CAMERON
A Schlumberger Company

Big-Bore Frac Check Valves

More reliable alternative to multiple conventional small inline check valves on frac iron

Pressure:
up to 15,000 psi [103 MPa]

Temperature:
–20 to 140 degF [–29 to 60 degC]

Max. flow rate:
95 bbl/min for 5-in valve
160 bbl/min for 7-in valve

Applications

Hydraulic fracturing, including simul-frac operations

How it improves wells

The big-bore frac check valve (CV) is located on the main frac iron trunk line, just before the zipper manifold. It replaces the multiple small CVs used conventionally, which are prone to leaks and washouts and lead to NPT during hydraulic fracturing operations. Moreover, multiple valves make leak detection complex and time consuming because each valve must be tested individually, further increasing NPT.

Designed for greater durability and reliability and equipped with API flange connections, the big-bore frac CV reduces risk of leaks and the consequent NPT. In the event that any repairs are required, they can be conducted in the field.

How it works

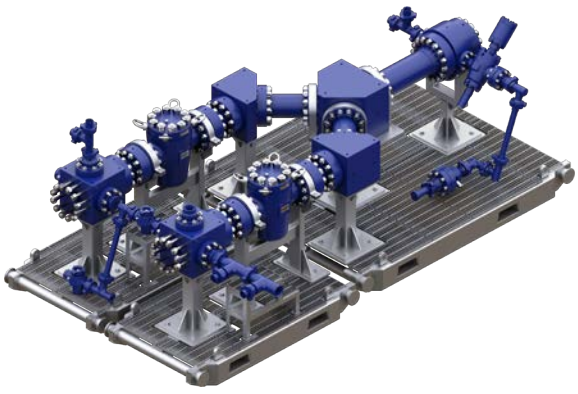
The valve allows flow in just one direction, protecting pumping equipment from high-pressure well fluids. A clapper mechanism remains open during pumping but quickly closes if the flow reverses direction; the oversized clapper enables faster closing. An arrow stamped on the body facilitates correct valve installation.

Additional information

Rated up to 160 bbl/min, the big-bore CV is available with 5-in or 7-in ID. It is compatible with 15,000-psi API flange piping, including MonoFlex* dual-connection fracturing fluid delivery technology. The simplified internal components are accessed from the top of the valve, facilitating repair and replacement. An adjustable stand can be adapted to any frac location.

7-in check valve assembly with adjustable stand.

5-in check valve assembly with adjustable stand.



Skid with two 5-in big-bore check valves and auxiliary connections.

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