





RADMAN Process Development Co. (P.J.S.) is a knowledge-based & high-tech manufacturing company located in Tehran, Iran. Established in 2011, it is the first Iranian company operating under international license for the design and production of safety valves, control valves, and actuators used in the oil, gas, petrochemical, and related industries. Our production is based on transferred technical knowledge and strict quality supervision in collaboration with renowned companies from the UK, Italy, Germany, Japan, and South Korea. In 2015, RADMAN was honored with a nomination as a

HIGH-TECH company by the Ministry of Industry, Mine, and Trade. Additionally, we were nominated as a technology-based company by the Vice Presidency for Science and Technology.

Committed to staying at the forefront of engineering innovation, RADMAN's R&D department continuously strives to achieve the highest levels of performance, efficiency, and quality. Today, we are proud to offer comprehensive valve solutions for major projects in power generation, oil and gas, petrochemical, and other related sectors.







The effects of exceeding safe pressure levels in an unprotected pressure vessel or system can be catastrophic for both industrial plants and personnel. Safety relief valves are specifically designed to protect any pressurized system from the dangers of surpassing the pressure limit.

A safety relief valve automatically discharges excess gas, steam, vapor, liquid, or multi-phase mediums from any pressure-containing system, preventing it from exceeding its safe pressure level.

RADMAN possesses in-depth knowledge and cutting-edge technology for the precise design,

production, and testing of high-quality safety valves. The company has developed a range of product series to meet the requirements of various applications.

Our products provide essential protective solutions for a wide range of sectors, including oil and gas, petrochemical, chemical, water treatment, metallurgical, shipbuilding, power generation, pharmaceuticals, and food industries.

Radman's safety relief valves are categorized into five main series:

r Series, a1 Series, d Series, m Series, a2 Series n Series





## a1 Series

The a series is designation given by RADMAN to its full-nozzle valves, specifically designed for gas, steam, liquid, and multi-phase fluid applications. The design criteria and application limits comply with the ASME Section VIII and ASME Section I standards. The a Series is divided into two categories: a1 Series and a2 Series.

### a1 series: API 526 (ASME Sec. VIII)

The a1 Series is designed in accordance with ASME Sec. VIII and API 526 standards. It is suitable for use with liquid, gas, steam, and multi-phase states. With a wide range of types (conventional, bellows, and balanced piston), combined with an extensive selection of connections, materials, and accessories, the a1 Series can be tailored to meet any process or service requirement, providing the optimal solution for diverse applications.

### More details are listed in below:

Valve Size (in)	Inlet	1	1-1/2	1-1/2	2	3	3	4	6	6	8
raire size (iii)	outlet	2	2	3	3	4	6	6	8	10	10
Set Pressure Range	0.5 To 413	3 bar		,							
Temperature Range	-267 to 53	7 to 538 C									
Orifice	D to T	to T									
Pressure Class Range	Up to 250	p to 2500									
Variety Type	Convention	Conventional, Balanced bellows and Balanced piston									
End Connection	RF, RTJ, FF	RF, RTJ, FF									
Body Material	A216 WC	A216 WCB, A217 WC6, A351 CF8, A351 CF8 , SA 352 Gr. LCB , Super Duplex, Inconel and etc.									
disk and Nozzle Material		ainless Steel 410, Stainless Steel 17/4 PH, Stainless Steel 316/316L, Stainless Steel 304/304L, ainless Steel 304/304L+Stell., Stainless Steel 316/316L+Stell., Duplex, Inconel, Special									
Spring Material	Carbon st	Carbon steel, Stainless Steel 302, High Temp Alloy, Inconel X-750 and etc.									
Accessories/Options	Denons, 1			lain Lever, Te ischarge sy				nd Soft Sea	t		



### **Lighter and more compact construction:**

Continuous design improvements have led to the development of smaller and lighter valves, meeting current industry demands for space and weight savings.

### Interchangeable parts:

Valves in the all Series can be easily modified between types (gas, liquid, conventional, and bellows) by changing only a few components.

### Simplified maintenance and service:

Re-engineering efforts have reduced the number of parts, making maintenance simpler and more cost-effective.

### Material Selection:

A wide range of materials is available, including non-ferrous options for low-temperature and oxygen service, as well as exotic alloys for use in chemical and processing industries.

### • High performance springs:

The safety relief valve springs are specifically designed to ensure set-point repeatability.

### Bellows back-up piston:

In a1 Series pressure safety relief valves, an optional auxiliary back-up piston for balanced bellows valves

guarantees fail-safe operation in the event of bellows failure.

#### • Guiding surface:

The material selection for guiding components, along with a self-aligning disc and spindle pivot point, ensures correct alignment and prevents galling of guiding surfaces, as required by relevant codes.

### Seat leakage integrity:

The choice of nozzle and disc materials, coupled with superior lapping techniques, ensures seat tightness that exceeds the standards required by relevant codes.

### Adjustable blowdown:

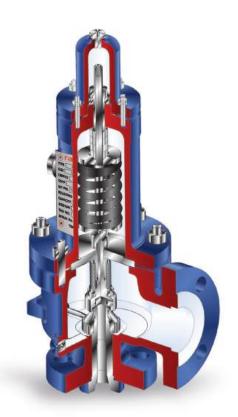
The valve reseating pressure (blowdown) can be easily adjusted to meet specific performance requirements.

### Nozzle design:

The method and location of nozzle attachment to the body prevent the transmission of pipe stresses to the nozzle/disc mating surface.

### ■ API 526 dimensions:

Standardized dimensions allow for confident and precise pipework layout planning.







## **a2** Series

### a2 Series: ASME Sec.I

a2 series is a full-nozzle type safety valve designed according to the ASME Sec. I standard, specifically for saturated and superheated steam service. It is ideal for applications such as drums, superheater outlets, reheater inlets and outlets, and economizer systems.

More details are listed in below table:

Valve Size (in)	Inlet	1	1-1/2	1-1/2	2	2	2-1/2	3	3	4	6	6	8
	outlet	2	2	3	3	4	4	4	6	6	8	10	10
Set Pressure Range	1 To 413	bar											
Max. Temperature	1000 °F (	000 °F (538 °C)											
Orifice	0.307 to	0.307 to 11.045 in <sup>2</sup>											
Pressure Class Range	ANSI Clo	ANSI Class 150 Up to 2500											
Codes	ASME Sec. I and Sec. VIII												
End Connection	RF, RTJ, Special												
Body Material	A216 WCB, A217 WC6 and etc.												
Disk and Nozzle Material	Stainless	tainless Steel 17/4 PH, Stainless Steel 316/316L, Stainless Steel 316/316L+Stell. and etc.											
Spring Material	Carbon s	Carbon steel, Stainless Steel, High Temp. Alloy and etc.											
Accessories	Test aga.	Plain Lev	er, Packed	Lever. Bo	ted Cap	and Weat	ther hood						





### Lighter and more compact construction:

Continuous design improvements have led to smaller and lighter valves, addressing current industry needs for space and weight savings.

### Simplified maintenance and service:

Re-engineering has reduced the number of parts, making maintenance simpler and more cost-effective.

### • High performance springs:

The safety relief valve springs are specifically engineered to ensure set-point repeatability.

### Nozzle design:

The method and location of nozzle attachment to the valve body prevent the transmission of pipe stresses to the nozzle/disc mating surface.

### ■ Two-Ring Design:

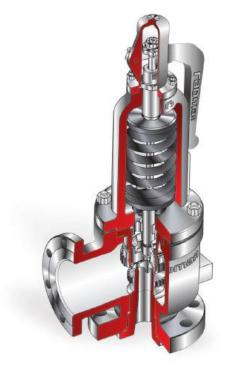
An adjustable two-ring design provides precise blowdown control. Blowdown can be conveniently adjusted while the valve remains installed in the system.

### ■ Shut Tight:

The a2 Series valves feature a design that ensures a tight shut-off. Years of application engineering have resulted in a recessed design for pressure and temperature equalization, ensuring a flat, tight seal capable of containing system pressure at 93% of the valve's set pressure.

### ■ Precise Popping Point:

The disc centering through a low-friction guide ensures that RADMAN's a2 Series safety valves open at the set pressure with precision, even after repeated cycling.







## **M** Series

m series is a high-efficiency pilot-operated safety valve with a unique full and semi-nozzle design, meeting dimensions according to API 526. Both pop action and modulating pilots are available for liquid and gas applications.

### **RADMAN** Pilot Operated Valves Types:

- Pop Action: This type controls the main valve rapidly, being either fully open or fully closed, and is specifically designed for gas applications.
- Modulating: In this type, the main valve opens in a controlled manner. The overpressure is continuously monitored, and the opening of the main valve is proportional to the overpressure.

More details are listed in below table:

Valve Size (in)	Inlet	1	1-1/2	1-1/2	2	3	3	4	6	6	8
valve Size (III)	outlet	2	2	3	3	4	6	6	8	10	10
Temperature range	-267 to 2	60 °C									
Orifice	D to T	o to T									
Pressure Class Range	Up to 250	Up to 2500 x 600									
Variety Type	Pilot-Operated Pop action, Pilot-Operated-Modulating										
End Connection	RF, RTJ, Special										
Body Material		SA 216 Gr. WCB, SA 217 Gr. WC6, SA 351 Gr. CF8M, SA 315 Gr. CF8, SA 352 Gr. LCB Super Duplex, Inconel and Special									
Disk and Nozzle Material		Stainless Steel 410, Stainless Steel 17/4 PH, Stainless Steel 316/316L, Stainless Steel 304/304L Stainless Steel 304/304L+Stell., Stainless Steel 316/316L+Stell., Super Duplex, Inconel and Special									
Spring Material	Carbon st	Carbon steel, Stainless Steel 302, High Temp.Alloy, Inconel X-750 and etc.									
Accessories		Remote Sensor, Packed Lever, Back Flow Preventer, Cooling/Heating Cap, External Filter, Test Gag, Liquid Duty, Field Test Connector, Remote Unloader									



### Close system operating pressure:

Pilot-operated valves can accommodate system operating pressures much closer to the set pressure than standard spring-loaded safety relief valves. System pressures in the range of 95 to 98% of the set pressure are often manageable.

### ■ Tolerates high inlet pressure loss:

High inlet pressure losses caused by challenging inlet piping systems can be mitigated by remote sensing pilots, ensuring trouble-free operation.

### Close differential pressure setting:

Pop-action pilot-operated valves act quickly, with minimal delay between the pilot and the main valve opening pressures. Modulating valves inherently have a slight delay, typically around 2%, ensuring the pilot does not leak when the system pressure is close to the set pressure.

### Close blowdown and overpressure tolerance:

Pop-action safety valve pilots can be adjusted to achieve zero overpressure and blowdown, typically equal to 3% of the set pressure.

### Non flowing pilot:

Safeset Pilots are designed with a non-flowing configuration, eliminating the risk of freezing caused by pressure drops in the flowing medium. Additionally, since the medium remains static, dirt particles are not carried into the pilot, which helps extend its service life and ensures reliable, trouble-free operation.

### Integral pilot filter:

m series pilot-operated safety valves are equipped with integral filters for added reliability and efficiency.

### ■ Full lift capability:

Pilot-operated safety valves maintain full lift against high levels of back pressure. Unlike spring-loaded safety valves, which require either differential settings or balanced bellows, the M Series handles high back pressure efficiently.

#### Soft seat:

Both the M Series pilot and main valves feature soft seating to ensure optimal leak-tightness. Various materials are available for a broad range of applications. Maintenance is simplified due to reduced seat lapping requirements.

### Integral sensing:

M series pilots are equipped with integral sensing directly from the nozzle, providing a compact design and accurate pressure sensing from within the flow stream. For challenging inlet piping systems, remote sensing is recommended.

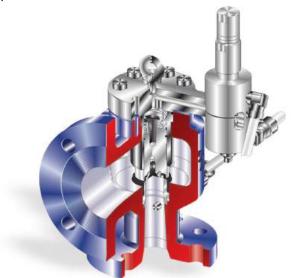
### Two-part piston-disc assembly:

This assembly reduces the guiding geometry, minimizing the size of components within the body bowl, which increases the effective discharge area through the valve outlet.

### Wide range of accessories:

The m Series is available with a variety of accessories, including:

- ► Backflow preventer
- ► External supply filter
- ► Remote pressure sensing
- ► Heating or cooling coils
- ► Field test connector
- ► Packed lift levers
- ► Ferrules (governor rings)
- ► Test gag









## r1 Series

r1 Series safety valves, have been designed with metal trim to provide optimum performance at higher pressures.

r1 Series safety valves are designed to relieve thermal expansion of process fluids in vessels and long lengths

of pipework, making them suitable for both gas and liquid applications. Their compact design facilitates simplified maintenance. When properly installed in suitable applications, these valves offer reliable performance and easy maintenance procedures.

### More details are listed in below table:

V. L. Ct. (C.)	Inlet	1/4	1/2	1/2	3/4	1				
Valve Size (in)	outlet	1/2	1/2	1	1	1				
Temperature range:	-267 to 538 C	18								
Orifice	0.03,0.07,0.11 and 0.169									
pressure range:	0.5 to 280 bar									
End Connection	NPT male/female Threaded, RF and special									
Body Material	SA 216 Gr. WCB, SA 217 Gr. Wc6, SA 351 Gr. CF8M, SA 351 Gr. CF3M, SA 352 Gr. LCB and Special									
Disk and Nozzle Material		Stainless Steel 410, Stainless Steel 17/4 PH, Stainless Steel 316/316L, Stainless Steel 304/304L, Stainless Steel 304/304L+Stell., Stainless								
Spring Material	Carbon steel, Stainless Steel 302, High Temp.Alloy, Inconel X-750 and etc.									
Accessories	Test Gag. Open L	ever, Packed Lever, Sof	t Seat. Bolted cap							



### Simplified maintenance:

For the flanged version, a slip-on inlet flange makes realignment into existing pipework easier after servicing.

### Interchangeable parts:

The valves are easily interchangeable between gas and liquid applications with the minimum number of parts, ensuring versatility.

#### ■ Safe and reliable:

Proven dependability ensures safe and reliable performance in a variety of applications.

### Material selection:

A wide range of materials is available, including non-ferrous options for low-temperature and

oxygen service, as well as exotic alloys tailored for the chemical and process industries.

### ■ High performance springs:

The safety relief valve springs are specifically designed to ensure set-point repeatability.

### Guiding surfaces:

The material selection for guiding components, along with self-aligning disc pivot points, ensures correct alignment and prevents galling of the guiding surfaces.

#### ■ Trim:

The r1 Series valves are designed with metal trim to provide optimal performance at higher pressures.







## r2 Series

r2 Series is a full lift, full-nozzle pressure safety valve featuring both fixed and adjustable blowdown rings. This series is designed for easy and simple maintenance, thanks to its new design, which consists of three main parts: a separate cap and bonnet. Both investment casting and forged materials are used

in the design, enhancing durability and performance. The r2 Series is engineered to cover a wider range of pressures compared to the r1 Series and is available with various accessories to meet diverse application needs.

### More details are listed in below table:

Makes Cias (fa)	Inlet	1/2	1/2	3/4	1	1/2	2			
Valve Size (in)	outlet	1/2	1	1	1	11/2	2			
Orifice	0.099,0.206 a	and 0.374 sq.in								
End Connection	RF, NPT male/female and special									
Body Material	A105, SS 316, SS 304, A250 Gr. LF2, super Duplex, Inconel and special									
Disk and Nozzle Material		Stainless Steel 410, Stainless Steel 17/4 PH, Stainless Steel 316L, Stainless Steel 304L, SS 304L + Stell., SS 316L + Stell., Super Duplex, Inconel, Special								
Spring Material	Carbon Steel	Carbon Steel, Stainless Steel 302, High Temp. Alloy, Inconel X-750 and Special								
Accessories	Packed Lever	, Soft Seat, Test	Sag Nace Comm	liance Heating I	acket and Specis	al .				



### • Simplified maintenance:

The separate components design make maintenance easier and more efficient.

### • Interchangeable parts:

Valves are easily interchangeable between gas and liquid applications with minimal component changes.

### • Wide pressure range:

The r2 series is specifically designed for use in high-pressure process conditions, with a capacity to handle pressures up to 350 bar

#### • Material selection:

A wide range of materials is available, including non-ferrous options for low-temperature and oxygen

service, as well as exotic alloys tailored for the chemical and process industries.

### • High performance springs:

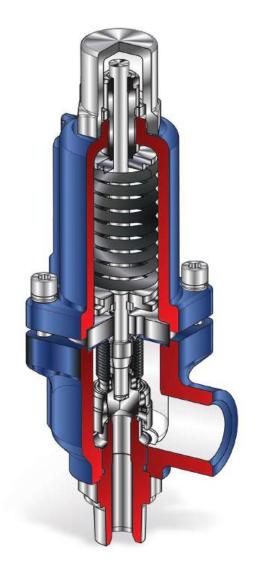
Safety relief valve springs are specially designed to guarantee set point repeatability.

### • Guiding surfaces:

The selection of materials for guiding components, along with self-aligning disc pivot points, ensures correct alignment and prevents galling of the guiding surfaces.

### • Trim:

The r2 Series features PMSS (Primary Metal Secondary Soft) trim, which provides optimal performance across various process conditions.









## d Series

d series Safety Relief Valves provide full overpressure protection for process systems at an affordable cost of ownership, thanks to their semi-nozzle design. The d Series is available in both conventional and balanced bellows types, with all standard accessories readily available. A variety of valve types, combined with an extensive selection of materials, allows for optimal solutions to meet diverse process conditions and medium requirements.

### More details are listed in below table:

Valve Size (in)	Inlet	1	1	1-1/4	1-1/2	2	2-1/2	3	4	
	outlet	2	1-1/2	2	2-1/2	3	4	5	6	
Set Pressure Range	0.35 to 40 l	oar								
Temperature Range	-40 to 150	0 to 150 Celsius								
Orifice	0.64, 1.02,	0.64, 1.02, 1.67, 2.48, 4.38, 6.67, 10.3								
Variety Type	Convention	Conventional and balanced bellows types								
End Connection	RF, FF	RF, FF								
Body Material	SA 216 Gr.	SA 216 Gr. WCB, SA 351 Gr.CF8M special								
Disk and Nozzle Material	SS 316L/ SS	SS 316L/ SS 316, SS304L/SS 304, special								
Spring Material	Carbon stee	Carbon steel, Stainless Steel 302, special								
Accessories	Open Bonn Bolted Cap,		Ring, Test Gas, (	Open Lever, Po	icked Lever, Sof	t Seat				



### • Wide range of service application:

The d Series is designed to function efficiently in air, gas, steam, and liquid services, offering versatility across different mediums.

### • Full lift maximum discharge capability:

The combination of top guiding, an unobstructed seat bore, and full lift capability ensures the highest possible discharge rate, providing maximum plant protection.

### • Correct alignment:

A freely pivoting disc ensures correct alignment with the nozzle, with top guiding further ensuring optimal performance.

### • Optional Connections:

The d Series valves can be equipped with optional flanged connections featuring unique face-to-face dimensions to match existing installations. Additionally, oversized or expanded outlet sizes are available to suit specific needs.

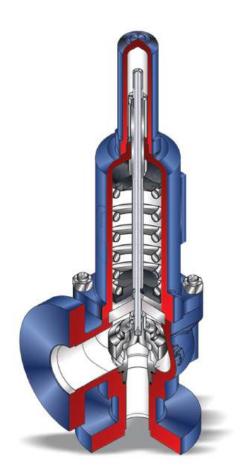
### • Precision lapped stainless steel trim:

Superior lapping techniques provide seat tightness that exceeds the standards required by relevant codes, ensuring reliable performance and leak-tight sealing.

### • Comprehensive range of accessories:

The d Series offers a wide variety of accessories, including:

- ► Bellows
- ► Heating jacket
- ► Plain lever
- ► Test gag
- ► Packed lever
- ► Bolted cap
- ► Screwed cap
- ► Soft seat







## **N** Series

n Series Safety relief valves are Radman's non-API safety valves, designed and manufactured in accordance with API 520 and ASME Sec. VIII. However, unlike the standard API 526, these valves are not limited by the orifice sizes, inlet and outlet sizes, or pressure ratings. The n Series are available in two body designs: cast and forged. Each body type is offered in both conventional and balanced bellows versions.





### • Material selection:

The body, bonnet, and all internal parts can be produced in specialized materials tailored to meet specific customer requirements.

### • High performance springs:

Safety relief valve springs are specially engineered to guarantee set-point repeatability, ensuring reliable performance over time.

### • Guiding surface:

The careful selection of materials for guiding components, combined with a self-aligning disc and spindle pivot point, ensures correct alignment and prevents galling of the guiding surfaces, as required by relevant codes.

### • Seat leakage integrity:

The choice of nozzle and disc materials, along

with superior lapping techniques, ensures seat tightness that exceeds the standards set by relevant codes, providing enhanced leak prevention.

### • Wide range of accessories:

The N Series offers a comprehensive range of accessories, including:

- ▶ Bellows
- ► Piston
- ► Heating jacket
- ► Plain lever
- ► Test gag
- ► Packed lever
- ► Bolted cap
- ► Screwed cap
- ► Soft seat







The control loops of processing plants are designed to maintain a process variable (e.g., pressure, flow, level, temperature) within the required operating range to ensure the production of a quality end product. The most common final control element in process control industries is the control valve. The control valve adjusts the flow of fluids such as gas, steam, water, or chemical compounds to compensate for load disturbances and keep the regulated process variable as close as possible to the desired set point. The control valve is a critical component of the

control loop.

RADMAN possesses the detailed knowledge and cutting-edge technology required to produce high-quality control valves. The company has developed a range of product series tailored to provide the best control response, depending on the specific characteristics of different plants.

Our products provide vital risk protection across a wide variety of sectors, including oil and gas, petrochemical, chemical, water treatment, metallurgical, shipbuilding, and power generation industries.



### Industries Served



OIL AND GAS INDUSTRY

RADMAN has extensive experience in supplying engineered severe service valves for the oil and gas industry. Our valves are installed and operational in a broad spectrum of the oil and gas industry's most challenging applications.



**POWER GENERATION** 

RADMAN offers a comprehensive range of products designed for high-temperature and high-pressure drop severe service conditions, particularly in the power generation industry. A full range of high-pressure class valves with welding connections is available to meet the most demanding requirements.

### products

- Globe/Angle Type Control Valves: Designed for general service as well as severe applications involving high pressure drops, cavitation, or flashing services.
- Triple Offset Butterfly Valves: Engineered for high-pressure service, offering reliable performance in demanding conditions.
- Trunnion-Mounted Ball Valves: Suitable for both gas and liquid services, providing robust and efficient flow control.

### products

- ■Two-Way and Three-Way Control Valves: Available for general service and severe applications, actuated by pneumatic, electric, or electro-hydraulic actuators for flexible operation.
- Steam Conditioning Valves and Desuperheaters: Specialized for steam control, providing efficient temperature regulation in high-temperature steam systems.

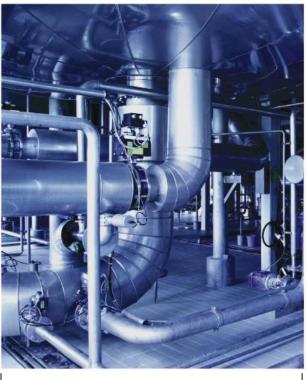


### Industries Served



CHEMICAL PROCESSING

RADMAN offers a wide range of valves designed for long service life in corrosive and abrasive applications within chemical processing. These valves are made from advanced materials such as titanium, Hastelloy, Monel, and other specialized alloys. We provide custom solutions with special materials for corrosive chemical control services. Additionally, RADMAN offers bellows seal valves and specially designed ISO 15848–1 Class A sealing for toxic service applications, ensuring safety and reliability.



**GENERAL INDUSTRIES** 

RADMAN's compact and modular design allows for quick delivery and superior cost-effectiveness. We also offer a vast range of automation products to enhance system performance. RADMAN offers high flow capacity with smaller and more cost effective size of valves.

### products

- Control Valves with Higher Rangeability Trims:

  Designed with special materials, cryogenic capabilities, and bellows seals for demanding applications.
- High-Performance Triple Offset Butterfly Valves: Engineered for reliable performance in high-pressure and critical service conditions.
- Quarter Turn Control and On/Off Valves: Ideal for precise flow control and reliable shut-off in various industrial processes.

### products

- Compact Control Valves for General Service: Offering efficient performance in general service applications with a space–saving design.
- High-Performance Triple Offset Butterfly Valves: Providing superior flow control in high-pressure and challenging service conditions.
- Quarter Turn Control and On/Off Valves: Offering reliable and efficient flow control for a wide range of industrial uses.



	Valve tape	Feature	Size	Max Press. Rating
1	Globe Valves	Precise control / Severe service	1/2" - 36"	ANSI 150 ~ 2500
2	Angle Valves	Viscosity, Resistance	3/4" - 24"	ANSI 150 ~ 2500
3	3-Way Globe Valves	Mixing & Diverting	3/4" - 16"	ANSI 150 ~ 600
4	Pressure Regulators	Direct / Pilot	1" - 16"	ANSI 150 ~ 2500
5	Ball Valves	Soft / Metal Seat	1/2"- 24"	ANSI 150 ~ 2500
6	V-notch Ball Valves	High Rangeability	1" - 16"	ANSI 150 ~ 600
7	Butterfly Vales	High-performance / Triple Offset	2" - 100"	ANSI 150 ~ 1500
8	Teflon Blocked Valves	Anti-corrosion	3/4" - 2"	ANSI 150
9	Discharge Valves	Tank Bottom	1" - 10"	ANSI 150 ~ 300
10	Desuperheaters	Venturi / Mechanical Nozzle / Variable Nozzle	All	All



RADMAN® Globe Valves are the ideal solution for throttling service in oil, gas, petrochemical, and other industrial applications. They deliver optimal performance across a wide range of services—from general–service fluids to corrosive, cryogenic, and high-temperature fluids—under severe operating conditions involving erosion, corrosion, and high pressure drops.

### Performance

- High Cv-to-body size ratio allows for smaller, more cost-effective valve selection.
- High Cv-to-weight ratio for improved efficiency.
- Optimized, streamlined flow.
- Excellent flow control rangeability for precise modulation.

### Design Flexibility

- Modular construction for easy customization and adaptability.
- All trim components are top-entry and fully replaceable for simplified maintenance.
- A wide range of cavitation and noise control options available.

- Inherently characterized trims available in equal percentage, linear, quick opening, and modified parabolic profiles.
- Multiple trim sizes offered to meet various process needs.
- Full range of body and trim material options
- Full range of bonnet and packing designs to suit various process fluid characteristics.





Size 3/

3/4" - 24"

Max Press. Rating

ANSI 150 ~ 2500

## Angle Valves

RADMAN® angle valves are widely accepted for controlling fluids of high differential pressure, slurry, high viscosity, or adhesive. These valves are designed with features that include low flow resistance, anti-wear properties, and ease of maintenance and inspection—making them an excellent choice for demanding service conditions.

### Performance Features

- High Cv-to-body size ratio enables efficient flow in a compact form.
- High Cv-to-valve weight ratio offers enhanced performance with reduced footprint.
- Excellent flow control rangeability ensures precise modulation.

### Design Flexibility

- Modular construction is available with a variety of end connections and body styles.
- All trim components are top-entry and easily removable for simplified maintenance.
- Wide range of noise control options available.
- Characterized trims offered in equal percentage, linear, quick opening, and modified parabolic profiles.

- Multiple trim sizes to meet diverse application needs.
- Full range of body and trim materials to ensure compatibility with aggressive or sensitive media.
- Comprehensive selection of bonnet and packing designs to accommodate various temperatures and fluid characteristics.









Size

3/4" - 16"

Max Press. Rating

ANSI 150 ~ 600

### Mixing/Divert 3-way Valves

RADMAN® Three-Way Control Valves are designed to regulate fluid flow in three-directional piping systems, making them suitable for both mixing and diverting services. Engineered for versatility and performance, these valves ensure reliable operation across a wide range of process applications.

### Performance Features

- High Cv-to-body size ratio for efficient flow capacity in a compact form.
- High Cv-to-valve weight ratio for optimized performance and space efficiency.
- Excellent flow control rangeability for precise modulation in both mixing and diverting duties.

### Design Flexibility

- Modular construction available with various end connections and body styles.
- All trim components are top-entry and fully removable for easy servicing and maintenance.
- A wide selection of noise control options for quieter operation.
- Characterized trims available in equal percentage, linear, quick opening, and modified parabolic profiles to suit specific process

requirements.

- Multiple trim sizes offered for diverse application needs.
- Full range of body and trim materials available for compatibility with various fluids.
- Fully rationalized and interchangeable internal components for efficient spare part management.
- Wide selection of bonnet and packing designs suitable for a range of temperatures and fluid characteristics.



### Self-Acting Pressure Regulator Valves

RADMAN® Pressure Regulating Valves are engineered to provide precise pressure control for liquids and gases across a wide range of industrial applications. These self-acting regulators operate without external power, making them reliable, efficient, and easy to maintain.

### Performance Features

- Available in direct-operated and pilot-operated models.
- Easy pressure setting and fast response for efficient control.
- Designed for low maintenance costs and long service life.

### Design Flexibility

- Broad spring selection range to accommodate different pressure settings.
- Various models available to suit both liquid and gas applications.

### Specification

- Pressure Reducing Type (P2 Control)
- Back Pressure / Relief Type (P1 Control)
- Tank Blanketing Type for inert gas control and pressure stabilization in storage vessels.





Size 1/2"- 24" Max Press. Rating ANSI 150 ~ 2500

### **Ball Valves**

RADMAN® Ball Valves are engineered for a wide range of process industry applications, delivering reliable performance in both pressure and vacuum service environments. Designed in compliance with API standards, these valves incorporate several advanced features for enhanced durability, safety, and ease of maintenance.

### Standard Specifications

- Flanged end, 2-piece split body construction (top entry design available)
- Field serviceable with options for wrench, gear, or actuator mounting
- Test Pressure: As per API 6D standard
- Face-to-Face Dimensions: In accordance with API
   6D

### **End Connections**

- Flanged connections conforming to ANSI B16.5
- Compliant with multiple international standards for pressure, temperature ratings, and dimensions including:
- ► ANSI
- ► API
- ► BS
- ► DIN
- ► MSS





- Smooth 90° rotary control for reliable modulation
- Excellent rangeability for accurate flow control
- Easy maintenance with top entry access
- Compatible with ISO standard mounting

### Design Flexibility

- Direct actuator mounting capability for enhanced automation
- Suitable for all fluid types, including challenging media
- Wide selection of body and vane materials, including options with hard-facing for abrasion resistance
- Changeable seat design for easy servicing or adaptation
- Available with equal percentage or linear flow characteristics
- Self-cleaning action ensures tight shut-off and extended performance life
- Double-eccentric disc options available for advanced control requirements







## **Butterfly Valves**

RADMAN® Butterfly Valves are engineered for versatile use across a wide range of process industries. Known for their simple structure and cost-effectiveness, these high-performance valves are ideal for on-off isolation and throttling control, especially in high-flow, low-pressure applications.

### Features and Benefits

- High Cv-to-valve weight ratio compared to conventional control valves
- Throttling control with 60° rotation; on-off control with 90° rotation
- Excellent rangeability for precise flow modulation

### Design Flexibility

- Triple-offset design for high-performance sealing
- Seat options: Metal, Laminated, or Soft seat
- Actuator mounting flange dimensions comply with ISO 5211
- Swing-through and tight shut-off trim options available

- Compatible with various flange types
- Full range of bonnet and packing designs to suit different temperatures and fluids
- Fire-safe sealing design with both soft and metal seal rings for enhanced safety
- Wide selection of body and vane materials available, with hard-facing options for abrasive services







### Teflon Block Valves

RADMAN® Teflon block valves are specifically designed for chemical injection, acid, and alkaline fluid services. With an ultra-compact form factor and a robust multi-spring diaphragm actuator, these valves offer outstanding corrosion resistance and reliable performance in highly aggressive environments.

### Performance Features

- Integral body construction: All wetted parts are made of PTFE, offering superior resistance to corrosive fluids such as acids and alkalis
- Durable stainless steel outer casing enhances structural integrity and extends service life
- Compact and space-saving design ideal for tight installations
- Wide Cv range enables excellent flow control and high precision in critical dosing or injection applications





Tank Bottom Flush Valves

RADMAN® Tank bottom flush valves are designed for quick and efficient draining of tanks, with or without steam jackets. Their streamlined construction ensures no dead zones, making them ideal for clean-in-place (CIP) applications in hygienic or corrosive environments.

### Performance Features

- Fast and efficient draining of tanks
- No pockets or dead zones within the valve body, ensuring clean discharge and reducing contamination risk

### Design Flexibility

Valve ench 2

- Available in a wide range of materials: stainless steel, nickel alloys, carbon steel, and more
- Can be fabricated with steam jackets for temperature-sensitive applications
- Optional cleaning connection and plug for enhanced maintenance and hygiene
- Supplied with a quick-opening disc as standard; equal percentage or linear flow characteristics available as options

### Design Integrity

- Valve sizing based on outlet flange dimensions
- Outlet connection positioned approximately 45° to the centerline of the valve for optimal flow
- Features a large stem diameter for added strength and reliability in operation





### Desuperheaters

RADMAN® Desuperheaters are engineered to deliver precise and efficient steam temperature control, optimizing energy usage and reducing overall operating costs. Designed for flexibility and long-term performance, RADMAN desuperheaters help maximize process efficiency in a wide range of steam applications.

### Performance & Maintenance Features

- Available in multiple configurations:
- ► Venturi style
- ► Fixed nozzle type
- ► Variable multiple nozzle type
- ► Steam conditioning type
- Compact design for easy installation and integration
- Provides excellent spray quality and fine atomization
- Wide control range to accommodate varying load conditions
- Durable construction ensures extended service life and reduced maintenance

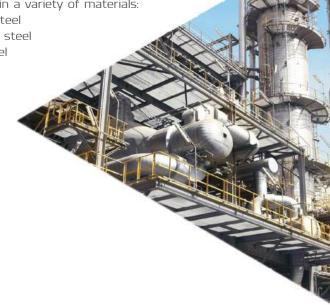
### Design Flexibility

 Custom-engineered to meet specific process requirements

(no flange standard limitations on steam or water side)

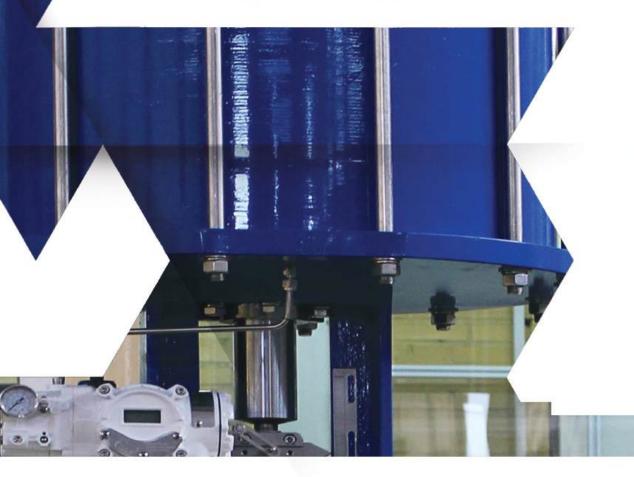


- ► Carbon steel
- ► Stainless steel
- ► Alloy steel





# O4. Actuators & Accessories





## Diaphragm Actuators

RADMAN® Diaphragm Actuators are engineered for precise control of fluid flow, level, and pressure across a wide range of process systems. Designed for optimal performance, reliability, and durability, the 3600 series actuators are built to meet the demands of fine process control in various industrial applications.

### Specifications & Features:

- Maximum Strength & Reliable Performance: Built for long-lasting, dependable operation in demanding environments.
- Compact Design: Space-efficient for seamless

integration into existing systems.

• Multiple Spring Design: Offers flexibility and adaptability to various operational needs.



## **Linear Piston Actuators**

RADMAN® Linear Piston Actuators are designed for high thrust and long stroke applications, offering compact solutions for a wide range of process control needs. They are designed to operate any linear valve or mechanism and are available in pneumatic, hydraulic, double-acting and spring-return configurations. These actuators provide excellent reliability and ease of maintenance, making them ideal for demanding industrial systems.

#### Specifications

- Long Stroke: Capable of up to 600mm maximum stroke for versatile application.
- High Thrust: Thrust outputs up to 289,134 N (65,000 lbf)
- Good Reliability: Ensures dependable performance over extended periods.
- Scragged springs to ensure optimum and stable performance
- Low Hysteresis: Provides precise control with minimal lag.

- Light Weight: Compact design for easy installation and integration.
- Easy Maintenance: Designed for simple service and reduced downtime.
- Pedestal and close-coupled valve mounting options
- Double Acting & Spring Return: Flexible configuration options to meet specific operational needs.
- Wide Selection of Accessories: Tailored options to suit various system requirements.
- 3rd party approved for use in SIL3 certified systems



## Cylinder Actuators

RADMAN® Cylinder Actuators are specifically designed to operate rotary valves such as ball valves, butterfly valves, and plug valves, providing precise control for both throttling and on-off service applications. These actuators are equipped with a unique canted scotch-yoke mechanism for enhanced performance and durability.

## **Specifications**

- Ideal High Torque: Delivers reliable and powerful torque to handle demanding valve control.
- Light Weight: Compact and efficient design for easy installation and integration.
- Double Acting & Spring Return: Flexible operation modes to meet various control requirements.
- Wide Selection of Optional Accessories: Customizable options to suit different system configurations.

- Low Hysteresis: Provides smooth, precise control with minimal lag.
- Mounting Flange Dimensions: Conforms to ISO
   5211 for compatibility with most valve types.
- Solenoid Valve Pad: Meets NAMUR standards for seamless integration with solenoid valves.





## Rack & Pinion Type Actuators

RADMAN® Rack & Pinion Actuators are available in both Spring-Return and Double acting types that can satisfy any need, characterized by a linear and constant torque curve for double acting actuators, linear decreasing for simple effects. These actuators use a Rack & Pinon kinetics to transform a rectilinear motion generated by pistons into a shaft rotational motion 0°-90°. The meticulous selection of materials and their careful treatment are a guarantee of great reliability and high quality of operation. Double acting (DA) Rack & Pinon actuators have a double constant rectilinear torque curve, while Single spring Return (SR) Rack & Pinon actuators have a decreasing rectilinear torque curve.

#### **TECHNICAL FEATURES**

Torque from 10 Nm to 474 Nm.

- Mounting flange according to EN ISO 5211: F03 -F04 - F05 - F07 - F10 - F12.
- In accordance with EN 15714-3.
- In conformity with directive ATEX 2014/34/EU.
- Rotation angle: 100° (-5°, +95°).
- Double adjusting +5° and -5° for each end position (0° and 90°).
- Torque: directly proportional to the air supply (see table)
- The code numbers after the RK letters, always correspond to the torque in Nm by 5,6 bar air supply.

# Gas-over-Oil and Direct Gas Systems

RADMAN® Gas-over-Oil and Direct Gas Systems are commonly used for on/off valve control in gas transmission pipelines. These systems leverage the pipeline pressure to provide the necessary motive power for actuators that operate both rotary and linear valves.

#### Key Features and Benefits:

- Compact and Highly Reliable: Manifolded control systems offer a streamlined and dependable solution for valve control.
- Modular Control System Manifolds: Designed for easy and cost-effective on-site functionality changes or servicing, providing flexibility and convenience in maintenance.
- Fully Enclosed Controls: Equipped with lockable covers, these systems ensure excellent environmental protection and safeguard against unauthorized operation.
- Safety: PED or ASME approved gas-over-oil and power gas storage tanks ensure safe containment of power gas, adding an extra layer of security to the system.









## Electric Actuator

Electric actuators offer a zero-emission solution to your valve automation needs. With options suited for isolation valves and control valves, we offer actuation solutions designed for a range of valve sizes and duty cycles. Electric Actuators re available in multi-turn, part-turn, linear and lever configurations, Radman's comprehensive range of electric actuators are suitable for cost effective and reliable automation of virtually any valve size and type. Electric Actuators are available in two main types Modular and On-Off.

## Key Features and Benefits:

- Torque Outputs: Capable of delivering torque outputs up to 675,000 Nm (5,973,750 lb in), enabling powerful operation across different valve sizes and applications.
- Versatile Application: These systems are suitable for both hazardous and non-hazardous areas, ensuring safety in various environments.
- Modular Design: Provides flexibility in operation and allows for easy upgrades, adapting to future changes or needs.
- Wide Valve Compatibility: Can operate most valve types and mechanisms, making them a versatile choice for different pipeline control needs.

# Self-Contained Electro-Hydraulic Systems

RADMAN® Self-Contained Electro-Hydraulic Systems are engineered to provide on/off or positional control of both linear and rotary valves. These systems offer the low installation costs of electric actuators combined with the power and fail-safe capabilities that are traditionally associated with pneumatic or hydraulic systems.

- Low Power Requirements: Operates with a low power consumption of just 100 W, making it highly efficient and cost-effective.
- Eco-Friendly Design: Available in system designs that generate no carbon footprint during operation, contributing to environmentally responsible operations. Additionally, biodegradable fluids are available for use in certain designs, promoting sustainability.
- Fail-Safe and Reliable Operation: Fail-close and fail-last designs ensure safety and reliability even in the event of system failure.
- Partial Valve Stroke Testing: Includes a partial valve stroke testing function with a comprehensive diagnostics package, enabling the implementation of cost-effective preventive maintenance programs.
- Advanced Communication Protocols: Fully supports all common communication protocols, including HART and Foundation Fieldbus, enabling seamless integration with existing control systems.







## Accessories for Valve Systems

RADMAN® offers a comprehensive range of accessories designed to optimize valve performance and enhance system reliability across various industries.

## Volume Booster

The volume booster is essential for increasing the speed of pneumatic actuators and can be used in systems where rapid valve actuation is needed.

## Specifications and Features

• Flow Capacity (Cv):

Exhaust: 1.32, 2.08, 5.24Output: 1.19, 2.72, 4.91

• Material: Aluminum die-casting, Stainless steel

Connection Types: PT, NPT

## Lockup valve

Lockup valves are crucial for isolating the control signal and ensuring that valve operation stops once a certain pressure is reached.

#### Specifications and Features

- Types Available: Mechanical (SPDT & DPDT), Proximity,
- Explosion Proof: ExialICT6, ExdIICT6/T5
- Enclosure: IP67 (dust and waterproof)

## In-line Pipeline Strainers

These strainers are designed to protect downstream equipment in gas pipelines by filtering out debris such as scale, rust, and jointing compound.

### Specifications:

- Gap Size: 0.25 to 3mm
- Suitable for Pipelines: Up to 36 inches
- Features:

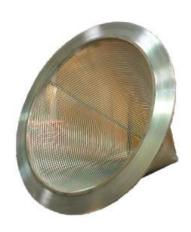
etc.

- ► Low blocking/blinding
- ► Low pressure drops
- ► High strength
- ► Simple installation
- ► Reduced maintenance
- ► Enhanced equipment protection

Pipeline strainers ensure the long-term functionality of critical equipment by protecting it from pipeline debris.









## Air Filter Regulator

The air filter regulator is essential for controlling the supply of compressed air to the actuator and filter out contaminants.

### Available specifications

- Material: Aluminum die-casting, Stainless steel
- $\bullet$  High Ambient Temperature Option: Available for up to 100°C
- Connection Types: PT, NPT
- Brands: RADMAN® (MR series) or other global brands



## Solenoid Valve

Solenoid valves control the flow of gases and liquids in response to electrical signals, widely used in process automation.

### Specifications and Features

- Types: 3-way, 4-way
- Power Source: AC 110V, AC 220V, DC 240V
- Connection Types: PT, NPT
- Pressure: 0~0.4 MPa, 00.4 MPa,0~0.4 MPa, 00.7 MPa, 0.1~1 MPa
- Explosion Proof Type: ExialICT6, ExdIICT6/T5
- Features: Essential for controlling fluid flow in automated systems.



Positioners are vital for ensuring that valves reach and maintain the correct position in response to control signals, enabling precise flow control.

## Available specifications

- Types: E/P, P/P, Smart
- Actuator Type: Linear, Rotary
- Communication: 4-20mA, HART, Fieldbus, Profibus
- Explosion Proof Type: ExialICT6, ExdIICT6/T5
- Enclosure: IP66
- Material: Aluminum die-casting, Stainless steel
- Brands: RADMAN® (MH series) or other global brands











## The TVC Positioners

- Designed to provide precise positional control for rotary or linear, hydraulically or pneumatically actuated valve systems.
- Includes a comprehensive diagnostics package to enable cost-effective preventive maintenance programs.
- Supports all common communication protocols.
- Operates with low power consumption—normal operation requires less than 2W, excluding solenoids.
- Features a large graphical LCD for detailed status and data display.
- Equipped with selectable solenoid drive sensing for fail-safe functionality.
- Offers selectable default operation modes in case of command or feedback signal interruptions.
- Includes a Zone 2 / 1 infrared communication interface, utilizing an Exia-certified keypad.



- Partial Valve Stroke Testing: Provides manual and automatic testing of pneumatic or hydraulic rotary or linear actuated valve systems.
- Documentation: Allows for automatic documentation of test results via a position transmitter.
- Diagnostics: Full diagnostics package.
- Safety Functions: Ensures emergency commands override active testing.
- Communication: Supports all common communication protocols.
- ATEX Certified: Suitable for use in hazardous areas.
   The PST Controller ensures the safety and reliability of valve systems through partial stroke testing, which is critical for valve health monitoring.







## Severe Service Solutions

## Comprehensive portfolio of severe service solution

RADMAN® offers an extensive range of solutions designed specifically for severe service conditions where challenges such as cavitation, flashing, and noise are prevalent.

#### Key Features:

- Cavitation & Flashing Prediction: RADMAN® utilizes advanced technologies to predict cavitation and flashing in valve systems to optimize performance.
- Noise Control: Specialized designs to minimize the

impact of noise generated by fluid flow.

- Customized Solutions: RADMAN® tailors valve designs based on the specific severe service conditions of each application.
- Verified Designs: Continuous testing on automated pilot plants ensures product accuracy for flow capacity, pressure loss, rangeability, and valve performance.

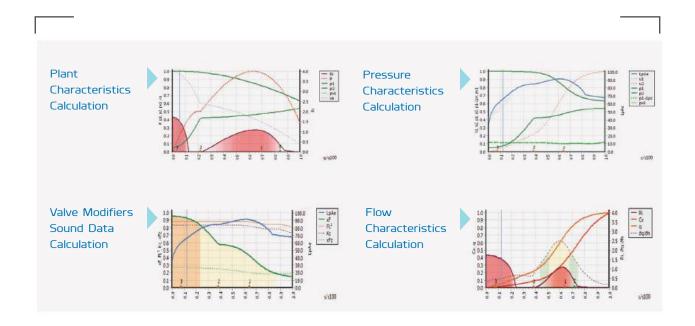
RADMAN®'s ability to predict and verify design performance ensures that the company's products are optimal for the most challenging environments.



## Accurate prediction & designing technologies

RADMAN® utilizes cutting edge technologies for prediction of cavitation, flashing, and noise in severe service conditions.

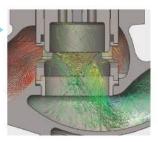
By having various types of multi stage trims, RADMAN can offer most optimized solutions for each service condition.



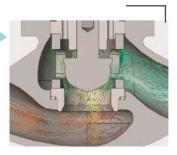


## Standard Service Trims

balanced contoured cage cage balanced (C-B TYPE)



Unbalanced Contoured Single Port (S-P TYPE)



## Severe Service Trims











H Series Trim (Anti-Cavitation)

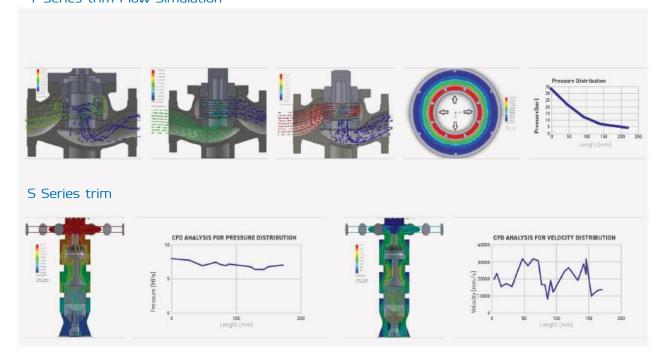
M Series Trim

T Series Trim

C Series Trim

S Series Trim

## T Series trim Flow Simulation





## Verified design based on empirical evidence

RADMAN® has been carrying out continuous tests on its several fully automated pilot plants for valve and self-acting pressure regulators to verify flow capacity, flow characteristic, rangeabilities, pressure

loss, flow coefficients, valve performance and so on.

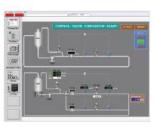
Numerous verification processes between
computerized prediction and collected empirical data
have been made for superior accuracy of all products.

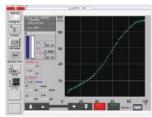
## Pilot Plant for Control Valves



## Characteristics

- Schneider Electric DCS System
- Flow Simulation
- Actual Cv<Max.> test
- Inherent Flow Characteristic
- Curve test
- Pressure Loss test
- Valve Travel & Actual Cv test







## Pilot Plant for Pressure Regulator



## | Characteristics

- Schneider Electric DCS System
- Flow Simulation
- Actual Cv<Max.> test
- Inherent Flow Characteristic
- Curve test
- Droop & Lock up test











## Overview

Although valve actuators form a significant part of any valve automation package, at RADMAN® we understand that they are fully dependent on their associated control systems for reliable and effective valve control. By building close working relationships with our customers, we gain a deep understanding of their operational requirements and concerns. This allows us to provide robust and reliable bespoke control systems that meet their needs, utilizing the latest proven and cost-effective technologies.

We offer control systems to meet a wide range of operational requirements, including:

- On/off production and process control
- Emergency Shutdown (ESD)
- ESD risers
- High Integrity Process Protection (HIPPS)
- Partial valve stroke testing (PVST)
- Positional and proportional control
- Linebreak detection



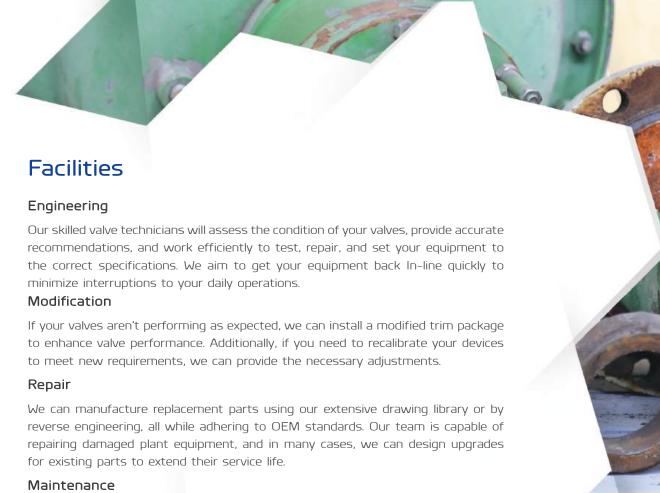






We offer offsite and onsite engineering, modification, calibration, repair, maintenance, and testing for Safety Relief Valves, Control Valves, and Actuators. While anyone can sell you a new valve, it takes a dedicated service organization to tell you when a replacement isn't necessary. Repairing a valve to like-new condition costs roughly half the price of

purchasing a new one. Let us help you save money—before you purchase replacement valves, give us a call. Our special process certificate allows us to perform machining on valve parts, enabling us to rework slightly damaged components while staying within Original Equipment Manufacturer (OEM) specifications.



Whether working independently or in collaboration with your reliability engineers, we can establish a comprehensive valve database for your plant. You can rely on our expertise to develop a recommended maintenance policy tailored to your needs.

#### Test

Our certified testing capabilities meet customer requirements for all types of valves and actuators. We also have the ability to produce computerized test reports, ensuring accurate documentation of valve performance during testing.

#### Features and Benefits:

- Commissioning: Startup assistance to ensure equipment performs to expected specifications.
- Technical Inspection: Providing detailed reports on the mechanical condition of equipment.
- Valve Repair: Restoring valves to "like-new" condition.
- Shutdown Planning: Helping reduce outage or turnaround times.
- Onsite Repairs: Bringing resources and equipment directly to the site for repairs.
- Troubleshooting: Identifying root causes and delivering effective solutions.
- Spare Parts: Manufacturing parts that meet the highest standards and specifications.
- Predictive Maintenance: Offering tools and expertise to monitor asset health and identify potential issues in advance.
- Site Surveys: Collecting data across your plant for effective asset management.























#### Test and repair equipment

RADMAN's valve shop is an accredited facility, fully equipped with the latest European test and repair equipment, including:

- Digital Full Automated Safety Relief Valve Test Bench
- Digital Tank Protection and Vacuum Breathing Valve Test Unit
- Full Automated Lapping Machine with pneumatic load device and cooling system for the working wheel
- Full Automated Polishing Machine with pneumatic load device and cooling system for the working wheel
- Portable Driven Grinding and Lapping Machine for safety valves and globe valves
- Valve Doctor Inspection Sets with flexible fixtures for digital cameras
- Manual Lapping and Polishing Device with a complete range of agent materials
- CNC Milling and Turning Machines (both vertical and horizontal) alongside all necessary manual equipment

#### Safety Relief Valve Repair:

RADMAN's digital, fully automated safety relief valve test bench, equipped with the CRS system (for generating required computer test reports), lift measuring unit, and acoustic leakage measuring unit, enables our OEM-trained relief valve technicians to test, calibrate, and adjust the set pressure, seat tightness, and full lift of all types of safety and breather valves. With our range of test units and high-pressure compressors, we can repair and test pilot-operated and spring-loaded safety relief valves from ½" to 12" for pressures up to 700 barg in gas and liquid services, along with tank protection and breathing valves ranging from ½" to 20"

### Actuator Repair:

Trained actuator technicians carry out the repair and testing operations of different makes and types of actuators on electric, hydraulic, pneumatic and gas over oil type under the license of a well know European manufacturers.

The simulation and Lifecycle testing of actuators is a Isocarried out in a well-equipped cell with electrical panels.

#### Control Valve Repair:

RADMAN's control valve repair department is equipped with the necessary tools, such as control valve test benches, loop communicators, and a high-pressure compressor, which provides gas and liquid pressure up to 700 bar. We calibrate and conduct hydrostatic and functional tests for control valves up to 36". With these advanced test units, our OEM-trained technicians can perform high-pressure testing, stroking of the valve and its controls, seat leakage classification, and total performance testing on control valves in line with international standards.

#### Actuator Repair:

Our trained actuator technicians specialize in repairing and testing a variety of actuator types, including electric, hydraulic, pneumatic, and gas-over-oil actuators, under the license of well-known European manufacturers. We also carry out actuator simulation and lifecycle testing in a well-equipped cell with electrical panels.





## **AFTER SALES SERVICE**

# Complete range of products for fluid control system

RADMAN® offers comprehensive life cycle management support for all products, including a full range of training, engineering, and field services. Through the use of modular designs and quick-change trim packages, we ensure hundreds of standardized modular parts are readily available for quick service, helping to reduce the total cost of ownership.



## Moudular Design

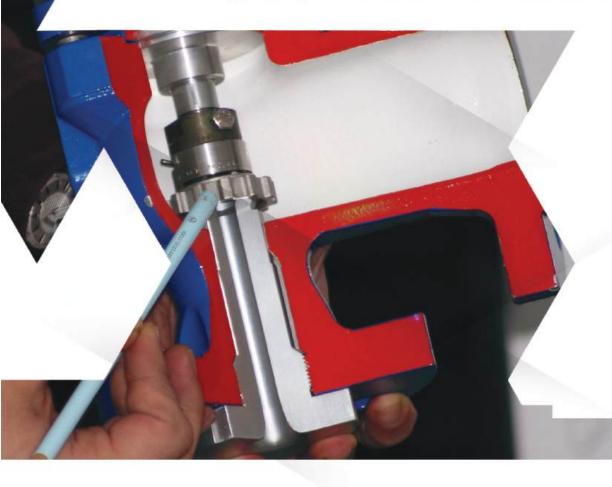


## Quick Change Trim Package











## Valve Training Courses for Valve Professionals

RADMAN's training center was established to meet the growing demand for specialist training in the oil, gas, and energy sectors. The center focuses on assessing and verifying skills, enhancing performance, and ensuring a safe workforce. With extensive field experience,

RADMAN is familiar with the challenges faced by customers using safety and control valves in their own applications.

We offer training in three levels based on job roles and experience:

#### For Valve Users

Basic introductory training for those with limited valve knowledge who want to understand the broader application of valves. This is ideal for those new to process control, valve repairers, and supervisory personnel.

## For Maintenance Technicians

Multidisciplinary training for maintenance/service engineers with basic valve knowledge. The course focuses on recognizing and solving problems to restore performance and integrity to reconditioned valves, ultimately enhancing process reliability and reducing downtime

## For Valve Engineers

Advanced training for supervisory personnel or process engineers. This course is intended for individuals who already have a basic knowledge of valve technology or have completed the 'user' qualification.

Alternatively, customers can define a tailored training program based on their specific needs. If standard training courses do not meet those requirements, we can create a bespoke plan to reflect unique topics and needs.

Additionally, when purchasing RADMAN Process Development Co. p.j.s. safety and control valves, our experts can come to your facility to train your workshop staff. This training is conducted while working on a customer job, providing live, hands-on training for your engineers.





## Certificates

RADMAN's strengths lie in its ability to respond efficiently to product customization requests, the expertise and experience of its staff, the high quality of both its organization and products, and, most importantly, its commitment to meeting every requirement of its customers.

Since its foundation, RADMAN has consistently strived to meet integrated management system (IMS) standards. As part of this effort, the company has earned certifications for the following:

- ISO 9001: 2015
- ISO/TS 29001: 2010
- nBS OHSAS 18001: 2007
- ISO 14001: 2015
- ISO 10004: 2012

• ISO 10002: 2004

These certifications cover the design, manufacturing, testing, and maintenance of all types of control valves, actuators, and safety valves.

In addition to management system certifications, RADMAN has obtained product certifications and type test approvals in accordance with applicable international codes and standards. Our products have been assessed by MOODY International and certified in compliance with the following:

- ASME Sec. VIII
- ASME Sec. I
- API 520
- API 6D
- PED 2014/68/EU













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