



1. Lubricant Screw
2. Check Valve
3. O-Ring
4. Stud
5. Top Cover
6. Taper Plug
7. Body
8. Gasket
9. Gasket
10. Press Ring
11. Adjustable Screw
12. Nut
14. Flexible Plate
16. Stop*
17. Stop Plate
18. Snap Ring
19. Weatherseal

* The stop (part no. 16) may form an integral part of the top cover (part no. 5)

The lubricated taper plug valve group 9 is the ideal shut-off device for almost any medium, even under the most severe operating conditions.

It can be used in most places where fast, trouble-free and efficient sealing is required. The design is very compact, it requires little space to install and it can be mounted in any position required.

Since the only moving part is the plug, the basic operation of the valve is very simple. When the plug is turned 90°, the valve moves from closed to open position – and vice versa.

The plug is tapered 1:6 and is individually lapped to the valve body with very close tolerances. It incorporates Metal to Metal sealing, which means that no soft seal will be damaged by the flowing medium.

As a secondary seal, the valve is provided with a lubrication system which allows feeding a special lubricant into the valve while the valve is in operation.

Besides sealing, the purpose of the lubricant is to protect the internals of the valve against corrosion and wear as well as reducing the valve torque.

In order to avoid seizing between plug and valve body the plug is plated with nickel after the "electroless" method. Moreover, in order to reduce friction when operating the plug is coated with P.T.F.E.

Design Concept:

The plug (6) is adjusted into the conical seat of the valve body (7) by means of the adjusting screw (11) and press ring (10).

Between the plug (6), cover (5) and valvebody (7) a rela-

tively thin flexible plate (14) is placed to ensure an effective sealing. This plate is sealed by the gasket (9). Against the plug the flexible plate has partly metallic and partly soft sealing (3). The soft sealing material is synthetic rubber (O-ring) or P.T.F.E. with embedded spring, depending on the actual medium and temperature range of the valve.

For the sake of corrosion wrench operated valves are provided with a soft rubber weatherseal (19) to prevent dirt, water etc. from forcing their way into the valve between the adjustable screw (11) and the neck of the plug (6).

As mentioned, the valve is provided with a lubrication system which allows penetration of special lubricant into the valve through the lubricant screws (1) and the check valve (2).

The lubricant is injected into a network of grooves by means of a special high pressure lubricant gun. This network system ensures that all seal faces are supplied with a thin coat of lubricant, making an efficient secondary seal.

The valves can be supplied as wrench operated or gear operated valves. (Smaller sizes are normally wrench operated).

Moreover the valves can be supplied with top-flange for mounting of any kind of actuator.

If the valve is supplied with such a top flange, the lubrication injection system is moved from the stem to the side of the valve body.