VALVE Portfolio







TRILLIUMFLOW.COM

ATWOOD & MORRILL®

Engineered Isolation & Check Valves

BATLEY VALVE®

Butterfly Valves

BLAKEBOROUGH®

Control, Choke, & Steam Conditioning Valves

HOPKINSONS®

Isolation Valves

MAC[®] Rotary Gate Valve

RED POINT®

Ball, Gate, Globe, Check, and Double Block & Bleed valves

SARASIN-RSBD®

Safety & Safety Relief Valves

SEBIM[®] Nuclear Pilot Operated Safety Valves

TRICENTRIC®

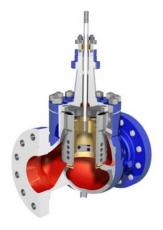
Triple Offset Butterfly Valves



















BLAKEBOROUGH®

General Service

Features

- Top and bottom guided
- Contour trim
- Low pressure applications

Class - ASME 150-600 Sizes - 1 1/2" - 6" (40mm-150mm)

BLAKEBOROUGH®

Features

Small Size Control



- High pressure drop
- Cage & seat guided

Stable cage guiding

• Single & multi-stage trims

medium pressure drops

Class - ASME 150-4500

X-Stream[™] Severe Service

• Stable cage guiding

Trim velocity control

• Patented flow path

• Used in high pressure drop

Used to eliminate effects of cavitation, flashing, noise &

Sizes - 1 1/2" - 36" (40mm-900mm)

- Suitable for all applications
- Multi-stage trims available

Class - ASME 150-4500 Sizes - 1/2" - 1" (15mm-25mm)

Cage Guided Control

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Features

Features



BLAKEBOROUGH®

BLAKEBOROUGH®



BLAKEBOROUGH®



Class - ASME 150-4500 Sizes - 2"- 24" (50mm-600mm)

applications

Double Seated Control

Features

- Top and bottom guided
- Contour trim Double seated valve for high
- capacities
- Ideal for mixing applications

Class - ASME 150-1500 Sizes - 1 1/2" - 36" (40mm-900mm)

BLAKEBOROUGH®

Choke



BLAKEBOROUGH®



BLAKEBOROUGH®



BLAKEBOROUGH®



MAC®



Features

- Stable cage guiding Erosion resistance
 - Tungsten carbide trims

CONTROL, CHOKE, AND STEAM CONDITIONING VALVES

- High pressure drop control
- API designs available

Class - ASME 150-4500 **Sizes -** 1"- 24" (25mm-600mm)

Mini Desuperheater

Features

- · Steam conditioning for small pipe sizes
- Separate water control

Class - ASME 150-2500 Sizes - 1/2" - 12" (15mm - 300mm)

Pipe Desuperheater

Features

- Integrated water control
- Atomising nozzles
- · Water is injected along the pipe centreline

Class - ASME 150-2500 Sizes - 6" - 36" (150mm-900mm)

Turbine Bypass

Features

- Pressure reducing & desuperheating as an integral unit
- Noise & stable pressure control
- Water atomising nozzles

Class - ASME 150-4500 Sizes - 1 1/2" - 36" (40mm-900mm)

Rotary Gate

Features

- No displaced volume or cavity
- Straight through design: no bends
- Adaptable for isolation, chemical injection & throttling

Class - API 3000-15000 **Sizes -** 1"- 6" (25mm-150mm)





BATLEY VALVE®



BATLEY VALVE®



BATLEY VALVE®



BATLEY VALVE®



TRICENTRIC®



Softseal

Features

- · Low cost option for low temperature water sealing
- Rubber seal located on valve disk
- Single & double offset designs

Class - ASME 150-600 Sizes - 6" - 80" (150mm-2000mm)

Hyperseal/Metalseal

Features

- Single & double offset designs
- Seal clamped into valve body
- . Resilient seated, metal seated, fire safe, & swing through options

Class - ASME 150-900 Sizes - 3"- 64" (80mm-1600mm)

Rubber Lined

Features

- Low cost solution for controlling low temperature corrosive fluids
- Body & shaft material fully isolated from fluid

Class - ASMF 150-300 Sizes - 3"- 64" (80mm-1600mm)

Anti-Cavitation Disk

Features

- Swing through & Hyperseal designs
- Anti-cavitation cowl to prevent cavitation at reduced valve openings

Class - ASME 150-2500 Sizes - 4"- 64" (100mm-1600mm)

Triple Offset Butterfly

Features

- Metal seat design
- Long life seats
- Bi-directional tight sealing
- API 598 zero leakage

Class - ASME 150-900 **Sizes -** 2"- 120"(40mm-3048mm)

A&M FREE FLOW® **Reverse Current**

Features

- Free-swinging disk allows independent movement with assured closure
- Inclined seat design
- Self aligning disk & disk arm

Class - ASME 150-1500 Sizes - 3"- 48" (80mm-1200mm)

ATWOOD & MORRILL[®] Boiler Feed Check

Features

- Double protection including positive closure & power-assisted closure
- Streamlined flow passages minimizes pressure drop

Class - ASME 900-2500 Sizes - 4"- 24" (100mm-600mm)

ATWOOD & MORRILL[®] Compressor Check

Features

- Tight sealing pressure
- Low pressure drop
- Power-assisted
- Quick closure

Class - ASME 150-300 Sizes - 8"- 56" (200mm-1400mm)

ATWOOD & MORRILL® Wye Type Check



- · Stop check, stop, lift check, MSIV
- Y for lower pressure loss
- Bevelled seats for tight sealing Large seat bore for reduced
- pressure drop
- Forged or cast body

Class - ASME 900-2500 Sizes - 6"- 24" (150mm-600mm)

ATWOOD & MORRILL® Three Way

Features

- · Allow two different flow directions from the same valve
- Simplifies piping layout
- Installation & maintenance savings

Class - ASME 150-2500 **US Sizes -** 6"- 24" (150mm-600mm) **UK Sizes -** 2"- 24" (40mm-600mm)











HOPKINSONS®



HOPKINSONS®



HOPKINSONS®







HOPKINSONS®



TRILLIUM FLOW TECHNOLOGIES®

Full Bore Parallel Slide

Features

- Full bore straight through design
- ٠ Complete flow isolation in either direction
- · Suitable for any temperature

Class - ASME 150-3100 Sizes - 1/2" - 36" (15mm-900mm)

Venturi Parallel Slide

Features

- Smooth transitional flow
- Anti-vibration disk arrangement
- Minimum pressure drop
- Self aligning disks
- Sealing achieved by fluid

Class - ASME 150-3100 Sizes - 1/2" - 26" (15mm-650mm)

Forged Parallel Slide

Features

- Superior forged material
- Ideal for high temperatures
- Minimum pressure drop
- Isolation in both directions

Class - ASME 900-4500 Sizes - 3" - 26" (80mm-650mm)

High Performance Drain

Features

- Can be installed singly or in a master and martyr configuration Winged seats
- Square gates

Class - ASME 900-3600

Sizes - 3/4" - 4" (20mm-100mm)

Uniflow Slide

Features

- · Globe design with parallel slide design seating technology
- Ideal for isolation in small process lines
- Uni-directional sealing

Class - ASME 2500-3100 Sizes - 3/8" - 2" (10mm-50mm)

HOPKINSONS®

Bonnet over-pressure protection

GATE, GLOBE, AND THREE WAY VALVES

- Flexible wedge design
- Precision body guides
- Bi-directional operation

Class - ASME 150-2500 Sizes - 3"- 24" (80mm-600mm)

HOPKINSONS®

Features

Globe Isolation

- High integrity shut-off
- Patented high grade nickel alloy seats
- Linear rising stem

Class - ASME 2500-3100 Sizes - 1/2" - 2" (15mm-50mm)

HOPKINSONS®

Features

Feed Heater Bypass

- Recognized industry standard for extraction steam turbine protection
 - Positive, tight sealing, fast closure, & low pressure drop

Class - ASME 900-2500 Sizes - 1"- 36" (25mm-900mm)

Features

- · Solid wedge, flex-wedge, parallel slide, through conduit
- Standard, bolted bonnet,
- pressure seal bonnet Low fugitive emission
- Different hard facing
- Exotic and commodity material Class - ASME 150 - 4,500
- **Sizes -** .25" 16" (8mm-400mm)
- **RED POINT®** Globes

Features

- Y-type, Pressure seal
- Bonnet and angle globe
- Low fugitive emission
- Exotic and commodity material

Class - ASME 150 - 4,500 **Sizes -** .25" - 16" (8mm-400mm)

















Features

SARASIN-RSBD®

SARASIN-RSBD®

SARASIN-RSBD®

SARASIN-RSBD®

SARASIN-RSBD®

9 Series

Features

- Thermal expansion
- Full nozzle
- Conventional or balanced
- Metal or soft seat
- Adjustable blowdown

Class - ASME & API 150-2500 Sizes - 1/2" - 1 1/2" (15mm-40mm)

76 & 78 Series

Features

- Full & Semi Nozzle
- API STD 526 standardized dimensions
- Non-flowing, pop, or modulating action pilots

Class - ASME & API 150-2500 **Sizes -** 1" - 12" (25mm-300mm)

76E Series Stareco™

Features

- Economizer applications (water & steam)
- Thermoglide[®] anti-seizing capabilities

Class - ASME 150-2500 **Sizes -** 1" - 12" (25mm-300mm)

MBP

Features

Low pressure steam -

- Turbines and Condensers Watersealed soft seated
- High seat tightness

Class - 150 through 2500 **Sizes -**6" - 30" (150mm-750mm)

STARSTEAM[®] & STARFLOW-V[™]

Features

- Boiler steam low/medium/high
 pressure
- Thermoglide[®] anti-seizing capabilities
- Stardisc high seat tightness
- In-situ testing ready
- **Class -** 150 through 2500 **Sizes -** 1 1/2" - 12" (40mm-300mm)

SARASIN-RSBD®

Features

- Tank storage protection
- Semi nozzle

74VP/LP Series

High seat tightness

Class - ASME & API 150-300 Sizes -2" - 14" (50mm-350mm)

77 Series

Features

- Tank storage protection
- Avoid tank corrosion

Class - ASME & API 150-300 **Sizes -** 1/2" - 1" (15mm-25mm)

RS Series

Features

- Changeover valves for plant maintenance
- Less than 3% pressure drop
- **Class -** 150 through 600
- Single way $2" 2 \times 2"$ through
 - 10" 2 x 10"
- **Dual way -** 2" 2 x 1" through 10" – 2 x 8"
- TSV 2000 Nuclear POSV

Features

- Excellent operation for: steam, gas, liquid, or two-phase
- Design standard: RCC-M level 1,

NUCLEAR POSV

- IEEE, NNSA
- Applications: primary or secondary circuits

Class - ASME 150-2500 **Sizes -**4" - 6" (100mm-150mm)

PRG 2000 Nuclear POSV

Features

- Alternative version of TSV 2000
 Excellent operation for: steam, gas, liquid, or two-phase
- Design standard: RCC-M level 1, IEEE, NNSA
- Applications: primary circuit
 Class ASME 150-2500
 Sizes -4" 6" (100mm-150mm)













SEBIM®



SEBIM®



SEBIM®



SEBIM®



SEBIM®



Nuclear POSV

- **Features** Alternative version of TSV 2000
- · For steam, gas, liquid, or two-phase
- Design standards: RCC-M level 1, ASME section III Sub.NB Class 1. OTT. IEEE. NNSA
- · Applications: primary or secondary circuit Alternative version of TSV 2000
- Class ASME 150-2500
- Sizes 4" 16" (100mm-400mm)

Nuclear POSV

Features

- Compact design
- For steam, gas, liquid or two-phase
- Design standards: RCC-M level 1, ASME section III Sub.NB Class 1. OTT. IEEE. NNSA
- Applications: primary or secondary circuit

Class - 150 through 2500 Sizes - 2" - 8" (50mm-200mm)

Nuclear POSV

Features

- · For containment cold and hot overpressure protection on steam, water, gas, or steam & water
- Design standards: RCC-M level 1, ASME section III Sub. NB Class 1, OTT, IEEE, NNSAK1 – 1E
- Applications: primary circuit

Class - 150 through 2500 Sizes - 1" - 16" (25mm-400mm)

Nuclear POSV

Features

- Compact design for SMR
- For steam, gas, liquid, or two-phase
- Design standards: RCC-M level 1, ASME section III Sub.NB Class 1, OTT, IEEE, NNSA
- Applications: primary circuit
- **Class -** 150 through 2500
- Sizes 1/2" 1 1/2" (15mm-40mm)

Nuclear POSV

Features

- For steam, gas, liquid, or two-phase
- Design standards: RCC-M level 2, ASME section III Sub.NB Class 2, OTT. IEEE. NNSA
- · Applications: secondary circuit (steam generator)
- Class 150 through 2500 Sizes - 1" - 16" (25mm-400mm)

RED POINT®

Bellow Sealed Features

- Non-rotating stem prevents torsion of bellows Exotic and commodity material

• Gate and globe

- Class ASME 150 4,500 **Sizes -** .25" - 16" (8mm-400mm)
- **RED POINT®**



RED POINT®

Features

Ball

- Floating or trunnion mounted
- Seats Soft or metal seated
- Extended bonnet, Lipseals, Heating Jacket
- Low fugitive emission, fire safe design
- Class ASME 150 4,500
- Sizes .25" 16" (8mm-400mm)

Check

Features

- Piston, swing, ball, dual plate, nozzle
- Low fugitive emission

Class - ASME 150 - 4,500

Exotic and commodity material

Sizes - .25" - 16" (8mm-400mm)



RED POINT®

Double Block and Bleed

Features

- Floating or trunnion mounted
- Seats Soft or metal seated
- Extended bonnet, Lipseals, Heating Jacket
- Low fugitive emission, fire safe design
- Exotic and commodity material
- Class ASME 150 4.500

Non-Commodity

Features

- Designed, calculated, produced and tested according to customer requirements
- 3-4 way ball valves
- Exotic and commodity material

Class - ASME 150 - 4,500 Sizes - .25" - 16" (8mm-400mm)



- - DBB-DIB1-DIB2 as per API6D

 - **Sizes -** .25" 16" (8mm-400mm)





RED POINT®



APPLICATION & LOCATION

VALVE PORTFOLIO

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			Acid Service	Chemical Processing	Corrosive Gases	Cryogenic	Fire Protection	Gas Pressure	Marine Seawater	Molten Salt	Oil & Gas	Petrochemical	Pharmaceuticals	Power Generation	Water Treatment	Steam Pressure	Steam Conditioning	Subsea	Nuclear	China	UK	France	Netherlands	South Korea	USA
		FULL BORE Parallel slide		•				•				•	•	•		•			•	•	•				•
Tr L		VENTURI Parallel slide		•				•				•	•	•		•			•	•	•				
* 4		FORGED Parallel slide		•				•				•	•	•		•			•	•	•				•
and A		HIGH Performance drain												•		•			•	•	•				
Ĩ	VES	UNIFLOW SLIDE												•		•			•		•				
Ĩ	ISOLATION VALVES	FLEXI-WEDGE Gate	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•		•		
	ISOL/	GLOBE ISOLATION	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•		•
		THREE WAY	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•				•
١		FEED HEATER Bypass												•					•	•	•				
		LOW PRESSURE Wedge gate	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•			•		
		HIGH PRESSURE Wedge gate	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•					•		
		SPRING LOADED Safety Relief	•	•	•	•	•		•	•	•	•	•	•	•	•				•		•			
1	VES	SPRING LOADED Safety												•		•			•			•			
	SAFETY VALVES	PILOT OPERATED Safety Relief	•	•	•	•	•	•	•	•	•	•	•	•	•	•						•			
	S	PILOT OPERATED Safety	•	•	•	•	•	•	•	•	•	•	•	•	•	•						•			
		NUCLEAR PILOT Operated	•	•	•	•	•		•	•	•	•	•	•	•	•			•			•			
Ĩ	AND Valves	2 PIECE Trunnion Ball	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•					•		
-	E BLOCK Amodity	3 PIECE Trunnion Ball	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•					•		
0	BALL, DOUBLE BLOCK AND Bleed, Non-Commodity valves	DOUBLE BLOCK And bleed	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•					•		
(#	BALL BLEED, I	NON-COMMODITY	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			•		•		•

									AF	PLI	CAT	ION							
			Acid Service	Chemical Processing	Corrosive Gases	Cryogenic	Fire Protection	Gas Pressure	Marine Seawater	Molten Salt	0il & Gas	Petrochemical	Pharmaceuticals	Power Generation	Water Treatment	Steam Pressure	Steam Conditioning	Subsea	Nuclear
		GENERAL SERVICE	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
		SMALL SIZE	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
		CAGE GUIDED	•	•	•	•		•	•	•	•	•	•	•		•	•		•
Ŕ		SEVERE SERVICE	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	CONTROL VALVES	CONTOUR TRIM	•	•	•	•		•	•	•	•	•	•	•		•	•		
	CONTROL	CHOKE			•			•	•		•								
AND NO		ROTARY GATE									•							•	
		MINI Desuperheater				•								•		•			
截.		DIDE																	

E		GENERAL SERVICE	•										•	•										
		SMALL SIZE	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
		CAGE GUIDED	•	•	•	•		•	•	•	•	•	•	•		•	•		•	•	•		•	
		SEVERE SERVICE	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	VALVES	CONTOUR TRIM	•	•	•	•		•	•	•	•	•	•	•		•	•				•		•	
4	CONTROL VALVES	CHOKE			•			•	•		•										•			
(selfe		ROTARY GATE									•							•			•			
R		MINI Desuperheater				•								•		•					•		•	
ł		PIPE Desuperheater				•								•		•					•		•	
		TURBINE BYPASS												•		•			•	•	•		•	
Ó		SOFTSEAL					•		•												•			
6	VALVES	HYPERSEAL/ Metalseal	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				•			
Ø	BUTTERFLY VALVES	RUBBER LINED			•					•	•										•			
	BUT	ANTI-CAVITATION	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•		•			
6		TRICENTRIC®	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•				•
100		A&M FREE FLOW® Reverse current		•				•	•	•		•		•		•			•	•	•		•	•
	CHECK VALVES	BOILER FEED Check												•						•	•		•	•
3	CHECK	COMPRESSOR Check						•												•	•		•	•
ŀ		WYE TYPE												•		•				•				•



USA

MANUFACTURING LOCATION

Netherlands South Korea

France

NK

China

APPLICATION & LOCATION

VALVE PORTFOLIO

	APPLICATION												N	IANL	JFAC	TURI	NG	LOCATION						
		Acid Service	Chemical Processing	Corrosive Gases	Cryogenic	Fire Protection	Gas Pressure	Marine Seawater	Molten Salt	0il & Gas	Petrochemical	Pharmaceuticals	Power Generation	Water Treatment	Steam Pressure	Steam Conditioning	Subsea	Nuclear	China	UK	France	Netherlands	South Korea	USA
0-	DUAL PLATE	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•					•		
CHECK VALVES	NOZZLE	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•					•		
CHECK	PISTON	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•					•		
	SWING	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•					•		



SITE SERVICE	WORKSHOP SERVICES	SERVICE PLANS
Outage, shutdown, and turnaround management	Mechanical valve overhaul and refurbishment	24-hour customer service number
Overhaul and refurbishment	Valve pressure testing	48-hour service response engineer
Installation and commissioning	Upgrades and modifications	Long term service agreement
In-site valve seat replacement	Control valve service, maintenance, and monitoring	Embedded engineering programmes
In-situ testing and monitoring	Actuator servicing and torque testing	Asset management
Turnkey project management	Service exchange programs for valves and actuators	Bespoke service management







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