



2. HIGH CFM/HIGH VACUUM CENTRIFUGAL (HC) PUMP Constant Vacuum, Multi-Purpose Pump



A Multi-Purpose pump that can be used for Wellpoint Dewatering and other Methods of Dewatering on a job site. Maximum Wellpoint System Capabilities: HC Pumps can do up to 600' LF & (150)1.5" x 20' FT Wellpoints

ADVANTAGES:

- 1. High CFM (HC) Centrifugal Pumps can be used for more than just Wellpoint Dewatering on a job site. HC Pumps can be used for the 6 most common methods of Dewatering that a Contractor would typically encounter on a job. Those methods are the following:
 - a. Wellpoint (Vertical Ground Dewatering)
 - b. Sock Drain (Horizontal Ground Dewatering)
 - c. Bypassing (Stormwater or Sewage)
 - d. Sump Pumping also known as "Kelly Well" or " Whistle Pipe"
 - e. Open Pond
 - f. Rim Ditching
- 2. High CFM (HC) Pumps can be used on 85-90% of the Wellpoint Systems (Size, Length & Depth) that Contractors typically perform.









- 3. High CFM (HC) Pumps can run at various engine speeds (RPM) and Vacuum settings. This requires the operator or pump user to know and understand the appropriate Vacuum settings that the Pump should be running at on the Wellpoint System.
- 4. High CFM (HC) Pumps can handle large volumes of Groundwater (>1500 GPM) which means HC Pumps typically create system drawl down faster than Double Diaphragm (DD) & Piston (PP) Pumps.
- 5. HC Pumps are portable and easily moveable around jobsites.
- 6. High CFM (HC) Pumps are relatively quiet and don't produce a lot of noise (Low 60's dba @ 28' ft range).
- 7. High CFM (HC) Pumps have much higher & greater discharge head capabilities, so they can discharge Groundwater much further away than Double Diaphragm (DD) or Piston (PP) Pumps (>500' LF).
- 8. High CFM (HC) Pumps can discharge Groundwater at much higher elevations than their Suction point (<150' FT TDH).
- 9. High CFM (HC) Pumps can handle or pass semi-solids like Wellpoint sand, rocks and small debris without causing too much internal damage to the rotating machinery inside of the pump volute.
- 10. High CFM (HC) Pumps can run dry for periods of time (a few hours) without hurting the pump end or the internal rotating machinery.
- 11. High CFM (HC) Pumps can prime themselves very quickly and create sufficient & maintain high Vacuum.
- 12. High CFM (HC) Pumps can move a lot of air (CFM) and have the ability to somewhat overcome leaky or inefficient (NOT TIGHT) Wellpoint Systems

DISADVANTAGES:

- 1. High CFM (HC) Pumps will require a skilled service technician to work on, repair, service and maintain this type of pump.
- 2. High CFM (HC) Pumps internal rotating machinery cannot be replaced or repaired in the field very easily. It will more than likely require the pump to be worked on inside of a shop or service center.









- 3. High CFM (HC) Pumps internal parts like impeller, shaft, wear plate, mechanical seals, float arm, vacuum pump, graphite veins are not easily repaired or replaced out in the field. This type of service work would probably need to be done back at service center or inside of a shop.
- 4. The cost of all of the internal wear parts for the High CFM (HC) Pumps can add up to about \$9,000\$10,000. The second most expensive type of pump to repair, maintain and work on.
- 5. High CFM (HC) Pumps can "Burp" or take on surges of water that could pass into the oil less Vacuum pump system. If too much water gets passed inside of the oil less Vacuum pump it can lock up and severely damage the Vacuum Pump or the Veins Inside of the oil less Vacuum Pump. Estimated Vacuum Pump replacement cost is around \$6,500.











