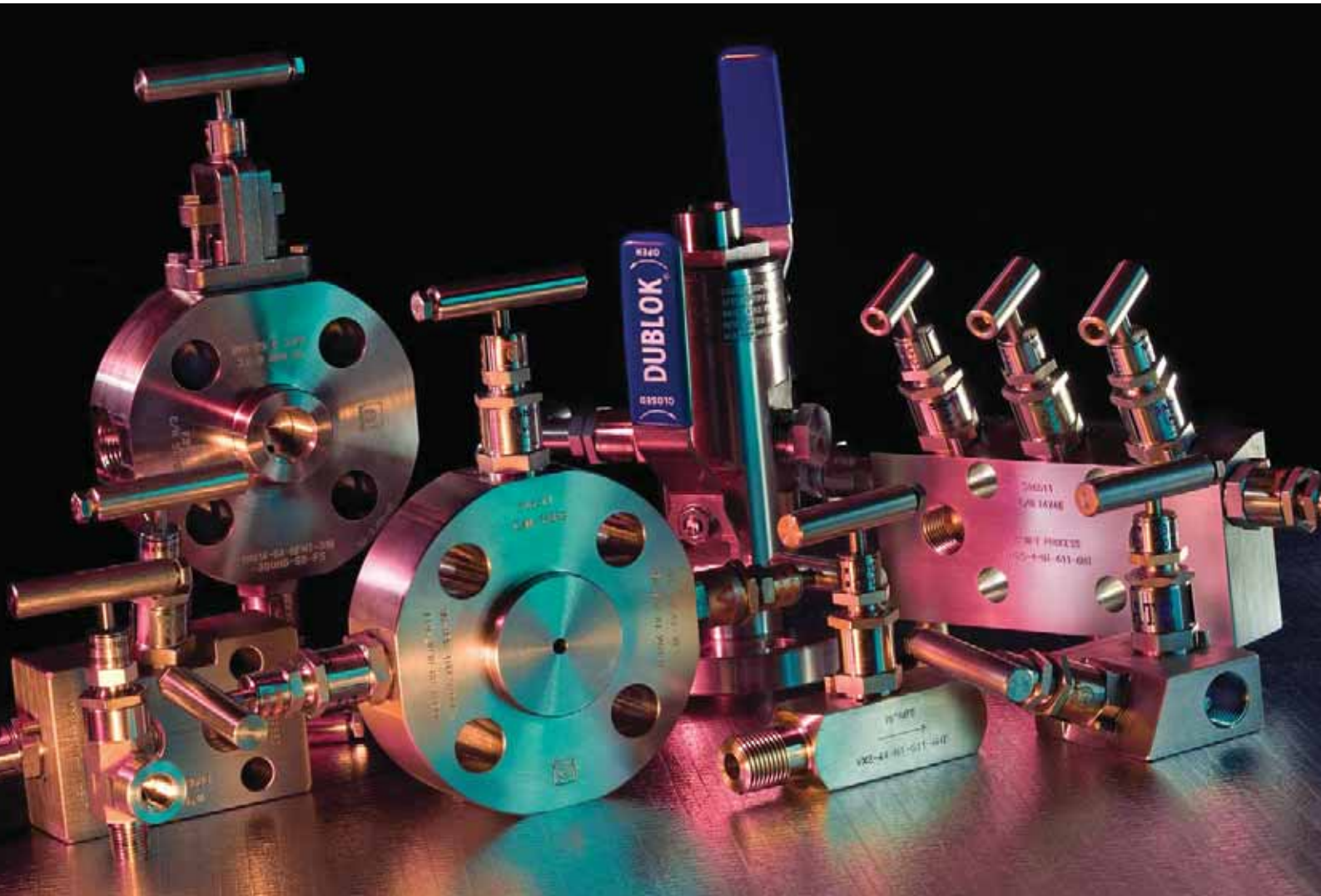


# Instrumentation Valves



# 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

## VALVE STYLE

Example shows monoflange ball valve in ASTM A182 F51 with ANSI 3/4" 900lb Ring Type Joint inlet and 1/2" NPT outlet. Valve is 1/2" bore, NACE compliant, firesafe and is lockable.

## Inlet/Outlet Sizes (Inlet and/or Outlet Flanged)

1/2"	-	4
3/4"	-	6
1"	-	8
1 1/2"	-	12
1 3/16"	-	14.5
2"	-	16
2 1/16"	-	16.5
3"	-	24
4"	-	32

## Inlet/Outlet Sizes (Inlet and Outlet Threaded)

1/4" Female x 1/4" Female	-	2
1/4" Male x 1/4" Female	-	22
3/8" Female x 3/8" Female	-	3
3/8" Male x 3/8" Female	-	33
1/2" Female x 1/2" Female	-	4
1/2" Male x 1/2" Female	-	44
3/4" Female x 3/4" Female	-	6
3/4" Male x 1/2" Female	-	64
3/4" Male x 3/4" Female	-	66
1" Female x 1" Female	-	8
1" Male x 1" Female	-	88

## Inlet/Outlet Connection Type

NT	-	NPT Thread
BT	-	BSP Taper Thread
BP	-	BSP Parallel Thread
RFNT	-	RF Flange x NPT Thread
RFRF	-	RF Flange x RF Flange
RJNT	-	RTJ Flange x NPT Thread
RJRJ	-	RTJ Flange x RTJ Flange
API NT	-	API Flange x NPT Thread
API API	-	API Flange x API Flange
CFNT	-	Compact Flange x NPT
CFCF	-	Compact Flange x Compact Flange
RG	-	Hub
BW	-	Butt Weld
SW	-	Socket Weld
PE	-	Plain End

## Material

A105	-	ASTM A105N Carbon Steel
LF2	-	ASTM A350 LF2 Carbon Steel
611	-	BS970 316 S11 Stainless Steel
612	-	BS1504 316 C12 Stainless Steel
316	-	ASTM A182 F316 Stainless Steel
DUP	-	UNS S31803 Duplex Stainless Steel
F51	-	ASTM A182 F51 Duplex Stainless Steel
SDUP	-	UNS S32750/32760 Super Duplex
F55	-	ASTM A182 F55 Super Duplex
6MO	-	6% Molybdenum Stainless Steel
MON	-	Alloy 400 (Monel)
625	-	Alloy 625
825	-	Alloy 825
TiB	-	Titanium
C276	-	Alloy C276

## Accessories

SG	-	Nace (Sour Gas)
AS	-	Anti Static
FS	-	Firesafe
L	-	Lockable
AT	-	Anti Tamper
MH	-	Mounting Holes
PM	-	Panel Mount
MB	-	Mounting Bracket
HWL	-	Handwheel
P	-	Paint
DG	-	Degreased for Oxygen Service
TAG	-	Tag/Nameplate
EXT	-	Extended Spindles (for insulation)
LS	-	Lip Seal Design

## Bore Size (Ball Valves only)

B3	-	3/8" (10mm)
B4	-	1/2" (12.7mm)
B6	-	3/4" (19mm)
B8	-	1" (25mm)

## Seat (Ball Valves)

T	-	PTFE
P	-	PEEK

## Seat/Packing (Needle Valves)

HT	-	Metal Seat PTFE/PEEK Packing
HG	-	Metal Seat Graphite Packing
PT	-	Soft Seat PTFE/PEEK Packing
RV	-	Ball Tip Viton Packing

## Seat/Packing (Ball/Needle Combination Valves)

T/HT	-	PTFE Seat PTFE/PEEK Packing
T/HG	-	PTFE Seat Graphite Packing
T/RV	-	PTFE Seat Ball Tip Viton Packing
P/HT	-	PEEK Seat PTFE/PEEK Packing
P/HG	-	PEEK Seat Graphite Packing
P/RV	-	PEEK Seat Ball Tip Viton Packing

## Pressure Rating

6	-	6000psi
10	-	10000psi

## Flange Rating

150	-	ANSI 150lb
300	-	ANSI 300lb
600	-	ANSI 600lb
900	-	ANSI 900lb
1500	-	ANSI 1500lb
2500	-	ANSI 2500lb
5000	-	API 5K
10000	-	API 10K

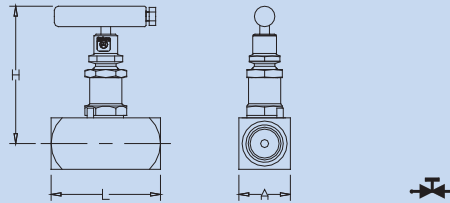
# Sabre Hand Valves

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



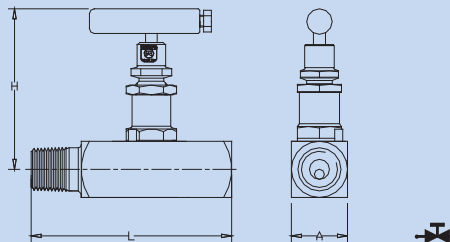
MODEL NUMBER	CONNECTIONS		O/A LENGTH L mm	BODY SECTION A mm	HANDWHEEL HEIGHT H (open) mm	WEIGHT kg
	INLET	OUTLET				
VX1-2	1/4" Female	1/4" Female	58	28.5	86	0.5
VX1-3	3/8" Female	3/8" Female	68	28.5	86	0.5
VX1-4	1/2" Female	1/2" Female	68	28.5	86	0.5
VX1-6	3/4" Female	3/4" Female	70	38.1	90	0.7
VX1-8	1" Female	1" Female	70	50.8	97	0.8



## Male/Female

VX2

- Single isolation valve
- Male inlet and female outlet connections
- Full range of head unit options



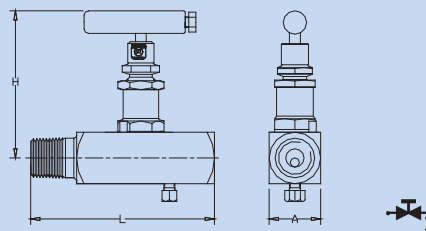
MODEL NUMBER	CONNECTIONS		O/A LENGTH L mm	BODY SECTION A mm	HANDWHEEL HEIGHT H (open) mm	WEIGHT kg
	INLET	OUTLET				
VX2-22	1/4" Male	1/4" Female	95	28.5	86	0.5
VX2-44	1/2" Male	1/2" Female	100	28.5	86	0.6
VX2-64	3/4" Male	1/2" Female	100	28.5	86	0.6



## Isolation valve with vent

VX3

- Gauge valve
- Male or female inlet connection options
- Female outlet connection
- Captive vent plug
- Full range of head unit options



MODEL NUMBER	CONNECTIONS		O/A LENGTH L mm	BODY SECTION A mm	HANDWHEEL HEIGHT H (open) mm	WEIGHT kg
	INLET	OUTLET				
VX3-4	1/2" Female	1/2" Female	75	28.5	86	0.5
VX3-22	1/4" Male	1/4" Female	100	28.5	86	0.5
VX3-44	1/2" Male	1/2" Female	100	28.5	86	0.6
VX3-64	3/4" Male	1/2" Female	100	28.5	86	0.6



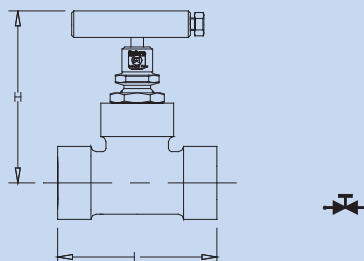
# Forged Hand Valves Sabre

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.

## Straight Pattern

### FVX1 & FVX2

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



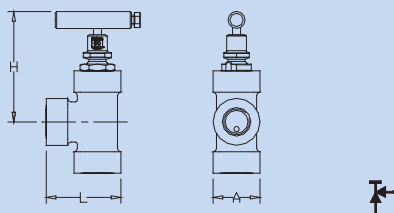
MODEL NUMBER	CONNECTIONS		O/A LENGTH L mm	BODY SECTION A mm	HANDWHEEL HEIGHT H (open) mm	WEIGHT kg
FVX1-2	1/4" Female	1/4" Female	76	34	86	0.5
FVX1-4	1/2" Female	1/2" Female	76	34	86	0.5
FVX2-44	1/2" Male	1/2" Female	76	34	86	0.5



## Angle Pattern

### FVX1A & FVX2A

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



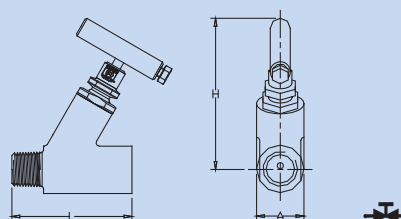
MODEL NUMBER	CONNECTIONS		O/A LENGTH L mm	BODY SECTION A mm	HANDWHEEL HEIGHT H (open) mm	WEIGHT kg
FVX1A-2	1/4" Female	1/4" Female	55.1	34	80	0.5
FVX1A-4	1/2" Female	1/2" Female	55.1	34	80	0.5
FVX2A-22	1/4" Male	1/4" Female	55.1	34	80	0.5
FVX2A-44	1/2" Male	1/2" Female	55.1	34	80	0.5



## Oblique Pattern

### OFVX1 & OFVX2

- 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	CONNECTIONS		O/A LENGTH L 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





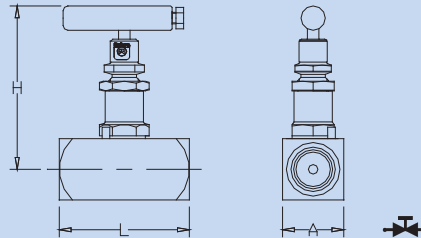
# Sabre Rising Plug Valves

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



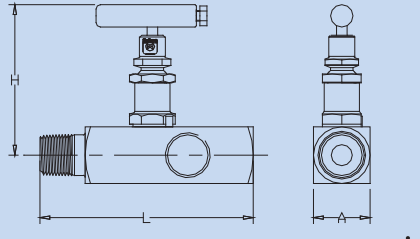
MODEL NUMBER	CONNECTIONS		O/A LENGTH L mm	BODY SECTION A mm	HANDWHEEL HEIGHT H (open) mm	WEIGHT kg
	INLET	OUTLET				
PVX1-2	1/4" Female	1/4" Female	58	31.75	88	0.5
PVX1-4	1/2" Female	1/2" Female	68	31.75	88	0.5
PVX2-44	1/2" Male	1/2" Female	100	38.10	90	0.6



## Gauge Valve Type

PVX4

- Gauge valve - Straight pattern
- Soft seated rising plug
- Replaceable PVDF seat
- Male or female inlet connection options
- 3 x Female outlet connections
- Multi-port configuration for bleed/blanking plugs
- Full range of head unit options



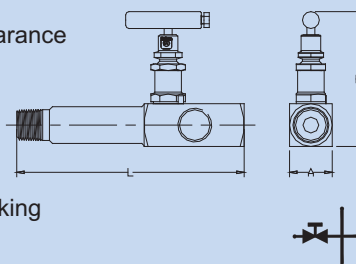
MODEL NUMBER	CONNECTIONS		O/A LENGTH L mm	BODY SECTION A mm	HANDWHEEL HEIGHT H (open) mm	WEIGHT kg
	INLET	OUTLET				
PVX4-4	1/2" Female	1/2" Female	100	38.10	90	0.6
PVX4-44	1/2" Male	1/2" Female	100	38.10	90	0.6
PVX4-64	3/4" Male	1/2" Female	100	38.10	90	0.6



## Extended Gauge Valve Type

PVX4L

- Gauge valve - Straight pattern
- Extended male inlet for insulation clearance
- Extended weld end connection option available
- Soft seated rising plug
- Replaceable PVDF seat
- 3 x Female outlet connections
- Multi-port configuration for bleed/blanking plugs
- Full range of head unit options



MODEL NUMBER	CONNECTIONS		O/A LENGTH L mm	BODY SECTION A mm	HANDWHEEL HEIGHT H (open) mm	WEIGHT kg
	INLET	OUTLET				
PVX4L-44	1/2" Male	1/2" Female	170	38.10	90	1.2



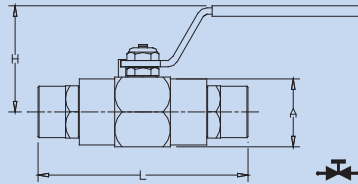
# High Pressure Ball Valves Sabre

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 legs.

## 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



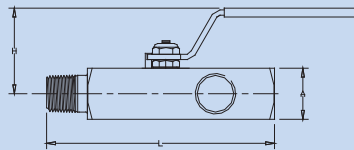
MODEL NUMBER	CONNECTIONS INLET	OUTLET	O/A LENGTH L mm	BODY SECTION A mm	LEVER HEIGHT H (open) mm	WEIGHT kg
BVX1-2	1/4" Female	1/4" Female	110	44	53	0.9
BVX1-4	1/2" Female	1/2" Female	110	44	53	0.9
BVX1-6	3/4" Female	3/4" Female	110	44	53	0.9
BVX1-8	1" Female	1" Female	117	44	53	1.0
BVX2-44	1/2" Male	1/2" Female	110	44	53	0.9
BVX2-66	3/4" Male	3/4" Female	110	44	53	0.9
BVX2-88	1" Male	1" Female	117	44	53	1.0



## Gauge Valve Type

BVX4

- Gauge ball valve
- 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



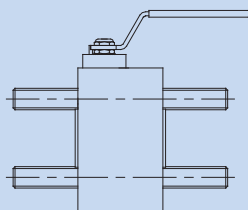
MODEL NUMBER	CONNECTIONS INLET	OUTLET	O/A LENGTH L mm	BODY SECTION A mm	LEVER HEIGHT H (open) mm	WEIGHT kg
BVX4-4	1/2" Female	1/2" Female	122	38.1	53	1.3
BVX4-44	1/2" Male	1/2" Female	134	38.1	53	1.3



## Monoflange Valve Type

BMVX1

- 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



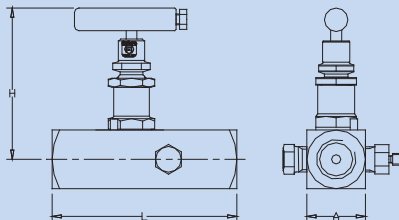
# Sabre Gauge Valves

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.

## Female/Female

VX4-4

- Gauge valve
- Female inlet connection
- 3 x Female outlet connections
- Multi-port configuration for optional bleed/blanking plugs - see page 17
- Full range of head unit options



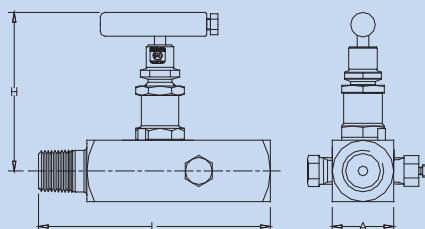
MODEL NUMBER	CONNECTIONS		O/A LENGTH L mm	BODY SECTION A mm	HANDWHEEL HEIGHT H (open) mm	WEIGHT kg
	INLET	OUTLET				
VX4-2	1/4" Female	1/4" Female	75	28.5	86	0.5
VX4-4	1/2" Female	1/2" Female	100	32	88	0.6



## Male/Female

VX4-44/64

- Gauge valve
- Male inlet connection
- 3 x Female outlet connections
- Multi-port configuration for optional bleed/blanking plugs - see page 17
- Full range of head unit options



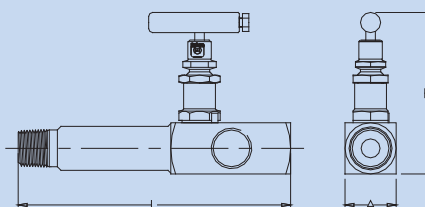
MODEL NUMBER	CONNECTIONS		O/A LENGTH L mm	BODY SECTION A mm	HANDWHEEL HEIGHT H (open) mm	WEIGHT kg
	INLET	OUTLET				
VX4-22	1/4" Male	1/4" Female	120	32	88	0.8
VX4-44	1/2" Male	1/2" Female	120	32	88	0.8
VX4-64	3/4" Male	1/2" Female	120	32	88	0.8



## Extended Inlet

VX4L

- Gauge valve
- Extended male inlet for insulation clearance
- Extended weld end connection option available
- 3 x Female outlet connections
- Multi-port configuration for optional bleed/blanking plugs - see page 17
- Full range of head unit options



MODEL NUMBER	CONNECTIONS		O/A LENGTH L mm	BODY SECTION A mm	HANDWHEEL HEIGHT H (open) mm	WEIGHT kg
	INLET	OUTLET				
VX4L-44	1/2" Male	1/2" Female	170	32	88	1.2
VX4L-64	3/4" Male	1/2" Female	170	32	88	1.2





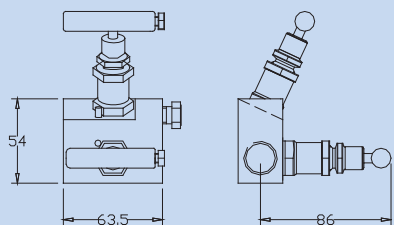
# 2 Valve Manifolds Sabre

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



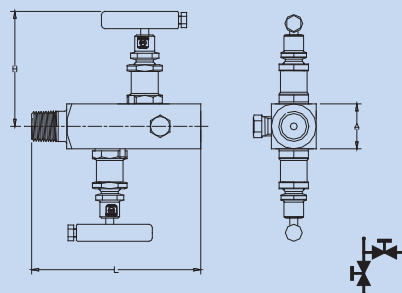
MODEL NUMBER	CONNECTIONS		O/A LENGTH L mm	BODY SECTION A mm	HANDWHEEL HEIGHT H (open) mm	WEIGHT kg
	INLET	OUTLET				
MX1-2	1/4" Female	1/4" Female	63.5	54	86	1.0
MX1-3	3/8" Female	3/8" Female	63.5	54	86	1.0
MX1-4	1/2" Female	1/2" Female	63.5	54	86	1.0
MX1F-4	1/2" Female	1/2" Female	63.5	54	86	1.0



## Male/Female

MX1MF

- Single isolate and vent valve
- Remote mounting barstock body
- Male inlet and female outlet connections
- Integral female vent port (plugged)
- Full range of head unit options



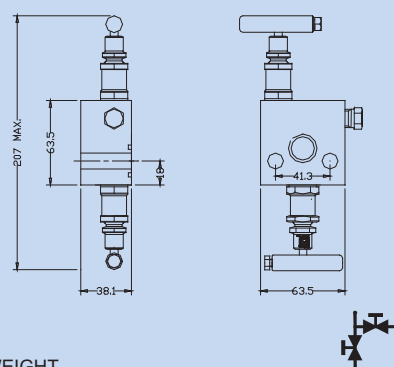
MODEL NUMBER	CONNECTIONS		O/A LENGTH L mm	BODY SECTION A mm	HANDWHEEL HEIGHT H (open) mm	WEIGHT kg
	INLET	OUTLET				
MX1MF-44	1/2" Male	1/2" Female	120	31.75	88	1.2
MX1MF-64	3/4" Male	1/2" Female	120	31.75	88	1.2



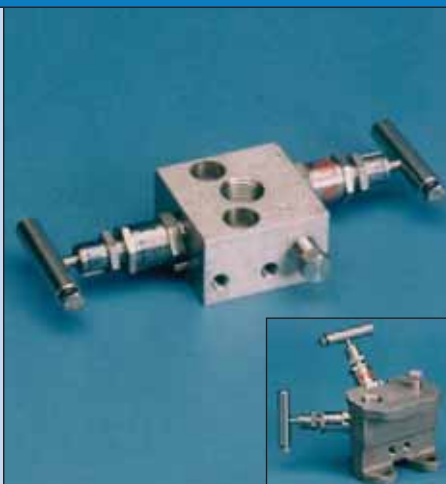
## Direct Mounting

MX1D

- Single isolate and vent valve
- Direct mounting barstock body
- Female inlet connections
- Flanged outlet connections with 54mm centres
- Integral female vent port (plugged)
- Cast body option for reduced disturbance of pipework (photo inset)
- Full range of head unit options



MODEL NUMBER	CONNECTIONS		WEIGHT kg
	INLET	OUTLET	
MX1D-44-611	1/2" Female	Flanged	1.4
MX1D-44-612	1/2" Female	Flanged	2.5



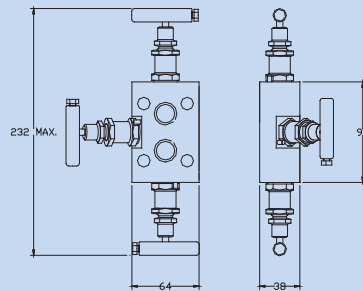
# Sabre 3 Valve Manifolds

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



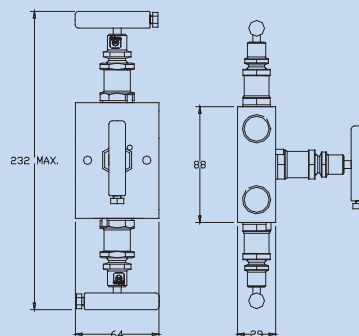
MODEL NUMBER	CONNECTIONS		WEIGHT kg
	INLET	OUTLET	
MX2A-2	1/4" Female	Flanged	1.70
MX2A-4	1/2" Female	Flanged	1.65
MX3A-R	Flanged	Flanged	1.65



## 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



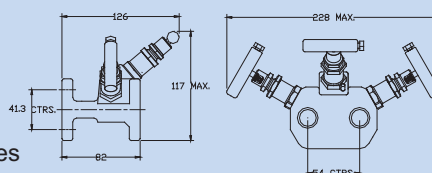
MODEL NUMBER	CONNECTIONS		WEIGHT kg
	INLET	OUTLET	
MX4-2	1/4" Female	1/4" Female	1.70
MX4-4	1/2" Female	1/2" Female	1.65



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



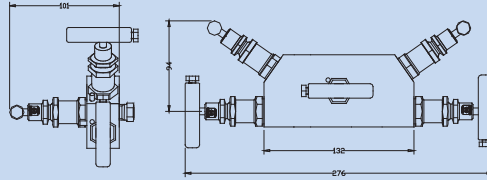
# 5 Valve Manifolds Sabre

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



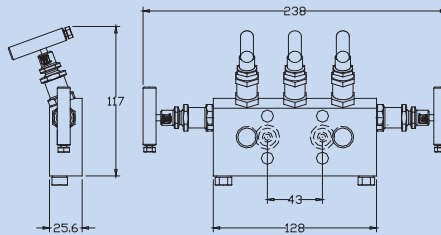
MODEL NUMBER	CONNECTIONS		WEIGHT kg
	INLET	OUTLET	
MX7-2	1/4" Female	1/4" Female	2.5
MX7-4	1/2" Female	1/2" Female	2.4



## 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



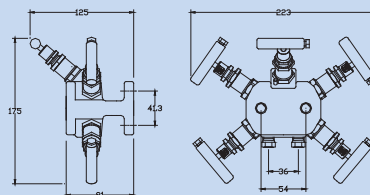
MODEL NUMBER	CONNECTIONS		WEIGHT kg
	INLET	OUTLET	
MX25-2	1/4" Female	Flanged	4.0
MX25-4	1/2" Female	Flanged	4.0



## Direct Mounting Cast Body

MX8 & MX9

- 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



MODEL NUMBER	CONNECTIONS		WEIGHT kg
	INLET	OUTLET	
MX8-2	1/4" Female	Flanged	3.25
MX8-4	1/2" Female	Flanged	3.25
MX9-R	Flanged	Flanged	3.25



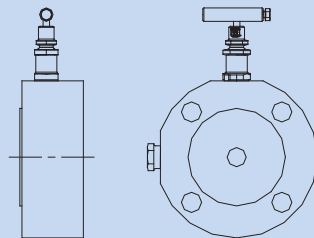
# Sabre Monoflange Valves

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

## Single Isolation Valve

MVX1

- 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



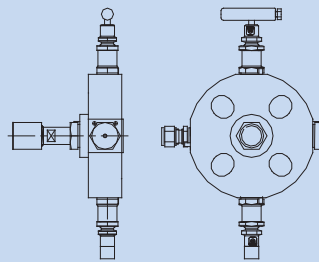
All dimensions according to flange size



## Block & Bleed Valve

MX14 & MX15

- Block and bleed monoflange valve
- Full range of flange connection options
- 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 - (MX14)
- Pressure class 900/1500/2500lb designated HPR - (MX15)
- Vent sizes: 1/4" NPT, 1/2" NPT or G 1/4" parallel thread with locking pin.



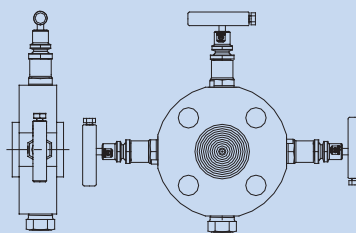
All dimensions according to flange size



## Double Block & Bleed Valve

MDBBX

- Double block and bleed monoflange valve
- 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





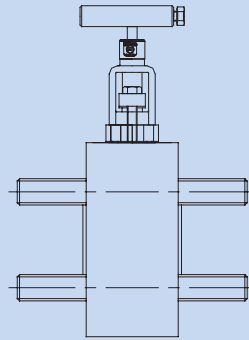
# Monoflange Valves Sabre

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

YMVX1

- 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



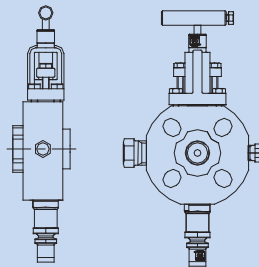
All dimensions according to flange size



## Block & Bleed Valve

YMX14 & YMX15

- Block and bleed monoflange valve
- Primary isolation valve piping class OS&Y construction
- Full range of flange connection options
- 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.



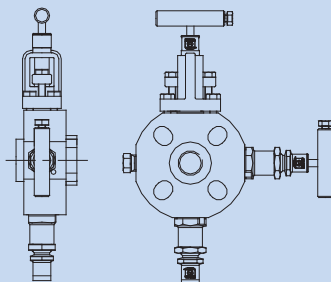
All dimensions according to flange size



## Double Block & Bleed Valve

YMDBBX

- 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

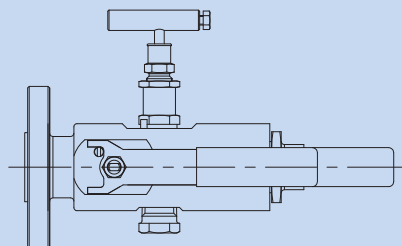
### Connection Options

- 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



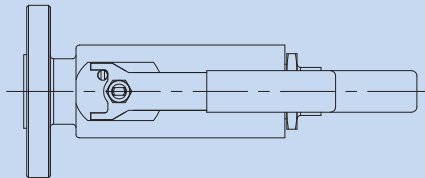
# Integral Class Valves Sabre

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

**BDBX**

- 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



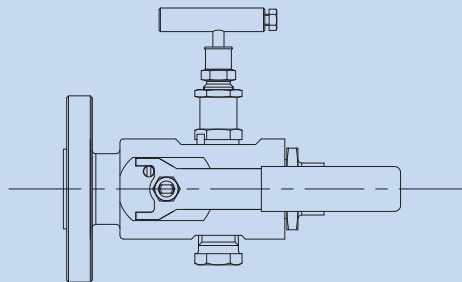
All dimensions according to connection details



## Integral Single Block & Bleed Valves

**BSBBX**

- Single block and bleed integral valve (Ball/Needle)
- 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



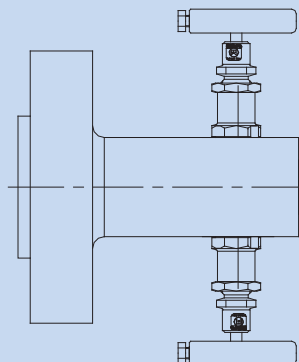
All dimensions according to connection details



## Integral Double Block & Bleed Valves

**DBBXX**

- Double block and bleed integral valve (Needle/Needle/Needle)
- Flanged inlet / threaded outlet connection with choice of flange / thread sizes
- Single piece construction for reduced leak paths
- Flanged inlet with 1/2" NPT threaded outlet
- Also available with primary isolation valve piping class OS&Y construction



All dimensions according to connection details



# Sabre Air Distribution Manifolds

The Sabre range of Distribution 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.

### 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.



Ball Valve Type



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.

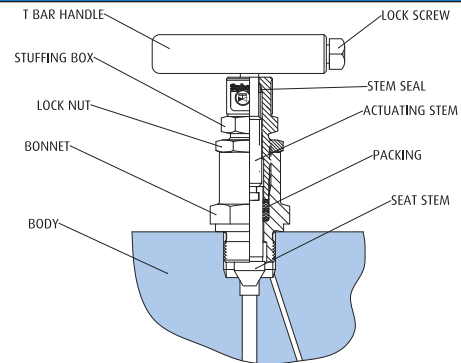


# Valve Head Types Sabre

## Needle Valve

### Features

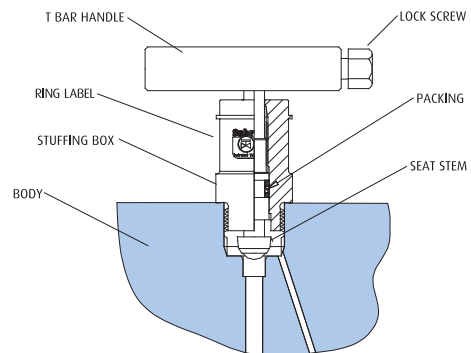
- Operating pressure up to 10,000 p.s.i.g
- Operating temperature from -48°C to 500°C
- Austenitic stainless steel one piece handle
- Effective thread seal (integral with gland follower)
- Unique NIFLOR coated stem threads
- Head unit service label
- Packing bush to suit operating conditions
- Bonnet 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

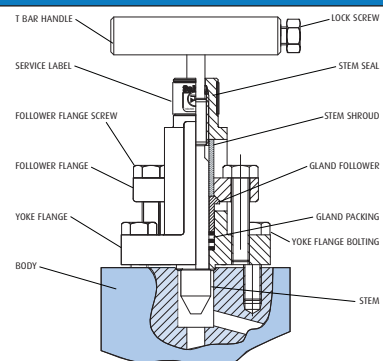
- Operating pressure up to 6,000 psi
- Operating temperature from -10°C to +200°C; lower temperature options available
- Austenitic stainless steel one piece handle
- Lubricated actuating stem threads
- Bonnet locking pin
- Viton stem seal
- Metal to metal body to bonnet seal (DIN 3852)
- All wetted 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

