

GLOBAL SUPPLIERS SINCE 1982

QUALITY VALVES & PROCESS EQUIPMENT

Valmet

BAUM

Bray

FESTO

WEY

JC
VALVES

RICHTER

PROTECTOSEAL

VINCO
VALVES

We Are Automation

Bitter cold, scorching heat, high humidity, salt water or extreme UV radiation are part of the normal production environment in many sectors of the process industry. Innovative automation solutions will only make the systems more productive if the processes run reliably and safely in the long term. Components and systems from RAM are equipped for the harshest operating conditions and have been tried and tested around the world. They also meet the strictest requirements for explosion prevention and protection and functional safety (SIL).

Valmet for Modulation

Intelligent Valve Controllers

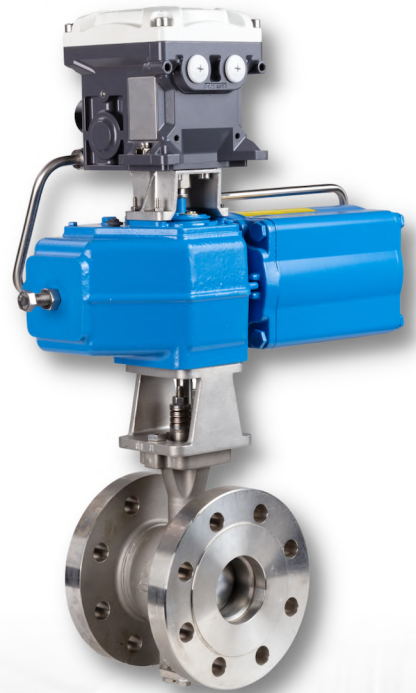
Designed to operate all control valve actuators and in all industry areas. Single and double acting, linear and rotary operation.

Valve Position Monitoring:

- ✓ HART®
- ✓ Profibus PA & Foundation Fieldbus for advanced diagnostics.



Suitable for Safe Area & ATEX environments.



Actuation

We offer a range of actuators combining high life cycle, rugged construction and extremely compact design, including:

- ✓ Double Piston
- ✓ Rack & Pinion
- ✓ Scotch Yoke

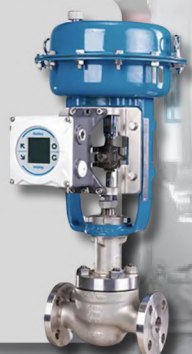
Valves For Precision Control

We offer a wide range of **globe**, **segmented**, **ball** and **butterfly valves**, ideal for enabling precise flow control.

Our valves provide superior performance, spanning cryogenic temperatures to 800°C (600°C with our standard offerings).

Globe Valves

- ✓ Control from Cv 2215 down to Cv 0.01
- ✓ Equal percentage and linear trims
- ✓ Labyrinth cage guided, low noise trims
- ✓ Two and three way designs
- ✓ Bellow seal bonnets



On / Off Control from **FESTO**

Available Accessories

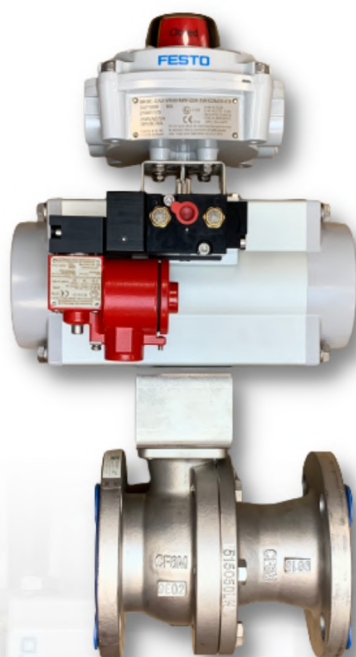
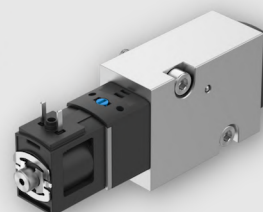
SRBC & SRBE Switch Box

- ✓ IP67 Weather-tight aluminium IP67
- ✓ Magnetic, Inductive or Magnetic switch variants
- ✓ Two cable inputs for common power supply to the Switch box and Solenoid valve



NAMUR Solenoid Valve

- ✓ Rotatable seal 3/2 or 5/2 function
- ✓ Multiple coil voltage options
- ✓ Ex options for hazardous areas
- ✓ Re-breather function



Pneumatic Actuator Packages (as pictured)

- ✓ Compact
- ✓ Single or Double acting
- ✓ End-position adjustment at both ends
- ✓ Corrosion resistant versions
- ✓ 120° or 180° options



Electric Actuator Packages with options including:

- ✓ On-Off
- ✓ Modulating
- ✓ Safe Area
- ✓ Explosion Proof



We can actuate any quarter turn valve, including:



Ball Valves
Floating and Trunnion Mounted



Butterfly Valves
Rubber Lined, Double-Offset, Triple-Offset Designs



3-Piece Ball Valves
Threaded and Welded options



Plug Valve
Sleeved and Lined options

We Are Tough

By leveraging our extensive industry expertise and diverse product range, RAM Universal can deliver effective flow control solutions tailored for handling highly abrasive slurries, granular substances, and powders.

FLOWROX (A Valmet company)
Proven Performance

Heavy Duty Pinch Valve (PVE)

- ✓ Improved process efficiency & customer productivity
- ✓ Easy sleeve replacement means lower maintenance costs
- ✓ High corrosion resistance and flexible sleeve
- ✓ Reduce downtime costs by 70% & spares costs by 2/3

Fast, Easy & Cost-Efficient Maintenance

Applications & Features:

- ✓ Abrasive or Corrosive Slurries
- ✓ Powders
- ✓ Granular Substances

Pressure rating



0 – 100 bar

Size range



25 – 1000 mm

Temperatures



-25°C – 160°C

Materials



Alt options

Flowrox™ Extra Thick Elastomer Sleeve

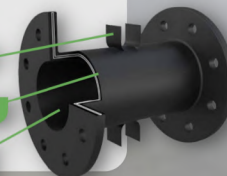
The technologically advanced Flowrox sleeves guarantee high wear resistance, corrosion resistance, a trouble-free operation, and extended lifetime. These sleeves guarantee 100% shut off.

- ✓ Multiple material options
- ✓ Special sleeve design options
- ✓ Handmade
- ✓ Conical Bore for Control Application
- ✓ Wear detection and monitoring

Opening tags

Reinforcing cords

Wear-resistant inner lining



Knife Gate Valve

- ✓ Guaranteed 100% bidirectional bubble tight shut off
- ✓ Repackable whilst in service
- ✓ Unique cavity design prevents jamming & self cleaning
- ✓ ATEX available for the stainless version

Applications & Features

Reliable, widely applicable & vast range of options:



- | | | |
|-------------|-------------|----------------|
| ✓ Biogas | ✓ Oil & Gas | ✓ Food & Bev |
| ✓ Cement | ✓ Chemical | ✓ Waste Water |
| ✓ Sea Water | ✓ Mining | ✓ Paper & More |

Pressure rating



0 – 100 bar

Nominal sizes



50 – 2000 mm

Temperatures



0 – 400°C

Materials



100+ options

All of our Knife Gate Valves can be actuated using:



Bevel gear

High torque and high speed



Pneumatic or Hydraulic Cylinder

Double acting & spring return options



Handwheel

Non rising stem



Electric actuator

Low lifecycle costs & heavy loads



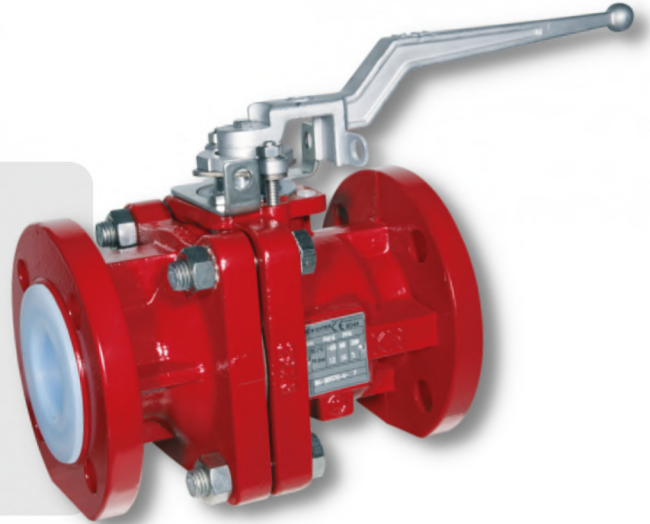
We Are **Anti-Corrosion**

RAM Universal provides an abundance of expertise to the Chemical and Pharmaceutical sectors, supplying industry renowned products like Richter, Baum and Fluoroseal. Our premium PTFE-lined valves, pumps and pipeline equipment are engineered to handle corrosive fluids and powders in the most demanding applications.



PTFE Lined Valves

- ✓ Maximum reliability
- ✓ Little or no maintenance required
- ✓ Reliable even in extreme conditions
- ✓ Designed to handle corrosive chemicals, long-term
- ✓ All PTFE lined (corrosion resistant)
- ✓ Extremely safe during use



Isolation Valve - KN/KNA Heavy Duty Ball Valve



- ✓ Maximum reliability: one piece ball/stem unit avoids weak spots from ball to stem
- ✓ Universally applicable: many options in combination with a thick-walled PFA lining
- ✓ Reliable even in extreme conditions: ENVIPACK stuffing box sealing
- ✓ Maintenance-free and adjustable stem sealing

Control Valve - RSS Bellow-Sealed Control Valve



- ✓ Extremely high reliability due to thick-walled PFA lining
- ✓ High safety at high pressures and temperatures due to heavy-duty bellows
- ✓ Chlorine applications: special design for particularly long service life
- ✓ Maintenance-friendly: seat and plug individually replaceable

Safety Valve - KSE Valve



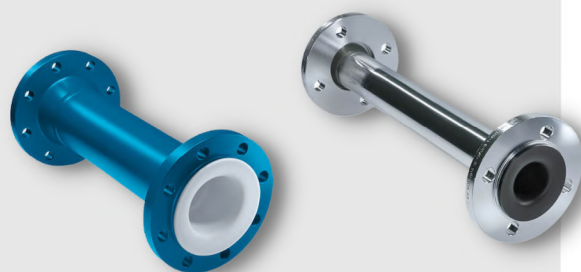
- ✓ Maximum reliability due to complete lining even in the exhaust port
- ✓ Universally applicable: type-tested for vapours, gases and liquids
- ✓ High safety even with frequent opening and closing
- ✓ Also for small differences between operating and opening pressure (option KSE-C)

PTFE & PFA Lined Pipework

Baum are trusted by our customers to provide them with Fluoropolymer PTFE/PFA lined piping and associated equipment. Baum pipework and fittings are lined with either paste-extruded or injection-extruded PFA. This method produces the best lining for chemical performance, permeation resistance, wall accuracy and surface finish.

Features & Available Options

- ✓ 6 metre pipe lengths or custom lengths available
- ✓ Earthing Stud/Lug
- ✓ Vent Hole Extension
- ✓ Flange Stopper
- ✓ Available in ANSI & DIN
- ✓ Carbon Steel & Stainless Steel Options



Material Options & Applications

Lining materials:

- ✓ PTFE (Virgin or Conductive)
- ✓ Polypropylene (Up to nominal pipe size NPS 12"/DN 300)

It is also possible to PTFE line bespoke projects and uncommon shapes.

Flanges Available in:

- ✓ Fix-loose
- ✓ Fix-fix
- ✓ Loose-loose

PTFE Lined Columns & Vessels

PTFE loose lined columns or vessels combine the corrosion resistance of PTFE and the safety of the seamless lining process together with the mechanical resistance of the steel or stainless steel shell.

The PTFE lined vessels and columns are specially designed to comply with high temperature and they resist corrosive processes, such as HCl stripping, defluorination of H₃PO₄, HF and H₂SO₄ dilution and HF processing.

Dual protection design for extreme corrosion process : PFA coating together with PTFE liner, Vacuum resistance with graphite sleeves & Thermal shock resistance.



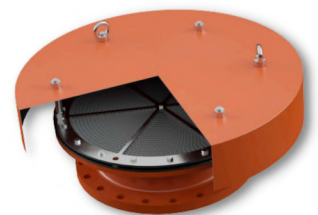
We Are Safety

A flame arrester is a passive device that allows gas to pass through it but stops the propagation of a flame. Protectoseal are committed to developing world-leading flame arresters that provide the ultimate protection from explosions in high risk process environments. Flame arresters and PVRV's (or FAB Valve), ERV's, and tank blanketing can all be used in conjunction with each other to protect a tank.



End-of-Line Flame Deflagration Arresters

Designed to protect against atmospheric deflagrations where the ignition source originates outside of the system - I.E lightning, static, naked flames. The E-Flow end-of-line and all Protectoseal Flame Arresters incorporate a revolutionary element design that uses less material and offers a greater free area to the flow, resulting in: Lower dP, Reduced Weight and Cost.



End-of-line, deflagration, and detonation arresters are available for gas groups – IIA, IIB, IIB1, IIB2, IIB3, IIC.



In-line Deflagration Flame Arresters

Designed to prevent the propagation of flames in pipelines. By locating them near to the potential source of ignition, any flame or explosion is confined to the immediate area. These must be installed within a certain distance from the source of ignition, typical 50 pipework diameters, and with a maximum of one 90° bend.

In-line Unstable Detonation Flame Arresters

In-line Unstable Detonation Arresters are to be used when there's potential for flame speeds to reach sonic velocity resulting in autoignition of the gas due to shock wave - overdriven detonation. These are specifically designed for pipelines that are manifolded or with significant distance between ignition source and Flame Arrester, or for use where the pipeline is rough, bent, or obstructed.



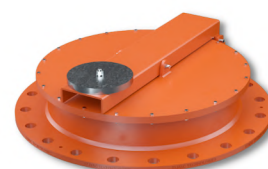


Protectoseal 8540 PVRV

The Protectoseal Series 8540, End-of-Line Conservation Vent provides both pressure and vacuum relief to maintain tank pressures within safe operating parameters. A PVRV will maintain the normal tank breathing requirements from filling, emptying, and thermal changes. Due to a PVRV only opening at a predetermined set point, it significantly reduces costly product losses.

Emergency Relief Vents – ‘ERV’

Emergency Relief Vents are fitted to storage tanks to allow emergency flow due to the excessive venting requirement in a pool fire or over pressure scenario. This eliminates a costly tank rupture, providing emergency venting from abnormal internal pressure beyond the capability of the pressure relief vent.

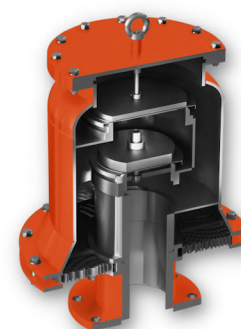


Tank Blanketing Valve – Series 30/20/10

Tank blanketing valves are commonly used in tank storage systems where it is desirable to reduce the hazards associated with storing flammable liquids. They minimise contamination and product degradation that can occur from drawing air into the tank’s vapour space.

FAB Valve

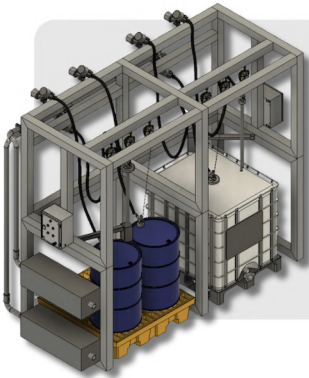
The FAB Valve is a flame arrester breather valve which combines a flame arrester element and PVRV in one unit. Using a FAB Valve avoids the need for a ‘combination vent’ which is a separate flame arrester and PVRV, this in turn reduces weight, cost, maintenance time, and product losses, whilst protecting the tank from external deflagrations.



We Are Engineered Solutions

We are dedicated to consistently delivering high quality, precision engineering. With access to a large range of stock, skilled in-house designers and project managers, we can conceptualise, test, create and modify bespoke solutions on small and large scale projects.

Full Skid Assembly Service: Some of Our Projects

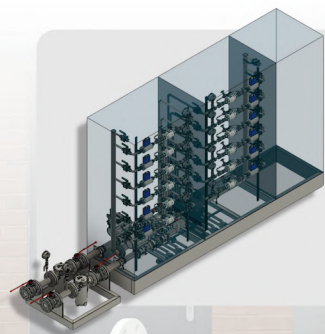
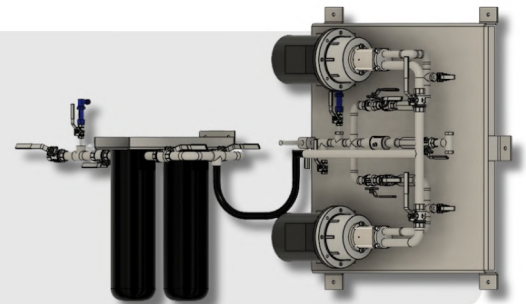


Chemical Mixing and Dosing Skid

Contained and fully hygienic mixing and dosing system allowing two chemical substances to be combined, without any air entering the system. It was designed to be totally automated, removing any chance of human error and the toxic spillages that may result from manual operation.

Wall-mounted Atomisation Skid

Atomised urea dosing skid, designed to filter waste product generated during green energy pyrolysis.



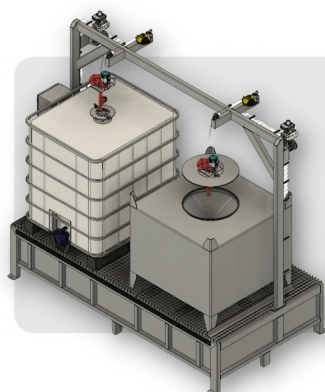
Inert Gas Injection and Control Cabinet for Steel Manufacture

Stainless steel floor standing cabinets housing pressure reduction, monitoring and flow control equipment, to inject Argon and Nitrogen gasses into a steel manufacturing process.



We deliver Engineered Solutions across the globe

We offer a complete skid mounted mechanical and electrical system ready to be installed on site. Built by our experienced engineers to a client's own design or, using the latest 3D modelling software, we can produce our compact and economic solutions working from P&IDs.



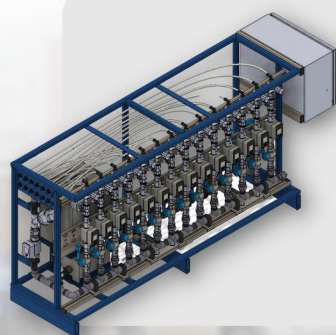
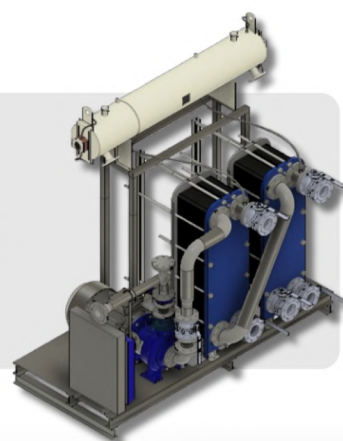
Chemical Waste IBC Loading System with Bund



Stainless steel and Hastelloy IBC loading system with built in controls to be used in an ATEX zoned area, for collecting hazardous chemical waste from a pharmaceutical process plant.

Dual Stage Industrial Cooling Skid

Dual stage cooling rig, taking heat from a data centre and cooling it through two heat exchangers, piped in series.



Test Rig for Innovative Hull Lubrication System

This rig was designed to provide proof of concept in scaled down models of Super Tankers and Container Vessels to test the feasibility of a hull lubrication system. The rig included 14 sets of flow meters and control valves each sized to the customers requirement, their outputs were monitored and adjusted from an on-board PLC controlled HMI screen.



We Are Clean

Food and Pharmaceutical companies are facing increasing challenges to ensure they deliver safe and timely products. The need for increased efficiency, reduced costs and agility is essential. RAM are working closely with many global manufacturers to address these needs with our valves and controllers.



Hygienic Butterfly Valves

Hygienic butterfly valves, actuated or manual, perfect for usage in the chemical, pharmaceutical and food-processing industries.

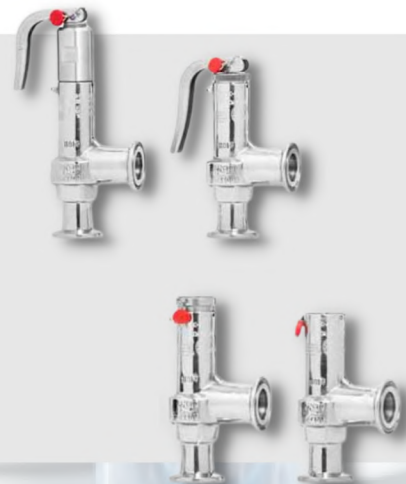
- ✓ Connections from DN10 to DN150 (from 1/2" to 6")
- ✓ EPDM, FKM, MVQ and HNBR gaskets
- ✓ Maximum pressure 10 bar
- ✓ ATEX Approved versions



VYC 694 Clamp Valve Full-Lift Safety Valve

Hygienic (Sanitary) Pressure Relief Valves are used in food processing and process applications where over pressure must be discharged in order to avoid damage to plant and / or personnel.

Pressure relief or safety valves are specifically designed to prevent risks and potential failure caused by pressure surges within the line.



Pharma Grade Control and Dosing

KVL Sanitary Ball Valve (2,3 & 4 Way Options)

- ✓ FDA Approved
- ✓ Cavity Filled Seats
- ✓ ISO 15848 Low Emission Design
- ✓ PTFE Seats
- ✓ Tube Bore
- ✓ CF3M Low Sulphur Stainless Steel
- ✓ L & T Port Configurations



Sterivalve Containment Valves

High Containment Sterisplit - Made up of two parts, active and passive, both provided with semi-butterfly and seal, which are coupled perfectly during the product transferring.

Sterivalve Feeding Valves

Rotary, Dosing and Crushing powders into packaging machines, drum & bag filling systems, dispensing. Fine dosing is achieved with a secondary rotor independently actuated from the main valve.



Sterivalve Diverter Valves

Diverter Valve - Direct the flow during the discharge of powders, granules, pellets, etc. Generally fitted with a 180° pneumatic actuator, this device diverts the flow through one of two directions. Available in sizes 2", 3" & 4" fully polished internally Ra 0.5, FDA and ATEX certified.

We Are Valves

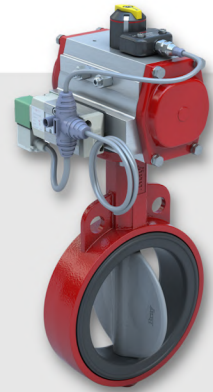
RAM offer an extensive range of Rubber-Lined, High Performance, Double Offset and Triple Offset to meet all industry requirements. We are proud distributors of globally established brands such as Bray.



Rubber Lined Butterfly Valves

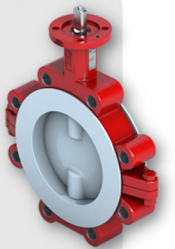
Bray's modular product line of valves, actuators and accessories offer the best compatibility, economy and quality performance in the flow control industry.

- ✓ Manual and Actuated
- ✓ Size Range: 50mm – 1200mm
- ✓ Wafer, Semi, Fully lugged and Double Flanged design
- ✓ Resilient and Metal seated, High performance and Triple offset design
- ✓ Materials include: Cast Iron/Ductile Iron, AluBronze, Carbon, Stainless Steel and exotic materials



PTFE Lined

The lug style lined butterfly valve features a state-of-the-art design that provides excellent shutoff protection and high flow rates with exceptionally long service life. It has been specifically engineered to meet the stringent demands of the Chemical Industry.



Double Offset

Innovative design that offers rugged reliability and extremely easy maintenance in the field.

- ✓ Guarantees Bidirectional Tight Sealing
- ✓ Up to Class 600 Available
- ✓ RTFE Seats
- ✓ Applications: High Pressure, High Temperature, Critical Service



Triple Offset

A premier isolation valve well-suited for operation in light vacuum to high-pressure applications and ideally suited for applications requiring absolute zero leakage. Compared to gate, globe or ball valves of the same size and pressure class, Triple offset valves provide space and weight savings while minimising installation and maintenance costs. It's non-rubbing, metal-to-metal seal delivers zero leakage with minimal torque and is certified fire-safe.





3 Piece Ball Valves

The 3 piece ball valve is designed for high cycle, high pressure applications. This type of valves allows for the option to clean the main body, without a full line shutdown. Designed to ASME B16.34, Fire Tested ISO 10497 (API 607). Fugitive emissions tested acc. to ISO 15848.

Connection Options Available:

- ✓ Butt Weld
- ✓ Socket Weld
- ✓ Threaded - BSP
- ✓ NPT
- ✓ Soft & Metal Seats



Flanged Ball Valves

1, 2 & 3 piece floating ball design ball valves, ANSI Class 150 to 600, DIN PN16, to PN100. Each valve meets all international standards. Live loaded packing fugitive emission tested acc. to ISO 15848.

- ✓ Available in ANSI and DIN
- ✓ Full & Reduced Bore
- ✓ Long & Short Pattern Designs
- ✓ Soft & Metal Seats

Trunnion Mounted Ball Valve

- ✓ Ideal for use in Hydrocarbon Industry & Gas Storage
- ✓ API 6D and API 600 Certified
- ✓ Class 150 to 2500 Both Forged & Cast
- ✓ Soft & Metal Seats



Severe Service Ball Valves

The trunnion mounted XH valve can be used for safety, high cycle shut-off and throttling service with high pressure differentials. The modular design incorporates two large, low friction trunnion bearings, with the spring-loaded seat in continuous contact with the ball surface.

Applications:

- ✓ Chemical and petrochemical
- ✓ Power plants
- ✓ Natural gas
- ✓ Polymers
- ✓ Hydrocarbons





Supplying high quality valve and control solutions since 1982

E: sales@ramuniversal.co.uk
T: 01455 285428

RAM UNIVERSAL LTD
Unit 20
Cottage Lane Industrial Estate
Broughton Astley
Leicestershire
LE9 6TU

Accreditations & Partnerships

Unwavering commitment to quality, safety & sustainability



www.ramuniversal.co.uk