

4. DOUBLE DIAPHRAGM PUMPS

Pulsating Vacuum, Multi-Purpose Pump



Maximum Wellpoint System Capabilities:

- DD-6 without a Vacuum Box can do up to 140' LF & (35)1.5" x 20' FT Wellpoints.
- DD-6 SAFE (enclosed) with a Vacuum Box can do up to 240' LF & (60)1.5" x 20' FT Wellpoints
- DV-6 can do up to 400' LF & (100) 1.5" x 20' FT Wellpoints

ADVANTAGES:

1. Six Inche (6") Double Diaphragm Pump are extremely VERSATILE and can be used for the 6 Most Common Methods of Dewatering which are:
 - a. Wellpointing (Vertical Ground Dewatering)
 - b. Sock Drain (Horizontal Ground Dewatering)
 - c. Low Flow Bypassing (Storm water or Sewer)
 - d. Sump Pumping also known as "Kelly Well" or "Whistle Pipe"
 - e. Open Pond
 - f. Rim Ditching
2. Double Diaphragm (DD) Pumps do not require a highly skilled service technician. An inexperienced person could easily work on, maintain or repair and DD pump.

3. Double Diaphragm (DD) Pumps are easy to troubleshoot & diagnose a problem. The pump is just Flappers and Diaphragms going up and down (seating, sealing and pushing). Very simple mechanically to understand the working principles.
4. Double Diaphragm (DD) Pumps require very few tools (15/16 & 9/16 wrench) to replace common wear items like Diaphragms, Flappers or Pushrods.
5. Double Diaphragm (DD) Pumps can be serviced, maintained and worked on in the field and on the job site very easily.
6. 6" Double Diaphragm (DD)Pumps only burn 6-8 gallons of fuel per day and can run continuously for over 9-10 days on a single tank of fuel.
7. Double Diaphragm (DD) Pumps have a very low daily/weekly/monthly operating cost.
8. Double Diaphragm (DD) Pumps are very portable and easily moveable around the construction job sites.
9. Double Diaphragm (DD) Pumps create Pulsating (Pull/Push) Vacuum which can be the only type of Vacuum that will work for a Dewatering System in certain Soil Conditions.
10. Double Diaphragm (DD) Pumps can handle or pass very high solids without damaging or negatively affecting the Pump or Pumpend. It can easily pump wellpoint sand or small rocks and debris without damaging any internal moving parts.
11. Double Diaphragm (DD) Pumps can run dry (indefinitely) without causing any harm or damage to the pumps internal moving parts.
12. Double Diaphragm (DD) Pumps w/ Vacuum Boxes or DV (Vacuum Assisted, Double Diaphragm) Pumps can create and maintain very high Vacuum

DISADVANTAGES:

1. 6" Double Diaphragm (DD) Pumps only move 550 GPM so they might take a little bit longer time to draw a wellpoint system down than a larger pump like a Rotary Lobe (RL) Pump or High CFM (HC) Centrifugal Pump.

2. Double Diaphragm (DD) Pumps cannot overcompensate for leaking or inefficient (NOT TIGHT) Wellpoint Systems. Double Diaphragm (DD) Pumps don't move enough air (CFM) to overcompensate for leaky or inefficient Wellpoint Systems. Wellpoint System must be efficient (TIGHT) for a Double Diaphragm (DD) Pumps to work effectively and efficiently.
3. 6" Double Diaphragm (DD) Pumps don't produce very much discharge head pressure which can limit the appropriate distance (<400' LF) of layflat discharge hose that can be used with a Double Diaphragm (DD) pump.
4. Standard Double Diaphragm (DD) Pumps cannot be used very effectively on large (>300' LF) and very deep (>15' FT) Wellpoint Systems.
5. Double Diaphragm (DD) Pumps do not discharge fluids above their Suction point very well. They like to discharge fluids on a horizontal plan from their Suction point.