



solutions made simple

## ESP Pressure Actuated Relief Valve (PAR Valve™)

### *Eliminate Solids Settling on ESPs*

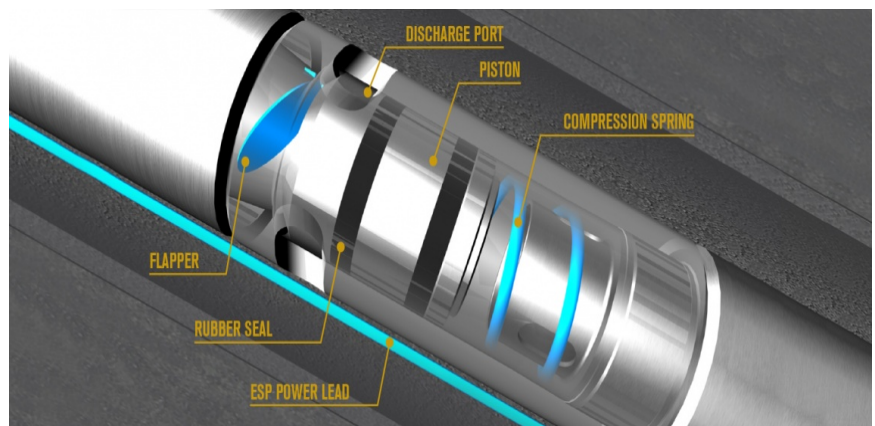
The Production Tool Solution PAR Valve™ is a proven tool used to prevent solids settling on top of electrical submersible pumps during shut down. The PAR Valve™ is deployed on the tubing string above the ESP discharge and controls communication between the annulus and tubing. Upon stopping the system, the valve enables the fluid and solids in the tubing to be diverted to the annulus without settling on top of the pump. This is achieved via the pressure of the hydrostatic head actuating a spring-loaded piston exposing the communication path. As soon as the pressure reaches equilibrium, the spring will reseal the piston thereby isolating the tubing from the annulus.

### *Applications:*

- Conventional O&G
- Unconventional O&G
- Coal Bed Methane
- Gas Well Dewatering

### *Benefits:*

- Solid settling diversion
- Eliminates stuck pumps
- Eliminates broken shafts
- Pressure actuated
- Works in low flow wells
- Simplistic, reliable design
- Enhanced run life



The PAR Valve™ demonstrates a history of success with hundreds of installations worldwide in a variety of applications enabling operators to increase the run life of their electrical submersible pumps while minimizing the intervention cost. For further information, please contact your local Production Tool Solution representative or visit the website at [www.productiontoolsolution.com](http://www.productiontoolsolution.com)