

# **Bray** COMMERCIAL



**PRODUCT PROFILE**



## **Bray** INTERNATIONAL

### INTRODUCTION

At Bray International, Inc., our business is helping our customers with their flow control requirements. Our modular product line of butterfly, ball and check valves, actuators and accessories offers the best compatibility, economy and quality performance in the flow control industry.

Through years of field application experience, research and development Bray has designed products that meet the stringent requirements of today's flow control industry. We have earned a reputation for excellence by creating products of superior value and quality, providing personalized customer service and emphasizing on-time deliveries. Our success has always been the direct result of our fully integrated range of valve, actuator and control products. Rugged and reliable, our products are engineered to provide years of trouble free service.

Bray manufacturing facilities are certified to ISO 9001 quality standards, assuring product quality, precision manufacturing and internal process integrity.

Bray is committed to customer support. Our extensively trained staff is knowledgeable in all aspects of Bray's products and their applications and provide personal attention to every customer. To serve you locally, each region maintains a factory certified sales and service network for all Bray International products.

### COMMITMENT TO QUALITY

Bray International recognizes that "our customers make us successful" and they have a choice of many manufacturers when selecting valves, actuators and accessories for their applications. Since many manufacturers have access to the same materials of construction for these products, Bray believes that a customer's purchase decision is heavily influenced by the following key factors:

- Trust in the Manufacturer
- Confidence in the Quality Assurance and Integrity of the manufacturer
- Proven Industry Experience
- Features and benefits of the product
- Delivery
- Customer Service
- Cost of Ownership

**"Bray Controls is focused on and committed to meeting the expectations and needs of our customers while continually improving the effectiveness of our quality management."**

## **Bray** COMMERCIAL

Bray Commercial provides automated butterfly valves, ball valves and pressure independent valves to the commercial building HVAC market throughout the world. Wherever valve performance is required to maintain climate controlled environments, Bray can

provide the required automated valves to meet the demanding flow applications of chiller/boiler isolation, air handlers and terminal units for new construction, retrofit and/or LEED certification applications in buildings such as:

- |   |                            |
|---|----------------------------|
| • Hospitals                                 | • Schools and Universities |
| • Data Centers                              | • Airports                 |
| • Government and Municipal                  | • Hotels                   |
| • Sports/Entertainment / Convention Centers | • Commercial Offices       |

In addition to producing valves of unsurpassed quality, our core competency is servicing our BAS partners, OEM's and contractors to ensure you receive the most effective and economical valve solution package. Bray's extensively trained staff is knowledgeable in all

aspects of Bray's products and their applications. To provide personal attention to every customer, each region maintains a factory certified sales and service network for all Bray products.



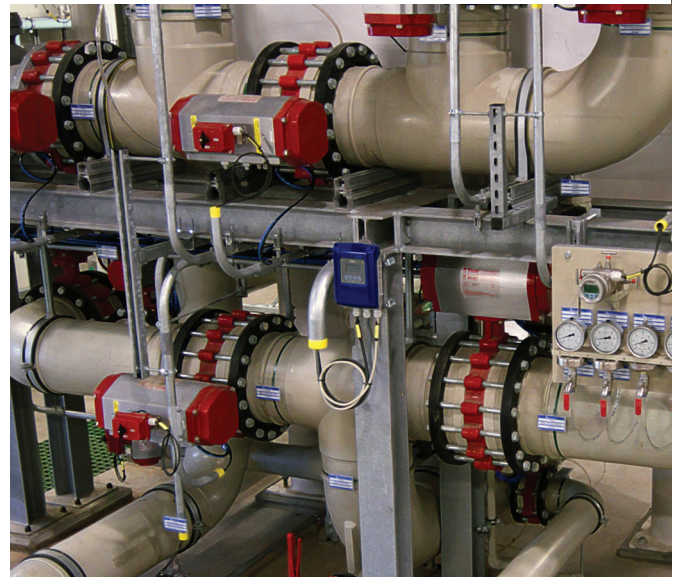


# RESILIENT SEATED

## NYL Series Butterfly Valves

Bray's resilient seated butterfly valves have emerged as the design standard in the commercial building market worldwide. Available with a wide range of electric and pneumatic actuators and accessories to satisfy any application.

- Low Torque
- High Cycle Life
- ANSI and DIN
- High and Low  $\Delta P$  Ratings



### NYL Series Butterfly Valves

Size Range	2" – 20" (50mm – 500mm)
Configurations	2-Way & 3-Way
End Connections	Lug for ANSI 125 and ANSI 150 Flanges
Fluid Temperature Range	-40 to 250°F (-40 to 121°C)
Maximum Close-off Pressure	175 PSI (12 Bar)
Flow Characteristic	Modified Equal Percentage
Body Materials	Cast Iron
Disc Materials	NY Series – Ductile Iron, Nylon 11 Coated AB Series – Aluminum Bronze
Available Actuators	On/Off, Floating, Modulating, Spring & Non-Spring Return - Commercial & Industrial Electric and Pneumatic
Applications	HVAC- Chillers, Cooling Towers, Boilers, Heat Exchangers





# HIGH PERFORMANCE

## MK Series Butterfly Valves

Ideal for high pressure, high temperature and high cycle mission critical HVAC applications. The Bray MK series innovative double offset design results in higher close-off and lower torque. The higher the pressure the tighter the seal. The valves energized seat is self-adjusting for wear and is easily field replaceable. Adjustable PTFE packing means it can be adjusted while the valve is in service.



### MK Series Butterfly Valves

Size Range	2 1/2" – 20" (65mm – 500mm)
Configurations	2-Way & 3-Way
End Connections	Lug, 2-way for ANSI 150 and ANSI 300 Flanges; 3-way for ANSI 150 flanges only
Fluid Temperature Range	-40 to 500°F (-40 to 250°C)
Maximum Close-off Pressure	ANSI 150: 285 PSI (20 Bar) ANSI 300: 740 PSI (50 Bar)
Flow Characteristic	Modified Equal Percentage
Body Materials	Carbon Steel
Disc Materials	316 Stainless Steel
Available Actuators	On/Off, Floating, Modulating, Spring & Non-Spring Return- Commercial & Industrial Electric and Pneumatic
Applications	HVAC- Chillers, Cooling Towers, Boilers, Heat Exchangers



# Pressure Independent Control Valves

## ATT, ATi and ATi Max Series

Bray's complete line of Pressure Independent control valves combine a control valve and dynamic balancing valve in a single cost effective housing. These valves eliminate overflow at less than design conditions to provide accurate control at all levels of demand. The use of PIC valves eliminates the need for balancing valves and significantly reduces installation costs. Pumping, heating and cooling costs are reduced minimizing overall operating costs. All Bray models are accurate to +/-5%.

The ATT adds to these benefits with the following unique features:

- Field adjustable up to 41 different flow rates in one and the same cartridge
- 100% Authority pressure independent. The valve will always use full stroke of the control element offering 100% authority for any of its 41 flow settings.
- Optional Pressure/Temperature measurement ports and built-in isolation ball valves for coil isolation.

ATT		
Size Range		1/2" – 1 1/2" (15mm – 40mm)
End Connections		B Body- Fixed Female NPT or BSP Threaded C & D Bodies- Union End Connection, NPT, BSP or Sweat
Fluid Temp. Range	Minimum Maximum	-4°F (-20°C) Body Style B 212°F (100°C) - Body Style C & D 248° (120°C)
Recommended Operating Pressure Drop		2.3 to 58 PSID (36 to 400 kPa)
Flow Rates		0.1 to 20.4 GPM ( 0.01 to 1.29 L/Sec)
Body Materials		Forged Brass
Cartridge Materials		POM (Polyoxymethylene) with Stainless Steel Trim
Available Actuators		Floating & Modulating with and without Failsafe
Applications		HVAC - Fan Coils, VAV Reheat Coils, Chilled Beams and Air Handling Units

ATi		
Size Range		1/2" – 3" (15mm – 80mm)
End Connections		Female NPT threaded
Fluid Temp. Range	Minimum Maximum	-22°F (-30°C) 250°F (121°C)
Recommended Operating Pressure Drop		3.0 to 58 PSID (27 to 689 kPa)
Flow Rates		1.0 to 95 GPM ( 0.06 to 1.55 L/Sec)
Body Materials		Forged Brass
Cartridge Materials		POM (Polyoxymethylene) with Stainless Steel Trim
Available Actuators		Floating & Modulating, Spring Return & Non-Spring Return
Applications		HVAC - Fan Coils, VAV Reheat Coils, Chilled Beams and Air Handling Units

ATi Max		
Size Range		2 1/2" – 6" (65mm – 150mm)
End Connections		ANSI or DIN
Fluid Temperature Range		-4°F (-20°C) to 248°F (120°C)
Recommended Operating Pressure Drop		5.1 to 58 PSID (34 to 400 kPa)
Flow Rates		23.4 to 468 GPM (0.32 to 35.5 L/Sec)
Body Materials		Ductile Iron
Cartridge Materials		316 Stainless Steel
Available Actuators		Floating & Modulating with and without Failsafe
Applications		HVAC - Air Handling Units, heat exchangers





# Characterized Ball Valves **SOFT TOUCH 2 SERIES**

The Soft Touch 2 (ST2) series of characterized ball valves from Bray provide accurate and cost effective control of a wide range of equipment in HVAC applications. The Amodel® flow characterizing Disk maintains equal percentage flow characteristics for optimum temperature control. A less expensive, longer lasting and better performing alternative to globe valves.



- Low Torque
- Direct Mount Actuators
- Rated for Low Pressure Steam and High Temperature Water
- High Rangeability

## ST2 SERIES BALL VALVES

Size Range		1/2" – 2" (15mm – 50mm)
Configurations		2-Way & 3-Way
End Connections		NPT or BSP Threaded
Fluid Temperature Range	Water	-22 to 203°F (-30 to 95°C)
	Water	-22 to 284°F (-30 to 140°C)
	Steam	15 PSIG (103 kPa) at 248°F (140°C)
		with High Temp. Mounting
Maximum Close-off Pressure		200 PSI (13.8 Bar)
Maximum Recommended Operating Pressure Drop		50 PSI Maximum Differential 30 PSI for Quiet Service
Body Materials		Forged Brass
Trim Materials		300 Series Stainless Steel
Available Actuators		On/Off, Floating, Modulating, Spring & Non-Spring Return, etc.
Applications		HVAC- Air Handling Units, Heat Exchanger Control, Terminal Units

# Flanged Globe Valves **DG SERIES**

The DG series globe valves provide stable and accurate control of both water and steam in HVAC applications. These valves feature a cartridge style packing, which is easily replaceable while the valve is in line.

Constant plug guiding and precision-machined metal to metal seating assures ANSI Class IV shutoff (.01%) which provides low leakage and energy conservation.



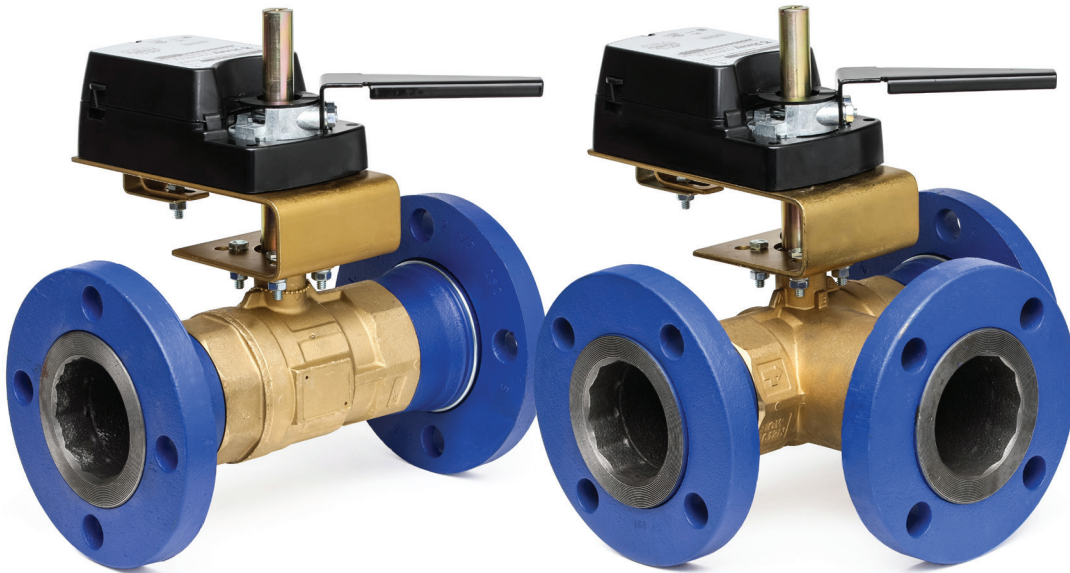
## DG SERIES GLOBE VALVES

Size Range		2 1/2" – 6" (65mm – 150mm)
Configurations		2-Way & 3-Way
End Connections		ANSI 125 Flanged
Fluid Temperature Range		-20 to 450°F (-29 to 232°C) @125 PSI (8.6 Bar)
Flow Characteristics		2-Way with standard trim - Equal Percentage 3-Way and 2-Way with SS Trim - Linear
Body Materials		Cast Iron
Trim Materials		Bronze, Stainless Steel Optional
Available Actuators		On/Off, Floating, Modulating, Spring & Non-Spring Return
Applications		HVAC- Water/Steam- Air Handling Units, Heat Exchanger Control, Terminal Units

# Characterized Flanged Ball Valves **STM SERIES**

The STM Series flanged ball valves are designed to regulate the flow of hot water, chilled water and 50% glycol solutions to the demand of a controller in HVAC systems. Its unique free spinning lap flange allows easy positioning and alignment with mating flanges.

The STM has a stainless steel ball and stem making it dimensionally stable at high temperatures so it works in low pressure steam applications. The low torque design allows for smaller actuators.



STM SERIES FLANGED BALL VALVES		
Size Range		2½" – 4" (65mm – 100mm)
Configurations		2-Way & 3-Way
End Connections		ANSI 125/150 Flange
Fluid Temperature Range		-0 to 284°F (-18 to 140°C)
Fluid Temperature Range	Water Steam	0 to 284°F (-18 to 140°C) 25 PSIG (172 kPa)
Maximum Close-off Pressure		2-Way: 100 PSI (6.9 Bar) 3-Way: 50 PSI (3.5 Bar)
Maximum Recommended Operating Pressure Drop		30 PSI for Quiet Service
Body Materials		Forged Brass
Trim Materials		300 Series Stainless Steel
Available Actuators		On/Off, Floating, Modulating, Spring & Non-Spring Return
Applications		HVAC- Air Handling Units and Heat Exchanger Control

## Electric Actuators **SERIES 70**

The Series 70 features on-off or modulating control. Bray's Series 70 electric actuator's compact design offers by far the industries easiest access to terminal block wiring, end switch adjustments and servo calibrations.

- Battery back-up option
- Declutchable Override
- ISO mounting on any quarter turn valve



<b>Torque</b>	600 to 18,000 lb-ins (68-2030 Nm)
<b>Voltage</b>	VAC: 24, 120, 240
<b>Operating Mode</b>	On/Off, Modulating
<b>Standard Closure</b>	NEMA 4

## Pneumatic Actuators **SERIES 92/93**

Bray Series 92/93 actuators are rack and pinion, opposed-piston actuators available in two versions: double acting and spring return. The Series 92/93 is completely enclosed and self-contained. The many features minimize maintenance and provide safe, simple disassembly and assembly.



<b>Torque</b>	Up to 44,130 Lb-in (4,986 Nm)
<b>Pressure Rating</b>	Max Pressure: 140psig (10 Bar)
<b>Temperature Range</b>	-20°F to 200°F (-29°C to 95°C)

## COMMERCIAL ACTUATORS

Bray's wide variety of commercial electric actuator choices increases flexibility when choosing peripheral products for Building Automation Systems. We offer many different torque outputs and optional features to ensure you have the best actuator for the application. Jumper or DIP switch selectable features allow versatility in the field. In addition, our actuators are manufactured to ISO 9001 and Six Sigma Standards making them the highest quality on the market today.



## RETROFIT KITS

### Globe Valves and Butterfly Valves

Bray has a retrofit solution for virtually any linear or quarter turn valve.



**Bray** COMMERCIAL

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