ANVEY ESDP

Electric Submersible Diaphragm Pump

Applications

- ES-DP Pump is for low influx well
- Deviated and horizontal wells
- Low flow rate and unstable inflow wells
- Wells producing with higher solids volume or scale
- High lift system adaptability to variable conditions
- The input voltage is 380-440V, so there is no need for additional step-up and step-down equipment, and the investment is small.
- The rated power is only 5kW, and the energy-saving effect is obvious.
- ESDP performs in High GOR
- ESDP performs in condensate gas.
- Suitable for liquid loading well.
- Suitable for all casing ranges for 5.5" Casing & 7" casing wells.

Operating Condition

Pump Depth	**5904ft(1800m)**
Water cut at pump intake	**Upto 99%**
Fluid specific gravity	**Upto 1.4**
Production water PH	**6.0 to 8.5**
Fluid Viscosity	**Upto 50 cp**
Solid content	**Upto 2 %**
Fluid temperature	**80-180 deg F**
H2S content	**Upto 0.125%**

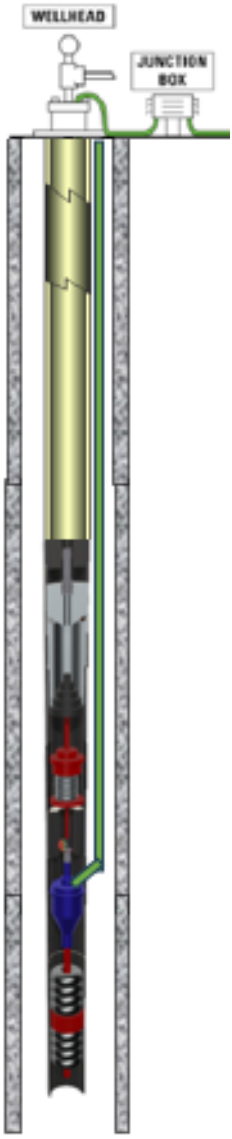
Depending on design*

Anvey ES-DP comprises of 3 phase Induction motor/PMM- syncromesh motor which offers a wide range of applicability of submersible pump.

The electrical submersible diaphragm pump is a rod-less pump with low energy consumption and high efficiency, specially suitable for low gas or water production capacity< 20m3/day.

The ES-DP System mostly comprises of submersible motor, deceleration reversing devise, plunger, diaphragm, inlet outlet valves, drain valve.

The submersible cable transmits electric power to the down-hole submersible motor, the submersible motor rotates after being electrified, and the rotary motion is converted into high-frequency reciprocating motion of the plunger through the deceleration reversing device. The up-and-down reciprocating motion of the plunger makes the lubrication and insulating oil in the diaphragm pump body, pushes the diaphragm to reciprocate up and down. Finally the liquid is lifted to the ground due to the liquid inlet and outlet valves are opened and closed.

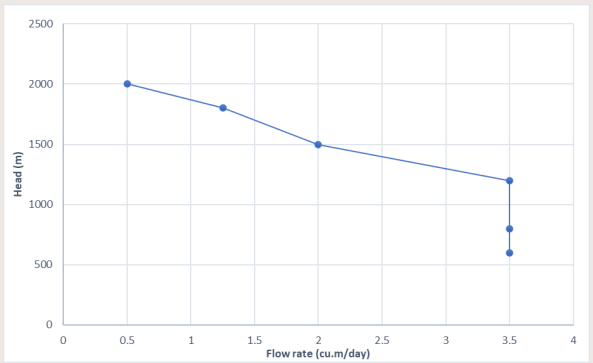


Benefits & Features

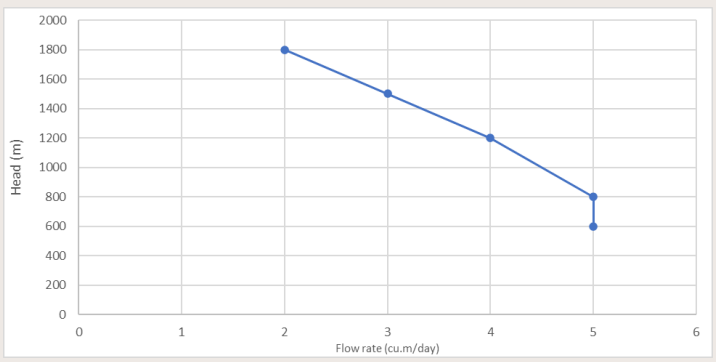
Enhancement of system reliability through the

- Reduction of rod wear and failures associated with rods.
- The pump is purely rod-less so suitable for vertical, deviated, & horizontal well.
- ESDP can handle high viscous fluids.
- Reduce overall OPEX cost
- Reduce environmental risk and hazard.
- With the help of a downstream flush valve enabling internal self priming, the technology can very well handle gas locks.

Pump performance Curves



APE-3.5-2000



APE-5-1700

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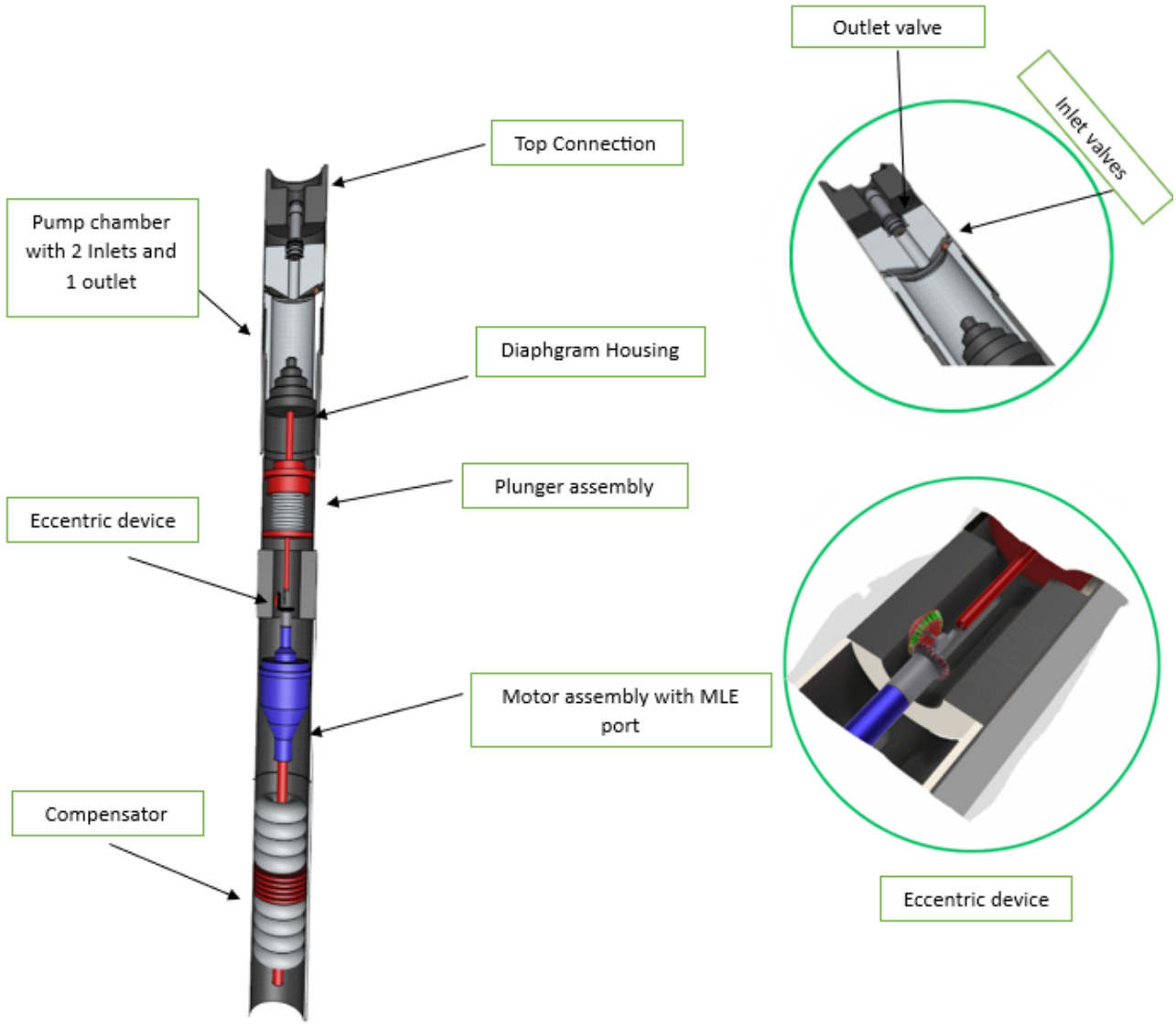

ESDP - Technical Specifications

Type	Capacity (m3/day)	Head (m)	Power Rating (KW)
APE-3.5-2000	0.5-3.5	1800	5
APE-5-1700	2-5	1800	5
APE-7-1500	3-7	1800	5
APE-10-1200	10-12	1800	5