

INSTRUCTIONS FOR USE ON NEEDLE VALVE

1. SCOPE

The needle valve is a kind of valve assuring mobility relating to the contact of the conical end processed in the shape of a needle on the end of the valve movement spindle and such spindle thanks to a special design which provides easy and secure opening and closing along with being used in checking and adjusting the fluids.

The NEEDLE VALVE should be mounted as per its conditions and it should also be operated as per its conditions so as to fulfill its operating principles.

2. APPLICATION

2.1. POINTS TO BE CONSIDERED WHEN CHOOSING A NEEDLE VALVE

- 2.1.1.** The environment where the needle valve will be used (The fluid passing through it)
- The environment should be chosen according to of which dark fluid surpluses the fluid is and which includes liquid, gas, air or solid particles and whether this fluid is corrosive.
- 2.1.1.** Fluid concentration and temperature (Max and Min)
- The operational temperature, max temperature and min. temperature passing through the valve should be known.
- 2.1.2.** The type of connection to the circuit
- Threaded, flanged, socked, welded or bushed
- 2.1.3.** Conformity to international standards
- DIN, ANSI, CLASS.

2.2. POINTS TO BE CONSIDERED WHEN MOUNTING A NEEDLE VALVE

2.2.1. Please consider the following for the valve connection elements on the installation:

- They should comply with the appropriate standard, pressure class and diameter
- Both the axes of the pipes where they will be mounted and the hole axes of the connection element to be used should be in the same axis.
- **Example:** If flange is used as connection element, the bolt hole axes should be in the same axis. (The excessive tensions occurred on the needle valve due to this kind of axis abnormalities will risk the leakage.)
- In flanged connections, bolts suitable for flange holes should be used.
- If the connection element is flange, its bolts will be released by tightening them mutually, then the bolts will be tightened back in torque values given mutually.
- If the space for Needle Valve is left during installation, both the length of the valve and the length of the leakage elements to be used should be calculated before leaving such space.
- If the type of the connection will be threaded, the length of the thread on the pipe should not be less than the length of the needle valve thread.

2.2.2. Please consider the following regarding the leakage element when mounting the flow indicator on the installation:

- A leakage element suitable for the fluid type and pressure should be chosen.
- The surfaces of the leakage element to be used in flange connections should be smooth.
- Dismantled and distorted leakage element should not be used and should be replaced.
- It should also be noted that, the passage neck of the valve should not be closed while mounting the leakage element. (The leakage elements are Klingerit, Teflon, O-ring and caoutchouc and rubber in appropriate hardness)

2.2.3. Please consider the following for mounting the valve on the installation:

- Before mounting the needle valve, the pipe line should be cleaned with pressure air or steam in order to eliminate the potential burrs, corruptions, foreign substances and dirt which may exist within the line.
- For the needle valve to be newly mounted, the labels / covers on both flanges should be removed.
- The needle valve to be mounted on the installation should be mounted considering the flange side, where the technical specifications are indicated, will be the inlet part. Afterwards, the other side will be mounted on the installation so as to eliminate the possibility of pulling tension.

3. POINTS TO BE CONSIDERED WHEN USING A NEEDLE VALVE:

- 3.1. Unpack the needle valve when you intend to connect it to the installation only.
- 3.2. Operating conditions are indicated on the needle valve as maximum operating pressure /BAR.
- 3.3. After opening the needle valve until the end, the movement flywheel should be turned ONCE in closing direction (clockwise)
- 3.4. In order to prevent the neck leakage caused due to opening and closing many times, the type of fluid and the particles originating from the inside part of the fluid, the upper cap is turned clockwise and the leakage is provided.
- 3.5. While connecting the needle valve to the installation, please ensure that the direction arrow should be in flow direction.

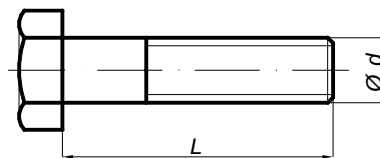
4. TOOLS AND MATERIALS TO BE USED

- 4.1. Two-outlet switch, bolt and bolt pin suitable for connection

5. CONCLUSION:

If your installation is intended to operate safely, installing strainers (filters) to the main circuits will absolutely decrease the operational expenses.

The NEEDLE VALVE, which we have connected to the installation, should be operated according to the measurement and operating pressure, which is indicated on itself, so as to eliminate the possible leakages and operational expenses.



CONNECTION BOLTS USED IN FLANGES				
VALVE DIAMETER	PN 16 Tailed Flange in accordance with DIN 2633		PN 40 Tailed Flange in accordance with DIN 2635	
	L	Ø d	L	Ø d
DN 10	50	12	50	12
DN 15	50	12	50	12
DN 20	50	12	50	12
DN 25	50	12	50	12
DN 32	50	16	55	16
DN 40	55	16	55	16
DN 50	55	16	60	16
DN 65	55	16	65	16
DN 80	60	16	65	16
DN 100	60	16	75	20
DN 125	65	16	80	24
DN 150	70	20	85	24
DN 200	75	20	90	27