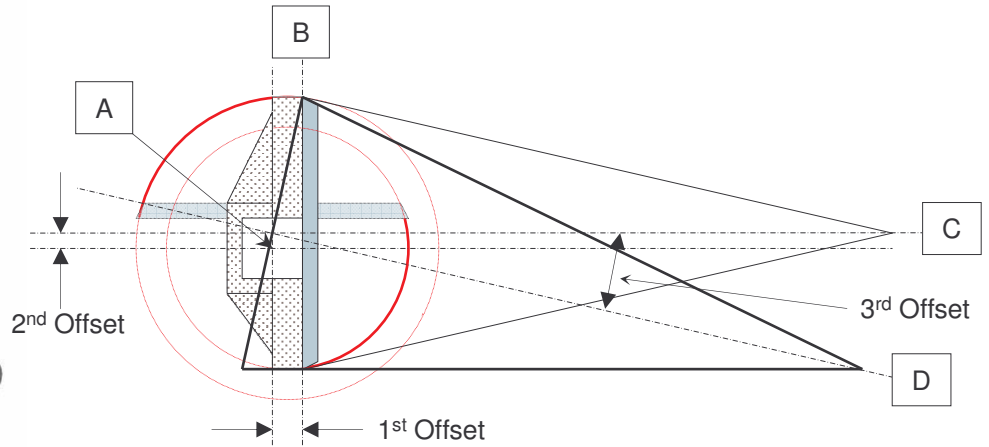


Why Triple Offset?

Tracing the evolution of the Triple Offset Design



1st Offset

The midpoint 'A' of rotation is moved back from the centreline of the valve disc 'B'. The Disc Seal and Body Seat are conical by design, the base of which is situated on centreline 'B'. The Single Offset design is applicable to only soft seated valves as it requires a frictional interference seal.

2nd Offset

The midpoint of revolution is shifted from the centreline of the valve body 'C'. The seat and seal remains on true centre. This design again relies on a frictional interference seal, but the length of rotation over which this friction occurs is greatly reduced. This model will also allow a greater range of process resistant sealing materials to be used, however these are required to be highly elastic to avoid seizing.

3rd Offset

The conical centreline 'D' is rotated away from the valve centreline. The outcome is an ellipsoidal profile, providing the third offset. The Triple Offset design is ideally suited to metal seated valves, the geometry of which will allow the body seal to be used as the closed limit stop, aiding actuator adjustment.

With this geometry, seat and seal interference is completely eliminated ensuring an extensive sealing life. The Hobbs Valve TVT is a torque seated, non-process pressure aided frictionless sealing valve that provides bubble-tight performance in high pressure, high temperature applications.

Offset Valve-Disc/Seal Friction

