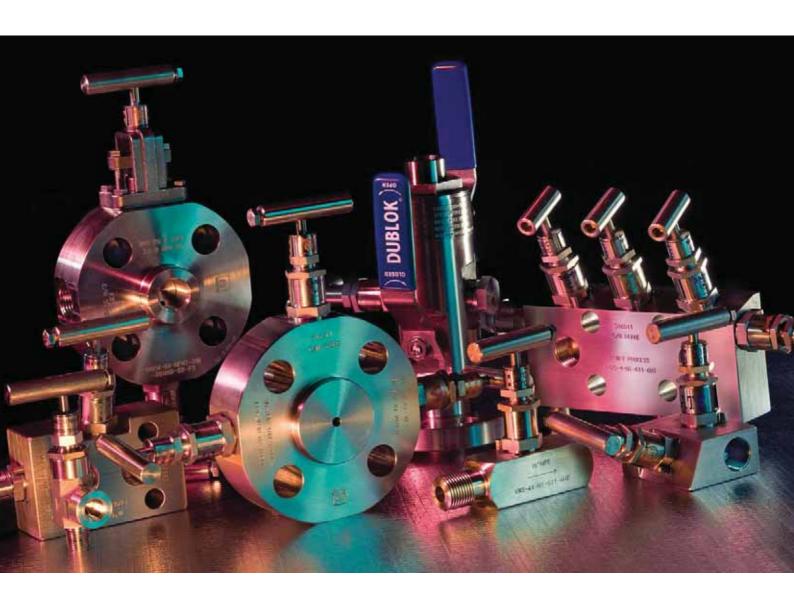
Instrumentation Valves





Sabre Instrumentation Valves

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Introduction

The Sabre range of instrument valves and accessories has been specifically developed to meet the needs of clients wishing to ensure ease of installation, long term in-service dependability and minimum life-time costs for their operations.

Sabre provides valve solutions to satisfy the requirements of all instrument system applications and is the preferred valve supplier to many leading operators and contractors in the oil and gas, petrochemical, process and power industries worldwide

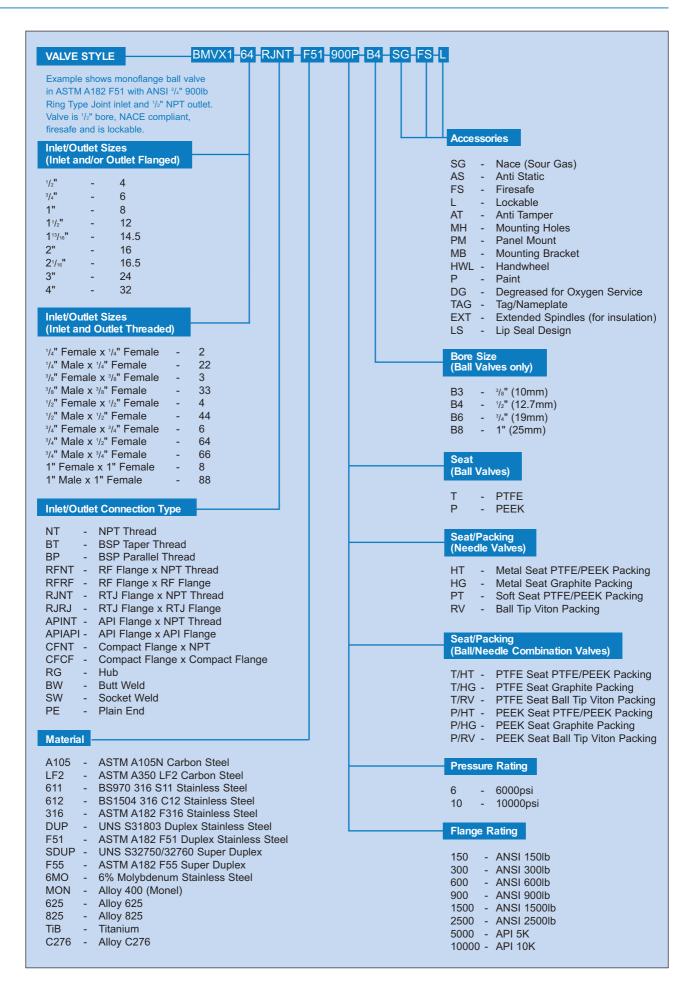
Sabre instrument valves and manifolds are supplied as standard with:

- · Full material traceability
- NACE compliance
- 100% functional pressure testing
- Functional Test Certification
- · Letter of Conformity
- PED CE marking where applicable

All Sabre products are manufactured in modern facilities operating ISO9001:2008 Quality Management, ISO14001 Environmental Management and OHSAS18001 Occupational Health and Safety Management systems. In addition, Sabre is an accredited supplier with a number of industry bodies including 1st Point Assessment and Achilles Joint Qualification System.

Model Numbering System Sabre

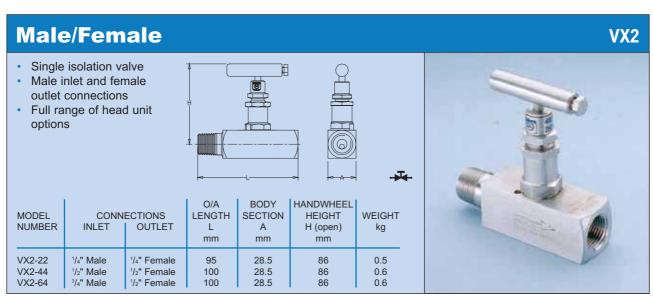


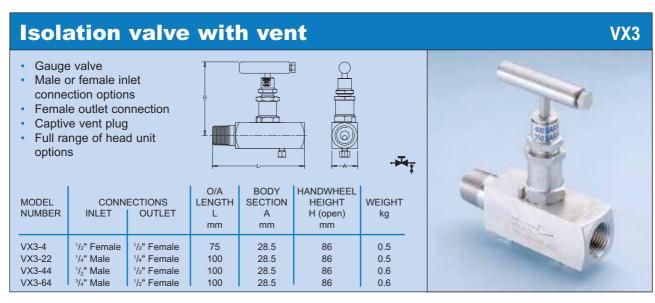


Sabre Hand Valves

The Sabre range of needle type hand valves can be supplied with metal to metal or soft seats. The valves are suitable for use as isolation valves for liquid or gaseous service.

Female/Female VX1 · Single isolation valve Female inlet and outlet connections Full range of head unit options O/A BODY HANDWHEEL MODEL CONNECTIONS LENGTH SECTION WEIGHT **HEIGHT** NUMBER OUTLET **INLET** H (open) kg mm mm VX1-2 1/4" Female 1/4" Female 0.5 58 28.5 86 VX1-3 3/8" Female 3/8" Female 68 28.5 86 0.5 VX1-4 1/2" Female 1/2" Female 68 28.5 86 0.5 VX1-6 3/4" Female 3/4" Female 70 90 38.1 0.7 1" Female VX1-8 1" Female 8.0





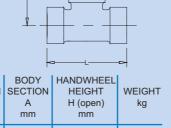
Forged Hand Valves Sabre

The Sabre range of forged needle type hand valves are high pressure, high performance valves for special use as isolation valves for liquid or gaseous service. Designed as a "one-piece" integral stuffing box and body, the valve provides strength and material hardness for extreme operating conditions.

H

Straight Pattern

- Single isolation valves -Straight pattern
- · Robust forged construction
- Male or female inlet connection options
- · Female outlet connection
- · Full range of head unit options

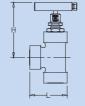




MODEL NUMBER	CONNECTIONS INLET OUTLET		O/A LENGTH L mm	BODY SECTION A mm	HANDWHEEL HEIGHT H (open) mm	WEIGHT kg
FVX1-2		1/4" Female	76	34	86	0.5
FVX1-4		1/2" Female	76	34	86	0.5
FVX2-44		1/2" Female	76	34	86	0.5

Angle Pattern

- Single isolation valves Angle pattern
- · Robust forged construction
- Male or female inlet connection options
- Female outlet connection
- · Full range of head unit options







MODEL NUMBER	CONNEC INLET	CTIONS OUTLET	O/A LENGTH L mm	BODY SECTION A mm	HANDWHEEL HEIGHT H (open) mm	WEIGHT kg
FVX1A-2	1/4" Female		55.1	34	80	0.5
FVX1A-4	1/2" Female		55.1	34	80	0.5
FVX2A-22	1/4" Male		55.1	34	80	0.5
FVX2A-44	1/2" Male		55.1	34	80	0.5

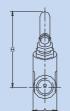
FVX1A & FVX2A



Oblique Pattern

- Single isolation valves -Oblique pattern
- Robust forged construction
- Male or female inlet connection options
- Female outlet connection
- · Full range of head unit options







MODEL NUMBER	CONNE INLET	CTIONS OUTLET	O/A LENGTH A mm	BODY SECTION A mm	HANDWHEEL HEIGHT H (open) mm	WEIGHT kg
OFVX1-4	1/2" Female	1/2" Female	76	34	96	0.5
OFVX2-44	1/2" Male	1/2" Female	76	34	96	0.5

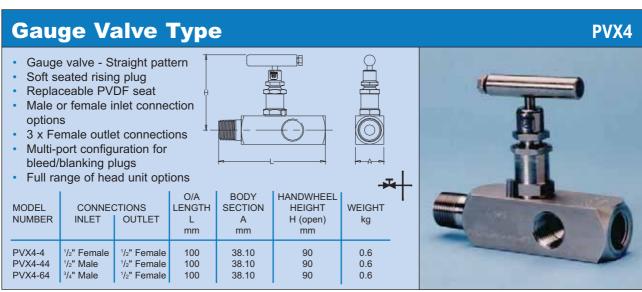
OFVX1 & OFVX2

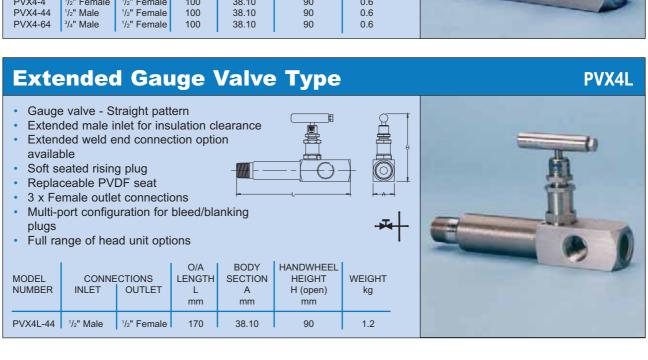


Sabre Rising Plug Valves

The Sabre range of rising plug valves incorporates a straight through design giving good flow capacity and flow control. Suitable for use as isolation valves for liquid or gaseous service.

Isolation Valve PVX1 & PVX2 · Single isolation valves -Straight pattern Soft seated rising plug Replaceable PVDF seat Male or female inlet connection options · Female outlet connection · Full range of head unit options O/A BODY HANDWHEEL MODEL WEIGHT CONNECTIONS LENGTH **SECTION HEIGHT** NUMBER INLET OUTLET H (open) kg mm mm PVX1-2 1/4" Female 1/4" Female 31.75 0.5 PVX1-4 1/2" Female 1/2" Female 68 31.75 88 0.5 PVX2-44 1/2" Male 1/2" Female 100 38.10 90 0.6





High Pressure Ball Valves Sabre



Sabre high pressure ball valves are uniquely designed to provide a high pressure (up to 10,000 psig) & high performance valve with absolute safety and reliability. They are suitable for special applications as isolation valves for liquid or gaseous service. The gauge valves are suitable for installation between process and gauge or instrumentation

1.0

Isolation Valve

BVX1 & BVX2

- · Single isolation ball valves
- Male or female inlet and outlet connection options
- 10mm orifice size
- Available with anti-tamper, lockable and panel mount options

lockable and parier mount options						
MODEL NUMBER	CONNEC INLET	CTIONS OUTLET	O/A LENGTH L mm	BODY SECTION A mm	LEVER HEIGHT H (open) mm	WEIGHT kg
BVX1-2 BVX1-4 BVX1-6 BVX1-8	1/4" Female 1/2" Female 3/4" Female 1" Female	1/4" Female 1/2" Female 3/4" Female 1" Female	110 110 110 117	44 44 44 44	53 53 53 53	0.9 0.9 0.9 1.0
BVX2-44 BVX2-66	¹ / ₂ " Male ³ / ₄ " Male	¹ / ₂ " Female	110	44 44	53 53	0.9



Gauge Valve Type

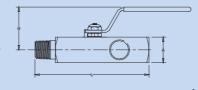
1" Female

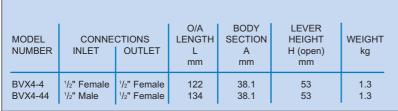
BVX4

· Gauge ball valve

BVX2-88 1" Male

- · Male or female inlet connection options
- 3 x Female outlet connections
- 10mm orifice size
- · Multi-port configuration for bleed/blanking plugs
- · Full range of head unit options

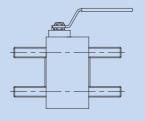






Monoflange Valve Type

- · Single isolation ball valve
- · Flanged inlet and flanged or threaded outlet option
- Available in a variety of bore sizes and materials
- · Supplied complete with captive bolts, nuts and washers
- · Pressure class ANSI 150lb 2500lb and up to API 10000



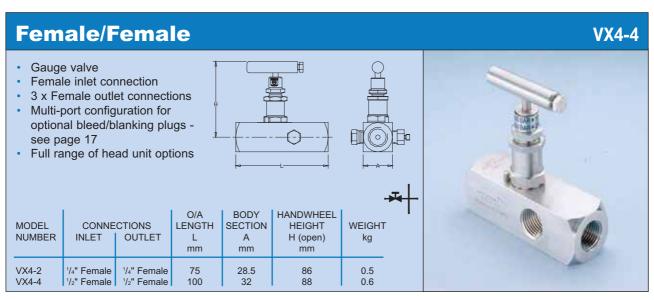
All dimensions according to connection details

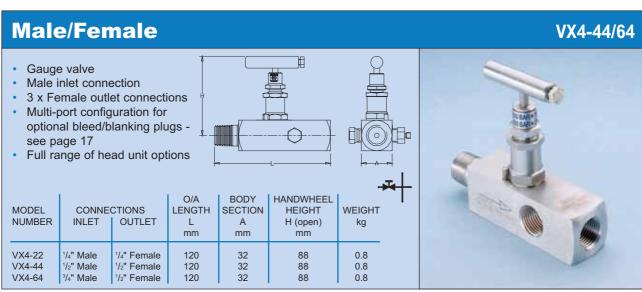


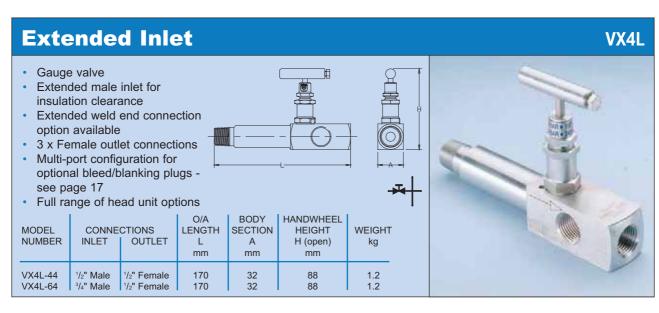


Sabre Gauge Valves

The Sabre range of needle type gauge valves can be supplied with metal to metal or soft seats. Suitable for installation between process and gauge or instrumentation legs.



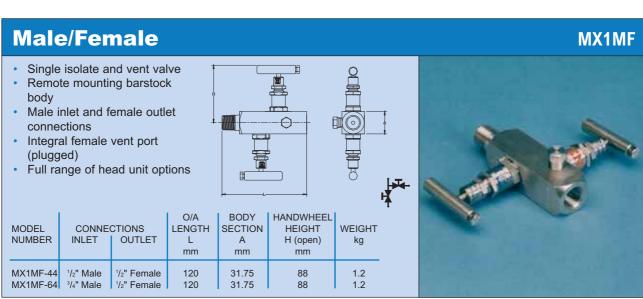


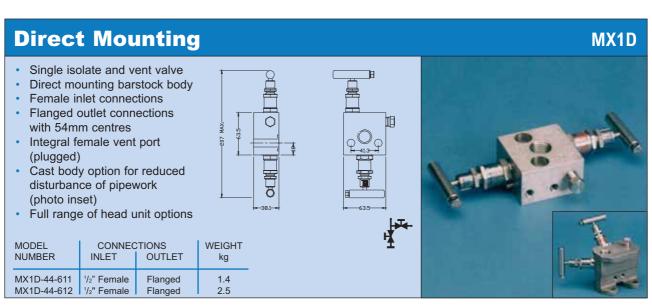


2 Valve Manifolds Sabre

The Sabre range of 2 valve manifolds are available for direct or remote mounting and can be supplied with metal to metal or soft seats. Suitable for installation between process and gauge or instrumentation legs.

Female/Female MX1 · Single isolate and vent valve · Remote mounting barstock body · Female inlet and outlet connections · Integral female vent port (plugged) MX1F model (photo inset) available for instrument panels · Full range of head unit options HANDWHEEL O/A BODY MODEL CONNECTIONS WEIGHT LENGTH SECTION HEIGHT NUMBER OUTLET INLET Α H (open) kg mm mm mm MX1-2 1/4" Female 1/4" Female 63.5 54 86 1.0 3/s" Female MX1-3 3/s" Female 63.5 54 86 1.0 54 1/2" Female MX1-4 1/2" Female 63.5 86 1.0 1/2" Female 1/2" Female 54 MX1F-4 63.5 86 10





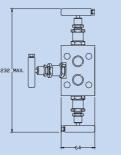
Sabre 3 Valve Manifolds

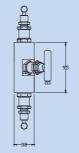
The Sabre range of direct and remote mounting needle type 3 valve manifolds can be supplied with metal to metal or soft seats. Both manifold types have integral, equalise and two isolate valves.

Direct Mounting Barstock Body

MX2A & MX3A

- Double isolate and equalise 3 valve manifold
- · Direct mounting barstock body
- Female inlet (MX2A) or flanged inlet (MX3A)
- Flanged outlet on 54mm centres
- · Full range of head unit options





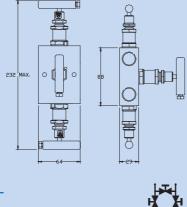


MODEL	CONNECTIONS		WEIGHT
NUMBER	INLET OUTLET		kg
MX2A-2	¹ / ₄ " Female	Flanged	1.70
MX2A-4	¹ / ₂ " Female	Flanged	1.65
MX3A-R	Flanged	Flanged	1.65

Remote Mounting Barstock Body

MX4

- Double isolate and equalise 3 valve manifold
- · Remote mounting barstock body
- Female inlet and outlet connections on 54mm centres
- · Full range of head unit options





MODEL	CONNECTIONS		WEIGHT
NUMBER	INLET OUTLET		kg
MX4-2	1/4" Female	1/4" Female	1.70
MX4-4	1/2" Female	1/2" Female	1.65

Direct Mounting Cast Body

MX5 & MX6

- Double isolate and equalise 3 valve manifold
- Direct mounting cast body
- Female inlet (MX5) or flanged inlet (MX6)
- Flanged outlet on 54mm centres as standard with other centres available
- Cast body for reduced disturbance of pipework
- Optional vent/purge ports available
- · Full range of head unit options

MODEL		CONNECTIONS		
NUMBER	INLET	OUTLET	kg	
MX5-2	1/4" Female	Flanged	2.6	
MX5-4	1/2" Female	Flanged	2.6	
MX6-R	Flanged	Flanged	2.6	





5 Valve Manifolds Sabre

The Sabre range of direct mounting needle type 5 valve manifolds can be supplied either with metal to metal or soft seats. Both manifold types have two isolation valves, two vent valves and an equalise valve together with integral vent ports. Purge ports may be added as an option.

Remote Mounting Barstock Body

MX7

- Double isolate, equalise and double vent 5 valve manifold
- Remote mounting barstock body
- Female inlet and outlet connections on 54mm centres
- Full range of head unit options

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MODEL	CONNECTIONS		WEIGHT
NUMBER	INLET OUTLET		kg
MX7-2	1/4" Female	1/4" Female	2.5
MX7-4	1/2" Female	1/2" Female	2.4



Direct Mounting Barstock Body

MX25

- Double isolate, equalise and double vent 5 valve manifold
- Direct mounting barstock body
- · Female inlet connection
- Flanged outlet on 54mm centres
- Full range of head unit options

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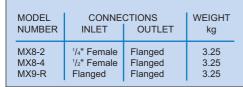
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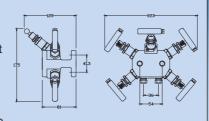




Direct Mounting Cast Body

- Double isolate, equalise and double vent 5 valve manifold
- Direct mounting cast body
- Female inlet (MX8) or flanged inlet (MX9)
- Flanged outlet on 54mm centres
- Cast body option for reduced disturbance of pipework
- · Optional vent/purge ports available
- Full range of head unit options







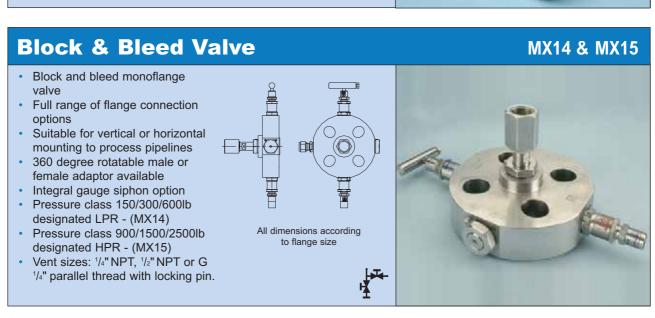


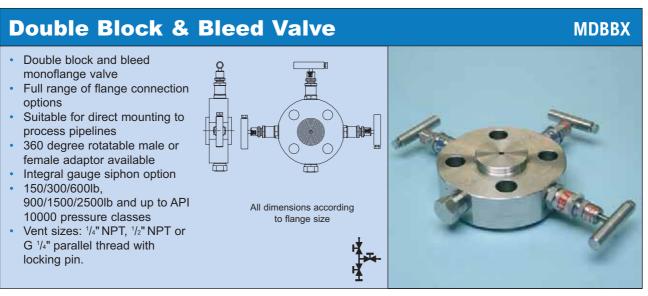
Sabre Monoflange Valves

The Sabre range of instrument gauge block manifolds is suitable for direct flange mounting on horizontal and vertical pipe lines.

Single Isolation Valve Single isolation monoflange valve Flanged inlet and flanged or threaded outlet options Flange by flange option supplied complete with captive bolts, nuts and washers 150/300/600lb, 900/1500/2500lb and up to API 10000 pressure classes Full range of head unit options MVX1 All dimensions according to flange size

HTH



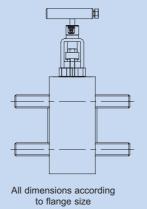


Monoflange Valves Sabre

The Sabre range of instrument gauge block manifolds is suitable for direct flange mounting on horizontal and vertical pipe lines. Fitted with bolted bonnet primary isolation for increased safety.

Single Isolation Valve · Single isolation monoflange

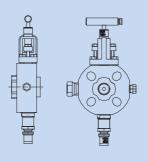
- valve
- Primary isolation valve piping class OS&Y construction
- Flanged inlet and flanged or threaded outlet options
- · Flange by flange option supplied complete with captive bolts, nuts and washers
- 150/300/600lb, 900/1500/2500lb and up to API 10000 pressure classes
- · Full range of head unit options





Block & Bleed Valve

- Block and bleed monoflange valve
- · Primary isolation valve piping class **OS&Y** construction
- · Full range of flange connection
- · Suitable for vertical or horizontal mounting to process pipelines
- 360 degree rotatable male or female adaptor available
- Integral gauge siphon option
- Pressure class 150/300/600lb designated LPR - (YMX14)
- Pressure class 900/1500/2500lb designated HPR - (YMX15)
- Vent sizes: 1/4" NPT, 1/2" NPT or G 1/4" parallel thread with locking pin.



All dimensions according to flange size



YMX14 & YMX15

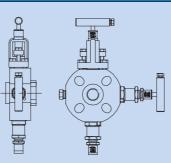
YMVX1



Double Block & Bleed Valve

· Double block and bleed

- monoflange valve
- Primary isolation valve piping class OS&Y construction
- Full range of flange connection options
- · Suitable for direct mounting to process pipelines
- 360 degree rotatable male or female adaptor available
- Integral gauge siphon option
- 150/300/600lb. 900/1500/2500lb and up to API 10000 pressure classes
- Vent sizes: 1/4" NPT, 1/2" NPT or G 1/4" parallel thread with locking pin.



All dimensions according to flange size





Sabre Integral Class Valves

Sabre's range of 'Single/Double Block & Bleed Valves' are designed to overcome the problems of traditional assemblies on primary isolation duties where positive isolation is required.

General Information

The Sabre range of integrally flanged manifolds is designed specifically for applications where modular construction is inappropriate or unnecessary.

The Sabre range of integral double block and bleed manifolds are used for primary isolation duties for liquid or gaseous service. Designed for weight and space saving they are available in a wide range of materials, sizes and head unit combinations to meet all requirements.

Features

- Single one-piece forged body gives robust unit with fewer potential leak paths
- · Compact design for weight and space savings
- · Wide range of performance
- · Wide range of materials including exotics
- · Independently verified pressure/temperature range
- Firesafe design
- NACE compliant
- · Choice of flanged, threaded and hub ended process connections
- Designed for maximum operator safety
- Sabre's unique head unit design gives reduced actuating torque
- 100% tested at 1.5 times working pressure
- All wetted parts traceable to DIN 50049 3.1B certification

Applications

- Instrument loop takeoff points
- Positive isolation
- Double block and bleed
- Chemical injection
- Sampling points
- Blowdown points
- Drains / Vents

Valve Types

- Single block
- Single block and bleed
- Double block
- Double block and bleed

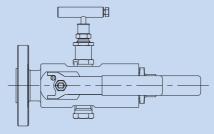
Connection Options

- Flange
- Thread
- Hub
- Weld ends

Integral Double Block & Bleed Valves

BDBBX

- Double block and bleed integral valve (Ball/Needle/Ball)
- Single piece construction for reduced leak paths
- Flanged inlet with threaded or flanged outlet options
- Other inlet/outlet connections available
- Available in a wide range of forged materials
- Pressure class ANSI 150lb 2500lb and up to API 10000



All dimensions according to connection details

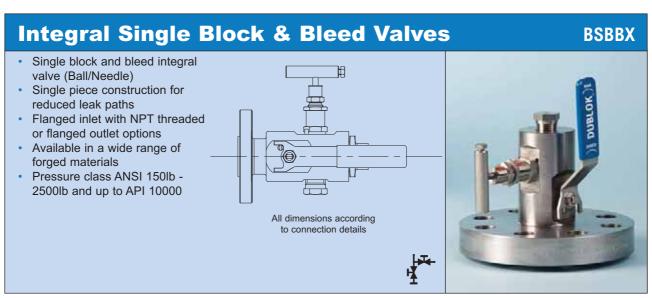


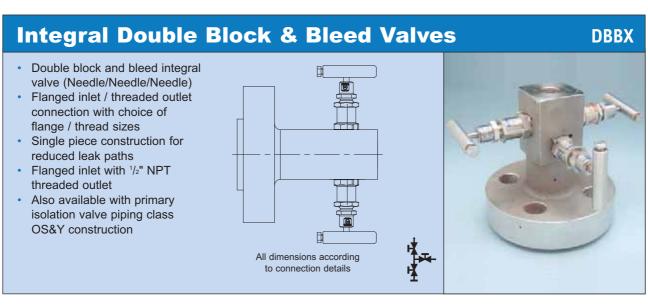


Integral Class Valves Sabre

Sabre's range of 'Single/Double Block & Bleed Valves' are designed to overcome the problems of traditional assemblies on primary isolation duties where positive isolation is required.

Integral Double Block Valves Double block integral valve (Ball/Ball) Single piece construction for reduced leak paths Flanged inlet with NPT threaded or flanged outlet options Available in a wide range of forged materials Pressure class ANSI 150lb - 2500lb and up to API 10000 All dimensions according to connection details





Sabre Air Distribution Manifolds

The Sabre range of Distribition Manifolds can be supplied with any combination of ball and needle valves.

Air Distribution Manifolds

ADMX

Sabre air distribution manifolds are specially designed for gas and liquid distribution applications where multiple take-offs are required.

Manufactured from a range of materials to suit the application process, they are capable of accommodating a variety of isolation valves, including needle and ball valves.

Distribution manifolds can be wall or pipe mounted and can be supplied complete with fixing brackets to suit the preferred mounting method.

Manifold designs are available to operate up to 10000 p.s.i.g.



Ball Valve Type

Application

 To carry and distribute gases and liquid processes from a wall or pipe mounting.

Description

- The body is manufactured from solid or extruded section in stainless steel and carbon steel and is suitable for a variety of outlet take-off valves.
- Valves are fitted on each outlet with a drain valve as standard. The numbers of outlets can vary to meet requirements. A variety of valve configurations are available - please specify when ordering.
- Brackets are supplied suitable for wall mounting or for adaptation for pipe mounting.
- Maximum pressure rating: 10000 p.s.i.g.



Needle Valve Type



Integral Needle Valve Type

Accessories Sabre

The Sabre range of accessories is complementary to the instrument valves and manifolds to provide increased variety and adaptability. Accessories include gauge adapters and syphons, check valves, bleeder valves, anti-tamper handles, soft grip handwheels and locking devices.

Check Valve CVX

- To protect instrumentation against damage due to sudden changes of back pressure on high pressure instrument lines.
- A two-piece body incorporating a spring-loaded, in-line poppet.
- Available in 3mm or 7mm orifice sizes with two female ports or male/female ports and a variety of thread styles and material options.



Gauge Adaptor & Gauge Syphon

GAX & GASX

Gauge Adaptor

- To allow positioning of pressure gauges in any direction through 360°.
- · Available in a variety of thread sizes and types.

Gauge Syphon

- To protect instrumentation against heat damage due to hot vapours by imposing a condensate trap and by dampening pressure surges.
- Designed in combination with the gauge adaptor to provide both instrument heat protection and 360° gauge positioning.
- · Available in a variety of thread sizes and types.



Bleed Plugs & Pressure Blanking Plugs

BPBX & BPX

- BPBX Bleed Plugs allow for the controlled release of process liquid or gas from instrument valve vent ports and incorporate a captive bleed screw for additional control and safety.
- BPX Blanking Plugs enable vent ports to be blocked off to prevent process escaping.
- Available as standard in ¹/₄", ¹/₂" and ³/₄" NPT, BSP and BSPT sizes in carbon steel, stainless steel and other exotic alloys as required.



Kidney Flanges

KFAX

- To provide mechanical break away point for manifolds with flanged process faces.
- Provides interface with process pipework with either threaded, butt weld or socket weld connections.
- Available in a variety of thread styles, NB pipe sizes and material options.
- Bolted via flange face of manifold.



Sabre Accessories

Anti-tamper Facility

To prevent unauthorised operation of valves the Sabre anti-tamper head unit can be fitted instead of standard needle valves. These anti-tamper units can be supplied with or without a removable operating handle.



Mounting Brackets

Mounting Brackets are available for all valves and manifolds in the Sabre range to suit all applications.



Handwheel

Needle valves can be supplied with a soft-feel moulded hand wheel instead of a standard T-bar handle where appropriate.



Locking Facility

For applications requiring positive lock-off, Sabre valves can be supplied complete with an integral bracket to accommodate a padlock for extra security.



Locking Brackets

To prevent removal of the head unit, new or existing valves can easily be fitted with a secure locking bracket.

Weld Ends

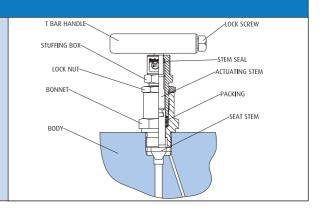
Butt Weld (BW), Socket Weld (SW) and Plain weld Ends (PE) are available on valves with extended inlet connections. For any other non-standard connection types please refer to our Technical Sales team.

Valve Head Types Sabre

Needle Valve

Features

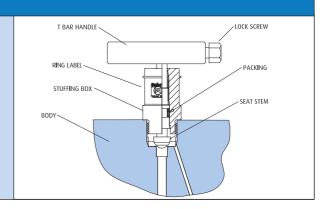
- Operating pressure up to 10,000 p.s.i.g
- Operating temperature from -48°C to 500°C
- · Austenitic stainless steel one piece handle
- · Effective thread seal (integral with gland follower)
- Unique NIFLOR coated stem threads
- · Head unit service label
- · Packing bush to suit operating conditions
- · Bonnet locking pin
- Metal to metal body to bonnet seal (DIN 3852)
- All wetted parts traceable
- Hardened stem for positive shut-off
- 100% Pressure tested



Needle Valve - RV model

Features

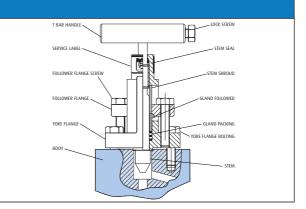
- Operating pressure up to 6,000 psi
- Operating temperature from -10°C to +200°C; lower temperature options available
- · Austenitic stainless steel one piece handle
- · Lubricated actuating stem threads
- · Bonnet locking pin
- Viton stem seal
- · Metal to metal body to bonnet seal (DIN 3852)
- All wetted parts traceable
- · Rotating ball for positive shut-off
- · 100% pressure tested



Outside Screw & Yoke Valve

Features

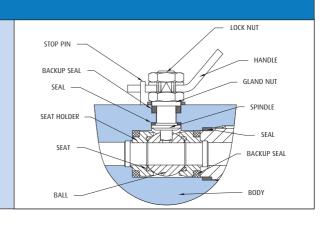
- · Operating pressure up to 10,000 psi
- Operating temperature from 48°C to +500°C
- · Austenitic stainless steel one piece handle
- Effective thread seal (integral with follower flange)
- · Unique NIFLOR coated stem threads
- Head unit service label
- Packing bush to suit operating conditions
- Bolted bonnet construction
- All wetted parts traceable
- · Hardened stem for positive shut-off
- 100% pressure tested

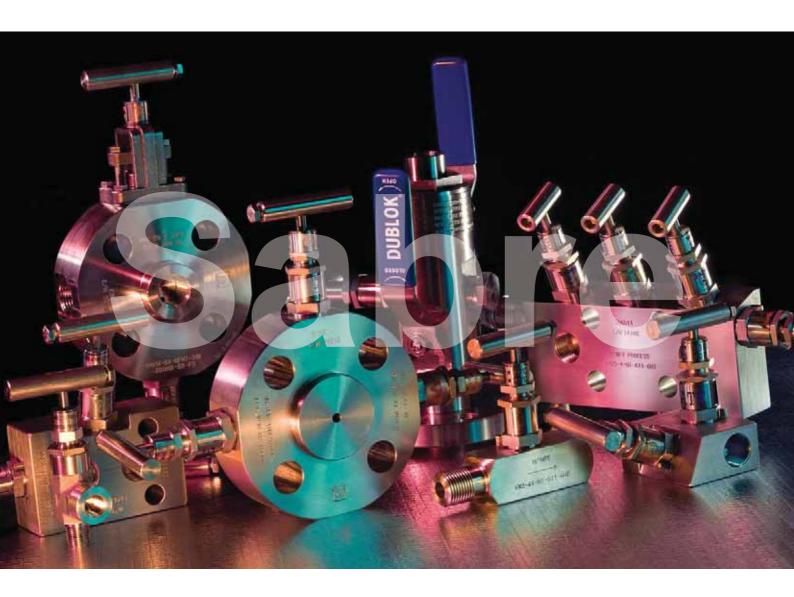


Ball Valve

Features

- · Quarter turn positive shut-off
- · 316 stainless steel handle and stop pin
- · Blow-out proof one-piece stem
- · Vented ball for cavity relief
- · Fully supported seats
- · End cap threads protected from process
- · Vibration proof handle lock nut
- Fire-safe design
- · Anti-static design
- · Operating pressure up to 10,000 p.s.i.g.
- Operating temperature from -48°C to +200°C
- Threaded end caps pinned to prevent accidental removal
- 100% pressure tested









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