CHOPPER PUMPS
INQUIRY FORM

Name: _____	Phone: _____
Company: _____	Fax: _____
Address: _____	e-mail: _____
City: _____	Project Name: _____
State/Country: _____ Zip/Code: _____	Project Location: _____

APPLICATION:

_____

TYPE OF PUMP:

☐ Vertical Wet Well: Length: ____ Feet
☐ Vertical Recirculator: Length: ____ Feet
☐ Horizontal ☐ Vertical Pedestal
☐ Submersible: ☐ Explosion Proof
☐ Guide Rail System
☐ Recirculator
☐ Hydraulic Submersible
☐ Cantilever: Length: _____ Feet
☐ Self-Primer

PROPERTY OF LIQUIDS:

Temperature: _____ °F _____ °C
PH: _____ % SOLIDS: _____
Specific Gravity: _____
Viscosity (cps): _____ (ssu) _____
Describe Solids: _____

SUMP DIMENSIONS:

____ ft deep x ____ ft wide x ____ ft long
____ M deep x ____ M wide x ____ M long
____ ft, ____ meters diameter x ____ deep

PUMP PERFORMANCE:

Capacity: _____ GPM
_____ M3/Hr

Head: _____ feet
_____ meters
_____ PSI

SYSTEM DESCRIPTION:

Pipe Dia: _____ inch____ mm
Disch. Static: _____ feet ____ meters
Disch. Length: _____ feet ____ meters
Inlet Static: _____ feet ____ meters
Inlet Lift: _____ feet ____ meters
Header PSI: _____ PSI
Other:
_____
_____
_____
_____

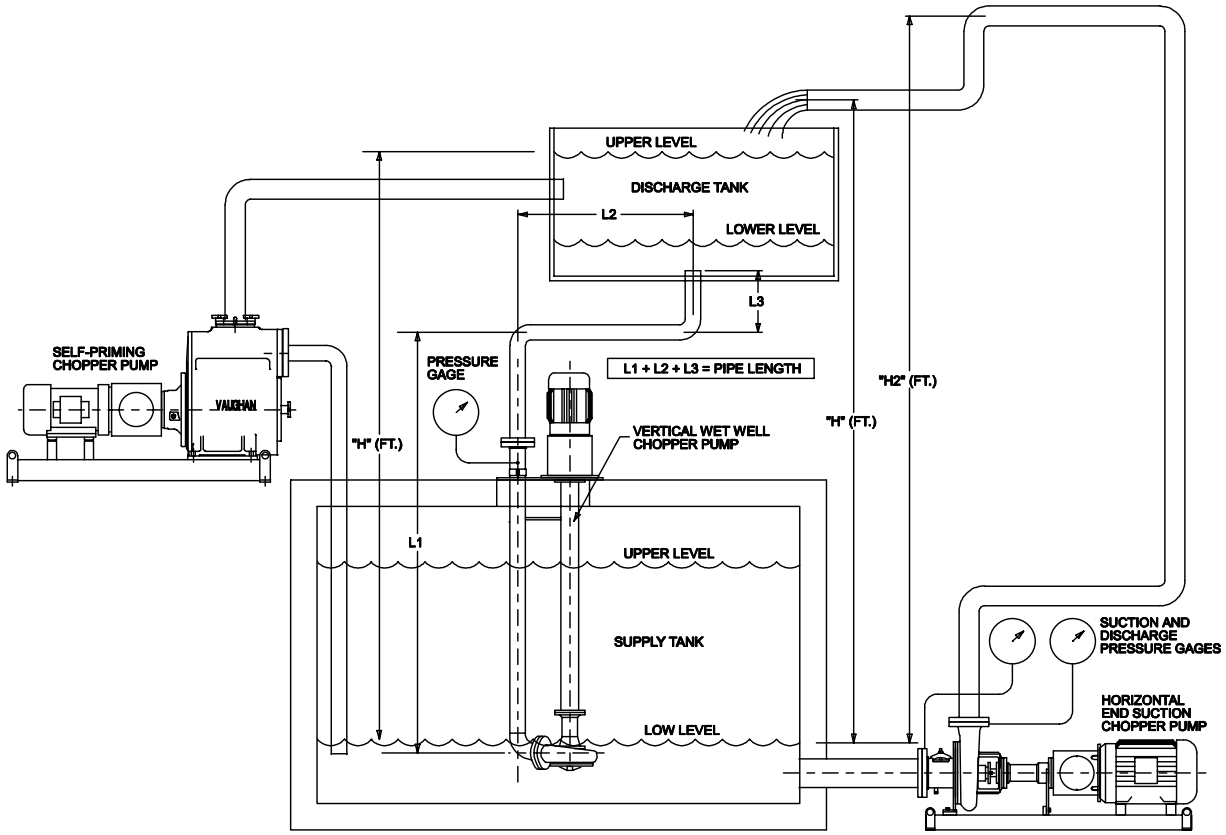
ELECTRIC MOTOR REQUIREMENTS:

___ HP, ____ RPM, ___ Volts, __ Ph, __ Hz
___ KW, ____ RPM, ___ Volts, __ Ph, __ Hz
Enclosure Type: _____

Fax, e-mail or mail form directly to:

Vaughan Company, Inc.
364 Monte Elma Road
Montesano, WA 98563
360-249-4042
Fax: 360-249-6155
e-mail: info@chopperpumps.com

TOTAL HEAD CALCULATIONS



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.