



RASTA GROUP
Industrial Valve Mfg & Dev. Co (PJSC)

2025-2026

DANESH BONYAN



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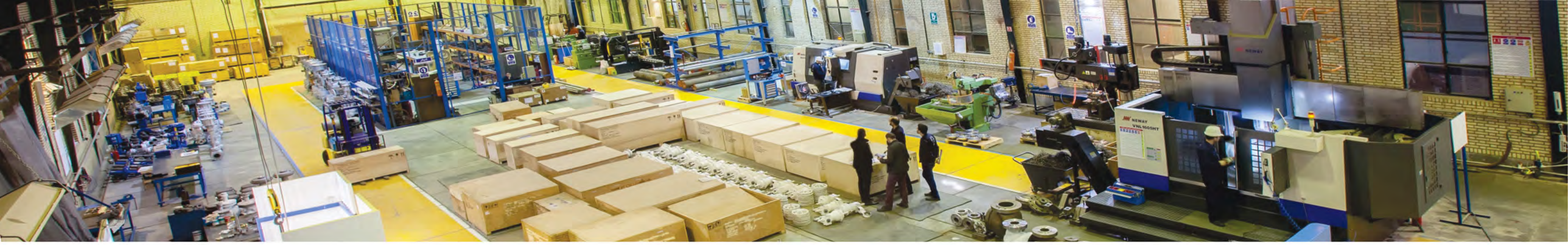
RASTA GROUP started as SEVERN GLOCON UK exclusive representative for supplying all types of control valves relating to the Power, Oil, Gas and Petrochemical Industries. This representation is still valid.

• 2010 - 2012

RASTA GROUP Qeshm LLC started to assemble and test the equipments according to international standards and provide maintenance and repair services, and calibration in its plant in Tula Ind. park, Qeshm Island.

• 2012 - Now

RASTA GROUP Industrial Valve started the design of Control Valves through the development of its own software and procedures , mobilization of qualified manpower, manufacturing, assembly and test the equipments according to international standards, maintenance and repair services, and calibration, in its new established factory in Hashtgerd Industrial City.





Omid Azimi
Chairman of Rasta Group
Industrial Valve Mfg & Dev. Co.

Our main goal and mission is to provide **Valid and Reliable Solutions** to the clients and end-users, moving toward the ultimate national independency in design and manufacturing of industrial valves which are widely used throughout all industries, especially in Oil, Gas, Petrochemical and Power industries, as well as subsidiary services such as installation, monitoring, maintenance and repair services of such valves.

Relying upon our competitive advantages including the most up-to-date technical/scientific knowledge, complete and reliable equipment, technical support from well-known international companies of the industry and also our highly literate and experienced staff, our company follows a sustainable development and increase its share in local and Middle East markets. The main goal of Rasta Group is to reach the defined enterprise objectives and to provide the satisfaction of all stakeholders including the industries, share-holders, customers, suppliers and employees within the framework of the company's ethical beliefs. The company's values include customer's satisfaction, safety, innovation, reliability and occupational health, teamwork and continuous improvement of quality and commitment to preserving environment. The company regards its human resources as it's the most valuable asset and has made provisions to create a suitable working environment in order to optimize creativity, efficiency and effectiveness of all the staff. This is achieved by means of continuous and scheduled training and paying attention to motivational issues.

Our Mission



Rasta Group humbly appreciates being registered on the approved **vendor list** of the following companies:

- E.P. Ministry of Petroleum I.R. of Iran ..... (E.P. AVL)
- Manufacturing Support and Procurement Kala Naft Tehran ..... (NIOC)
- National Iranian South Oil Company ..... (NISOC)
- National Iranian Gas Company ..... (NIGC)
- National Iranian Oil Refining and Distribution Company ..... (NIORDC)
- National Petrochemical Company ..... (NPC)
- Pars Oil and Gas Company ..... (POGC)
- Iranian Central Oil Fields Company ..... (ICOFC)
- Iranian Offshore Oil Company ..... (IOOC)
- Iranian Oil Pipeline and Telecommunication Company ..... (IOPTC)
- Arvandan Oil and Gas Company ..... (AOGC)
- National Iranian Oil Engineering and Construction Company ..... (NIOEC)
- Petroleum Engineering and Development Company ..... (PEDEC)
- Persian Gulf Petrochemical Industrie Company ..... (PGPIC)
- Petrochemical Industries Development Management Company ..... (PIDMCO)
- Iran Power Plant Projects Management Company ..... (MAPNA GROUP)
- Mapna Boiler and Equipment Engineering and Manufacturing Company ..... (MAPNA BOILER)
- Mapna Turbine Engineering Manufacturing CO. ..... (MAPNA TUGA)
- Oil Industries Engineering and Construction ..... (OIEC)
- Esfahan's Mobarake Steel Company ..... (MSC)
- Khouzestan Steel Company ..... (KSC)
- National Iranian Copper Industries Co. ..... (NICICO)
- Hormozgan Steel Co. ..... (HOSCO)

Approval





























Certification, Awards & Registration



Products Features

- High flow capacity and rangeability.
- Large variety of trim design.
- Top entry for ease of inspection and maintenance.
- Unbalanced or balanced plug design options to achieve specified leakage requirements.
- Wide selection of actuators to meet most system requirements.

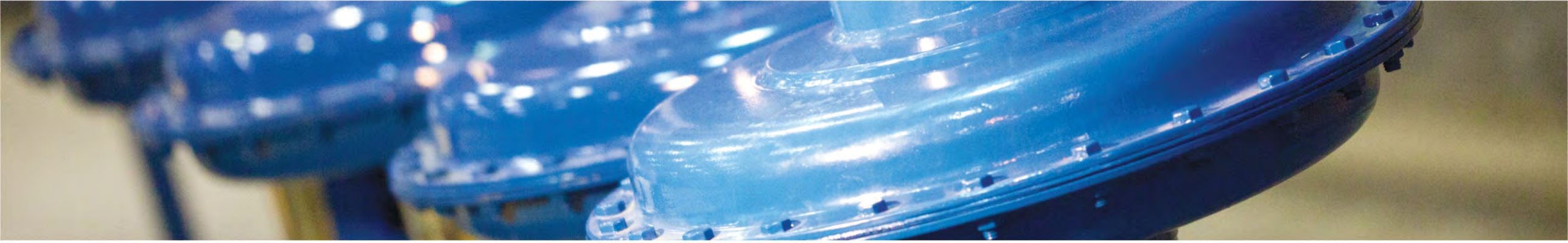
Standards

- Design Code: ASME B16.34
- Valve Size: Globe Control Valves 15 to 600 mm (1/2" to 24")
- Valve Size: Butterfly Control Valves 75 to 1600 mm (3" to 64")
- Rating: ANSI 150 to 2500
- End Connection: Flanged, Butt weld, Screwed
- Body Material: Carbon steel, Chrome-moly steel, Stainless steel, Monel Inconnel, Alloy 20, Hastelloy B/C, Duplex stainless steel, Aluminum bronze
- Trim Material : Stainless steel, Duplex stainless steel, 13% Chrome steel, Stellite
- Bonnet

Standard:	Standard Service	Up to 230°C
Normalizing:	High temperature	230°C to 500°C
Extended:	Low temperature	-100°C to -29°C

- Gland Packing: PTFE, Graphite
- Trim Form: Top guided contoured, Ported cage (unbalanced / balanced)
- Flow Characteristic: Equal Percentage, Linear,
  Seat Leakage : As per ANSI / FCI 70-2-2006 Class III, IV, V and VI

Main Specification



- Actuator Form: Pneumatic Diaphragm, Pneumatic, Piston or Electric, Electro- Hydraulic
- Actuator Type: Direct / Reverse Acting
- Accessories: Valve Positioners (Pneumatic, Electro-Pneumatic, Smart Instruments), Airset, Solenoid Valve, Volume Booster, Airlock, Limit Switch, Features Top or Side Mounted hand wheel, Steam Jacketing , etc.



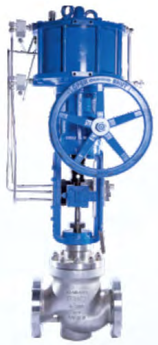
GS 1000
Series



GC 1000
Series



GC 1200
Series



GC 2000
Series



GC 3000
Series



GC 5000
Series



AC 3000
Series



PG 1000
Series



8000 P
Series



DS8000
DS8100
DS8200



BS 9000
Series



BE 1000
BE 1200
BE 1300



BT 8000/8200



RG Actuator
D Series



RG Actuator
W Series



RG Actuator
P Series



RG EH Actuator
REH 4000



RG Electro-
Pneumatic Positioner
RP 5000



RG Air Filter
Pressure Regulator
AFR 1000



RG Volume Booster
RB 1000/3000

Main Specification



RGValve Sizing and Selection Software

Our Engineering Team has developed RGValve Software and is fully committed to keep it up to date along with the latest codes, standards and guidelines. Having been validated with other few well-known softwares, RGValve is more than competitive!

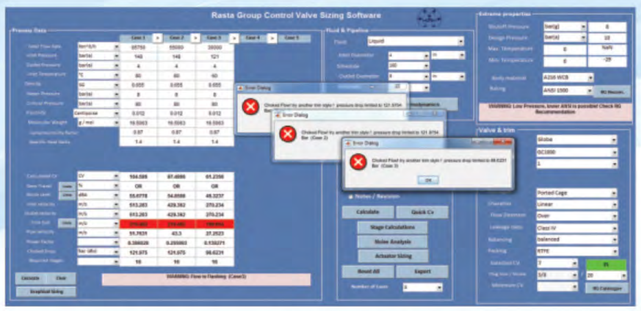
- Cavitation/Noise Regime Recognition + Stage Calculations for Noise & Velocity.
- Graphical Sizing for Rangeability and turn-in adjustments.
- Automatic Sizing and Recommendations on required trim.
- In-depth Noise Analysis for Gas Service.
- Comprehensive material database.
- RGValve can estimate Valve factors with any user-defined CV.
- Robust Export of Sizing results to Spec & Calculation Sheet.



RGValve Certificate



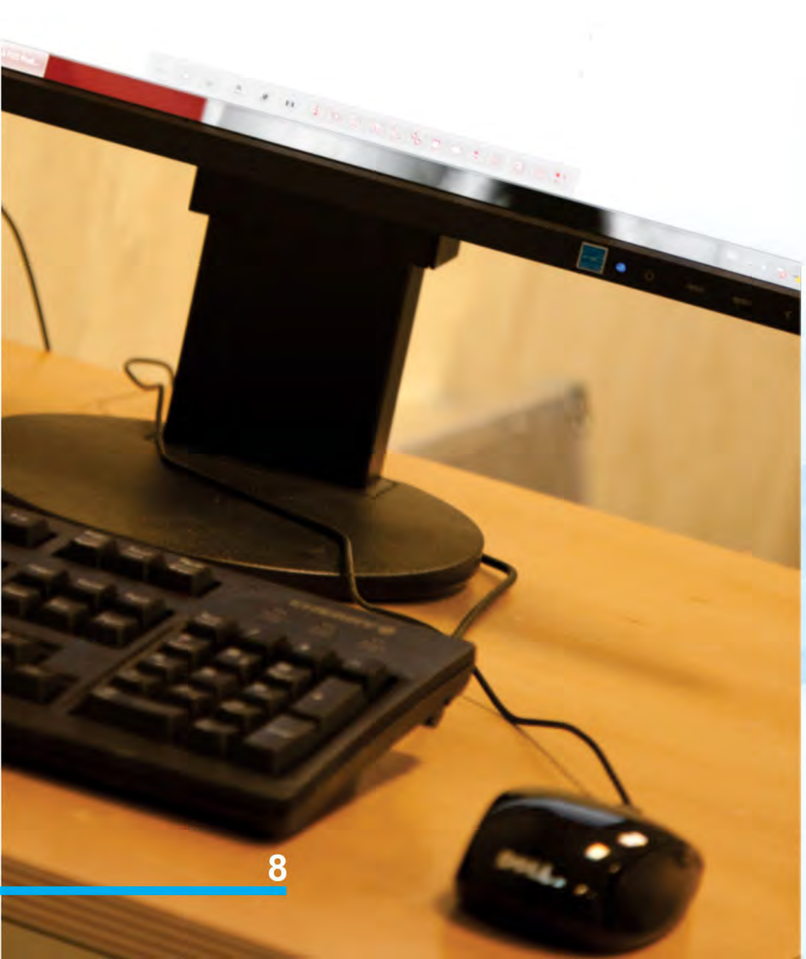
RGValve In-depth Noise Analysis



RGValve Sizing Module



RGValve Stage Calculation



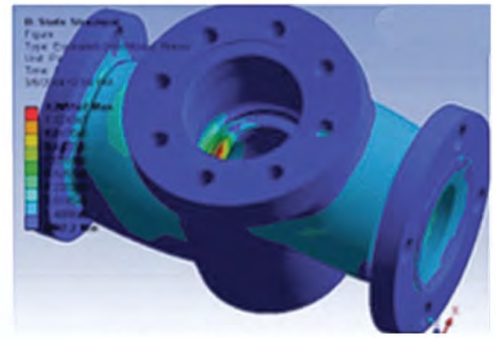
Engineering Department



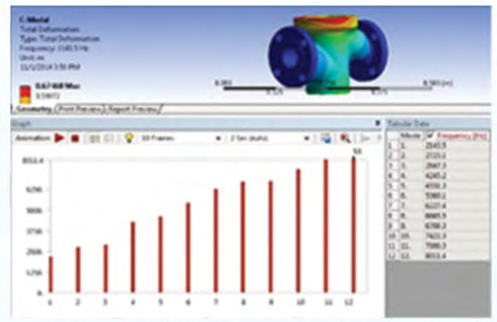
Design Principles (FE Method)

RG FE analysis are performed in accordance with ASME VIII part 5, and 6AF2.
RG Professional academic team do the analysis.

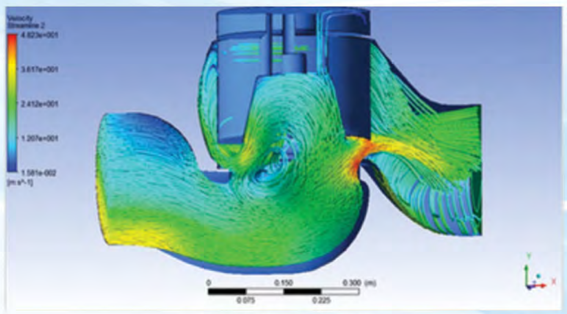
- Structural and CFX analysis.
- Transient Analysis performed to verify stability.
- Refined Hex Dominant Surface based mesh with smooth transition.
- Experimental and Computational Validation of the results (V&V ASME).
- Standard Reporting of Input, Methods, Outputs.
- Inputs based on ASME VIII, 6AF2 and ISA.075.



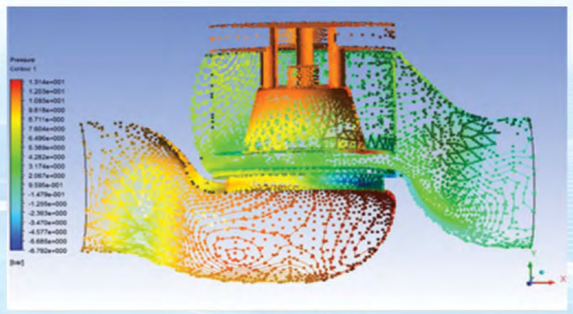
Structural Analysis



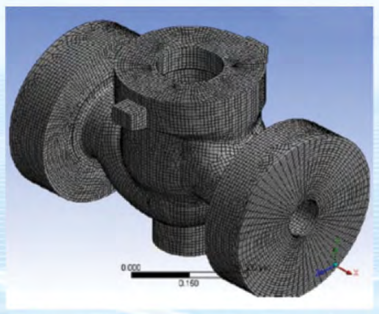
Noise / Vibration Analysis



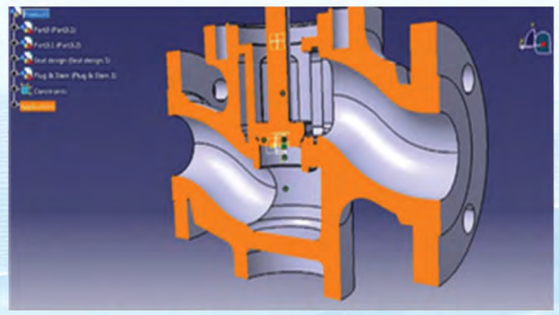
CFX Analysis



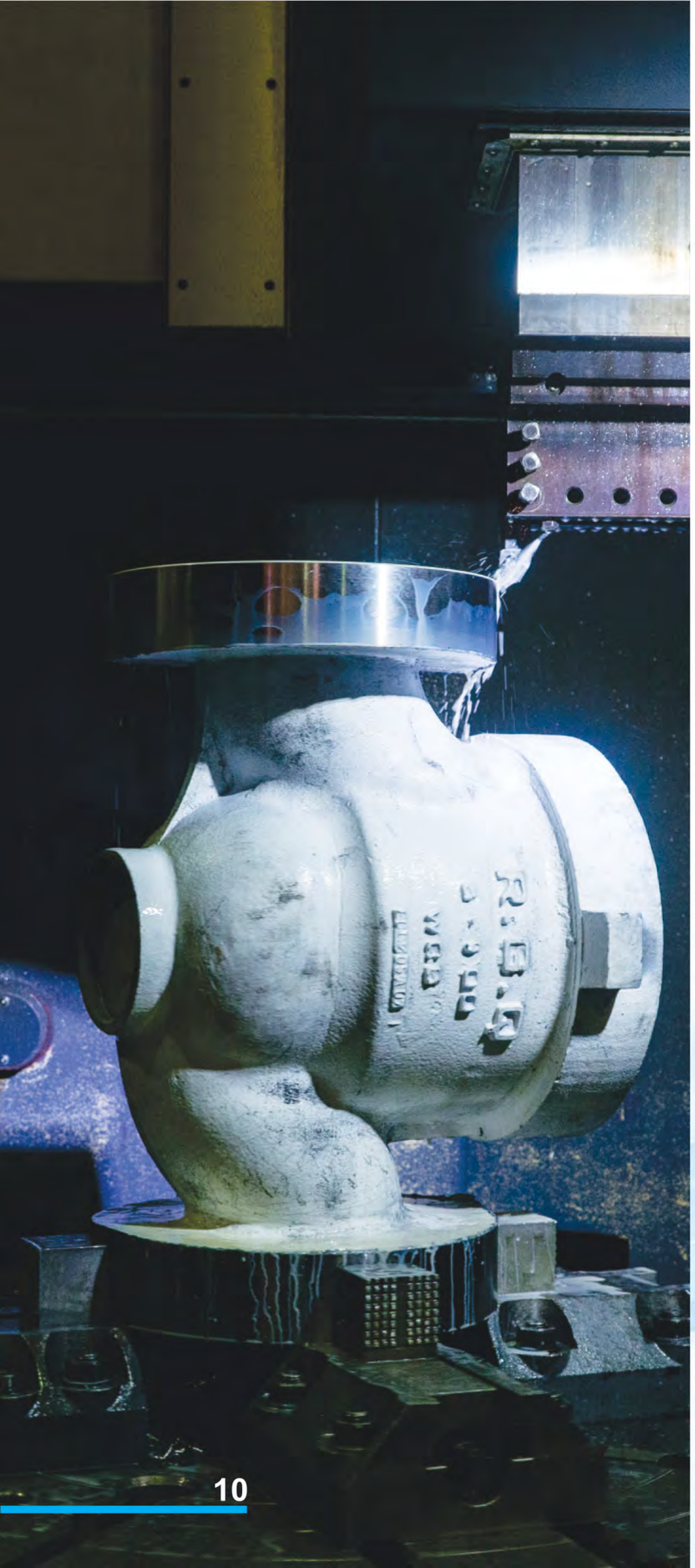
CFX Analysis



Hex Dominant Mesh



Computer Aided Design



Body / Bonnet

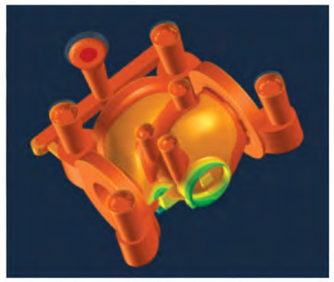
The primary pressure boundary of a valve is produced mainly by casting followed by different machining strategies. Although in some cases forged body is available too.



Designing and Making 3D Pattern for the Body Mold



Calculating, Designing and Making 3D Gating System



Simulation of Gating System in Casting Software



Making Patterns Ready for Casting Assembling Gating System

Pouring

After Shot Blast and Ready for Machining



Final Machining of trim parts of Different Control Valves



Final Machining of Globe Series Valve Body (up to 24”)



Trim and Actuator Parts

Trim typically includes Plug, Disk, Seat, Stem, and Cage. These parts are manufactured through the latest CAM Softwares and precise CNC machines.

Other Manufacturing Procedures

Rasta Group Industrial Valve has the capability to perform most of the manufacturing processes in its Workshop located in Hashtgerd Industrial City.



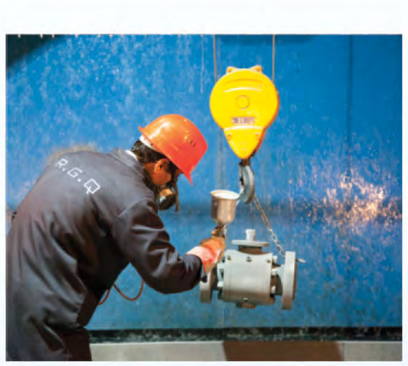
Preparing of CNC Program in CAM Software and Performing Final Machining of Different kinds of Plugs



Different Machined-Trim parts of Rasta Group Globe Valves Series



CNC Weld Overlay Process



Painting

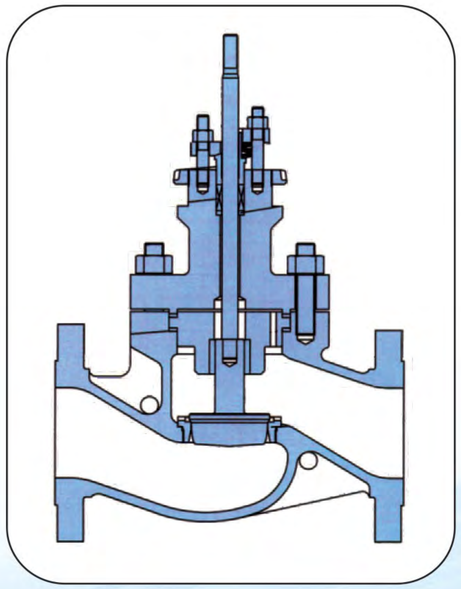


Hydrostatic / Seat Leakage Bench



GS 1000 Series

Rasta Group GS1000 general-purpose Top Guided Globe Valve is used for throttling or on-off in a wide scope of liquid services as well as steam/gas services. GS1000 is easily adaptable to bellows, steam-jacketed and long extension bonnets.



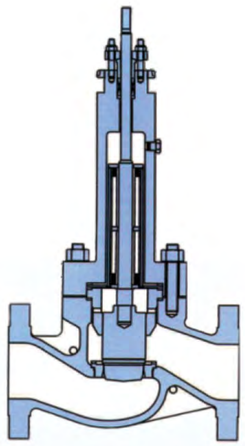
Features

- S-shaped smooth profile cast globe body provides more flow capacity and low initial investment.
- High integrity body/bonnet bolting system design according to ASME VIII.
- Clamped top guiding provides maximum support to ensure low cost plug stability.
- Valve constructions allow material compatibility with NACE MR0175-2003.
- High performance GF TFE and graphite packing with live-loading spring to fit with low fugitive emissions API-622.

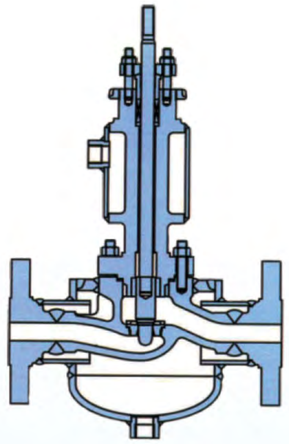


Different Top Guided Trims

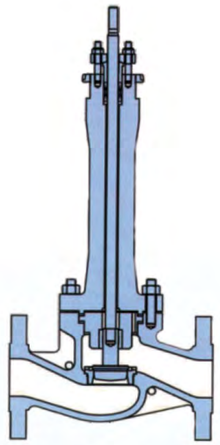




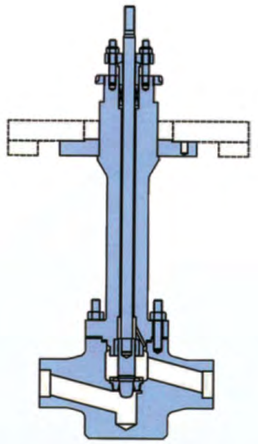
Cryogenic Bonnet without Cold Box



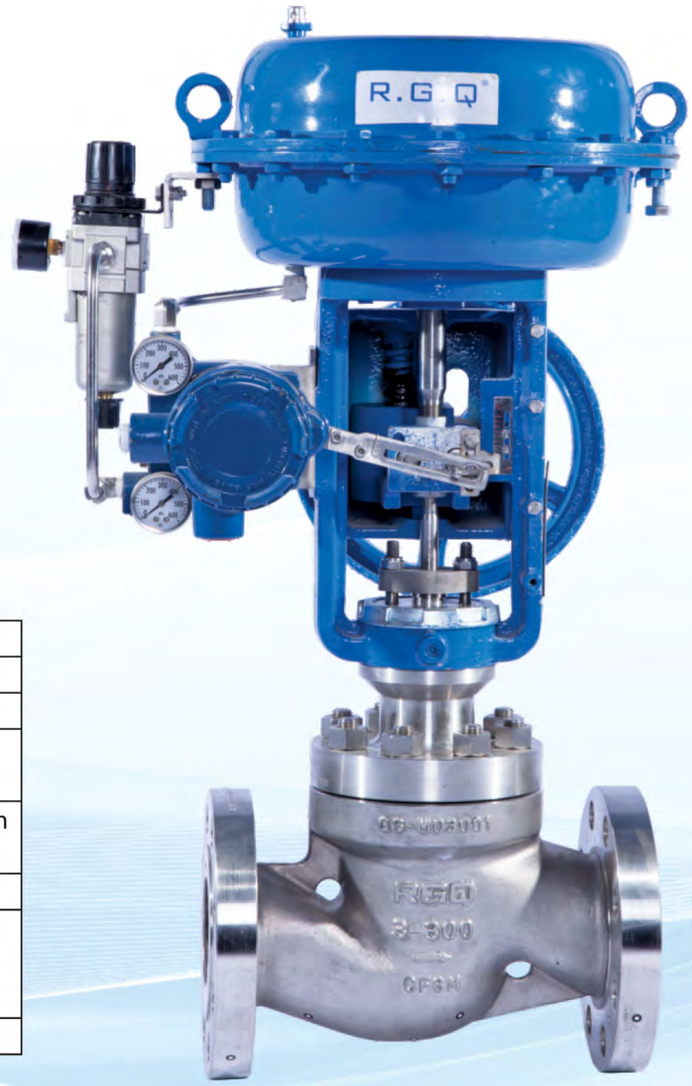
Cryogenic Bonnet with Cold Box



Bellows Seal Bonnet



Full Steam Jacket Body & Bonnet



Body Specifications

Body Style	Globe
Bonnet	Standard, Extended, Normalizing
Size Range	½” to 8”
Pressure Rating	ANSI Class 150 to 600
Operating Temperature Range	-196~565
End Connection	RF, RTJ, SW, BW
Materials	A216-WCB, A217-WC6, A217-WC9, A217-C5, A352-LCB, A351-CF8, A351-CF8M
Actuator	Pneumatic Diaphragm Pneumatic Cylinder Electric Motorized Electro-Hydraulic

Trim Specifications

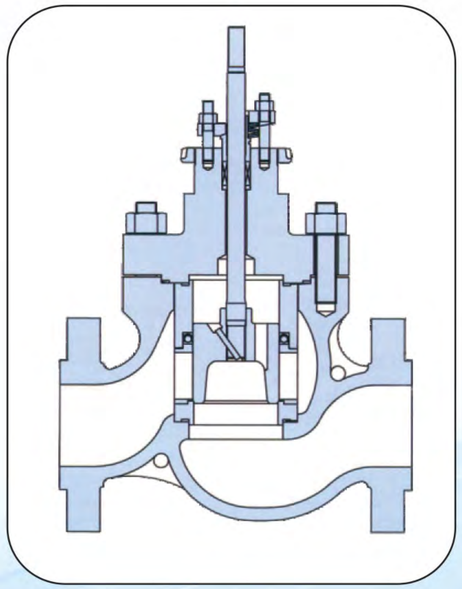
Trim Style	Globe
Size Range	⅛” to 8”
CV Range	0.25 to 810
Flow Direction	Liquid Service: Over Gas, Steam Service: Under
Flow Characteristic	Linear, Equal percentage, Quick Open
Packing	RTFE, Graphite
Materials	316SS, 316SS + Stellite 6 A182-F6a, F11 (Nitride Treatment) A564-630/Precipitated Hardening
Seat Leakage	ANSI/FCI 70.2 Class IV,V, VI

Specifications



GC 1000 Series

Rasta Group GC1000 Series single-port globe valves have balanced valve plugs and cage guiding for all general applications and heavy-duty over a wide range of process pressure drops and temperatures.
These valves are used for throttling control of a wide variety of liquids and gases, GC1000 is a normal cage trim and could be used for on-off control.



Features

- S-shaped smooth profile cast globe body provide more flow capacity and low initial investment.
- High integrity body/bonnet bolting system design to ASME VIII.
- Clamped cage guiding and special balance seal ring provide high valve plug stability, which reduces vibration and mechanical noise.
- Easy maintenance as standard quick-change trim without valve body removal from pipeline
- Valve constructions allow material compatibility with NACE MR0175-2003.

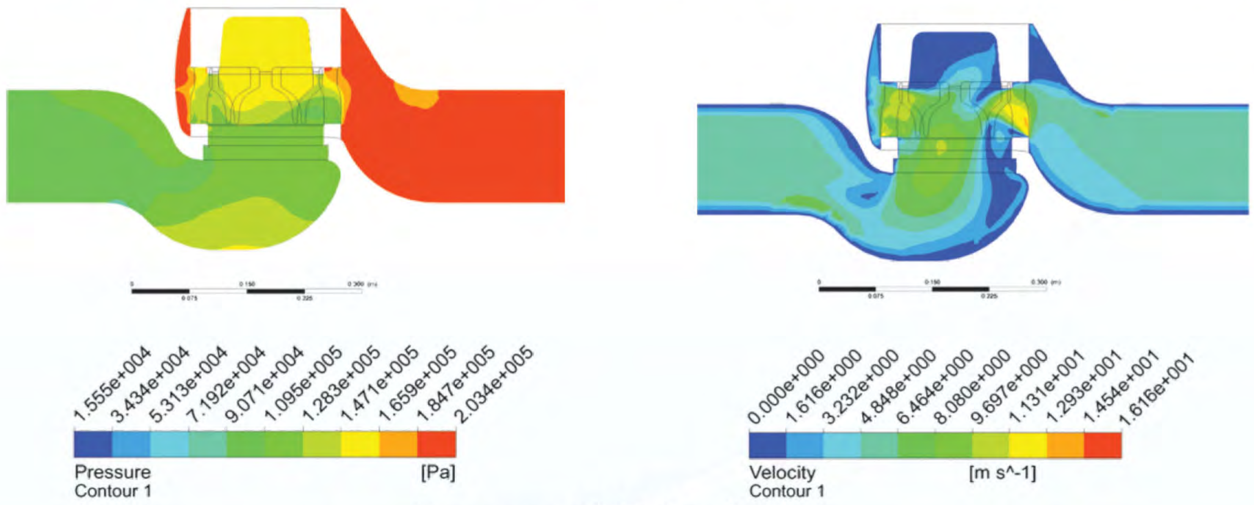


EQ% Cage



Linear Cage





Pressure CFD Analyze



Body Specifications

Body Style	Globe
Bonnet	Standard, Extended, Normalized
Size Range	½” to 24”
Pressure Rating	ANSI Class 150 to 2500
Operating Temperature Range	-196~593
End Connection	RF, RTJ, SW, BW
Materials	A216-WCB, A217-WC6, A217-WC9, A217-C5, A352-LCB, A351-CF8, A351-CF8M
Actuator	Pneumatic Diaphragm Pneumatic Cylinder Electric Motorized Electro-Hydraulic

Trim Specifications

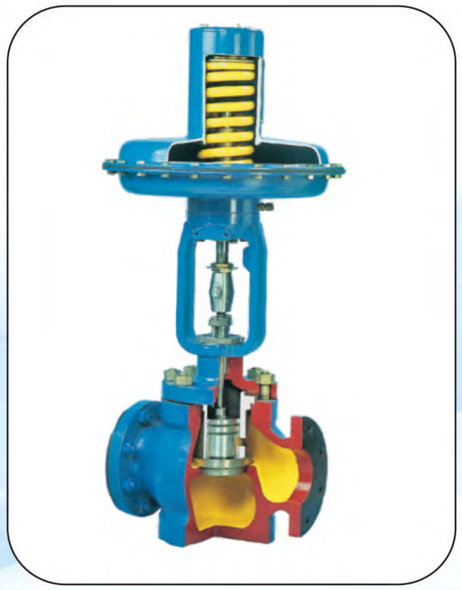
Trim Style	Globe
Size Range	⅝” to 24”
CV Range	6.3 to 6,990
Flow Direction	Liquid Service: Over Gas, Steam Service: Under
Flow Characteristic	Linear, Equal percentage, Quick Open
Packing	RTFE, Graphite
Materials	316SS, 316SS + Stellite 6 A182-F6a, F11 (Nitride Treatment) A564-630/Precipitated Hardening
Seat Leakage	ANSI/FCI 70.2 Class IV,V, VI

Specifications



GC 1200 Series

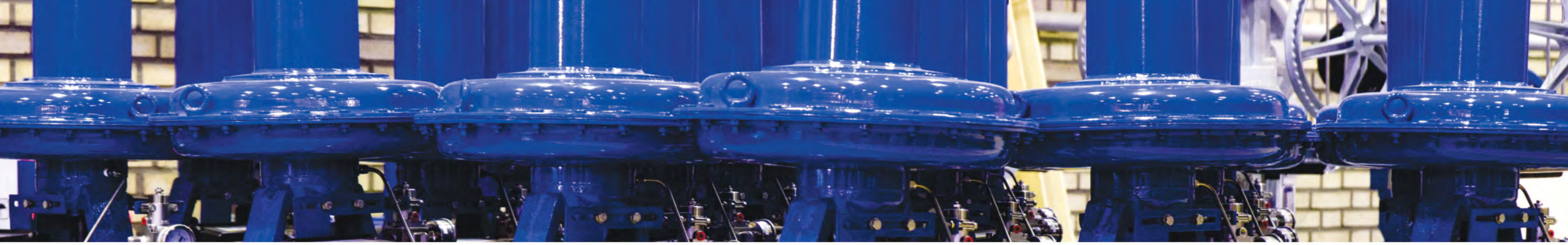
Rasta Group GC1200 Series is produced by combining high engineering technology, modern manufacturing techniques and quality control procedures. The Series GC1200 range of valves were developed to provide a cost-effective, reliable and easily maintained control valve capable of working in rigorous environments. A wide variety of construction materials and trim options, combined with design flexibility will satisfy majority of critical and non-critical applications found throughout the process, power and oil industries.

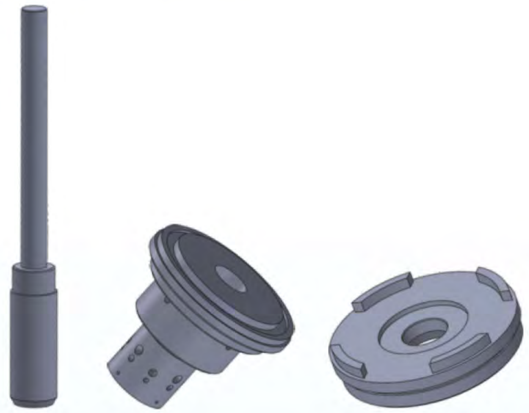


Features

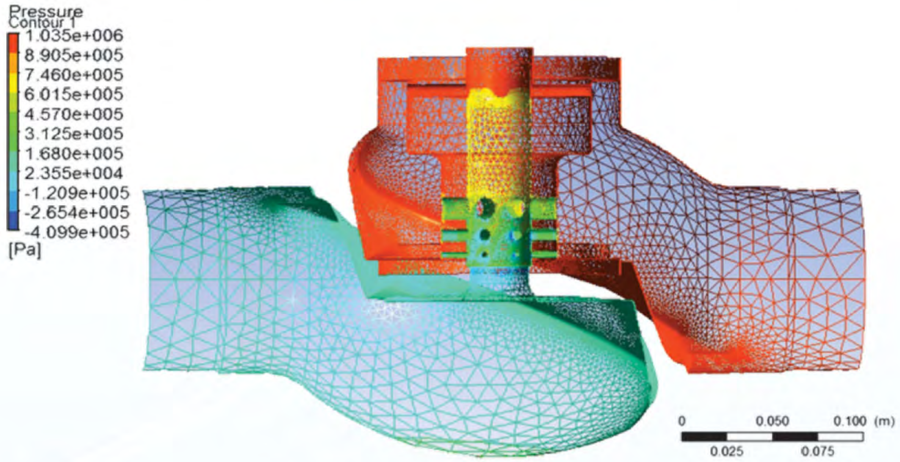
- Smooth profile cast globe body reduces turbulence, minimizing the effects of erosion and noise.
- Robust parts for trouble free service and low cost of ownership.
- Wide choice of packing systems are available.
- Various pneumatic diaphragm or cylinder actuator options are available along with accessories.
- Valve constructions allow material compatibility with NACE MR0175-2003.
- The valve is designed to accommodate other products within the Rasta Group range.

Globe Control Valve





Trim Components



Pressure CFD Analyze



Body Specifications

Body Style	Globe
Bonnet	Standard, Extended, Normalized
Size Range	½” to 16”
Pressure Rating	ANSI Class 150 to 2500
Operating Temperature Range	-240~593
End Connection	RF, RTJ, SW, BW, FF
Materials	A216-WCB, A217-WC6, A217-WC9, A217-C5, A352-LCB, A351-CF8, A351-CF8M
Actuator	Pneumatic Diaphragm Pneumatic Cylinder Electric Motorized Electro-Hydraulic

Trim Specifications

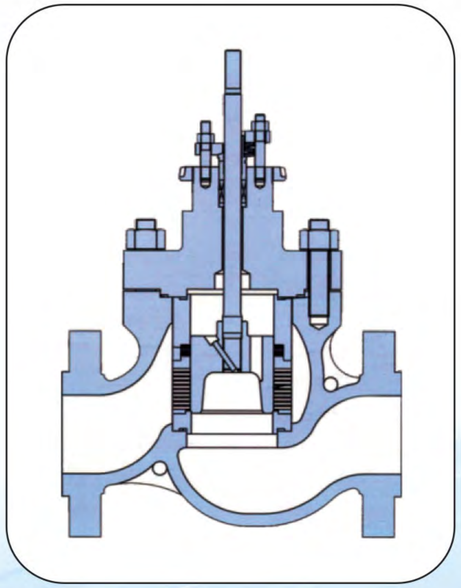
Trim Style	Full and reduced Contoured, Microspline, Ported Cage, HF, HFD, HFT
Size Range	1/16” to 16”
CV Range	0.4 to 1,140
Flow Direction	Liquid Service: Over Gas, Steam Service: Under
Flow Characteristic	Linear, Equal percentage, Modified Equal Percentage, Quick Open
Packing	RTFE, Graphite
Materials	A182-F6a, A276-304SS, A276-316SS (Stellited) Inconel 718
Seat Leakage	ANSI/FCI 70.2 Class IV,V, VI

Specifications



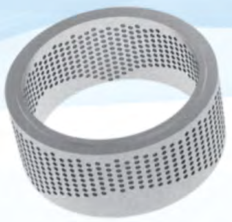
GC 2000 Series

Rasta Group GC2000 series single-port globe valves have balanced valve plugs and cage guiding for all general applications and heavy-duty over a wide range of process pressure drops and temperatures. These valves are used for throttling control of a wide variety of liquids and gases, GC2000 is a multi-hole cage trim.

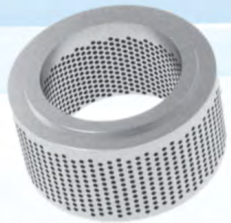


Features

- S-shaped smooth profile cast globe body provides more flow capacity and low initial investment.
- Clamped cage guiding and special balance seal ring provides high valve plug stability.
- Easy maintenance because of standard quick-change trim, with out the valve body removal.
- Valve constructions allow material compatibility with NACE MR0175-2003.
- High performance TFE V ring packing and graphite packing with live-loading spring to fit with low fugitive emissions API-622.

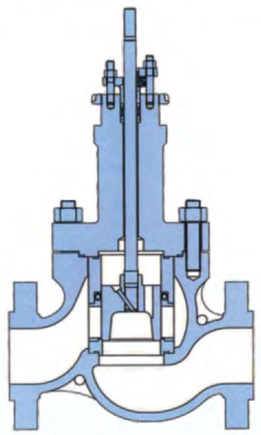


EQ% Cage

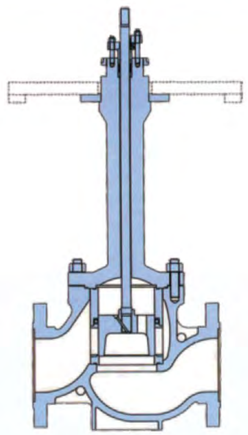


Linear Cage

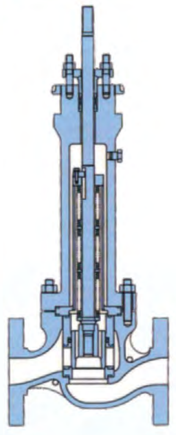




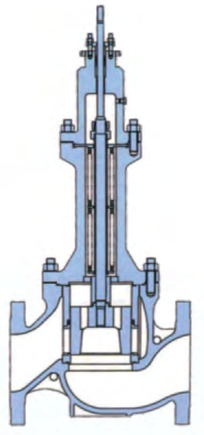
Extension Bonnet



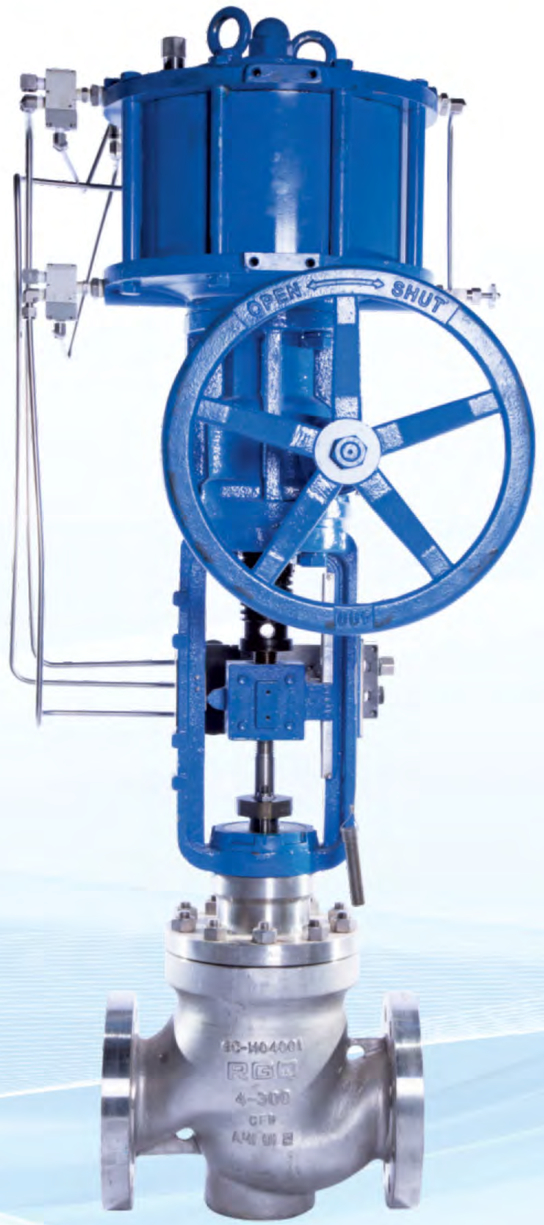
Cryogenic Bonnet
With/without Cold Box



Bellows Seal Bonnet
Up to 4” Body



Bellows Seal Bonnet
4” Body and Over



Body Specifications

Body Style	Globe
Bonnet	Standard, Extended, Normalized
Size Range	1” to 24”
Pressure Rating	ANSI Class 150 to 2500
Operating Temperature Range	-196~593
End Connection	RF, RTJ, SW, BW
Materials	A216-WCB, A217-WC6, A217-WC9, A217-C5, A352-LCB, A351-CF8, A351-CF8M
Actuator	Pneumatic Diaphragm Pneumatic Cylinder Electric Motorized Electro-Hydraulic

Trim Specifications

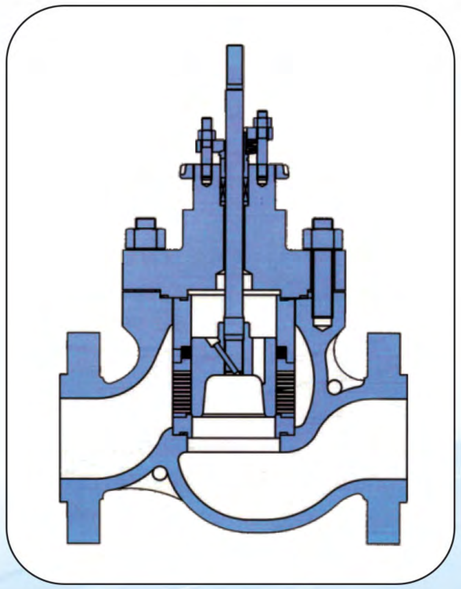
Trim Style	Globe
Size Range	⅝” to 24”
CV Range	5.4 to 2,711
Flow Direction	Liquid Service: Over Gas, Steam Service: Under
Flow Characteristic	Linear, Equal percentage, Quick Open
Packing	RTFE, Graphite
Materials	316SS, 316SS + Stellite 6 A182-F6a, F11 (Nitride Treatment) A564-630/Precipitated
Seat Leakage	ANSI/FCI 70.2 Class IV,V, VI

Specifications



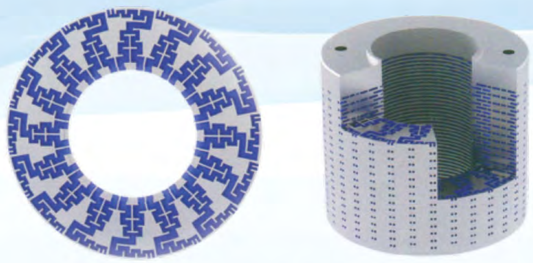
GC 3000 Series

Rasta Group GC3000 single-port globe valves series have balanced valve plugs and cage guiding for all general applications and heavy duty over a wide range of process pressure drops and temperatures. These valves are used for throttling control of a wide variety of liquids and gases, GC3000 is a multi-stage trim.



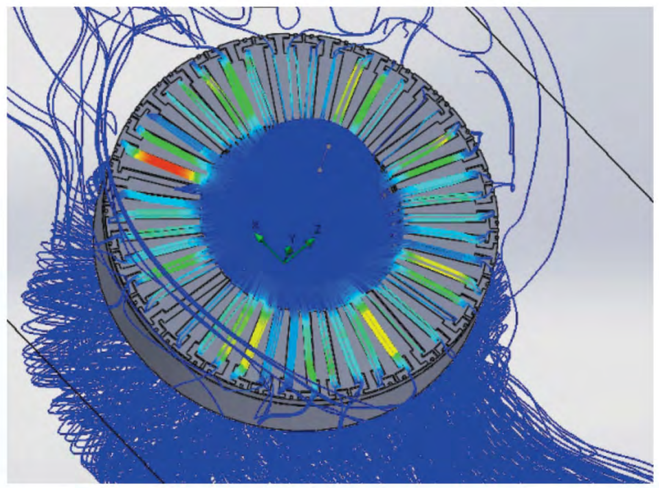
Features

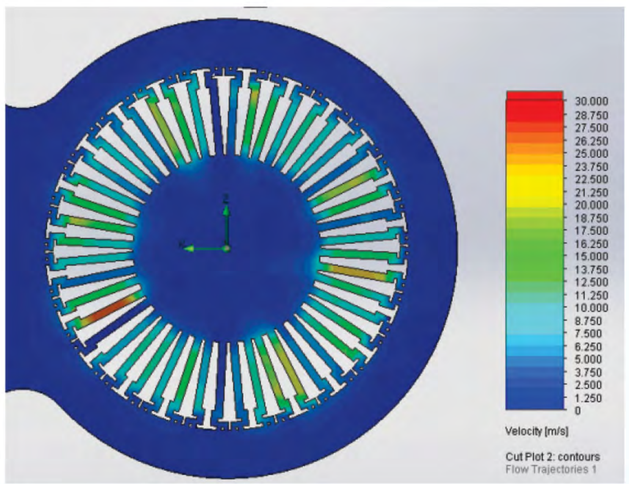
- S-shaped smooth profile cast globe body provides more flow capacity and low initial investment.
- Clamped cage guiding and special balance seal ring provides high valve plug stability.
- Easy maintenance because of standard quick-change trim, without the valve body removal.
- Valve constructions allow material compatibility with NACE MR0175-2003.
- High performance TFE V ring packing and graphite packing with live-loading spring to fit with low fugitive emissions API-622.



Labyrinth Cage









Body Specifications

Body Style	Globe
Bonnet	Standard, Extended, Normalized
Size Range	½" to 24"
Pressure Rating	ANSI Class 150 to 2500
Operating Temperature Range	-196~593
End Connection	RF, RTJ, SW, BW
Materials	A216-WCB, A217-WC6, A217-WC9, A217-C5, A352-LCB, A351-CF8, A351-CF8M
Actuator	Pneumatic Diaphragm Pneumatic Cylinder Electric Motorized Electro-Hydraulic

Trim Specifications

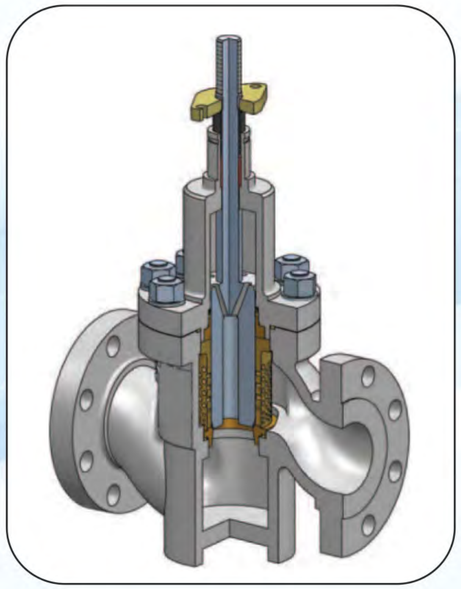
Trim Style	Globe
Size Range	½" to 24"
CV Range	5.4 to 2,711
Flow Direction	Liquid Service: Over Gas, Steam Service: Under
Flow Characteristic	Linear, Equal percentage
Packing	RTFE, Graphite
Materials	A240-410, A276-316SS Inconel 718
Seat Leakage	ANSI/FCI 70.2 Class IV,V, VI

Specifications



GC 5000 Series

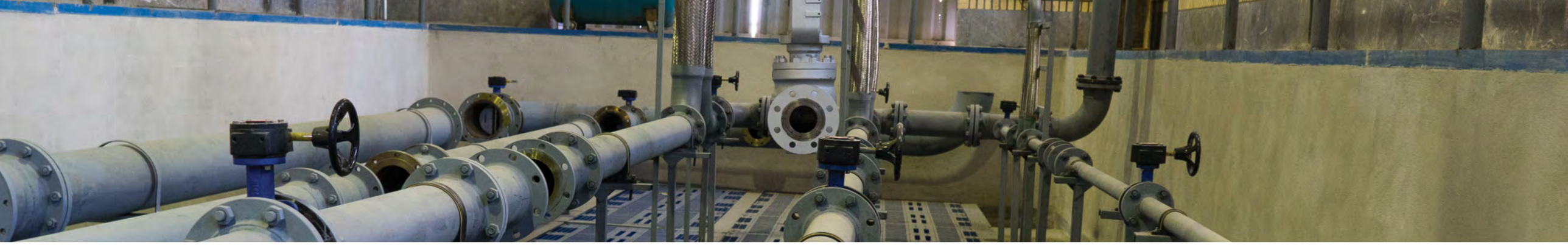
Rasta Group GC5000 Series range of valves provides a cost effective, reliable and easily maintained control valve capable of working in the most rigorous environments. The quick-change trim option allows easily accessible trim components to minimize fitting and replacement times. Stem-guided contoured trim in both balanced and unbalanced configuration gives excellent rigidity and resistance to vibration and service wear. The valve is designed to accommodate other products within the Rasta Group range, for example, MLT (multi-labyrinth trim), CC (Concentric Cage) low noise and anti-cavitation trims.

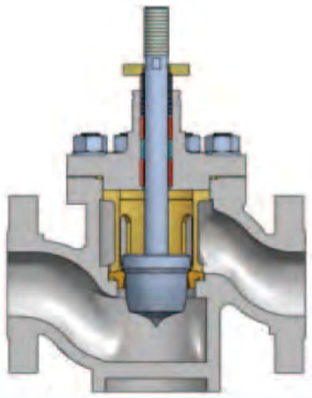


Features

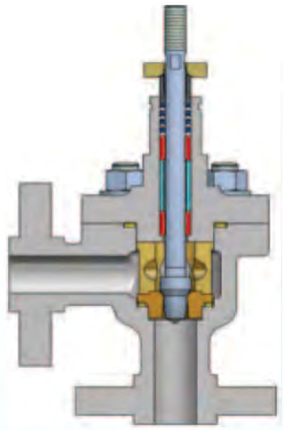
- Smooth profile cast globe, angle and three way body construction.
- Quick-change trim as standard.
- Wide choice of trim sizes available with low noise and anti-cavitation options.
- Robust parts for trouble free service and low maintenance costs.
- Inherently characterized trims available in linear, bi-linear, equal percentage or semi- throttle substantial guiding.
- Wide choice of packing systems including low fugitive emission designs.
- Integral plug stem construction option.
- Both balanced and unbalanced trim designs with soft seat insert options.

Globe Control Valve

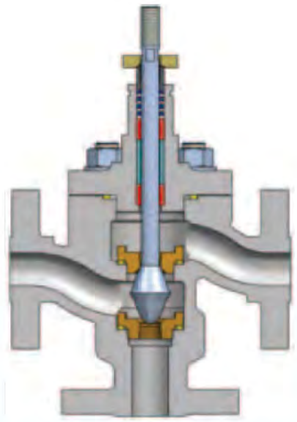




Globe body



Angle body



Three way body



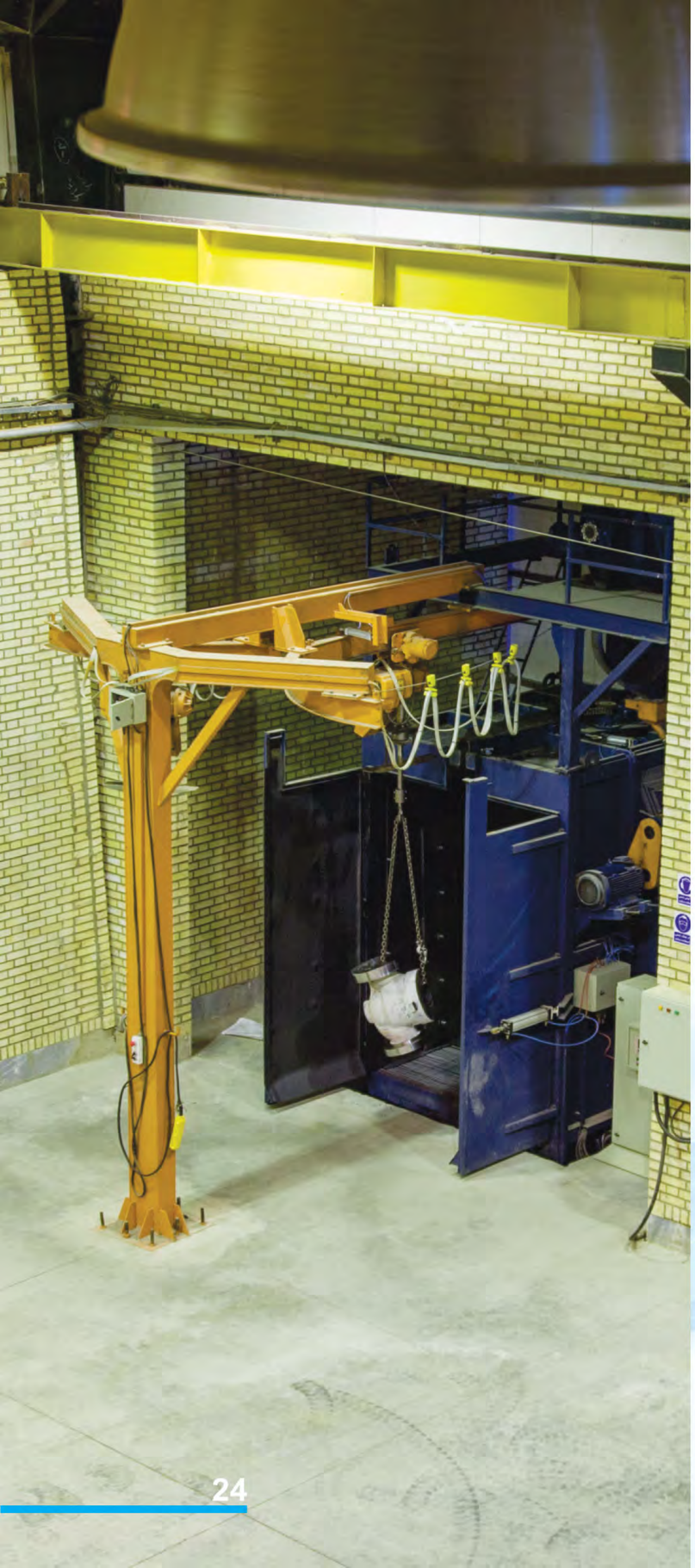
Body Specifications

Body Style	Globe
Bonnet	Standard, Extended, Normalized
Size Range	1” to 24”
Pressure Rating	ANSI Class 150 to 500
Operating Temperature Range	-196~593
End Connection	RF, RTJ, SW, BW
Materials	A216-WCB, A217-WC6, A217-WC9, A217-C5, A352-LCB, A351-CF8, A351-CF8M
Actuator	Pneumatic Diaphragm Pneumatic Cylinder Electric Motorized Electro-Hydraulic

Trim Specifications

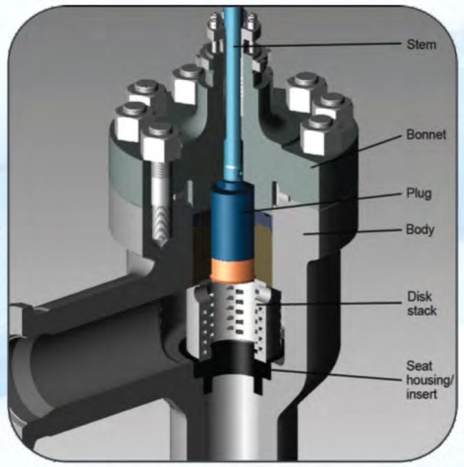
Trim Style	Globe
Size Range	0.381” to 24”
CV Range	0.01 to 7500
Flow Direction	Liquid Service: Over Gas, Steam Service: Under
Flow Characteristic	Linear, Equal percentage, Quick Open
Packing	RTFE, Graphite
Materials	316SS, 316SS + Stellite 6 A182-F6a, F11 (Nitride Treatment) A564-630/Precipitated
Seat Leakage	ANSI/FCI 70.2 Class IV,V, VI

Specifications



AC 3000 Series

Rasta Group AC3000 Choke Control Valve offers a wide variety of choke trims to match any service requirements - always with the customer's benefit in mind, which are improving well production time, reducing maintenance time and costs and accommodating changes in well operating conditions. Trim and body erosion, noise, vibration and poor process control are eliminated with superior velocity control. AC3000 choke disk stack controls flowing velocities by forcing the process fluid to flow through a tortuous path of angle turns. The resistance to flow provided by these turns (or stages) limits the trim exit velocity to a safe level, regardless of the pressure drop.



Component	*Materials*
Body	WCB, LCC, AISI 4130, ASTM A487 Gr 4C,F22, Alloy 625, Duplex SS
Bonnet	AISI 4120, A350-LF2, F51/S31803
Plug	Solid Tungsten Carbide
Disk Stack	Solid Tungsten Carbide
Seat housing/insert	17-4/ Solid Tungsten Carbide
Stem	17-4/ PH
Seals	PTFE

Control Choke Valve



AC3000 Choke Control Valve Trim Passage

The fluid velocities within the trim of Rasta Group AC3000 choke valves are typically one third to one quarter that of conventional single stage chokes.This increased velocity control protects the trim from erosion and can increase the life of the trim exponentially. The benefit is longer intervals between maintenance. The rate of erosion has been shown to be proportional to the velocity of the fluid by the third to fifth power, which suggests that the erosion rate would be reduced by eight times if the fluid velocity is reduced by half based on a proportionality to the third power.





AC3000 Available Actuators



Pneumatic Piston



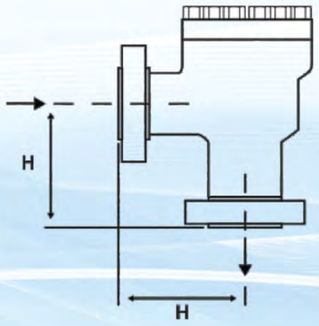
Pneumatic Diaphragm



Electro-hydraulic



Electric



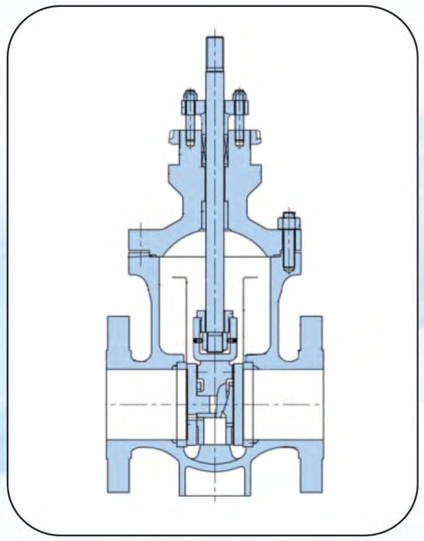
Dimension	ANSI Class	50 mm (2”)	80 mm (3”)	100 mm (4”)
H	1500	184 mm (7.25”)	273 mm (10.75”)	273 mm (10.75”)
	2500	225 mm (8.88”)	289 mm (11.38”)	337 mm (13.25”)
Dimension	**ANSI Class**	**150 mm (6”)**	**200 mm (8”)**	**250 mm (10”)**
H	1500	352 mm (13.25”)	416 mm (16.38”)	495 mm (19.5”)
	2500	457 mm (18”)	511 mm (20.12”)	635 mm (25”)

Specifications



PG 1000 Series

Rasta Group PG1000 series parallel slide gate valves with double disc have the construction to achieve superior metal-to-metal sealing performance. The excellent shut-off performance brought about by the metal touch sealing and very less pressure drop at full opening makes it well-suited to a variety of severe service, including emergency shut-off and vent from extremely high temperature and high pressure to cryogenic applications. Especially suitable for big size shut-off. Metal touch construction automatically assure fire-safe function as well, usually be installed in horizontal pipeline.

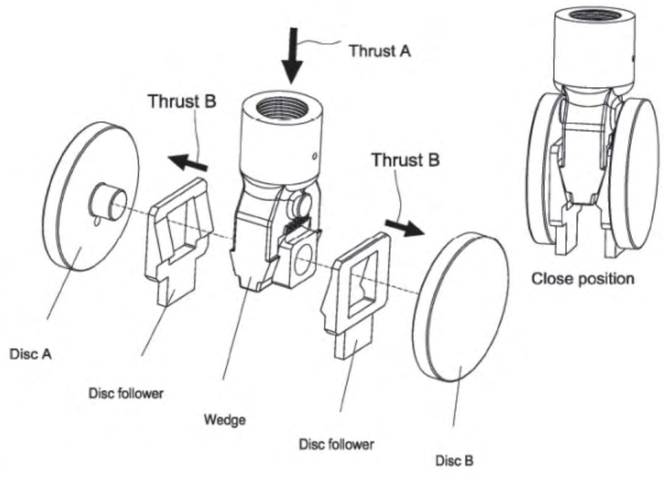


Features

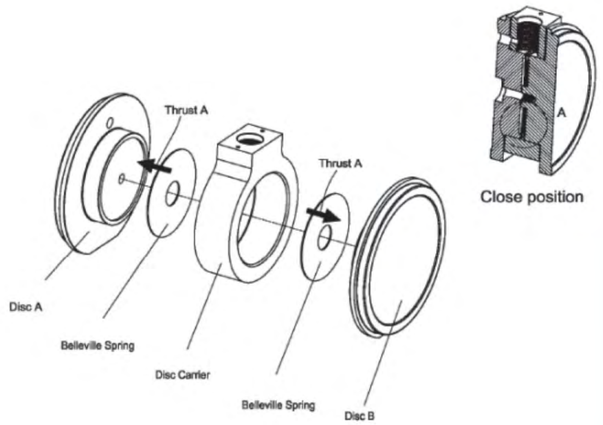
- For ANSI 300# and under the use of the wedge structure between disc and seat will transform the thrust from actuator through the wedge to be the push of disc to the seat and then achieve tight shut-off. Inside the valve body there is a wedge stop boss to limit the closed position of disc.

- For ANSI 600# and over arrangement of belleville spring between the double disc, through the belleville spring set pre tightening force of disc to seat, at the same time by the pressure of the fluid itself on the downstream disc, Between the valve disc and seat have enough surface pressure in order to achieve tight shutoff. The closed position of the valve disc is carried out by the limit structure on the valve stem.





Wedge-Disc Assembly



Belleville Spring-Disc Assembly



Body Specifications

Body Style	Gate
Bonnet	Standard, Extended, Normalized
Size Range	1 ½" to 24"
Pressure Rating	ANSI Class 150 to 2500
Operating Temperature Range	-196~565
End Connection	FF, RF, RTJ, SW, BW
Materials	A216-WCB, A217-WC6, A217-WC9, A217-C5, A352-LCB, A351-CF8, A351-CF8M
Actuator	Pneumatic Cylinder Electric Motorized Electro-Hydraulic

Trim Specifications

Trim Style	Parallel Slide Double Disc
CV Range	1 ½" to 48"
Size Range	50 to 31,370
Flow Direction	Downstream Seal and Bi-directional flow ıs optional
Flow Characteristic	On-off
Packing Type	Reinforced Teflon V-ring, Teflon & Graphite Fiber Braided Packing, Graphite Packing (EVSP9000)
Materials	A182-F304, A182-F316, A182-F6a, A638-660, A351-CF8, Inconel 718
Seat Leakage	ANSI B16.104 Class V as Standard, Class VI is Optional

Specifications



8000 P Series

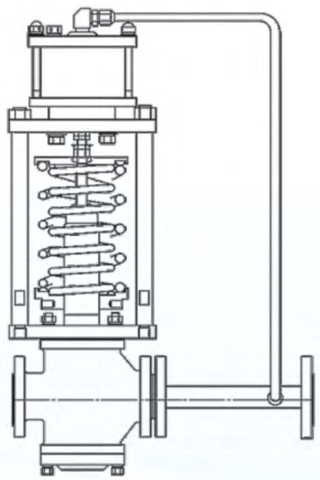
Rasta Group Self-operated type pressure adjusting valve is an executor which can utilize the energy of operating media itself to realize automatic adjustment. These executors are being used for below and above 0.6 MPa application, diaphragm and piston type, respectively and for high temperature and corrosive gases.

Features

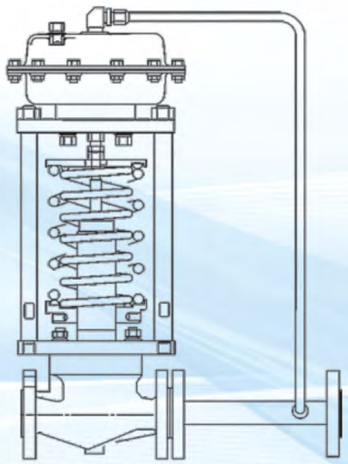
- They work with no power and gas.
- They are energy saving products.
- Pressure-set valve can be adjusted in case of operation.
- Quick-open, linear and Equal-percentage flow characteristic as well as flow can be adopted.
- Its action is quick and generally pressure reducing ratio can reach to 10, the least is 1.25.

Part Name	*Materials*
Body	ASTM A216 WCB, A351 CF8, A351 CF8M
Cover	ASTM A216 WCB, A351 CF8, A351 CF8M
Core	A276-304, A276-316, A182-F304, A182-F316
Seat	A276-304, A276-316, A182-F304, A182-F316
Rod	A276-304, A276-316, A182-F304, A182-F316
Rubber Films	Nitrile, Oil-Proof Rubber, Flourubber
Filler	PTFE, Flexible Graphite





Piston Type



Diaphragm Type

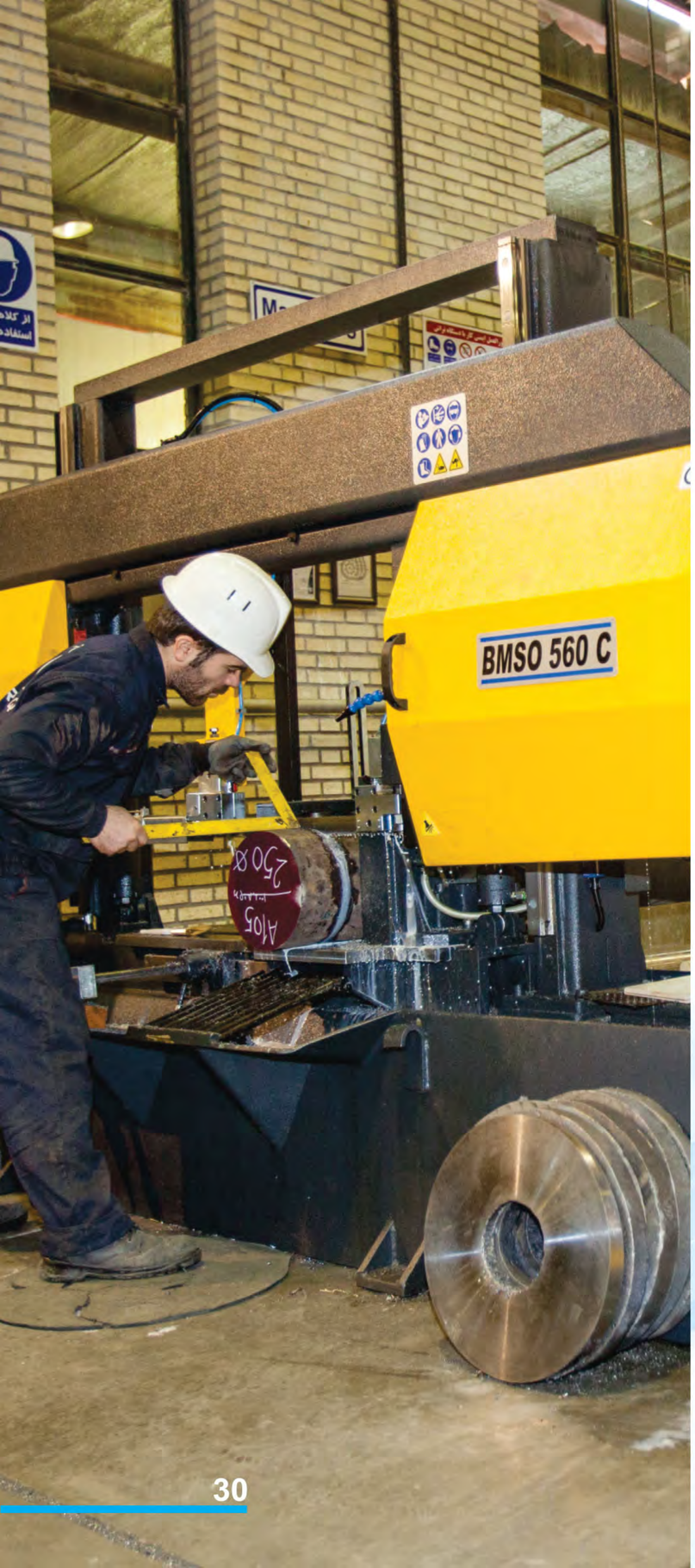
Rasta Group 8000P Pressure Valve Schematic Piston and Diaphragm Type Drawings

Main Parameters and Performance Index

Nominal Bore DN (mm)	20	25	32	40	50	65	80	100	125	150	200	250	300
Rated Flow Coefficient (KV)	7	11	20	30	48	75	120	190	300	480	760	1210	1936
Rated Travel (mm)	8		10		14	20		25	40		50	60	70
Nominal Pressure PN (MPa)	1.6 4.0 6.3												
Pressure Scope (KPa)	15~50, 40~80, 60~100, 80~140, 120~180, 160~220, 200~260, 240~300, 280~350, 330~400, 380~450, 430~500, 480~560, 540~620, 600~700, 680~800, 780~900, 880~1000												
Flow Characterization	Quick-open												
Adjusting precision (%)	± 5												
Using Temperature (°C)	≤ 350												
Allowance Leaking Quantity (L/h)	$10^{-4}X$												
Reducing Pressure Ratio (After-Valve Pressure/Before Valve Pressure)	10, 1.25												



Specifications



DS8000/DS8100/DS8200

Rasta Group Desuperheater valves are produced by combining high technology engineering, modern manufacturing techniques and quality control procedures. The primary function of DS 8000, DS8100, and DS8200 series is to lower the temperature of superheated steam or other vapors. This temperature reduction is accomplished as a result of the process vapor being brought into direct contact with another liquid such as water. The injected water is then evaporated.



DS8000 with Fixed Nozzle

Features

- Various combination of Spring-load nozzles.
- Self Operated nozzles with large CV capacity.
- The spray water emit into umbrella-shaped atomizing.
- Another cooling water control valve needed to adjust the spray water.
- Applied for boiler system of system station.

Body Size:	Cooling water flange 2″ ~ 3″; Steam pipe flange 4″ ~ 6″
Body Rating:	ANSI 300#~2500#
Body Material :	A105 , A182- F11, F22, F91, etc
Characteristics:	Inherent Characteristics
Leakage:	Metal seated CLASS IV



DS8100 with Variable Single Nozzle

Features

- Emergency shutoff.
- High efficiency high reliability.
- Single nozzle design especially for minimum CV control.
- Excellent spraying atomizing.
- High performance of special material trims.
- Easy assembly, low maintenance cost.

Body Size:	Inlet 3/4″~ 1″ ; Outlet 2.5″~ 3″
Rating:	ANSI 150# ~2500#
Body Material:	A105, A182-F11,F22, F91, etc.
Characteristics:	Inherent Linear
Leakage:	CLASS V

DS8200 with Variable Multi Nozzle



Features

- Integrated desuperheater achieve tight shutoff.
- Swirl type multi-nozzles to provide excellent atomizing.
- Adjusting each spray nozzles.
- Precise control the down steam temperature.
- No abrasion and long life nozzle housing.
- Special hard treatment of plug and seat.
- Spray parts only need to exchange plug and seat after long period service.
- Apply for large turn down steam conditions high temperature & pressure steam station.

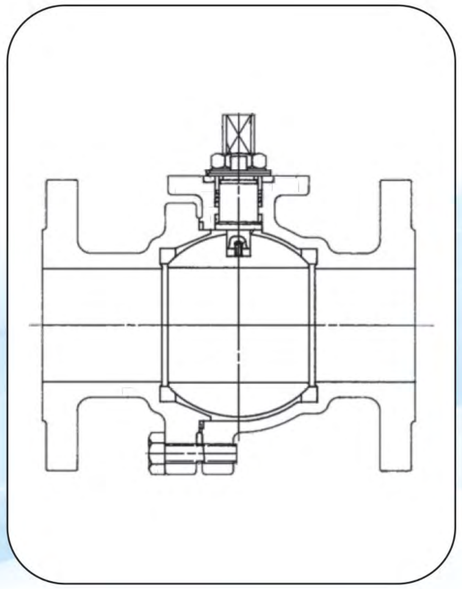
Body size:	Inlet 1″,1.5″; Outlet 3″,4″
Body Material:	ANSI 150# ~2500#
Body Rating:	A105, A182-F11, F22 , F91, etc.
Characteristics:	Inherent Linear
Leakage:	CLASSIV ,CLASS V

Specifications



BS 9000 Series

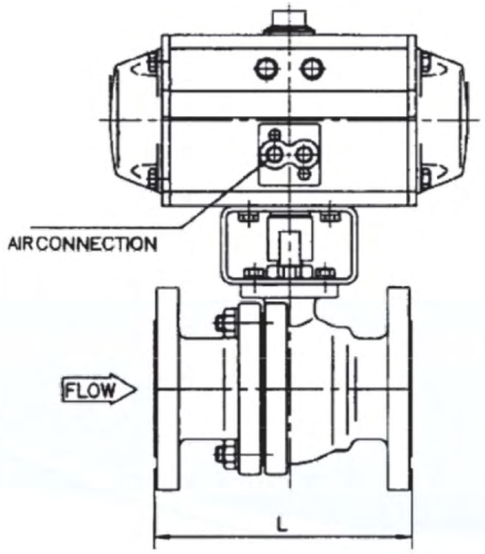
Rasta Group BS9000 Straight Through Ball Valves have a special inner valve which can be fully opened or closed by simply causing the stem to make a 1/4 turn. The offtake from a ball valve, when totally opened, has the same bore as the pipeline and its fluid resistance is negligible. For this reason, this automatic valve is best suited to on-off service, controlling various types of liquid, gas and slurry.

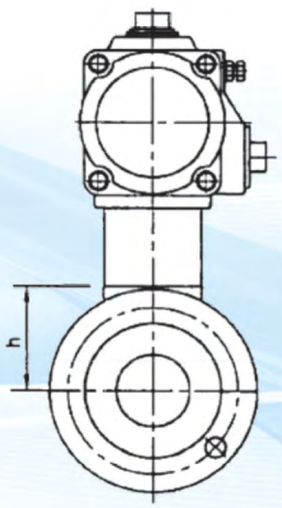


Features

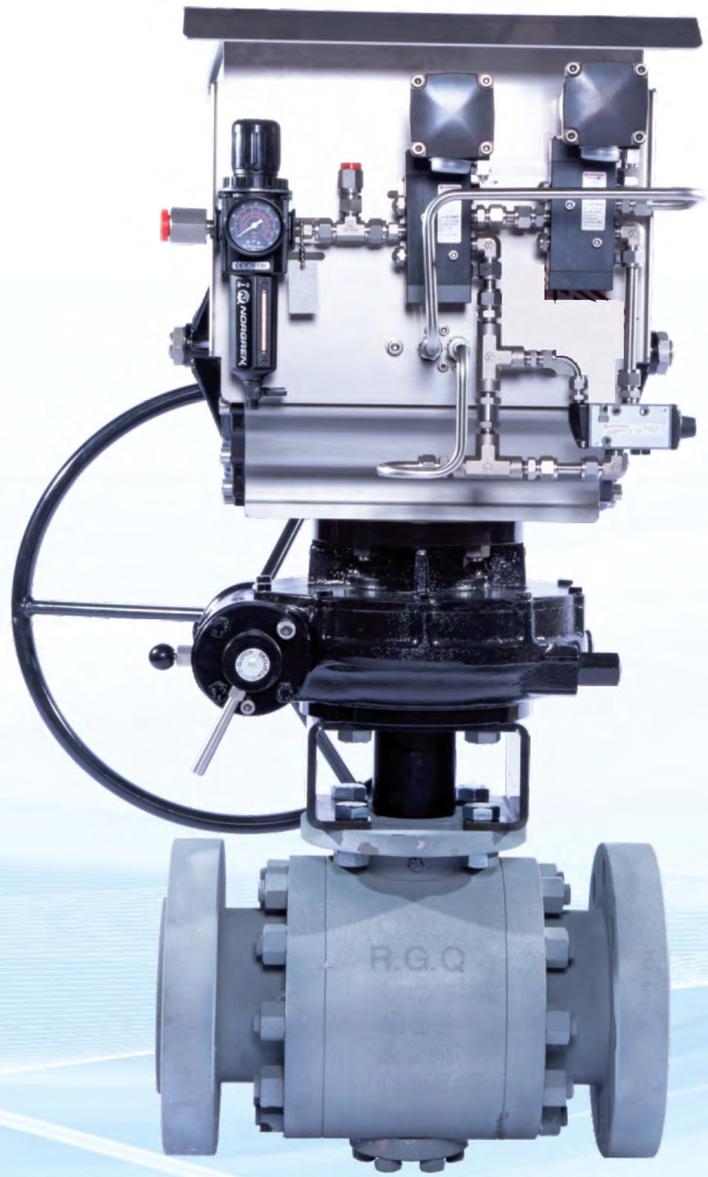
- Quarter turn non-rubbing design is achieved by triple offset geometry, completely eliminating all seat to seal rubbing throughout the 90 degree rotation of the disc.
- Metal seat results in broader application, longer valve life and less maintenance.
- Internally and externally retained, triple blow-out prevention.
- The seat seal ring can be changed easily.
- Single-piece cast body, with face to face dimensions provides interchangeability with gate, high performance butterfly, plug and other valves for simpler installation.







Valve Size		Face to Face Dimensions L		h
Ins	mm	ANSI 150# RF PN 1.6 RF	ANSI 300# RF PN 4.0 MFM	
		mm	mm	mm
1/2”	15	108	140	33
3/4”	20	117	152	36
1”	25	127	165	44
1.5”	40	165	190	59
2”	50	178	216	66
2.5”	65	190	241	92
3”	80	203	283	101
4”	100	229	305	132
5”	125	356	381	165
6”	150	394	403	183.5
8”	200	457	502	233
10”	250	533	568	285
12”	300	610	648	342



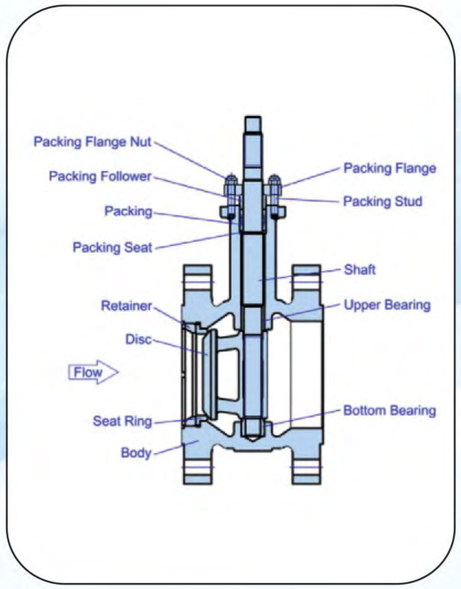
Specifications



BE1000/BE1200/BE1300

Rasta Group Eccentric Rotating Plug Valves series is eccentric segmental ball valve. It has some facilities of ball valves. Comparing with globe valves, this valve is more compact, light-weight and has higher capacity and larger rangeability. It's more economical for the service of low pressure drop and large flow rate, and more suitable for the fluid with high viscosity, slurry, fiber and solid.

BE1000 is flangeless with rugged body (wafer type), BE1200 is flanged type with long pattern and BE1300 is also flanged type but with short pattern only for ASME B16.5 flange.



Features

- Straight through flow pattern provides greater flow capacities.
- Standard integral extension bonnet allows for a wide range of fluid temperature applications (-45 ˚C to 450 ˚C).
- The unique self-aligning eccentric rotating plug provides tight shut off and low dynamic forces.
- The triple, over-sized bearing system provides exceptional plug shaft guiding.
- A large variety of reduced trim options are available in all sizes.
- Valve constructions allow material compatibility with NACE MR0175.
- High performance Glass Fibres TFE V-ring packing, Teflon & graphite fiber braided packing and graphite packing with live-loading to fit with low fugitive emissions API-622.



Engineering Data

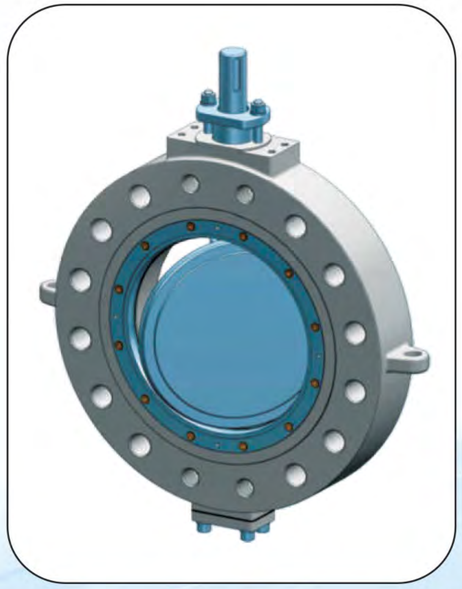
End Connection Sizes	1”~16” (DN25~DN400)
Valve Body Ratings	ANSI 150#, 300#, 600# PN1.0, PN1.6,PN 4.0, PN 6.3, PN 10.0, PN 11.0 Mpa
End Connection Styles	BE1000: Wafer type, BE1200/BE1300: Flanged type
End Connection Surface	RF Smooth Face only
Design Standards	ANSI B16.34
Body Face to Face Dimensions	BE1000/BE1300 : IEC60534-3-2 BE1200 : ASME B16.10 short pattern
Trim Form	Self-aligning eccentrically rotating
Characteristics	Modified Linear
Flow Direction	Flow to open is standard, flow to close is option
Rangeability	Full bore: 100:1 Reduced bore: 15:1~50:1
Rated Opening	50°
Seat Leakage	Solid Metal Seat : ANSI/FCI 70.2 Class IV Soft Seat : ANSI/FCI 70.2 Class VI
Bonnet Styles	Integral Type : -45 ~ +450 ℃ Separable Type : -196 ~ -45 ℃ , +450 ~ 650 ℃
Bonnet Packing	Teflon V-ring, Teflon Fiber, Graphite Packing
Paint	Gorgeous blue RAL5018 (polyurethanes group) and other expoxy finishes is available. NO painting is standard for stainless steel body





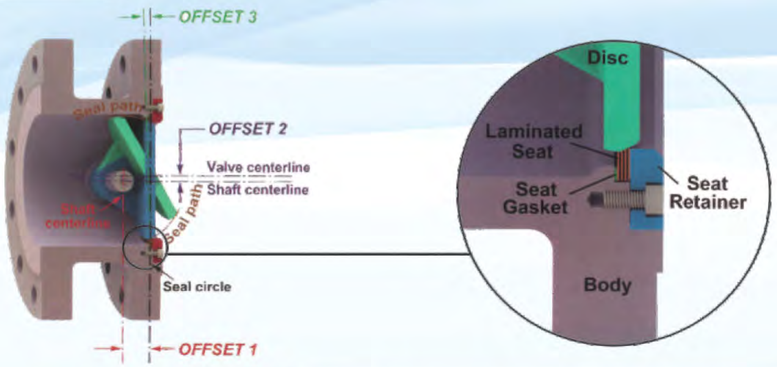
BT 8000/8200

Rasta Group BT8000/8200 triple-offset butterfly valve is a high-performance valve featuring a stainless steel disk with a soft or stainless steel seal ring. Soft seals provide excellent sealing capabilities in both directions. The pressure assisted stainless steel seal ring provides excellent shut off against pressure applied in the recommended flow direction for both liquid and gas applications.



Features

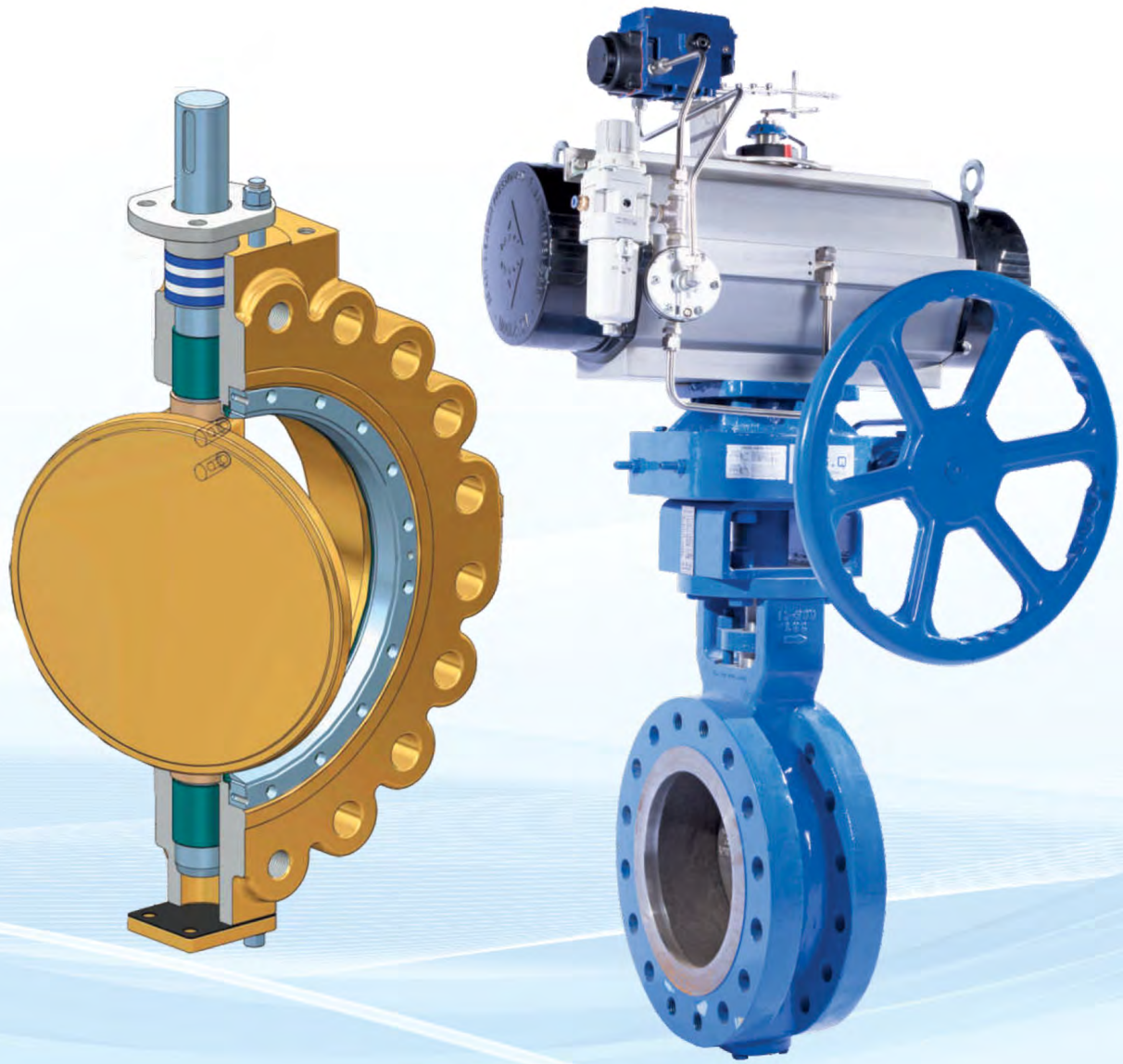
- Quarter turn non-rubbing design is achieved by triple offset geometry, completely eliminates all seat to seal rubbing throughout the 90 degree rotation of the disc.
- Metal seat results in broader application, longer valve life and less maintenance.
- Internally and externally retained, triple blow-out prevention.
- The seat seal ring can be changed easily.
- Single-piece cast body, with face to face dimensions in accordance with international standard.





Design Features

- Heavy duty solid body construction.
- Robust parts for trouble free service and low cost of ownership
- Field replaceable seat placed in body, away from flow provides bubble tight shut off.
- Heavy duty wedge pins connecting valve shaft to disc avoids lost motion under high torque conditions.
- Massive guiding.
- Wide choice of packing systems.
- Solid shaft design provides rigid support.
- Low friction bearings provide maximum radial support for higher shaft loads.



Benefits

- Full 90° of rotation can be utilized.
- Reduced inspection and maintenance costs.
- Trims are compact and easy to install.
- Excellent flow capacity and control rangeability.
- Reliable leakage performance, bubble tight shut off available.
- High interchangeability between sizes and other products.

Specifications



RG Actuator
D Series

The Series “D” diaphragm and spring Actuator is designed to satisfy the majority of general control valve applications. Five basic actuator sizes are available and these are combined with different spring ranges. The spring action of the actuator provides a very positive and reliable feature which is specified for many critical applications.

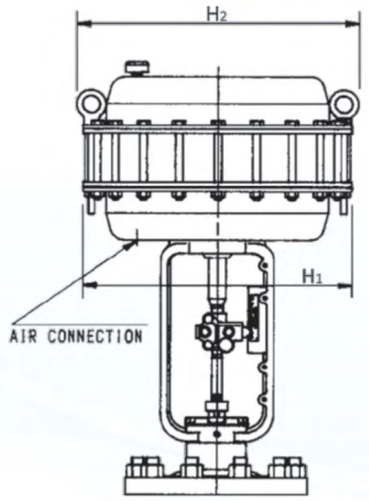


Features

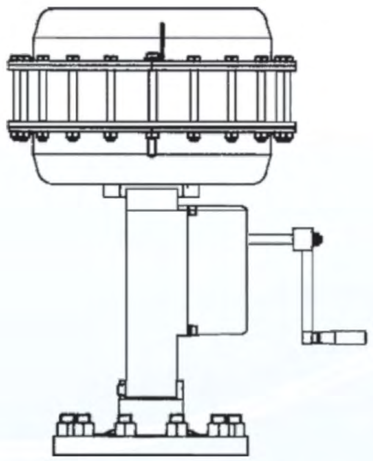
- High power.
- Fast response.
- Operates from low pressure air supply.
- Low stressed, positive spring action in either air fail close operations.
- Field reversible operation.
- Simple pressed steel actuator construction with a minimum number of parts for low cost.
- Fire resistant construction.
- Adjustable pre-compression spring forces.
- High degree of reliability with low hysteresis.



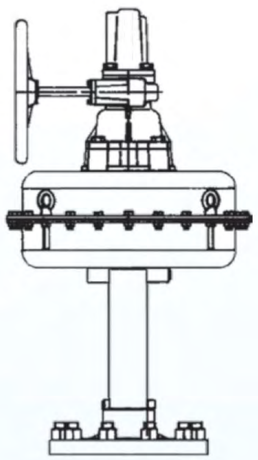
Series “D” Actuator Dimensions and general Drawings



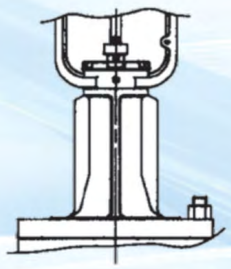
Standard Bonnet



Series “D” Actuator side view with Side Mounted Hand Wheel



Series “D” Actuator side view with Top Mounted Hand Wheel



Extension Bonnet

Actuator Size	H_1 (mm)	H_2 (mm)
B	220	231
D	270	283
G	350	367
H	450	472
L	650	678



Specifications



RG Actuator
W Series

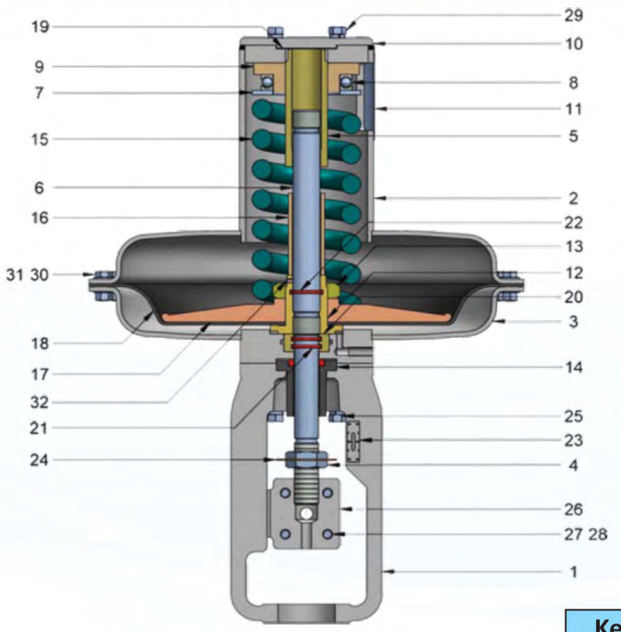
The Series “W” spring opposed pneumatically operated diaphragm actuator is designed to satisfy the majority of general control valve applications. It is particularly suited for the areas where high fire risk is present. The Series “W” actuator has proven dependability even when operating in the most adverse climatic conditions and temperatures.



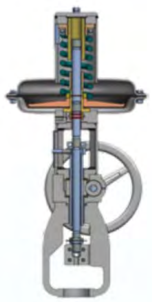
Features

- High power.
- Fast response.
- Operates from low pressure air supply.
- Low stressed, positive spring action in either air fail close operations.
- Field reversible operation.
- Simple pressed steel actuator construction with a minimum number of parts for low cost.
- Fabricated assembly bolted to a cast yoke combines lightness with mechanical strength.
- Fire resistant construction.

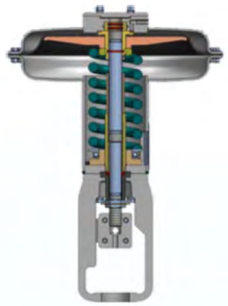




Reverse acting actuator



Actuator with Hand wheel



Direct acting actuator

Key No	Component	Key No	Component
1	Yoke	17	Diaphragm button
2	Spring tube assembly	18	Diaphragm
3	Diaphragm case assembly	19	Cover plate joint
4	Travel stop nuts	20	Seal box
5	Spring adjusting screw	21	Seal box O-ring
6	Actuator stem	22	Diaphragm collar O-ring
7	Spring carrier	23	Travel indicator plate
8	Spring thrust bearing	24	Travel indicator pointer
9	Spring adjuster	25	Yoke screws
10	Cover plate	26	Stem coupling
11	Spring cover plate	27	Stem coupling screw
12	Diaphragm collar	28	Stem coupling screw nut
13	Collar nut	29	Cover plate screws
14	Stem guide	30	Diaphragm case screws
15	Spring	31	Diaphragm case screw nuts
16	Travel stop tube	32	Grub screws

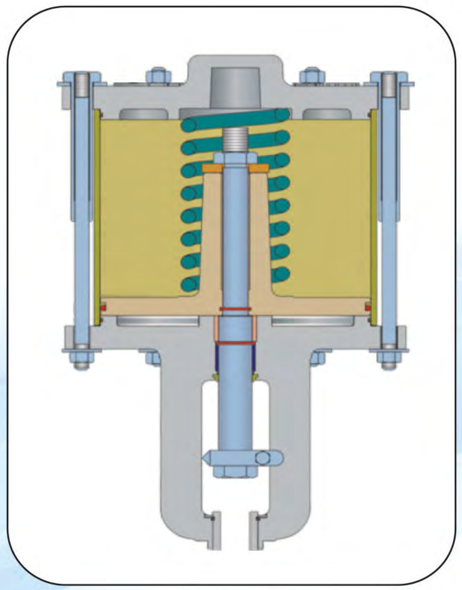


Specifications



RG Actuator
P Series

The Rasta Group series “P” actuators are originally identified within the Rasta Group range as the pneumatic cylinder actuators. These high power actuating units, for use in on/off or modulating service, have a thrust capability which is much greater than similar size diaphragm-spring actuators due to air pressure up to 150 psig (10 bar) being used.

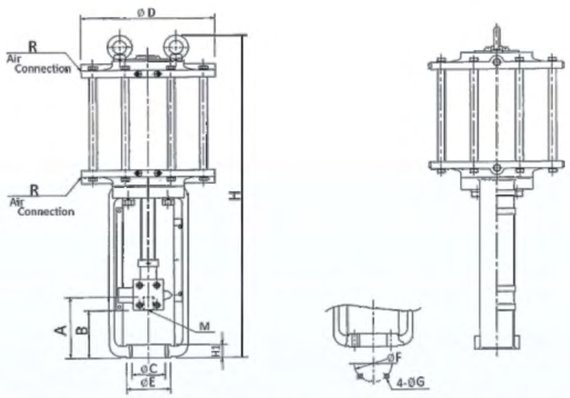


Features

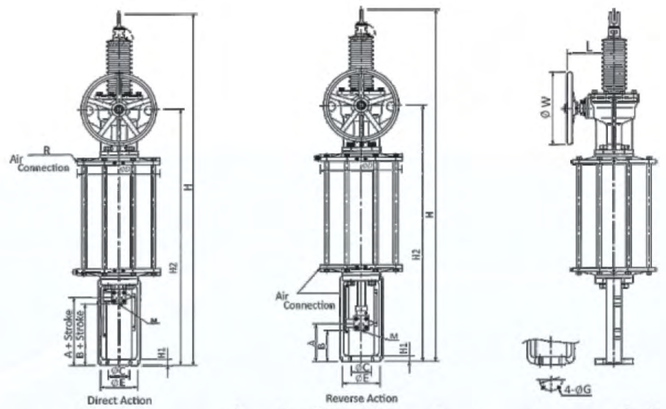
- High thrust capability.
- Capable of using air supplies up to 10 bar.
- Multi-size options with long stroke capability.
- Robust parts for trouble free, low cost ownership.
- Positive spring action.
- Lightweight corrosion resistance construction.
- Rotary options available.
- High degree of stem positioning accuracy.
- Cylinder design has lower air consumption than comparable diaphragm actuator.
- Highly stable providing inherent stiffness.



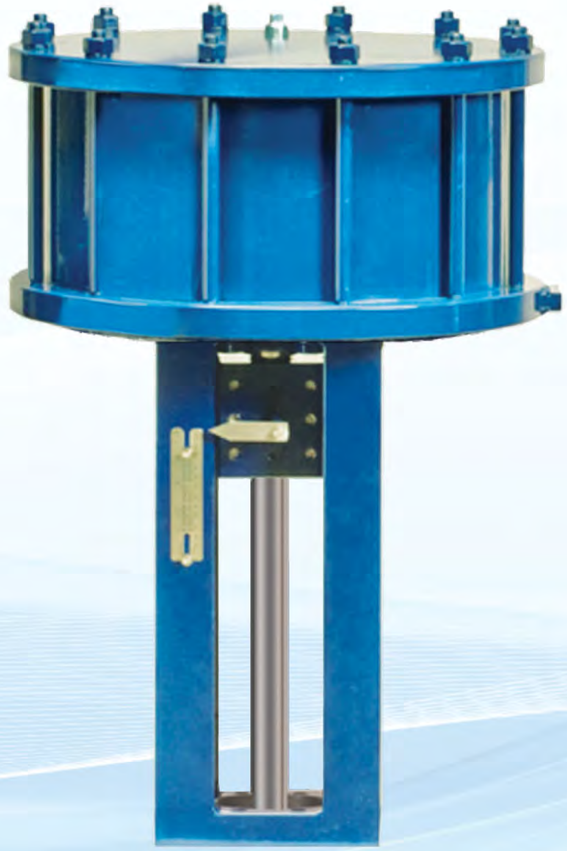
Series “P” Actuator Dimensions and General Drawings



Pneumatic Cylinder Actuator
(Double Acting)



Pneumatic Cylinder Actuator with
Hand Wheel (Spring Return Acting).



Size	Stroke	ϕD	H	A	B	ϕC	ϕE	M	H1	ϕF	ϕG	R
200	30~110	272	710	185	185	100	130	M24X3	30	-	-	Rc 3/8
	130~210		910									
300	30~110	382	770	185	185	100	130	M24X3	30	-	-	Rc 1/2
	130~210		970									
450	30~110	555	950	260	260	140	250	M36X3	40	200	300	Rc 1/2
	130~210		1150									
	250~410		1550									
600	30~110	730	1085	290	290	160	310	M52X3	60	240	39	Rc 3/4
	130~210		1285									
	250~410		1685									

Size	Stroke	ϕD	H	H2	ϕW	A	B	ϕC	ϕE	M	H1	R
200	30~60	272	1175	900	320	185	155	100	130	M24X3	30	Rc 3/8
	70~110											

Specifications



RG Electro-hydraulic REH 4000

Rasta Group Electro-hydraulic actuator offers a reliable solution for fine control of linear and rotary control valves. The system includes a solid manifold with a built-in gear pump to produce pressures up to 250 bar suitable for any thrust required in control valve applications. It is designed to deliver speeds up to 5mm/sec and is available in both double-acting and single-acting options.



Features

- Roust one-piece central manifold.
- Flexibility of handling a wide range of thrust /torque.
- Simple calibration & HMI.
- Rugged precision magnetic feedback system.
- Variable stroke lengths.



Engineering Data

Enclosure Material	Alloy Steel
Motor	P=0.75/0.9 KW Insulation class F IP55-65 Certificate Exde-Exd
Pump	Gear pump 1.1 cm^3/r
Electric Control Box	Aluminum Box Exd- Exe Certified
Junction Box	Aluminum Box 2 X M20 X 1.5 Cable Gland
Supply	400 V- 3 phase @ 50 Hz
Hydraulic Pressure	50 to 250 bar
Stroke	10 to 250 mm
Input Signal	4-20 mA

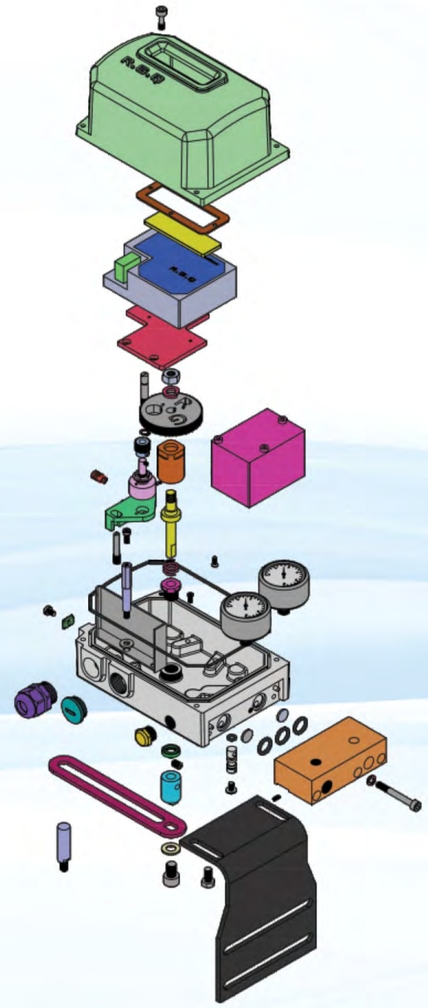


Specifications



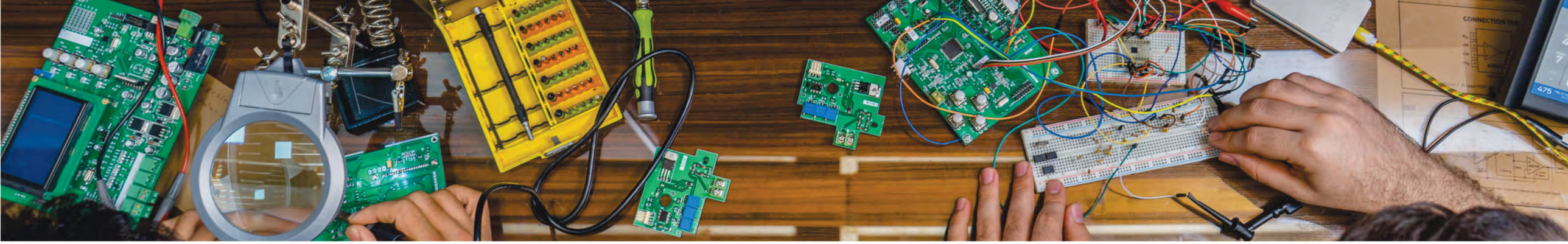
RG Electro-Pneumatic Positioner
RP 5000

Rasta Group Smart Positioner offers a robust design for a fine Control system. The Piezo-operated PWM control provides smooth and precise control over the opening of both linear and rotary actuators. The Aluminum enclosure contains separate compartments for intrinsic safety of drive and feedback system as well as the PCB.



Features

- User defined Control index.
- Automatic model identification.
- Auto Calibration.
- Optimal control with PWM method.
- Diagnostics.
- Summary Toolbar.
- Valve characteristic adjustment.
- Events and Alarms.



Engineering Data

Functional Specifications	
Input Signal	4-20 mA DC
Min. Input Signal	3.5 mA
Input Resistance	450Ω/500Ω (with HART) at 20mA
Supply Pressure	1.4-7.0 bar
Normal Flow	130L/min at 6.0bar
Stroke Range	10 mm to 205 mm (higher strokes on request)
Electrical Failure Action	Fail Safe/Fail in Place
Type of Pneumatic actuators	Single Action, Double Action, Linear/Rotary actuator
Technical Specifications	
Overload current	60mA
Sensibility	0.08mA or 0.5%
Linearity	1%
Regulation accuracy	0.5%
Repeatability	0.5%
Physical Specifications	
Enclosure Material	Aluminum
Ingress Protection	IP65
Pneumatic Connections	¼" NPT
Electrical Conduit	M20×1.5 (½" NPT on request)
Ambient Temperature	-30 °C ~ 80 °C
Weight	2.5 Kg

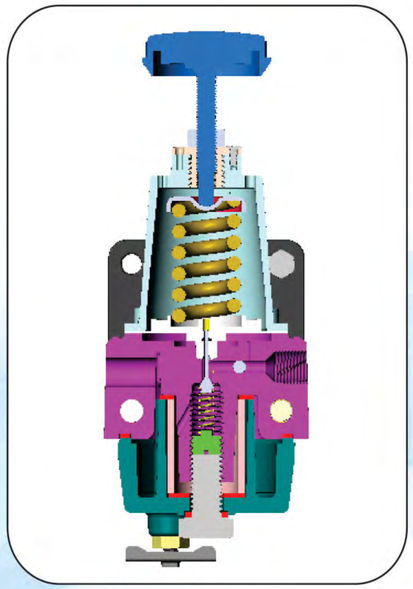


Specifications



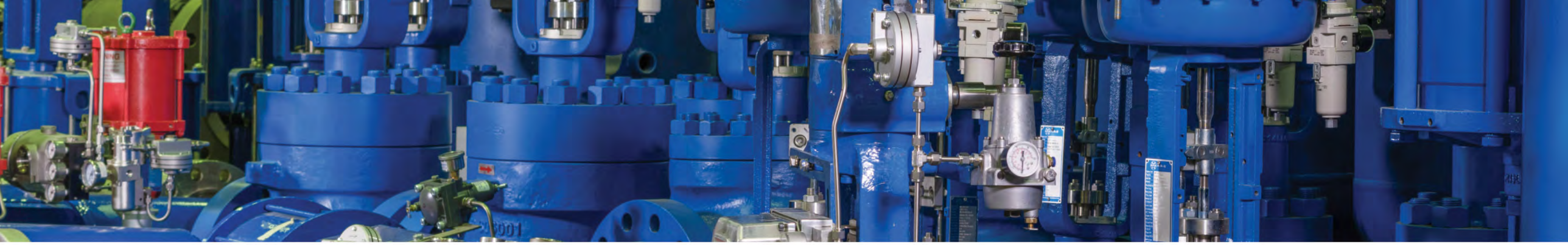
RG Air Filter Pressure Regulator
AFR 1000

Rasta Group Air Filter Regulator is a reliable unit designed for instrumentation. The design is specially well suited to controllers and instruments besides actuators, air cylinders and wide range of industrial pneumatic systems and equipments. RG Air Set is ruggedly designed and constructed and shows excellent performance characteristics. Quality materials are used and each unit is pressure and leak tested, to ensure long and trouble free operation.



Features

- Self-relieving.
- Rugged, corrosion resistant construction.
- Various output pressure range.
- Filter size options available to suit different applications.
- Several mounting options including mounting bracket.
- Minimum moving parts.
- Superior regulation characteristics.
- Low droop.
- Excellent stability and repeatability.
- Smooth action and stable control over full range.
- Ideal for instrument air pressure regulation.



Engineering Data

Physical Specifications	
Body	Aluminum
Internals	AISI 316
Mounting Brackets	AISI 316
Filter Elements	Ceramic / Plastic /Sintred Bronze
Valve Stem	AISI 316L with soft seating
Diaphragm	Nitrile / Viton with nylon insert
Spring	Cadmium plated spring steel
Engineering Data	
Medium	Air
Flow Capacity	8 scfm @100 psig supply and 20psig outlet
Exhaust Capacity	0.1 scfm @ downstream Pressure 5 psig above set point
Supply Pressure	150 psig maximum
Effect of supply pressure variation	Less than 0.2 psig for 25 psig
Regulated pressure	60-100 psig
Port size (inlet, Outlet, Gauge	1/4")NPT
Weight	1.0 kg



Specifications

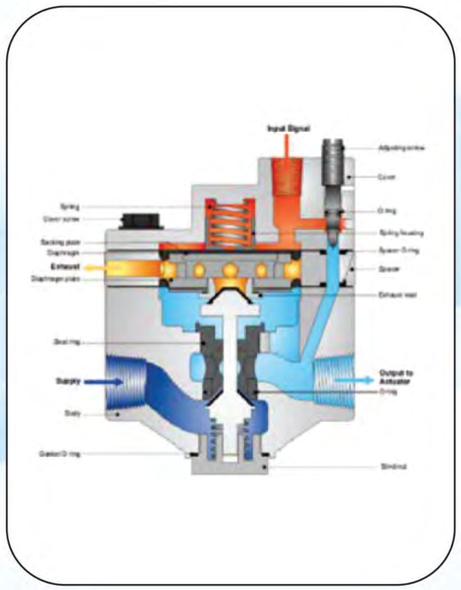


New Product

RG Volume Booster
RB 1000/3000

The series RB Volume Boosters are normally used to reproduce pneumatic signals in a 1:1 ratio whenever input isolation or increased flow capacity is required. These units can substantially increase the stroking speeds of large actuators while maintaining the normal stable responses, providing the signal fluctuations remain within the levels determined by the deadband limits which are adjustable, via an equalizing/bypass valve fitted, on both sizes of booster.

The soft seated control valves within the booster provide the tight shut-off necessary for isolation purposes and ensure the unnecessary consumption of air.



Features

- Extremely fast and responsive during operations.
- Versatile to meet most control element requirements.
- Minimal air consumption.
- Very low maintenance.
- Isolates the diaphragm from the main flow to. eliminate hunting and buzzing.
- Allows for tuning for best optimum dynamic response (1:1 ration only) and cycle free peration with valve positioners.
- Allows use in precision applications.



Engineering Data

Functional Specification	
Input Signal	Positioner output
Sizes	Model 1000: ¼" for Supply, Output and Signal
	Model 3000: ½" & ¾" for Supply and Output, ¼" for signal
Pneumatic Supply Pressure	Model 1000: 100 psig (6.9 bar)
	Model 3000: 150 psig (10.3 bar)
Flow Capacity	Model 1000: 10 SCFM
	Model 3000: 43 SCFM
Operating Supply Gases	Air, Nitrogen, Options: Methane (Natural gas)
Technical Specification	
Deadband Width	1 psig (0.7 bar) or 5% of output span, whichever is greater
Hazardous Area Classification	Complies with the requirement of ATEX Group II category 2 Gas and Dust
Physical Specification	
Construction Materials	Aluminum or Stainless Steel SS 316
Ambient Temperature	-30 °C ~ 80 °C
Approximate Weight	Aluminuim: 2.3 kg
	Stainless Steel: 6.9 kg



Specifications


RASTA GROUP
INDUSTRIAL VALVE MFG & DEV.CO (PJSC)



w w w . r a s t a g r o u p . n e t

Rasta Group Industrial Valve (Head Office)
No. 95, Soleyman Khater St., Motahari St., Tehran, Iran
Telephone: +98 (21) 88 86 50 31
Fax: +98 (21) 88 32 76 21

Rasta Group Industrial Valve (Factory)
No. 8, 20th St., Phase 3, Hashtgerd Industrial City, Iran
Telephone: +98 (26) 44 22 15 22
Fax: +98 (26) 44 23 41 00