Manpower, ElectroHydraulic



ESD PACKAGES Slab Gate Pneumatics v AirTorque/Piper

What's the Same?

Both are Pneumatic Both are controlled by Solenoid

What's Different?

AirTorque is better than Diaphragm Actuator Visual Position Feedback Mechanical Position Feedback Into your Controls





Eagle

ESD PACKAGES Ideal Pneumatic Shut Down Valve Package



Visual Position Indication Limit Switch-based

Position Feedback Limit Switch-based

NAMUR Solenoid Valve Bolts directly No Pipe or Tube Fittings

Speed Controls Lockable Controls Opening & Closing Speeds Independently!!



Filter Regulator Regulates Incoming Air To right Pressure

Coalescing Filter w Auto-Drain All Metal Construction No Poly-carbonate/Plastic

Dirt Excluder On the Solenoid Lets Solenoid breath Excludes dirt & debris

AIRTORQUE Coated for Hazardous Environments



Tolerant of Questionable Air Supply Why it has Special Coatings

Coated Inside & Outside Pitting Resistant

Electro Nickel Plated Pinion All SSt Hardware

Viton Seals Holds up better w various Gases

Deeper Pinion Teeth Engagement 2.5 teeth v 1 for similar models

Largest Rack & Pinion Smaller Footprint than Scotch Yoke

