



# PORTABLE PUMP INQUIRY FORM

Name: _____	Phone: _____
Company: _____	Fax: _____
Address: _____	e-mail: _____
City: _____	Project Name: _____
State/Country: _____ Zip/Code: _____	Project Location: _____
<b>TYPE OF PUMP:</b>	<b>PACKAGE OPTIONS:</b>
<b>DRY PRIME</b>	<b>FRAME</b>
<input type="checkbox"/> Horizontal Chopper	<input type="checkbox"/> Trailer <input type="checkbox"/> Skid
<input type="checkbox"/> Horizontal Screw	<b>TYPE OF UNIT</b>
<b>WET PRIME</b>	<input type="checkbox"/> Open <input type="checkbox"/> Enclosed <input type="checkbox"/> Sound Attenuated
<input type="checkbox"/> Self-Prime Chopper	<b>POWER</b>
<b>HYDRAULIC</b>	<input type="checkbox"/> Diesel <input type="checkbox"/> Electric <input type="checkbox"/> Hydraulic
<input type="checkbox"/> Submersible Chopper	<b>PUMP PRIMING</b>
<b>PROPERTY OF LIQUIDS:</b>	<input type="checkbox"/> Venturi Float Prime
Temperature: _____ °F _____ °C	<input type="checkbox"/> Vacuum Float Prime
Solids (Wt): _____ % / Solids (Vol): _____ %	<b>PUMP CONTROLS</b>
PH: _____ Specific Gravity: _____	<input type="checkbox"/> Manual
Viscosity (cps): _____ (ssu): _____	<input type="checkbox"/> Auto-Start High-Low Control - Floats
Describe Solids: _____	<input type="checkbox"/> Auto-Start Level Control - Transducer
<b>SITE ELEVATION:</b> _____ feet	<b>REMOTE MONITORING</b>
<b>PUMP PERFORMANCE:</b>	<input type="checkbox"/> Messenger Kit
Capacity: _____ GPM _____ M3/Hr	<input type="checkbox"/> None
Head (TDH): _____ feet _____ m	<b>BRAKES</b>
_____ PSI	<input type="checkbox"/> Electric <input type="checkbox"/> Hydraulic Surge
<b>SYSTEM DESCRIPTION:</b>	<input type="checkbox"/> None
<b>SELF-PRIMING</b>	<b>DOT LIGHT PACKAGE</b>
Suction Head-'H2': _____ feet _____ m	<input type="checkbox"/> Turn Signal, Brake and Marker Lights
Static Head-'H1': _____ feet _____ m	<input type="checkbox"/> None
<b>FLOODED SUCTION</b>	<b>TRAILER HITCH</b>
Suction Head-'H3': _____ feet _____ m	<input type="checkbox"/> Lunette Eye <input type="checkbox"/> Ball Hitch (2 5/16") <input type="checkbox"/> None
Static Head-'H4': _____ feet _____ m	<b>ELECTRIC CABLE (Connector)</b>
<b>HOSE SIZING</b>	<input type="checkbox"/> 6-Pin <input type="checkbox"/> 7-Blade
Hose Dia Discharge: _____ inch _____ mm	<input type="checkbox"/> 4-Flat (Hydraulic Brakes Only) <input type="checkbox"/> None
Hose Length Dischg: _____ feet _____ m	<b>HOSE RACK</b>
Hose Dia Suction: _____ inch _____ mm	<input type="checkbox"/> Rigid & Flat Lay hose
Hose Length Suct: _____ feet _____ m	<b>SPARE TIRE</b>
<b>Note:</b> For maximum re-prime height 'H2', see applicable Portable Pump product brochure, specification sheet and/or pump curves.	<input type="checkbox"/> Frame Mount With Tire
	<b>Upgrade Options:</b> Include, exterior work lights, interior LED lights, battery charger, cold climate package, remote monitoring, and hose with fittings (Camlock or Bauer).

Fax, e-mail or mail form directly to:

**Vaughan Company, Inc.**

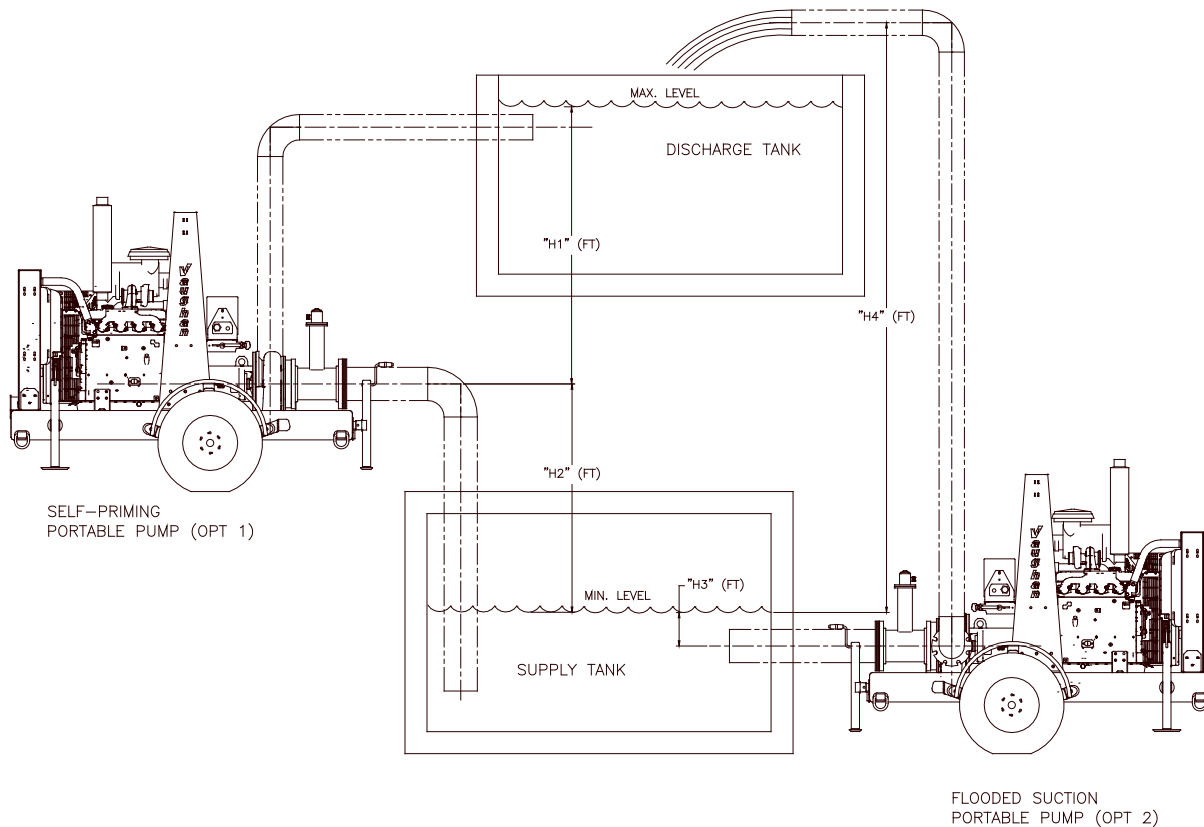
364 Monte Elma Road  
Montesano, WA 98563

Phone: 360-249-4042; Fax: 360-249-6155

e-mail: info@chopperpumps.com

# TOTAL HEAD CALCULATIONS

## PORTABLE



### TOTAL HEAD:

- $TDH = \text{Pipeline Friction} + \text{Vertical Lift (H)} + \text{Velocity Head (V}^2/2g)$ 
  - Pipeline Friction =  $[\text{Pipe Length (ft)} / 100] \times \text{friction factor (table on form V137)}$
- Water friction tables are suitable for sewage & most water-borne slurries up to 5% solids. For high solids loadings & heavy organic sludge, use the biological friction table on form V137.
  - Vertical Lift = feet up from supply tank low-water level to high level in discharge tank, or to the center of the open discharge pipe.
    - Note: - Lift may be negative (-) if the pipeline is downhill.
    - The pump shutoff head must be higher than H4 in order to initiate flow.
  - Velocity Head = Energy in the liquid being discharged due to its velocity.
    - Note: - Usually ignored as insignificant in low head sump pump systems.
    - For high head systems, use nozzle manufacturer's printed data, or calculate using data as follows:
      - V = Velocity of the stream at the discharge diameter (ft/sec)
      - G = Acceleration due to gravity (32.2 ft/sec<sup>2</sup>)

### NOTE:

For specific pump characteristics, refer to applicable Vaughan specification sheets, performance curves and drawings.

### SPECIAL CASES:

Pipelines with valves & fitting, add appropriate equivalent pipe length.  
 Pressurized supply or discharge tanks, add the discharge tank pressure, in feet, less any supply tank pressure, in feet, to the above Total Head calculation. Gauge pressure, in psi x 2.31 = head in feet.  
 Very high solids content sludges & slurries, contact Vaughan on reliable test data for friction values.