

# Automatic Control Valves

For Mining Applications

PRESSURE REDUCING

PRESSURE RELIEF

LEVEL CONTROL

**ELECTRONICS** 

## Main Valves

All valves available in Stainless Steel







#### Model 100-01 Full Port Hytrol Valve

- The 100-01 Hytrol Valve is a hydraulically operated, diaphragm actuated, globe or angle pattern valve.
- Drip-Tight, Positive Seating
- Service Without Removal From Line
- Threaded, Flanged or Grooved Ends
- Globe or Angle Pattern
- Every Valve Factory Tested

#### Model 100-20 Reduced Port Hytrol Valve

- The 100-20 Hytrol Valve is a hydraulically operated, diaphragm actuated, globe or angle pattern valve.
- Reduced Cavitation Design
- Drip-Tight, Positive Seating Action
- Service Without Removal From Line
- Globe or Angle Pattern
- Every Valve Factory Tested

#### **Pump Control Valve**

- The Pump Control Valve is a hydraulically operated diaphragm valve with two separate chambers to control valve position.
- Globe or Angle Pattern
- Drip-Tight, Positive Seating
- Dual Chamber
- Packless Construction



#### Model 100-46 Stainless Steel Hytrol Valve

- The 100-46 Hytrol Stainless Steel Valve is a full ported hydraulically operated, diaphragm actuated, globe pattern valve with all Stainless Steel metal parts.
- · Reduced Cavitation Design
- Drip-Tight, Positive Sealing Action
- Service Without Removal From Line
- · Packless Construction

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## Pressure Reducing & Relief Valves

All valves available in Stainless Steel







#### 90 Series Pressure Reducing Valve

- Automatically reduce a higher inlet pressure to a steady lower downstream pressure, regardless of changing flow rate and/or varying inlet pressure using a CRD pilot control
- End Connections: Threaded, Flanged and Grooved
- · Sizes 1-inch through 36-inches
- · Series 690 is the reduced port version of the 90-01

#### 92 Series Combination Pressure Reducing and Pressure Sustaining Valve

- Performs two independent functions in a waterworks system:
  - 1) Maintains a constant downstream pressure
  - 2) Sustains the upstream pressure to a pre-determined minimum
- End Connections: Threaded, Flanged and Grooved
- · Sizes 1-inch through 36-inches
- · Series 692 is the reduced port version of the 92-01

#### **50 Series Pressure Relief and Pressure Sustaining Valve**

- The valve is actuated by line pressure through the CRL-60 pilot control, opening fast to maintain steady line pressure but closing gradually to prevent surges
- End Connections: Threaded, Flanged and Grooved
- · Sizes 1-inch through 36-inches
- · Series 650 is the reduced port version of the 50-01



- 52 Series Pressure Relief and Surge Anticipator Valve
  - During pump starts and stops, the control valve opens on the initial low pressure wave, anticipating and diverting the returning high pressure wave from the system
  - · End Connections: Threaded, Flanged and Grooved
  - · Sizes 2-1/2-inches through 18-inches
  - · Series 652 is the reduced port version of the 52-03



## **Solenoid Control Valves**

All valves available in Stainless Steel





#### 131 Series Electronic Control Valve with VC-22D Controller

- The valve is a hydraulically operated with solenoid pilot controls, actuated by electrical signals from the VC-22D Electronic Valve Controller anywhere remote control is desired
- End Connections: Threaded, Flanged and Grooved
- · Sizes 1-inch through 36-inches
- · Series 631 is the reduced port version of the 131-01



#### 133 Series Metering Valve with VC-22D Controller

- The 133 Series metering valve is a completely self contained valve and control system that accurately meters and/or controls flow rate
- · Completely Self Contained
- Reliable Analog Communications
- · Retransmission Capabilities
- Ideal for Retrofitting Existing Valves
- · Security System to Prevents Unauthorized Changes



#### **136 Series Solenoid Control Valve**

- The 136 Series valve is an on-off control valves that either opens or closes upon receiving an electrical signal to the solenoid pilot control
- · End Connections: Threaded, Flanged and Grooved
- · Sizes 1/2-inch through 36-inches
- · Series 636 is the reduced port version of the 136-01 valve

## **Pump Control Valves**

All valves available in Stainless Steel







#### **60 Series Booster Pump Control Valve**

- 60 Series Booster Pump Control Valves are installed on the discharge of booster pumps to eliminate pipeline surges caused by the starting and stopping of the pump
- 60 Series Valves are specifically designed for larger sized pump stations
- · End Connections: Threaded and Flanged
- Sizes 10-inches through 16-inches
- · Reduced port valve: 660 Series

#### 61 Series Deep Well Pump Control Valve

- 61 Series Deep Well Pump Control Valves are designed to protect pipelines from surges caused by the starting and stopping of deep well pumps
- Separate adjustable flow control valves in the pilot system regulate the opening and closing rates
- End Connections: Threaded and Flanged
- · Sizes 2-1/2-inches through 24-inches
- Reduced port valve: 661 Series

#### **63 Series Pump Control Valve**

- · Valve can be sized for minimal head loss
- Eliminates surges due to starting and stopping of pumping system
- · Electronically control opening and closing speed, time and position
- · Programmable control curves for optimum opening and closing rates
- Multi-function capability; hydraulic check feature
- · Valve can be sized for minimal head loss
- · Eliminates surges due to starting and stopping of pumping system

## Altitude, Level and Float Valves

All valves available in Stainless Steel





#### 210 Series Altitude Valve for One-Way Flow

- · 210 Series Valves control the high water level in reservoirs
- · The valves remain fully open until the shut-off point is reached
- End Connections: Threaded, Flanged and Grooved
- · Sizes 1-inch through 36-inches
- · Reduced port valve: 610 Series



#### **124 Series Non-Modulating Float Valves**

- 124 Series Non-Modulating Float Valves accurately control the liquid level in water storage tanks and reservoirs
- · End Connections: Threaded, Flanged and Grooved
- · Sizes 1/2-inch through 6-inches
- · Reduced port valve: 624 Series



#### **428 Series Modulating Float Valve**

- 428 Series Float Valves modulate to maintain a constant liquid level in a storage tank
- · End Connections: Threaded, Flanged and Grooved
- · Sizes 1/2-inch through 6-inches
- · Reduced port valve: 628 Series

## **Rate-of-Flow Control Valves**

All valves available in Stainless Steel





#### **40 Series Flow Control Valve**

- 40 Series Flow Control Valves prevent excessive flow by limiting flow to a pre-selected maximum rate, the CDHS18 pilot control
- End Connections: Threaded, Flanged and Grooved
- · Sizes 1-1/2-inch through 36-inches
- Reduced port valve: 640 Series



#### 43 Series Combination Rate of Flow Controller and Solenoid Shut-Off Valve

- 43 Series Combination Rate of Flow Controller and Solenoid Shut-Off Valves limit the maximum flow rate,
- · End Connections: Threaded, Flanged and Grooved
- Sizes 1-1/2-inch through 36-inches
- · Reduced port valve: 643 Series

#### 49 Series Rate of Flow and Pressure Reducing Valve

- 49 Series Rate of Flow and Pressure Reducing Valves reduces a higher inlet pressure to a steady lower outlet pressure
- · End Connections: Threaded, Flanged and Grooved
- · Sizes 1-1/2-inch through 36-inches
- · Reduced port valve: 649 Series



## Air and Check Valves

All valves available in Stainless Steel





Threaded



#### 33A Series High-Performance Air Release & Vacuum Breaker Valves

- Standard Maximum Operating Pressure 300 psi
- Standard Epoxy Coated Ductile Iron Body
- Automatically Eliminates Entrapped Air Pockets and **Provides Vacuum Protection**
- Easily Serviced
- Tested to Seal at 2 psi
- Meets AWWA C512 Requirements

Flanged



- Full Unrestricted Air Vacuum Protection
- · Permits Regulating Volume of Air Discharge From Vertical Turbine Well Pump
- Standard Max. Operating Pressure 300 psi
- Standard Epoxy Coated Ductile Iron Body
- · Easily Serviced
- Tested to Seal at 2 psi
- 1" 4" Standard w/Throttling Device
- Arrestor Check Available on 4" & 6"
- Meets AWWA C512 Requirements





Flanged

Threaded



1" & 2" Threaded



1" to 8" Flanged

**39A SERIES - Pipeline Applications for potable water** Anti Slam Air Release and Vacuum Break Air Valves

- Min operating pressure of 7.25 psi
- Max operating pressure of up to 1450 psi
- Available from DN15 up to DN300
- · Full bore operation

- Operating temperatures are from 32° to 176°
- · Available in various coating options
- · Available in various materials of construction
- Larger sizes available on request



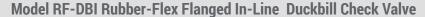
- 581 Series Silent Globe Check Valve
  - Operates Horizontally or Vertically
  - Watertight Metal-to-Metal Seating
  - Field Replaceable Parts
  - · Factory Mutual Approved 4 through 12-inches
  - · Optional Resilient Seat

## **Duckbill Check Valves**



#### Model RF-DBF Rubber-Flex Flanged Duckbill Check Valve

- Available in sizes 1" 72" (25mm 1800mm)
- Standard flange drilling is ANSI 125/150# but can be supplied with ANSI 250/300, DIN, JIS, BS or AS Flange patterns
- 1" 2" (25mm 50mm) cracking pressure enables these valves to have the lowest head loss in the industry
- · 316SS retaining rings are supplied as standard



- Available in sizes 2" 72" (50mm 1800mm)
- This valve can be slipped inside of a pipe and installed between two existing pipe flanges, eliminating the need for a valve body
- Standard flange drilling is ANSI 125/150# but can be supplied with ANSI 250/300, DIN, JIS, BS or AS Flange patterns
- 1" 2" (25mm 50mm) cracking pressure enables these valves to have the lowest head loss in the industry

#### Model RF-DBO Rubber-Flex Slip-On Duckbill Check Valve

- Available in sizes 1" 72" (25mm 1800mm)
- · Designed to slip directly over an existing pipe
- · Supplied with heavy duty stainless steel clamps
- · Can be installed in either a vertical or horizontal position
- 1" 2" (25mm 50mm) cracking pressure enables these valves to have the lowest head loss in the industry



#### Model RF-DBI-IN Rubber-Flex Slip-In In-Line Duckbill Check Valve

- Available in sizes 2" 36" (50mm 900mm)
- · Ideal for corrosive materials
- · Designed to fit directly in-side of an existing pipe
- · Includes Stainless Steel Expansion Clamp to secure valve in place
- · Can be installed in either a vertical or horizontal position
- 1" 2" (25mm 50mm) cracking pressure enables these valves to have the lowest head loss in the industry



## **Electronic Accessories**

All valves available in Stainless Steel







#### **Model XP2F**

- The Cla-Val Model XP2F Data Acquisition and Metering Package is comprised of the X35 Data Module, the X117H Valve Position Transmitter, and two X141-PT Pressure Transmitter assemblies.
- Turns your Cla-Val valve into an all encompassing Instrumentation package that includes Upstream Pressure, Downstream Pressure, Valve Position Instantaneous Flow and Totalized Flow.
- When deployed across the system network the XP2F package allows for insight into pressure, leakage, flow and system distribution management.

#### **VC-22D Electronic Valve Controller**

- · Provides remote or local set-point control for valves in a variety of fluid applications
- · Available versions: IP-68, IP-65 and Panel Mount
- Supplied with pre-loaded ValvApps<sup>™</sup> for most common valve functions
- Custom ValvApps<sup>™</sup> can be created for unique applications



#### PC-22D Pump Control Panel

- Pre-programmed Valve Controller
- · Suitable for all Booster Pump and Deep Well Applications
- · Electronically Control Open/Closing Speed of Control Valve
- · Indicator Lights Monitor System Status
- NEMA 4X Rated Enclosure
- · Local visual indication of pump and control valve status
- · Easy to adjust sequence timers

#### **Cla-Val 34 Series Electronic Actuated Pilot Control**

- · Provides simplified remote valve set-point adjustment
- Enables accurate downstream control using any SCADA-type control system using an analog 4-20mA signal
- 12-24VDC input power
- Available in Stainless Steel
- · Available configurations:
  - CRD-34 Pressure Reducing Electronic Pilot Control
  - CRL-34 Pressure Sustaining Electronic Pilot Control
  - CDHS-34 Rate-of-Flow Electronic Pilot Control

#### **10 Cla-Val** *Mining Applications*

**CRL-34** 

CDHS-34

CRD-34

## Field Service and Maintenance



One of the best ways to ensure that your system operates at peak efficiency is to perform preventive maintenance on a regular basis. When it comes to Cla-Val automatic control valves, no one can do a better job at keeping your valves in tip-top shape than our own in-house factory trained field service technicians, ready to serve you.

#### **Capabilities and Services**

- Emergency repairs
- Inspection, maintenance and cleaning of installed valves, without removal from the pipeline
- On-site valve refurbishment, including replacement of rubber goods and change-out of metal parts as needed
- · Start-up services for new systems and valves
- Field retrofits of a full line of accessories and components to enhance or change valve function
- Safe work practices performed by confined space certified technician
- Fully equipped service vehicle, outfitted with crane for heavy lifting
- Complete inventory of replacement parts, direct from the factory
- Technical and Engineering Support

#### Serving the following markets:

- Municipal and Rural Waterworks
- HVAC
- Fire Protection

- IndustrialIrrigation
- FILE PIOLEC
- Mining



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