DPV-UK LTD
PLUG VALVES

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Lubricated Plug Valves

In the lubricated plug design there are a series of grooves around the body and plug port openings, these are filled with grease. Applying the grease lubricates the plug during operation, this also helps to reduce torque and seals the gaps between the body and the plug. The plug can be cylindrical or tapered.

Non Lubricated Plug Valves

There are two basic types of non lubricated plug valve, the lift type and the elastomer sleeve or coated plug type.
The lift type valve is operated by means of mechanically lifting the tapered plug slightly to disengage it from the seating surface prior to operation, the lifting can be achieved by use of a cam or external lever.

The most common non-lubricated plug valves have an elastomer sleeve of "TFE" which surrounds the plug. It is retained and locked in place by a metal body resulting in a primary seal being maintained between the sleeve and the plug at all times whether to valve is in the open or closed position. The "TFE" sleeve is durable and inert to virtually all but a few chemicals. It has a low coefficient of friction and is, therefore self lubricating.

Plug Disks

The disks can be round or cylindrical with a taper, various types of port openings are available each with a varying degree of port area.

Rectangular Port Plug - This is the most common shape of disk and the port is generally at least 70% of the corresponding pipe's cross sectional area.

Round Port Plug - This is a round opening through the plug and can either be the same size or larger than the pipe's inside diameter which is a full bore and if it is smaller than the pipe's inside diameter it is reffered to as a standard round port. Valves having standard round ports are used when restriction of flow is not an issue.

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Multi Port Valves

Multi port valves are particularly advantageous for diverting services on transfer lines. A single multi port valve may be installed in lieu of three or four gate valves or other types of shut off valves.

One disadvantage with a multi port valve configuration is that they do not completely shut off flow.

In most cases one flow path is always open, the valves are intended for diverting flow of one line while temporarily shutting off flow to another. If complete shut off of flow is required then a secondary valve should be installed on the main line ahead of the multiport valve in order to completely shut off flow.

Simultaneous flow to more than one port is also possible in some multi port configurations. Great care should be taken to agree the correct port arrangement required to guarantee proper operation and meeting your specification requirements.