

F-T90

Horizontal frac tree

APPLICATIONS

- Hydraulic fracturing
- Multiwell pad drilling and completions
- Simultaneous operations

BENEFITS

- Reduces frac service footprint
- Protects wellhead integrity
- Durable components combat erosion
- Horizontal design increases operational safety and efficiency

FEATURES

- Reduced frac tree height and weight for easier and safer installation
- Solid body block design yields fewer connections to make up
- Reduced number of potential connection leak paths
- Side-to-side bending moments from frac fluid delivery are decreased with the shorter tree
- Same FLS-R gate valve dependability and durability as Cameron conventional frac trees
- Top connection remains the same as for conventional frac trees
- CRA inlay design on seat pockets and ring grooves
- Large cavity ports for effective grease and sand evacuation
- Integrated cross for flowback and pump down
- Internal buffer zone for reduced erosion
- Can be operated with pneumatic, hydraulic, or electric actuation
- Available in 5½-in and 7⅞-in, 10,000-psi, and 5⅞-in 15,000-psi systems

The patented F-T90* horizontal frac tree is the industry's first horizontal frac tree and was specifically developed to complement multiwell pad drilling and completions, and simultaneous operations (SIMOPS). The F-T90 frac tree is approximately 50% shorter and 25% lighter than the Cameron conventional frac tree, resulting in a shorter, more stable, and more easily anchored tree—this design has proven ideal for frac tree service.

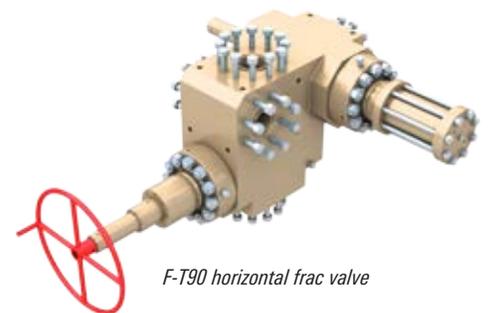
Compared with conventional frac trees, the F-T90 frac tree's goat head is located closer to the wellhead. By giving the tree a lower center of gravity, the bending moment is reduced, which protects the wellhead tree interface. The F-T90 frac tree can be operated with pneumatic, hydraulic, or electric actuation and is available in 5½-in and 7⅞-in, 10,000-psi; and 5⅞-in, 15,000-psi systems.

The F-T90 frac tree is built with the proven Cameron FLS-R* API 6A gate valve that incorporates metal-to-metal sealing for maximum dependability. And, to increase durability, the F-T90 frac tree has an internal buffer zone to mitigate turbulent flow, which reduces erosive-related maintenance costs. It is designed with an integrated cross for pump down and flowback. To offset corrosion, a CRA inlay on seat pockets and ring grooves is used. Large cavity ports enhance grease and sand evacuation, and the tree's solid body is less susceptible to leak paths, which impacts uptime.

When compared with the effort required by a two-man team to rig up a conventional frac tree that involves three connections and can take up to four hours, the F-T90 frac tree requires only one connection, takes one hour to make up, rig up hoses, and test. The F-T90 frac tree's horizontal design promotes safer rig-ups by eliminating the need for a man basket and shortens rig-up times, which reduces NPT.



MBS multibowl wellhead system with F-T90 horizontal frac tree*



F-T90 horizontal frac valve

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