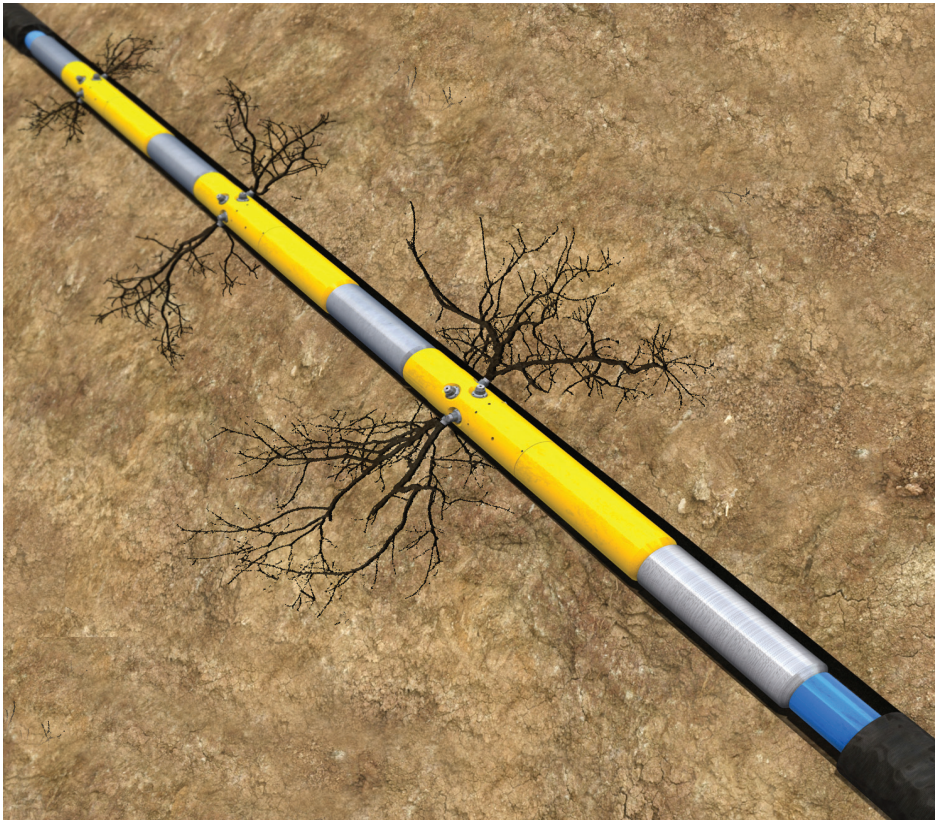




# FracPoint MP Sleeve with DirectConnect Ports

Improve frac efficiency with multiple fracture initiation points per stage and minimized near wellbore tortuosity



The Baker Hughes FracPoint™ MP sleeve with DirectConnect™ ports is a combination of two revolutionary technologies that improves the placement and effectiveness of the frac treatment, ultimately providing more connectivity to the reservoir. This technology, combined with the FracPoint multistage fracturing system, provides a method of completing formations that require hydraulic fracturing to produce efficiently. The overall technique of using openhole packers to isolate multiple stages and ball activated frac sleeves to divert the frac treatment is the same, but this technology allows for more initiation points per stage and better connectivity to the reservoir.

The FracPoint MP sleeves contain patented ball seats that allow one size frac ball to open multiple sleeves per stage. This is accomplished by using a ball seat that allows the frac ball to seat, open the sleeve, and then pass through to another ball seat that has the same diameter. Also, there is a solid ball seat at the bottom of each stage that does not allow the ball to pass through. When the frac ball has opened all the sleeves with the subsiding ball seats, it lands on the solid seat, which isolates the current stage from the ones below. When pressure is applied, the sleeve is opened and the fracturing can begin.

## Applications

- Unconventional reservoirs
- Openhole completions
- Horizontal wells
- Extended-reach wells
- Deviated wells

## Features and Benefits

- Multiple fracture entry points per stage
  - Increase wellbore drainage and expose all sections to production
- Controlled fracture initiation points
  - Place fractures more accurately, improving control over nonselective hydraulic fracturing
- Ball seats that open a frac sleeve, and then subside so the ball can pass through
  - Allows frac ball to open the sleeve and then pass through to the next ball seat
  - Opens multiple frac sleeves in one stage with one ball
- Telescoping DirectConnect ports impact formation
  - Reduce the influence of near wellbore stresses
  - Place fracture treatments more accurately
  - Provide better connectivity with the reservoir

When each sleeve is opened, the hydraulic pressure activates the DirectConnect ports, and they telescope out at a high velocity and impact the formation. The port extensions impact the formation with enough force that it ensures the fracturing pressures are highest at the point of contact. This reduces the influence of the near wellbore tortuous fractures that were created during drilling of the well. The impact at the point of contact allows for a more accurate placement of the fracture treatment, because the fracture path is dictated by the reservoir rather than by the tortuous fractures. Each port extension is spaced 45 degrees apart over the circumference of the sleeve, which initiates fracs in all directions.

The port extensions contain a biodegradable polymer that serves two purposes: to keep debris out and to increase the impact force by increasing the surface area to pressure up against. Once the ports extend and hit the formation, the polymer disperses and the ports can be pumped through. During the fracturing, the port extensions erode away so that the flow is not restricted during production.

Contact your Baker Hughes representative today or visit [www.bakerhughes.com/fracpoint](http://www.bakerhughes.com/fracpoint) to learn how our FracPoint MP system with DirectConnect ports helps you improve frac efficiency with multiple fracture initiation points per stage and minimized near wellbore tortuosity.



[www.bakerhughes.com](http://www.bakerhughes.com)

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