

TUFLIN

Easi-Sleeve Valves

Distribution By



A
XOMOX
Product



XOMOX have been selling sleeved plug valves to the Chemical and Petrochemical Industry for over 25 years. During this time a reputation of quality and reliability has been established.

With its entry into the world of Nuclear Power the Company and its products have changed to suit the special requirements of this demanding industry.

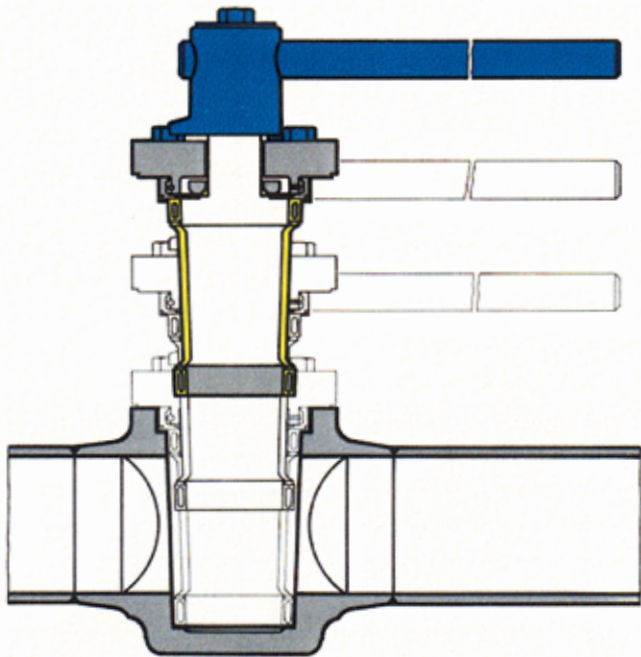
The Easi-Sleeve Valve reflects the experience of the past and the needs of the future.

Index

- 3 Bubble-Tight Shut Off and REAL Ease of Maintenance**
- 4 Easi-Sleeve Two and Three Way Valves with Weld Ends 8 mm – 20 mm (3/8" – 3/4")**
- 5 Easi-Sleeve Two and Three Way Valves with Weld Ends 25 mm – 150 mm (1" – 6")**
- 6 Special Valves Easi-Sleeve**
- 7 Special Valves Easi-Sleeve**
- 8 Technical Information and Standard Materials of Construction**
- 9 Technical Information Port Arrangements for Three Way Valves**
- 10 Technical Information
Pressure-Temperature Ratings, Valve Torques**
- 11 Technical Information
Operators, Quality Assurance**

Subject to technical revisions.

Bubble - Tight Shut Off and REAL Ease of Maintenance



The **Easi-Sleeve** incorporates all the advantages of the established TUFLIN sleeved plug valve such as:

Tight Shut-Off provided by tapered compression of the seal member.

Prevention of external leakage by means of two separate sealing arrangements.

Freedom from internal cavities. During the open and close operation, there are not wetted cavities to entrap media, particles and contaminants.

Seat protection. In the open position seats are fully shielded from flow erosion.

Extra Life. Both gland and seat are externally adjustable.

High capacity. The optimum ratio of size to flow is provided by a venturi configuration.

Metal lips prevent cold flow of sleeve into port.

Exclusive Features

The Easi-Sleeve has the remarkable facility of single module replacement of the entire inner components, comprising a tapered plug, fully surrounded by a tapered sleeve unit, loosely assembled with gland and cover parts. A matching tapered bore, precision machined, in the body, provides the perfect mating seat which is normally fully protected, only being exposed during the maintenance operation.

Extraction by release of cover bolts, engagement of jacking screws and withdrawal of inner module complete.

Refurbish by inserting new module and tightening down.

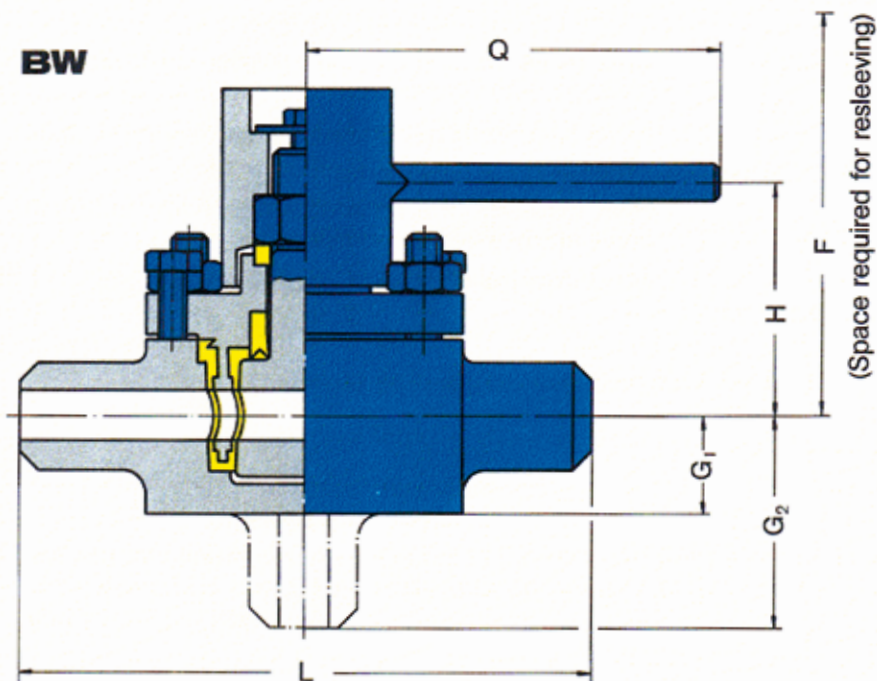
Unless damaged, all metal parts are re-usable following correct decontamination procedures. Normally, only cage and gland parts are discarded.

Forged body. The Easi-Sleeve is supplied with bodies manufactured from forged stainless steel material to ensure the highest quality and minimum nondestructive testing requirements.

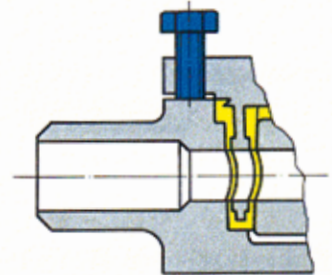
Easi-Sleeves Two and Three Way Valves with Weld Ends 8mm - 20mm (3/8" - 3/4")

Fig. 1024 BW or 1023 SW (2 Way) ANSI 150 lb
 Fig. 1034 BW or 1033 SW (3 Way) ANSI 150 lb
 Fig. 1324 BW or 1323 SW (2 Way) ANSI 300 lb
 Fig. 1334 BW or 1333 SW (3 Way) ANSI 300 lb

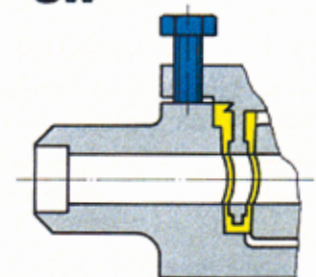
ANSI 600 on request



NS 20 mm



SW



Dimensions in mm

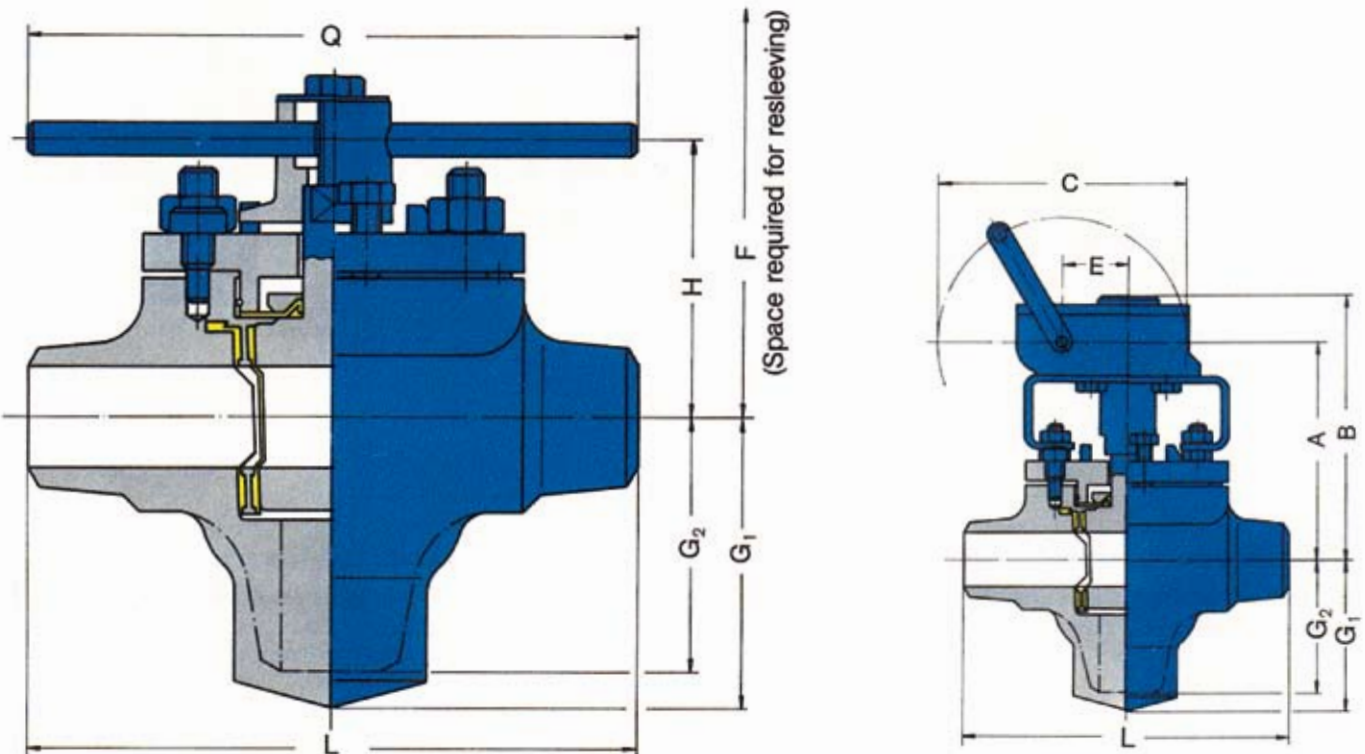
NS	L	G ₁	G ₂	H	Q	F	appr. weight/kg
8-20	122	17	48	50	135	90	2 Way 1.6 3 Way 1.8

Give details of end connection and pipe dimensions when ordering.

Easi-Sleeve Two and Three Way Valves with Weld Ends 25mm - 150mm* (1" - 6")

Fig 1024 BW or 1023 SW (2 Way) ANSI 150 lb
 Fig 1034 BW or 1033 SW (3 Way) ANSI 150 lb
 Fig 1324 BW or 1323 SW (2 Way) ANSI 300 lb
 Fig 1334 BW or 1333 SW (3 Way) ANSI 300 lb

ANSI 600 on request



Note: Boss for third way is not removed for two way valve.

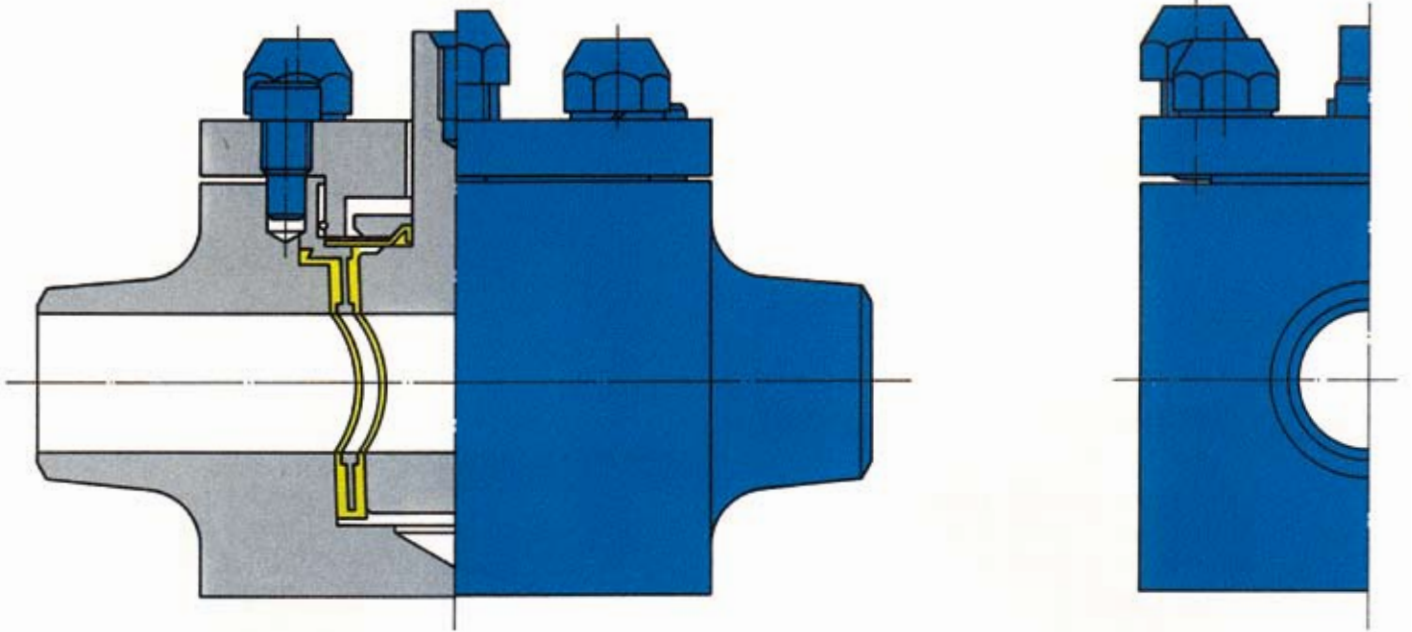
Dimensions in mm

NS	L	G ₁	G ₂	H	Q	F	A	B	C	E	appr. weight/kg			
											2 Way	3 Way	2 Way	3 Way
25	150	65	56	80	375	136					5	4.5		
40	160	75	66	100	457	180					8	7.5		
50	165	89	80	110	762	216	166	206	305	60	12	11	24.5	23.5
80	205	113	104	128	762	258	180	220	305	60	16	15	29.5	28.5
100*	257	127	118			326	211	251	406	77			44	41
150*	300	159	150			418	260	300	406	77			60	58

* Contact XOMOX for confirmation of dimensions and availability of sizes over 80 mm.

Give details of end connection and pipe dimensions when ordering.

Special Valves Easi-Sleeves



Full Bore Valves (see illustration)

For duties where no pipeline constructions are acceptable, such as radioactive sludges with high percentage solids content.

Valves with Interlock

Combinations of valves interconnected such that one valve cannot be operated without being in the correct position.

Valves with Leak-Off Connection

For leakage monitoring in radioactive service at bonnet and gland seals.

Valves with Locking Device

To lock the valve in any desired position.

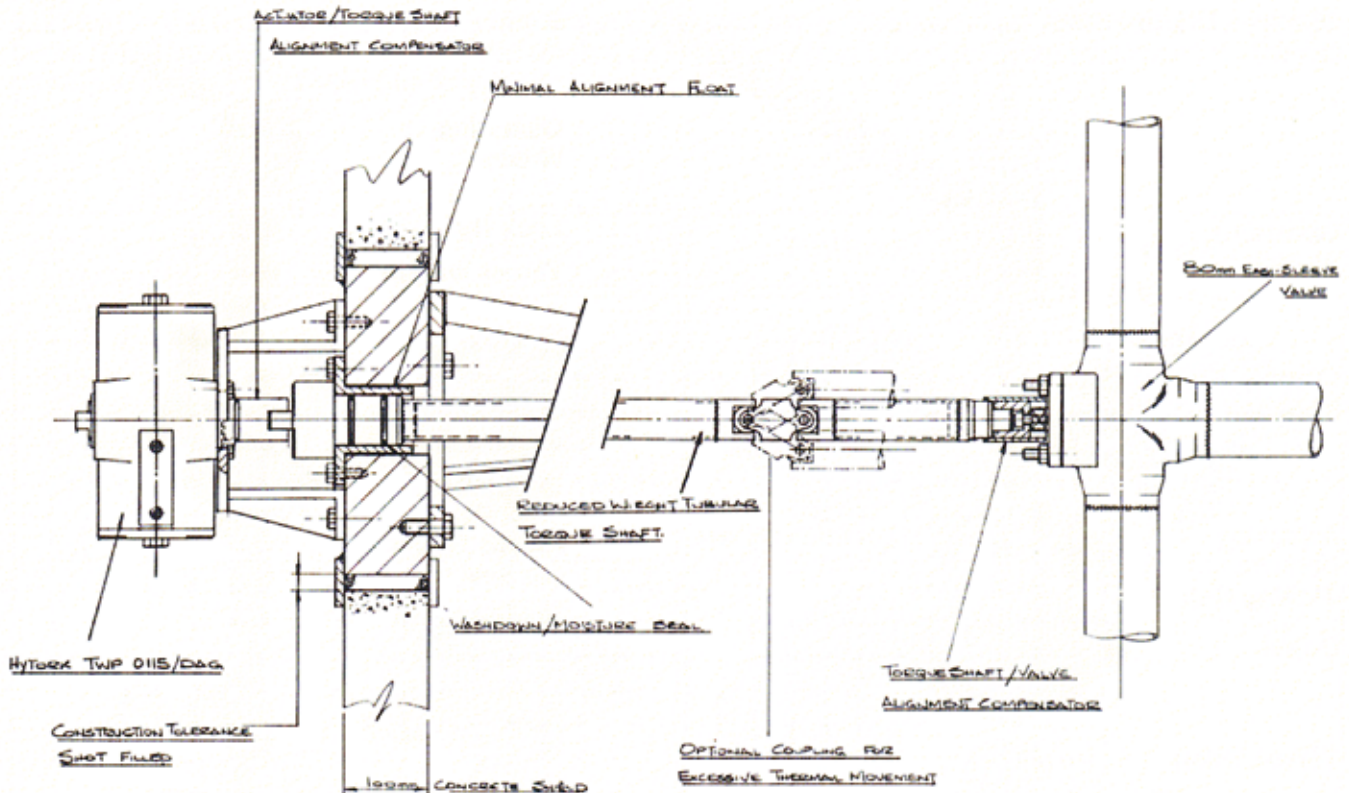
System Balancing Valves

For accurate flow control in cooling water and space heating systems.

Valves with Retained Bolts

For applications where the valve is maintained through shielding and lost cover bolts could be irretrievable.

Special Valves Easi-Sleeve



Valves Installed Behind Shielding (see illustration)

Easi-sleeves can be supplied with sealed extension spindles to penetrate shielding where operators are mounted outside the shielding wall. Likewise design modifications can be made in co-operation with the customer to suit existing remote or semi-remote handling procedures.

Manipulator Maintenance Valves

The easi-sleeve valve concept lends itself ideally to remote maintenance and operation. Designs have been developed to allow the valve to be handled by means of a manipulator.

Versions have been introduced for maintenance carried out from below the valve and also where the valve stem is in the horizontal plane. These designs incorporate single cover fastening and jacking facilities.

Please contact Xomox sales department for any special requirements. We are always pleased to discuss design alterations to suit particular customer requirements.

25 mm – 150 mm Sizes
(1"–6")

Operating
Wrench

Cover
Nuts

Adjusting
Screws
Jacking Bolts

Cover

Thrust Collar

Metal Diaphragm

Lip Seal

Wedge Ring

Plug

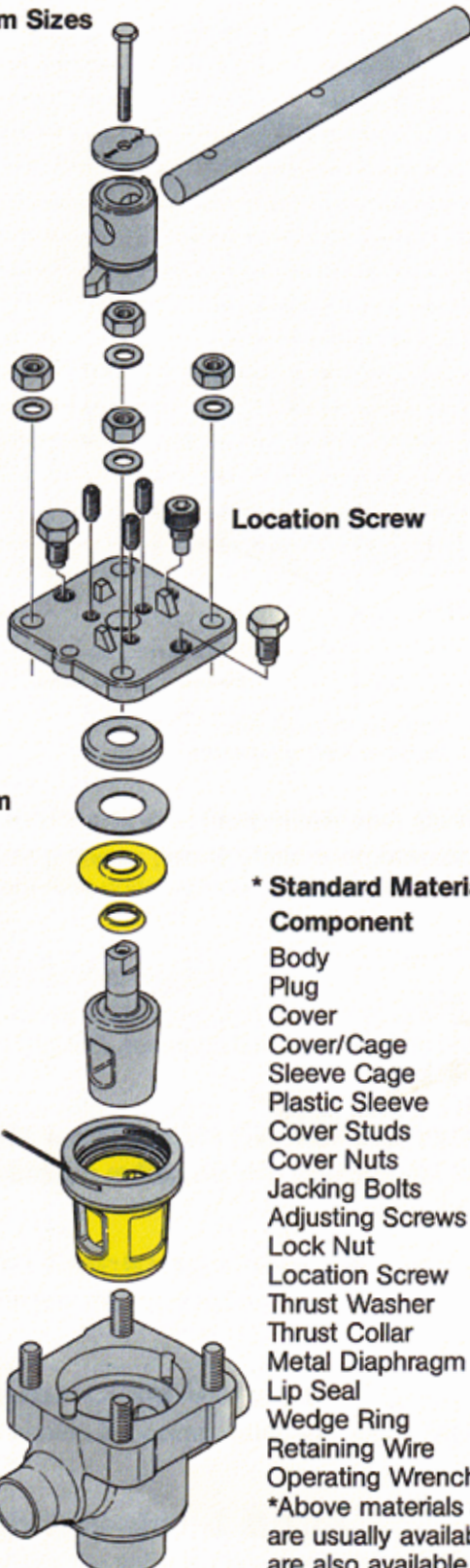
Retaining Wire

Sleeve Cage

Plastic Sleeve

Cover Studs

Body



8 mm – 20 mm Sizes
($\frac{3}{8}$ "– $\frac{3}{4}$ "")

Operating
Wrench

Lock Nut
Thrust Washer

Cover Nuts

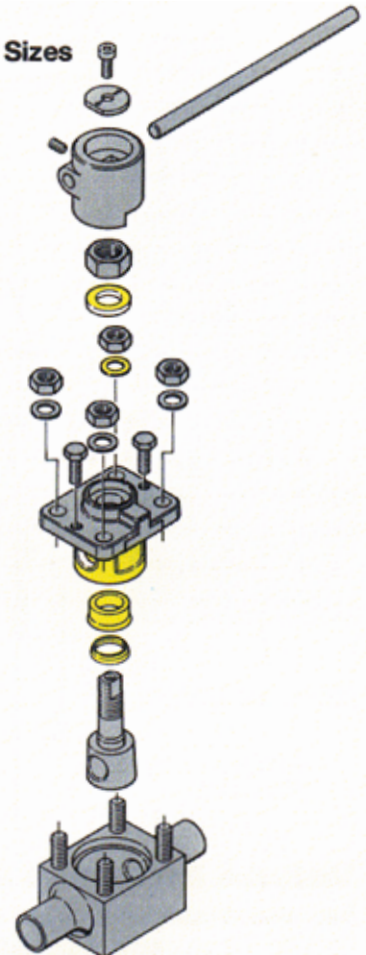
Jacking Bolts
Cover/Cage

Plastic Sleeve
Lip Seal

Wedge Ring

Plug

Cover Studs
Body



*** Standard Materials of Construction**

Component	25 mm – 150 mm Size	8 mm – 20 mm Size
Body	BS1503 304S11 (304L)	ASME SA182 F304L
Plug	ASTM A351CF3 (304L)	ASME SA182 F304L
Cover	ASTM A351CF3 (304L)	–
Cover/Cage	–	ASTM A351CF3 (304L)
Sleeve Cage	BS3100 304C12 (304L)	–
Plastic Sleeve	PFA (Perfluoralkoxy)	PFA (Perfluoralkoxy)
Cover Studs	BS4882 B8 (silver plat.)	BS4882 B8 (silver plated)
Cover Nuts	BS4882 B8	BS4882 B8
Jacking Bolts	St/Steel	St/Steel
Adjusting Screws	St/Steel (silver plated)	–
Lock Nut	–	BS4882 B8
Location Screw	St/Steel	–
Thrust Washer	–	Polyamide
Thrust Collar	304 St/Steel	–
Metal Diaphragm	302 St/Steel	–
Lip Seal	PTFE	PTFE
Wedge Ring	Glass filled PTFE	Polyamide
Retaining Wire	302 St/Steel	–
Operating Wrench	St/Steel	St/Steel

*Above materials are those normally supplied. Different grades of steels are usually available. Different plastics to suit specific service conditions are also available.

Technical Information

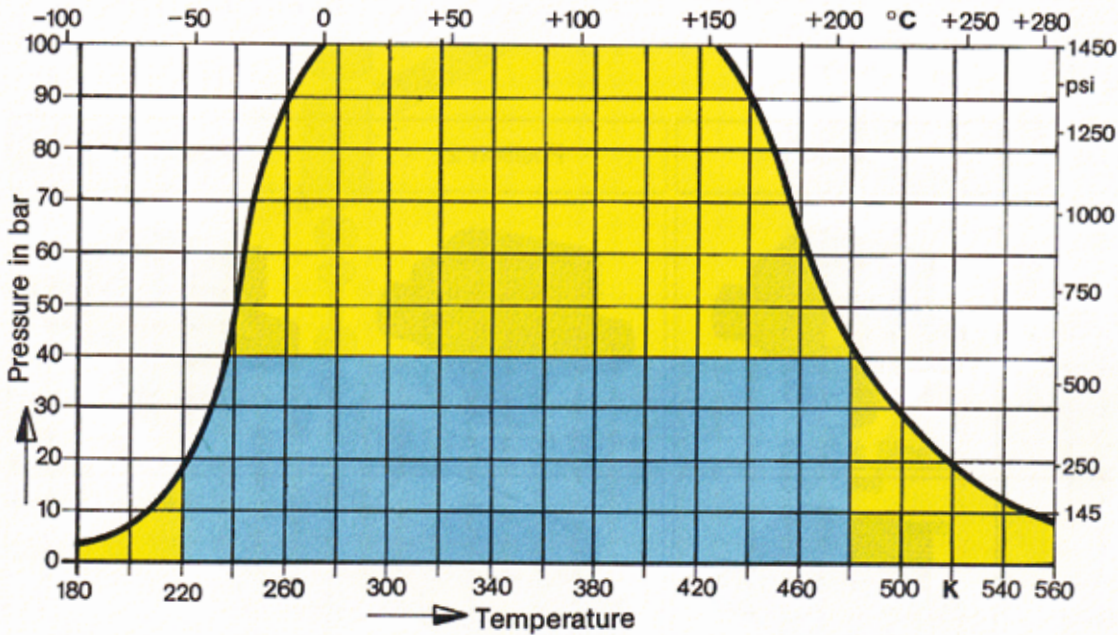
Port Arrangements for Three Way Valves

The plugs in the first column are shown in position 1. The solid arrow indicates flow of fluid. There is always flow between bottom port and a sideport when rotating an AX, C or D plug. Only the A plug will shut off the flow, in position 2, as it is turned from one flow position to another.

Type	Position 1	Position 2	Position 3
A			
AX			
C			
D			

All of the valves shown in this catalogue can be supplied in a three way form. In order to achieve the required flow configuration one of the above plug types is required to be fitted in the valve.

Pressure-Temperature Ratings



- Exceptional operating parameters
- Normal operating parameters

For applications outside normal operating parameters contact XOMOX sales office.

Valve Torques

Valve Size	to 20 mm	25 mm	40 mm	50 mm	80 mm	100 mm	150 mm	
Break	360	720	1080	1800	2520			in/lb
	41	81	122	203	285			Nm
Run	120	180	240	360	600			in/lb
	14	20	27	41	68			Nm
End of stroke	240	360	480	720	1200			in/lb
	27	41	54	81	136			Nm

Notes on Valve Torque Figures

- 1) Above torques are for valves fitted with PFA sleeves. For torque figures with alternative sleeve materials and sizes above 80 mm please contact XOMOX sales office.
- 2) When sizing actuators ensure that the actuator manufacturer's published beginning and end of stroke output figures match or exceed the above values which include a safety margin.
- 3) The above figures apply for both "normally open" and "normally closed" valve situations.

Technical Information

Operators

Manual

The standard mode of operation is either by means of a stainless steel bar wrench or an enclosed gear operator as illustrated on pages 4 and 5.

Xomox sales office will be pleased to advise on particular problems associated with valves installed in inaccessible areas or restricted space. In most cases alternatives to the standard operators can be offered to good effect.

Actuated

Pneumatic vane type double acting and pneumatic fail safe actuators are available for the whole range of easi-sleeves. Pneumatic piston type actuators, double acting and spring return, can also be offered as standard if preferred.

Electric or hydraulic actuators can likewise be mounted and tested in accordance with customer requirements.

Accessories

Actuator accessories such as limit switches (also available on manual valves), solenoid valves or positioners for modulating control can be supplied, fitted and tested as required.

Quality-Assurance

Several years' experience of supplying valves to the nuclear industry has seen the improvement in all quality systems to meet the stringent requirements of the various nuclear customers.

Our Quality Assurance programme is based on the requirements of the ASME Boiler and Pressure Vessel Code Section III Division 1 (Valves and Parts). Several European nuclear inspection authorities, contractors and end users have successfully audited our facilities.

We recommend and welcome inspection of our manufacturing plants and are always ready to improve or alter systems to suit specific customer requirements.

Insofar as possible every effort has been made to ensure that the information, contained herein was correct at the time of printing. Products may differ as a result of the company policy of continuous product improvement.

About XOMOX®

Locations: Headquarters - Cincinnati, OH, USA; England; France; Germany; Mexico; Hungary; India
Year founded: 1956
Year acquired by Crane Company: 2001
Number of employees: Approx 950

Product/market focus: XOMOX® is the originator of sleeved plug valves and a leading global supplier of quarter-turn manual and automated process valves with an installed base of over \$4 billion.

www.xomox.com

The information contained herein is provided only as a guide for the use of Resistoflex® and XOMOX® products and does not constitute an express warranty of any kind. Resistoflex® and XOMOX® specifically disclaim the implied warranty of merchantability and fitness for a particular purpose. Triclamp® is a trademark of Ladish and Co., Tri-Clover Division. Hastelloy® is a trademark of Cabot Corp. Monel® is a trademark of Huntington Alloys, Inc. Kynar® is a trademark of Atofina North America.

ISO · LLOYDS · CE-PED



Induchem UK Limited

Founded in 1982, Induchem has for the past 24 years and more served the Pharmaceutical, Chemical, Petrochemical and Process Industries throughout the UK, Ireland, Europe and the Far East.

Induchem currently holds over 20 exclusive agency agreements with many of the world's leading process equipment manufacturers. This extensive range of products together with our focus on customer service have enabled us to substantially grow our domestic market share while successfully supplying major projects throughout Europe.

The most recent success in terms of growth has been the founding of Induchem UK based in Congleton, Cheshire. During the last three years this operation has established itself as one of the UK's leading suppliers to the process industry. In addition to carrying substantial stocks of lined and unlined process valves, lined pipeline and fittings, including fabrication of custom length spools, instrumentation and powder handling valves, we also offer a fully guaranteed and tested valve repair service.

We currently employ over 45 people based at our facilities in Congleton, Cork and Dublin. Our solid growth over the last 24 years has been achieved through our dedication to quality products and through providing the highest levels of service to our customers.

The strength of Induchem is our ability to listen and work closely with our customers to provide workable solutions to your process problems.

Whether you require standard, off-the-shelf items or customised designed products for a specific process, Induchem provides a single source for all of your requirements.

Induchem UK - a leading Integrated Solution Provider.

Induchem UK Limited supplies products to International Quality Standards such as:

ANSI · API · ASME · ATEX · BASEEFA · BSI · CD
CENELEC · DIN · FDA · FM · ISA · ISO · LLOYDS · MSS
NACE · NAMUR · NEMA · PED · TA LUFT · TUV · UL