Schlumberger

Camco Spring-Loaded Chemical Injection Valves

Retrievable valves used to control chemicals injected into the production fluid at valve depth

APPLICATION

- Chemical injection operations

BENEFITS

- Operational versatility
- Increased reliability and efficiency

FEATURES

- Premium or standard materials that work within various environments
- Bubble-tight seal between the valve stem tip and the floating seat
- Guided valve-seat for precise alignment with the stem during operation
- Positive spring-loaded check valve to prevent backflow into the injection line and to allow the injection valve to be left in place during pressure testing operations
- Easy adjustment of operating pressure for precise control of injection volume, independent of well temperature

An MP-35N or Elgiloy® spring provides the force necessary to maintain a Camco* spring-loaded chemical injection valve in the normally closed position.

This line of valves comprises 1-in [25.4-mm] OD CM-40R valves and 1½-in [38.1-mm] OD C-31R valves, all featuring integral reverse-flow check valves and mobile floating seats.

Port size

A 3⁄16-in [4.8-mm] port is provided on all valves.

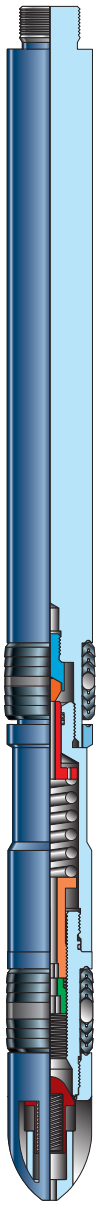
Operation

Injection chemicals enter the valve from the casing annulus or from a separate injection line attached to the appropriate side-pocket mandrel. As injection pressure overcomes the preset spring force plus the tubing pressure, the spring compresses and moves the stem tip down and off the seat. Chemicals then flow through the seat, past the reverse-flow check valve, and into the production tubing.

The maximum set chemical injection pressure at the valve is 1,500 psi [10,343 kPa] for CM-40R valves and 3,000 psi [20,685 kPa] for C-31R valves.

Engineering Data for Camco Spring-Loaded Chemical Injection Valves

Valve Type	Nominal OD, in [mm]	Latch	Running Tool	Pulling Tool	Mandrel Series
CM-40R	1.000 [25.4]	BK series	JK	JDC	KBM, KBMM, KBMG, KBG
C-31R	1.500 [38.1]	RA, RM	JC-3	JDC	MMA, MMARG
C-31R	1.500 [38.1]	RK	RK-1	JDS	MMM, MMG, MMRG



Spring-loaded chemical injection valve.