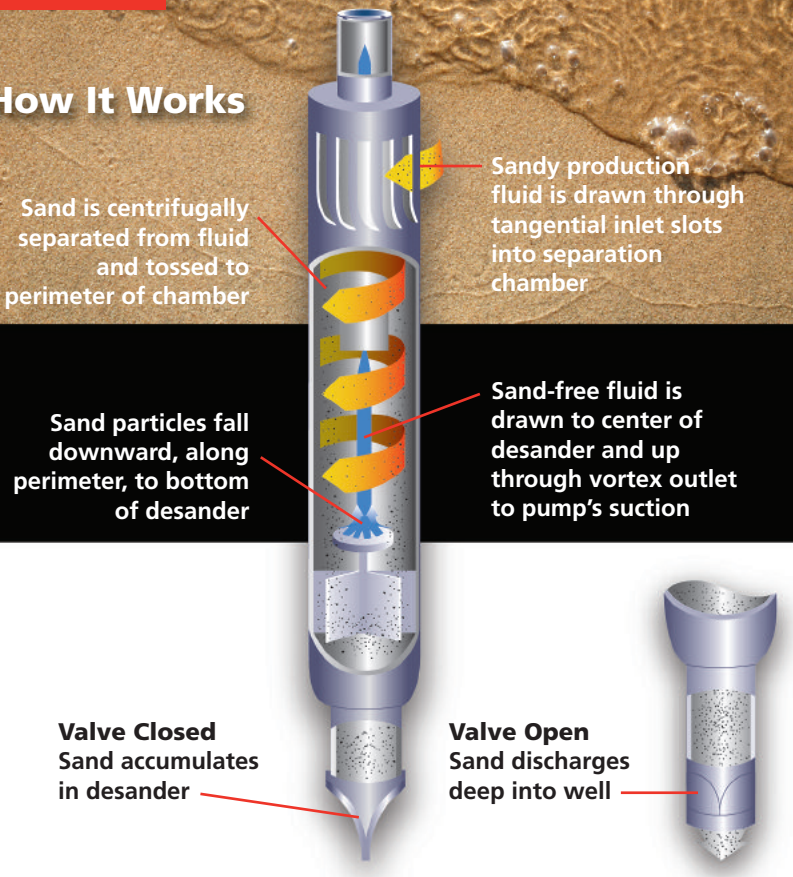
More Solutions for More Production

enerscope
Pump Protection Desander

Key features

- No screens or filter elements to clean or replace; no pulling pump to service **saving time and production**
- Low and steady pressure loss **saves energy and provides a more predictable operating system**
- Enhanced internal accelerating slots for **optimum solids-removal performance**
- Reduces pump wear and **extends pump life** while **maintaining optimum pump yield**
- **Minimizes critical pump breakdowns**
- Minimum wear offers **long life**
- **Does not plug or restrict production**
- **Saves on pump energy costs** with higher operating efficiencies
- **Easy to install** when installing pump and is **reusable**

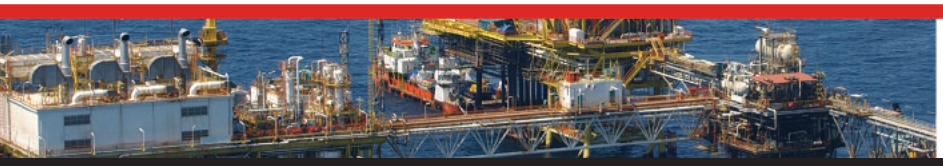
How It Works

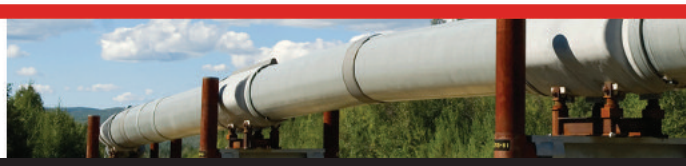


Enerscope Pump Protection Desanders effectively remove solids from liquids using centrifugal-action.

Similar to our surface desanders, the same technology is applied downhole. Designed to remove sand and other solids from production well fluids before entering the pump, extending the life and efficiency of your ESPs and PCPs by **at least 100%**.

The downhole desander is designed for ESP and PCP pump protection. These units remove sand from the production fluids before they enter the pump. The units can be installed in several configurations in vertical and moderately-deviated oil and gas production wells. Units are designed with a two-to-one turn down ratio in most cases with flow rate from 100 bbld to 20,000 bbld per unit.





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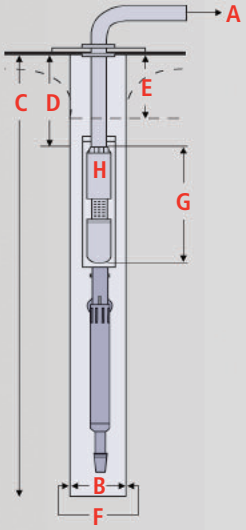
General Specifications

Model	Min Well I.D.		Flow Range		Outside Diameter		Length with Riser		Conn Size EUE Threads	Weight	
	in	mm	bbld	m^3/hr	in	mm	in	mm	in	lbs	kg
ESP-0240	6	152.4	1,700-3,900	12-25	4.5	114	83.25	2115	2	72	34
ESP-0300	6	152.4	3,100-4,900	21-32	4.5	114	83.25	2115	2	72	34
ESP-0400	6	152.4	4,100-6,600	28-44	4.5	114	83.25	2115	2	72	34
*ESP-0600	7	177.8	6,800-9,900	45-65	5.56	141	101	2565	3	114	52

**Pump Protection Desanders for smaller and larger flow rates are available.*

- Pressure head loss: 9-14 feet (2.7-4.2 meter)
- Maximum particle size: 0.25 inch (6.35 mm)
- Carbon Steel with 1/8-inch (3mm) corrosion allowance or 316L Stainless Steel is standard construction
- Post-weld heat treated
- EUE treaded connection
- Glass-blasted finish
- Viton valve

Installation Schematics

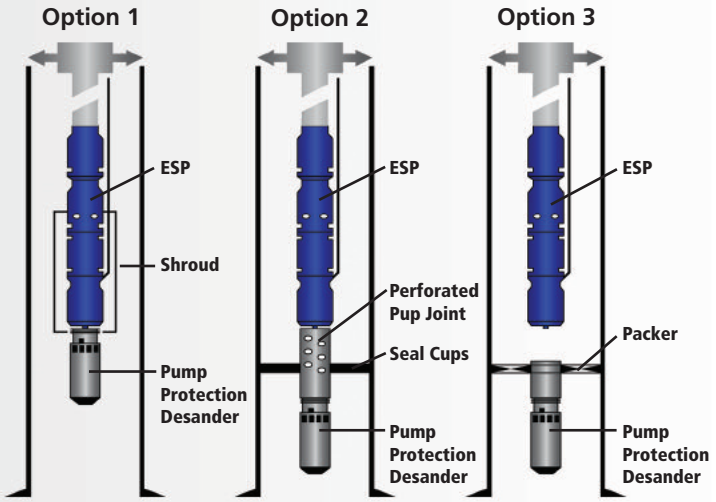


Required data for proper model selection:

- A Maximum & minimum flow rate of pump
- B Minimum well ID (inside diameter)
- C Depth of well
- D Depth of pump setting
- E Pumping water level
- F Maximum OD (out diameter) of pump/motor
- G Length on pump & motor
- H Pump's riser size

Desanders require a minimum submergence of 30 feet (9.2 M) below the drawdown water level. Minimum clearance below desander's purge discharge is 30 feet (9.2 M).

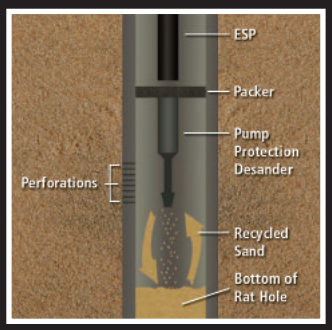
Installation Options



WHERE DOES THE SAND GO?

The most common procedure for disposing of separated sand is to discharge that sand deep into the well. It has been, and always will be, a better alternative to grinding up a pump and destroying its efficiency. Though the accumulation of sand in a well could eventually require evacuation (though it seldom does), that cost is far less than the certainty of expensive pump repair or replacement and loss of production.

The sand most likely will never fill up the well. Extensive research conducted by Ohio University unmasked the mystery of what a pump protection desander can really do to solve the problem of a sandy well. The study revealed that a pump protection desander actually helps create a state of "equilibrium," virtually eliminating the entry of additional sand into a well.



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