

VRG CONTROLS

More Expertise. Less Emissions.

Company Overview

12/14/2023



VRG Controls engineers and manufactures high performance control valves and control instrumentation for natural gas regulation.

Our philosophy is to provide the highest quality instrumentation in tandem with an environmentally responsible approach. All VRG control instrumentation features zero emissions capabilities that are good for the environment.

VRG CONTROLS “BY THE NUMBERS”

R

Year Founded:	2012
AverageManagement Experience:	41 Years*
Employees:	50+
US States Business:	48
Countries Business:	16
US Facilities:	4
VMO Valves Sold:	10,000+



DISTINCT CUSTOMERS:

550

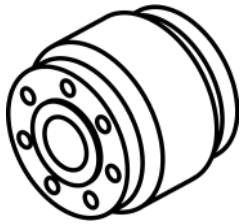


VPC CONTROLLERS SOLD:

8,000+

PRCV VALVES SOLD:

1,300+

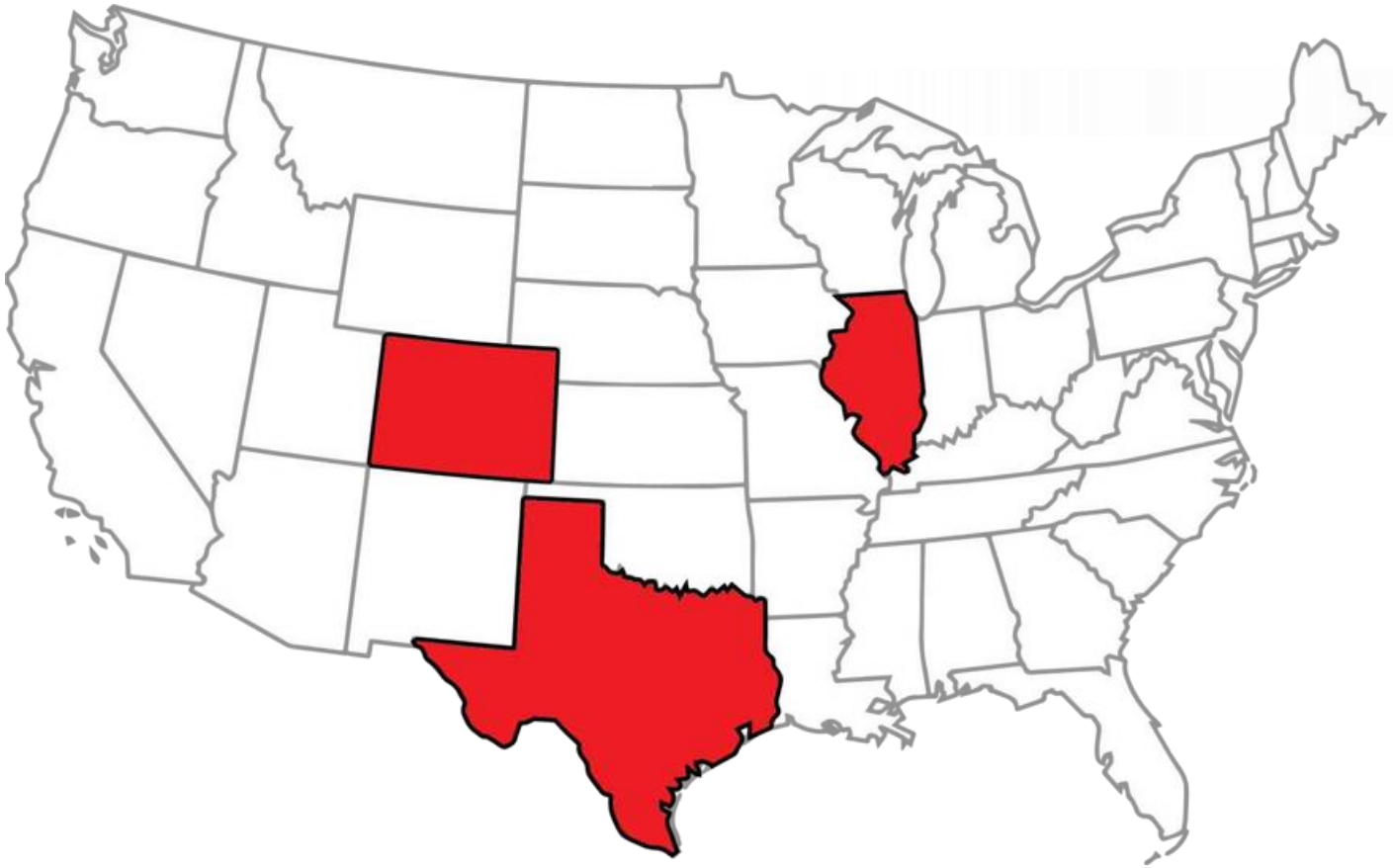


NUMBER US PATENTS:

6



OUR LOCATIONS



CHICAGO IL

VRG CONTROLS – HQ: SALES / SETVICE / MANUFACTURING
1199 Flex Ct Unit B,
Lake Zurich, IL 60047

VRG CONTROLS - WAREHOUSE
1154 Rose Road
Lake Zurich, IL 60047

HOUSTON TX

VRG CONTROLS – SALES / SERVICE
720 Rusk ST, Suite 304
Houston, TX 77002

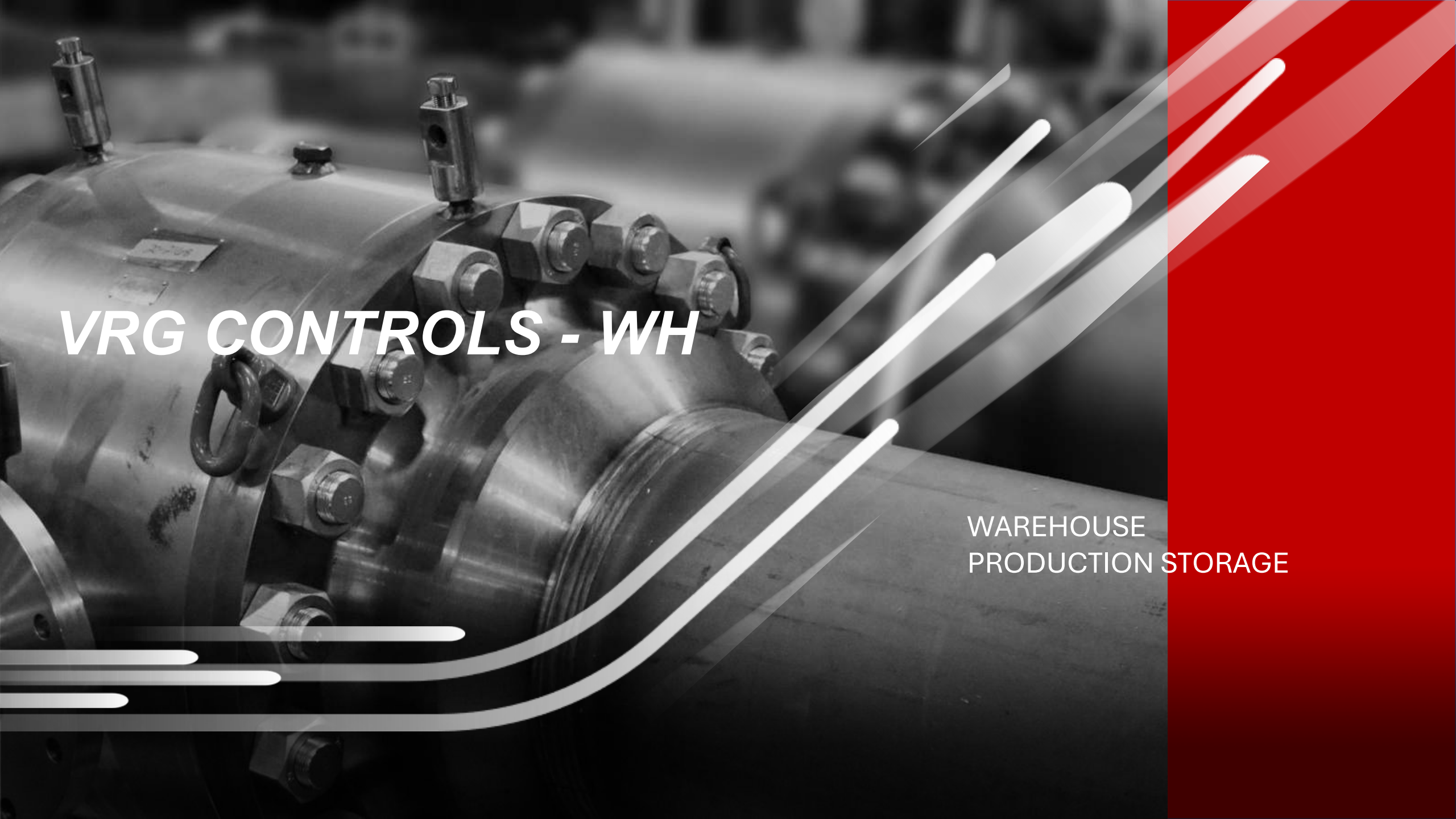
DENVER CO

VRGCONTROLS–SALES/SERVICE
6110 East Colfax Avenue
PO Box 104
Denver, CO 80220



VRG CONTROLS - HQ

ENGINEERING DEPARTMENT
FABRICATION / WELDING
PRODUCTION / ASSEMBLY
QUALITY CONTROL
R&D / TESTING
SHIPPING / RECEIVING



VRG CONTROLS - WH

WAREHOUSE
PRODUCTION STORAGE

OUR CUSTOMERS



































































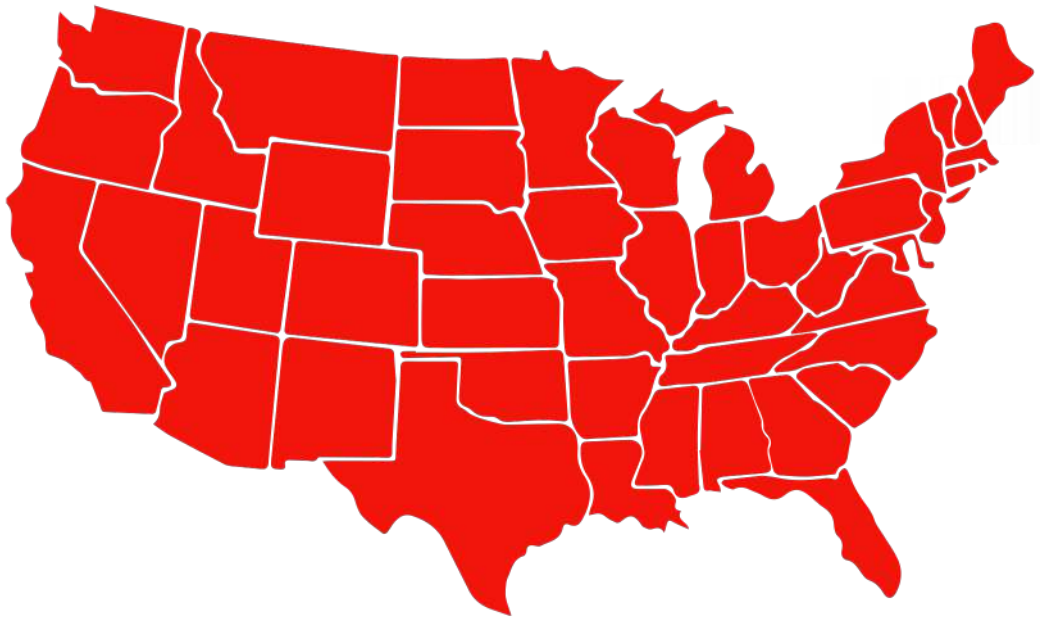








OUR CUSTOMERS



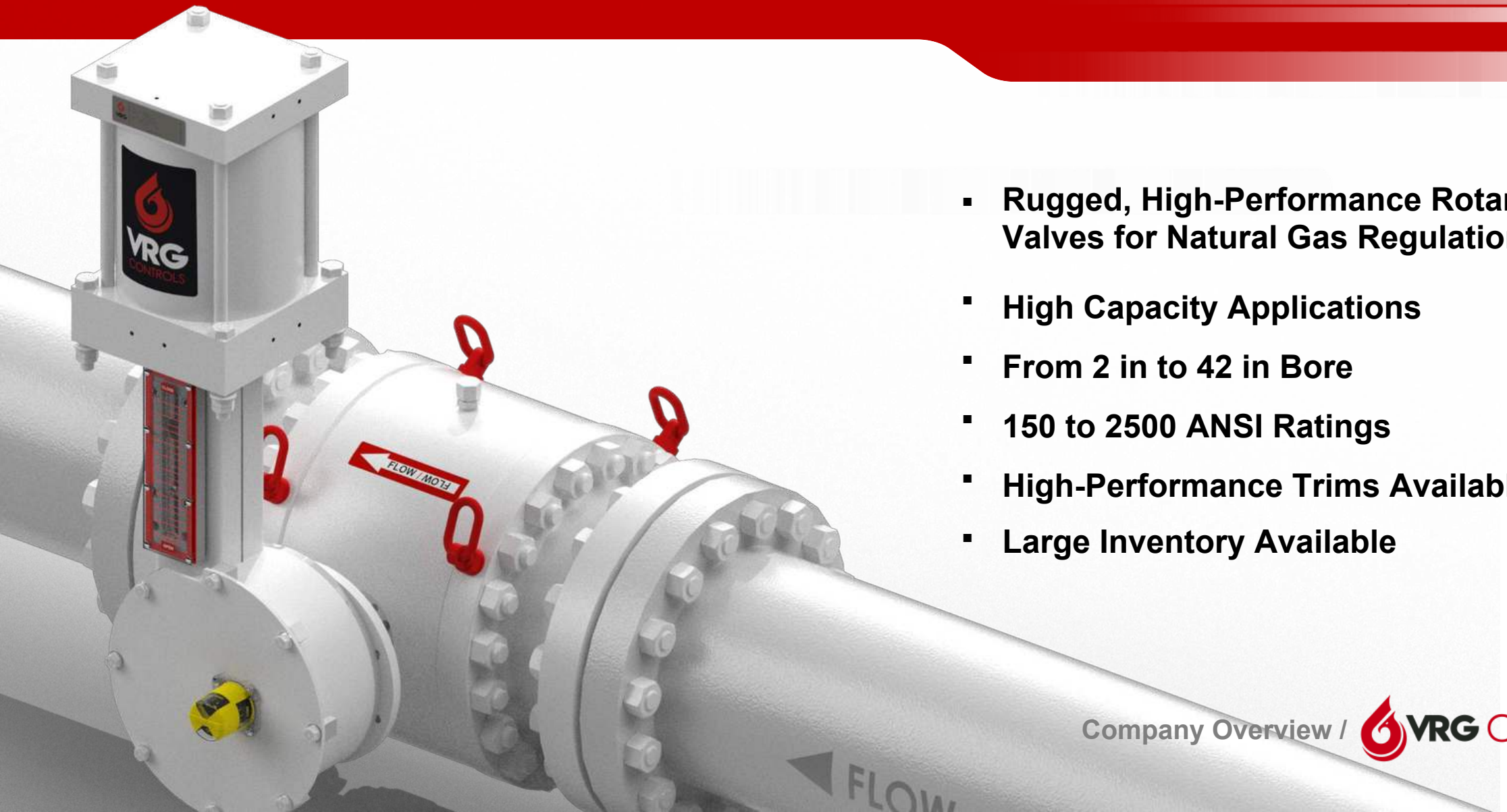
INSTALLATIONS IN ALL 48
CONTIGUOUS UNITED STATES

INTERNATIONAL INSTALLATIONS :

Argentina
Belgium
Canada
Chile
Iraq
Italy
New Zealand
Peru
Mexico
Taiwan
United Kingdom
United States
US Virgin Islands
Ireland
Netherlands



ROTARY ACTUATORS / PRCV VALVES



- **Rugged, High-Performance Rotary Control Valves for Natural Gas Regulation**
- **High Capacity Applications**
- **From 2 in to 42 in Bore**
- **150 to 2500 ANSI Ratings**
- **High-Performance Trims Available**
- **Large Inventory Available**

ROTARY ACTUATORS / PRCV VALVES



RHPA-DA
DOUBLE ACTING
LEFT HAND MOUNT



RHPA-DA
DOUBLE ACTING
RIGHT HAND MOUNT



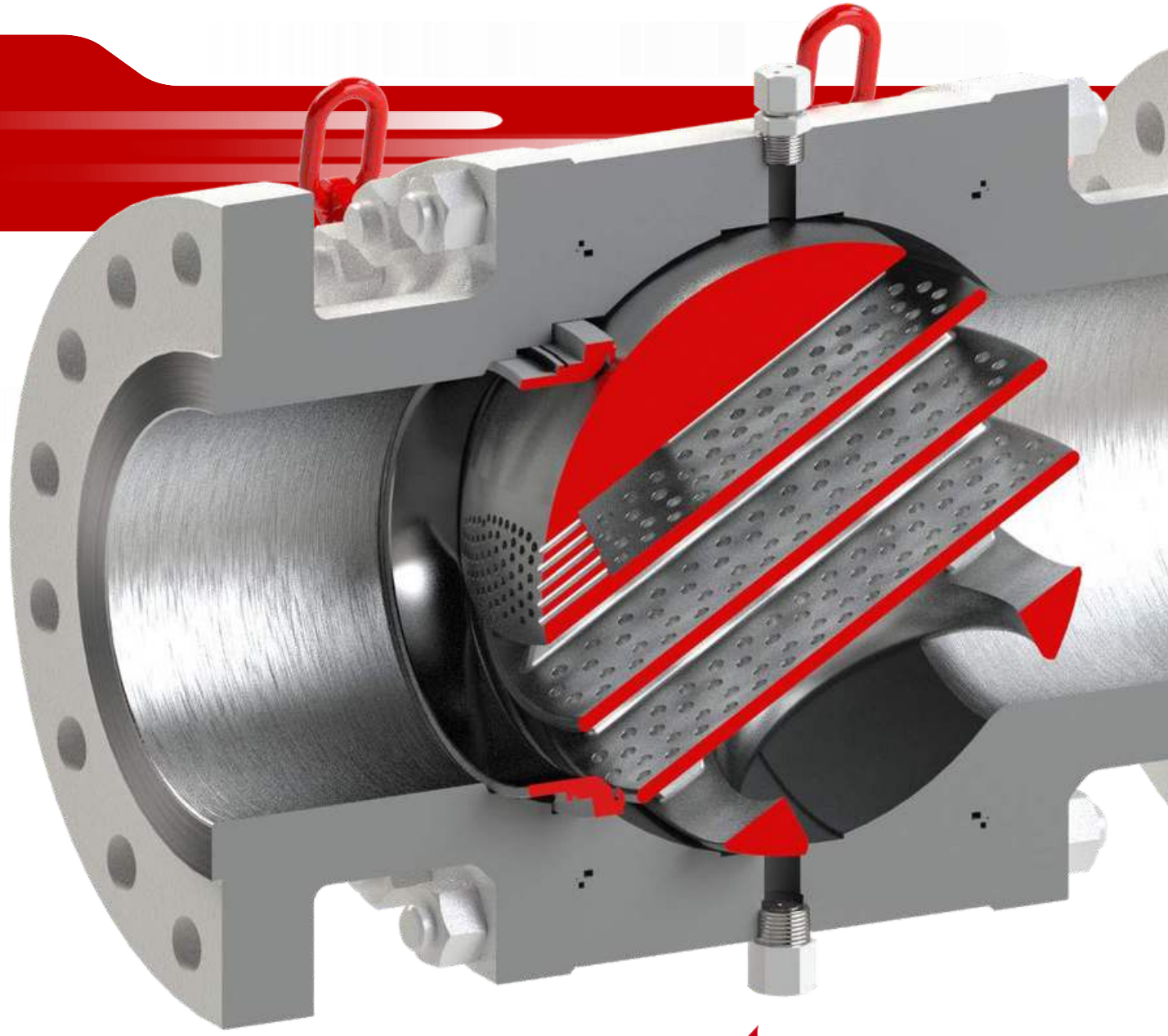
RHPA-SR
SPRING RETURN
LEFT HAND MOUNT



RHPA-SR
SPRING RETURN
RIGHT HAND MOUNT

ROTARY PRCV VALVES

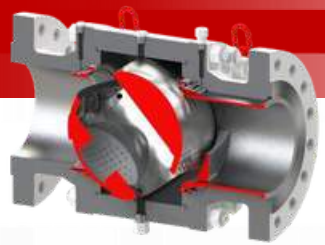
- Rugged Rotary Control Valves for Natural Gas
- Trunnion-Mounted configuration High-
- capacity design
- High Rangel-Ability (Turndown)
- Double Piston Effect Seats
- Noise Attenuation Trims
- Model Range
    - PRCV-FP Full Port
    - PRCV-STH1
    - PRCV-STH2
    - PPRCV-STHP
    - PRCV-STH4
    - PRCV-STH5

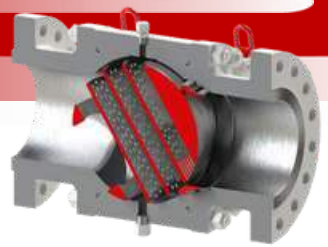


ROTARY PRCV VALVES









PRCV Series	PRCV-FP	PRCV-STH1	PRCV-STH2	PRCV-STHP
Size Range	2 in to 42 in	6 in to 24 in	6 in to 24 in	6 in to 24 in
ANSI Range	150 – 1500 ANSI	150 – 1500 ANSI	150 – 1500 ANSI	150 – 1500 ANSI
End Connections	RFFE, Weld, RTJ, Combo	RFFE,Weld,RTJ,Combo	RFFE,Weld,RTJ,Combo	RFFE,Weld,RTJ,Combo
Trim Type	Full Port	Stealth Trim Level 1	Stealth Trim Level 2	Stealth Trim High Performance
Performance Trim Technology	N/A	Upstream Var Diffuser UpstreamFixedDiffuser	Upstream Var Diffuser Downstream Var Diffuser Upstream Fixed Diffuser Drilled Hole Ball Side Exit	Upstream Var Diffuser Ball Diffuser Plates Ball Side Exit
Relative Capacity	Maximum Capacity	Very High Capacity	Very High Capacity	High Capacity
Max Noise Attenuation	N/A	7 dBA	15 dBA	25 dBA
Max Range-Ability	100:1	300:1	300:1	200:1
Shutoff	API 6D Bubble Tight	Class VI	Class V	Class V
Video Link	https://www.youtube.com/watch?v=JOs2xb_CbFk	https://www.youtube.com/watch?v=Be1-YxPOpIU&t=23s	https://www.youtube.com/watch?v=p1oGn2P_7F0&t=21s	https://www.youtube.com/watch?v=KP5vQVL_NrQ&t=36s

LINEAR ACTUATORS / GLOBE VALVES

VRG Controls' Linear Control Valves are ideally suited for natural gas control applications. They can accommodate moderate and severe service. The cage-guided design features trim options to address characterized flow and noise attenuation per application. The modular format can accept a variety of actuator and trim configurations and actuators to match your application needs.





The linear control valves are ideal for:

- Low to Moderate Flow Rates
- Aggressive Pressure Drop Applications
- Power Plant Fuel Gas Feed
- "Trim" Type Control Runs
- Natural Gas Transmission Pipelines
- Natural Gas LDC Gate Stations

LINEAR ACTUATORS / GLOBE VALVES







CV Trim	CVEZ	CVET	CVET – LEVEL I	CVET – LEVEL II	CVET – LEVEL III
Size Range	1 in to 4 in	2 in to 16 in	2 in to 16 in	2 in to 16 in	2 in to 16 in
Design Standard	API-6D / ASME B16.5 API 6FA	API-6D / ASME B16.5 API 6FA	API-6D / ASME B16.5 API 6FA	API-6D / ASME B16.5 API 6FA	API-6D / ASME B16.5 API 6FA
ANSI Range End Connections	150 – 900 ANSI	150 – 900 ANSI	150 – 900 ANSI	150 – 900 ANSI	150 – 900 ANSI
Trim Type	RFFE, RTJ	RFFE, RTJ	RFFE, RTJ	RFFE, RTJ	RFFE, RTJ
	Unbalanced	Balanced	Balanced	Balanced	Balanced
Performance Trim Technology	Plug Linear Equal Percent	Linear Equal Percent	Drilled Hole Noise Trim Linear Equal Percent	Drilled Hole Noise Trim Linear Equal Percent	Drilled Hole Noise Trim Linear Equal Percent
Relative Capacity	Moderate	Moderate	Moderate	Restricted	Restricted
Max Noise Attenuation	**N/A**	**N/A**	**10-15 dBA**	**15-20 dBA**	**25 dBA**
Compatible Buried Applications	NO	NO	NO	NO	NO
Max Range-Ability	**50:1**	**30:1**	**30:1**	**30:1**	**30:1**
Shutoff	**Class V** **Class VI – Standard**	**Class V** **Class VI**	**Class V** **Class VI**	**Class V** **Class VI**	**Class V** **Class VI**
Seats	MetalSeats Optional Soft Seats – Standard	MetalSeats Optional Soft Seats – Standard	MetalSeats Optional Soft Seats – Standard	MetalSeats Optional Soft Seats – Standard	MetalSeats Optional Soft Seats – Standard

LINEAR ACTUATORS



LHPA-DA
LINEAR HIGH PRESSURE
DOUBLE ACTING
OPEN YOKE



LHPA-SR
LINEAR HIGH PRESSURE
SPRING RETURN
OPEN YOKE

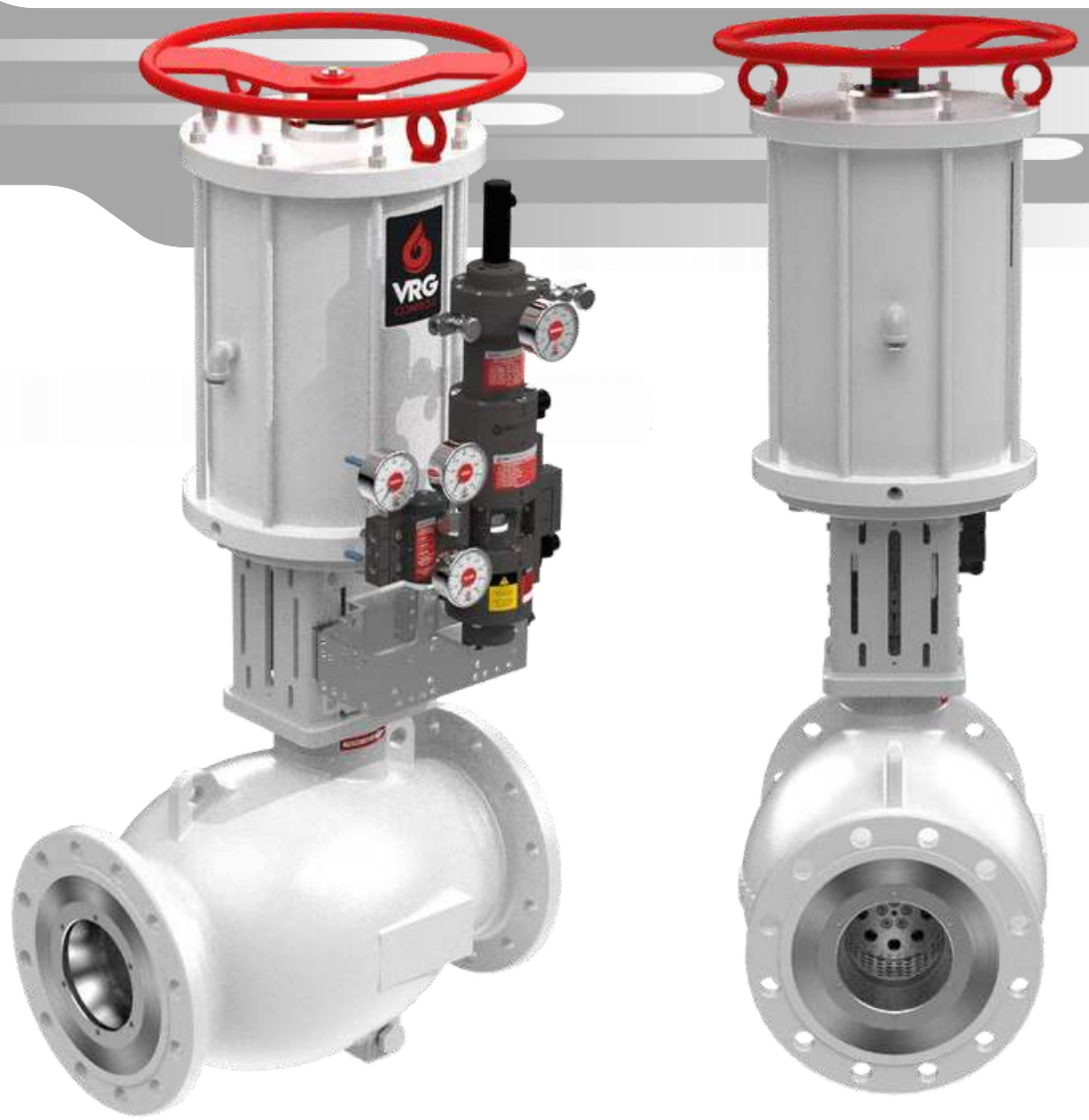


LHPA-DA
LINEAR HIGH PRESSURE
DOUBLE ACTING
CLOSED YOKE



LD
LINEAR DIAPHRAGM
SPRING RETURN

AXC AXIAL FLOW CONTROL VALVES



Features

- **Combines Capity of Rotary Valves with Noise Attenuation of Linear Valves**
- **High Capacity Axial (in-line) Design**
- **Balanced Plug Requires Minimal Motive Force**
- **Extended Range of Carbon Capture Feature**
- **Fast-Stroke Capable**
- **Internal Crank-Arm Motivation**
- **Variety of Control Trim Configurations**
- **HIPPS Capable**

AXC AXIAL FLOW CONTROL VALVES

Range of Product

Sizes: 2 in to 32 in

ANSI: 600, 900, 1500 ANSI

Connections: RFFE, RTJ, Combination

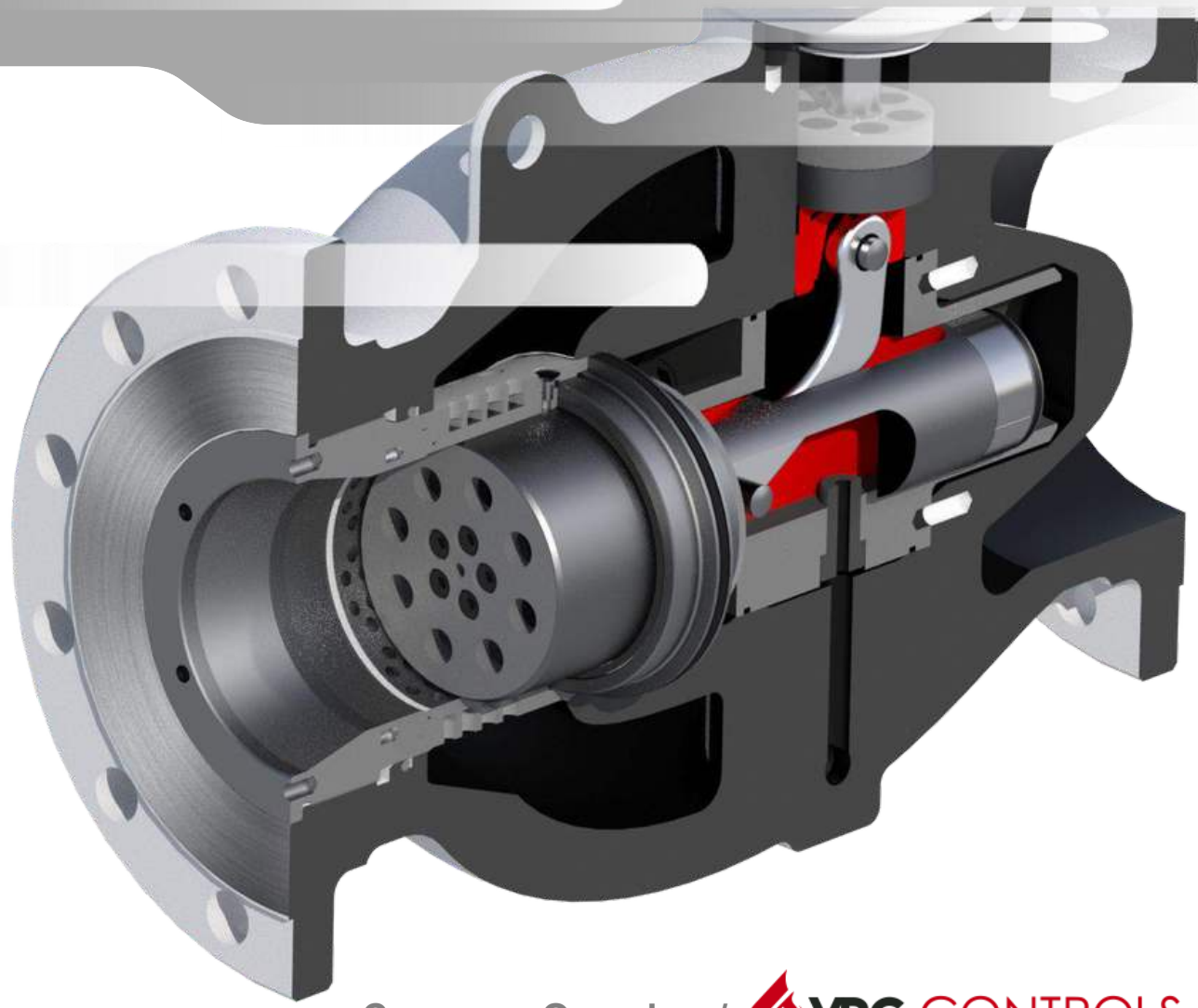
Trims:

Linear

Equal Percentage

Multi-Stage Noise Trim Configurations

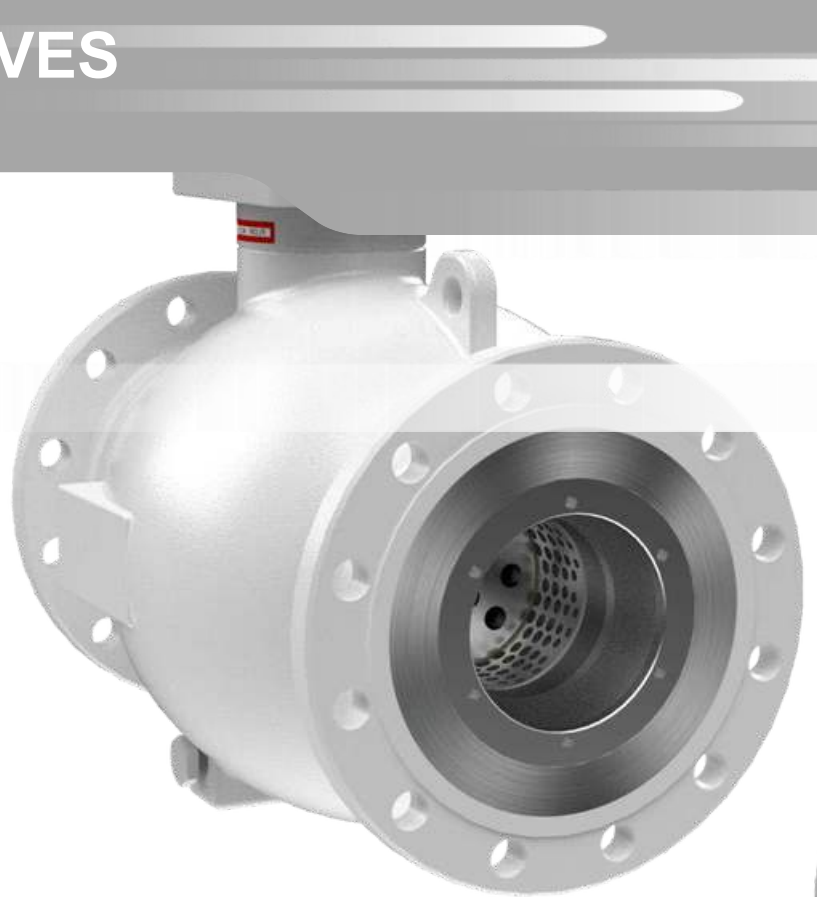
Anti-Cavitation Trims



CONTROL AXIAL VALVES

Actuation

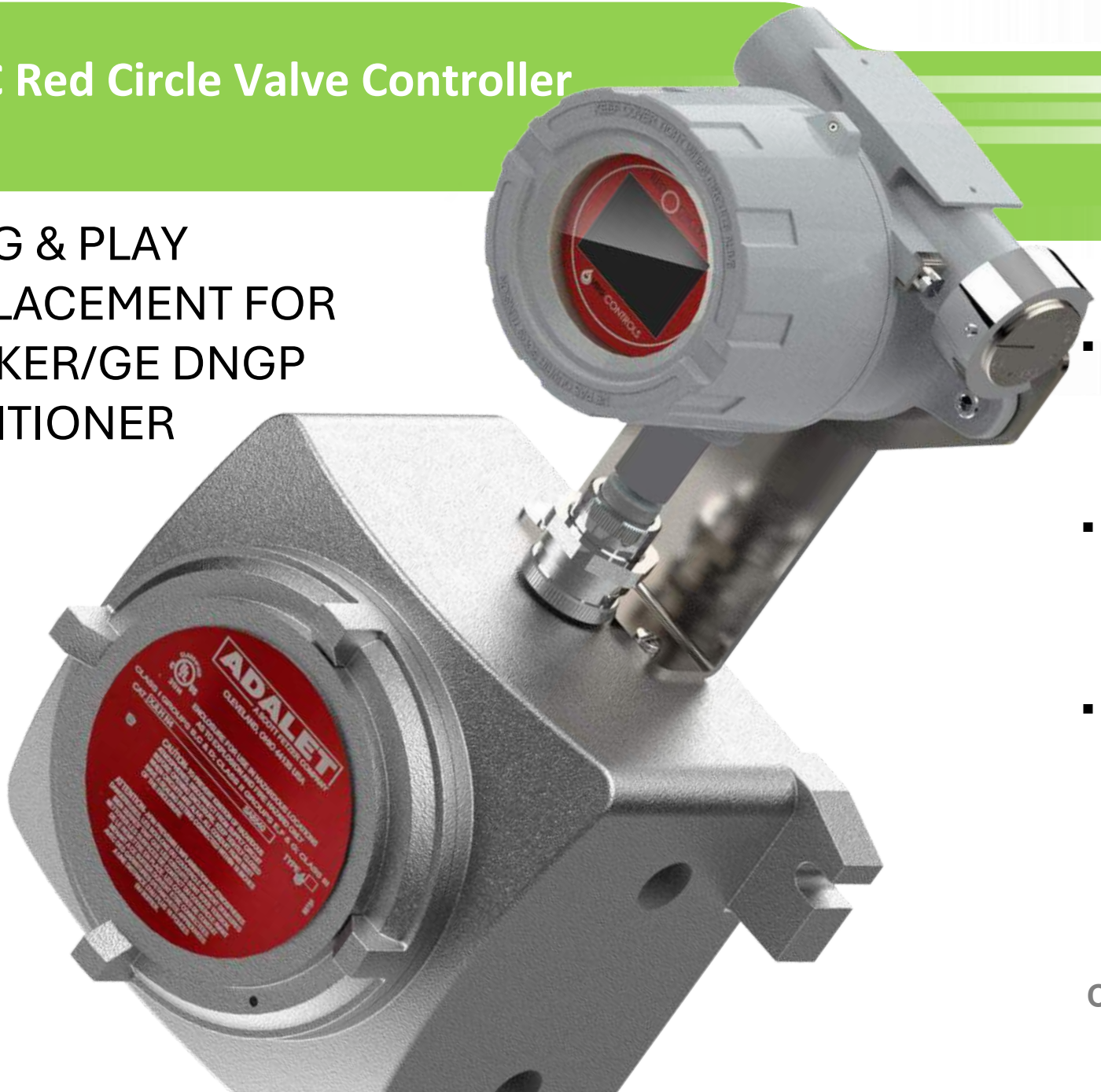
- **Low Actuator Force Required Requries Smaller Pneumatic Actuators**
- **BalancedPlugDesignExtends Carbon Capture Range**
- **Actuation Options**
  - **Pneumatic**
  - **Electric**
  - **Electro-Hydraulic**





RCVC Red Circle Valve Controller

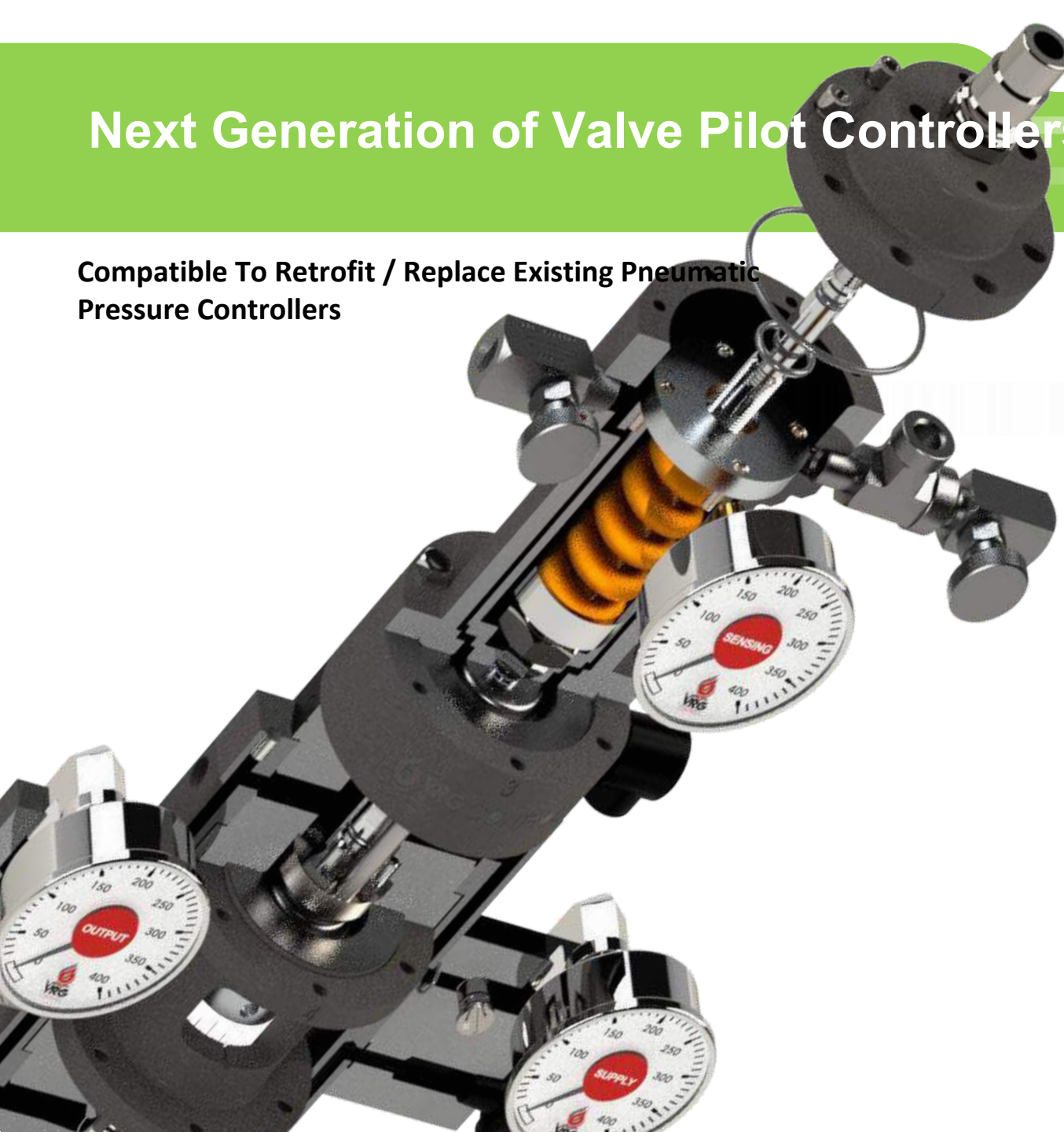
PLUG & PLAY
REPLACEMENT FOR
BECKER/GE DNGP
POSITIONER



- **Rotary Control Switch Provides Non-InvasiveMenuNavigationand Setup**
- **4-20 mA Analog Command Signal Input OR ±24 VDC Discrete Pulse Positioning**
- **ZERO Steady State Emissions with Ability to Discharge to Pressure System for Complete Atmospheric Emissions.**

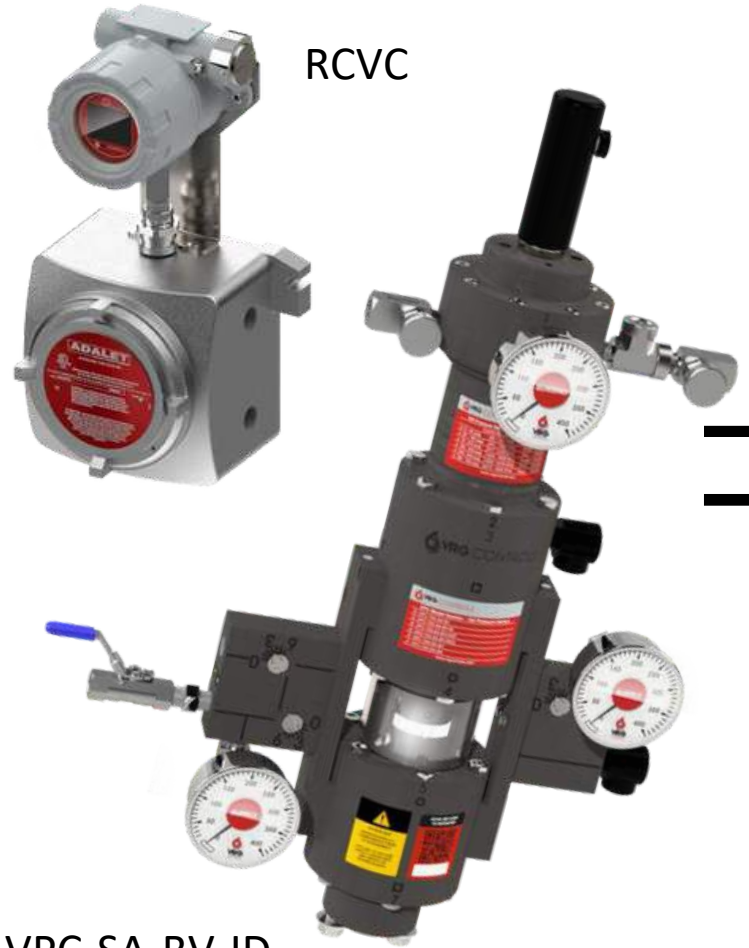
Next Generation of Valve Pilot Controllers

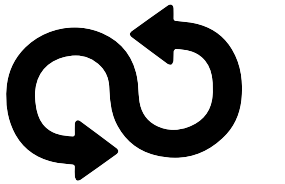
Compatible To Retrofit / Replace Existing Pneumatic Pressure Controllers



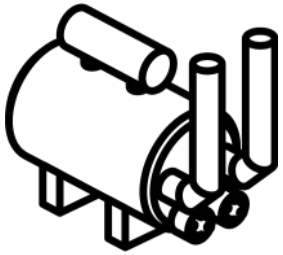
- **Pneumatic Pressure Control InstrumentationforUse withNatural Gas Control Valves**
- **Can Replace Venting Pressure Controllers to Reduce Emissions**
- **Can Replace Becker VRP Pilots for Improved Performance and Reliability**
- **MajorTechnologicalAdvancements as Compared to Our Competition**

NEXT GENERATION CARBON CAPTURE

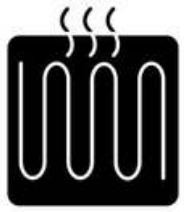




Put back into pipeline



Pipeline heater



Dedicated catalytic heater

- **DISCHARGE TO ATMOSPHERE BUT ZERO STEADY STATE EMISSIONS POTENTIAL**
- **CARBON CAPTURE – DOWNSTREAM SYSTEM – ZERO ATMOSPHERIC EMISSIONS / COMPLETE ELIMINATION**
  CARBON CAPTURE – PIPELINE HEATER –
- **ZERO ATMOSPHERIC EMISSIONS / COMPLETE ELIMINATION**
- **CARBON CAPTURE – DEDICATED CATALYTIC HEATER – ZERO ATMOSPHERIC EMISSIONS / COMPLETE ELIMINATION**

Rotork IQM – Quarter Turn Modulating Service



- 3-Phase AC Power Required to Obtain Modulating Duty > 1200 STARTS / HR
- Direct Drive w Control Valve Stem
- Pair w Rotork Quarter Turn Gear Assembly
- Can Retrofit to Exist Quarter Turn Control Valves
- Cannot Retrofit to Existing VRG Below Ground Control Valves (Need Linear)
- Has Failsafe Options

ZERO EMISSION EH CONTROL VALVES

Setting The Trend for Emissions Elimination in Natural Gas Pipelines

- Electro-Hydraulic “EH” Actuators and Control Systems
- Modulating Control Valve Applications
- On-Off Isolation Valve Applications
- New or Retrofit Installations
- ZERO Emissions Electronic Control
- Superior Valve Positioning Accuracy
- 24 VDC Power Primary Solution
- Easy Interface to UPS / Battery Backup Systems
- Low Power Consumption Ensures Service Reliability
- Easy Interface with VRG Controls Control Valves
- Compatible with Rotary or Linear Control Valves
- Manual Override Standard Accessory
- Accumulator Systems Available for Extended Operation
- Eliminate Supply Gas Systems





MEA

VRG CONTROLS

RED OX

IMC (TOP ENTRY)

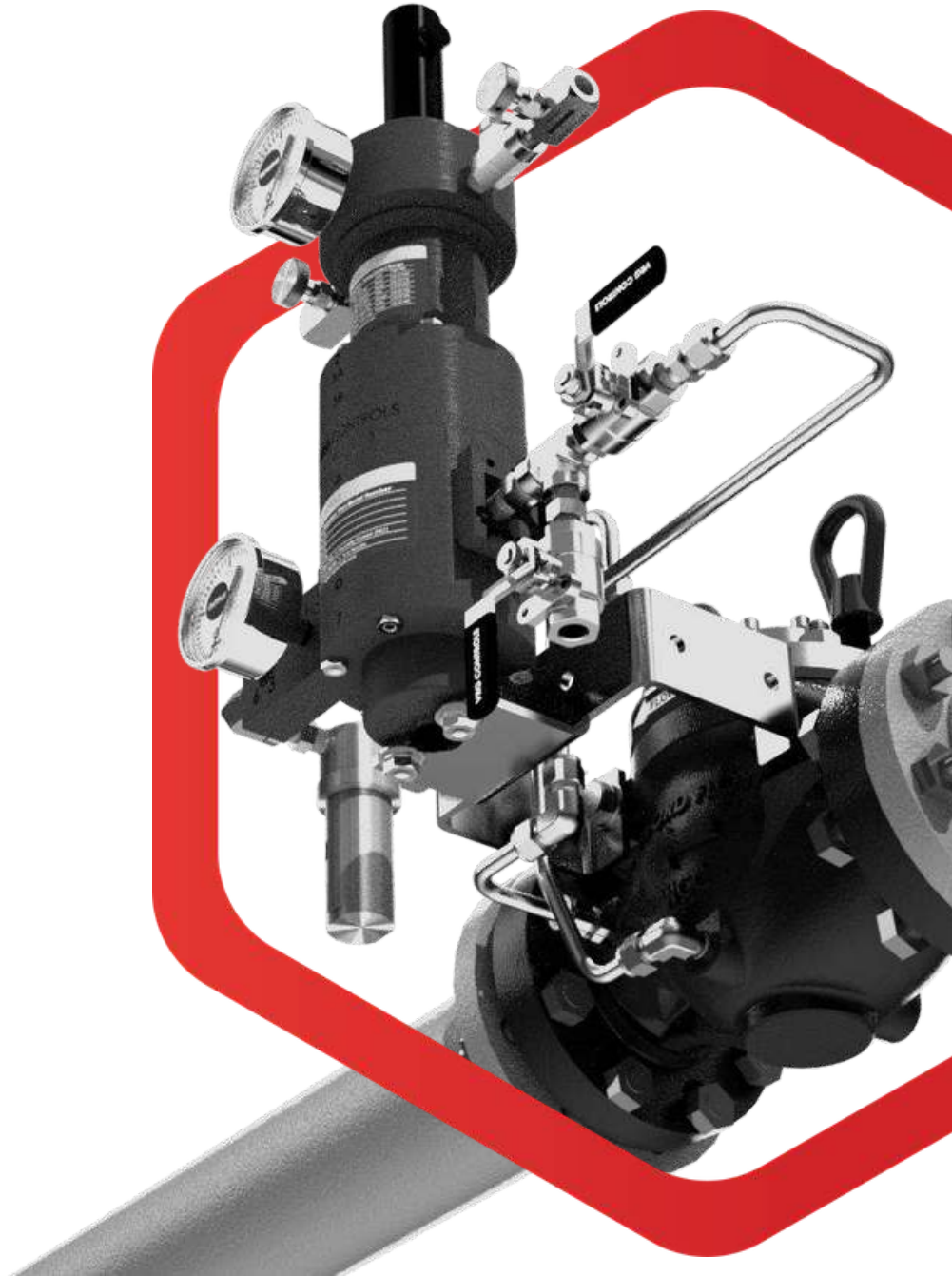


The innovative cartridge insert design utilizes the patented piston control system to deliver superior process control in an easily accessible body for inline servicing. The unique design employs a single piston instead of a diaphragm, increasing reliability and reducing maintenance costs.

IMS (WAFER)



The compact design utilizes the patented piston control system to deliver superior process control in a full stainless-steel construction. The unique design employs a single piston instead of a diaphragm, increasing reliability and reducing maintenance costs. The IMS Series is fully tested and proven for use in newer hydrogen applications up to 100% H2 content.



OUR COMMITMENT TO THE ENVIRONMENT

A push towards zero emissions while providing the highest quality instrumentation





COMPLETE STATION DESIGN





CUSTOMER SUPPORT



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PRI Registrar
PERFORMANCE REVIEW INSTITUTE

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