

Sand Diverter

Abrasion-combating plunger assembly

APPLICATIONS

- Wells with large volumes of sand and solids

BENEFITS

- Improves pump efficiency
- Prevents damage to plunger and barrel of the pump
- Extends run life

FEATURES

- Strong, corrosion-resistant MONEL® plunger adapter
- Precision clearance
- Beveled leading edges
- Spray-metal coating

The sand diverter is a plunger assembly designed to alleviate lost production and equipment failure caused by solids. The plunger assembly directs the solids away from the pump barrel, maintains the integrity of the downhole pump, and extends run life.

Design

The sand diverter consists of a modified adapter placed on top of the plunger and a positive seal seat plug on the bottom of the traveling valve. The plunger adapter and positive seal seat plug have a precision fit of 0.002 in [0.05 mm] with beveled leading edges, which prevents sand and fines from collecting between the plunger and barrel.

Abrasion and corrosion resistance

The outer diameter of each component is coated with spray metal, which protects against abrasion from solids. The plunger adapter is made of strong, corrosion-resistant MONEL material and is designed for optimal fluid flow while maintaining component strength.

Intermittent pumping

The sand diverter protects the pump during intermittent pumping as well as regular operations. When solids settle in an automated pump when it is turned off, a sand diverter directs solids to the plunger instead of between the plunger and barrel.



Sand diverters can be run with any hollow valve rod pump, insert pump, or tubing pump. Models designed to be compatible with each of those pump types are shown above, from left to right.



Sand diverter on pump.