Anson Check Valves

Check valves are non-return valves placed in the flowline to protect equipment upstream of the valve.

When the flow stops or reverses direction the valve shuts, blocking fluid and pressure from traveling back upstream. Typical applications for the hammer union-ended check valves include fracturing, well testing, flowback, acidizing, and cementing.

We have two main types of Anson™ check valves available—top entry and in-line.

Operating and Maintenance Manuals

Top entry check valve: **M72/M05**

In-line check valve: **M02**

Dart-type check valve: **M54**

Top Entry Check Valve

The Anson top entry check valve was designed particularly for use on portable, temporary flowlines. The valve is manufactured from a low-alloy carbon steel body and is a robust, cost-effective non-return valve. The Top entry check valve allows for service in situ, without removing the valve from the flowline—simply isolate the valve, remove the bonnet, and replace internal components where needed.

A fully coated rubber flapper assembly is situated in the valve. When fluid flows through the inlet it moves the flapper into the open position and passes through to the outlet. When flow stops, the flapper closes against the seat and prevents back flow protecting equipment upstream.

Anson top entry check valves are available with hammer union connections in sizes from 1 to 4 in., with working pressures up to 15,000 psi for sour service and 20,000 psi for standard service. The Anson top entry check valve is also available with API 6A flanged connections. Manufactured from closed die forged steel bodies with stainless steel internals as standard, the flanged valve is typically used on high pressure choke and kill applications.

In-line Check Valve

The Anson in-line check valve is available in two designs—swing-type and dart-type. They are a more compact design than the top entry version and are made up of a two-piece body.

The swing-type uses the same flapper-style closing mechanism as the top entry where a hinged-flapper assembly is seated in the valve. When fluid flows through the inlet, it moves the flapper into the open position and passes through to the outlet. When flow stops the flapper closes against the seat and prevents back flow towards the inlet.

The dart-type valve contains a plunger and spring seating mechanism. Fluid flows through the inlet and unseats the plunger pushing against the spring to pass through; when flow stops, the spring will force the plunger back into the seat, preventing any back flow towards the inlet. The dart-type valve prevents back flow but can also restrict flow in the normal flow direction.

Anson top entry check valves are available with hammer union connections in sizes from 1 to 4 in., with working pressures up to 15,000 psi for sour service and 20,000 psi for standard service.

Anson Check Valve Tips:

- Standard supply is female-to-male flow for hammer union ended valves, but we can offer reverse flow (i.e. male-to-female). The arrow shown on the valve body indicates the flow direction.
- On occasion pressure can be trapped in a flowline between a seated check valve and an isolation valve further downstream. Ensure both sides of the check valve have been vented safely to atmosphere prior to commencing any service work.
- During service of the valve, take the opportunity to replace any soft seals and only use OEM replacement parts. Using alternatives may jeopardize the integrity of the valve and negates any warranty cover.
- When using the valve in severe service (i.e. with hydrochloric acid), ensure that inhibitors are included and that the valve is flushed with clean water after use.
- As with all equipment, preservation is key to maintain the life of the product. When the valve is not in service, protect exposed sealing surfaces and threads with suitable rust inhibitors and where possible, protect end connections with covering plastic caps.
- Unlike the flapper-style check valves, the dart type can be installed vertically, as gravity does not affect the closing mechanism.
- 4-in. check valves are available with a replaceable seat to prolong the life of the valve and protect the body from washout.
- Top entry check valves can be supplied with a lifting eye fitted to the bonnet for ease of handling.
- If in doubt, ask. We have local, trained personnel. Please get in touch with us if you have any questions or feedback.