

P3 postperforating treatment

Removes debris from existing perforations in permeable rocks and increases productivity or injectivity

Temperature:
Rated to 500 degF
[260 degC]

Pressure:
Rated to 20,000 psi
[138 MPa]

OD:
2 to 7 in
[51 to 178 mm]

i Used hundreds of times, with proven success globally

Applications

- Offers selective production or injection enhancement
- Replaces reperforation in many wells
- Treats all well types, including geothermal
- Removes perforation damage, scale, asphaltene, fines, and other flow obstructions
- Cleans sand screens and ICDs
- Serves as pregravel-pack treatment
- Performs near-wellbore fracture cleanout
- Enables diagnostics, including debris samples

How it improves wells

- Reduces skin selectively by removing trapped debris that resists flow from existing perforation tunnels, producing immediate and often significant results
 - In geothermal wells, the treatment will remove scale from slotted or predrilled liners
 - In injection wells, the treatment will remove filtered solids that reduce injectivity; when these wells have screens, it cleans inside the screen
 - In open hole, the treatment will clear out natural or induced open fractures, or openhole perforations
 - In soft rock, the treatment cleans perforation tunnels to accept gravel.
- Improves reservoir-to-wellbore communication, optimizing productivity or injectivity with increases ranging from 20 to 400%
- Allows selective process to increase potential production from production zones and leaves high skin at the perforations in zones producing unwanted water or gas

How it works

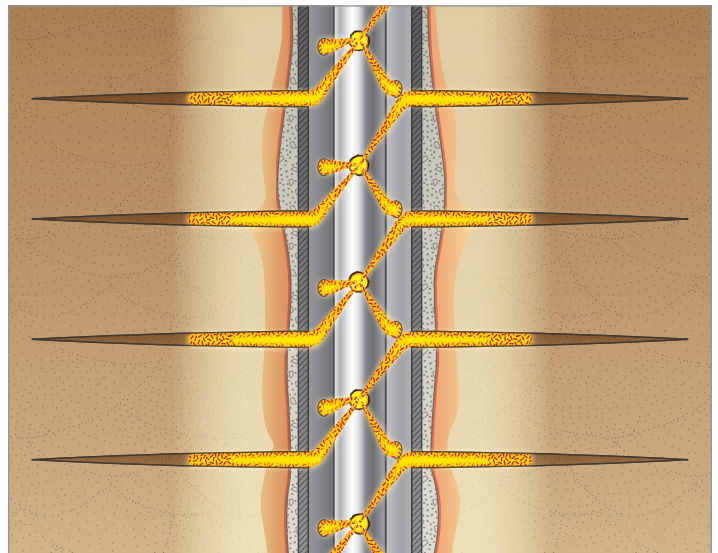
P3* postperforating treatment does not perforate new holes in the casing. The treatment's system consists of an implosion chamber, which is positioned over the target interval. Once triggered, the resulting implosion strips material from flow bottlenecks, removing perforation damage or deposits on slotted liners, screens, or obstructions in near-wellbore fractures.

Candidate selection

Candidate selection is simple. If your well has liquid covering the existing target zone and the formation pressure is more than 1,000 psi, you have a potential candidate. Once identified, detailed modeling is done to accurately predict not only the pressure transients but also resulting loads on tools and completion components, leading to a predictable low-risk intervention plan.

Fully simulated process with obvious results

The magnitude and duration of the implosion are modeled using the **PURE Planner*** perforation job planning application; flow or injectivity improvements can also be predicted using **SPAN Rock*** stressed-rock perforating analysis and measured objectively using production logs or by monitoring surface flow rates and pressures. This treatment can be used any time after initial perforating or completion—from hours to years later. If your well is underperforming and you suspect near wellbore skin, P3 treatment can provide the diagnostics and efficient solution in less than a second.



P3 postperforating treatment strips material that is trapped inside perforation tunnels and can be used to selectively reduce skin from several sources, including scale and fine.