



PRODUCTION

Sand-Tolerant Pump

Extending pump runtime, reducing workover costs, and optimizing production in sandy, rod-pumped wells



Run 5.5x longer with sand-tolerant pumps

Sand accelerates the inevitable wear of your rod pumps. Damaging solids enter the barrel/plunger interface, damage the barrel and the plunger, decrease pump efficiency, and finally cause total failure.

Our sand-tolerant pumps (STPs) are the only reciprocating rod-lift pumps that are field proven to increase run life by 450 percent on average. Rather than fighting sand, you simply produce it through the pump while keeping the plunger/barrel interface free from damaging solids.

This patented technology restores economic viability to sandy, rod-pumped wells. By simply preventing sand from wearing moving parts, you can extend equipment life and reduce the frequency of workovers along with the associated costs, downtime, and production losses. The STP is available in most standard API pump sizes and operates in a variety of well conditions with no negative effect on pump performance.



Get more life from your wells.™

Sand-tolerant pumps represent only a fraction of our production solutions. With unparalleled experience and an unmatched breadth and depth of solutions for all forms of artificial lift, we can optimize production in any well. Our customer service centers are conveniently located in every major oil-producing area of the world to efficiently address your needs, wherever you operate. We also offer comprehensive artificial-lift training programs that enhance your team's expertise and productivity.

450%

Average increase in pump runtime

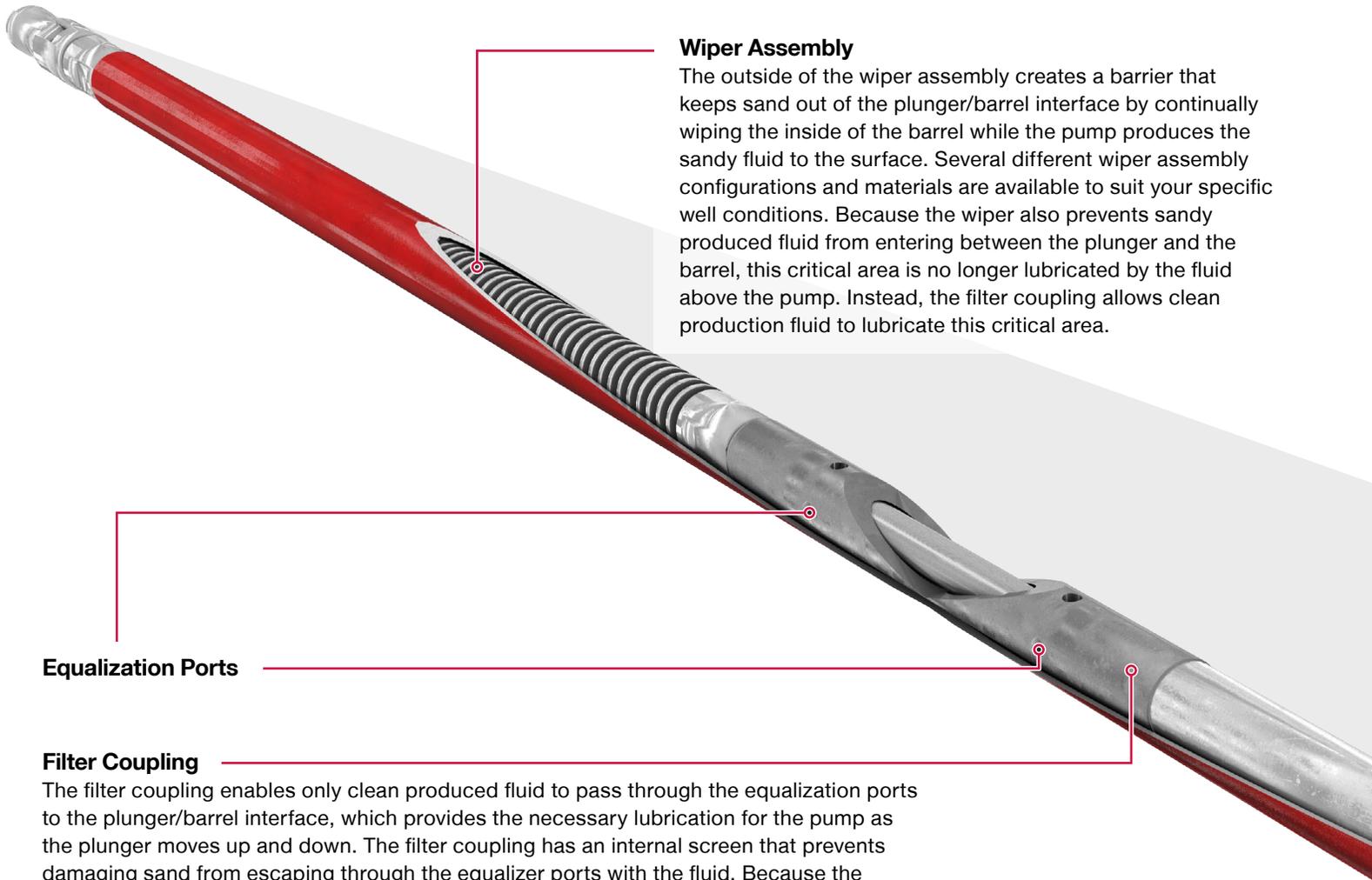
Zero

Damaging solids enter the plunger/barrel interface



A simple yet innovative design reduces sand damage.

The Weatherford STP helps you reduce sand damage by moving sand upward through the pump and away from the barrel/plunger interface. Two unique components are the keys to the efficient and reliable performance of the STP: the wiper assembly and the filter coupling. No other comparable product matches the ability of these parts to contain and mitigate sand damage.



Wiper Assembly

The outside of the wiper assembly creates a barrier that keeps sand out of the plunger/barrel interface by continually wiping the inside of the barrel while the pump produces the sandy fluid to the surface. Several different wiper assembly configurations and materials are available to suit your specific well conditions. Because the wiper also prevents sandy produced fluid from entering between the plunger and the barrel, this critical area is no longer lubricated by the fluid above the pump. Instead, the filter coupling allows clean production fluid to lubricate this critical area.

Equalization Ports

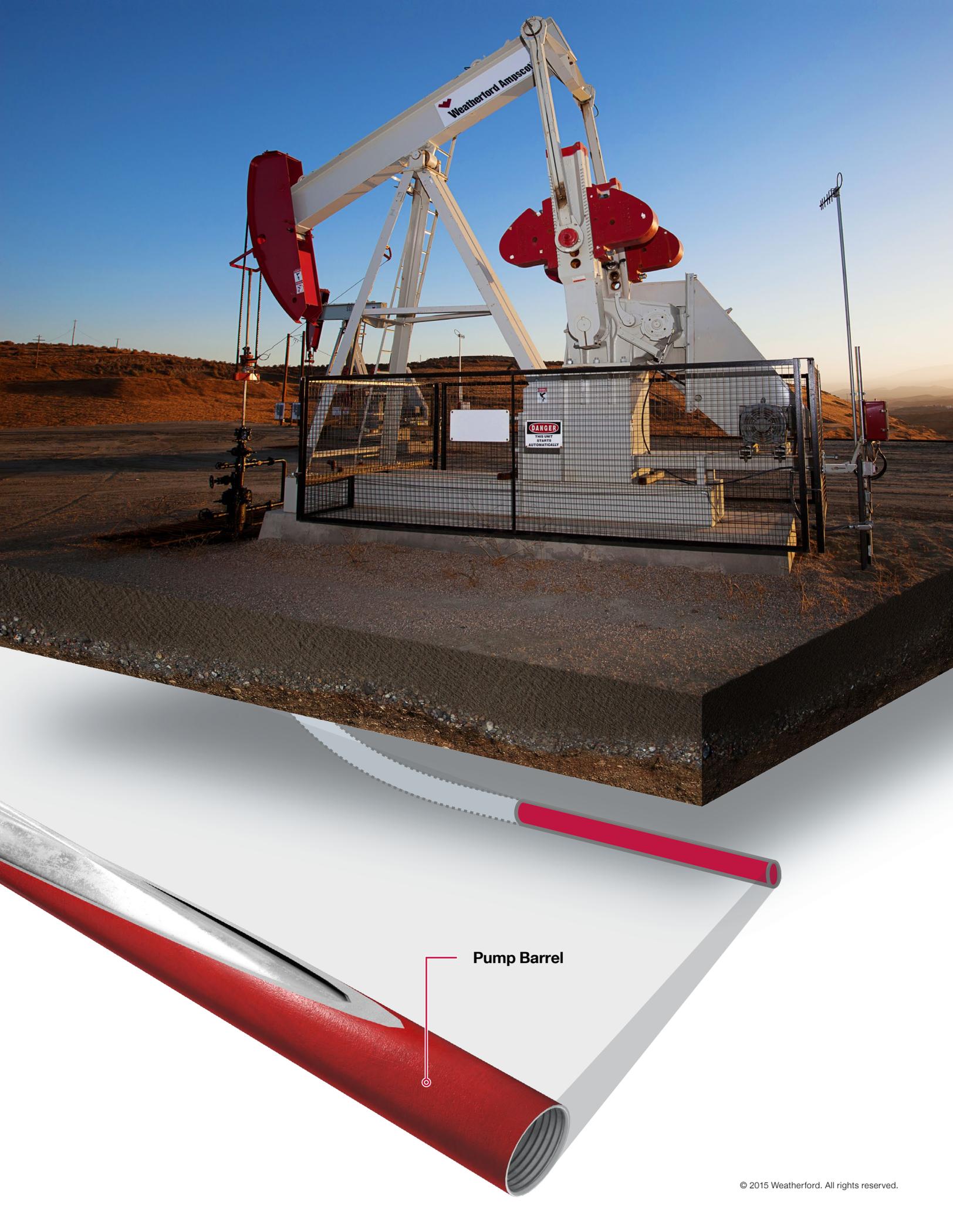
Filter Coupling

The filter coupling enables only clean produced fluid to pass through the equalization ports to the plunger/barrel interface, which provides the necessary lubrication for the pump as the plunger moves up and down. The filter coupling has an internal screen that prevents damaging sand from escaping through the equalizer ports with the fluid. Because the filters move with the plunger, the sweeping action of the fluid on the downstroke cleans the filters and keeps sand suspended within the production fluid. The sand-laden fluid is then produced through the center of the plunger to the surface.

Specifications

Tubing Size (in.)	Pump Type
1-1/4	RH, RW
1-1/2	RH, RW
1-3/4	RH, TH
2	RH, RW
2-1/4	RX, TH
2-3/4	TH

The STP is available in most standard API pump sizes and operates in most well conditions without affecting pump performance.



Weatherford Ampscope

DANGER
THIS UNIT
STARTS
AUTOMATICALLY

Pump Barrel

The Weatherford sand-tolerant pump (STP) increases run time by an average of 450 percent in sand-producing, rod-pumped wells. By mitigating sand damage, the STP extends pump runtime, reduces workovers, and avoids production losses. To learn more about our comprehensive portfolio of artificial-lift technologies and whether the STP is the best solution for your wells, contact your authorized Weatherford representative or email **PO-Info@weatherford.com**.



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