

# V.B/V.B.T/V.BP.M/2TGA.B/ 2-3TGB/2-3TBB/2-3TBB.T/2-3TIA

## PN16 Threaded Globe Valves

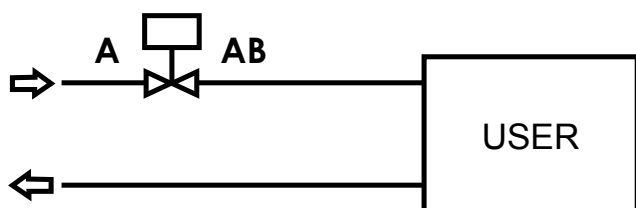
### INSTALLATION

#### Hydraulic Connections

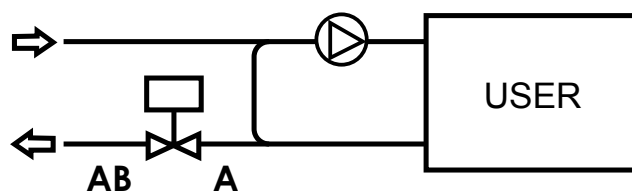
Flow directions must be as those shown on the diagram below.

#### Two-way Valve

Valve with variable flow to the user



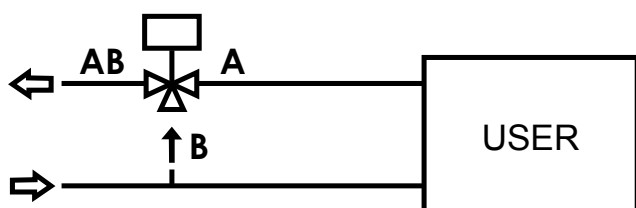
Valve with constant flow to the user



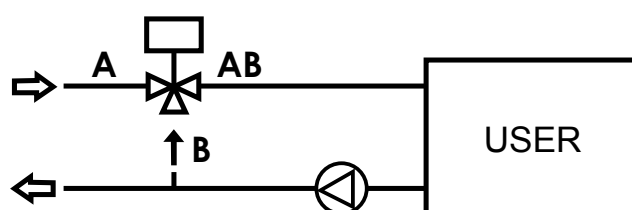
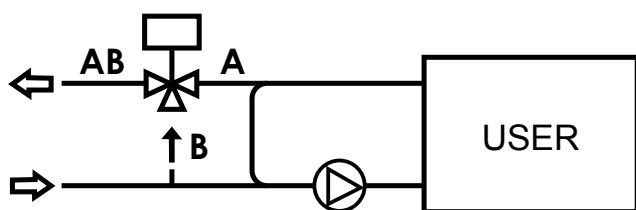
Two-way valves should be installed on return leg (excluding steam plant), since the lower fluid temperature allows longer life to the gaskets.

#### Three-way Valve

Mixing valve in diverting mode



Mixing valve for constant flow to the user



Three-way valves **must be used as mixers**, two inlets A and B and one outlet AB, and **not as diverting valves** with one inlet AB and two outlets A and B.

Only in open circuit plants the use of diverting valves can be necessary. In such cases our mixer valves may be used, taking into account that the maximum recommended differential pressure must be reduced to one third of the specified value (see relevant data sheet).

### ASSEMBLING

Before installing the valve, make sure that pipework is clean and free from weld slag in order not to damage valve internal components.

Pipework must be perfectly aligned with valve body and not be subjected to vibrations.

Valve can be mounted in any position within the upper 180° arc providing that actuator shaft is always in horizontal position.

When adjusting actuator position, do not unscrew travel adjustment nut.

The performances stated in this sheet can be modified without any prior notice.

Actuators must not be installed in explosive environments or wherever room temperature exceeds 50°C, and must not be subject to water jets or dripping water. Sufficient space must be left above the valve (see data sheet for the minimum space) to allow the actuator assembling and disassembling in case of maintenance.

## START-UP

Before start-up, check:

### FLOW DIRECTION

This must correspond to the indication written both on valve body.

### VALVE OPENING AND CLOSING ACTION

This must comply with plant specification, ensuring that:

Two-way valve		
Stem down	=	fluid flows
Stem up	=	fluid intercepted
Three-way valve		
Stem down	=	fluid flows through A-AB B-AB intercepted
Stem up	=	A-AB intercepted fluid flows through B-AB

### OPERATING CONDITIONS

Temperature and nominal pressure at the valve must be within the values specified for each valve model on the relevant data sheets. The differential pressure must be within the values specified on the data sheet of the actuator to which it is assembled.

### PIPELINE FLUSHING

A poor flow action through the valves is, in almost every case, caused by weld slag or foreign bodies trapped between the valve seat and plug, often damaging them.

To prevent such inconveniences, it is advisable to use filters to be installed upstream of the valve.

Moreover, the pipelines must be thoroughly washed by positioning the valve stem at half stroke; this operation must be performed before start-up and after a prolonged shutdown of the system.

## COMMISSIONING

### Check Stuffing Box Seal

Valves are equipped with a stuffing box sealed by a double O-ring and, therefore, they do not require any particular maintenance. In case of irregular leakage, O-Rings and stem packing have to be replaced.

## MAX. OPERATING PRESSURE (kPa) ACCORDING TO TEMPERATURE (UNI 1092 and UNI 12516)

Fluid Temperature [°C]	VSBP.M/VMBP.M VMB.T/VSB.T* (up to 95°C only)	VSB/VMB*	2-3TBB 2-3TBB.T	2-3TGB.B 2-3TGB.F (up to 140°C)	2TGA.B	2-3TIA
	PN16	PN16	PN16	PN16	PN16	PN16
-20÷-10						
-10÷120	1600	1600	1600	1600	1600	1600
120÷150		1400				

\* Also available for VSB.TPS150 and VMB.TPS150 iSMA CONTROLLI valves.