Vaughan®
Unmatched Reliability

CHOPPER PUMP AG INQUIRY FORM

Name: _____

Company: _____

Phone: _____

State/Country: _____

Email: _____

Farm / Project Name: _____

Project Location: _____

Application: ☐ New ☐ Existing

If existing, please specify:

Brand: _____

Model: _____

Type of Pump Required:
☐ Vertical Wet Well: Length: _____ FT/M
☐ Horizontal   ☐ Pedestal
☐ Submersible ☐ Self-Primer

Mixing:
Is there mixing? ☐ Yes ☐ No
Is it required?   ☐ Yes ☐ No

Property of Liquids:
% SOLIDS: _____ PH: _____

Solids: ☐ Flush ☐ Scraped
Bedding Material:
☐ Sawdust ☐ Manure Solids
☐ Sand
   If sand, is equipment located before
   or after sand removal equipment?
     ☐ Before ☐ After
   Type of sand removal system:
     ☐ Gravity ☐ Mechanical

Sump Shape:
☐ Square ☐ Rectangle ☐ Circular

Sump Dimensions: ☐ FT ☐ M
_____ length x _____ width x _____ deep
_____ diameter x _____ deep

Existing Pump Performance:
_____☐GPM ☐M3/HR ☐L/Sec
_____☐FT   ☐M   ☐PSI

Required Pump Performance:
Flow Rate/Required Flow: _____

System Description:
Pumping From: _____ To: _____
Discharge Pipe Size: ____inch/mm
Disch. Pipe Length: ____FT/M
Static/Lift Required: _____
Valves, Elbows: _____

Pit Levels:
Suction Side
   High Pit Level: ___FT/M
   Low Pit Level: ___FT/M
Discharge Side
   High Pit Level: ___FT/M
   Low Pit Level: ___FT/M

Electric Motor Requirements:
☐ Three Phase   ☐ Single Phase
___HP, ___KW, ___RPM, ___V/ ___Ph/__Hz
Enclosure Type: _____
■ Verify power supply: 200/208/230/460/575

Additional Info or Considerations:
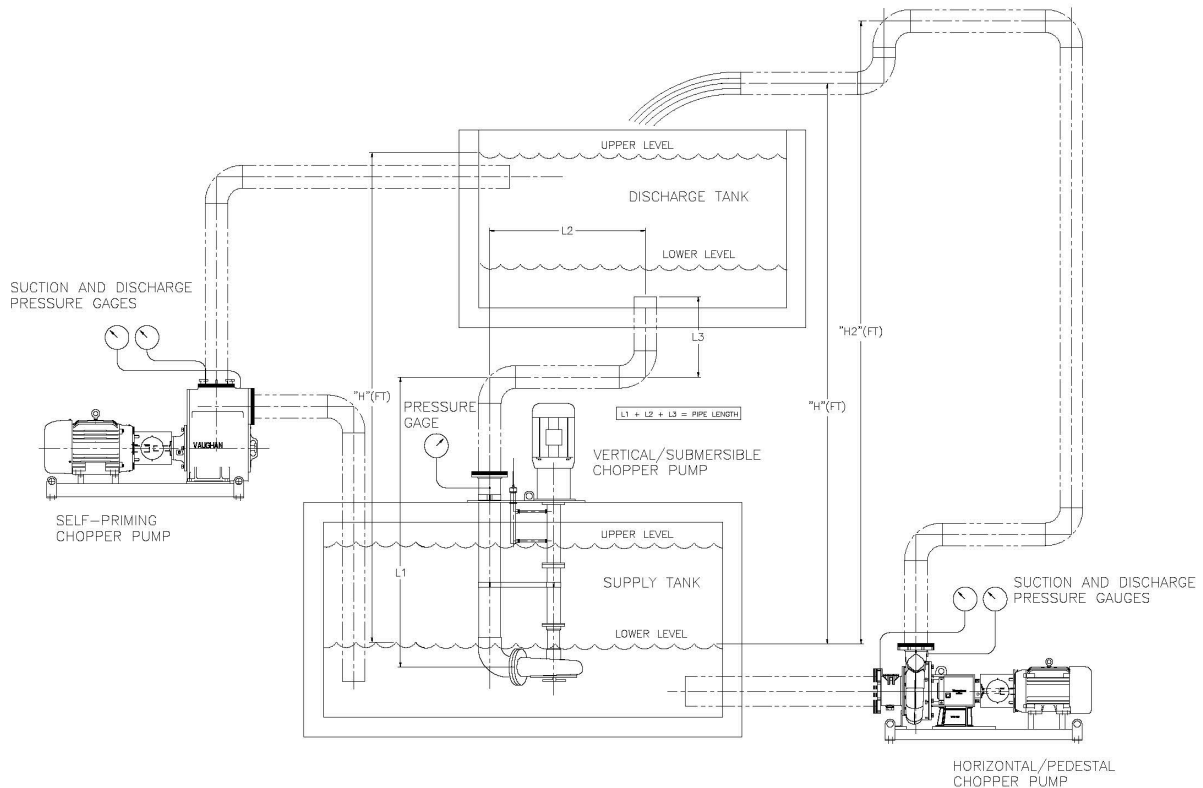_____
_____
_____
_____

Please tell us how you heard about Vaughan: _____
Fax, email, 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

V817 Rev. 1

6/15/2023

TOTAL HEAD CALCULATIONS
CHOPPER

TOTAL HEAD:

TDH = Pipeline Friction + Vertical Lift (H) + Velocity Head ($V^2/2g$)

- Pipeline Friction = [Pipe Length (ft) / 100] x 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.
  - Intermediate pipeline elevations (H2) higher than the final discharge can be ignored, except that the pump shutoff head must be higher than H2 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^2)

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.