VERTIFLO

The Vertical Pump Specialists

PUMPS FOR INDUSTRY

CONTENTS:

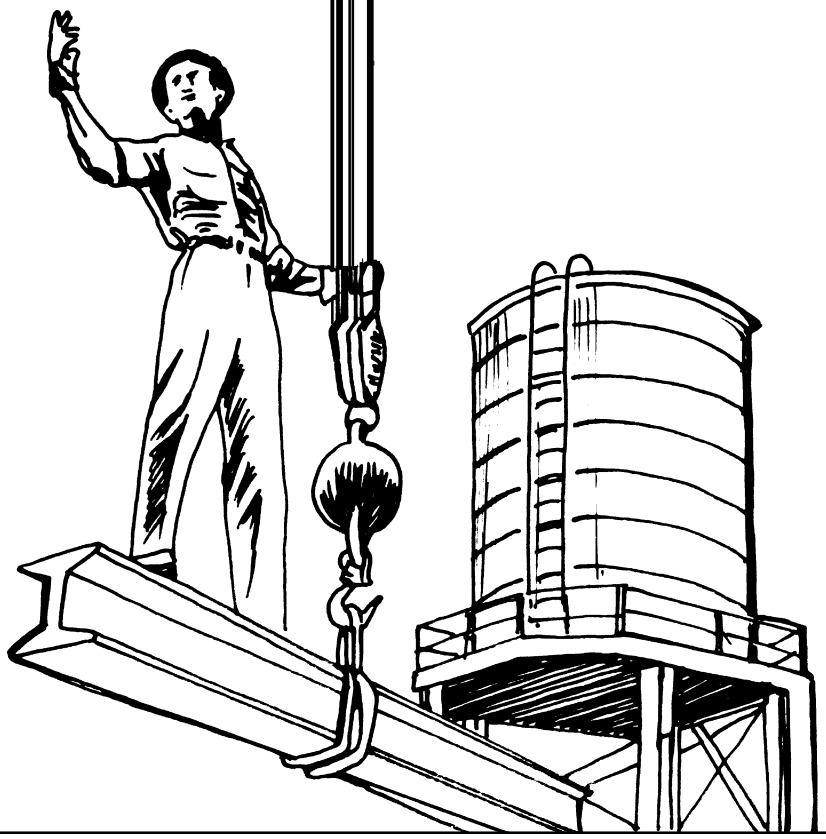
 0407

A Complete Line of Pumps for Industry

VERTIFLO's customer base is very diversified by market and market segment, in as much as many of our products are applied for similar pumping services within industrial process, utilities and commercial/institutional applications. Over 20,000 **VERTIFLO** pumps are operating extremely successful throughout the United States and the world.

The accompanying partial list of our users represents a small percentage of actual users. Many of our products are shipped to our Sales Representatives' warehouses, to an installing contractor or to the original equipment manufacturer (OEM) for future shipment; thus, the final destination is often unknown.

All of us at **VERTIFLO PUMP COMPANY** are committed to serve your ongoing pumping needs in a superior manner. We look forward to being of service to you.



Our Clients Served World-Wide

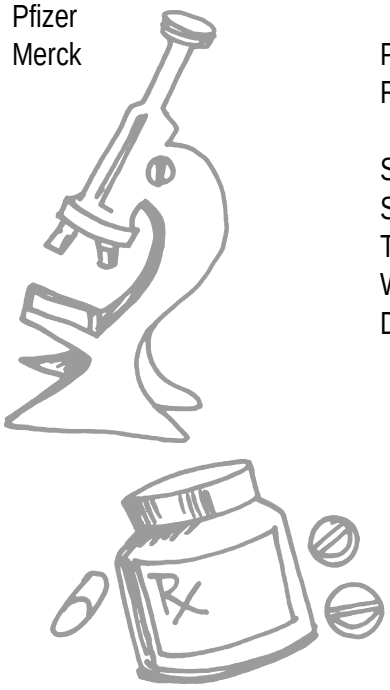
STEEL / METALS
Alcoa
Allied Metals
Allied Tube & Conduit
American Wire & Cable
AK Steel
Anchor Die Set
Armco Steel
Baylor Steel
Bethlehem Steel
Brooklyn Steel
Cameron Iron Works
Chase Brass & Copper
Continental Steel
Central Foundry Div., GMC
Cyclops Corporation
Empire Detroit Steel Division
Faultless Hardware
Great Lakes Steel
Interlake Steel
Ingersoll Steel
Koppers Compnay
LTV Steel
Mercury Stainless
Midland Steel Products
Monroe Forgings
PPG Industries
Pittsburgh Tube
Reynolds Metals
Revere Ware
Rouge Steel
Southwire Corp.
USX Corporation
Weirton Steel

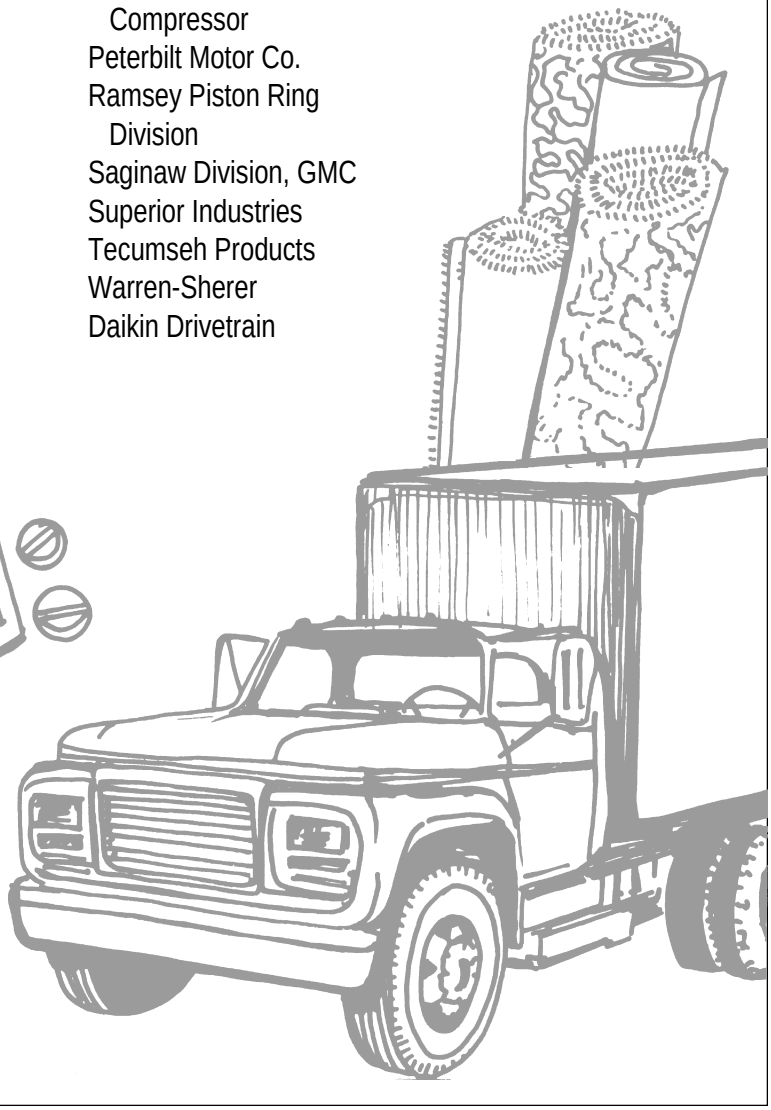
AIRLINE / AEROSPACE
American Airlines
Boeing
General Electric
Kennedy Space Center
Lockheed
McDonnell-Douglas
NASA
Sykorsky Aircraft
TWA
United Airlines

PHARMACEUTICALS
Astrazeneca
The Upjohn Co.
Eli-Lilly
Lederle Laboratories
Pfizer
Merck

AUTOMOTIVE
AM General
Briggs & Stratton
Caterpillar Corporation
Chrysler Corporation
Cummins Engine
Delco-Remy Div., GMC
Eaton Corporation
Fischer Guide
Ford Motor Company
General Motors Corp.
Holley Replacement Parts
Honda Corporation
Jaguar International
Mack Truck
Michigan Automobile Compressor
Peterbilt Motor Co.
Ramsey Piston Ring Division
Saginaw Division, GMC
Superior Industries
Tecumseh Products
Warren-Sherer
Daikin Drivetrain

TEXTILES / FABRIC
Avondale Mills
Bally Ribbon Mills
Celanese Fibers
Coats and Clark
Cone Mills
Dart Polymers
E.I. DuPont
Fabricolor
Galaxy Carpet
Jennity Fabrice
Star Fibers
Shaw Industries
Sherex Polymers
Spinner & Yarn
Union Buffalo Mille
World Carpet





Our Clients Served World-Wide

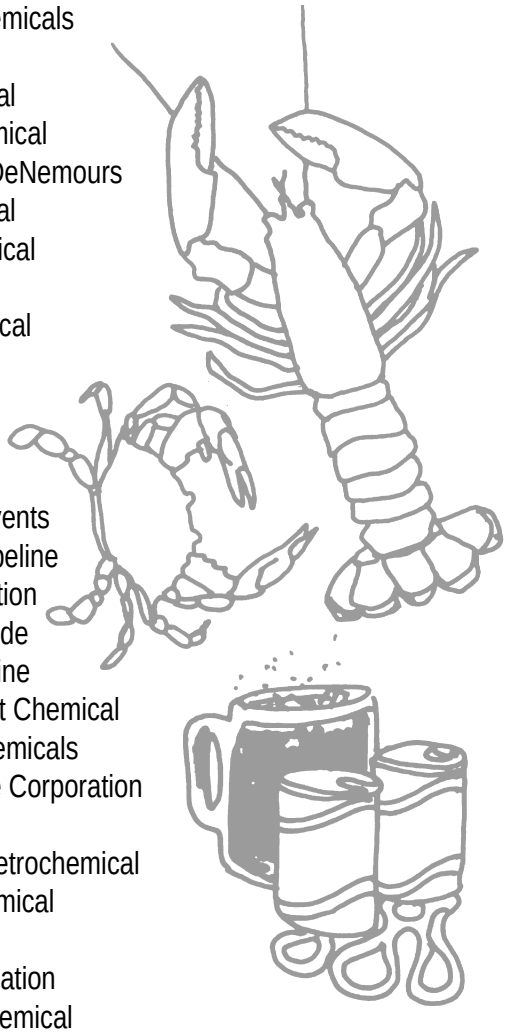
ELECTRICAL /ELECTRONICS
Advanced Circuitry
Dana Corporation
Eaton Corporation
Ford Microelectronics
General Electric
Hewlett Packhard
IBM
I.T.E. Electrical Products
Johnson Controls
Martin Marietta
McGraw Edison Power
Motorola Corporation
R.C.A. Corporation
Rockwell Corporation
Westinghouse Corp.

DEFENSE / MILITARY / ENERGY
Arnold Air Force Base
Cavalier Air Force Base
Elieson Air Force Base
Hercules, Inc.
Indiana Army Ammunition Plant
McConnell Air Force Base
Naval Air Rework Facility, Virginia
Patuxent Naval Station
Pine Bluff Arsenal
Tinker Air Force Base
U.S. Dept. of Energy
U.S. Marines
U.S. Navy
Utah Air National Guard
Westinghouse-Hanford
Wright-Patterson Air Force Base
Fort Bragg
Robbins Air Force Base

CHEMICALS / FUEL / REFINING
Air Products & Chemicals
Allied Chemical
Allied Colloids
American Cyanamid
Amoco Oil
Arco Chemical
Aristech Chemical
Ashland Oil
Baker Performance Chemicals
B.F. Goodrich Chemicals
B.P. Oil
Borden Chemical
Celotex Corporation
Chem-Fleur International
Chevron USA
Concord Chemicals
Conoco
Dow Chemical
DuBois Chemical
E.I. Dupont DeNemours
Elan Chemical
Exxon Chemical
Exxon USA
Hatco Chemical
GATX
Hercules, Inc
Mobil Oil
Monsanto
National Solvents
Off Shore Pipeline
Olin Corporation
Pacific Chloride
Phillips Pipeline
Philip A. Hunt Chemical
Polyvinyl Chemicals
Quaker State Corporation
Shell Oil
Southwest Petrochemical
Stauffer Chemical
Unocal
Witco Corporation
Ocidental Chemical

COMMERCIAL FISHING/ PROCESSING/ CANNING
Artic Alaska Seafoods
Dakota Creek Industries
Marco Shipbuilding
Nelbro Packing Co.
Tacoma Boatbuilding Co.
Trident Seafoods
Universal Seafoods
Ward's Cove Packing

CAN MANUFACTURERS
American Can
Continental Can
Crown Cork & Seal
Miller Container
National Can
Schlitz Container



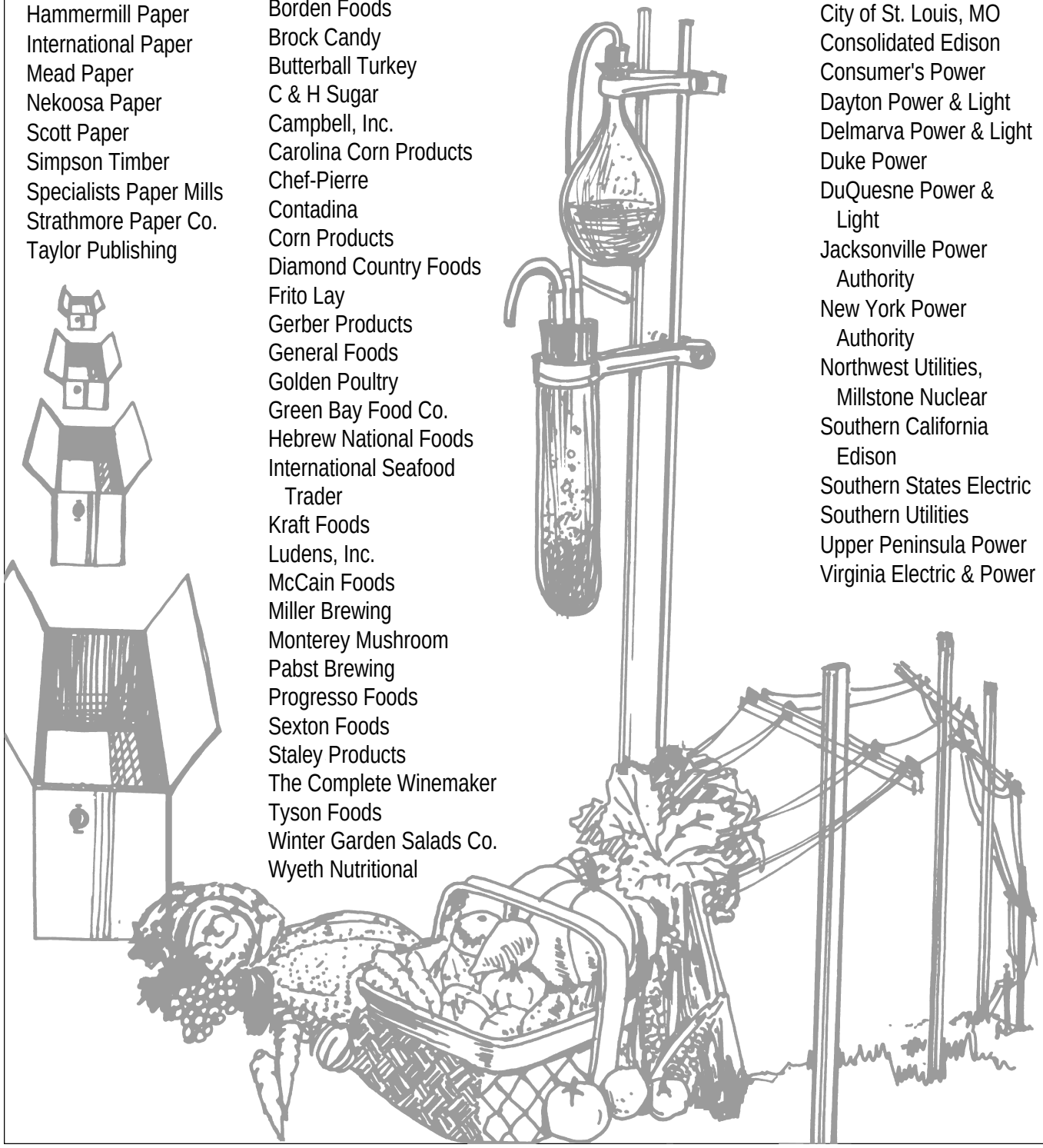
Our Clients Served World-Wide

PAPER / PULP / PUBLISHING
Appleton Papers
Brandywine Paper Board Mills
Donnelly Corporation
Fiberboard Corporation
Hammermill Paper
International Paper
Mead Paper
Nekoosa Paper
Scott Paper
Simpson Timber
Specialists Paper Mills
Strathmore Paper Co.
Taylor Publishing

FOOD PROCESSING / BEVERAGE
Alpo Pet Foods
APV Baker
American Fructose
American Potato
Aunt Jane Foods
Borden Foods
Brock Candy
Butterball Turkey
C & H Sugar
Campbell, Inc.
Carolina Corn Products
Chef-Pierre
Contadina
Corn Products
Diamond Country Foods
Frito Lay
Gerber Products
General Foods
Golden Poultry
Green Bay Food Co.
Hebrew National Foods
International Seafood Trader
Kraft Foods
Ludens, Inc.
McCain Foods
Miller Brewing
Monterey Mushroom
Pabst Brewing
Progresso Foods
Sexton Foods
Staley Products
The Complete Winemaker
Tyson Foods
Winter Garden Salads Co.
Wyeth Nutritional

SOAPS / DETERGENTS / LOTIONS
Andrew Jergens
Colgate-Palmolive
Helene Curtis
Procter & Gamble
Lever Brothers

UTILITIES
Arkla Gas Co.
Associated Electric Cooperative
Carolina Power & Light
Cincinnati Gas & Electric
City of Long Beach, CA
City of St. Louis, MO
Consolidated Edison
Consumer's Power
Dayton Power & Light
Delmarva Power & Light
Duke Power
DuQuesne Power & Light
Jacksonville Power Authority
New York Power Authority
Northwest Utilities, Millstone Nuclear
Southern California Edison
Southern States Electric
Southern Utilities
Upper Peninsula Power
Virginia Electric & Power



A Complete Line of Pumps for Industry

SERIES 600
MODEL 629 & 636
Industrial Vertical
Process Pump

- Capacities to 3000 GPM
- Heads to 230 Feet
- Temperature to 180˚ F
- Column Extensions of 12", 15" & 21"
- Construction: Cast Iron, 316 Stainless Steel Fitted, 316 Stainless Steel, Alloy 20

SERIES 700
MODEL 720 & 724
Vertical Non-Clog
Sewage Ejector

- Capacities to 1500 GPM
- Heads to 100 Feet
- Pit Depths to 26 Feet
- Construction: Cast Iron

SERIES 800
MODEL 814, 820, 824 & 832
Industrial Vertical Immersion
Sump Pump

- Capacities to 3000 GPM
- Heads to 230 Feet
- Temperature to 350˚ F
- Pit Depths to 26 Feet
- Construction: Cast Iron, 316 Stainless Steel Fitted, All 316 Stainless Steel, Alloy 20, Hastelloy, $CD4MC_u$

A Complete Line of Pumps for Industry

SERIES 900
MODEL 920, 924 & 932
Industrial Vertical Immersion
Vortex Sump Pump

- Capacities to 1600 GPM
- Heads to 170 Feet
- Temperature to 350°F
- Pit Depths to 26 Feet
- Solid Handling up to 4" Diameter Shperes
- Construction:
  Cast Iron,
  316 Stainless Steel Fitted,
  All 316 Stainless Steel,
  Alloy 20,
  $CD4MC_u$

SERIES 1100
MODEL 1101, 1102 & 1103
Industrial Vertical Cantilever
Vortex Pump

- Capacities to 1600 GPM
- Heads to 170 Feet
- Temperature to 400°F
- Pump Length to 6 Feet
- Shaft Diameter to 5"
- Solid Handling up to 4" Diameter Shperes
- Construction:
  Cast Iron,
  316 Stainless Steel,
  Alloy 20,
  Hastelloy,
  $CD4MC_u$

SERIES 1200
MODEL 1201, 1202 & 1203
Industrial Vertical
Cantilever Centrifugal Pump

- Capacities to 3000 GPM
- Heads to 230 Feet
- Temperatures to 400°F
- Pump Length to 6 Feet
- Shaft Diameter to 5"
- Construction:
  Cast Iron,
  316 Stainless Steel,
  Alloy 20,
  Hastelloy,
  $CD4MC_u$

Industrial Horizontal End Suction Pumps

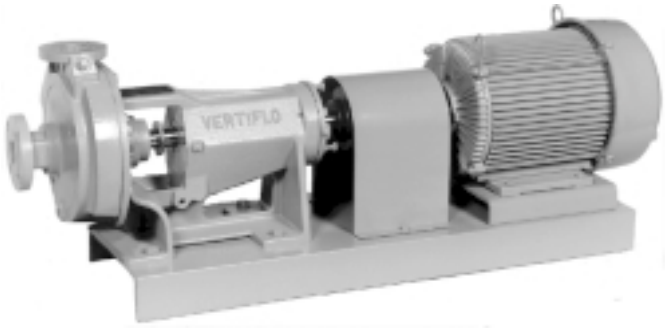
MODEL 1312
Close-Coupled

- Capacities to 240 GPM
- Heads to 160 Feet
- 1750 and 3500 RPM
- Back Pull-Out Construction
- Mechanical Seal
- Semi-Open Impeller
- Construction: All Iron, Bronze Fitted, 316 Stainless Steel Fitted, All 316 Stainless Steel

MODEL 1400LF
Base-Mounted,
Low Flow Pump

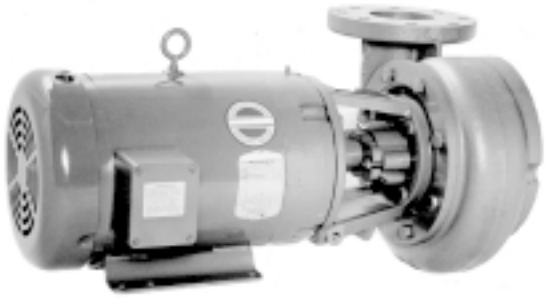
Also available as vertical wet pit pump

- Capacities to 50 GPM
- Heads to 345 Feet
- Temperature to 250˚ F
- Back Pull-Out Construction
- Radial Vane Impeller
- External Impeller Adjustment
- Packing or Mechanical Seal
- Construction: Ductile Iron, Bronze Fitted, 316 Stainless Steel Fitted, All 316 Stainless Steel



SERIES 1300
MODEL 1320, 1326 & 1334
Close-Coupled

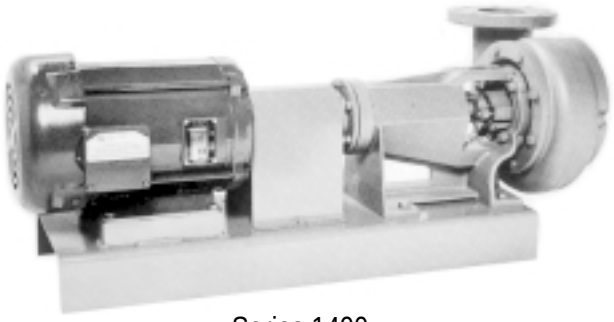
- Capacities to 3600 GPM
- Heads to 275 Feet
- Temperature to 250° F
- Back Pull-Out Construction
- Semi-Open Impeller
- Packing or Mechanical Seal
- Construction: Cast Iron, 316 Stainless Steel Fitted, All 316 Stainless Steel, Alloy 20, $CD4MC_u$



Series 1300

SERIES 1400
MODEL 1420, 1424 & 1434
Base-Mounted

- Capacities to 3600 GPM
- Heads to 275 Feet
- Temperature to 250° F
- Back Pull-Out Construction
- Semi-Open Impeller
- Packing or Mechanical Seal
- Construction: Cast Iron, Stainless Steel Fitted, All 316 Stainless Steel, $CD4MC_u$

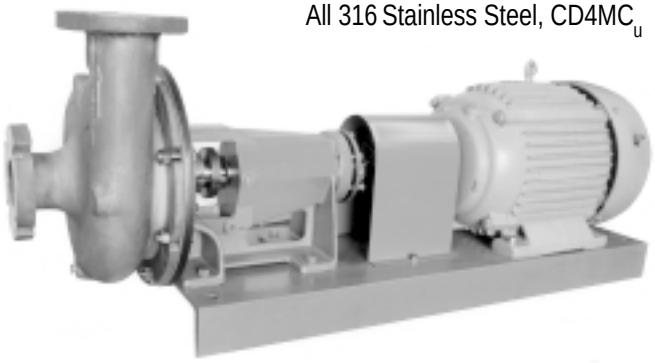


Series 1400

Industrial Horizontal End Suction Pumps

SERIES 1500
MODEL 1520, 1524 & 1534
Base-Mounted Vortex

- Capacities to 1600 GPM
- Heads to 170 Feet
- Temperature to 250° F
- Back Pull-Out Construction
- Fully Recessed Vortex Impeller
- External Impeller Adjustment
- Packing or Mechanical Seal
- Construction: Cast Iron, Alloy 20 316 Stainless Steel Fitted, All 316 Stainless Steel, $CD4MC_u$



Series 1500

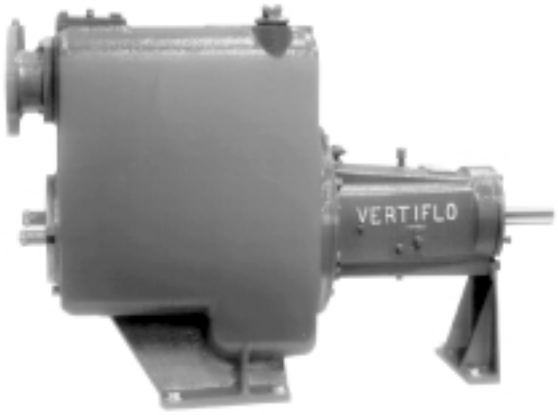
SERIES 1600
MODEL 1620, 1626 & 1634
Close-Coupled Vortex

- Capacities to 1600 GPM
- Heads to 170 Feet
- Temperature to 250° F
- Back Pull-Out Construction
- Fully Recessed Vortex Impeller
- External Impeller Adjustment
- Packing or Mechanical Seal
- Construction: Cast Iron, 316 Stainless Steel Fitted, Alloy 20, All 316 Stainless Steel, $CD4MC_u$

Series 1600

SERIES 2100
Trash- and Solids-Handling Self-Priming Centrifugal Pump

- Capacities to 1300 GPM
- Heads to 112 Feet TDH
- Sizes: 3", 4" and 6"
- Solids Handling: Up to 3" Diameter Sphere
- Suction Lifts to 25 Feet
- Construction: Cast Iron, All 316 S.S., All $CD4MC_u$, 316 S.S. Fitted, $CD4MC_u$ Fitted



VERTIFLO

The Vertical Pump Specialists

PUMPS FOR INDUSTRY

CONTENTS:

0407

VERTIFLO SERIES 600, MODELS 629 & 636
Quality Design Features Assure Long, Trouble-Free Service

WIDE RANGE OF APPLICATIONS:
- Industrial Spray Washer
- Pickling / Bonderizing
- Spray Booths
- Coolant Systems
- Filtration Systems
- Pollution Control
- E-Coat Paint Systems

CAPABILITIES:
- Capacities to 3000 GPM
- Heads to 230 Feet
- Temperature to 180° F
- Column Extensions of 12", 15" & 21"
- Construction: Cast Iron, 316 Stainless Steel Fitted, 316 Stainless Steel, Alloy 20

CONSTRUCTION:

Standard
- All iron construction
- Stress-Proof alloy steel shaft
- External impeller adjustment
- Cartridge type thrust bearing housing and cap
- Double row thrust bearing
- Semi-Open impeller with balancing ring and wiping vanes
- 12" flanged column extension
- Steel cover plate
- Schedule 40 discharge pipe
- Cast iron motor support
- Flexible coupling

Options
- Stainless steel fitted, All stainless steel or Alloy 20 construction
- Pump down feature
- Suction piping
- Column extension available for 15" or 21" extensions
- Oversize cover plates
- Fabricated steel chairs for "T" or "U" frame foot mounted motors

Shaft Sizes
Model Number 629.....2 1/4"
Model Number 636.....2 1/2"

1. Motor Support
Assures positive alignment of motor and pump shaft with register fit. Normal thrust, vertical NEMA C face motor standard. Fabricated steel chair mount is an option.

2. External Impeller Adjustment
Locking jack screws provide impeller adjustment without dismantling pump or piping

3. Bearings
Grease lubricated, heavy-duty ball bearings- Double row thrust bearing standard

4. Power Frame
Heavy duty cast iron, line bored and machined to assure correct alignment of rotating element

5. Column Closure
Replaceable lip seals prevent moisture and dirt from entering lower bearing

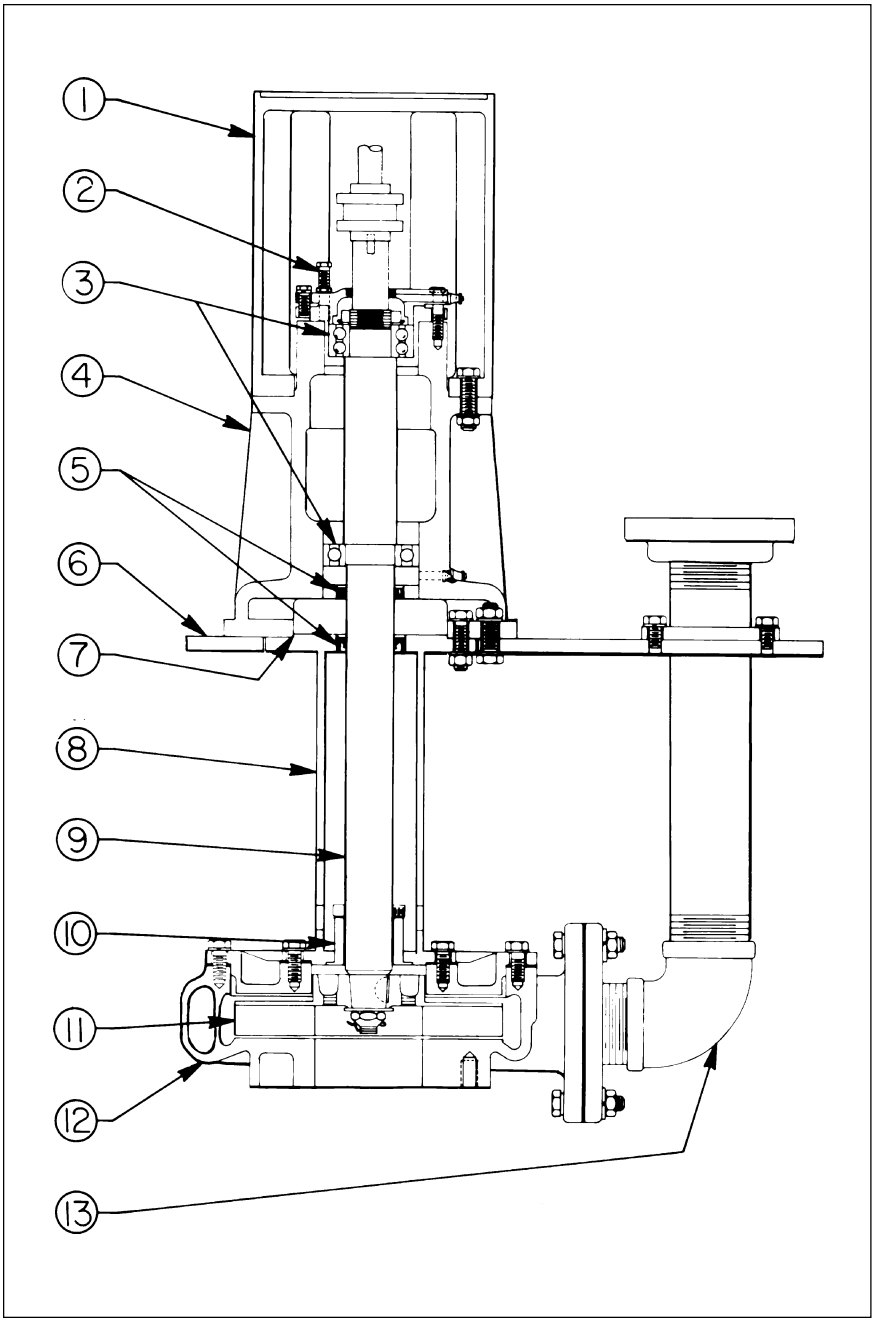
6. Cover Plate
Designed for specific unit. Carbon steel standard, alloy plates optional

7. Positive Machine Fits
Machined registered fits of column, power frame, throttle housing and casing

8. Column Pipe
Schedule 40 steel pipe with welded flanges

9. Shaft
Accurately machined, stress-proof steel assures minimum deflection

10. Throttle Bushing
Register fit assures positive alignment between column and casing. Throttle bushing restricts flow of liquid entering column.



11. Impeller
Semi-open design with balancing ring and wiping vanes for wide range of applications. Secured to shaft by taper fit with woodruff key, castellated nut and cotter pin

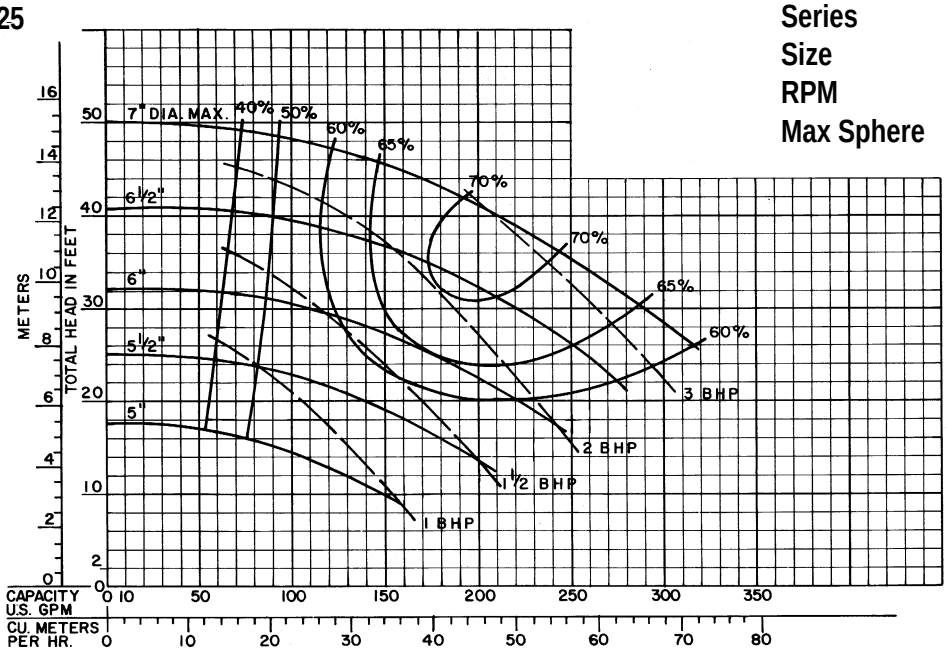
12. Casing
Flanged suction and discharge. Double volute design on all 4 X 3 X 10 and larger sizes

13. Discharge Pipe
1" - 2 1/2" threaded; 3" and larger flanged

VERTIFLO PUMP COMPANY Performance Curves

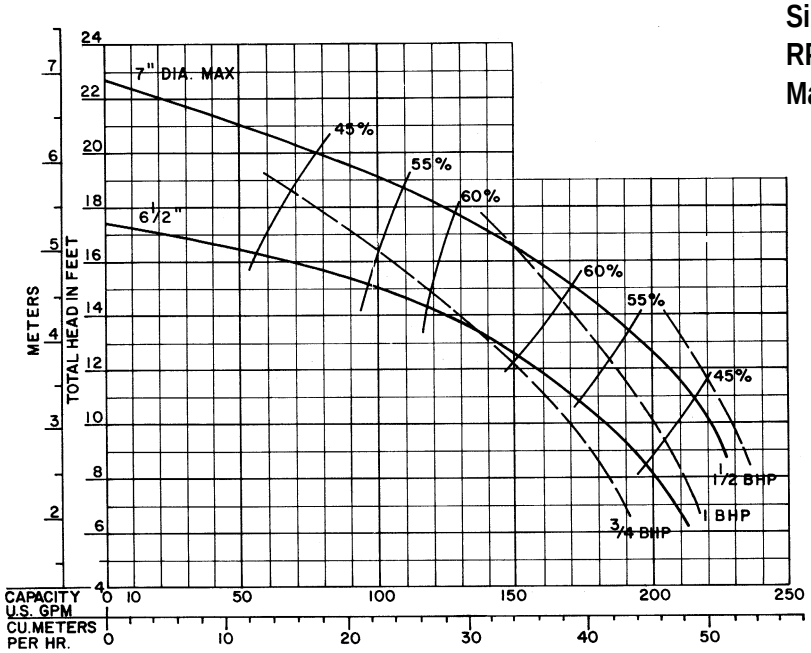
Curve PV-1525

Series	**600**
Size	**3 X 2 1/2 X 7**
RPM	**1750**
Max Sphere	**1**



Curve RV-1525

Series	**600**
Size	**3 X 2 1/2 X 7**
RPM	**1150**
Max Sphere	**1**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

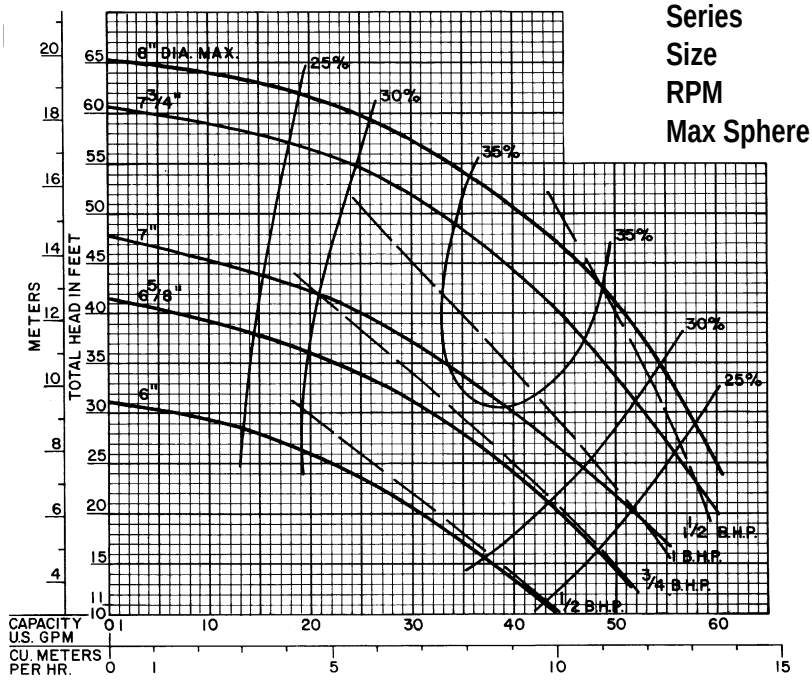
ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

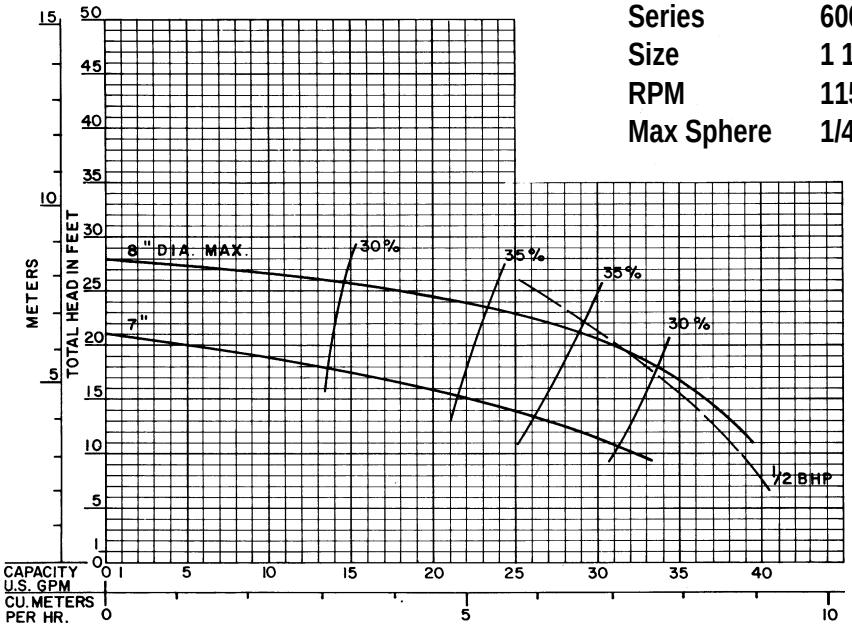
VERTIFLO PUMP COMPANY Performance Curves

Curve AS-1610



Series	**600**
Size	**1 1/2 X 1 X 8**
RPM	**1750**
Max Sphere	**1/4**

Curve BS-1610



Series	**600**
Size	**1 1/2 X 1 X 8**
RPM	**1150**
Max Sphere	**1/4**

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

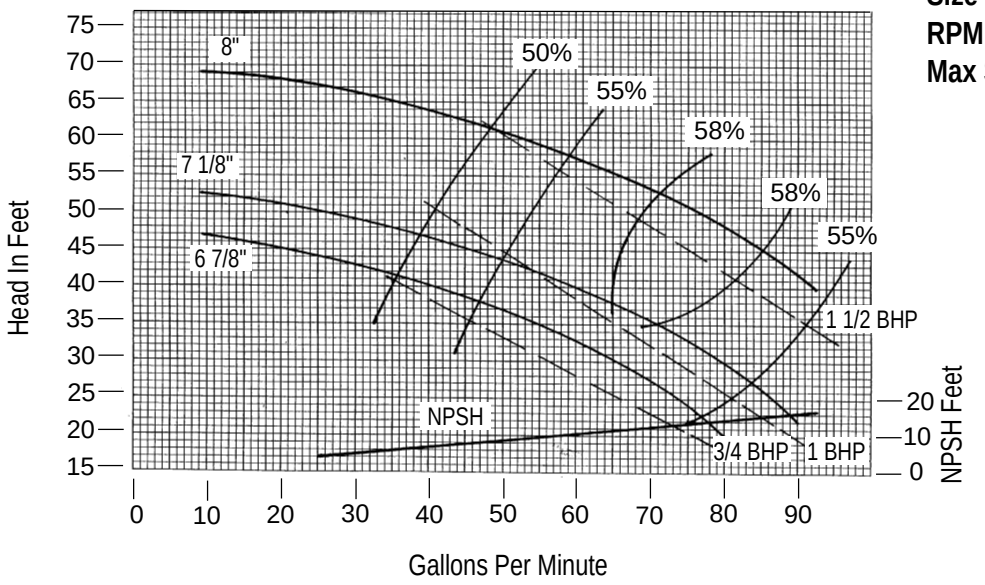
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

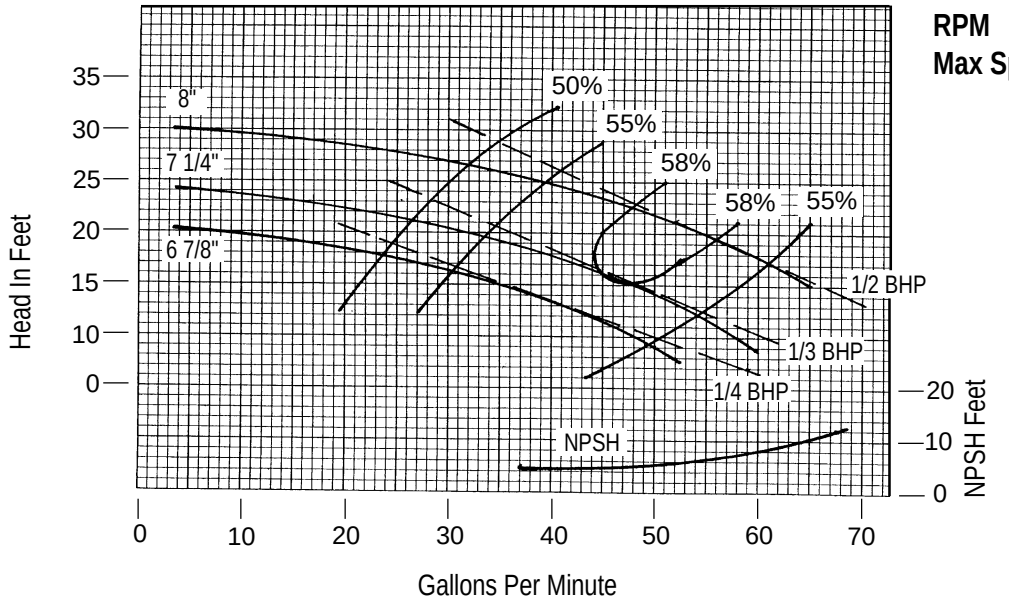
Curve AS-1612

Series	**600**
Size	**1 1/2 X 1 1/4 X 8**
RPM	**1750**
Max Sphere	**5/16**



Curve BS-1612

Series	**600**
Size	**1 1/2 X 1 1/4 X 8**
RPM	**1150**
Max Sphere	**5/16**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

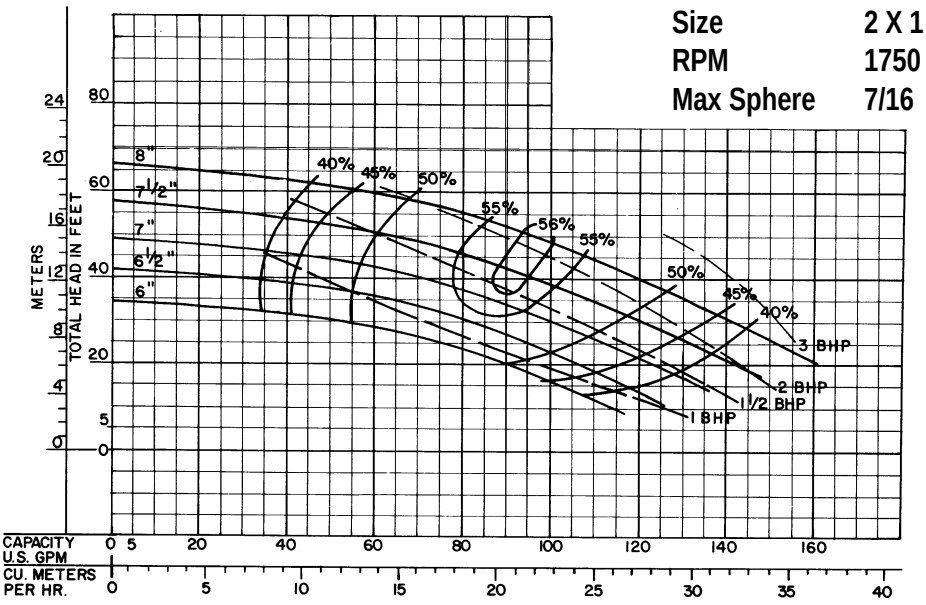
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

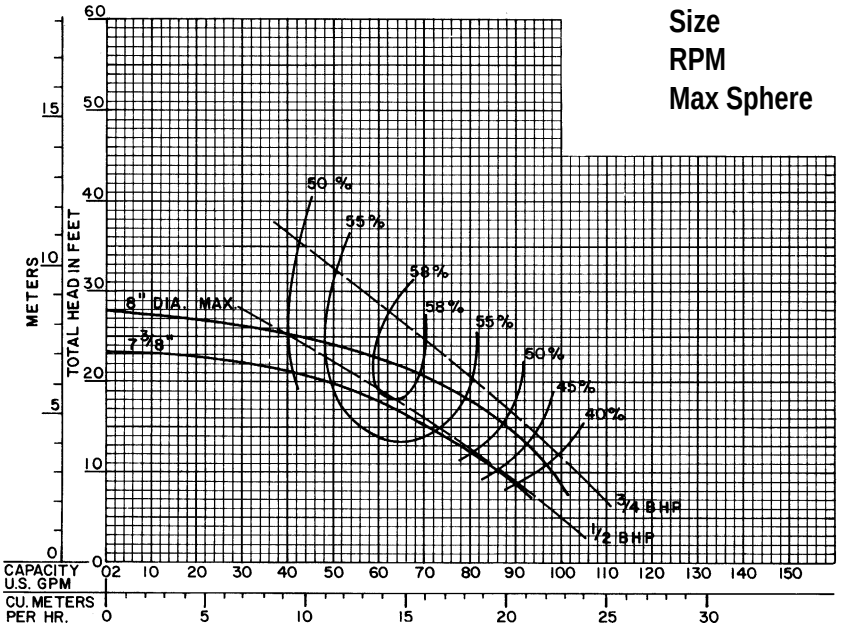
Curve BS-1615

Series	**600**
Size	**2 X 1 1/2 X 8**
RPM	**1750**
Max Sphere	**7/16**



Curve CS-1615

Series	**600**
Size	**2 X 1 1/2 X 8**
RPM	**1150**
Max Sphere	**7/16**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

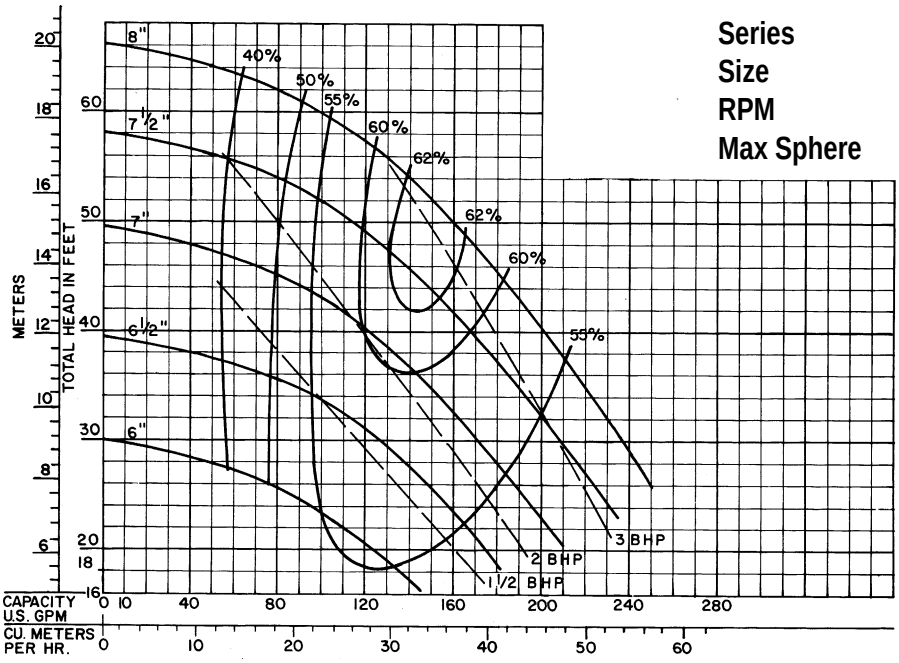
ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

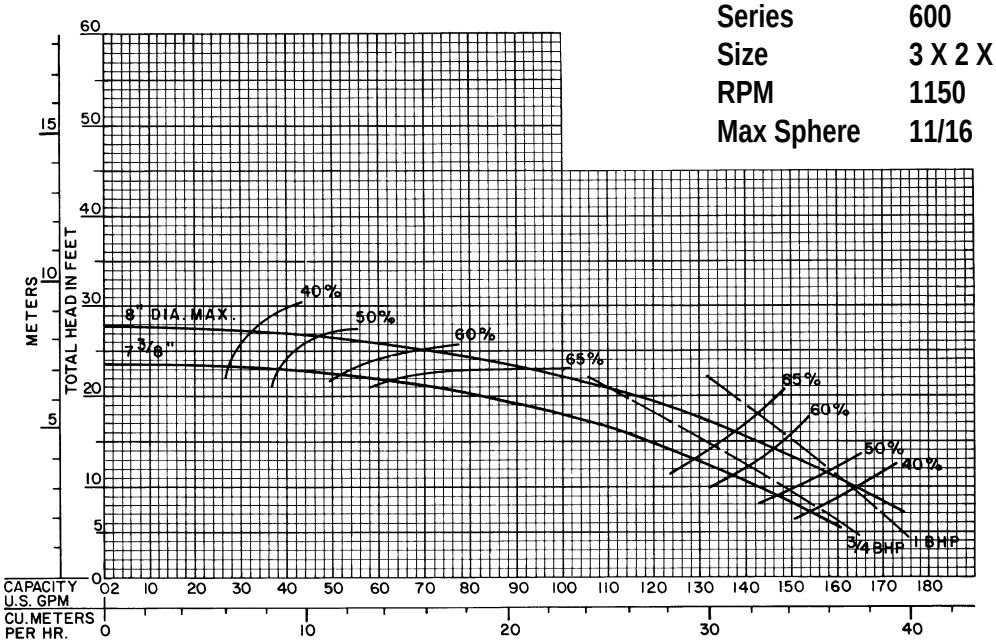
VERTIFLO PUMP COMPANY Performance Curves

Curve CS-1620



Series	**600**
Size	**3 X 2 X 8**
RPM	**1750**
Max Sphere	**11/16**

Curve DS-1620



Series	**600**
Size	**3 X 2 X 8**
RPM	**1150**
Max Sphere	**11/16**

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

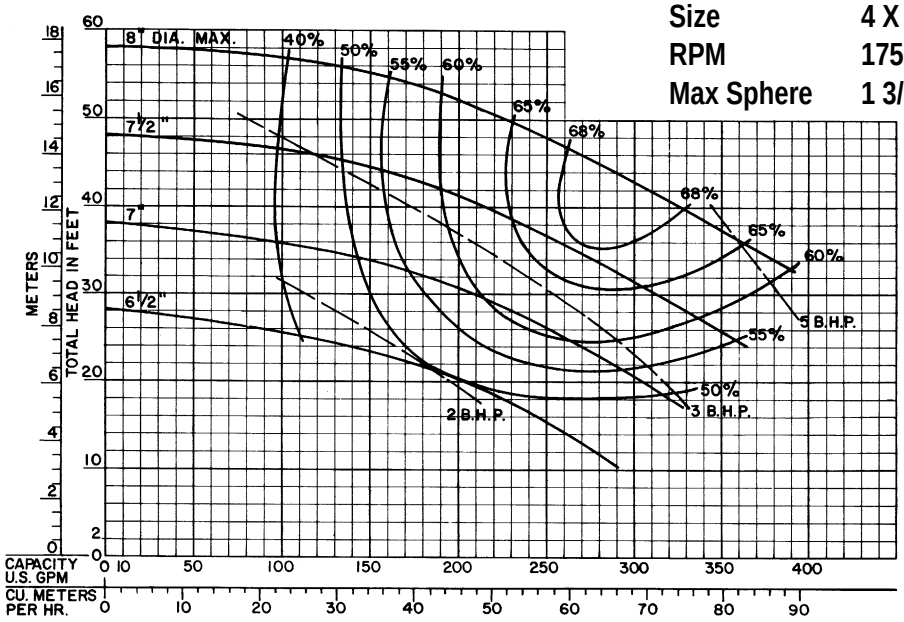
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

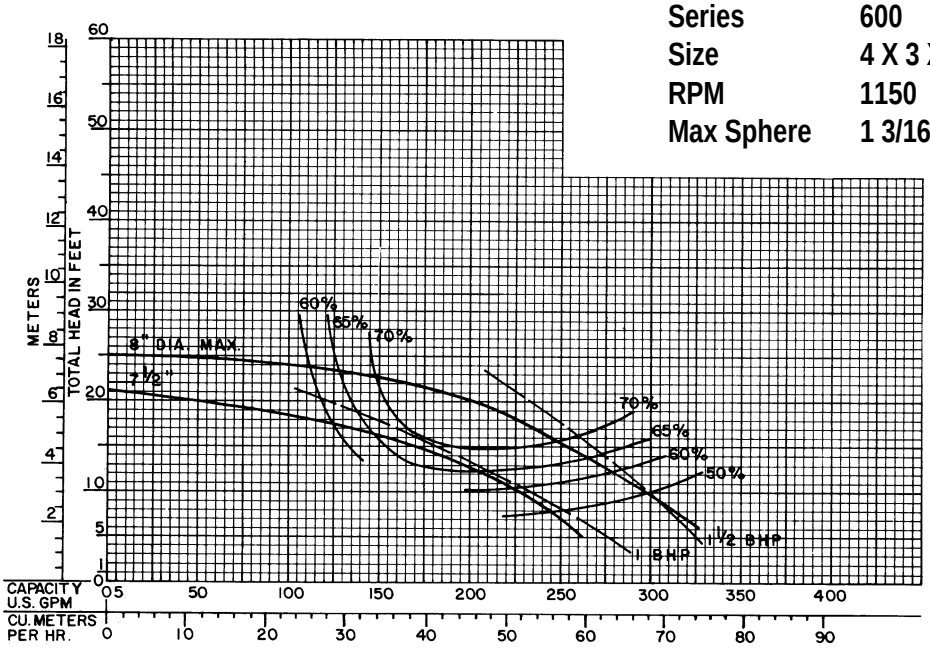
Curve CS-1630

Series	**600**
Size	**4 X 3 X 8**
RPM	**1750**
Max Sphere	**1 3/16**



Curve DS-1630

Series	**600**
Size	**4 X 3 X 8**
RPM	**1150**
Max Sphere	**1 3/16**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

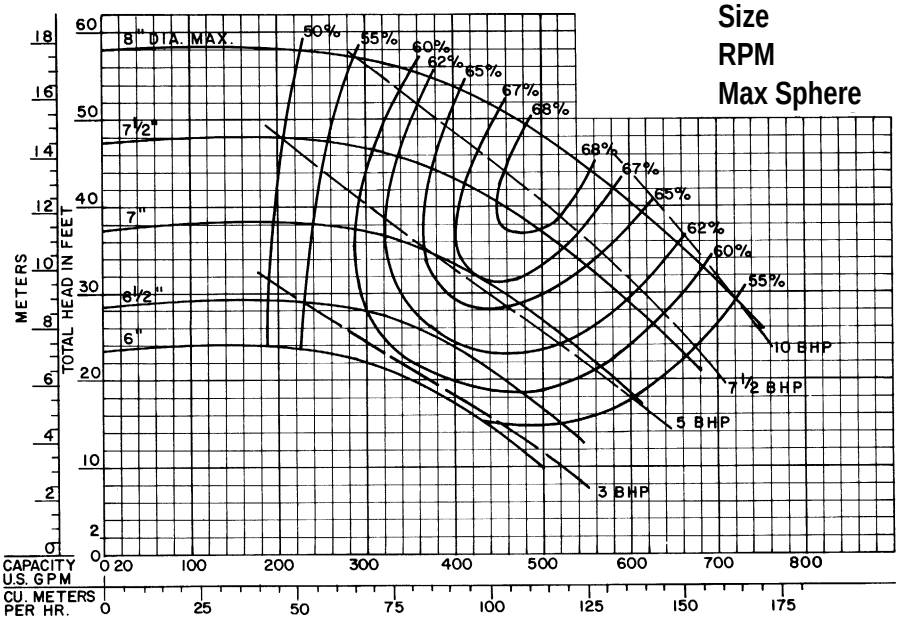
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

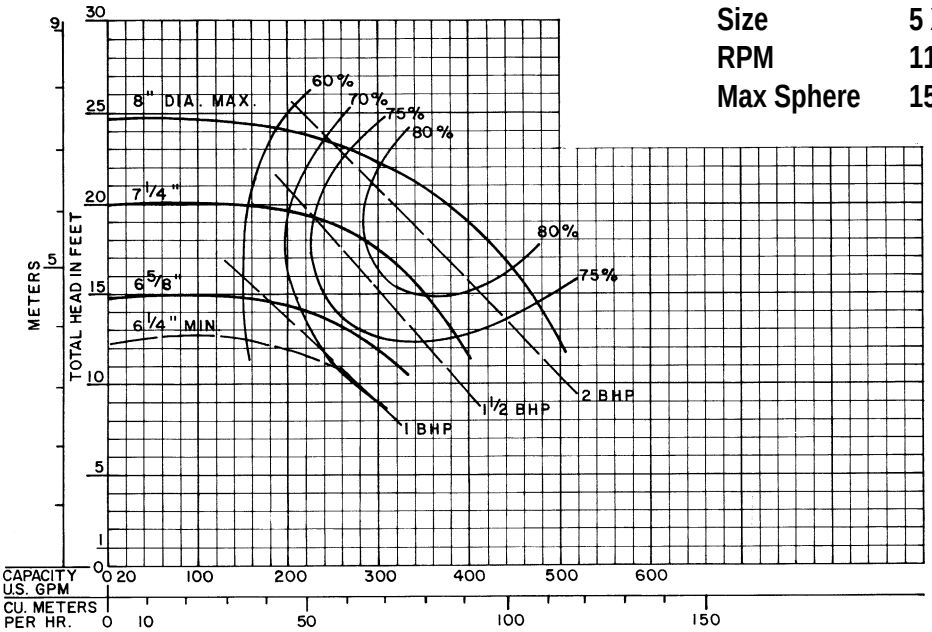
Curve ES-1640

Series	**600**
Size	**5 X 4 X 8**
RPM	**1750**
Max Sphere	**15/16**



Curve DS-1640

Series	**600**
Size	**5 X 4 X 8**
RPM	**1150**
Max Sphere	**15/16**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

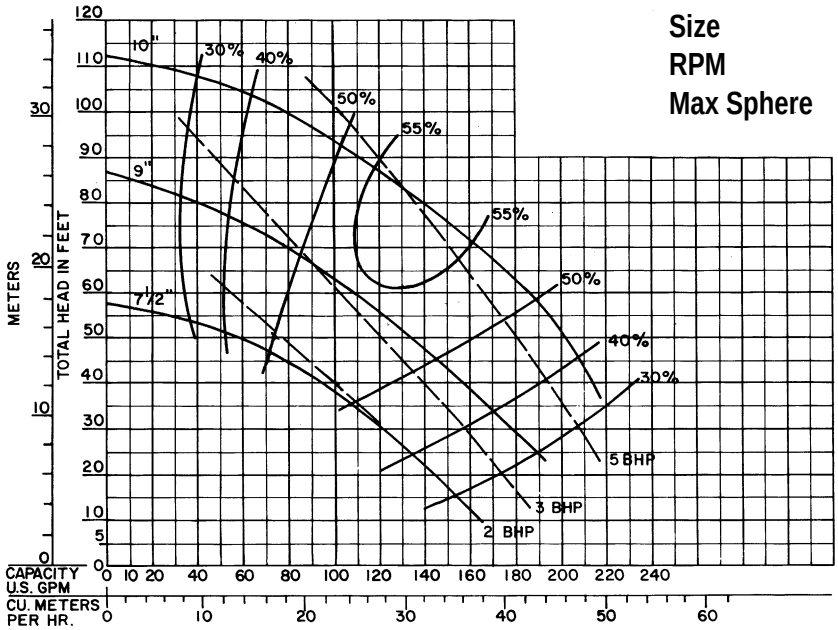
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

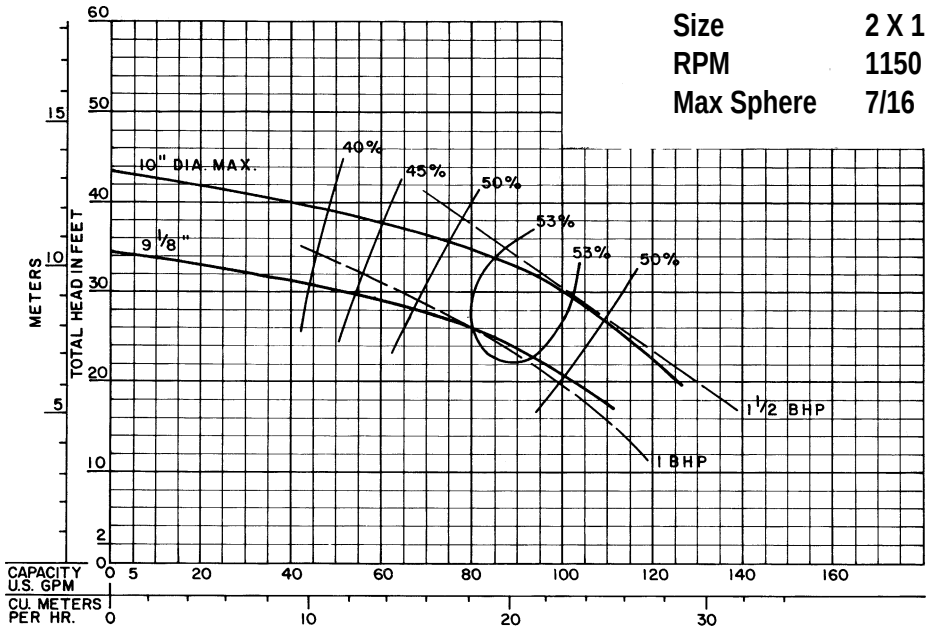
Curve SM-1915

Series	**600**
Size	**2 X 1 1/2 X 10**
RPM	**1750**
Max Sphere	**7/16**



Curve TM-1915

Series	**600**
Size	**2 X 1 1/2 X 10**
RPM	**1150**
Max Sphere	**7/16**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

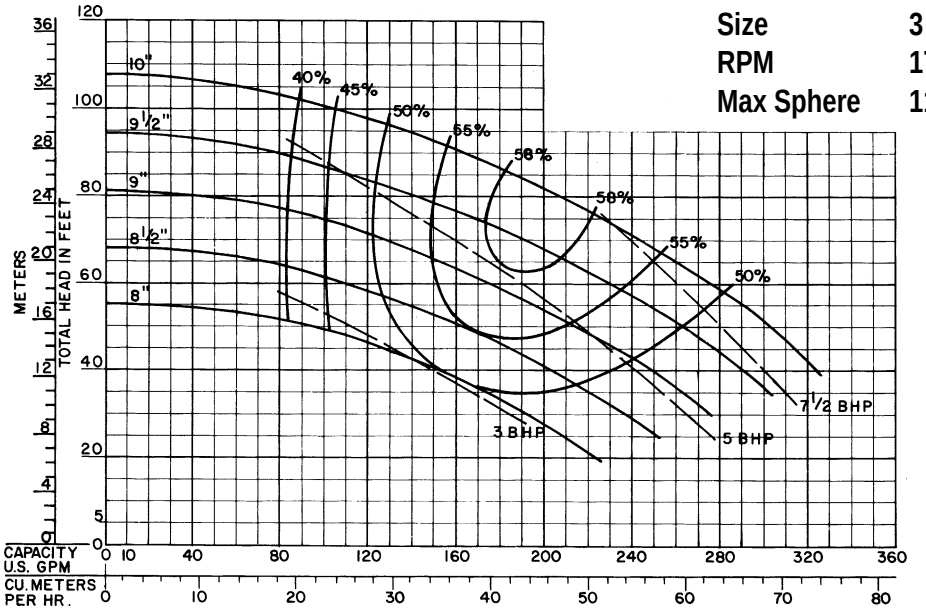
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

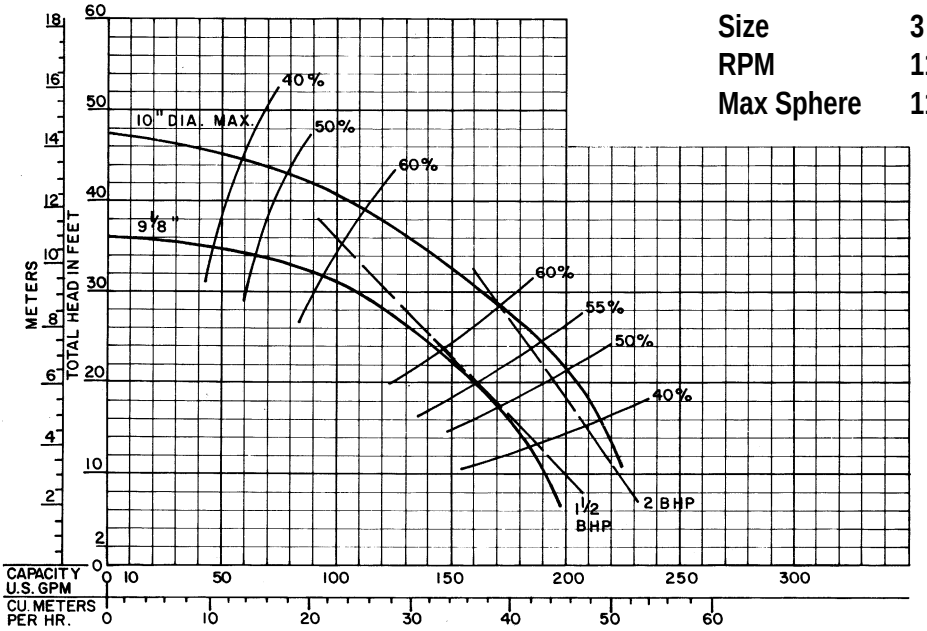
Curve JM-1720

Series	**600**
Size	**3 X 2 X 10**
RPM	**1750**
Max Sphere	**11/16**



Curve KM-1720

Series	**600**
Size	**3 X 2 X 10**
RPM	**1150**
Max Sphere	**11/16**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

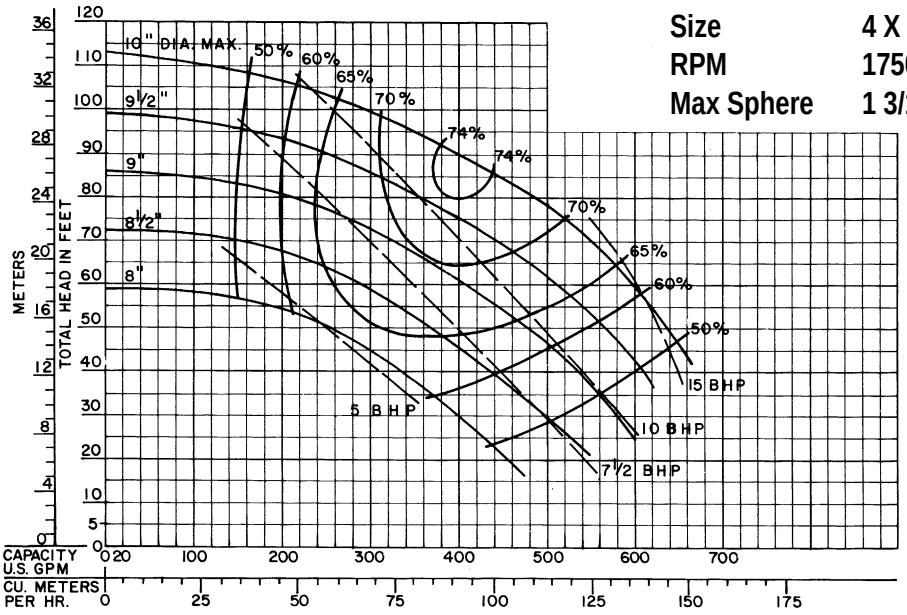
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

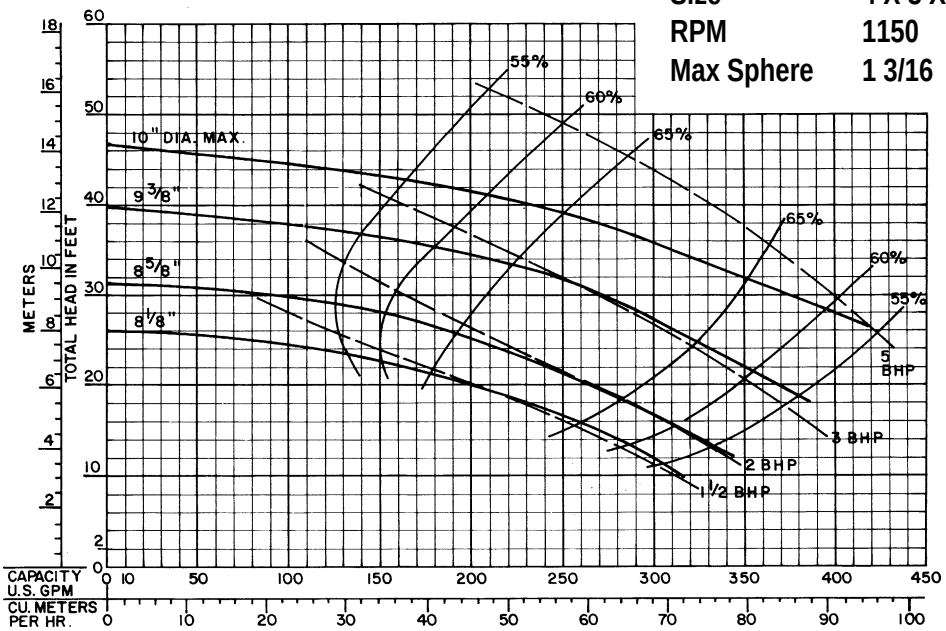
Curve RM-1730

Series	**600**
Size	**4 X 3 X 10**
RPM	**1750**
Max Sphere	**1 3/16**



Curve SM-1730

Series	**600**
Size	**4 X 3 X 10**
RPM	**1150**
Max Sphere	**1 3/16**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

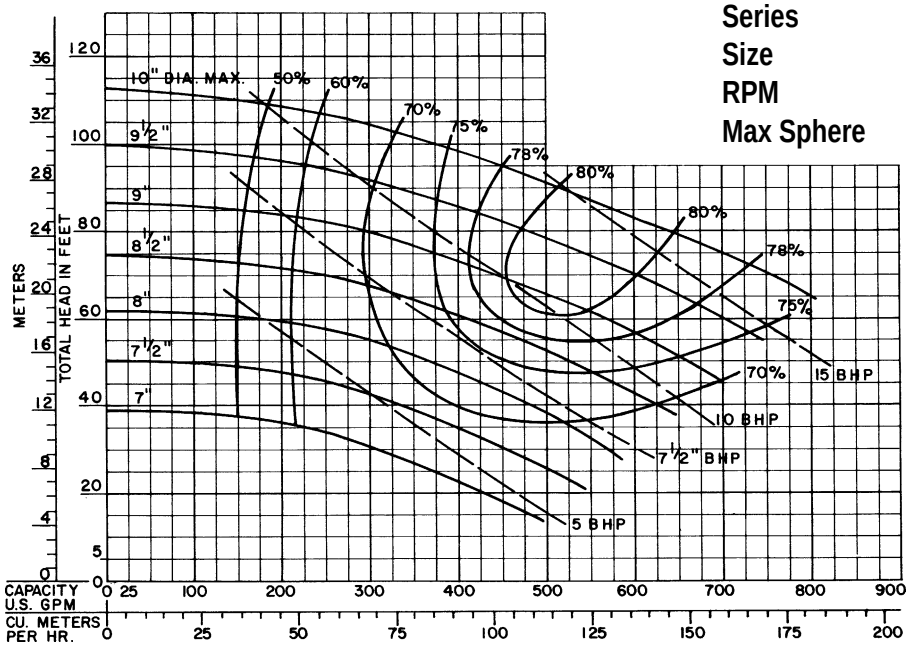
ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

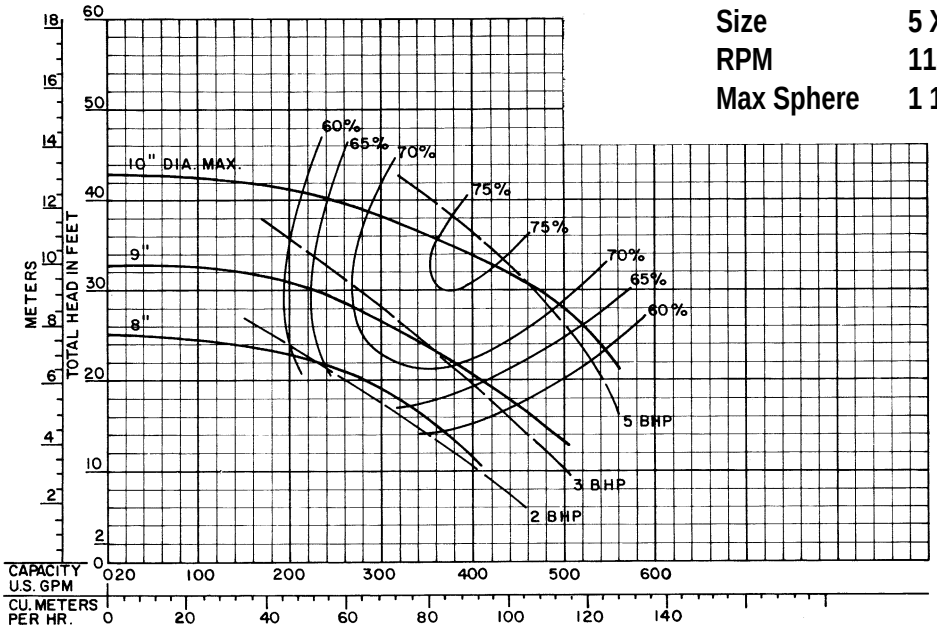
VERTIFLO PUMP COMPANY Performance Curves

Curve TM-1740



Series	**600**
Size	**5 X 4 X 10**
RPM	**1750**
Max Sphere	**1 1/2**

Curve UM-1740



Series	**600**
Size	**5 X 4 X 10**
RPM	**1150**
Max Sphere	**1 1/2**

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

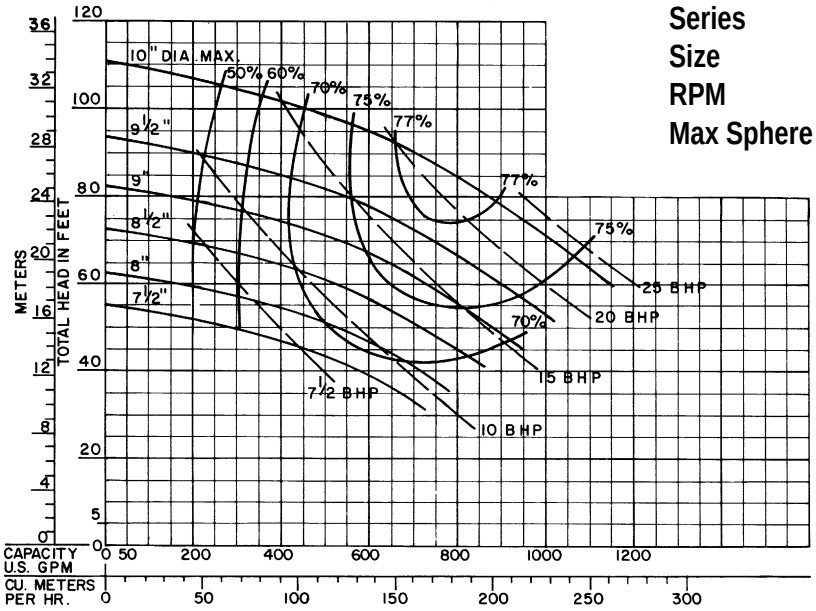
ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

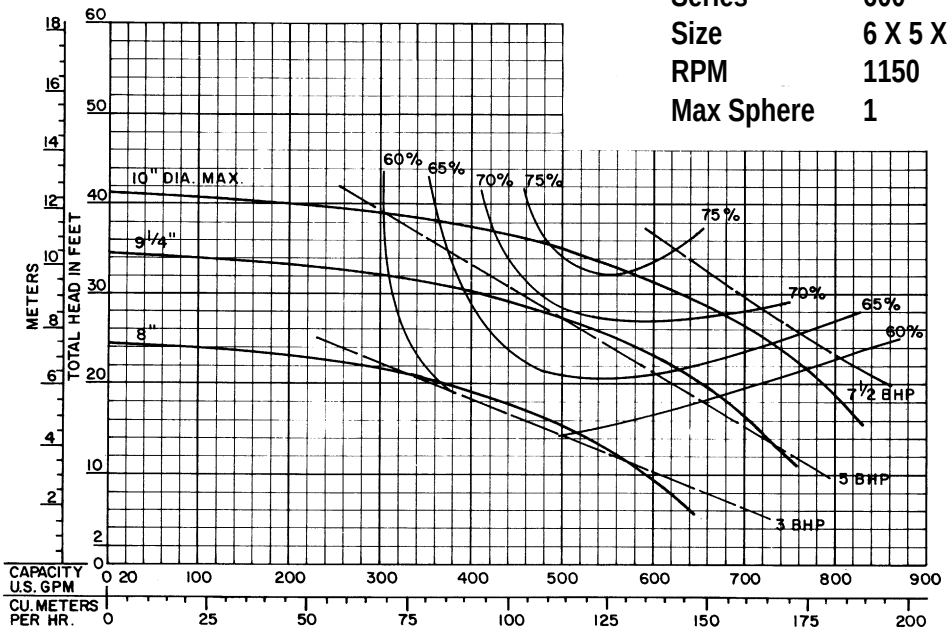
VERTIFLO PUMP COMPANY Performance Curves

Curve UM-1750



Series	**600**
Size	**6 X 5 X 10**
RPM	**1750**
Max Sphere	**1**

Curve VM-1750



Series	**600**
Size	**6 X 5 X 10**
RPM	**1150**
Max Sphere	**1**

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

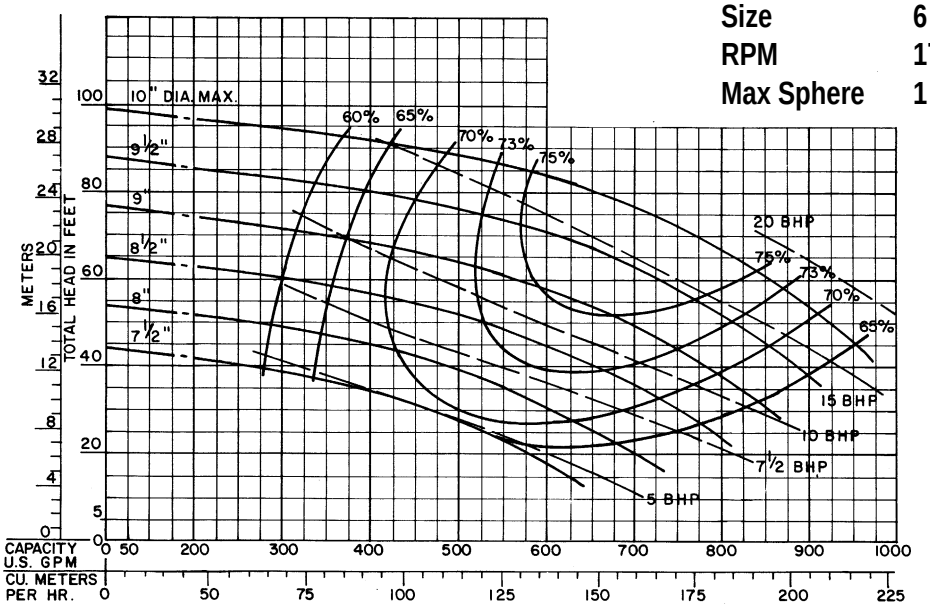
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

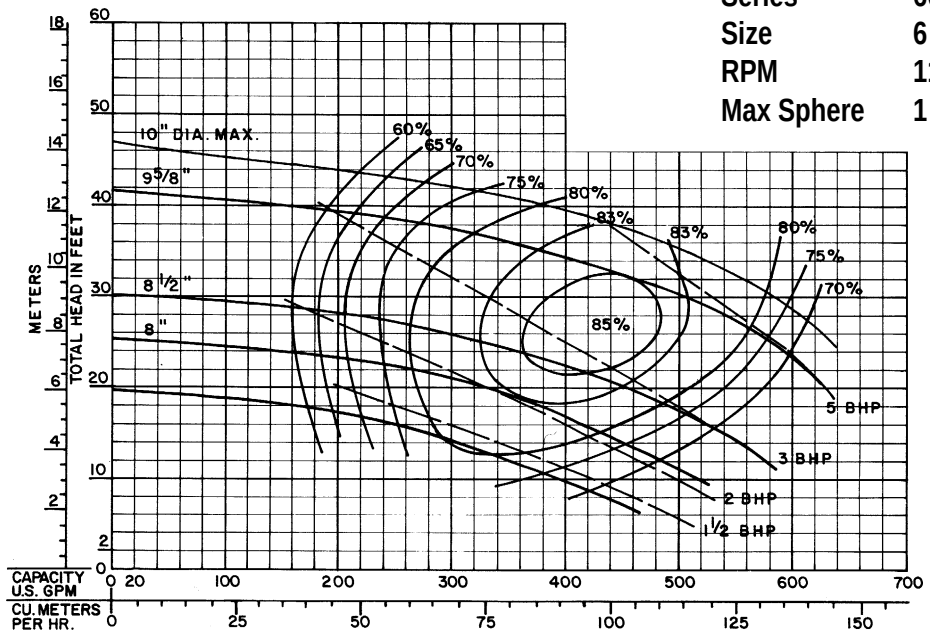
Curve SM-1750

Series	**600**
Size	**6 X 5 X 10A**
RPM	**1750**
Max Sphere	**1 1/2**



Curve SM-1850

Series	**600**
Size	**6 X 5 X 10A**
RPM	**1150**
Max Sphere	**1 1/2**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

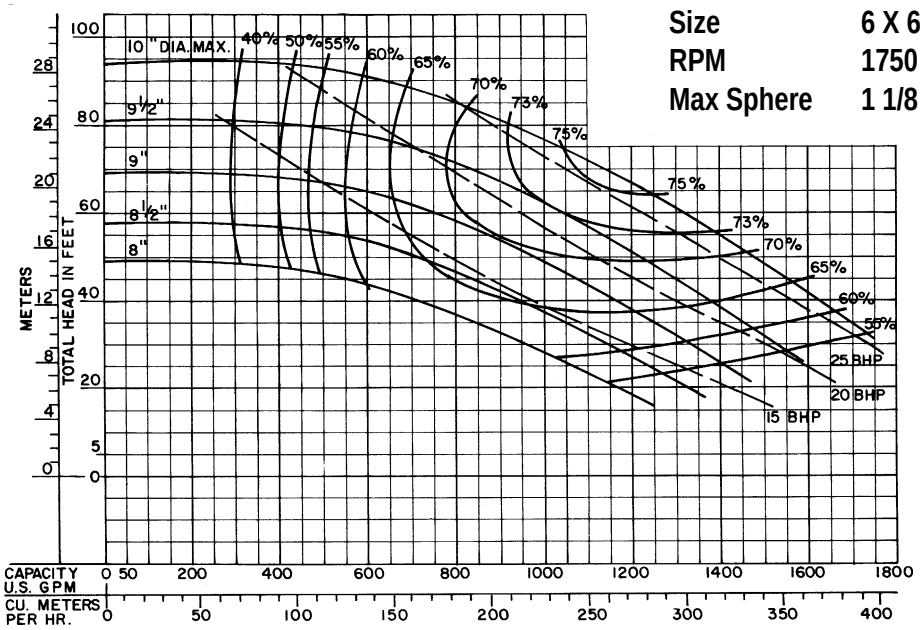
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

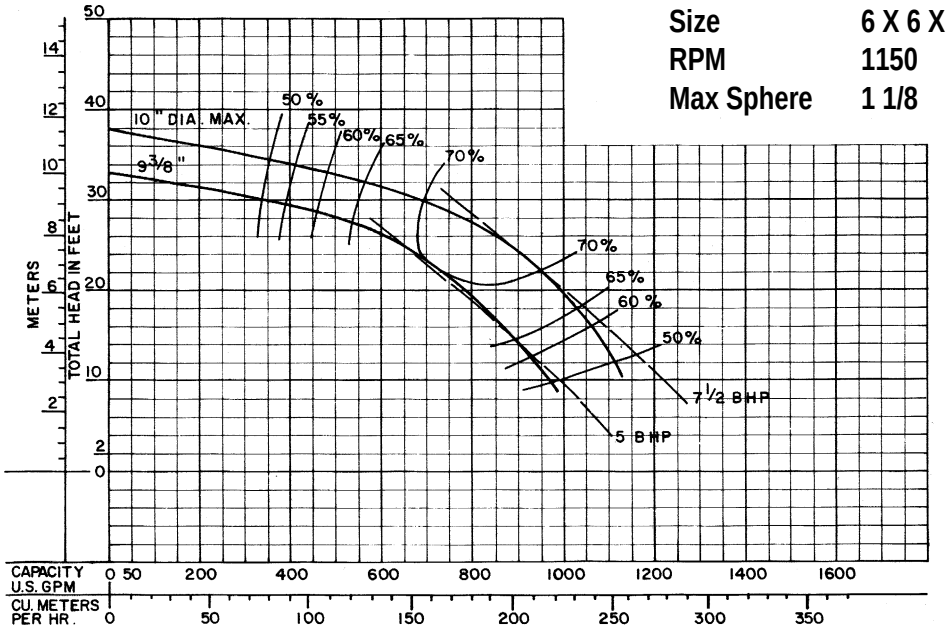
Curve TM-1760

Series	**600**
Size	**6 X 6 X 10**
RPM	**1750**
Max Sphere	**1 1/8**



Curve TM-1860

Series	**600**
Size	**6 X 6 X 10**
RPM	**1150**
Max Sphere	**1 1/8**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

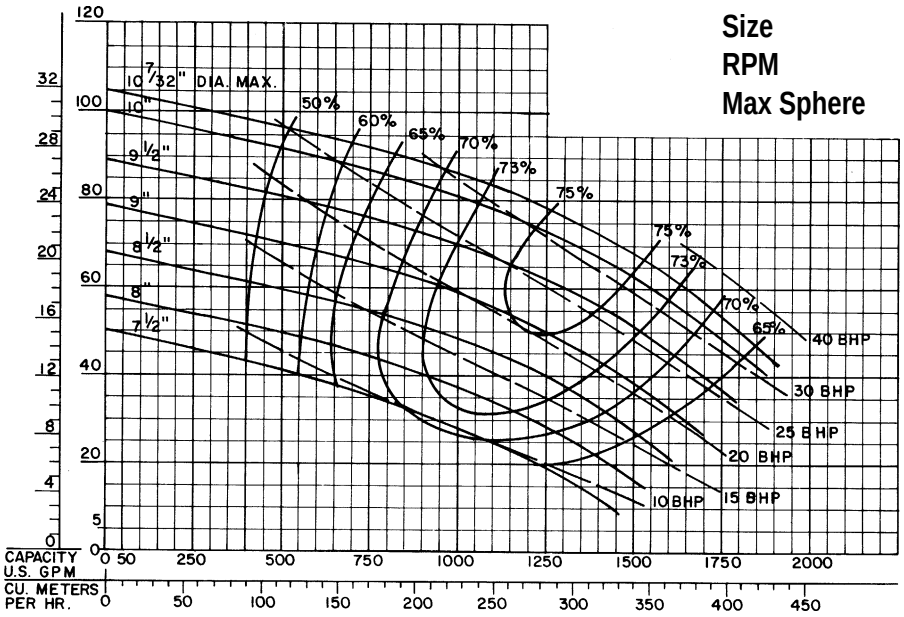
ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

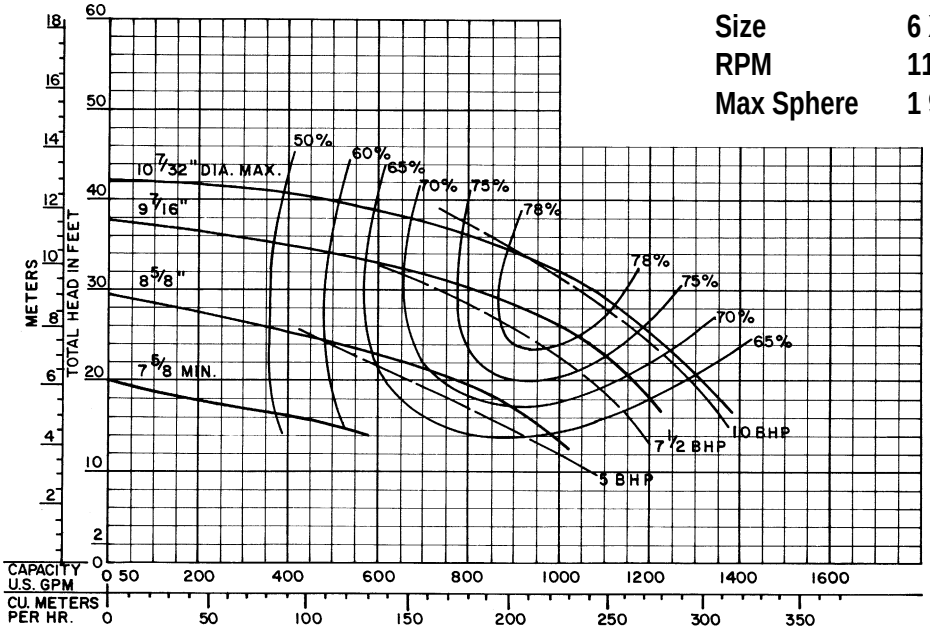
Curve LM-1760

Series	**600**
Size	**6 X 6 X 10A**
RPM	**1750**
Max Sphere	**1 9/16**



Curve LM-1860

Series	**600**
Size	**6 X 6 X 10A**
RPM	**1150**
Max Sphere	**1 9/16**



600

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

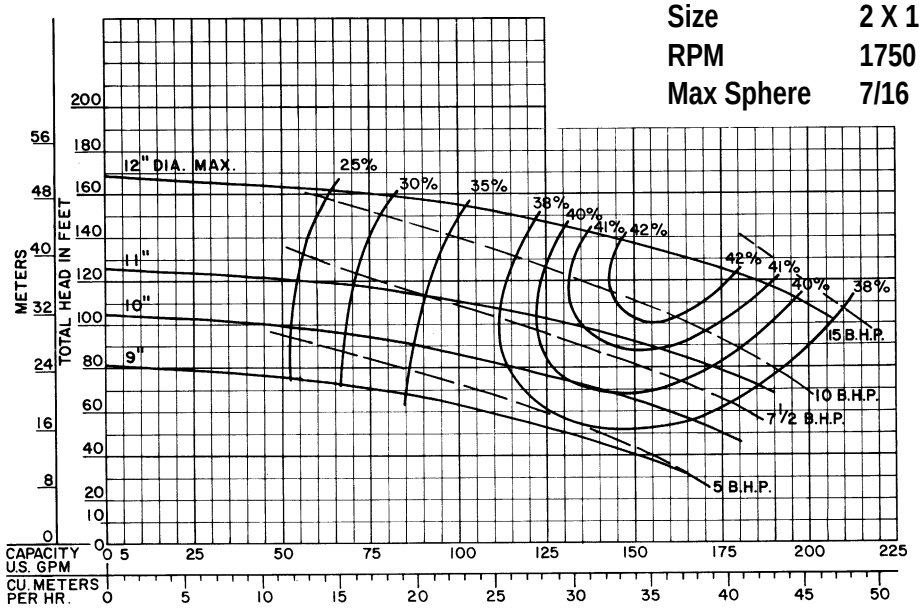
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

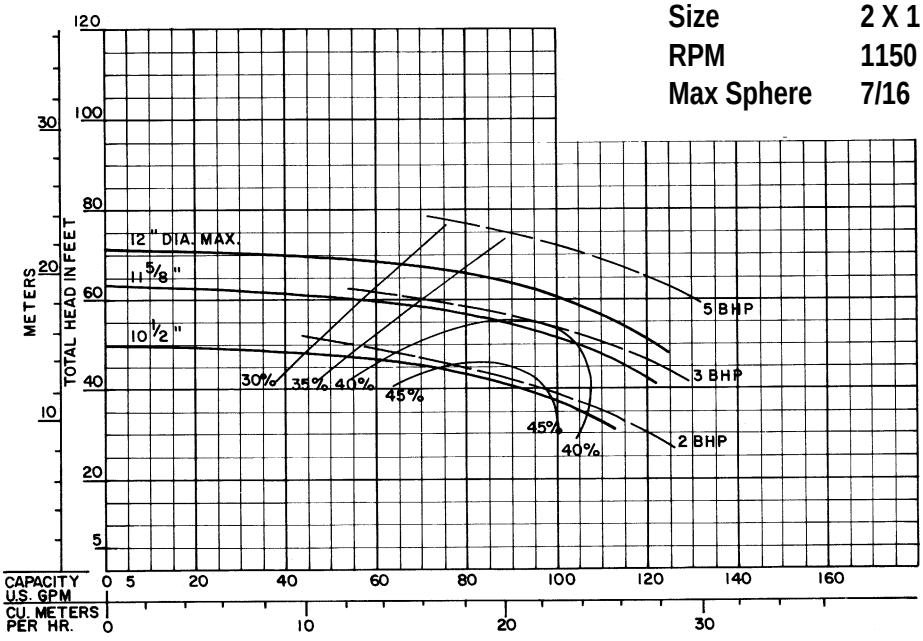
Curve KL-1915

Series	**600**
Size	**2 X 1 1/2 X 12**
RPM	**1750**
Max Sphere	**7/16**



Curve LL-1915

Series	**600**
Size	**2 X 1 1/2 X 12**
RPM	**1150**
Max Sphere	**7/16**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

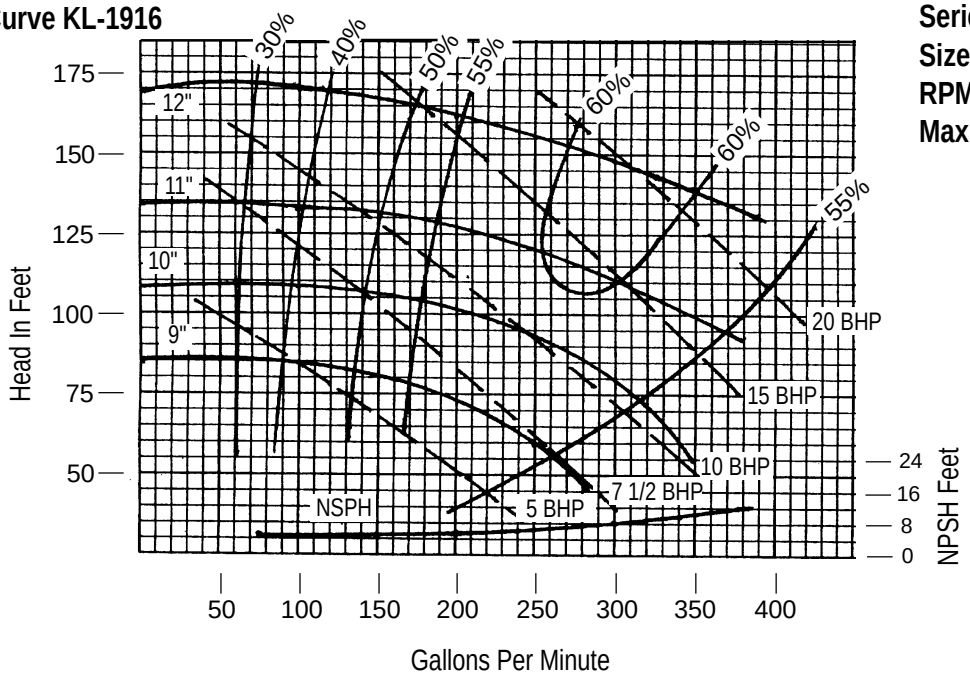
ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

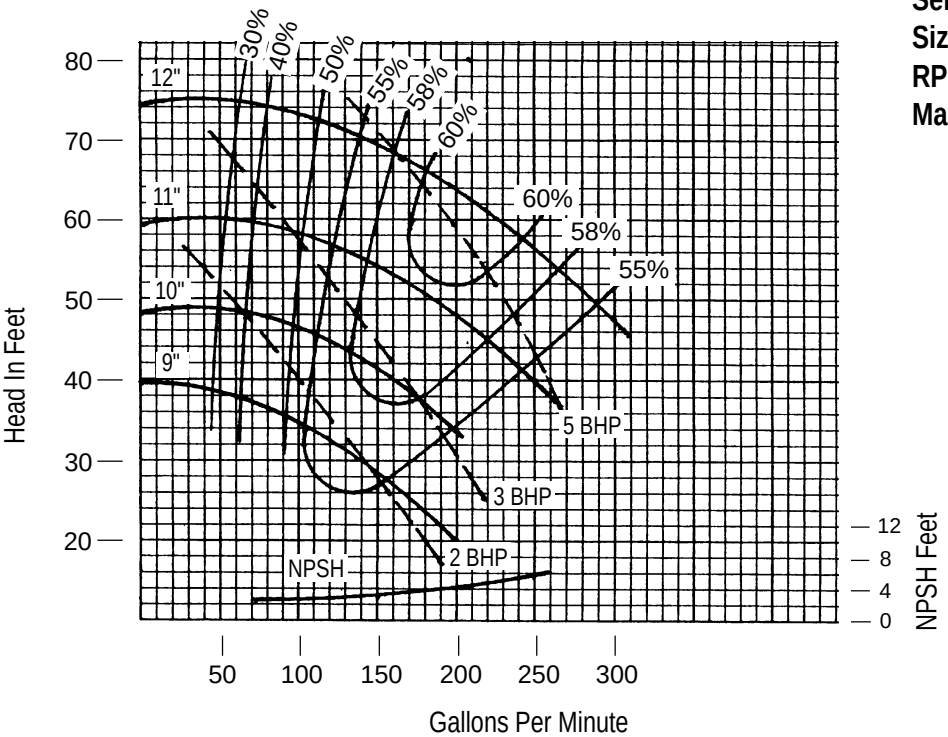
VERTIFLO PUMP COMPANY Performance Curves

Curve KL-1916



Series	**600**
Size	**3 X 2 X 12**
RPM	**1750**
Max Sphere	**3/4**

Curve LL-1916



Series	**600**
Size	**3 X 2 X 12**
RPM	**1150**
Max Sphere	**3/4**

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

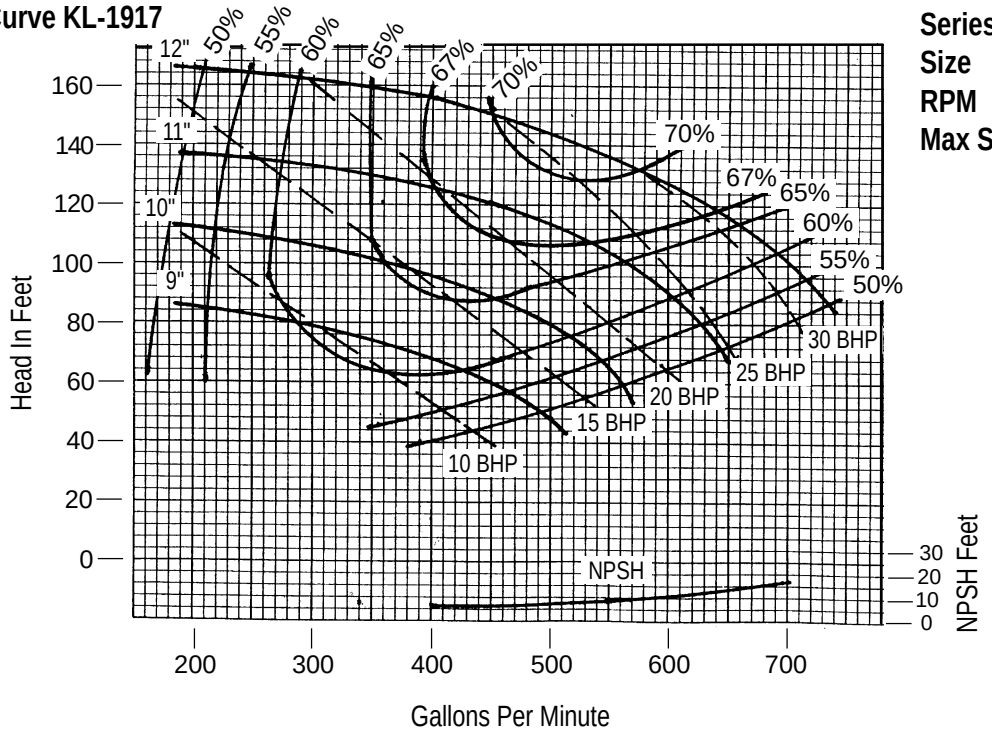
ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

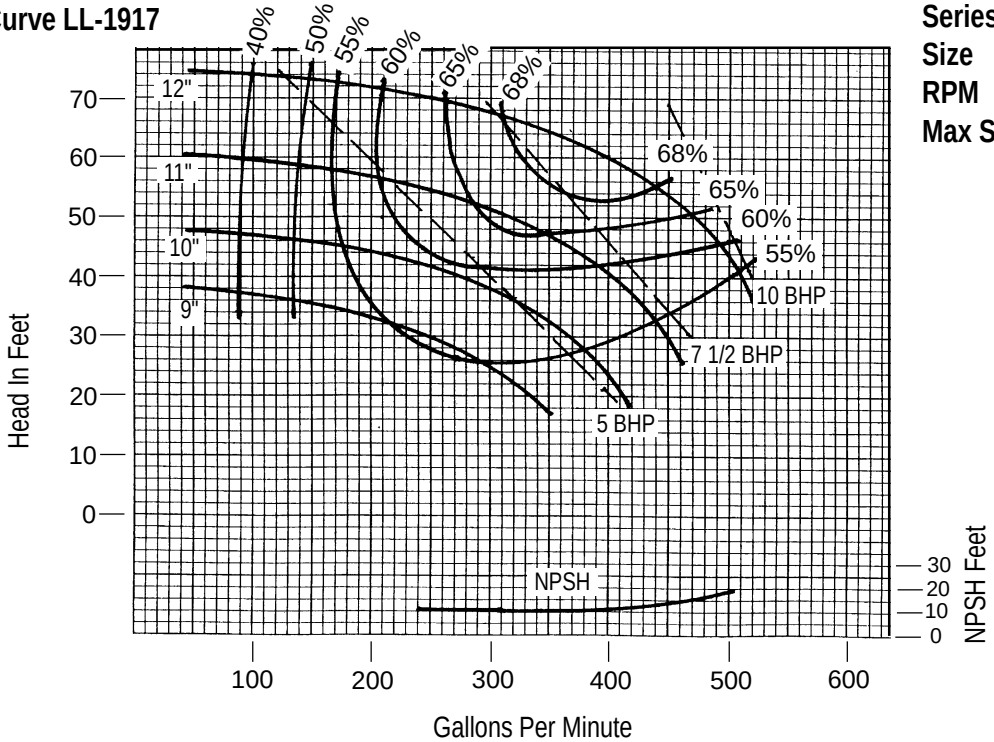
VERTIFLO PUMP COMPANY Performance Curves

Curve KL-1917



Series	**600**
Size	**4 X 3 X 12**
RPM	**1750**
Max Sphere	**1 1/4**

Curve LL-1917



Series	**600**
Size	**4 X 3 X 12**
RPM	**1150**
Max Sphere	**1 1/4**

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

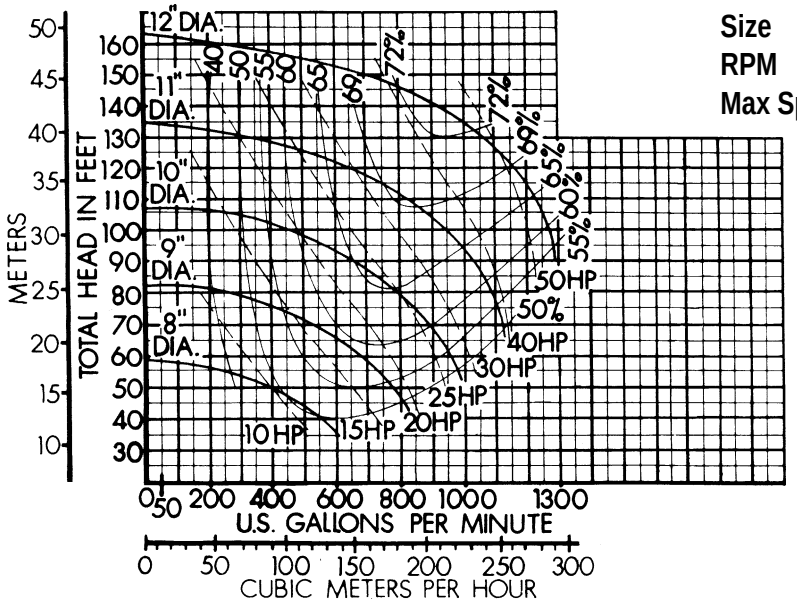
ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

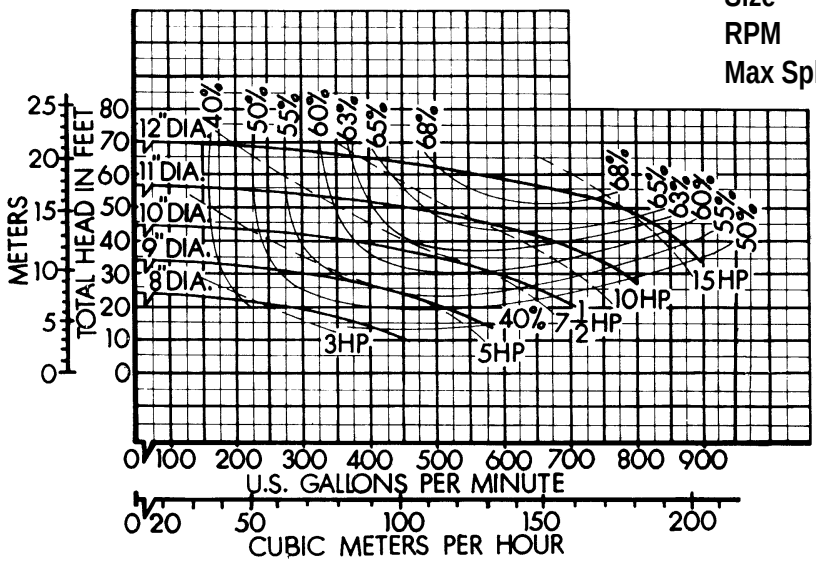
VERTIFLO PUMP COMPANY Performance Curves

Curve 64124



Series	**600**
Size	**6 X 4 X 12**
RPM	**1750**
Max Sphere	**1 1/2**

Curve 64126



Series	**600**
Size	**6 X 4 X 12**
RPM	**1150**
Max Sphere	**1 1/2**

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

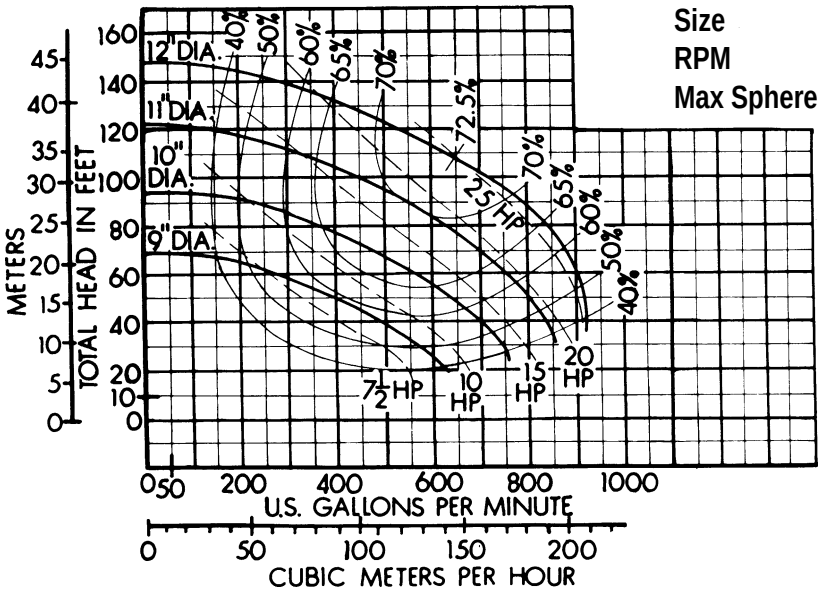
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

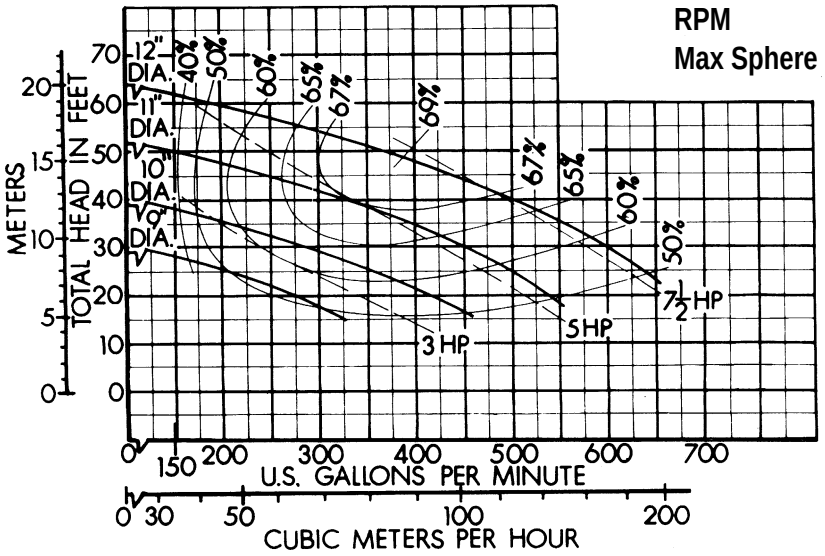
Curve 6412A4

Series	**600**
Size	**6 X 4 X 12A**
RPM	**1750**
Max Sphere	**1 1/8**



Curve 6412A6

Series	**600**
Size	**6 X 4 X 12A**
RPM	**1150**
Max Sphere	**1 1/8**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

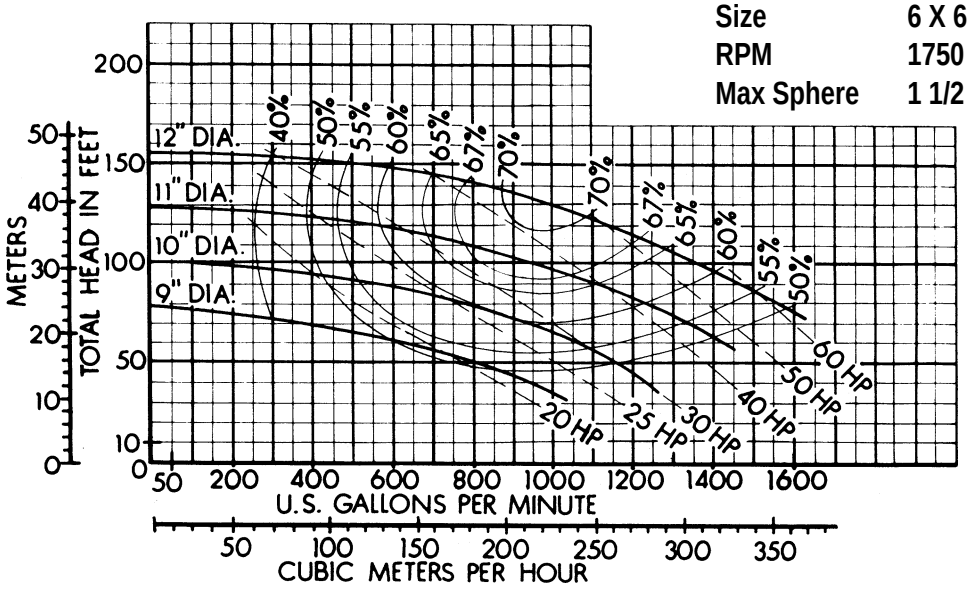
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

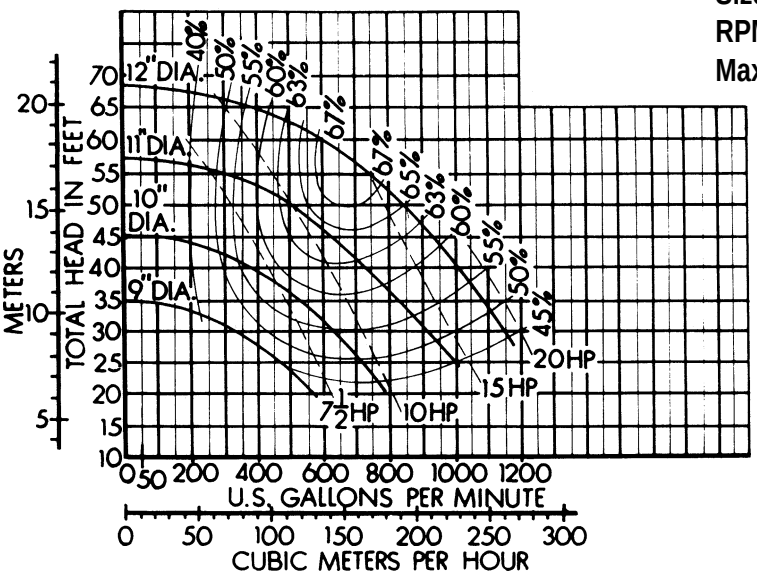
Curve 66124

Series	**600**
Size	**6 X 6 X 12**
RPM	**1750**
Max Sphere	**1 1/2**



Curve 66126

Series	**600**
Size	**6 X 6 X 12**
RPM	**1150**
Max Sphere	**1 1/2**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

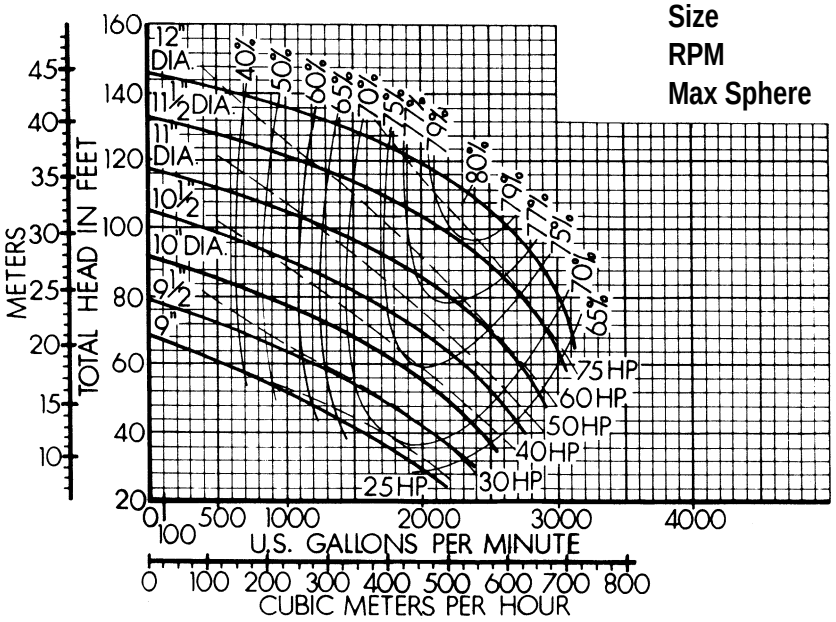
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

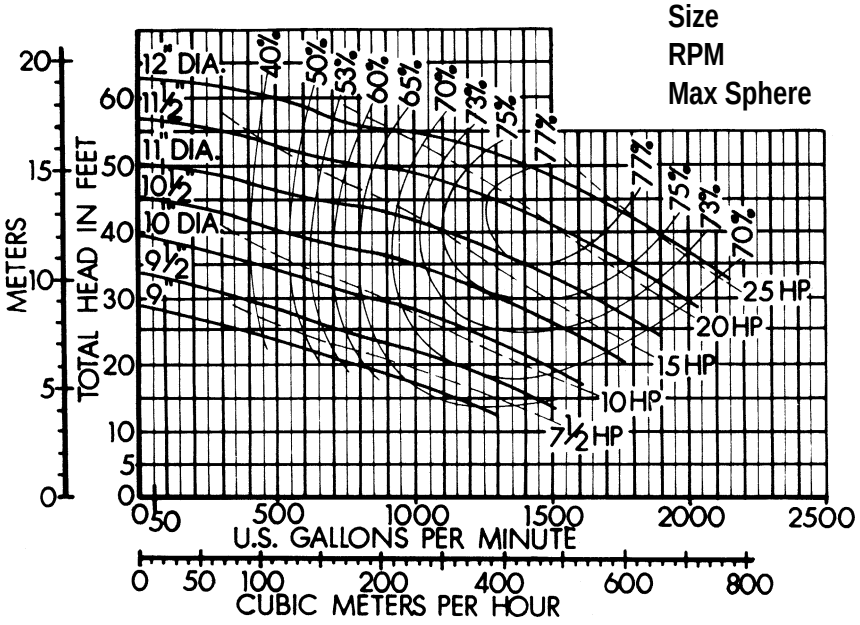
Curve 88124

Series	**600**
Size	**8 X 8 X 12**
RPM	**1750**
Max Sphere	**1 1/2**



Curve 88126

Series	**600**
Size	**8 X 8 X12**
RPM	**1150**
Max Sphere	**1 1/2**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

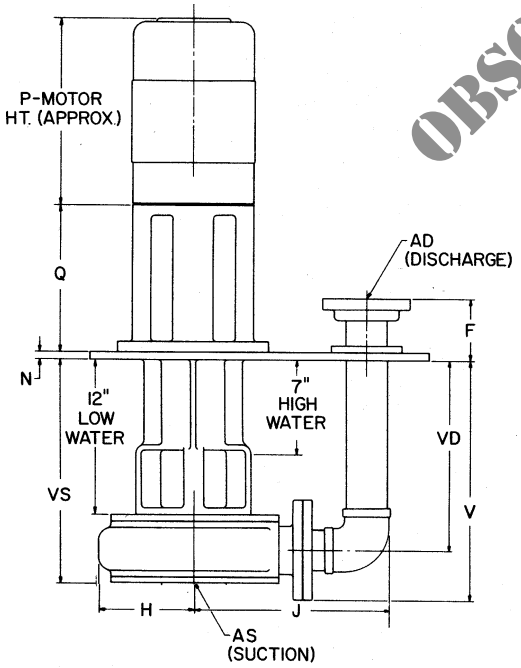
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Dimensions

624 - TCD Process Pump
"C" Face Motor w/Discharge Pipe

OBSOLETE

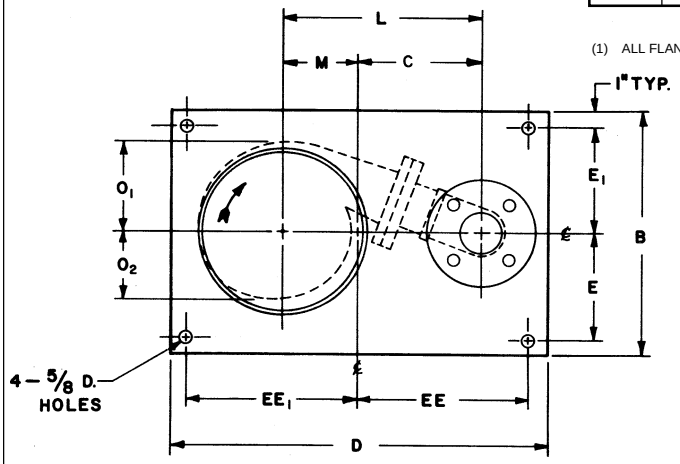


PUMP DATA

SIZE	(1) AD	(1) AS	B	D	E_1	EE_1	(2) F	H	(2) J	(2) L	(2) M	N	O_1	O_2	V	VD	VS	C
3x2½x7	2½ / 3	3	18	26	8	12	4 / 5	5⅝	13½ / 14¼	11⅝ / 12	3⅞ / 4⅞	½	6	5⅜	17⅝	14⅛	16½	7¾ / 7⅛
1½x1x8	1 / 1½	1½	18	26	8	12	3½ / 3½	5¼	10⅝ / 11⅛	9⅝ / 9⅞	3¼ / 3⅜	½	5½	5¼	15¾	13⅝	15¼	6⅜ / 6½
1½x1¼x8	1½ / 2	1½	18	26	8	12	3½ / 4	5⅜	11¼ / 11⅞	10 / 10⅜	3¼ / 3⅜	½	5⅝	5¼	16	13⅝	15½	6¾ / 7
2x1½x8	1½ / 2	2	18	26	8	12	3½ / 4	5½	11¼ / 11⅞	10 / 10⅜	3¼ / 3⅜	½	5⅞	5¼	16⅛	13⅝	15¾	6¾ / 7
3x2x8	2 / 3	2½	18	26	8	12	4 / 4	5⅞	12⅝ / 14⅛	11⅛ / 11⅞	3⅜ / 4⅛	½	6¼	5½	16¾	13¾	16	7¾
4x3x8	3 / 4	4	18	26	8	12	5 / 4½	6⅛	15⅝ / 16⅝	13⅜ / 13⅞	6⅛ / 6⅝	½	6⅝	5¾	17⅞	14⅛	16⅞	7¼
5x4x8	4 / 5	5	21	30	9½	14	5½ / 5½	7¼	17¼ / 18⅜	14½ / 15	5¾ / 6¼	½	8¼	6⅜	18⅞	14⅜	17¼	8¾
2x1½x10	1½ / 2	2	18	26	8	12	3½ / 4	6⅝	12½ / 13	11¼ / 11½	3½ / 3¾	½	6¾	6⅜	16⅛	13⅝	15⅝	7¾
3x2x10	2 / 3	3	18	26	8	12	4 / 4	6⅞	13⅞ / 15⅛	12⅜ / 12⅞	4⅝ / 5⅛	½	7¼	6½	16¾	13¾	16	7¾
4x3x10	3 / 4	4	21	30	9½	14	5 / 4½	7¼	17¼ / 18¼	15 / 15½	6⅜ / 7	½	7¾	6⅝	17¾	14	16½	8½
5x4x10	4 / 5	5	24	36	11	17	5½ / 5½	7¾	19¼ / 20⅜	16½ / 17	7¼ / 7¾	⅝	8⅜	7½	18¾	14¼	17	9¼
6x5x10 / 6x5x10A	5 / 6	6	24	36	11	17	5½ / 5½	8⅝	20⅞ / 22⅞	17½ / 18	8¼ / 8¾	⅝	9⅝	7½	19¼	14¼	17⅛	9¼
6x6x10 / 6x6x10A	6 / 8	6	28	42	13	20	5½ / 5½	10¼	22½ / 25	18½ / 19⅝	8⅜ / 8¾	⅝	11⅝	8¾	20	14½	17⅜	10¼ / 10⅞
2x1½x12	1½ / 2	2	20	26	9	12	3½ / 4	8	13⅞ / 14½	12 / 13	3½ / 3⅛	½	8⅜	7⅞	16	13½	17¼	9⅛ / 9⅞

(1) ALL FLANGES ARE 125# ANSI

(2) DIMENSIONS VARIES DUE TO THREADED FITTINGS



MOTOR DATA

FRAME	P	Q
56 C	12½	9⅞
143 TC - 145 TC	12½	9⅞
182 TC - 184 TC	13½	11⅜
213 TC - 215 TC	17	11⅜
254 TC - 256 TC	22	11⅜
284 TC - 286 TC	24	12
324 TSC - 326 TSC	26	12⅞

Not for construction unless certified, some dimensions may vary ± 1/2". Pump Construction:_____

CUSTOMER_____ CUSTOMER NO._____
PROJECT_____ SERIAL NO._____
ENGINEER_____ LOCATION_____
CONTRACTOR_____

PUMP DATA	Model	Size	Curve No.	GPM	Head	SP. GR.@Temp.
	_____	_____	_____	_____	_____	_____

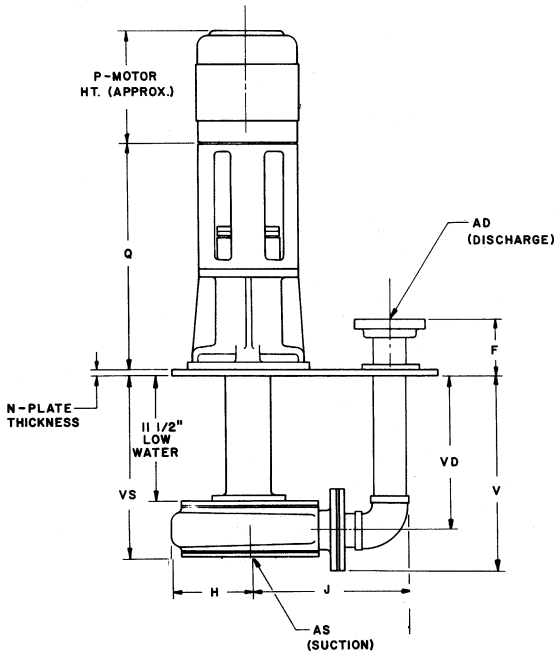
MOTOR DATA	Mfgr.	HP	RPM	Volt-Phase-Cycle	Frame	ENC.	Furnished by	Mounted by
	_____	_____	_____	_____	_____	_____	_____	_____

Shop Order_____ Certified by_____ Date_____

600

VERTIFLO PUMP COMPANY Dimensions

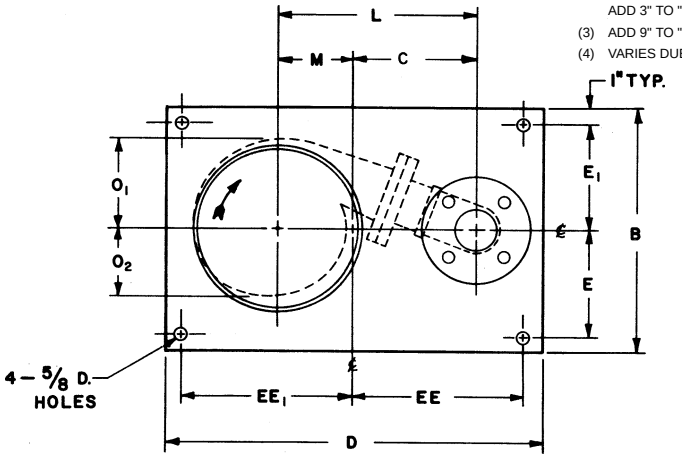
629 - TCD Process Pump
"C" Face Motor w/Discharge Pipe



PUMP DATA

SIZE	(1) AD	(1) AS	B	D	E_1	EE_1	(4) F	(4) H	(4) J	(4) L	M	N	O_1	O_2	(3) (2) V	(3) (2) VD	(3) (2) VS	C
3x2½x7	2½	3	18	26	8	12	4	5⅝	13½	11⅝	3⅞	½	6	5⅜	17⅝	14⅛	16½	7¾
	3						5		14½	12	4⅞							7⅛
1½x1x8	1	1½	18	26	8	12	3½	5¼	10⅝	9⅝	3¼	½	5½	5¼	15¾	13⅝	15¼	6⅜
	1½						3½		11⅛	9⅞	3⅜							6½
1½x1¼x8	1½	1½	18	26	8	12	3½	5⅜	11¼	10	3¼	½	5⅝	5¼	16	13⅝	15½	6¾
	2						4		11⅞	10⅜	3⅜							7
2x1½x8	1½	2	18	26	8	12	3½	5½	11¼	10	3¼	½	5⅞	5¼	16⅛	13⅝	15¾	6¾
	2						4		11⅞	10⅜	3⅜							7
3x2x8	2	2½	18	26	8	12	4	5⅞	12⅝	11⅛	3⅜	½	6¼	5½	16¾	13¾	16	7¾
	3						4		14⅛	11⅞	4⅛							
4x3x8	3	4	18	26	8	12	5	6⅛	15⅝	13⅜	6⅛	½	6⅝	5¾	17⅞	14⅛	16⅞	7¼
	4						4½		16⅝	13⅞	6⅝							
5x4x8	4	5	21	30	9½	14	5½	7¼	17¼	14½	5¾	½	8¼	6⅜	18⅞	14⅜	17¼	8¾
	5						5½		18⅜	15	6¼							
2x1½x10	1½	2	18	26	8	12	3½	6⅝	12½	11¼	3½	½	6¾	6⅜	16⅛	13⅝	15⅝	7¾
	2						4		13	11½	3¾							
3x2x10	2	3	18	26	8	12	4	6⅞	13⅞	12⅜	4⅝	½	7¼	6½	16¾	13¾	16	7¾
	3						4		15⅛	12⅞	5⅛							
4x3x10	3	4	21	30	9½	14	5	7¼	17¼	15	6½	½	7¾	6⅝	17¾	14	16½	8½
	4						4½		18¼	15½	7							
5x4x10	4	5	24	36	11	17	5½	7¾	19¼	16½	7¼	⅝	8⅜	7	18¾	14¼	17	9¼
	5						5½		20⅜	17	7¾							
6x5x10	5	6	24	36	11	17	5½	8⅝	20⅞	17½	8¼	⅝	9⅝	7½	19¼	14¼	17⅛	9¼
6x5x10A	6						5½		22	18	8¾							
6x6x10	6	6	28	42	13	20	5½	10¼	22½	18½	8⅜	⅝	11⅝	8¾	20	14½	17⅜	10⅛
6x6x10A	8						5½		25	19⅝	8¾							10⅞
2x1½x12	1½	2	20	26	9	12	3½	8	13⅞	12⅝	3½	½	8⅜	7⅞	16	13½	17¼	9⅛
	2						4		14½	13	3⅛							9⅞

(1) ALL FLANGES ARE 125# ANSI
(2) ALL DIMENSIONS FOR 12" EXTENSION
ADD 3" TO "V" DIMENSION FOR 15" EXTENSION
(3) ADD 9" TO "V" DIMENSION FOR 21" EXTENSION
(4) VARIES DUE TO THREADED FITTINGS



MOTOR DATA

FRAME	P	Q
56 C	12½	18⅞
143 TC	12⅛	18⅞
145 TC	12½	18⅞
182-184 TC	13½	20½
213 TC	15½	20½
215 TC	17	20½
254 TC	20⅛	20½
256 TC	21⅞	20½
284 TC	22⅜	21¼
286 TC	23⅞	21¼
324 TC	24¾	21¾
326 TC	26⅛	21¾
364 TC	26½	22⅜
365 TC	27½	22⅜

Not for construction unless certified, some dimensions may vary ± 1/2". Pump Construction:_____

CUSTOMER_____CUSTOMER NO._____
PROJECT_____SERIAL NO._____
ENGINEER_____LOCATION_____
CONTRACTOR_____

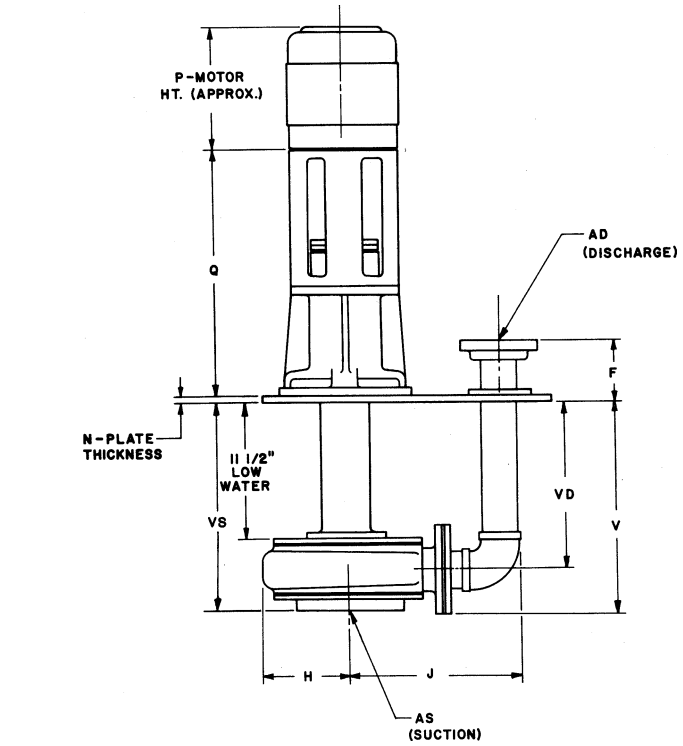
PUMP DATA	Model	Size	Curve No.	GPM	Head	SP. GR.@Temp.	Pump Length	Plate
	_____	_____	_____	_____	_____	_____	_____	_____

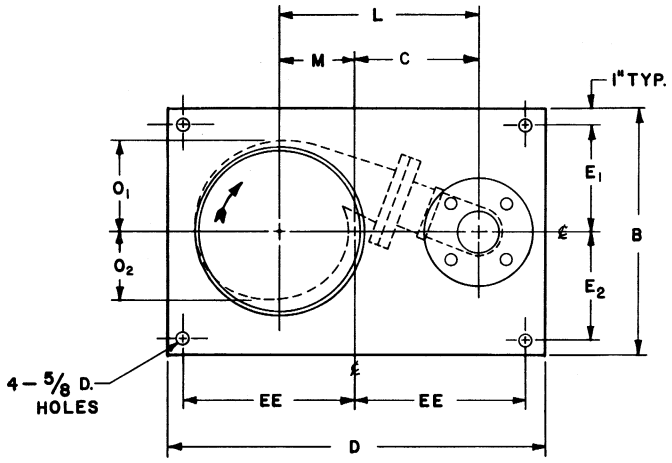
MOTOR DATA	Mfgr.	HP	RPM	Volt-Phase-Cycle	Frame	ENC.	Furnished by	Mounted by
	_____	_____	_____	_____	_____	_____	_____	_____

Shop Order_____Certified by_____Date_____

VERTIFLO PUMP COMPANY Dimensions

636 - TCP Process Pump
"C" Face Motor w/Discharge Pipe





PUMP DATA

SIZE	3x2x12		4x3x12		6x4x12 6x4x12A			6x6x12		8x8x12
AD	2	3	3	4	4	5	6	6	8	8
C	10½		10½		11⅞			12		15
AS	3		4		6			6		8
B	24		24		24			28		32
D	36		36		36			42		48
E_1	11		11		12			14		17
E_2	11		11		10			12		13
EE	17		17		17			20		23
(1)F	5		6		6			5½		6⅝
H	8		8½		9⅜			10¼		13
(1)J	15¾	17¼	18	19	17¾	21	22	22¾	25	28⅞
(1)L	14¼	15	15¾	16⅛	17	17½	18	18¾	19⅝	23
(1)M	3¾	4½	5¼	5⅝	5⅛	5⅝	6⅛	6¾	7⅝	8
N	⅝		⅝		⅝			⅝		⅝
O_1	7¾		9		10			11		14⅛
O_2	8⅜		8⅛		8⅝			9½		11
V	17	17¼	17¼	18	18⅛	18⅝	19⅛	19⅜	20⅝	20⅞
VD	14		13½		13⅝			13⅞		14⅛
VS	16¼		15⅞		16⅜			17⅛		18⅝

MOTOR DATA

FRAME	P	Q
56 C	12½	20½
143 TC	12⅛	20½
145 TC	12½	20½
182-184 TC	13½	20½
213 TC	15½	20½
215 TC	17	20½
254 TC	20⅛	20½
256 TC	21⅞	20½
284 TC	22⅜	21¼
286 TC	23⅞	21¼
324 TC	24¾	21¾
326 TC	26⅛	21¾
364 TC	26½	22⅜
365 TC	27½	22⅜

Not for construction unless certified, some dimensions may vary ± 1/2". Pump Construction:_____

CUSTOMER_____ CUSTOMER NO._____
PROJECT_____ SERIAL NO._____
ENGINEER_____ LOCATION_____
CONTRACTOR_____

PUMP DATA	Model	Size	Curve No.	GPM	Head	SP. GR.@Temp.	Pump Length	Plate
	_____	_____	_____	_____	_____	_____	_____	_____

MOTOR DATA	Mfgr.	HP	RPM	Volt-Phase-Cycle	Frame	ENC.	Furnished by	Mounted by
	_____	_____	_____	_____	_____	_____	_____	_____

Shop Order_____ Certified by_____ Date_____

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VERTIFLO

The Vertical Pump Specialists

PUMPS FOR INDUSTRY

CONTENTS:

0407

VERTIFLO SERIES 700
Quality Design Features Assure Long, Trouble-Free Service

WIDE RANGE OF APPLICATIONS:
- Industrial Wastes
- Sanitary Wastes
- Process Wastes
- Rendering Wastes
- Pollution Control

CAPABILITIES:
- Capacities to 1500 GPM
- Heads to 100 Feet
- Pit Depths to 26 Feet
- Construction: Cast Iron

CONSTRUCTION:

Standard
- Bronze bottom line shaft bearings
- Bronze intermediate bearings (pit depths over 6'-0")
- Fully enclosed 2 vane non-clog design with wiping vanes
- High-thrust angular contact ball bearing
- External impeller adjustment
- Grease lubricated pump and line shaft bearings
- 416 stainless steel shaft
- Round or square cover plates with vent and inspection openings
- Gas-tight construction
- Pump setting increments of 1'-0" for sump depths up to 26'-0"
- Flanged discharge on all casings
- Long radius discharge elbow
- Standard C face motors

Options
- Various line shaft bearing designs
- 316 stainless steel shafting
- Oval pump mounting plate
- Various float switch enclosures
- Various liquid level controls
- High water alarm
- Alarm bells and horns
- 316 stainless steel float rod
- 316 stainless steel float
- Below plate discharge "T"
- Basins
- Simplex & duplex control panels

STANDARD MATERIALS OF CONSTRUCTION

Part Description	Materials
Motor Support Thrust Bearing Housing	Cast Iron, Class 30
Shaft	Stainless Steel AISI-416
Column	Steel ASTM-A53
Bearing Housing	Cast Iron, Class 30
Guide Bearings	Bronze SAE 660
Casing, Suction cover, Impeller	Cast Iron, Class 30
Impeller Trim	Stainless Steel AISI- 316
Discharge Pipe	Steel ASTM - A53
Cover Plate	Steel HRS
Adjusting Nut	Steel ASTM-307
Double Lip Seal	Nitrile

1. Motor Support
Assures positive alignment of motor and pump shaft with register fit. Normal thrust, vertical NEMA C face motor standard

2. Flexible Coupling

3. External Impeller Adjustment
High performance maintained without dismantling pump

4. Thrust Bearings
High thrust angular contact bearing. Moisture-proof enclosure with (2) grease seals, purge-type grease lubrication

5. Gas Tight Column Closure
Double lip seal, grease lubricated

6. Cover Plate
Designed for specific unit. Carbon steel standard

7. Column Pipe
Schedule 40 steel with welded flanges

8. Positive Machined Fits
Machine registered fits of column, bearing housing and casing

9. Intermediate Bearing Assembly
Optional designs for special applications. Furnished as standard on pumps built for pit depths greater than 6'-0"

10. Shafting
Accurately machined 416 stainless steel, 1 1/4" or 1 1/2" diameter to assure minimum deflection

11. Pump Bearing Assembly
Heavy construction designed for maximum bearing loadings. Optional designs available

12. Bearings
Various materials available to suit most specifications

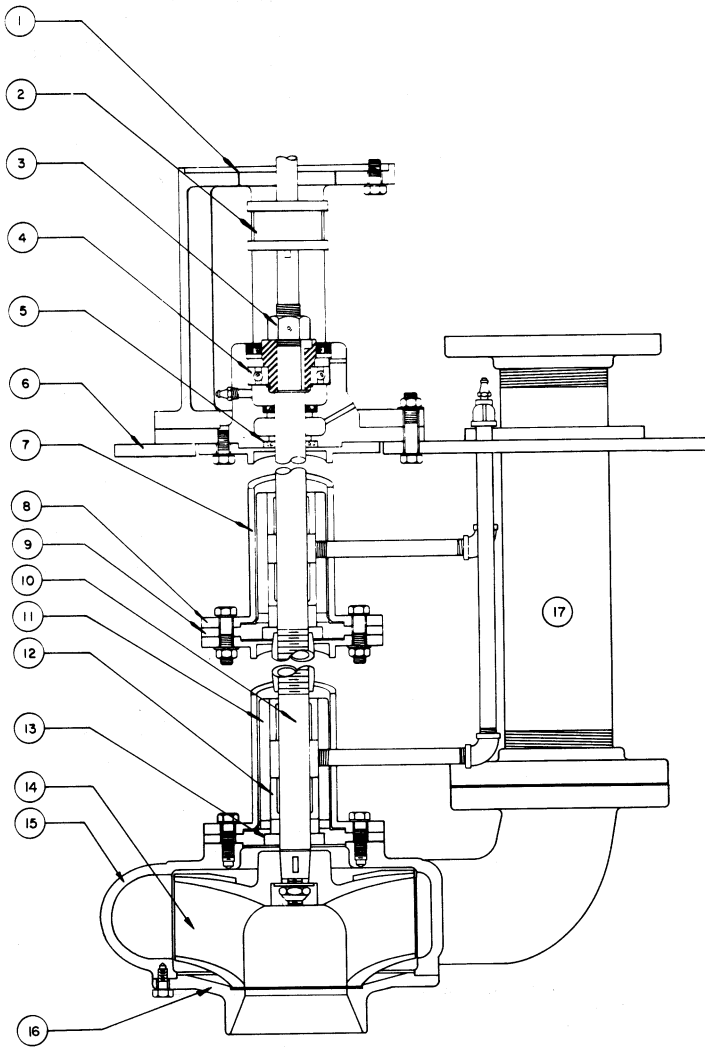
13. Choker Ring
Restricts entrance of abrasives and solids into bottom bearing area

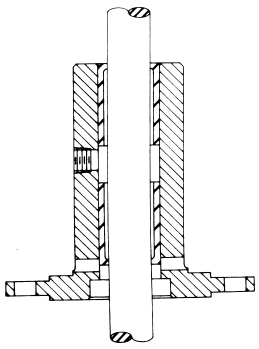
14. Impeller
Fully enclosed 2 vane non-clog design with wiping vanes which reduce axial loading and prolongs bearing life. Wiping vanes aid in keeping particles from behind impeller and pump bearing assembly. Impeller is secured to shaft by taper fit with woodruff key, nut.

15. Casing
Flanged discharge all sizes. Designed specifically for solids handling. Incorporates long radius elbow, reducing friction loss

16. Suction Cover
Removable on all pumps for easy inspection, cleaning or servicing

17. Discharge Pipe
All sizes flanged. Below plate "T" -type discharge available





Lower Bearing Assembly
The Standard pump bearing assembly consists of choker ring and (2) guide bearing bushings compatible with the liquid. Standard bronze bearings furnished with pressurized grease lubrication. Optional: rubber or carbon graphite.

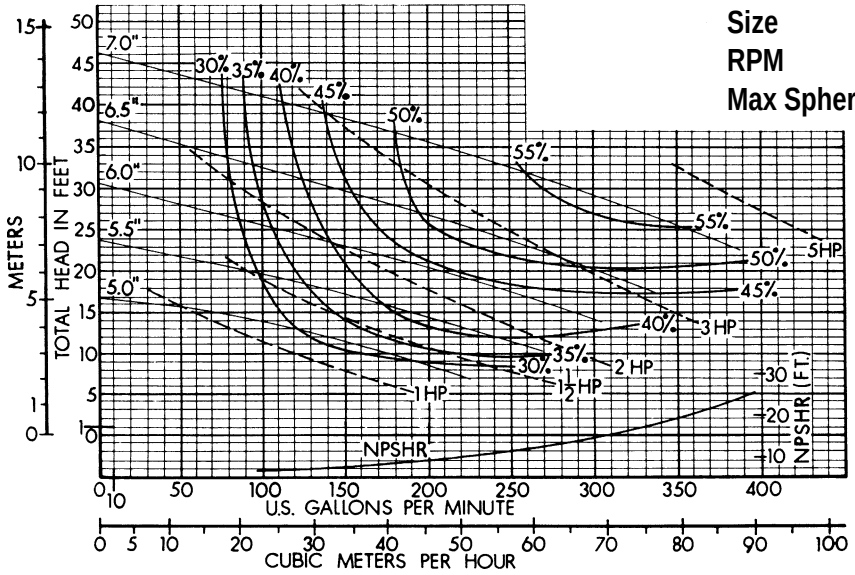
Intermediate Bearing Assembly
The standard intermediate bearing assembly consists of (2) guide bearings compatible with the liquid and is standard when pump length exceeds 6 feet. Standard bronze bearings furnished for pressurized grease lubrication. Optional: rubber or carbon graphite.

Model Number	Shaft Size	Column Pipe Size	Quantity of Bushings Bottom Bearing
720	1.250	4.00	2
724	1.500	4.00	2

VERTIFLO PUMP COMPANY Performance Curves

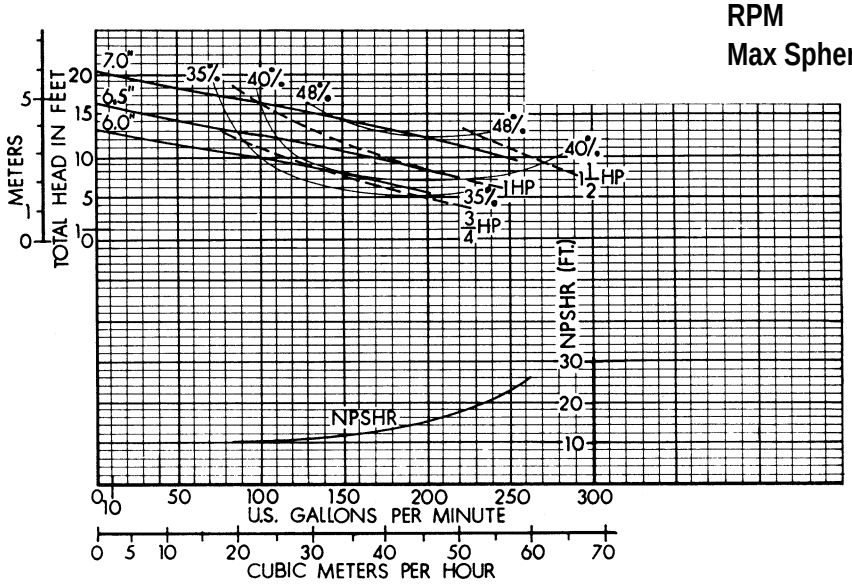
Curve 3374

Series	**700**
Size	**3 X 3 X 7 X 2**
RPM	**1750**
Max Sphere	**2**



Curve 3376

Series	**700**
Size	**3 X 3 X 7 X 2**
RPM	**1150**
Max Sphere	**2**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

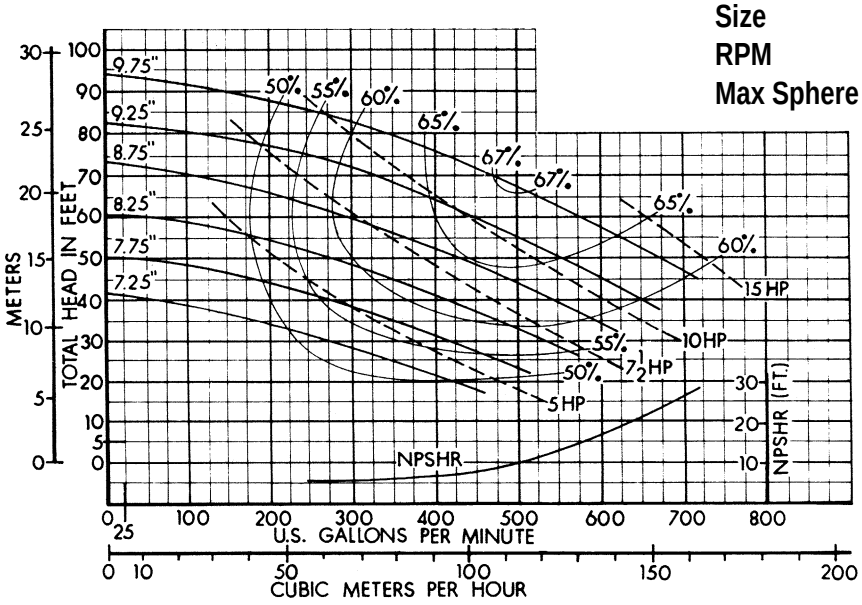
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

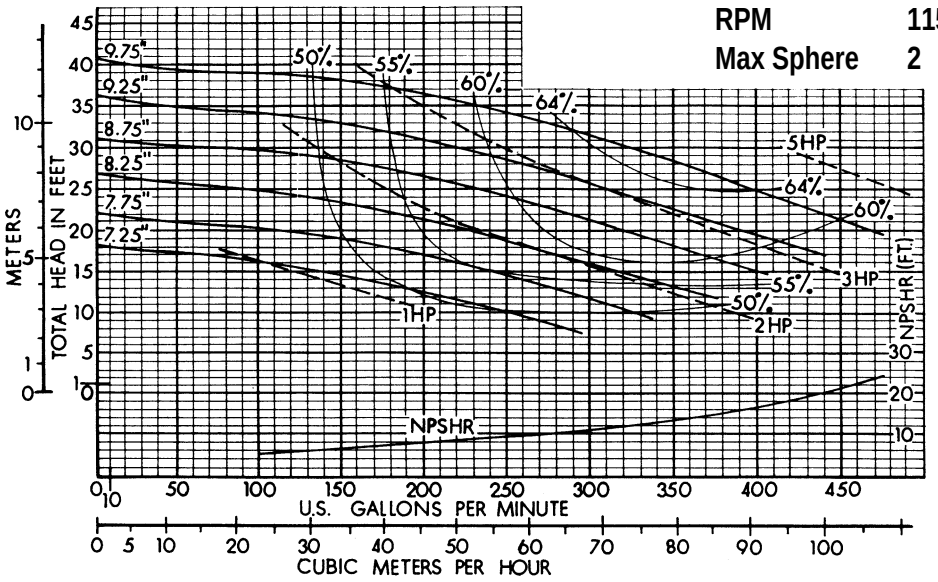
Curve 3394

Series	**700**
Size	**3 X 3 X 9.75 X 2**
RPM	**1750**
Max Sphere	**2**



Curve 3396

Series	**700**
Size	**3 X 3 X 9.75 X 2**
RPM	**1150**
Max Sphere	**2**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

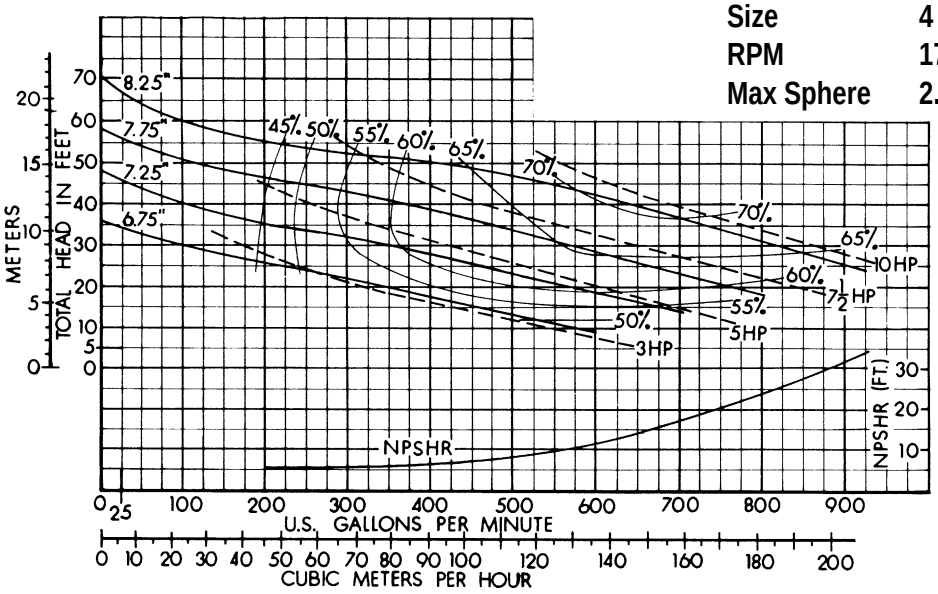
ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

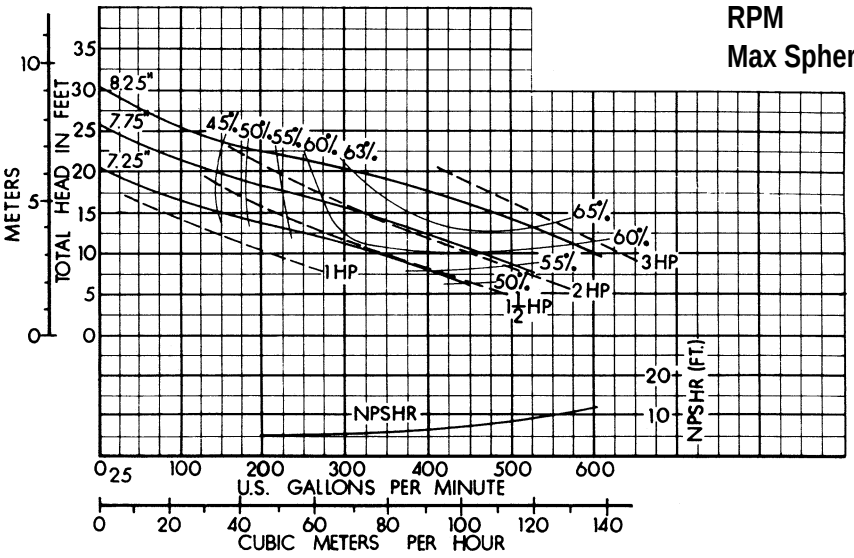
Curve 4484

Series	**700**
Size	**4 X 4 X 8.25 X 2.5**
RPM	**1750**
Max Sphere	**2.5**



Curve 4486

Series	**700**
Size	**4 X 4 X 8.25 X 2.5**
RPM	**1150**
Max Sphere	**2.5**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

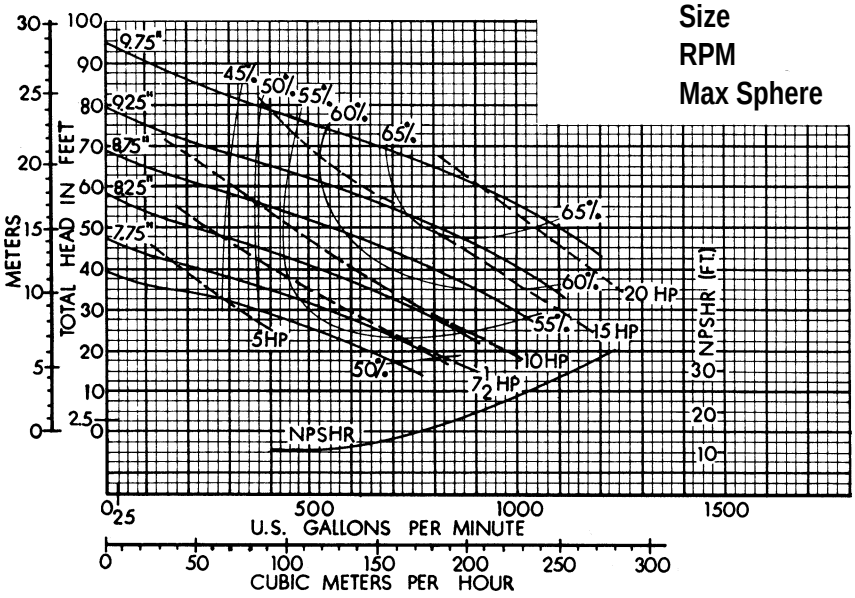
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

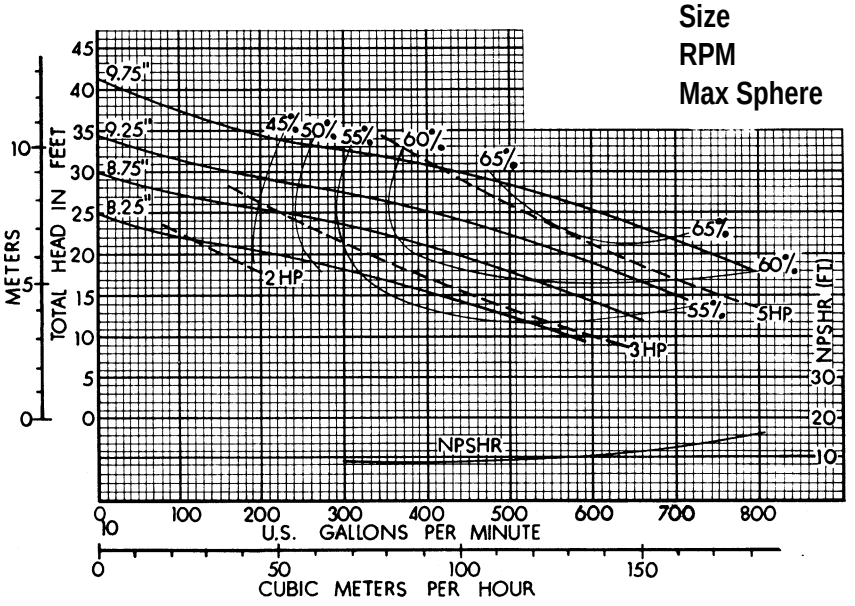
Curve 4494

Series	**700**
Size	**4 X 4 X 9.75 X 3**
RPM	**1750**
Max Sphere	**3**



Curve 4496

Series	**700**
Size	**4 X 4 X 9.75 X 3**
RPM	**1150**
Max Sphere	**3**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

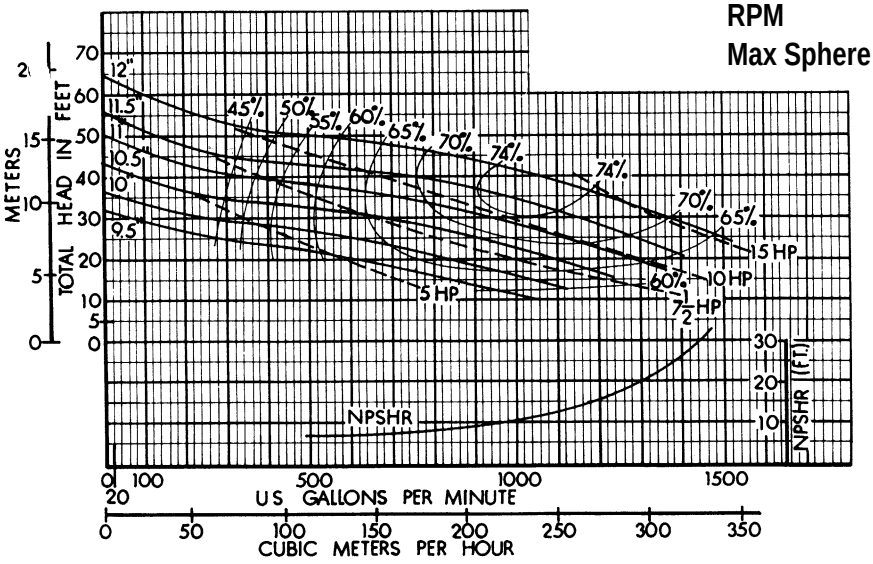
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

Curve 55126

Series	**700**
Size	**5 X 5 X 12 X 3**
RPM	**1150**
Max Sphere	**3**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

CONTRACTOR _____

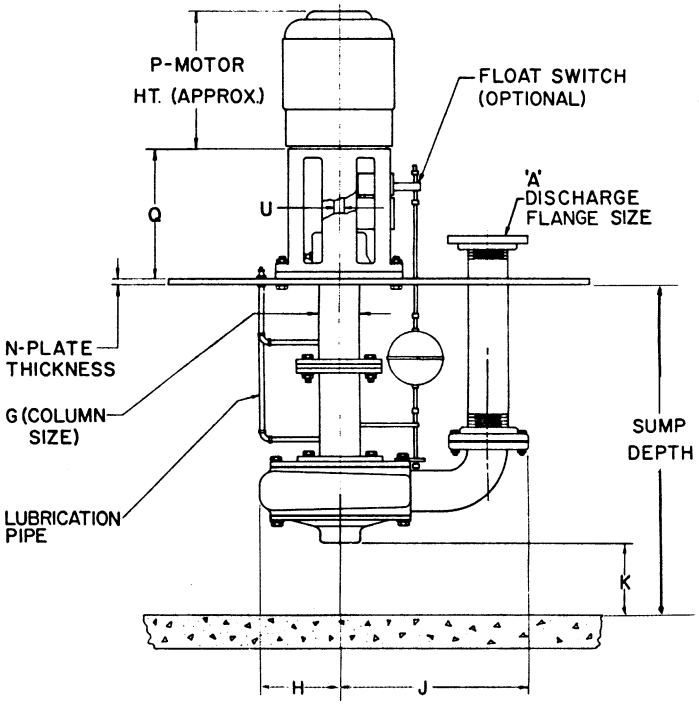
CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Dimensions

700 Series Basic Oval

PUMP DATA

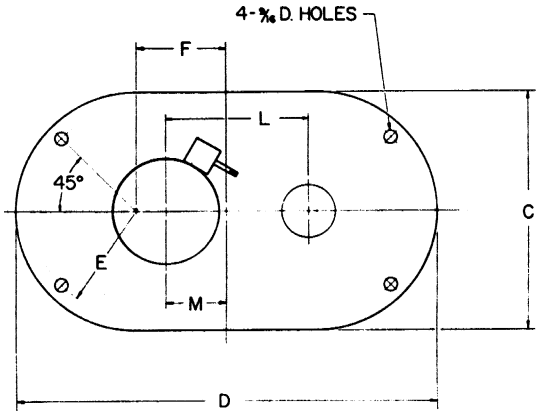
SIZE	3x3x7	3x3x9¾	4x4x8¼	4x4x9¾	5x5x12
A SUC. DISC.	3	3	4	4	5
B MIN.	2	2	3	3	4
B MAX.	20	18	18	17	15
C	18	18	21	21	22
D	26	26	30	30	32
E	8	8	9½	9½	10
F	4	4	4½	4½	5
G	3½	4	4	4	4
H	6⅛	7⅝	7½	8⅛	10⅛
J	13¾	13¾	15½	15½	17
K	4⅜	4⅜	3⅝	3⅜	3⅛
L	10	10	11	11	12
M	3⅛	3⅛	3¾	3¾	3¼
N	⅜	⅜	⅜	⅜	½
U	⅞	1⅛	1⅛	1⅛	1⅛



MOTOR DATA

FRAME	P	Q
56 C	10 7/16	12
143 TC	10	12
145 TC	10 7/16	12
182-184 TC	13½	12
213 TC	15½	12
215 TC	17	12
254 TC	20⅛	12
256 TC	21⅞	12
284 TC	22⅜	13
286 TC	23⅞	13
324 TC	24¾	13½
326 TC	26⅛	13½
364 TC	26½	16⅝
365 TC	27½	16⅝

"K" Dimension shown is for a pump built for a 2' through 6' pit depth. For each additional column section, subtract 3/8" from "K."



Not for construction unless certified, some dimensions may vary ± 1/2". Pump Construction:_____

CUSTOMER_____CUSTOMER NO._____
PROJECT_____SERIAL NO._____
ENGINEER_____LOCATION_____
CONTRACTOR_____

PUMP DATA	Model	Size	Curve No.	GPM	Head	SP. GR.@Temp.	Pump Length	Plate
	_____	_____	_____	_____	_____	_____	_____	_____

MOTOR DATA	Mfgr.	HP	RPM	Volt-Phase-Cycle	Frame	ENC.	Furnished by	Mounted by
	_____	_____	_____	_____	_____	_____	_____	_____

Shop Order_____Certified by_____Date_____

VERTIFLO PUMP COMPANY Dimensions

700 Series Simplex

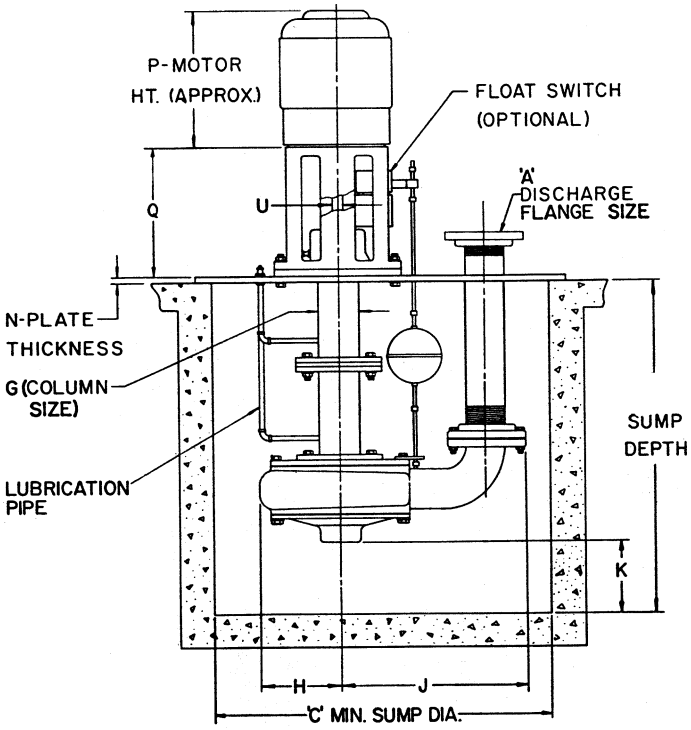
PUMP DATA

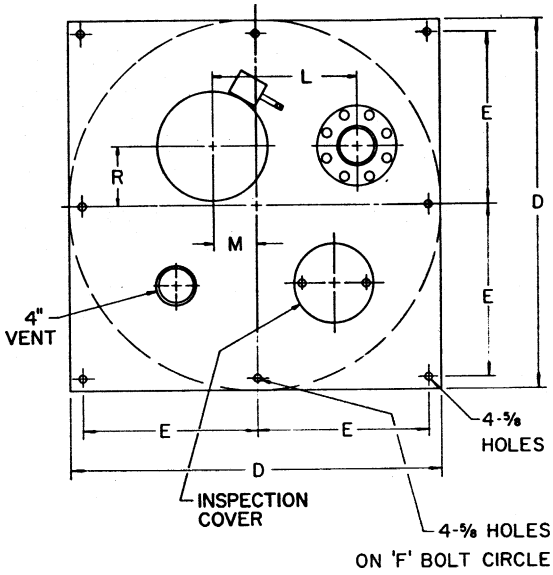
SIZE	3x3x7	3x3x9¾	4x4x8¼	4x4x9¾	5x5x12
A SUC. DISC.	3	3	4	4	5
B MIN.	2	2	3	3	4
B MAX.	20	18	18	17	15
C MIN.	24	24	30	30	30
D MIN.	28	28	34	34	34
E	13	13	16	16	16
F	26	26	32	32	32
G	3½	4	4	4	4
H	6⅛	7⅝	7½	8⅛	10⅛
J	13¾	13¾	15½	15½	17
K	4⅜	4⅜	3⅝	3⅜	3⅛
L	10	10	11	11	12
M	3¼	3¼	5	5	3⅜
N	⅜	⅜	⅜	⅜	⅜
R	1⅝	1⅝	0	0	0
U	⅞	1⅛	1⅛	1⅛	1⅛

MOTOR DATA

FRAME	P	Q
56 C	10⁷⁄₁₆	12
143 TC	10	12
145 TC	10⁷⁄₁₆	12
182-184 TC	13½	12
213 TC	15½	12
215 TC	17	12
254 TC	20⅛	12
256 TC	21⅞	12
284 TC	22⅜	13
286 TC	23⅞	13
324 TC	24¾	13½
326 TC	26⅛	13½
364 TC	26½	16⅝
365 TC	27½	16⅝

"K" Dimension shown is for a pump built for a 2' through 6' pit depth. For each additional column section, subtract 3/8" from "K."





Not for construction unless certified, some dimensions may vary ± 1/2". Pump Construction:_____

CUSTOMER_____ CUSTOMER NO._____
PROJECT_____ SERIAL NO._____
ENGINEER_____ LOCATION_____
CONTRACTOR_____

PUMP DATA: Model _____ Size _____ Curve No. _____ GPM _____ Head _____ SP. GR.@Temp. _____ Pump Length _____ Plate _____

MOTOR DATA: Mfgr. _____ HP _____ RPM _____ Volt-Phase-Cycle _____ Frame _____ ENC. _____ Furnished by _____ Mounted by _____

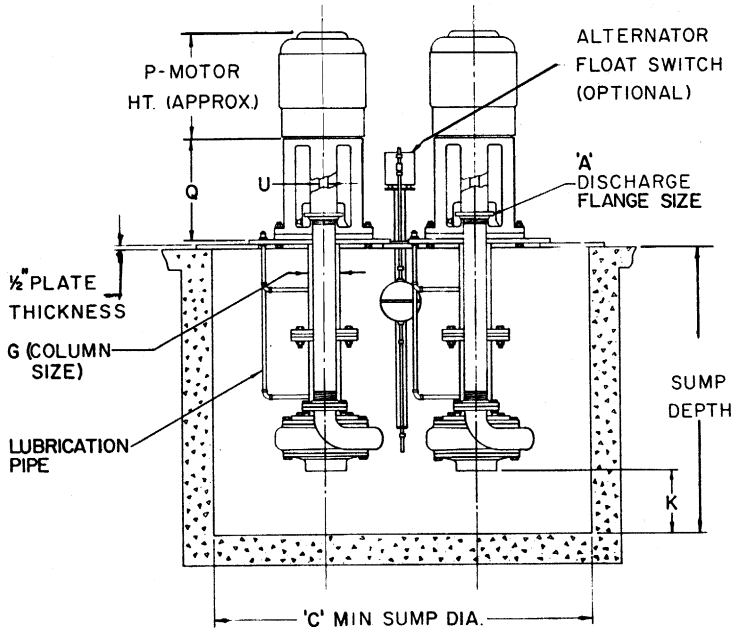
Shop Order_____ Certified by_____ Date_____

VERTIFLO PUMP COMPANY Dimensions

700 Series Duplex

PUMP DATA

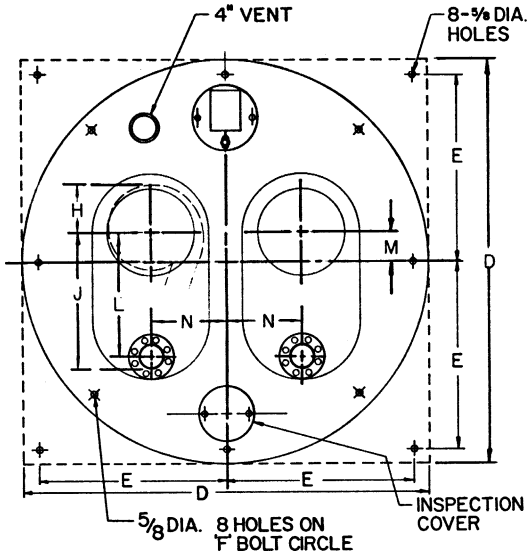
SIZE	3x3x7	3x3x9¾	4x4x8¼	4x4x9¾	5x5x12
A SUC. DISC.	3	3	4	4	5
B MIN.	2	2	3	3	4
B MAX.	20	18	18	17	15
C MIN.	36	42	48	48	48
D	46	46	54	54	54
E	22	22	25½	25½	25½
F	44	44	51	51	51
G	3½	4	4	4	4
H	6⅛	7⅝	7½	8⅛	10⅛
J	13¾	13¼	15½	15½	17
K	4⅞	4⅞	4⅛	3⅞	3⅝
L	10	10	11	11	12
M	2	2⅞	3¾	3¾	3¼
N	9½	9½	12⅝	12⅝	12
U	⅞	1⅛	1⅛	1⅛	1⅛



MOTOR DATA

FRAME	P	Q
56 C	10⁷⁄₁₆	12
143 TC	10	12
145 TC	10⁷⁄₁₆	12
182-184 TC	13½	12
213 TC	15½	12
215 TC	17	12
254 TC	20⅛	12
256 TC	21⅞	12
284 TC	22⅜	13
286 TC	23⅞	13
324 TC	24¾	13½
326 TC	26⅛	13½
364 TC	26½	16⅝
365 TC	27½	16⅝

"K" Dimension shown is for a pump built for a 2' through 6' pit depth. For each additional column section, subtract 3/8" from "K."



Not for construction unless certified, some dimensions may vary ± 1/2". Pump Construction:_____

CUSTOMER_____CUSTOMER NO._____
PROJECT_____SERIAL NO._____
ENGINEER_____LOCATION_____
CONTRACTOR_____

	Model	Size	Curve No.	GPM	Head	SP. GR.@Temp.	Pump Length	Plate
PUMP DATA	_____	_____	_____	_____	_____	_____	_____	_____

	Mfgr.	HP	RPM	Volt-Phase-Cycle	Frame	ENC.	Furnished by	Mounted by
MOTOR DATA	_____	_____	_____	_____	_____	_____	_____	_____

Shop Order_____Certified by_____Date_____

VERTIFLO

The Vertical Pump Specialists

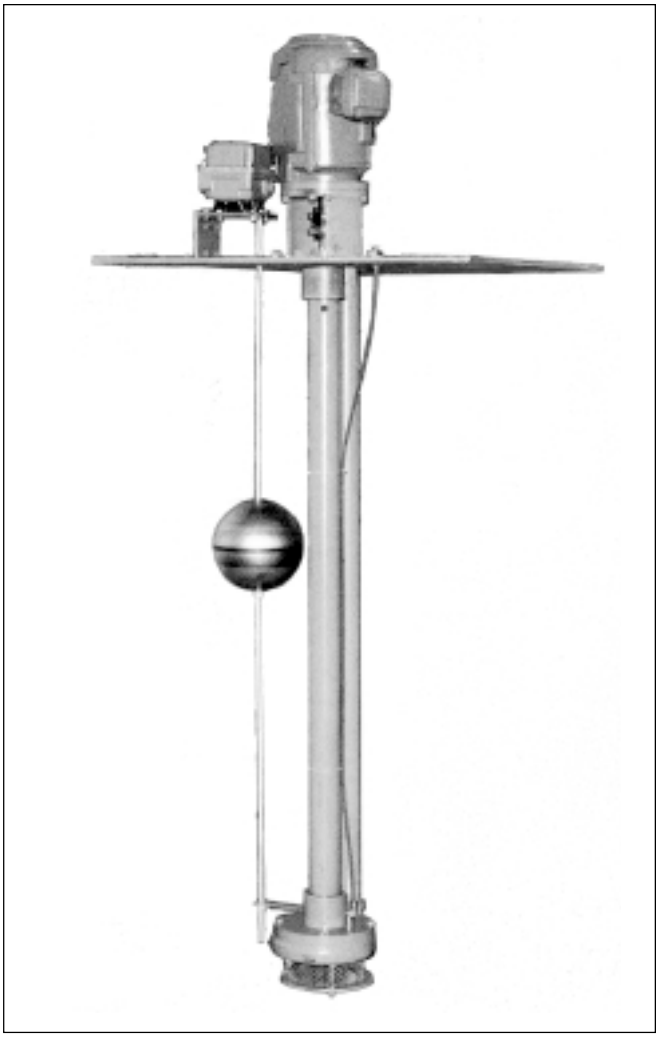
PUMPS FOR INDUSTRY

CONTENTS:

0407

VERTIFLO MODEL 814

Quality Design Features Assure Long, Trouble-Free Service



WIDE RANGE OF APPLICATIONS:

- Industrial Process
- Pollution Control
- Sump Drainage
- Hazardous, Toxic & Inflammable Liquids
- Clear Liquids
- Condensate
- Corrosive Liquids

CAPABILITIES:

- Capacities to 240 GPM
- Heads to 160 Feet TDH
- Temperature to 210˚ F
- Pit Depths to 7 Feet
- Construction: Cast Iron, Bronze Fitted, 316 Stainless Steel Fitted, All 316 Stainless Steel

CONSTRUCTION:

Standard

- Carbon graphite line-shaft bearings
- Carbon graphite intermediate bearings (Pump built for pit depth over 5'-0")(4'-0"@ 3500 RPM)
- High thrust, angular contact ball bearing
- Product lubricated line shaft bearings
- 316 stainless steel shaft
- Round or square cover plate
- Pump setting increments of 1'-0" for sump depths up through 7'-0"
- 316 stainless steel float
- Standard C face motors

Options

- Stainless steel fitted, bronze fitted or all stainless steel construction
- External flush for bearing lubrication
- Various float switch enclosures
- Various liquid level controls
- High water alarm
- Alarm bells and horns
- Control Panels

Superior Features

1. Motor Support
Assures positive alignment of motor and pump shaft with register fit. Normal thrust, vertical NEMA C face motor standard

2. Flexible Coupling

3. External Impeller Adjustment
High performance maintained without dismantling pump

4. Thrust Bearing
High thrust angular contact bearing. Permanently lubricated for life

5. Gas Tight Column Closure
Prevents vapor from escaping from column

6. Cover Plate
17 1/2" round or square

7. Column Pipe
Schedule 40 steel

8. Intermediate Bearing Assembly
Furnished as standard on pumps built for pit depths greater than 5'-0" at 1750 RPM and 4'-0" at 3500 RPM

9. Shafting
Accurately machined 316 stainless steel, 7/8" diameter to assure minimum deflection

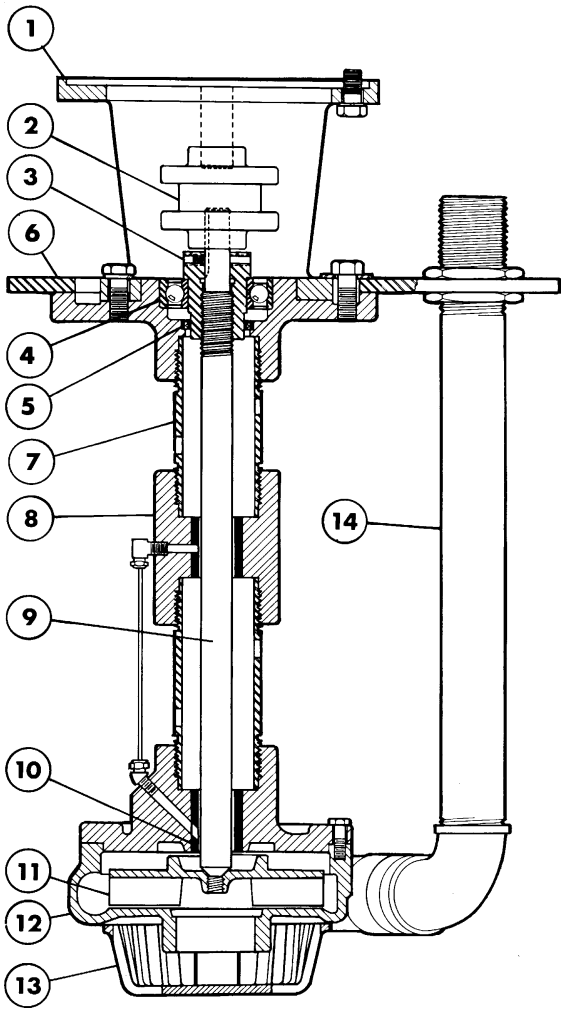
10. Bearings
Carbon graphite - Product lubrication is standard. Designed for clean, non-abrasive liquids.

11. Impeller
Semi-open design for wide range of industrial applications, secured to shaft with taper fit by thread

12. Casing
Heavy walled casting

13. Suction Strainer
Cast iron

14. Discharge Pipe
Schedule 40, threaded; flanged connection optional



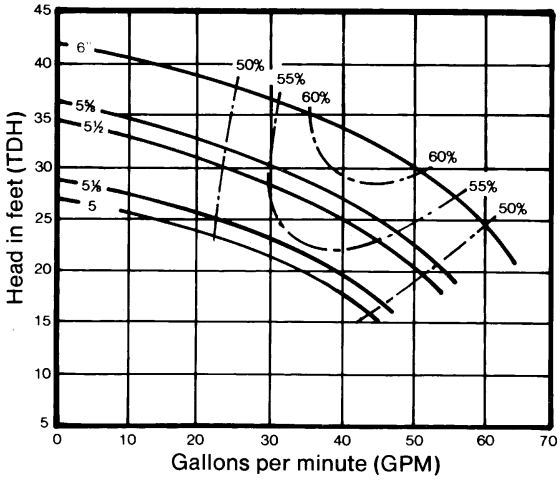
Materials of Construction

Part Descripton	Standard Fitted	316 Stainless Fitted	All 316 Stainless
Motor Support	Cast Iron	Cast Iron	Cast Iron
Thrust Bearing Housing	Class 30	Class 30	Class 30
Shaft	Stainless Steel AISI-316	Stainless Steel AISI-316	Stainless Steel AISI-316
Column	Steel ASTM-A53	Steel ASTM-A53	Stainless Steel AISI-316
Bearing Housing	Cast Iron Class 30	Cast Iron Class 30	Stainless Steel AISI-316
Guide Bearings	Carbon Graphite	Carbon Graphite	Carbon Graphite
Impeller	Cast Iron Class 30	Stainless Steel AISI-316	Stainless Steel AISI 316
Casing	Cast Iron Class 30	Cast Iron Class 30	Stainless Steel AISI-316
Gasket	Vellumoid	Vellumoid	NA 700
Strainer	Cast iron Class 30	Cast iron Class 30	Stainless Steel AISI-316
Discharge Elbow	Cast Iron AISI-B164	Cast Iron AISI-B164	Stainless Steel AISI-316
Discharge Pipe	Steel ASTM-A53	Steel ASTM-A53	Stainless Steel AISI-316
Cover Plate	Steel HRS	Steel HRS	Steel HRS
Lip Seal	Nitrile	Nitrile	Nitrile

VERTIFLO PUMP COMPANY Performance Curves

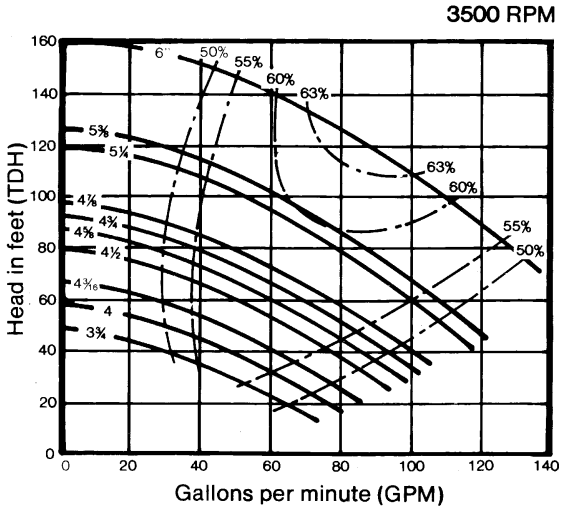
Series 800 / Model 814 Size 1 1/2 X 1 X 6

1750 RPM



HP	SF	DIA
¾	1.15	6
	1.00	6
½	1.15	5 ⅝
	1.00	5½
⅓	1.15	5⅛
	1.00	5

3500 RPM

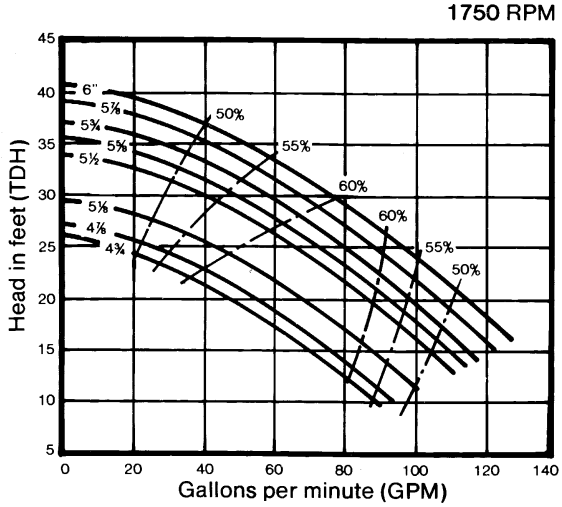


HP	SF	DIA
5	1.15	6
	1.00	6
3	1.15	5 ⅜
	1.00	5¼
2	1.15	4⅞
	1.00	4¾

HP	SF	DIA
1½	1.15	4⅝
	1.00	4½
1	1.15	4⅜
	1.00	4

Series 800 / Model 814 Size 2 X 1 1/2 X 6

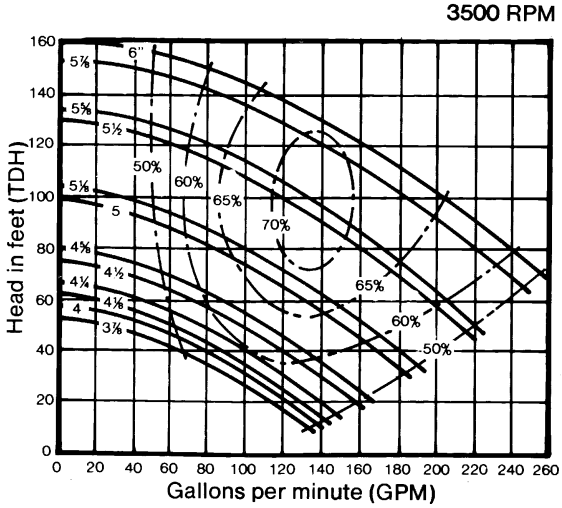
1750 RPM



HP	SF	DIA
1½	1.15	6
	1.00	6
1	1.15	5⅞
	1.00	4⅞

HP	SF	DIA
¾	1.15	5⅝
	1.00	5½
½	1.15	5⅛
	1.00	4⅞

3500 RPM



HP	SF	DIA
7½	1.15	6
	1.00	5⅞
5	1.15	5 ⅝
	1.00	5½
3	1.15	5⅛
	1.00	5

HP	SF	DIA
2	1.15	4⅝
	1.00	4½
1½	1.15	4¼
	1.00	4⅛
1	1.15	4
	1.00	3⅞

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

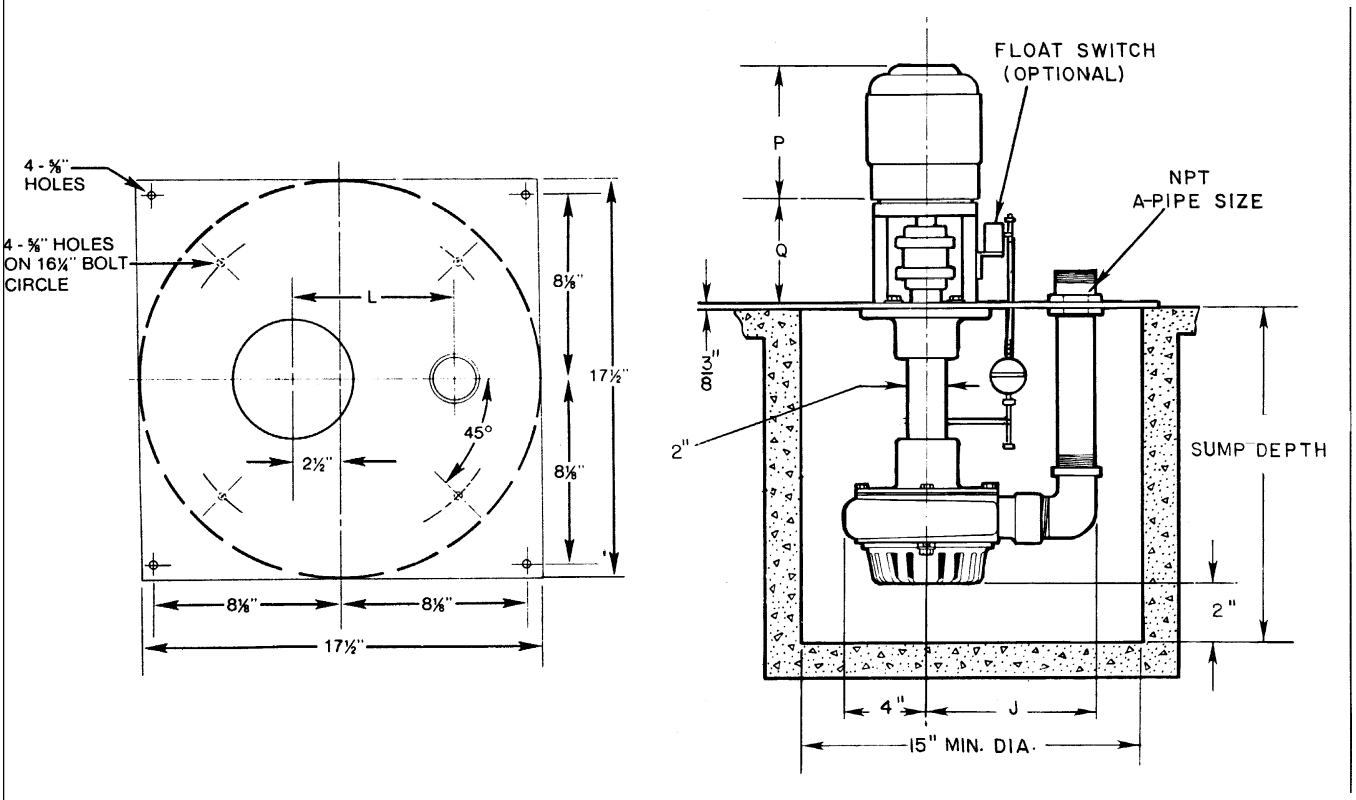
ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Dimensions

814 Simplex Sump Pump



PUMP DATA

SIZE	A	C	J	L
1½ x 1 x 6	1	2 to 12 Feet*	7½	6½
	1½		8¼	7
2 x 1½ x6	1½		8½	7¼
	2		9¼	7¾

* Sump Depth is in 1 Foot Increments

MOTOR DATA

FRAME	P	Q
56 C	12⅛	5⅝
143 TC - 145TC	12¼	5⅝
182TC - 184TC	15 7/16	6⅜
213TC - 215TC	16 1/16	6⅜

Not for construction unless certified, some dimensions may vary ± 1/2". Pump Construction:_____

CUSTOMER_____CUSTOMER NO._____
PROJECT_____SERIAL NO._____
ENGINEER_____LOCATION_____
CONTRACTOR_____

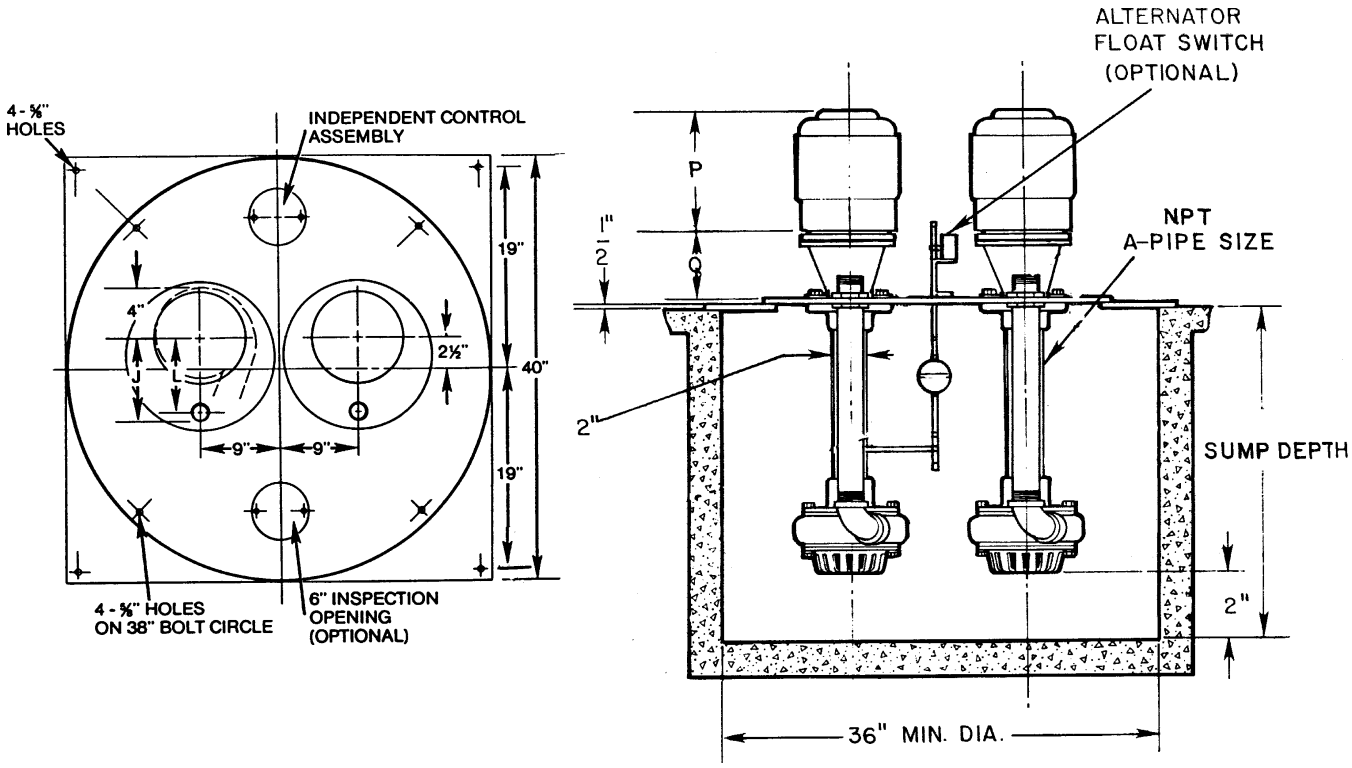
PUMP DATA	Model	Size	Curve No.	GPM	Head	SP. GR.@Temp.	Pump Length	Plate
	_____	_____	_____	_____	_____	_____	_____	_____

MOTOR DATA	Mfgr.	HP	RPM	Volt-Phase-Cycle	Frame	ENC.	Furnished by	Mounted by
	_____	_____	_____	_____	_____	_____	_____	_____

Shop Order_____Certified by_____Date_____

VERTIFLO PUMP COMPANY Dimensions

814 Duplex Sump Pump



PUMP DATA

SIZE	A	C	J	L
1½ x 1 x 6	1	2 to 12 Feet*	7½	6½
	1½		8¼	7
2 x 1½ x6	1½		8½	7¼
	2		9¼	7¾

* Sump Depth is in 1 Foot Increments

MOTOR DATA

FRAME	P	Q
56 C	12⅛	5⅝
143 TC - 145TC	12¼	5⅝
182TC - 184TC	15⁷⁄₁₆	6⅜
213TC - 215TC	16¹¹⁄₁₆	6⅜

Not for construction unless certified, some dimensions may vary ± 1/2". Pump Construction:_____

CUSTOMER_____ CUSTOMER NO._____
PROJECT_____ SERIAL NO._____
ENGINEER_____ LOCATION_____
CONTRACTOR_____

	Model	Size	Curve No.	GPM	Head	SP. GR.@Temp.	Pump Length	Plate
PUMP DATA	_____	_____	_____	_____	_____	_____	_____	_____

	Mfgr.	HP	RPM	Volt-Phase-Cycle	Frame	ENC.	Furnished by	Mounted by
MOTOR DATA	_____	_____	_____	_____	_____	_____	_____	_____

Shop Order_____ Certified by_____ Date_____

VERTIFLO SERIES 800
Quality Design Features Assure Long, Trouble-Free Service

Series 800 Duplex

WIDE RANGE OF APPLICATIONS:

- Industrial Process
- Pollution Control
- Sump Drainage
- Flood Control
- Hazardous, Toxic & Inflammable Liquids
- Clear Liquids
- Condensate
- Corrosive Liquids
- Acids

CAPABILITIES:

- Capacities to 3000 GPM
- Heads to 230 Feet TDH
- Temperature to 350˚ F
- Pit Depths to 26 Feet
- Construction: Cast Iron, 316 Stainless Steel Fitted, All 316 Stainless Steel, Alloy 20, Hastelloy, $CD4MC_u$

CONSTRUCTION:

Standard

- Bronze bottom line shaft bearings
- Bronze intermediate bearings (pump built for pit depths over 6'-0")
- Semi-open impeller with balancing ring and wiping vanes
- High thrust, angular contact ball bearing
- Grease lubricated pump and line shaft bearings
- 416 stainless steel shaft
- Round, square or oval cover plates
- External impeller adjustment
- Pump setting increments of 1'-0" for pit depths up to 26'-0"
- Flanged discharge on all casings
- Standard C face motors

Options

- Stainless steel fitted, All stainless steel, Alloy 20, Hastelloy construction
- Various line shaft bearing designs
- 316 stainless steel shafting
- Cover plate with manhole, vent or special openings
- Vapor-proof construction
- Various float switch enclosures
- Various liquid level controls
- High water alarm
- Alarm bells and horns
- 316 stainless steel float rod
- 316 stainless steel float
- Below plate discharge "T"
- Special pump lengths

Series 800 Simplex

Superior Features

1. Motor Support
Assures positive alignment of motor and pump shaft with register fit. Normal thrust, vertical NEMA C face motor standard

2. Flexible Coupling

3. External Impeller Adjustment
High performance maintained without dismantling pump

4. Thrust Bearing
High thrust angular contact bearing. Moisture-proof enclosure, (2) grease seals, purge-type grease lubrication

5. Gas Tight Column Closure
Lip seal, grease lubricated

6. Cover Plate
Designed for specific unit. Optional sizes and gas-tight construction available

7. Column Pipe
Schedule 40 steel with welded flanges

8. Positive Machined Fits
Machined registered fits of column, bearing housing and casing

9. Intermediate Bearing Assembly
Optional designs for special applications. Furnished as standard on pumps built for pit depths greater than 6'-0"

10. Shafting
Accurately machined 416 stainless steel, 1 1/4", 11/2" or 2" diameter to assure minimum deflection

11. Pump Bearing Assembly
Heavy construction designed for maximum bearing loadings. Optional designs available

12. Bearings
Various materials available to suit most applications

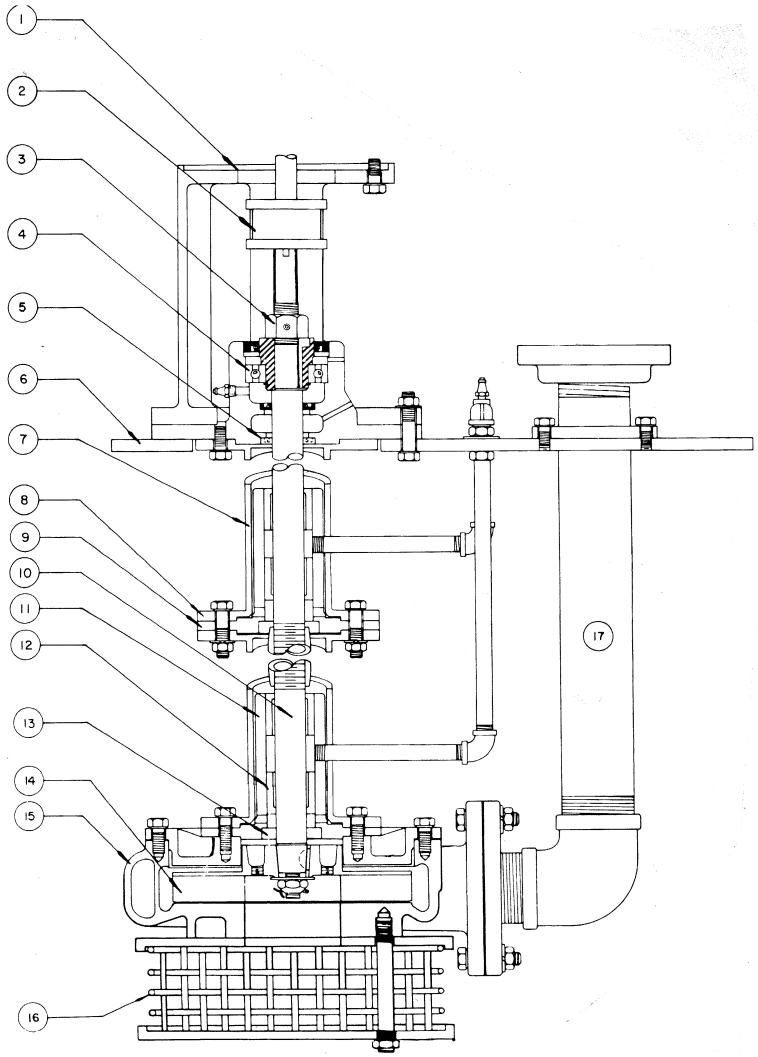
13. Choker Ring
Restricts entrance of abrasives and solids into bottom bearing

14. Impeller
Semi-open design with balancing ring & wiping vanes for wide range of industrial applications, secured to shaft with taper fit by woodruff key, castellated nut, washer and cotter pin

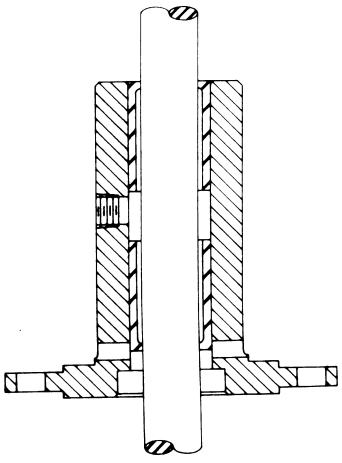
15. Casing
Flanged suction and discharge all sizes. Double volute design on all 4X3X10 and larger sizes

16. Suction Strainer
304 stainless steel

17. Discharge Pipe
1"-2 1/2" threaded, 3" and larger flanged. Below plate "T"-type discharge available



Standard Line Shaft Bearing Assemblies



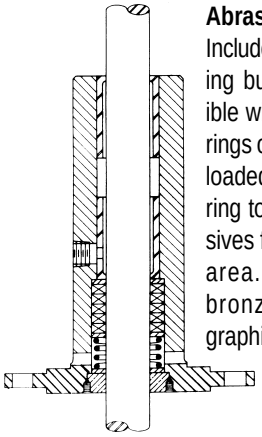
Lower Bearing Assembly
The standard pump bearing assembly consists of choker ring and (2) guide bearing bushings compatible with the liquid. Standard bronze bearings furnished with grease lubrication. Optional: carbon graphite, rubber, Teflon*

Intermediate Bearing Assembly
The standard intermediate assembly consists of (2) guide bearings compatible with the liquid and is standard when pit depth exceeds 6 feet. Standard bronze bearings furnished with grease lubrication. Optional: carbon graphite, rubber, Teflon*

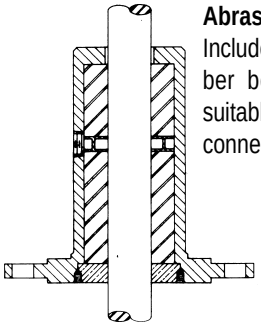
*E.I DuPont registered ™

Part Description	Standard Fitted	316 Stainless Fitted	All 316 Stainless	All Alloy 20
Motor Support, Thrust Bearing Housing	Cast Iron Class 30	Cast Iron Class 30	Cast Iron Class 30	Cast Iron Class 30
Shaft	Stainless Steel AISI-416	Stainless Steel AISI-316	Stainless Steel AISI-316	Alloy 20
Column	Steel ASTM-A53	Steel ASTM-A53	Stainless Steel AISI-316	Alloy 20
Bearing Housing	Cast Iron Class 30	Cast Iron Class 30	Stainless Steel AISI-316	Alloy 20
Guide Bearings	Bronze SAE 660	Bronze SAE 660	Graphite	Graphite
Casing Adaptor	Cast Iron Class 30	Cast Iron Class 30	Stainless Steel AISI-316	Alloy 20
Impeller	Cast Iron Class 30	Stainless Steel AISI-316	Stainless Steel AISI-316	Alloy 20
Impeller Trim	Stainless Steel AISI-316	Stainless Steel AISI-316	Stainless Steel AISI-316	Alloy 20
Casing	Cast Iron Class 30	Cast Iron Class 30	Stainless Steel AISI-316	Alloy 20
Gasket	Vellumoid	Vellumoid	NA 700	NA 700
Strainer Plate	Cast Iron Class 30	Cast Iron Class 30	Stainless Steel AISI-316	Alloy 20
Strainer Basket	Stainless Steel AISI-304	Stainless Steel AISI-304	Stainless Steel AISI-316	Alloy 20
Discharge Elbow	Cast Iron AISI-B164	Cast Iron AISI-B164	Stainless Steel AISI-316	Alloy 20
Discharge Pipe	Steel ASTM-A53	Steel ASTM-A53	Stainless Steel AISI-316	Alloy 20
Cover Plate	Steel HRS	Steel HRS	Steel HRS	Steel HRS
Bearing Adaptor	Steel AISI-12L14	Steel AISI-12L14	Steel AISI-12L14	Steel AISI-12L14
Adjusting Nut	Steel ASTM-307	Steel ASTM-307	Steel ASTM-307	Steel ASTM-307
Lip Seal	Nitrile	Nitrile	Nitrile	Nitrile

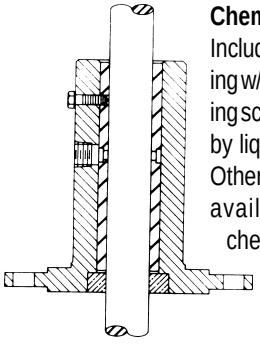
Alternate Line Shaft Bearing Assemblies



Abrasive Service - 1
Includes (2) guide bearing bushings compatible with the liquid, (5) rings of packing spring loaded and a choker ring to eliminate abrasives from the bearing area. Optional are bronze or carbon graphite.



Abrasive Service - 2
Includes (2) cutless rubber bearing bushings suitable for water flush connection.



Chemical Service
Includes (1) Teflon* bearing w/stainless steel locking screws and lubricated by liquid being pumped. Other bearing materials available for special chemical services.

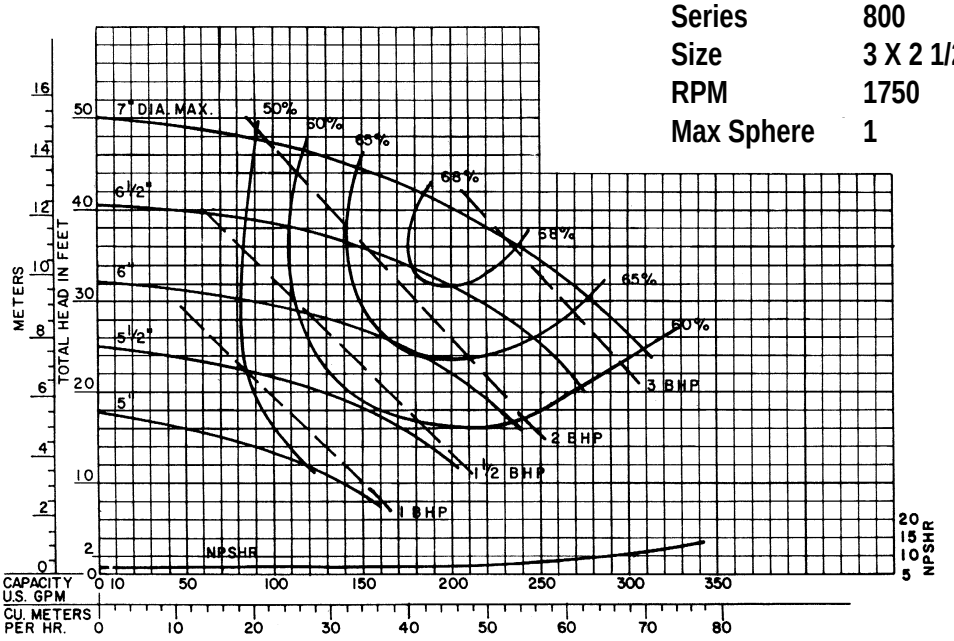
NOTE: Bearing assemblies shown are typical for most pumping services. Unusual or severe services may necessitate changes in asssembly design.

*E.I DuPont registered TM

VERTIFLO PUMP COMPANY Performance Curves

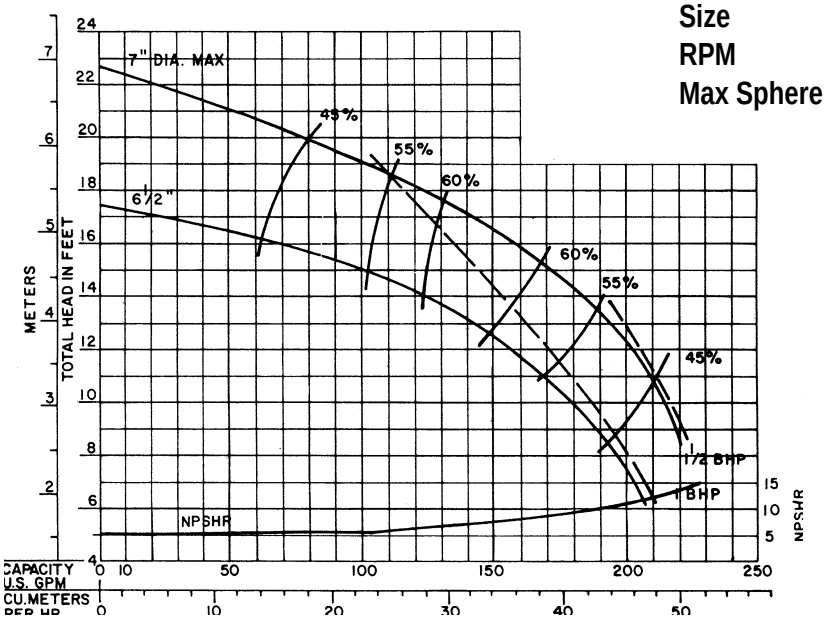
Curve PV-1525

Series	**800**
Size	**3 X 2 1/2 X 7**
RPM	**1750**
Max Sphere	**1**



Curve RV-1525

Series	**800**
Size	**3 X 2 1/2 X 7**
RPM	**1150**
Max Sphere	**1**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

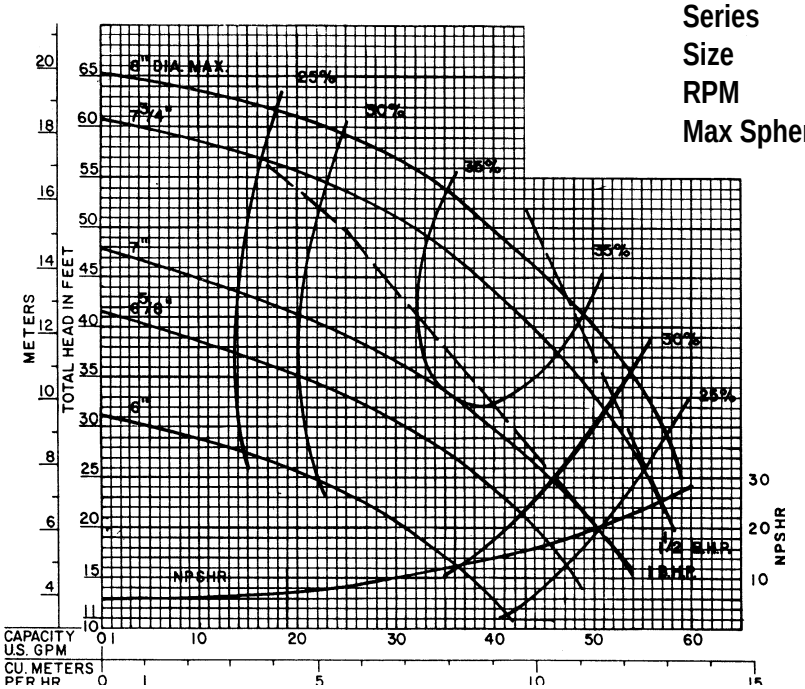
ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

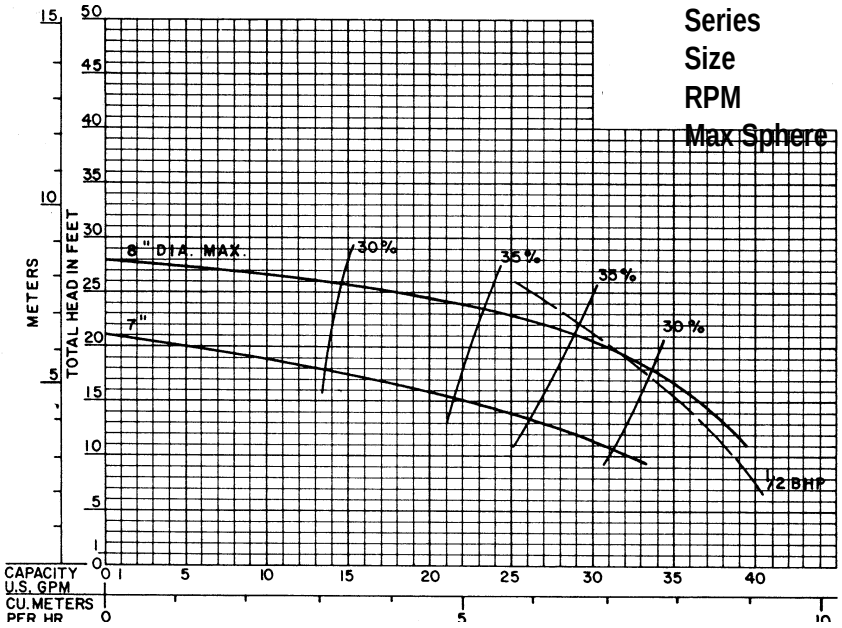
VERTIFLO PUMP COMPANY Performance Curves

Curve AS-1610



Series	**800**
Size	**1 1/2 X 1 X 8**
RPM	**1750**
Max Sphere	**1/4**

Curve BS-1610



Series	**800**
Size	**1 1/2 X 1 X 8**
RPM	**1150**
Max Sphere	**1/4**

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

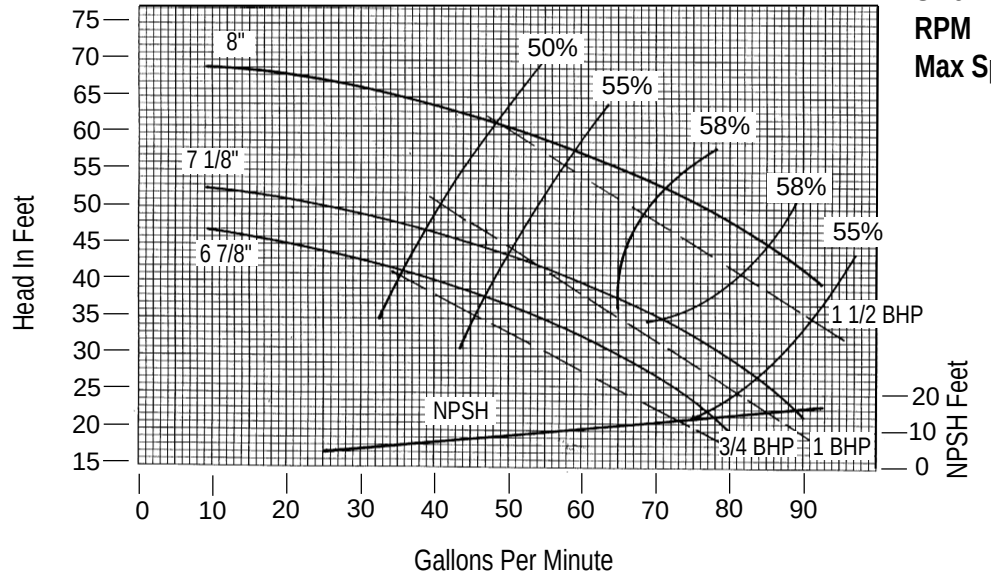
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

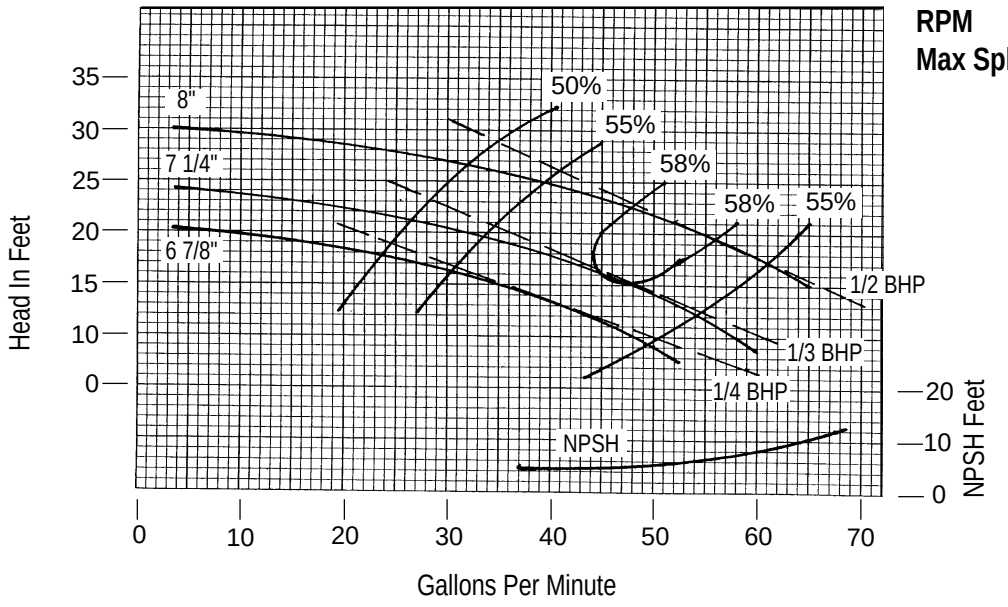
Curve AS-1612

Series	**800**
Size	**1 1/2 X 1 1/4 X 8**
RPM	**1750**
Max Sphere	**5/16**



Curve BS-1612

Series	**800**
Size	**1 1/2 X 1 1/4 X 8**
RPM	**1150**
Max Sphere	**5/16**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

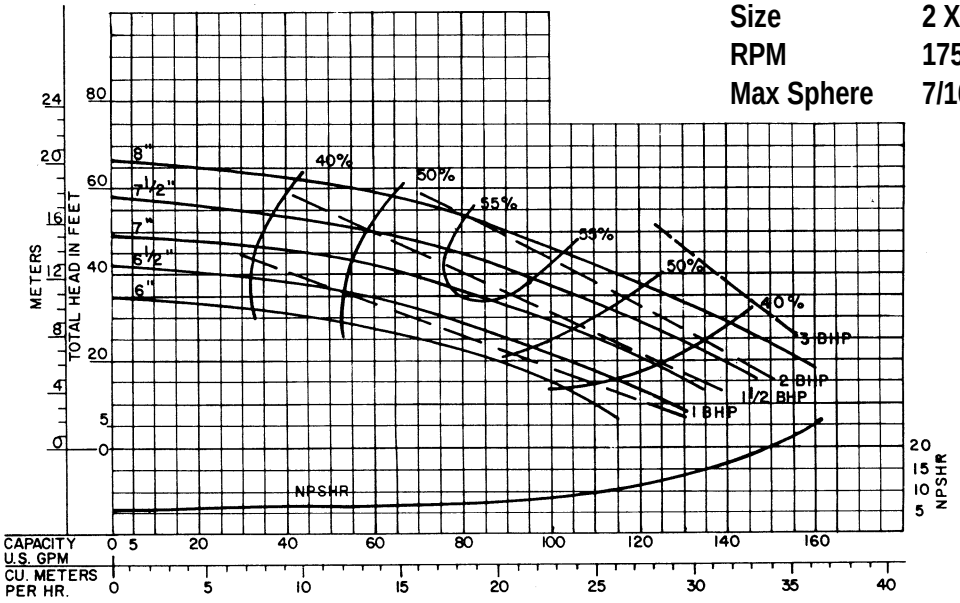
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

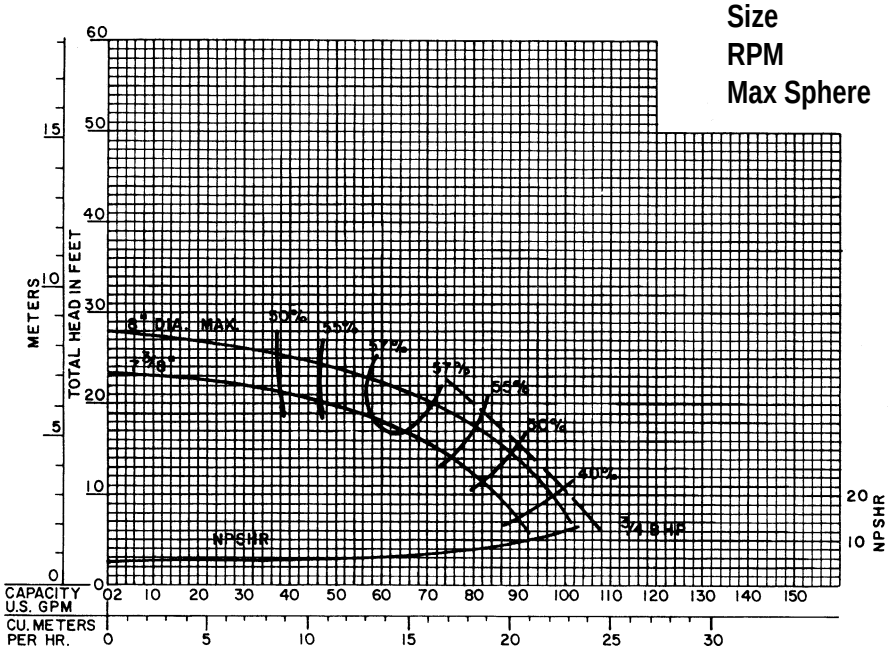
Curve BS-1615

Series	**800**
Size	**2 X 1 1/2 X 8**
RPM	**1750**
Max Sphere	**7/16**



Curve CS-1615

Series	**800**
Size	**2 X 1 1/2 X 8**
RPM	**1150**
Max Sphere	**7/16**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

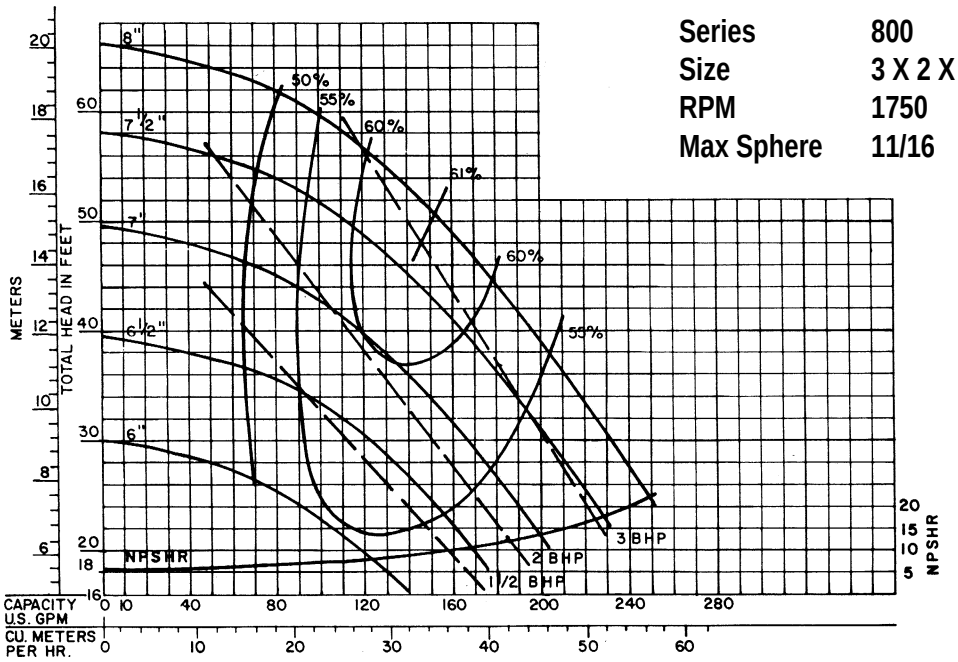
ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

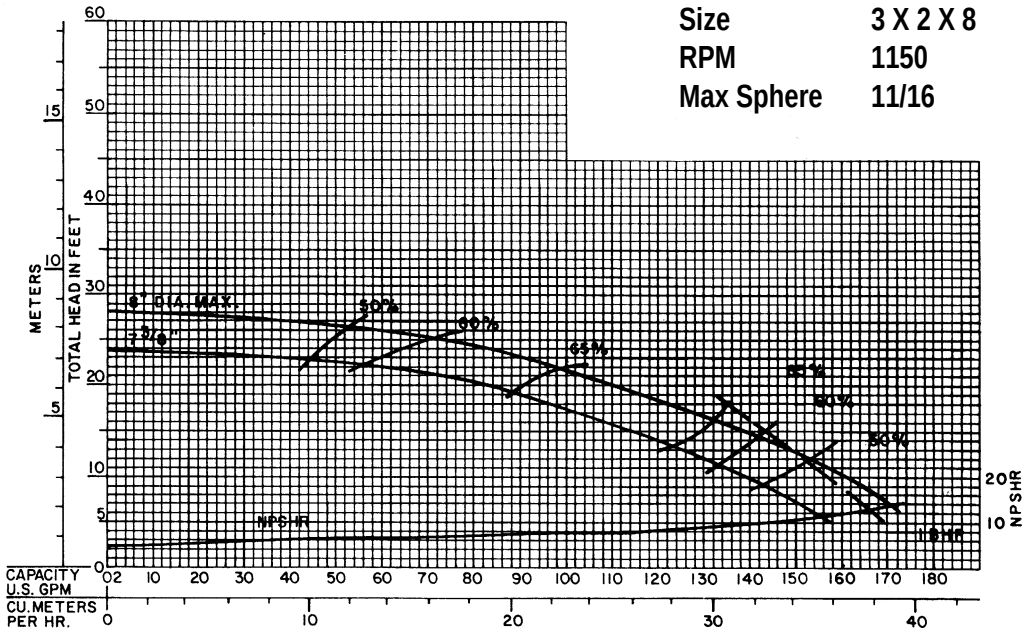
VERTIFLO PUMP COMPANY Performance Curves

Curve CS-1620



Series	**800**
Size	**3 X 2 X 8**
RPM	**1750**
Max Sphere	**11/16**

Curve DS-1620



Series	**800**
Size	**3 X 2 X 8**
RPM	**1150**
Max Sphere	**11/16**

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

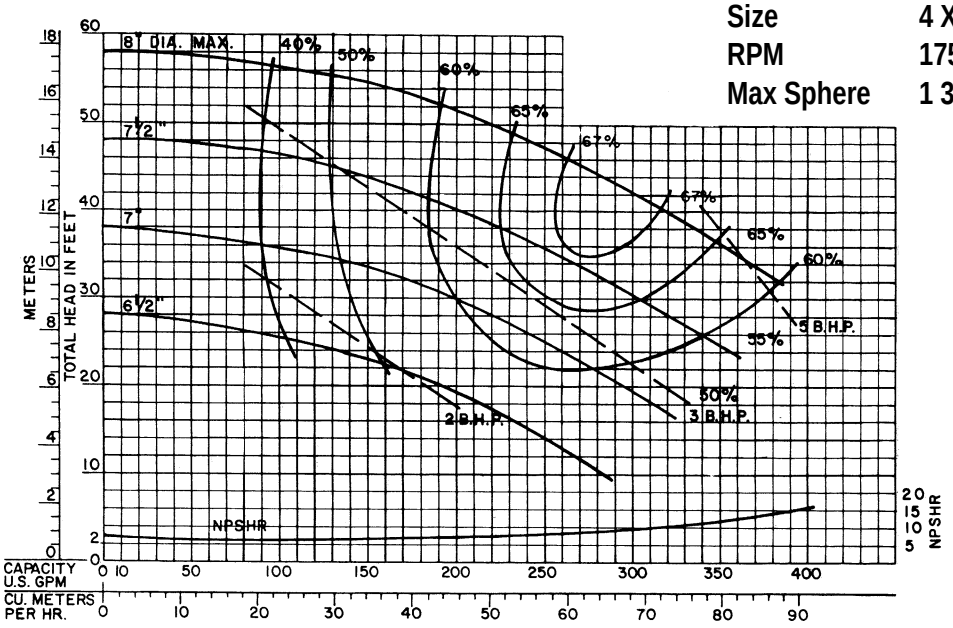
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

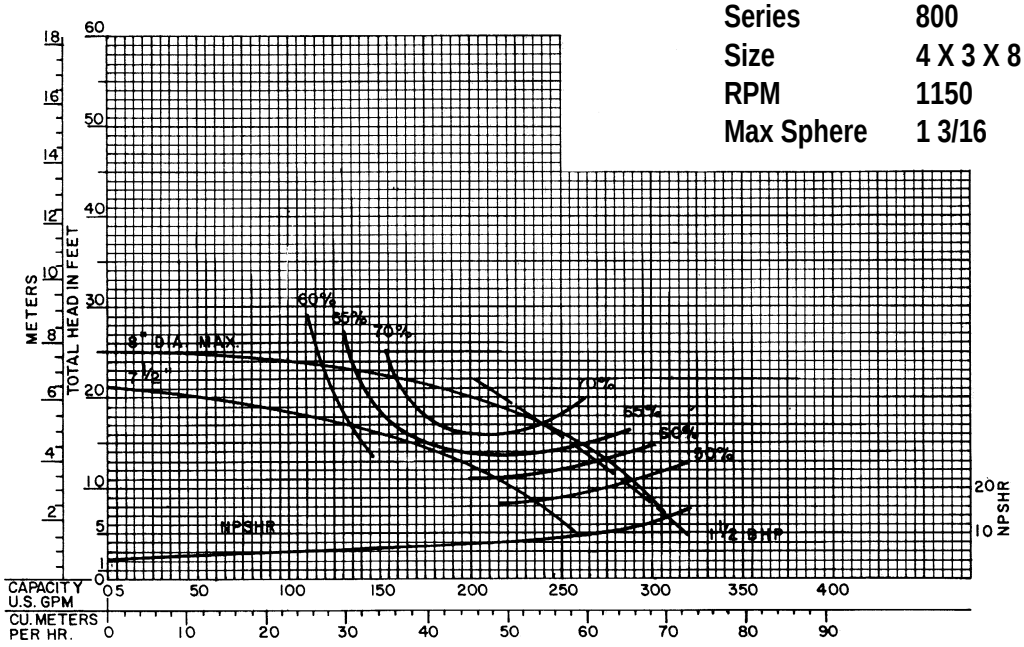
Curve CS-1630

Series	**800**
Size	**4 X 3 X 8**
RPM	**1750**
Max Sphere	**1 3/16**



Curve DS-1630

Series	**800**
Size	**4 X 3 X 8**
RPM	**1150**
Max Sphere	**1 3/16**



800

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

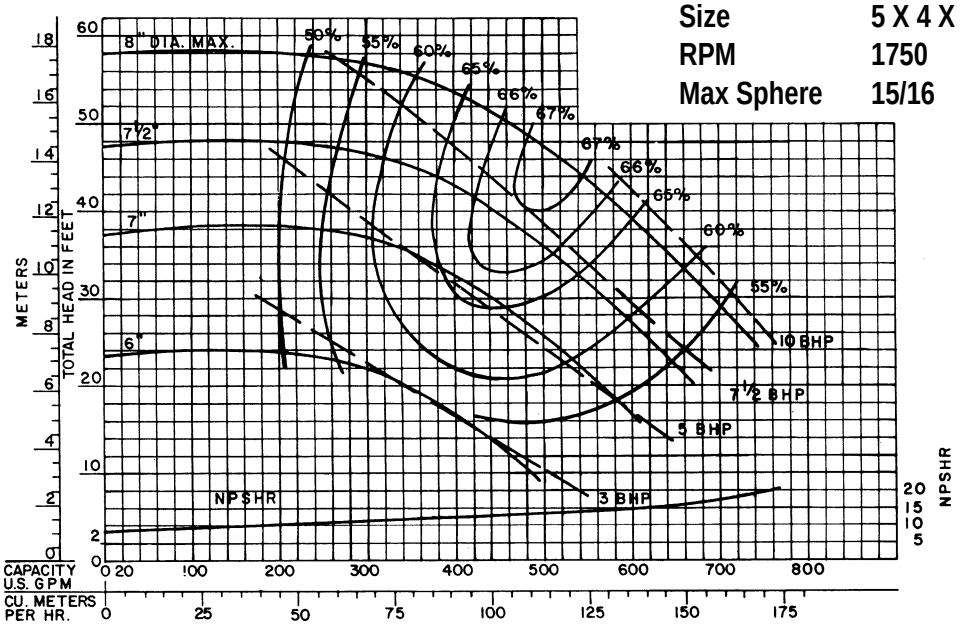
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

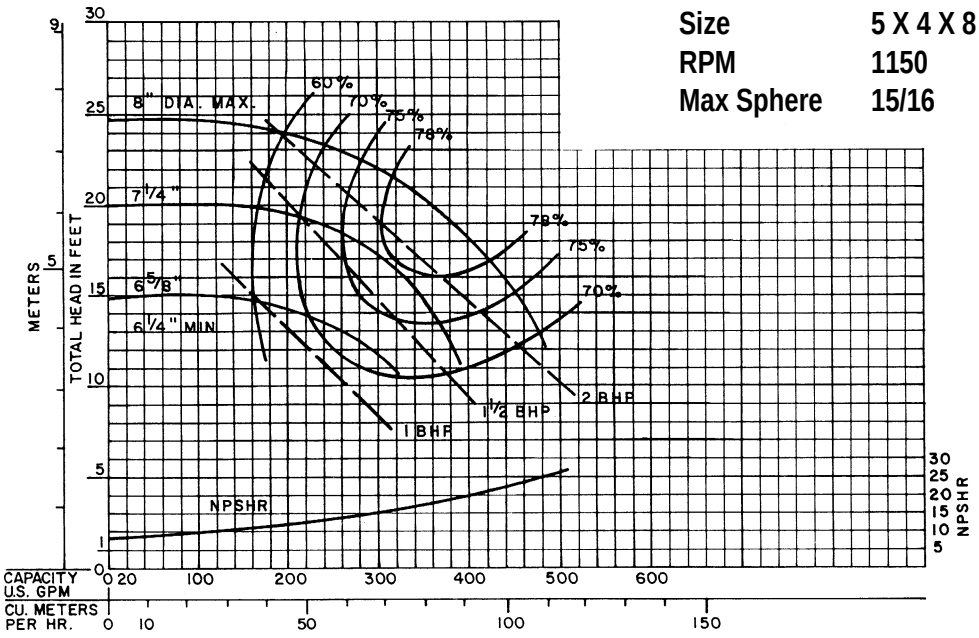
Curve ES-1640

Series	**800**
Size	**5 X 4 X 8**
RPM	**1750**
Max Sphere	**15/16**



Curve DS-1640

Series	**800**
Size	**5 X 4 X 8**
RPM	**1150**
Max Sphere	**15/16**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

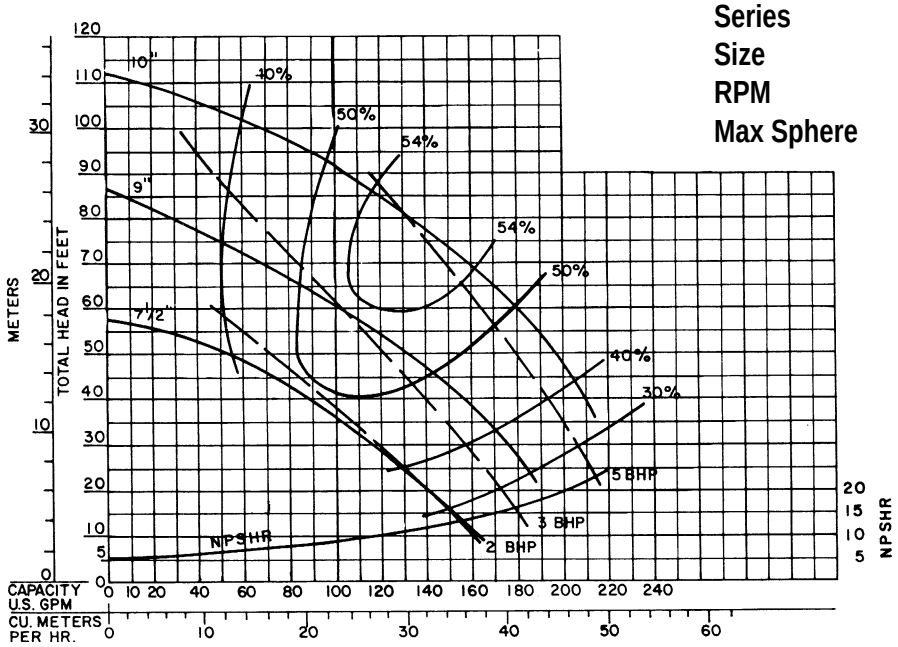
ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

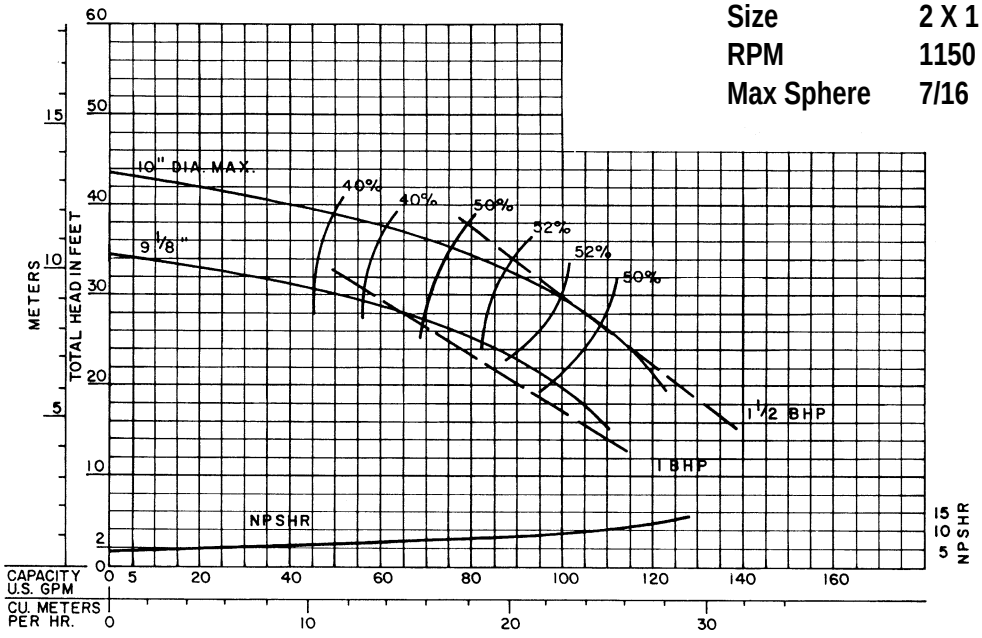
VERTIFLO PUMP COMPANY Performance Curves

Curve SM-1915



Series	**800**
Size	**2 X 1 1/2 X 10**
RPM	**1750**
Max Sphere	**7/16**

Curve TM-1915



Series	**800**
Size	**2 X 1 1/2 X 10**
RPM	**1150**
Max Sphere	**7/16**

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

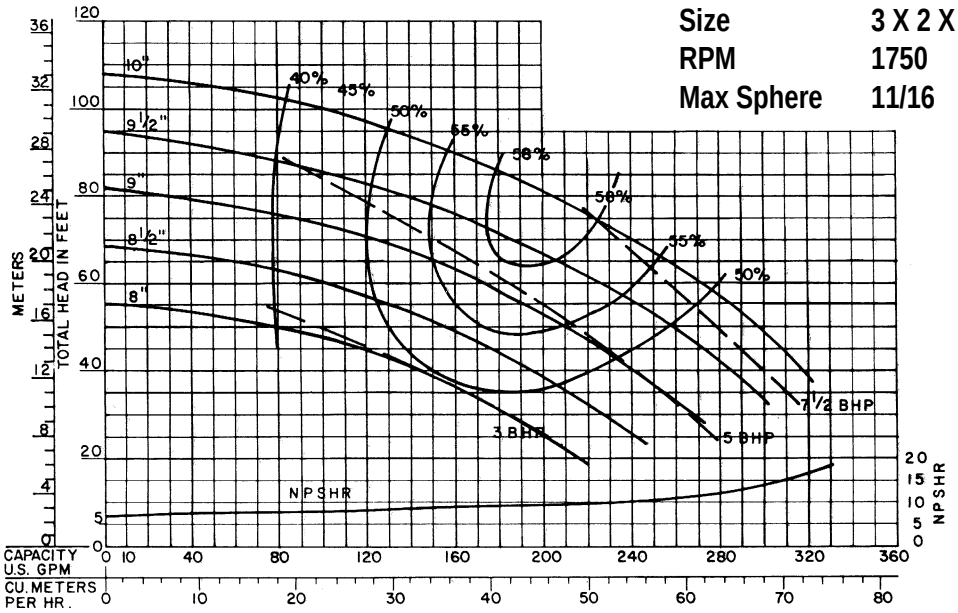
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

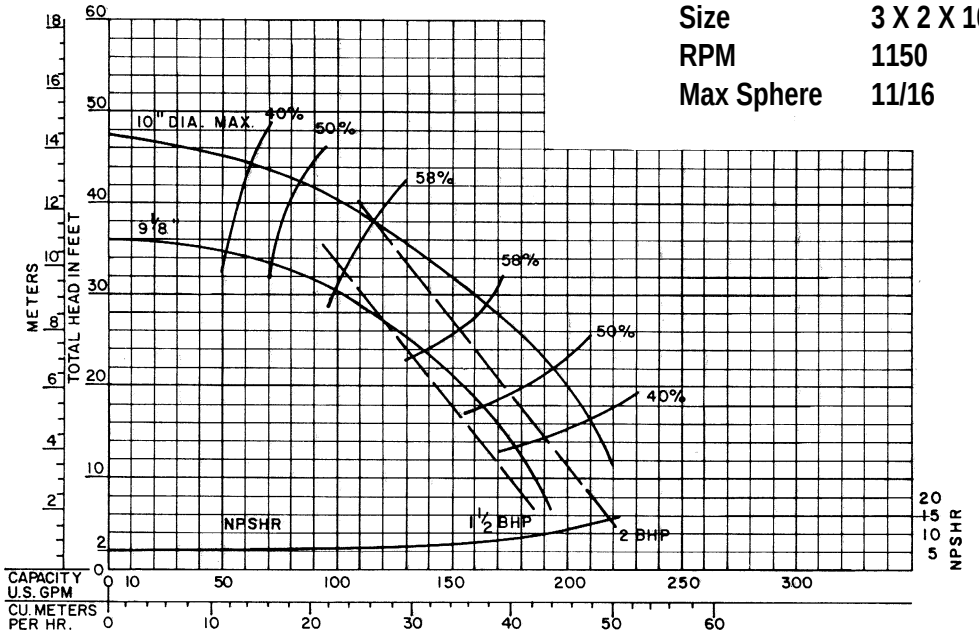
Curve JM-1720

Series	**800**
Size	**3 X 2 X 10**
RPM	**1750**
Max Sphere	**11/16**



Curve KM-1720

Series	**800**
Size	**3 X 2 X 10**
RPM	**1150**
Max Sphere	**11/16**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

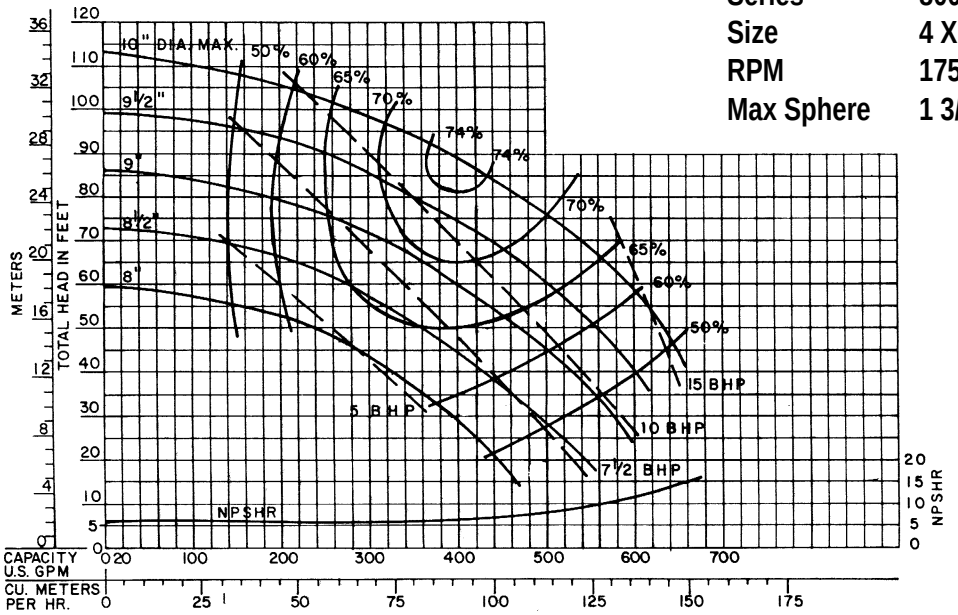
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

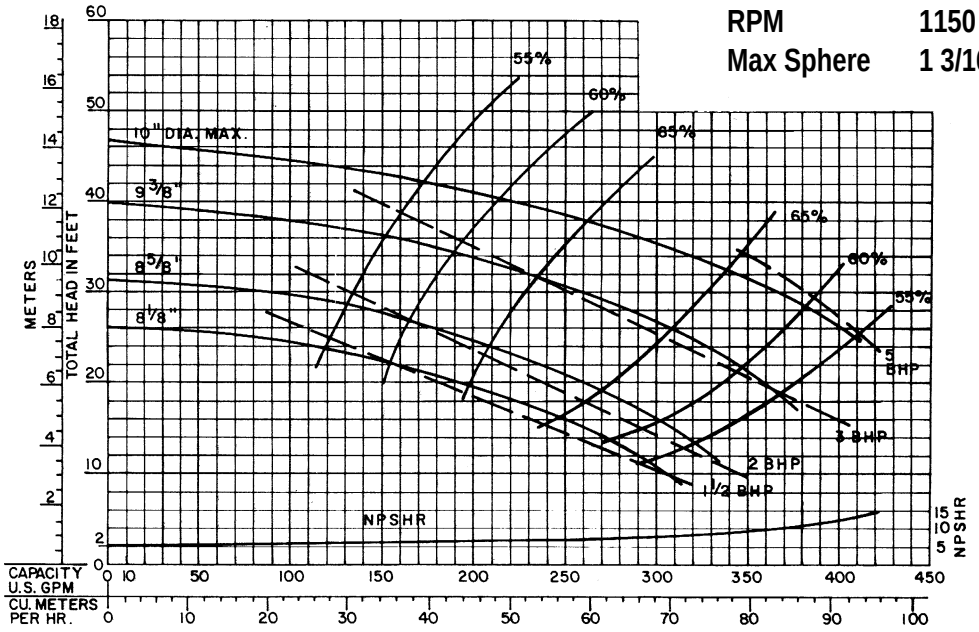
Curve RM-1730

Series	**800**
Size	**4 X 3 X 10**
RPM	**1750**
Max Sphere	**1 3/16**



Curve SM-1730

Series	**800**
Size	**4 X 3 X 10**
RPM	**1150**
Max Sphere	**1 3/16**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

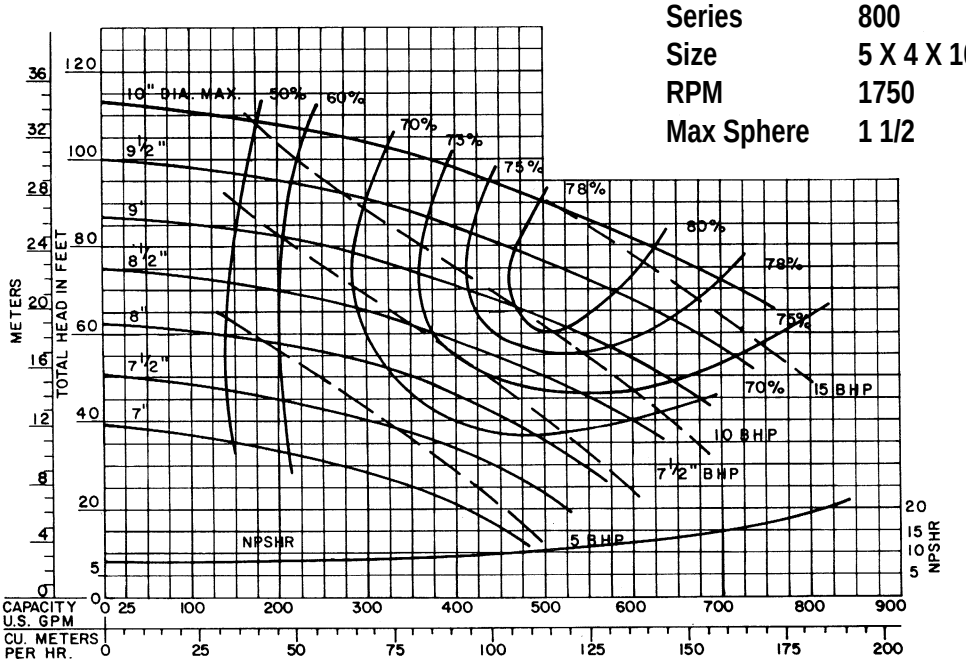
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

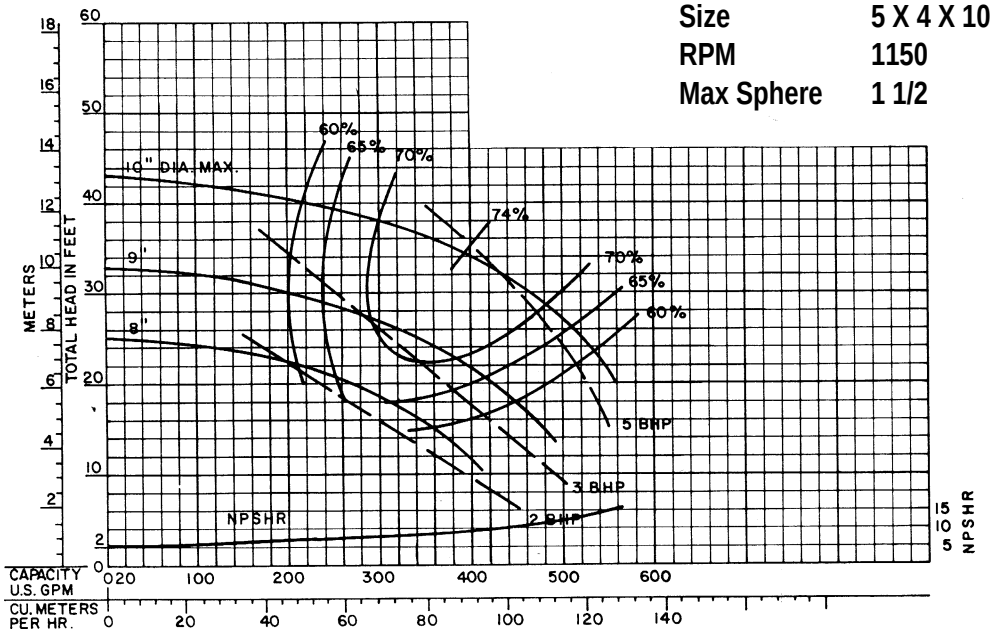
Curve TM-1740

Series	**800**
Size	**5 X 4 X 10**
RPM	**1750**
Max Sphere	**1 1/2**



Curve UM-1740

Series	**800**
Size	**5 X 4 X 10**
RPM	**1150**
Max Sphere	**1 1/2**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

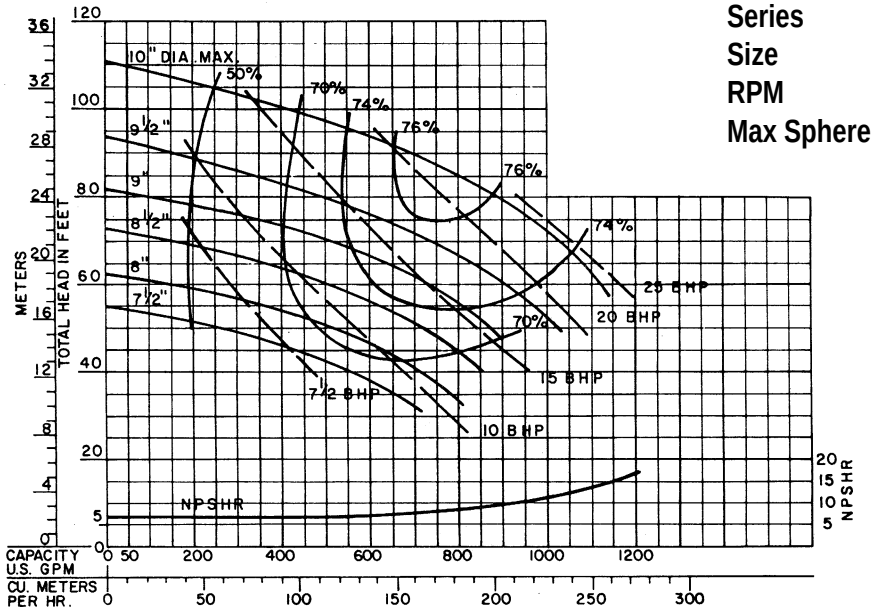
ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

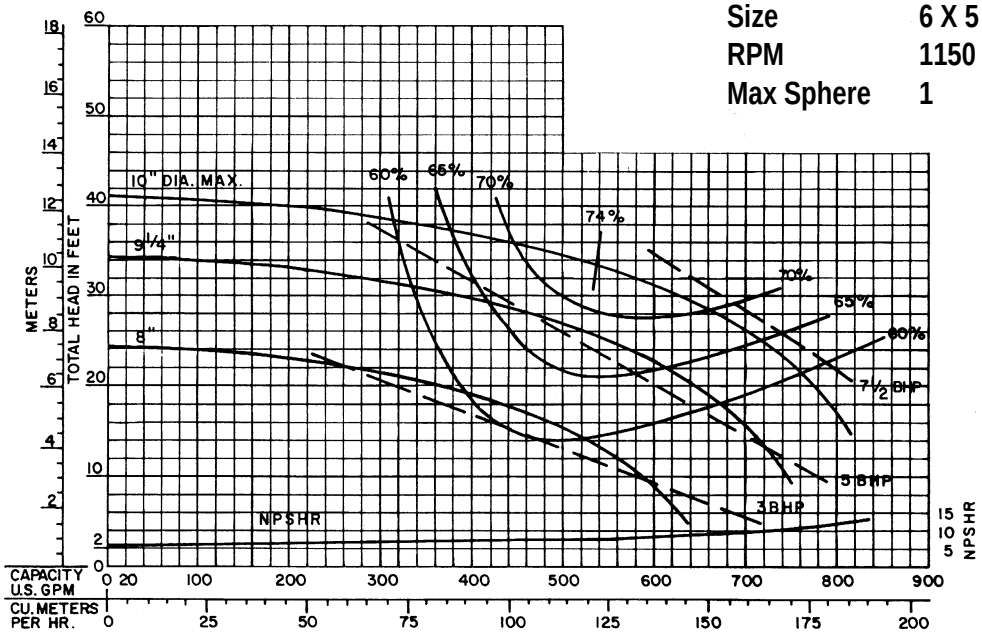
VERTIFLO PUMP COMPANY Performance Curves

Curve UM-1750



Series	**800**
Size	**6 X 5 X 10**
RPM	**1750**
Max Sphere	**1**

Curve VM-1750



Series	**800**
Size	**6 X 5 X 10**
RPM	**1150**
Max Sphere	**1**

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

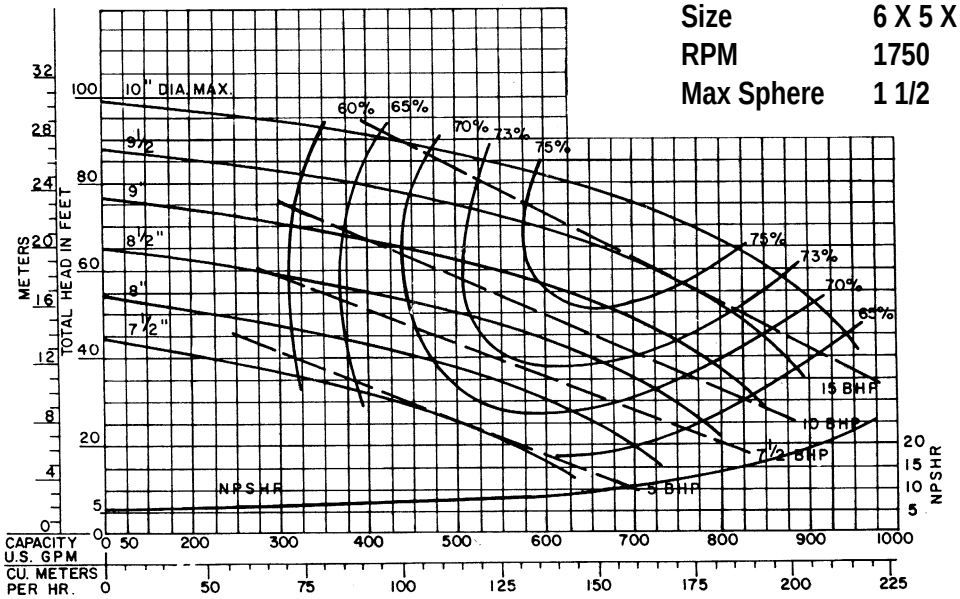
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

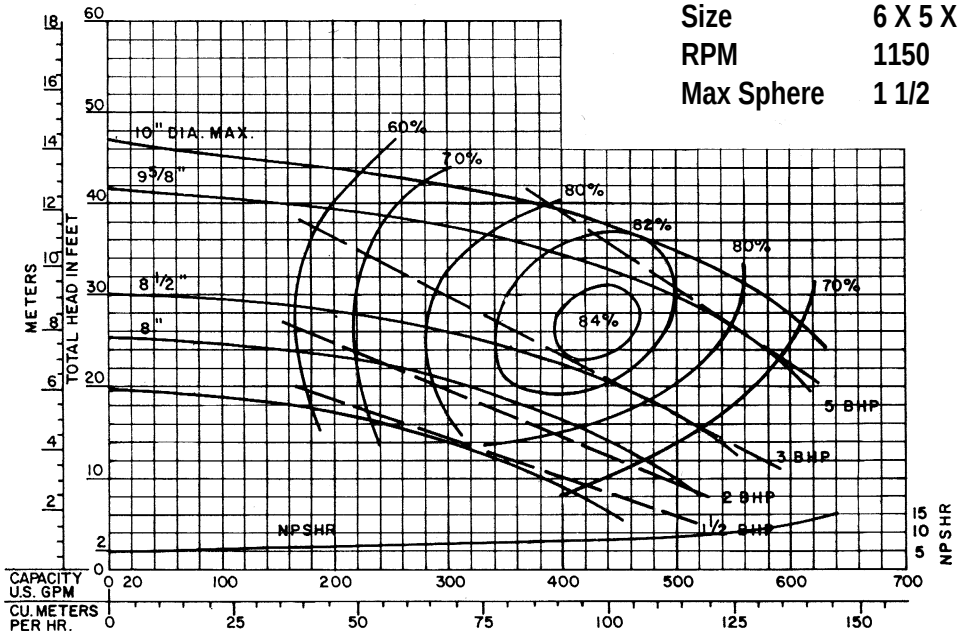
Curve SM-1750

Series	**800**
Size	**6 X 5 X 10A**
RPM	**1750**
Max Sphere	**1 1/2**



Curve SM-1850

Series	**800**
Size	**6 X 5 X 10A**
RPM	**1150**
Max Sphere	**1 1/2**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

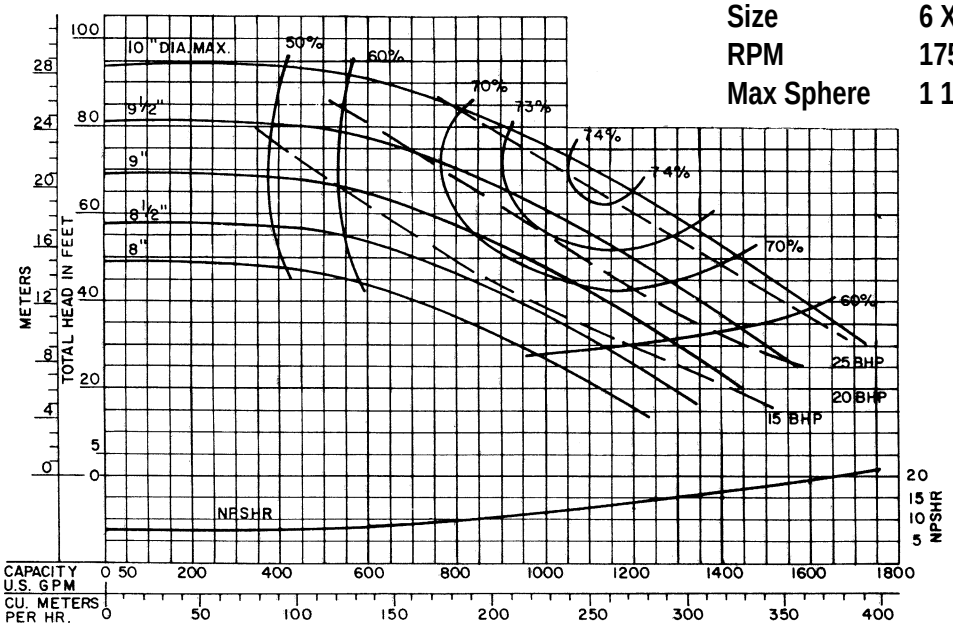
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

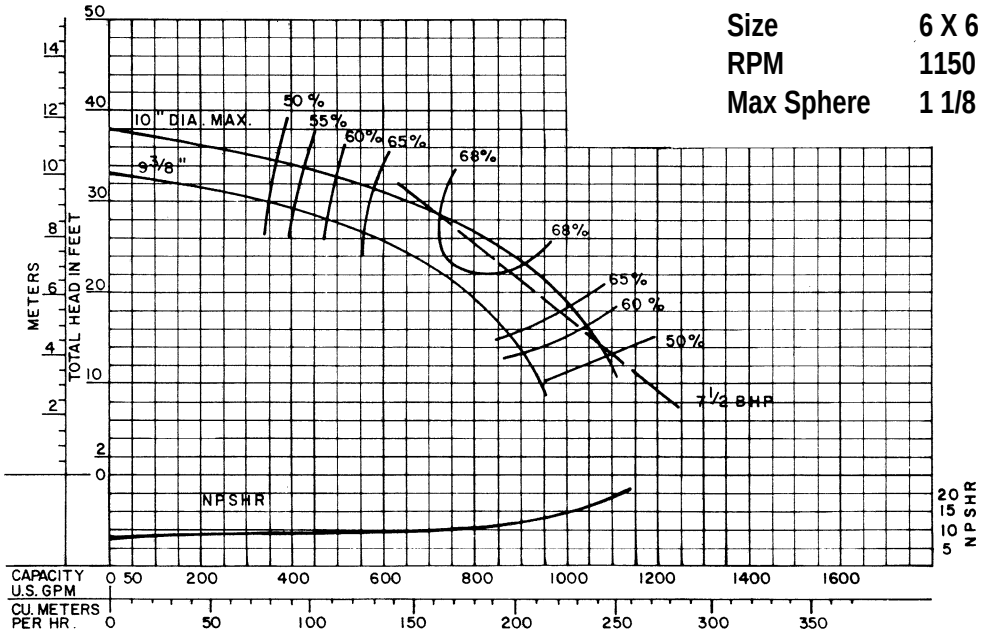
Curve TM-1760

Series	**800**
Size	**6 X 6 X 10**
RPM	**1750**
Max Sphere	**1 1/8**



Curve UM-1760

Series	**800**
Size	**6 X 6 X 10**
RPM	**1150**
Max Sphere	**1 1/8**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

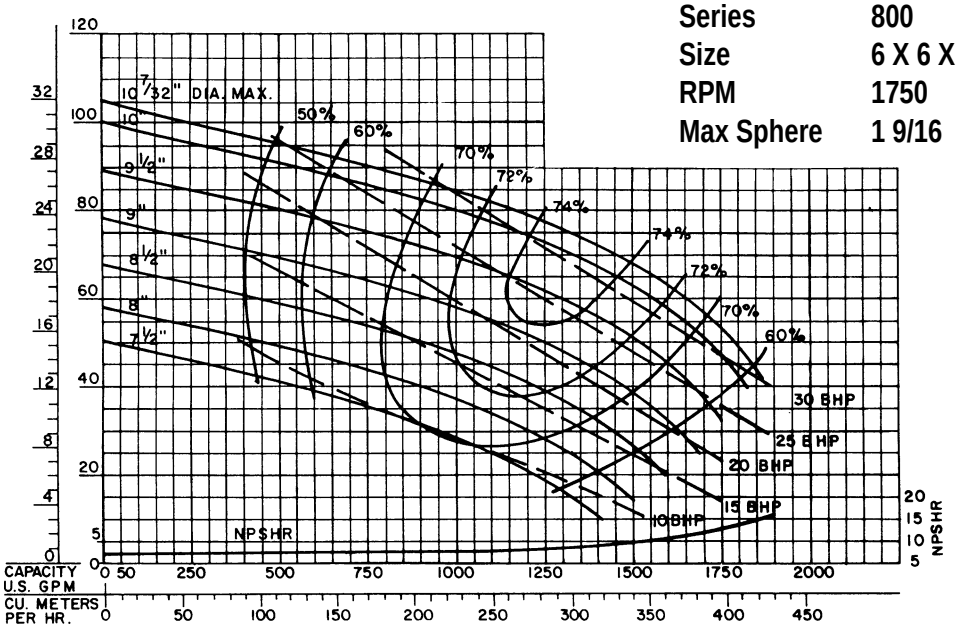
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

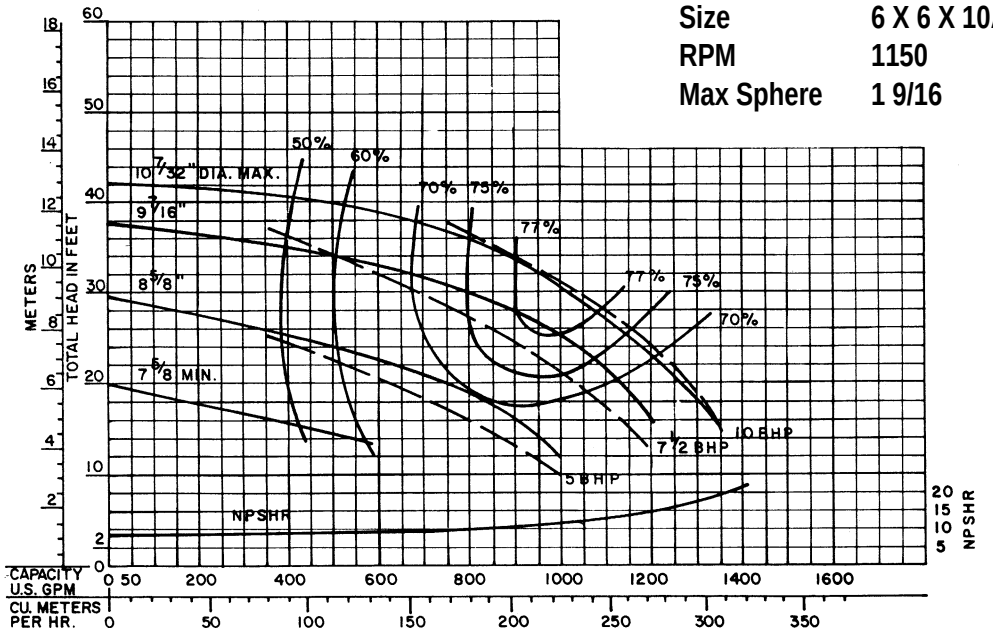
Curve LM-1760

Series	**800**
Size	**6 X 6 X 10A**
RPM	**1750**
Max Sphere	**1 9/16**



Curve LM-1860

Series	**800**
Size	**6 X 6 X 10A**
RPM	**1150**
Max Sphere	**1 9/16**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

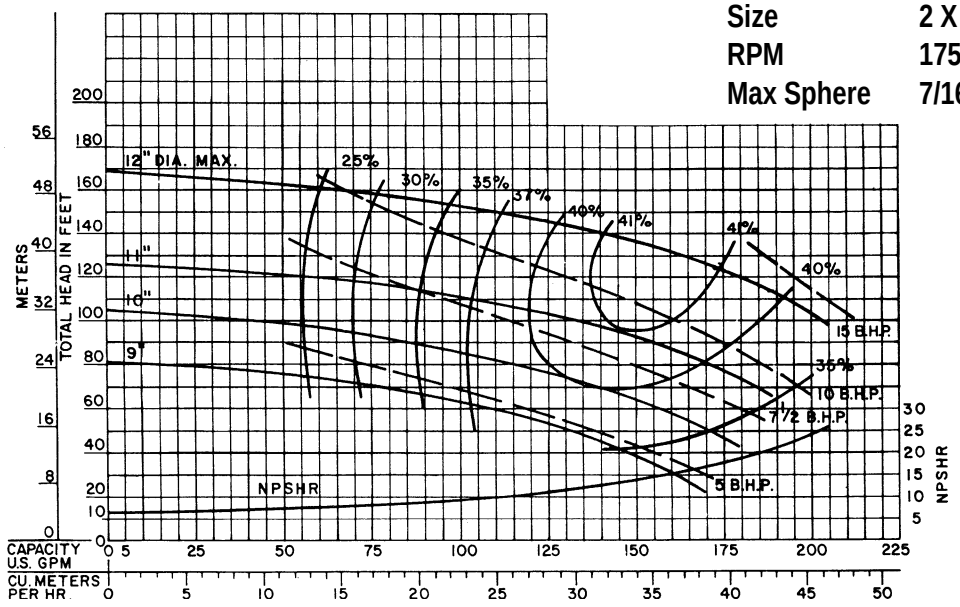
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

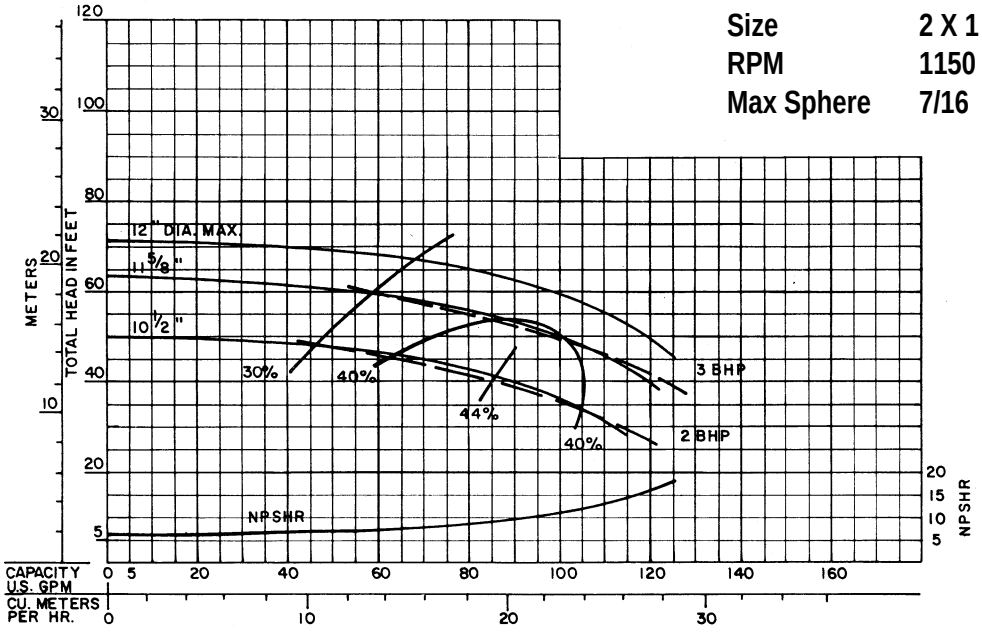
Curve KL-1915

Series	**800**
Size	**2 X 1 1/2 X 12**
RPM	**1750**
Max Sphere	**7/16**



Curve LL-1915

Series	**800**
Size	**2 X 1 1/2 X 12**
RPM	**1150**
Max Sphere	**7/16**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

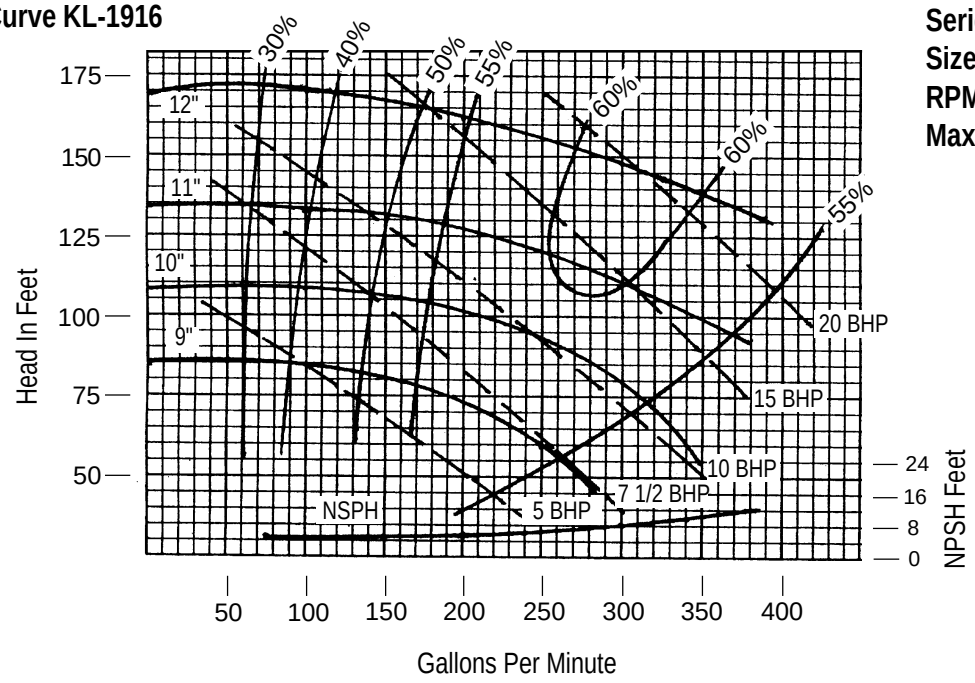
ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

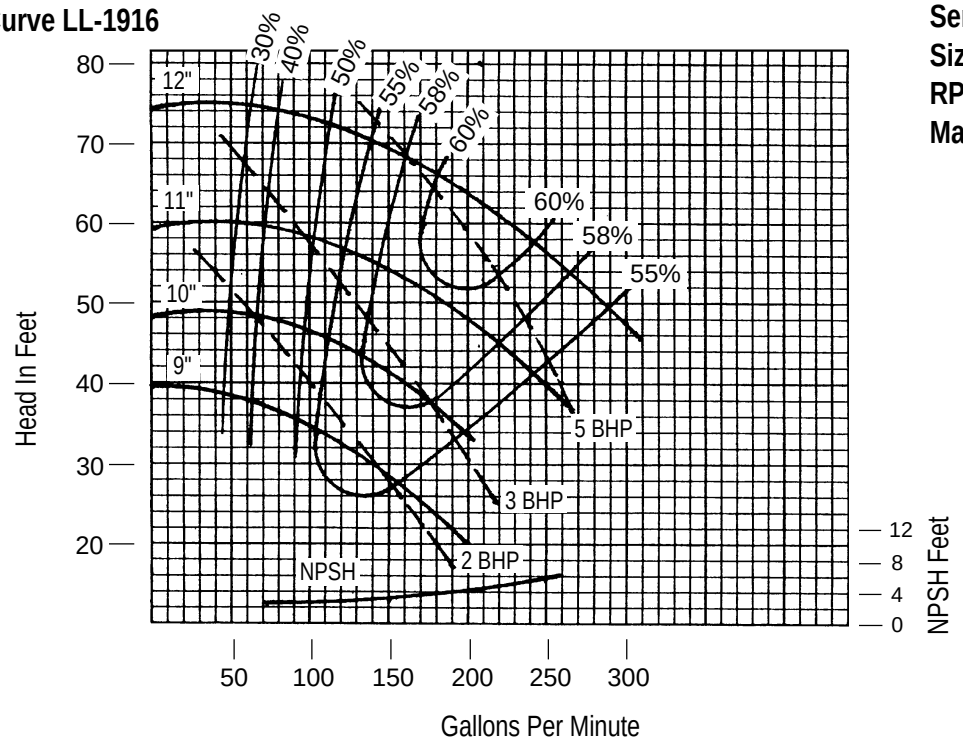
VERTIFLO PUMP COMPANY Performance Curves

Curve KL-1916



Series	**800**
Size	**3 X 2 X 12**
RPM	**1750**
Max Sphere	**3/4**

Curve LL-1916



Series	**800**
Size	**3 X 2 X 12**
RPM	**1150**
Max Sphere	**3/4**

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

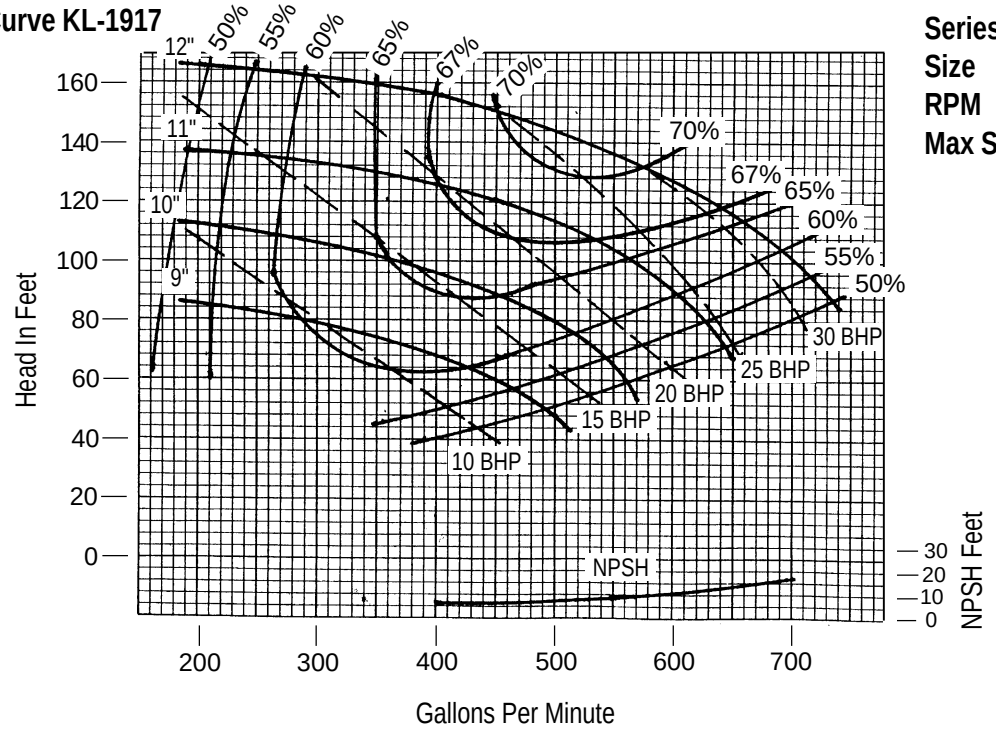
ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

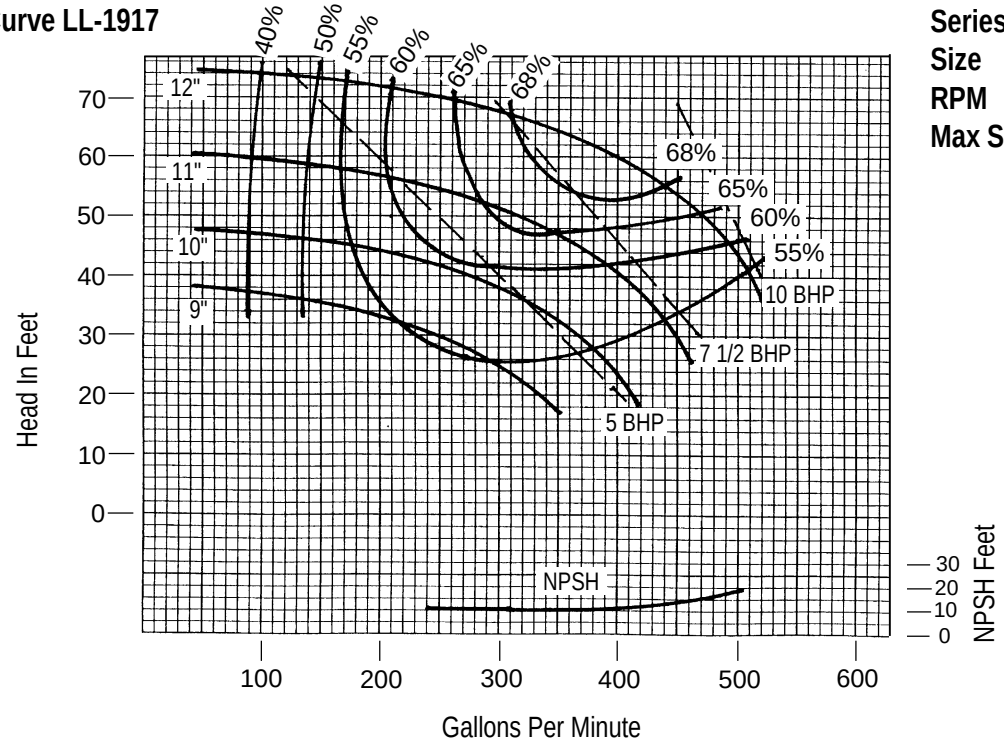
VERTIFLO PUMP COMPANY Performance Curves

Curve KL-1917



Series	**800**
Size	**4 X 3 X 12**
RPM	**1750**
Max Sphere	**1 1/4**

Curve LL-1917



Series	**800**
Size	**4 X 3 X 12**
RPM	**1150**
Max Sphere	**1 1/4**

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

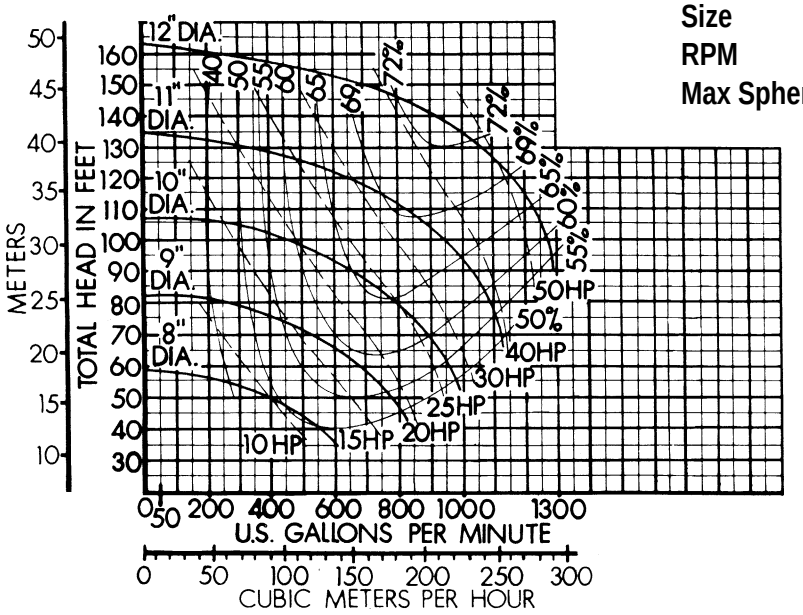
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

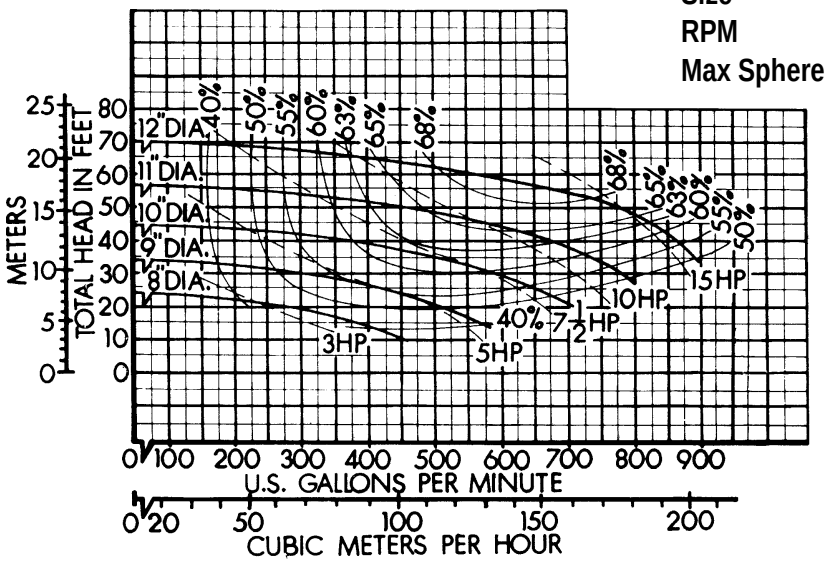
Curve 64124

Series	**800**
Size	**6 X 4 X 12**
RPM	**1750**
Max Sphere	**1 1/2**



Curve 64126

Series	**800**
Size	**6 X 4 X 12**
RPM	**1150**
Max Sphere	**1 1/2**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

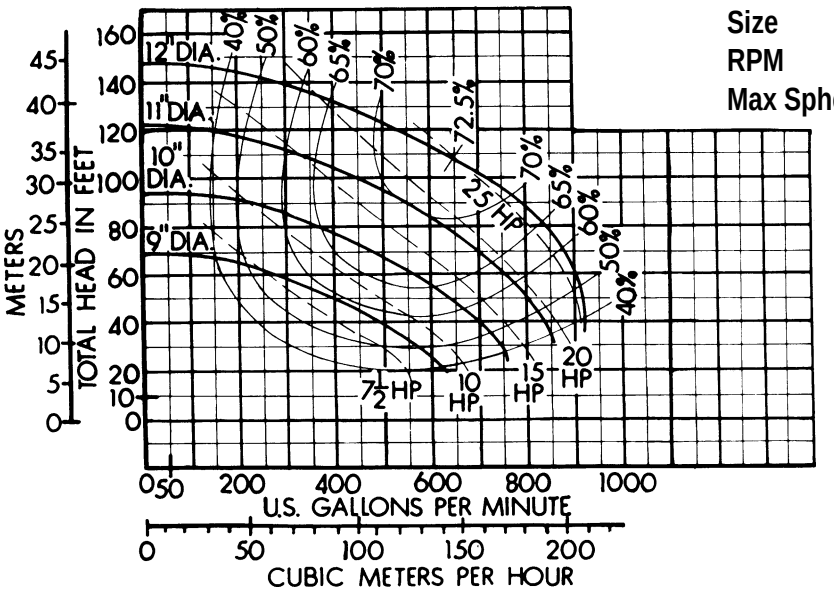
ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

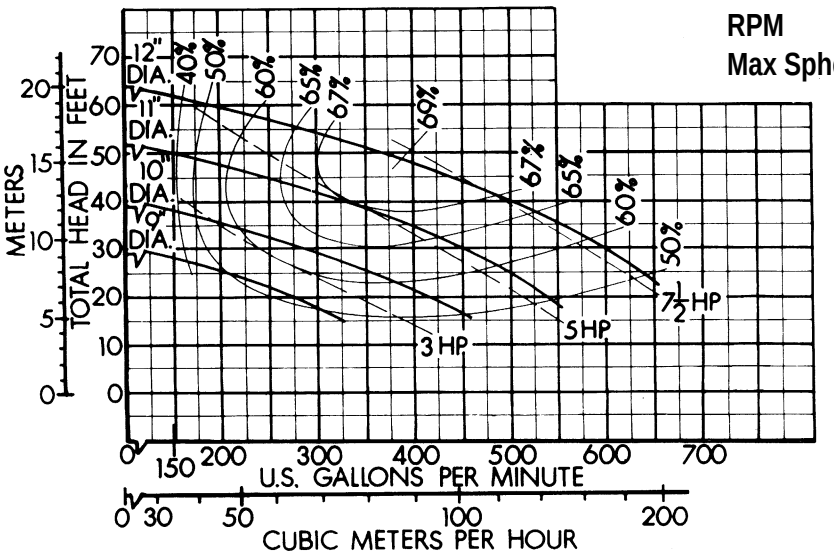
VERTIFLO PUMP COMPANY Performance Curves

Curve 6412A4



Series	**800**
Size	**6 X 4 X 12A**
RPM	**1750**
Max Sphere	**1 1/8**

Curve 6412A6



Series	**800**
Size	**6 X 4 X 12A**
RPM	**1150**
Max Sphere	**1 1/8**

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

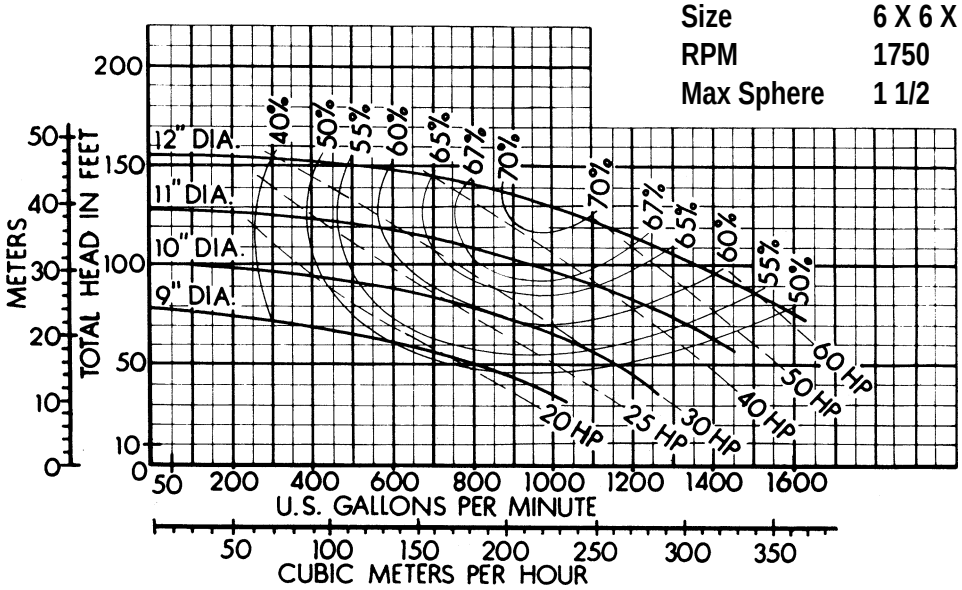
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

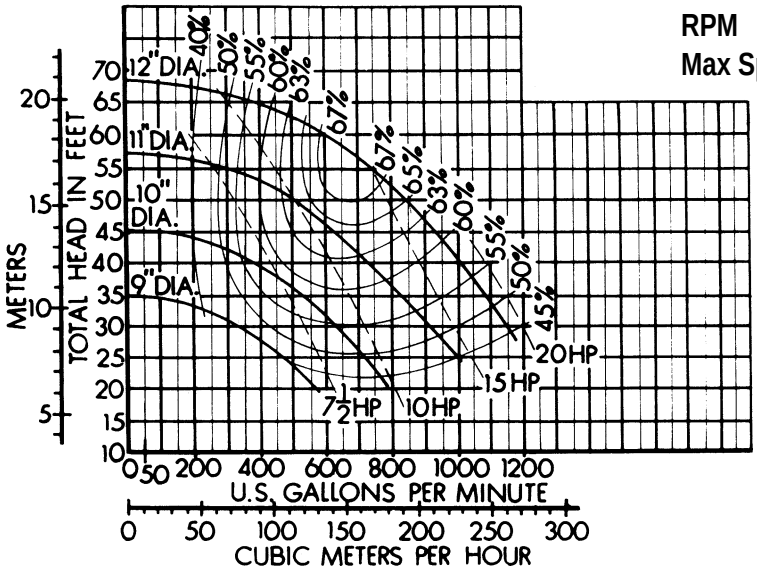
Curve 66124

Series	**800**
Size	**6 X 6 X 12**
RPM	**1750**
Max Sphere	**1 1/2**



Curve 66126

Series	**800**
Size	**6 X 6 X 12**
RPM	**1150**
Max Sphere	**1 1/2**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

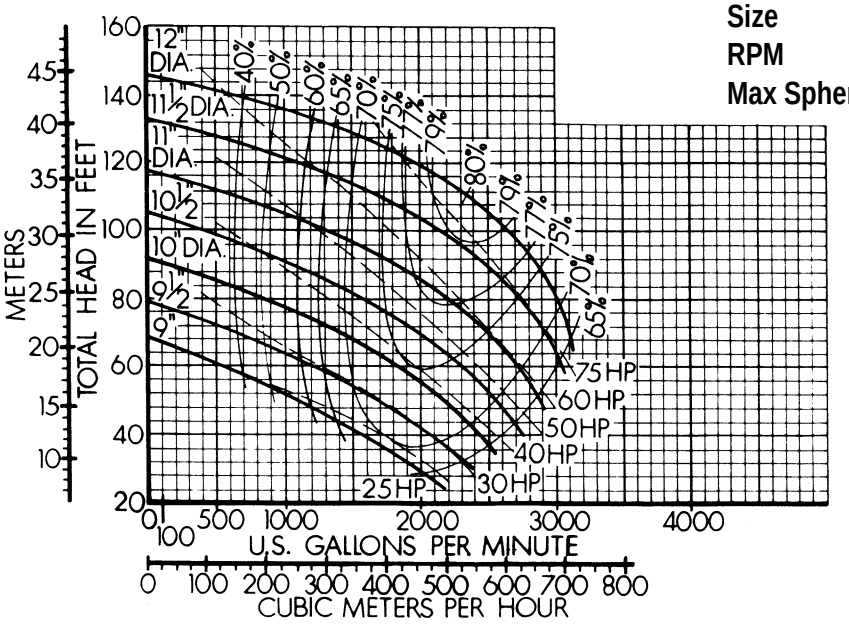
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

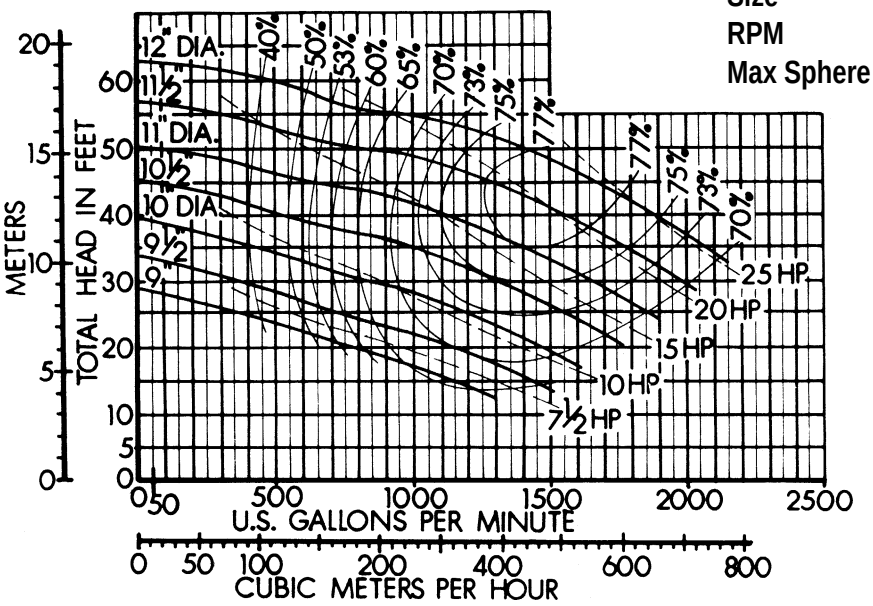
Curve 88124

Series	**800**
Size	**8 X 8 X 12**
RPM	**1750**
Max Sphere	**1 1/2**



Curve 88126

Series	**800**
Size	**8 X 8 X12**
RPM	**1150**
Max Sphere	**1 1/2**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

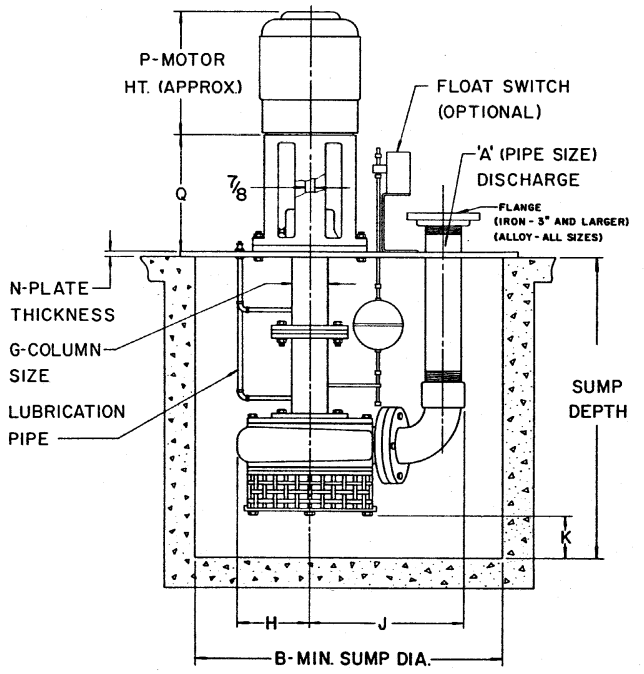
ENGINEER _____

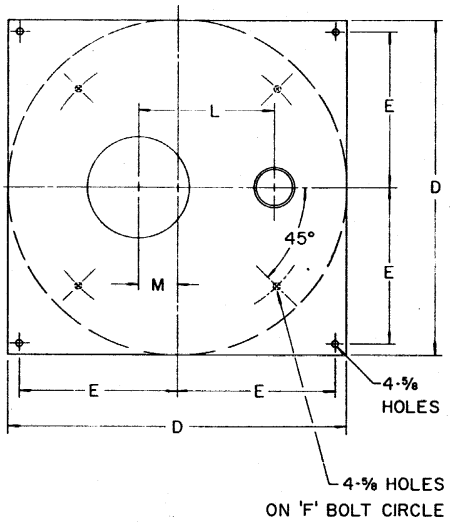
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Dimensions

800-S Simplex Sump Pump





PUMP DATA

SIZE	MODEL	A	B	C	D	E	F	G	H	J	K (2)	L	M	N
3×2½×7	820-S	2½ 3	24	2' TO 26' IN 1' INCREMENTS	28	13	26	4	5½	13½ 14¼	2⅞	11⅝ 12	4¼	⅜
1½×1×8	820-S	1 1½	24		28	13	26	4	5⅜	10⅝ 11⅛	4⅛	9⅝ 9⅞	4¼	⅜
1½×1¼×8	820-S	1½ 2	24		28	13	26	4	5⅜	11⅜ 12	3⅛	10 10⅜	4¼	⅜
2×1½×8	820-S	1½ 2	24		28	13	26	4	5⅜	11⅜ 12	3¾	10 10⅜	4¼	⅜
3×2×8	820-S	2 2½	24		28	13	26	4	5⅝	12⅝ 13⅜	3⅜	11⅛ 11½	4¼	⅜
4×3×8	820-S	3 4	24		28	13	26	4	6	15⅝ 16⅝	1½	13⅜ 13⅞	4¼ 5¼	⅜
5×4×8	820-S	4 5	30		34	16	32	4	7	17⅛ 17⅜	1⅛	14½ 15	6⅝	⅜
2×1½×10	820-S	1½ 2	34		28	13	26	4	6½	12½ 13	5	11¼ 11½	4¼	⅜
3×2×10	820-S	2 2½	24		28	13	26	4	6⅝	13¾ 14½	5	12⅜ 12⅝	4¼	⅜
4×3×10	820-S	3 4	30		34	16	32	4	7	17⅛ 18	2¾	14⅞ 15¼	6⅝	⅜
5×4×10	824-S	4 5	30		34	16	32	4	7⅜	19⅛ 20⅜	1⅛	16½ 17	6⅝	⅜
6×5×10 6×5×10A	824-S	5 6	36		40	19	38	4	8	20⅞ 21⅞	1⅛	17½ 18	6¼	½
6×6×10 6×6×10A	824-S	6 8	36		40	19	38	4	9½	22½ 25	⅞	18½ 19⅝	7¼	½
2×1½×12	824-S	1½ 2	24		28	13	26	4	7⅜	12⅞ 13½	2⅛	11⅝ 12	4¼	⅜
3×2×12	824-S	2 3	36		40	19	38	4	8	15¾ 17¼	2	14¼ 15	6	½
4×3×12	824-S	3 4	36		40	19	38	4	8	18 19	1⅜	15¾ 16¼	6	½

FRAME	P	Q
56 C	10 7/16	12
143 TC	10	12
145 TC	10 7/16	12
182 - 184 TC	13½	12
213 TC	15½	12
215 TC	17	12
254 TC	20⅛	12
256 TC	21⅞	12
284 TC	22⅜	13
286 TC	23⅞	13
324 TC	24¾	13½
326 TC	26⅛	13½
364 TC	26½	16⅝
365 TC	27½	16⅝

MOTOR DATA

"K" dimension shown is for a pump built for a 2' through 6' pit depth. For each additional column section, subtract 3/8" from "K."

Not for construction unless certified, some dimensions may vary ± 1/2". Pump Construction:_____

CUSTOMER_____CUSTOMER NO._____
PROJECT_____SERIAL NO._____
ENGINEER_____LOCATION_____
CONTRACTOR_____

PUMP DATA	Model	Size	Curve No.	GPM	Head	SP. GR.@Temp.	Pump Length	Plate
	_____	_____	_____	_____	_____	_____	_____	_____

MOTOR DATA	Mfgr.	HP	RPM	Volt-Phase-Cycle	Frame	ENC.	Furnished by	Mounted by
	_____	_____	_____	_____	_____	_____	_____	_____

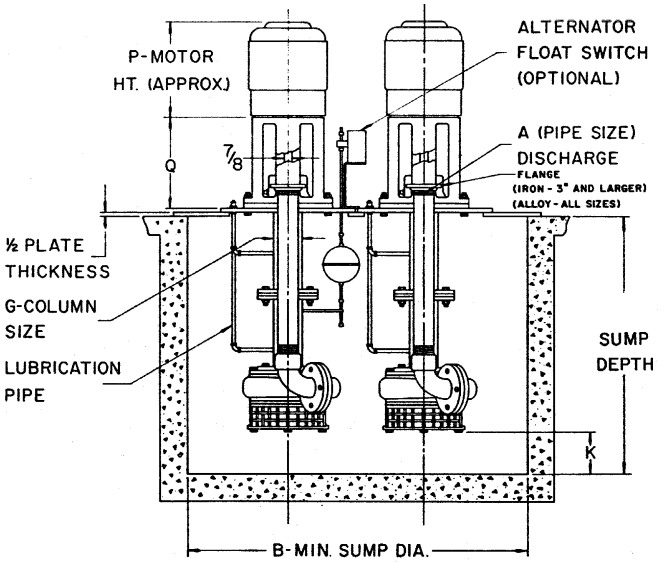
Shop Order_____Certified by_____Date_____

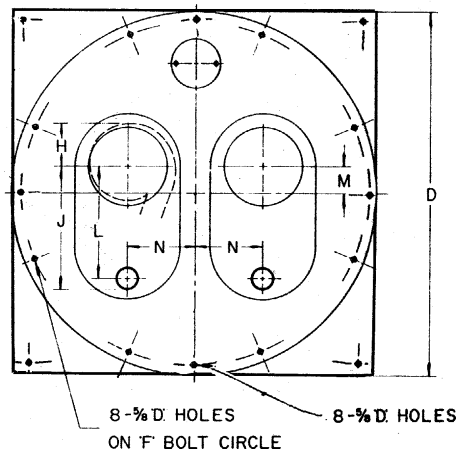
VERTIFLO PUMP COMPANY Dimensions

800-S Duplex Sump Pump

PUMP DATA

SIZE	MODEL	A	B	C	D	F	G	H	J	K (2)	L	M	N
3×2½×7	820-S	2½ / 3	48	2' TO 20' IN 1' INCREMENTS	54	51	4	5½	13½ / 14⅛	2⅞	11⅝ / 12	8¾	10½
1½×1×8	820-S	1 / 1½	48		54	51	4	5⅜	10½ / 11⅛	4⅛	9⅝ / 9⅞	8¾	10½
1½×1¼×8	820-S	1½ / 2	48		54	51	4	5⅜	11⅜ / 12	3½	10 / 10⅜	8¾	10½
2×1½×8	820-S	1½ / 2	48		54	51	4	5⅜	11⅜ / 12	3¾	10 / 10⅜	8¾	10½
3×2×8	820-S	2 / 2½	48		54	51	4	5⅝	12⅝ / 13⅜	3⅜	11⅛ / 11½	8¾	10½
4×3×8	820-S	3 / 4	48		54	51	4	6	15⅝ / 16⅝	1½	13⅜ / 13⅞	8¾ / 9¾	10½
5×4×8	820-S	4 / 5	54		60	57	4	7	17⅛ / 18⅜	1⅛	14½ / 15	8½	11
2×1½×10	820-S	1½ / 2	48		54	51	4	6½	12½ / 13	5	11¼ / 11½	8¾	10½
3×2×10	820-S	2 / 2½	48		54	51	4	6⅝	13⅞ / 14½	5	12⅜ / 12⅝	8¾	10½
4×3×10	820-S	3 / 4	54		60	57	4	6⅞	17 / 18	2¾	14⅞ / 15¼	11½	11
5×4×10	824-S	4 / 5	54		60	57	4	7⅜	19¼ / 20⅜	1⅛	16½ / 17	13	11
6×5×10 / 6×5×10A	824-S	5 / 6	60		66	63	4	8	20⅞ / 21⅞	1⅛	17½ / 18	13	12⅛
6×6×10 / 6×6×10A	824-S	6 / 8	60		66	63	4	9½	22½ / 25	⅞	18½ / 19⅝	12½	12⅛
2×1½×12	824-S	1½ / 2	48		54	51	4	7⅜	12⅞ / 13½	2⅛	11⅝ / 12	8¼	10½
3×2×12	824-S	2 / 3	54		60	57	4	8	15¾ / 17¼	2½	14¼ / 15	12	11
4×3×12	824-S	3 / 4	54		60	57	4	8	18 / 19	2½	15¾ / 16¼	12	11





MOTOR DATA

FRAME	P	Q
56 C	10⁷⁄₁₆	12
143 TC	10	12
145 TC	10⁷⁄₁₆	12
182 - 184 TC	13½	12
213 TC	15½	12
215 TC	17	12
254 TC	20⅛	12

FRAME	P	Q
256 TC	21⅞	12
284 TC	22⅜	13
286 TC	23⅞	13
324 TC	24¾	13½
326 TC	26⅛	13½
364 TC	26½	16⅝
365 TC	27½	16⅝

"K" dimension shown is for a pump built for a 2' through 6' pit depth. For each additional column section, subtract 3/8" from "K."

Not for construction unless certified, some dimensions may vary ± 1/2". Pump Construction:_____

CUSTOMER_____ CUSTOMER NO._____
PROJECT_____ SERIAL NO._____
ENGINEER_____ LOCATION_____
CONTRACTOR_____

	Model	Size	Curve No.	GPM	Head	SP. GR.@Temp.	Pump Length	Plate
PUMP DATA	_____	_____	_____	_____	_____	_____	_____	_____

	Mfgr.	HP	RPM	Volt-Phase-Cycle	Frame	ENC.	Furnished by	Mounted by
MOTOR DATA	_____	_____	_____	_____	_____	_____	_____	_____

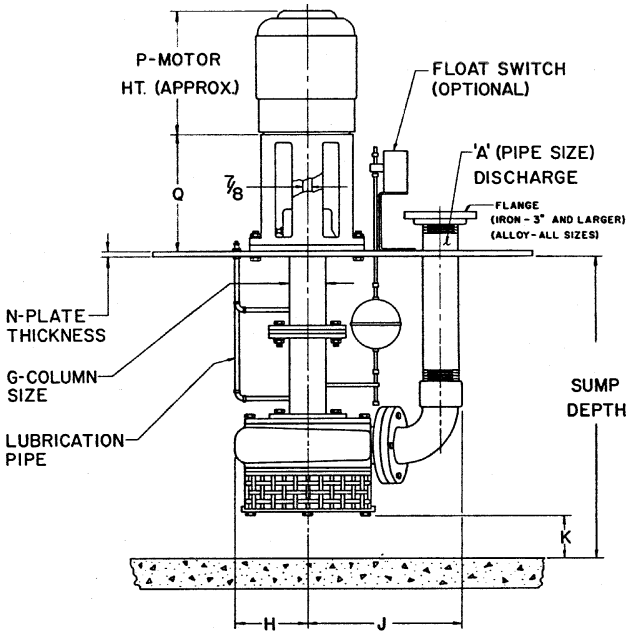
Shop Order_____ Certified by_____ Date_____

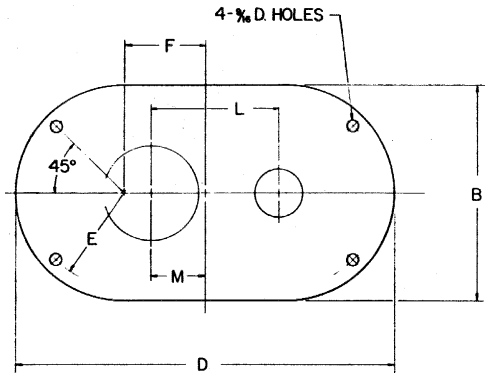
VERTIFLO PUMP COMPANY Dimensions

800-S Basic Sump Pump

PUMP DATA

SIZE	MODEL	A	B	C	D	E	F	G	H	J	K (2)	L	M	N
3x2½x7	820-S	2½ / 3	18	2' TO 20' IN 1' INCREMENTS	26	8	4	4	5½	13½ / 14½	2⅞	11⅝ / 12	4¾	⅜
1½x1x8	820-S	1 / 1½	18		26	8	4	4	5⅜	10⅝ / 11⅛	4⅛	9⅝ / 9⅞	4¾	⅜
1½x1¼x8	820-S	1½ / 2	18		26	8	4	4	5⅜	11⅜ / 12	3½	10 / 10⅜	4¾	⅜
2x1½x8	820-S	1½ / 2	18		26	8	4	4	5⅜	11⅜ / 12	3¾	10 / 10⅜	4¾	⅜
3x2x8	820-S	2 / 2½	18		26	8	4	4	5⅜	12⅝ / 13⅜	3⅜	11⅛ / 11½	4¾	⅜
4x3x8	820-S	3 / 4	18		26	8	4	4	6	15⅝ / 16⅝	1½	13⅜ / 13⅞	4¾ / 5¾	⅜
5x4x8	820-S	4 / 5	21		30	9½	4½	4	7	17⅛ / 17⅜	1⅛	14½ / 15	6½	⅜
2x1½x10	820-S	1½ / 2	18		26	8	4	4	6½	12½ / 13	5	11¼ / 11½	4¾	⅜
3x2x10	820-S	2 / 2½	18		26	8	4	4	6⅝	13¾ / 14½	5	12⅜ / 12⅝	4¾	⅜
4x3x10	820-S	3 / 4	21		30	9½	4½	4	7	17⅛ / 18	2¾	14⅞ / 15¼	6½	⅜
5x4x10	824-S	4 / 5	24		34	9½	6½	4	7⅜	19¼ / 20⅜	1⅛	16½ / 17	7	½
6x5x10 / 6x5x10A	824-S	5 / 6	21		34	9½	6½	4	8	20⅞ / 21⅞	1⅛	17½ / 18	7	½
6x6x10 / 6x6x10A	824-S	6 / 8	24		39	11	7½	4	9½	22½ / 25	⅞	18½ / 19⅝	8	½
2x1½x12	824-S	1½ / 2	20		26	9	3	4	7⅜	12⅞ / 13½	2⅛	11⅝ / 12	4¼	⅜
3x2x12	824-S	2 / 3	21		34	9½	6½	4	8	15¾ / 17¼	2	14¼ / 15	6	½
4x3x12	824-S	3 / 4	21		34	9½	6½	4	8	18 / 19	1⅜	15¾ / 16¼	6	½





MOTOR DATA

FRAME	P	Q
56 C	10⁷⁄₁₆	12
143 TC	10	12
145 TC	10⁷⁄₁₆	12
182 - 184 TC	13½	12
213 TC	15½	12
215 TC	17	12
254 TC	20⅛	12

FRAME	P	Q
256 TC	21⅞	12
284 TC	22⅜	13
286 TC	23⅞	13
324 TC	24¾	13½
326 TC	26⅛	13½
364 TC	26½	16⅝
365 TC	27½	16⅝

"K" dimension shown is for a pump built for a 2' through 6' pit depth. For each additional column section, subtract 3/8" from "K."

Not for construction unless certified, some dimensions may vary ± 1/2". Pump Construction:_____

CUSTOMER_____CUSTOMER NO._____
PROJECT_____SERIAL NO._____
ENGINEER_____LOCATION_____
CONTRACTOR_____

PUMP DATA	Model	Size	Curve No.	GPM	Head	SP. GR.@Temp.	Pump Length	Plate
	_____	_____	_____	_____	_____	_____	_____	_____

MOTOR DATA	Mfgr.	HP	RPM	Volt-Phase-Cycle	Frame	ENC.	Furnished by	Mounted by
	_____	_____	_____	_____	_____	_____	_____	_____

Shop Order_____Certified by_____Date_____

VERTIFLO PUMP COMPANY Dimensions

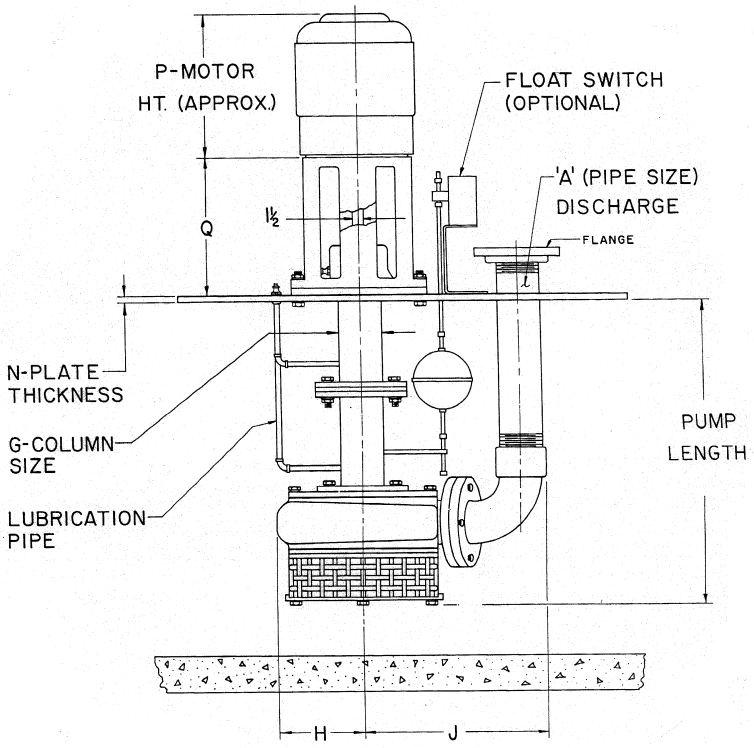
832 Simplex Sump Pump

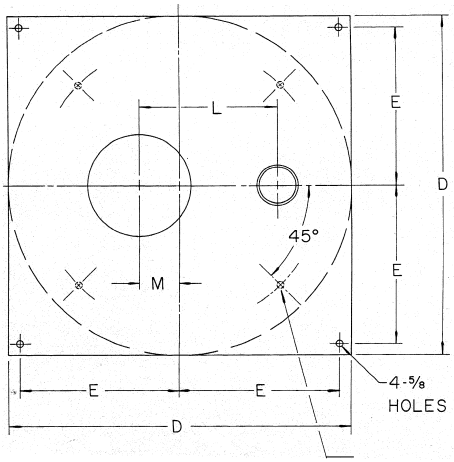
PUMP DATA

SIZE	MDL	A	B	D	E	F	G	H	J	L	M	N
6×4×12	832	4	36	40	19	38	6	9	19¾	17	6⅛	½
		5							20⅞	17½		
		6							22	18		
6×6×12	832	6	36	40	19	38	6	9½	22¾	18¾	7⅛	½
		8	40	54	26	52			25¼	19⅞		
8×8×12	832	8	40	54	26	52	6	12½	28⅜	23	8½	½
		10							30⅞	24⅛		

MOTOR DATA

FRAME	P	Q
56 C	12⅛	12
143 - 145 TC	12¼	12
182 - 184 TC	15⁷⁄₁₆	12
213 - 215 TC	16¹¹⁄₁₆	14¼
254 - 256 TC	20	14¼
284 - 286 TC	20⅛	14⅝
324 - 326 TSC	25	16⅝
364 - 365 TSC	25¼	16⅝
404 - 405 TSC	28	18⅜





Not for construction unless certified, some dimensions may vary ± 1/2". Pump Construction:_____

CUSTOMER_____ CUSTOMER NO._____
PROJECT_____ SERIAL NO._____
ENGINEER_____ LOCATION_____
CONTRACTOR_____

	Model	Size	Curve No.	GPM	Head	SP. GR.@Temp.	Pump Length	Plate
PUMP DATA	_____	_____	_____	_____	_____	_____	_____	_____

	Mfgr.	HP	RPM	Volt-Phase-Cycle	Frame	ENC.	Furnished by	Mounted by
MOTOR DATA	_____	_____	_____	_____	_____	_____	_____	_____

Shop Order_____ Certified by_____ Date_____

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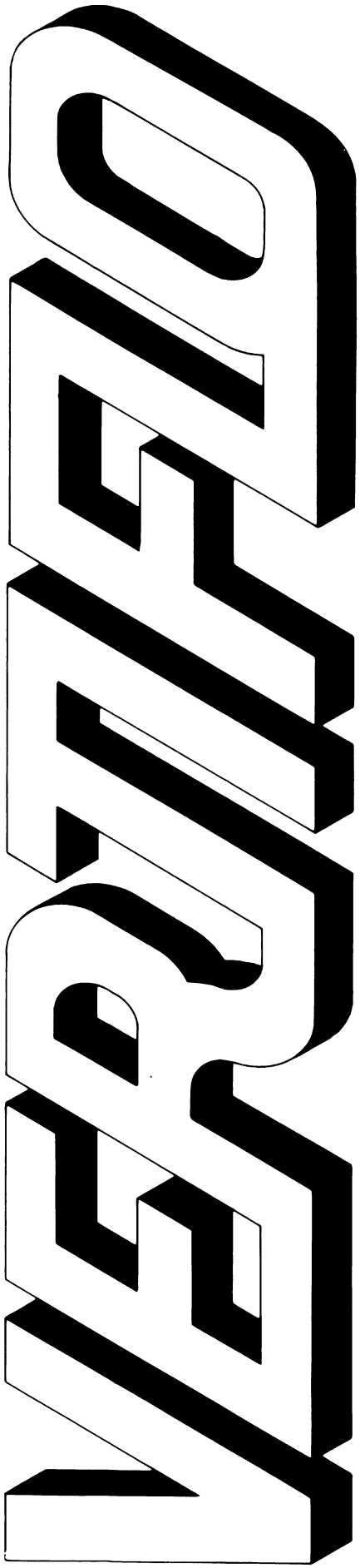


PUMPS FOR INDUSTRY

CONTENTS:

 0407

VERTIFLO SERIES 900
Quality Design Features Assure Long, Trouble-Free Service

WIDE RANGE OF APPLICATIONS:

- Chemical Slurries
- Fragile Food Processing Solids
- Paper & Pulpy Solids
- Petroleum
- Oils
- Sewage & Waste Treatment
- Textiles

CAPABILITIES:

- Capacities to 1600 GPM
- Heads to 170 Feet
- Temperature to 350° F
- Pit Depths to 26 Feet
- Construction: Cast Iron, 316 Stainless Steel Fitted, All 316 Stainless Steel, Alloy 20, CD4MC$_u$
- Solid Handling up to 4" Diameter Spheres

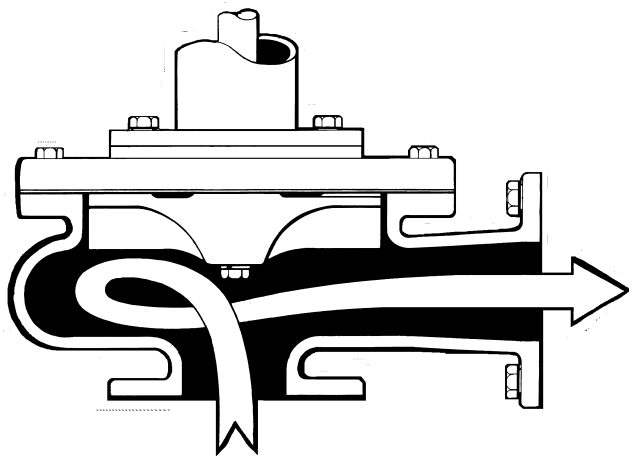
CONSTRUCTION:

Standard

- All iron construction
- Carbon bottom line shaft bearings
- Carbon intermediate bearings (Pump built for pit depth over 6'-0")
- Fully recessed impeller with wiping vanes
- High thrust, angular contact ball bearing
- 416 stainless steel shaft
- Round, square or oval cover plates
- External impeller adjustment
- Pump setting increments of 1'-0" for pit depths up to 26'-0"
- Flanged suction and discharge on all casings
- Standard C face motors

Options

- Stainless steel fitted, all stainless steel or Alloy 20 construction
- Various line shaft bearing designs
- 316 stainless steel shafting
- Cover plate with manhole, vent or special openings
- Vapor-proof construction
- Various float switch enclosures
- Various liquid level controls
- High water alarm
- Alarm bells and horns
- 316 stainless steel float rod
- 316 stainless steel float
- Below plate discharge "T"



Vortex Design provides an unrestricted flow since the impeller is not normally in contact with the solids being pumped.

1. Motor Support

Assures positive alignment of motor and pump shaft with register fit. Normal thrust, vertical NEMA C face motor standard

2. Flexible Coupling

3. External Impeller Adjustment

High performance maintained without dismantling pump

4. Thrust Bearings

High thrust angular contact bearing. Moisture-proof enclosure, (2) grease seals, purge-type grease lubrication

5. Gas Tight Column Closure

Optional double lip seals available

6. Cover Plate

Designed for specific unit. Optional sizes and gas-tight construction available

7. Column Pipe

Schedule 40 steel with welded flanges

8. Positive Machined Fits

Machined registered fits of column, bearing housing and casing

9. Intermediate Bearing Assembly

Furnished as standard for pit depths in excess of 6'-0". Optional designs for special applications

10. Shafting

Accurately machined 416 stainless steel, 1 ¼", 1 ½" and 1 15/16" diameter to assure minimum deflection

11. Pump Bearing Assembly

Heavy construction designed for maximum bearing loadings. Optional designs available

12. Bearings

Various materials available to suit most applications

13. Choker Ring

Restricts entrance of abrasives and solids into bottom bearing

14. Impeller

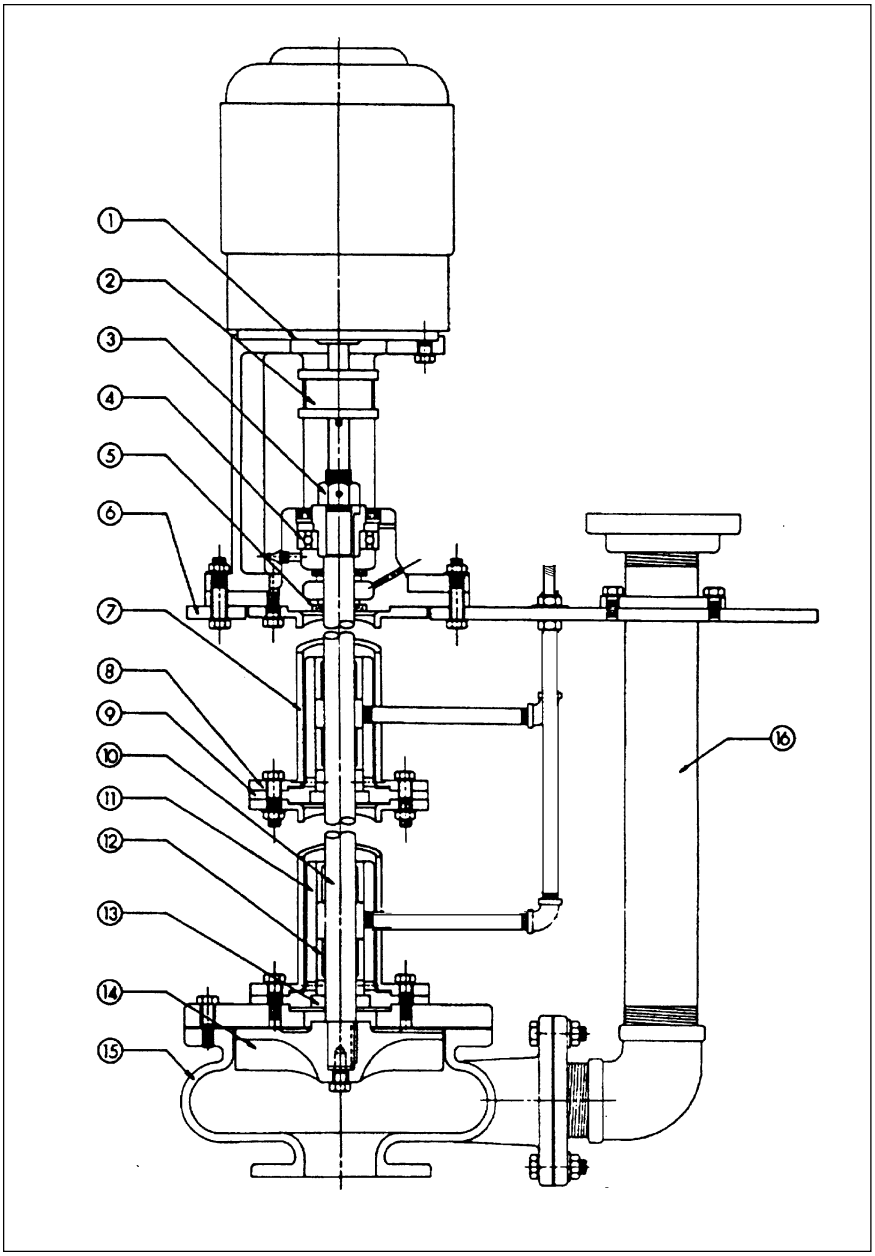
Fully recessed out of flow path. Full length eductor vanes reduce pressure and solid particle buildup behind the impeller

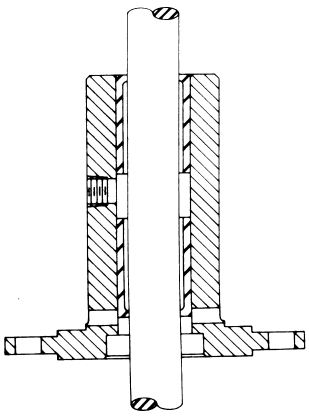
15. Casing

Vortex-type concentric design. Extra heavy wall thickness design for corrosion allowance

16. Discharge Pipe

Schedule 40 flanged pipe and fittings. Below plate "T"-type discharge available





Standard Line Shaft Bearing Assemblies

Lower Bearing Assembly

The standard pump bearing assembly consists of choker ring and (2) guide bearing bushings compatible with the liquid.Standard carbon graphite bearings furnished. Optional: bronze, Teflon* or viton.

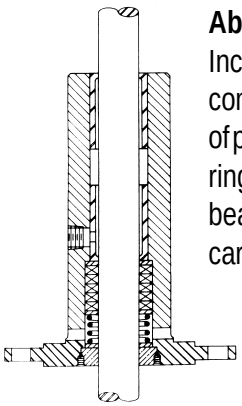
Intermediate Bearing Assembly

The standard intermediate assembly consists of (2) guide bearings compatible with the liquid and is standard when pit depth exceeds 6 feet. Standard carbon graphite bearings furnished. Optional: bronze, Teflon* or viton.

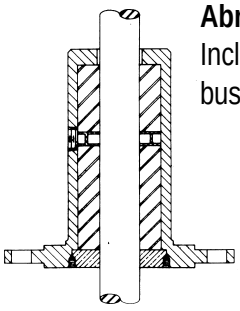
*E.I DuPont registered TM

Part Description	Standard Fitted	316 Stainless Fitted	All 316 Stainless	Alloy 20
Motor Support, Thrust Bearing Housing	Cast Iron Class 30	Cast Iron Class 30	Cast Iron Class 30	Cast Iron Class 30
Shaft	Stainless Steel AISI-416	Stainless Steel AISI-316	Stainless Steel AISI-316	Alloy 20
Column	Steel ASTM-A53	Steel ASTM-A53	Stainless Steel AISI-316	Alloy 20
Bearing Housing	Cast Iron Class 30	Cast Iron Class 30	Stainless Steel AISI-316	Alloy 20
Guide Bearings	Graphite	Graphite	Graphite	Graphite
Casing Adaptor	Steel ASTM-53	Steel ASTM-53	Stainless Steel AISI-316	Alloy 20
Impeller	Cast Iron Class 30	Stainless Steel AISI-316	Stainless Steel AISI-316	Alloy 20
Impeller Trim	Stainless Steel AISI-316	Stainless Steel AISI-316	Stainless Steel AISI-316	Alloy 20
Casing	Cast Iron Class 30	Cast Iron Class 30	Stainless Steel AISI-316	Alloy 20
Gasket	Vellumoid	Vellumoid	NA 700	NA 700
Discharge Elbow	Cast Iron AISI-B164	Cast Iron AISI-B164	Stainless Steel AISI-316	Alloy 20
Discharge Pipe	Steel ASTM-A53	Steel ASTM-A53	Stainless Steel AISI-316	Alloy 20
Cover Plate	Steel HRS	Steel HRS	Steel HRS	Steel HRS
Bearing Adaptor	Steel AISI-12L14	Steel AISI-12L14	Steel AISI-12L14	Steel AISI-12L14
Adjusting Nut	Steel ASTM-307	Steel ASTM-307	Steel ASTM-307	Steel ASTM-307
Lip Seal	Nitrile	Nitrile	Nitrile	Nitrile

Alternate Line Shaft Bearing Assemblies



Abrasive Service - 1
Includes (2) guide bearing bushings compatible with the liquid, (5) rings of packing spring loaded and a choker ring to eliminate abrasives from the bearing area. Optional are bronze or carbon graphite.



Abrasive Service - 2
Includes (2) cutless rubber bearing bushings for water flush connection.

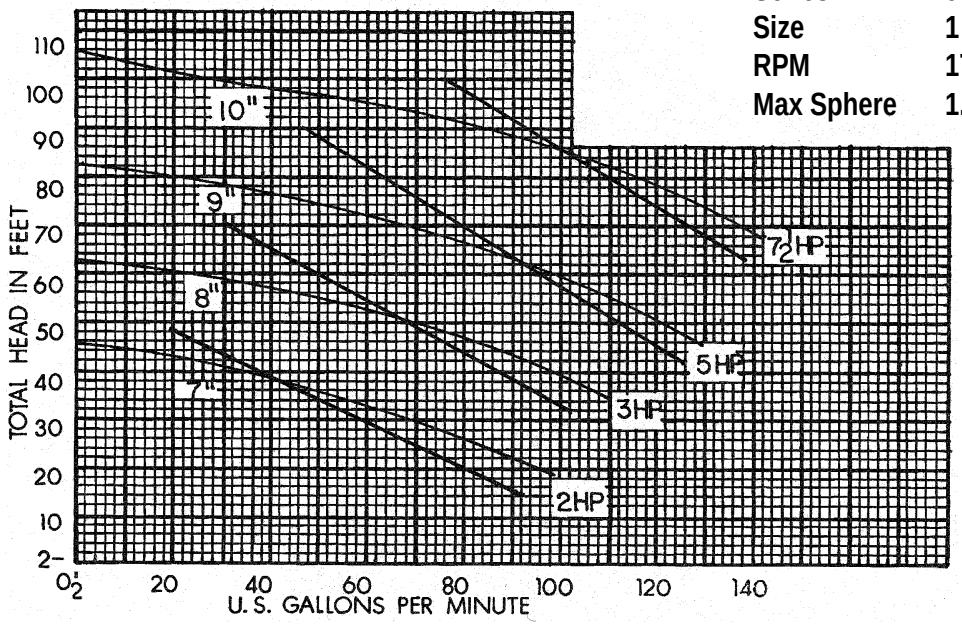
NOTE: Bearing assemblies shown are typical for most pumping services. Unusual or severe services may necessitate changes in asssembly design.

Model Number	Shaft Size	Column Pipe Size	Quantity of Bushings
920	1.250	4.00	2
924	1.500	4.00	2
932	1.9375	6.00	2

VERTIFLO PUMP COMPANY Performance Curves

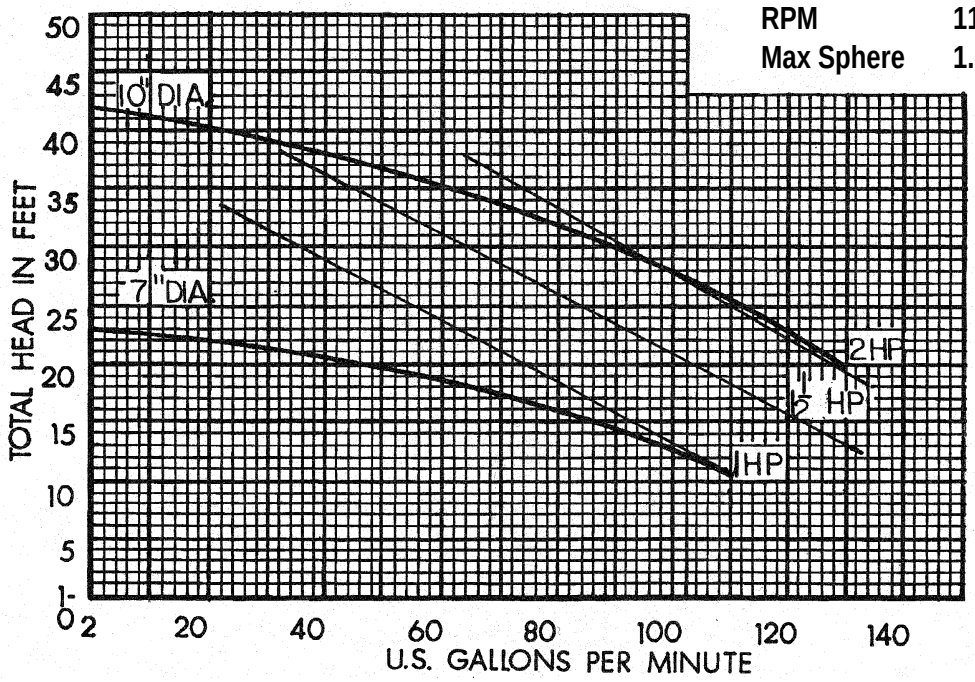
Curve 11104

Series	**900**
Size	**1 1/2 X 1 1/2 X 10**
RPM	**1750**
Max Sphere	**1.5**



Curve 11106

Series	**900**
Size	**1 1/2 X 1 1/2 X 10**
RPM	**1150**
Max Sphere	**1.5**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

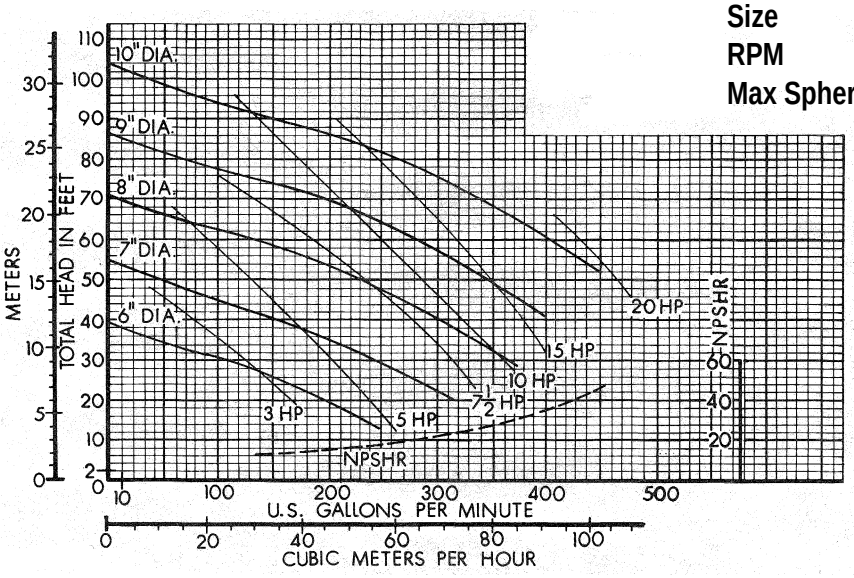
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

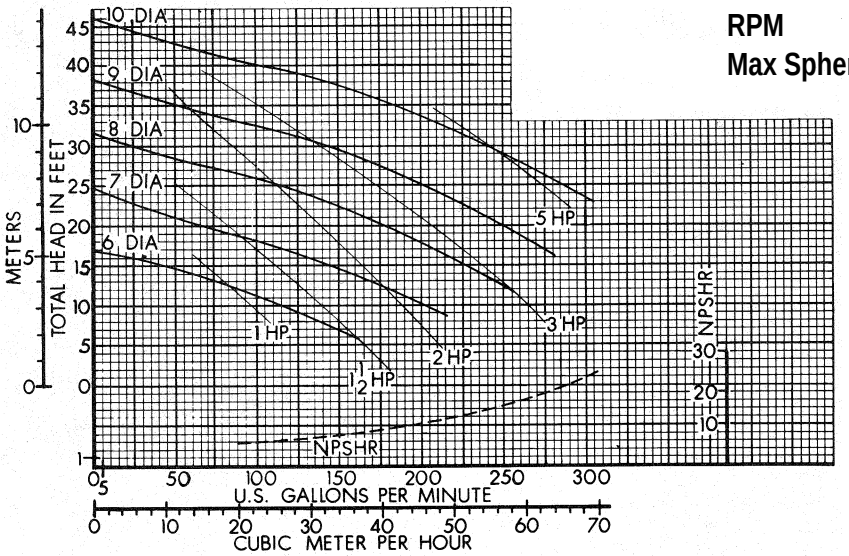
Curve 22104

Series	**900**
Size	**2 X 2 X 10**
RPM	**1780**
Max Sphere	**2**



Curve 22106

Series	**900**
Size	**2 X 2 X 10**
RPM	**1180**
Max Sphere	**2**



900

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

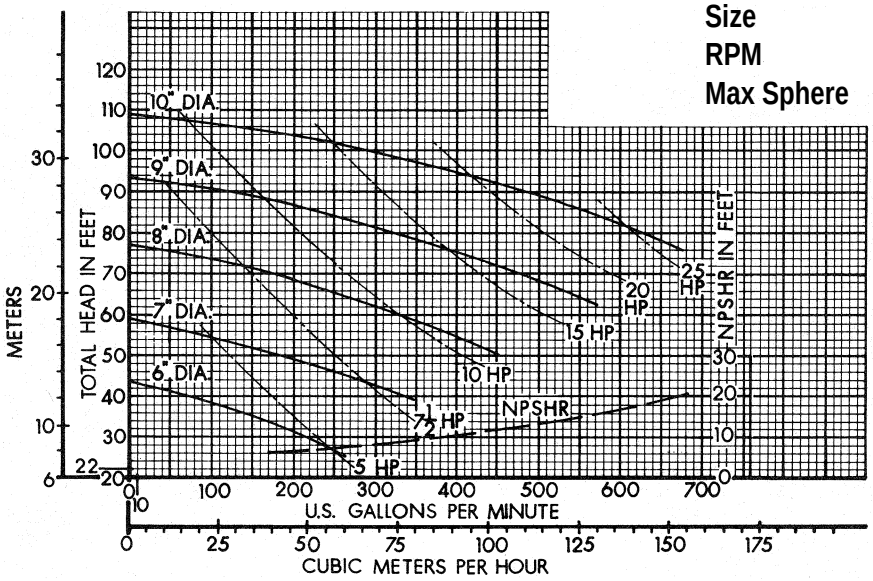
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

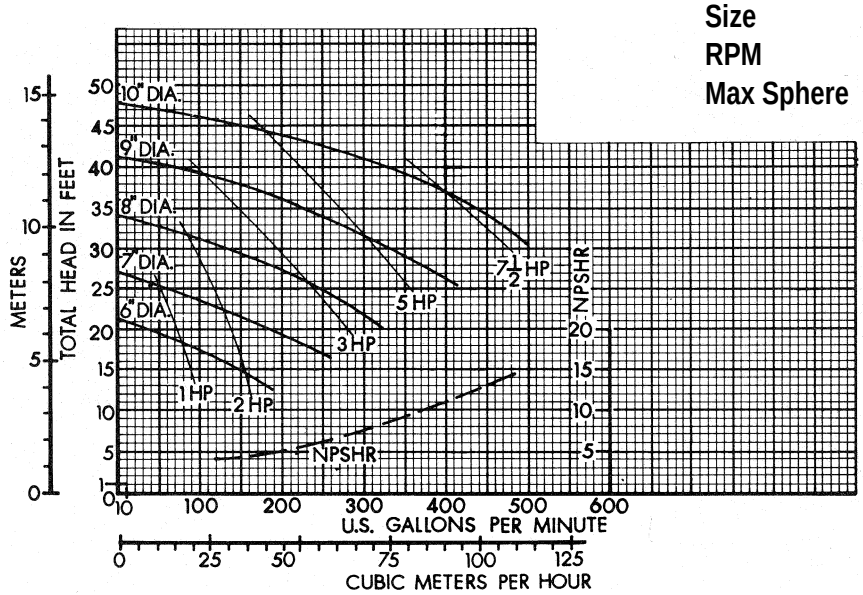
Curve 33104

Series	**900**
Size	**3 X 3 X 10**
RPM	**1780**
Max Sphere	**3**



Curve 33106

Series	**900**
Size	**3 X 3 X 10**
RPM	**1180**
Max Sphere	**3**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

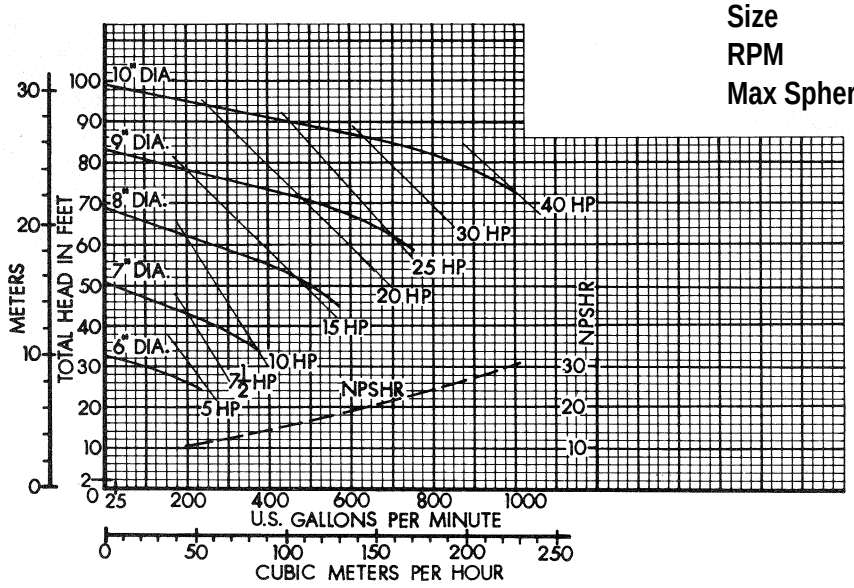
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

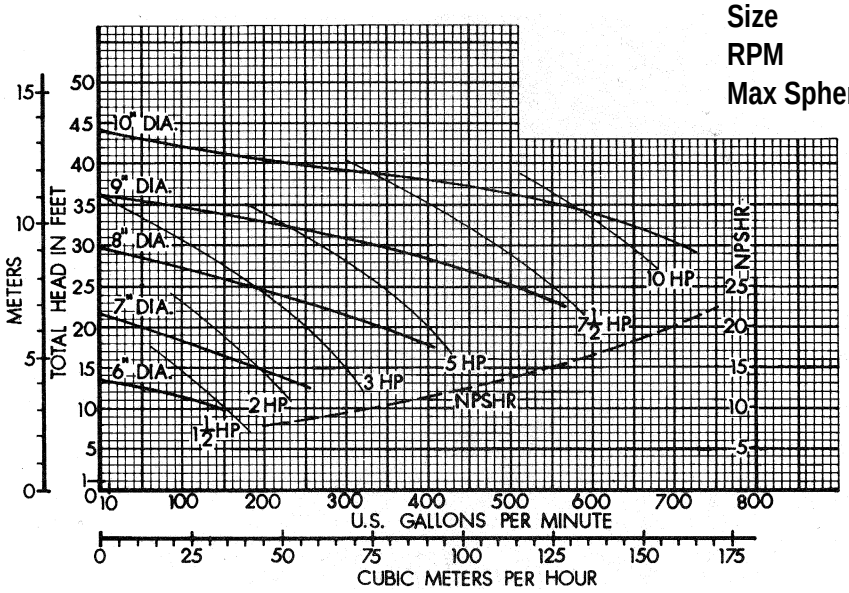
Curve 44104

Series	**900**
Size	**4 X 4 X 10**
RPM	**1780**
Max Sphere	**4**



Curve 44106

Series	**900**
Size	**4 X 4 X 10**
RPM	**1180**
Max Sphere	**4**



900

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

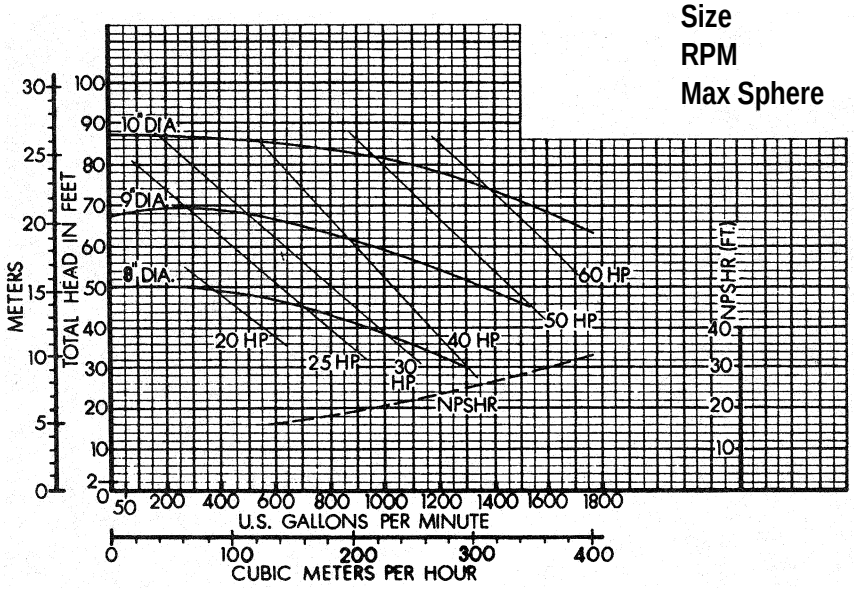
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

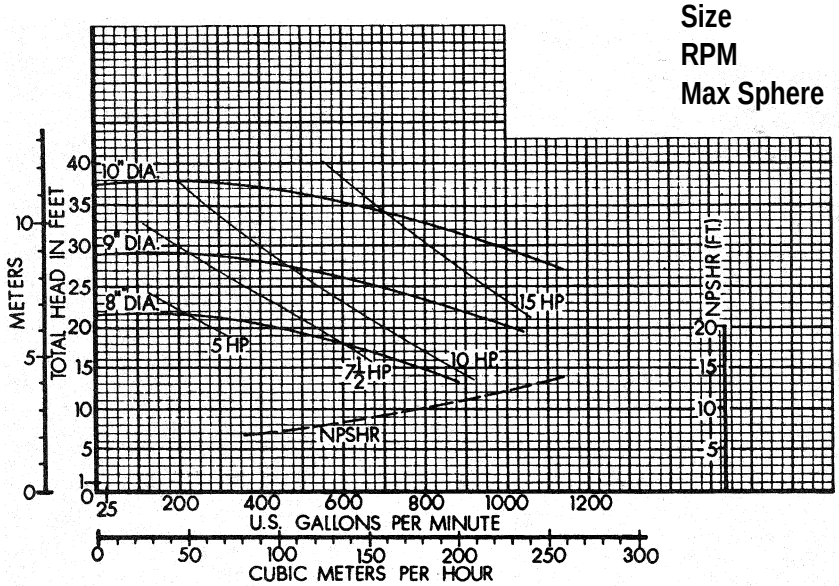
Curve 86104

Series	**900**
Size	**8 X 6 X 10**
RPM	**1780**
Max Sphere	**6**



Curve 86106

Series	**900**
Size	**8 X 6 X 10**
RPM	**1180**
Max Sphere	**6**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

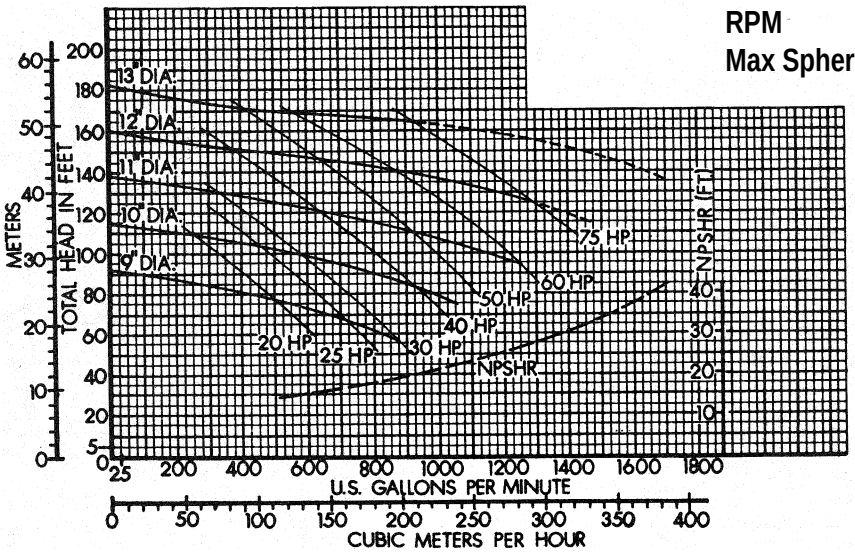
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

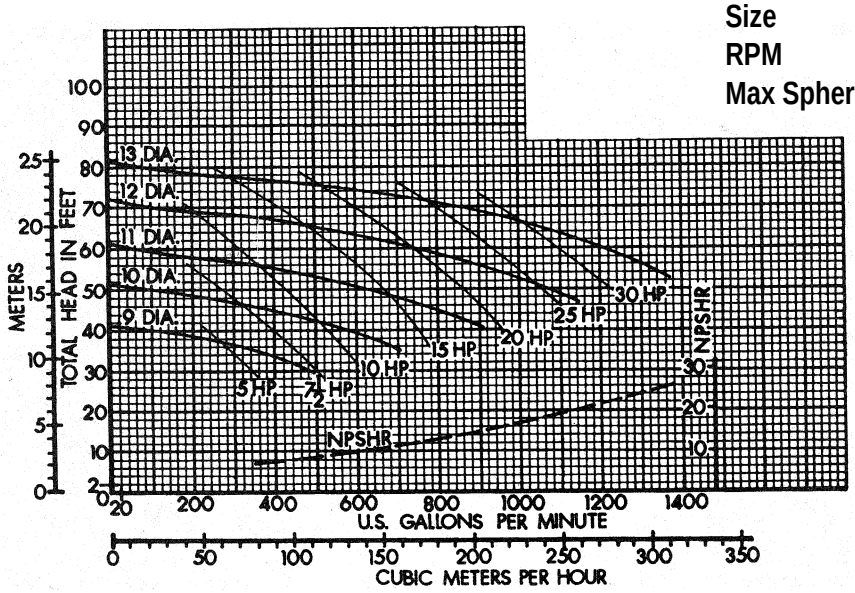
Curve 44134

Series	**900**
Size	**4 X 4 X 13**
RPM	**1780**
Max Sphere	**4**



Curve 44136

Series	**900**
Size	**4 X 4 X 13**
RPM	**1180**
Max Sphere	**4**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

CONTRACTOR _____

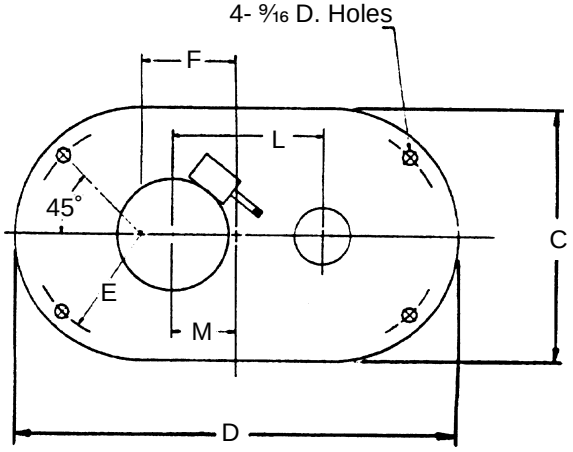
CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Dimensions

900 Series Basic Oval

PUMP DATA

SIZE	MODEL	A	B	C	D	E	F	H	J	K	L	M	N
1½×1½×10	920	1½ 2	2' TO 20' IN 1' INCREMENTS	18	26	8	4	7½	13⅛ 14	5⅜	13¼ 13⅝	6½	⅜
2×2×10	920 924	2 3		21	30	9½	4½	7½	16⅛ 17⅝	3¼	14½ 15⅜	6½	⅜
3×3×10	924	3 4		21	34	9	4½	7½	19 20⅛	13⅝	16¾ 17⅜	7	½
4×4×10	924 924	4 6		21 24	34 39	9½ 11	4½ 7½	7¾	21⅛ 23½	11¾	18⅜ 19½	7 8	½
8×6×10	924 932	6 8		24	39	11	7	8¾	23⅞ 26¾	8⅞	20 21¼	8 9	½
4×4×13	924 932	4 6		24	39	11	7½	9¾	21⅝ 24	10¾	18⅞ 20	8	½

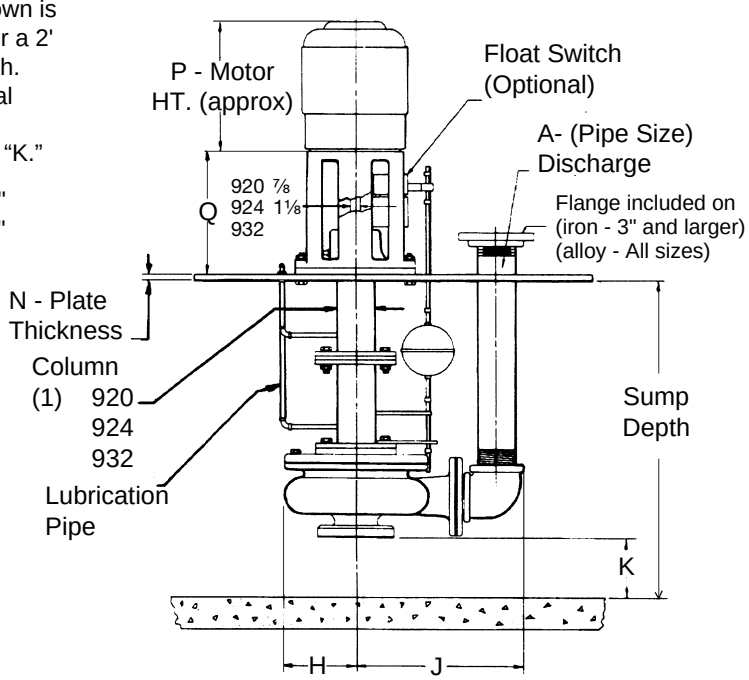


MOTOR DATA

FRAME	P	Q
56 C	10⁷⁄₁₆	12
143 TC	10	12
145 TC	10⁷⁄₁₆	12
182 - 184 TC	13½	12
213 TC	15½	12
215 TC	17	12
254 TC	20⅛	12
256 TC	21⅞	12
284 TC	22⅜	13
286 TC	23⅞	13
324 TC	24¾	13½
326 TC	26⅛	13½
364 TC	26½	16⅝
365 TC	27½	16⅝

"K" dimension shown is for a pump built for a 2' through 6' pit depth. For each additional column section, subtract 3/8" from "K."

(1) 920 + 924 = 4"
932 = 6"



Not for construction unless certified, some dimensions may vary ± 1/2". Pump Construction:_____

CUSTOMER_____CUSTOMER NO._____
PROJECT_____SERIAL NO._____
ENGINEER_____LOCATION_____
CONTRACTOR_____

PUMP DATA	Model	Size	Curve No.	GPM	Head	SP. GR.@Temp.	Pump Length	Plate
	_____	_____	_____	_____	_____	_____	_____	_____

MOTOR DATA	Mfgr.	HP	RPM	Volt-Phase-Cycle	Frame	ENC.	Furnished by	Mounted by
	_____	_____	_____	_____	_____	_____	_____	_____

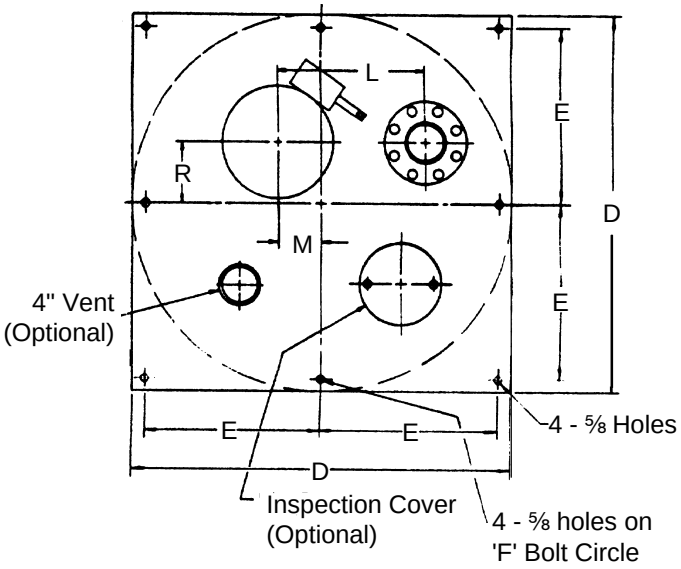
Shop Order_____Certified by_____Date_____

VERTIFLO PUMP COMPANY Dimensions

900 Series Simplex

PUMP DATA

SIZE	MODEL	A	B	C	D	E	F	H	J	K	L	M	N
1½×1½×10	920	1½	2' TO 20' IN 1' INCREMENTS	24	28	13	26	7½	13⅜	5⅜	13¼	6½	⅜
		2							14		13⅜		
2×2×10	920	2		30	34	16	32	7½	16⅛	3¼	14½	6⅝	⅜
	924	3							17⅞		15⅜		
3×3×10	924	3		30	34	16	32	7½	19	13⅝	16¾	6⅝	⅜
		4							20⅛		17⅜		
4×4×10	924	4		36	40	19	38	7¾	21⅛	11¾	18⅜	7¼	½
	924	6							23½		19½		
8×6×10	924	6		36	40	19	38	8¾	23⅞	8⅞	20	7¼	⅝
	932	8		42	48	23	46		26¾		21¼	9	
3×3×13	924	3		36	40	19	38	9¾	20¼	12⅛	18	7¼	⅝
	932	4							21⅜		18⅝		
4×4×13	924	4		36	40	19	38	9¾	21⅝	10¾	18⅞	7¼	⅝
	932	6							24		20		

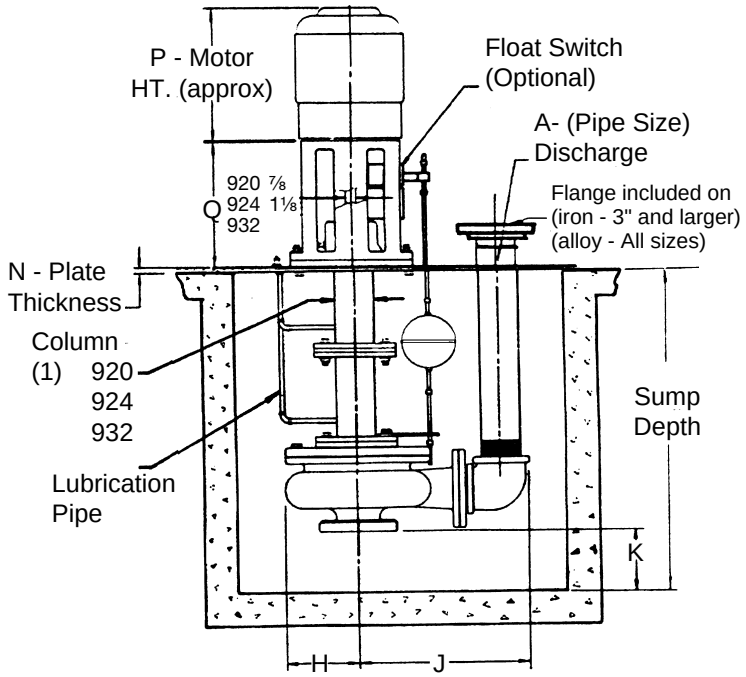


MOTOR DATA

FRAME	P	Q
56 C	10⁷⁄₁₆	20½
143 TC	10	20½
145 TC	10⁷⁄₁₆	20½
182 - 184 TC	13½	20½
213 TC	15½	20½
215 TC	17	20½
254 TC	20⅛	20½
256 TC	21⅞	20½
284 TC	22⅜	21¼
286 TC	23⅞	21¼
324 TC	24¾	21¾
326 TC	26⅛	21¾
364 TC	26½	22⅜
365 TC	27½	22⅜

"K" dimension shown is for a pump built for a 2' through 6' pit depth. For each additional column section, subtract 3/8" from "K."

(1) 920 + 924 = 4"
932 = 6"



Not for construction unless certified, some dimensions may vary ± 1/2". Pump Construction:_____

CUSTOMER_____ CUSTOMER NO._____
PROJECT_____ SERIAL NO._____
ENGINEER_____ LOCATION_____
CONTRACTOR_____

PUMP DATA	Model	Size	Curve No.	GPM	Head	SP. GR.@Temp.	Pump Length	Plate	
	_____	_____	_____	_____	_____	_____	_____	_____	
MOTOR DATA	Mfgr.	HP	RPM	Volt-Phase-Cycle		Frame	ENC.	Furnished by	Mounted by
	_____	_____	_____	_____		_____	_____	_____	_____

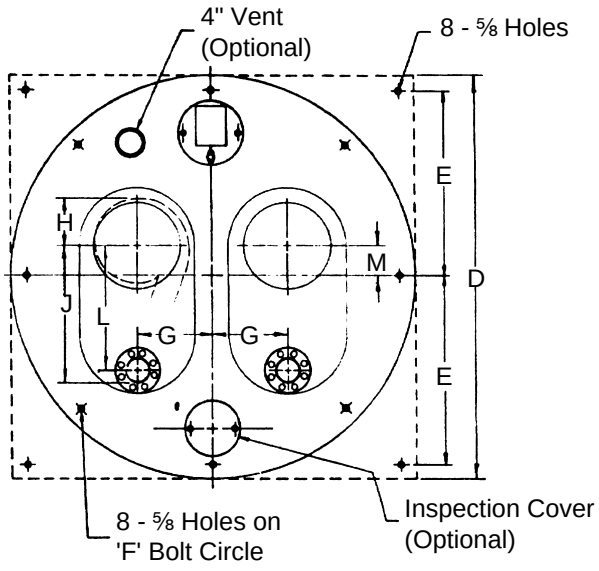
Shop Order_____ Certified by_____ Date_____

VERTIFLO PUMP COMPANY Dimensions

900 Series Duplex

PUMP DATA

SIZE	MODEL	A	B	C	D	E	F	H	J	K	L	M	N	G
1½×1½×10	920	1½	2' TO 20' IN 1' INCREMENTS	48	54	25½	51	7½	13⅜	5⅜	13¼	6½	½	11
		2							14		13⅜			
2×2×10	920	2		54	60	28½	57	7½	16⅛	3¼	14½	6½	½	11
	924	3							17⅝		15⅜			
3×3×10	924	3		60	66	31½	63	7½	19	13⅝	16¾	7	½	11
		4							20⅛		17⅜			
4×4×10	924	4		60	66	31½	63	7¾	21⅛	11¾	18⅜	8	½	12⅛
	924	6							23½		19½			
8×6×10	924	6		60	66	31½	63	8¾	23⅞	8⅞	20	8	⅝	12⅛
	932	8							26¾		21¼			
4×4×13	924	4		60	66	31½	63	9¾	21⅝	10¾	18⅞	8	⅝	12⅛
	932	6							24		20			

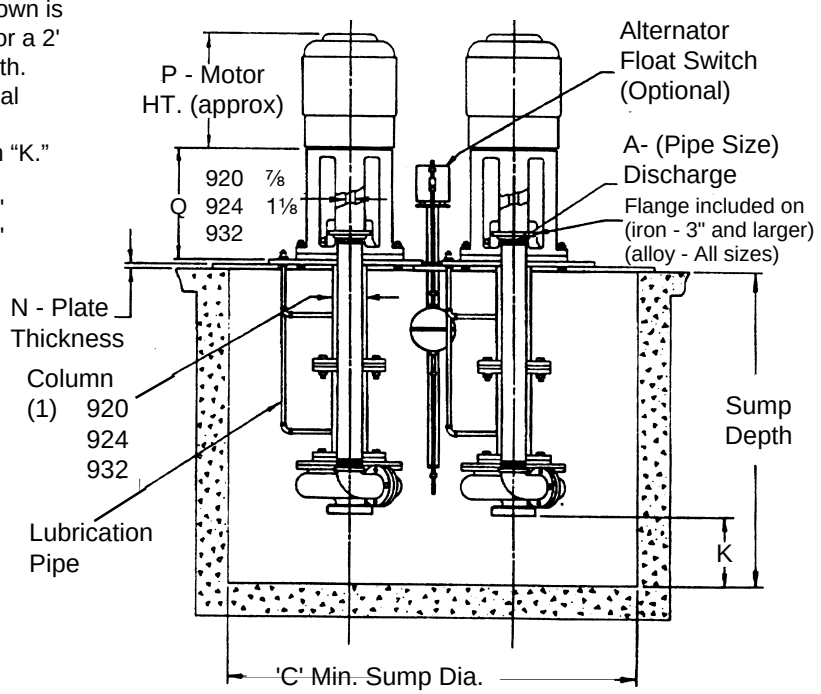


MOTOR DATA

FRAME	P	Q
56 C	10⁷⁄₁₆	12
143 TC	10	12
145 TC	10⁷⁄₁₆	12
182 - 184 TC	13½	12
213 TC	15½	12
215 TC	17	12
254 TC	20⅛	12
256 TC	21⅞	12
284 TC	22⅜	13
286 TC	23⅞	13
324 TC	24¾	13½
326 TC	26⅛	13½
364 TC	26½	16⅝
365 TC	27½	16⅝

"K" dimension shown is for a pump built for a 2' through 6' pit depth. For each additional column section, subtract 3/8" from "K."

(1) 920 + 924 = 4"
932 = 6"



Not for construction unless certified, some dimensions may vary ± 1/2". Pump Construction:_____

CUSTOMER_____CUSTOMER NO._____
PROJECT_____SERIAL NO._____
ENGINEER_____LOCATION_____
CONTRACTOR_____

PUMP DATA	Model	Size	Curve No.	GPM	Head	SP. GR.@Temp.	Pump Length	Plate
	_____	_____	_____	_____	_____	_____	_____	_____

MOTOR DATA	Mfgr.	HP	RPM	Volt-Phase-Cycle	Frame	ENC.	Furnished by	Mounted by
	_____	_____	_____	_____	_____	_____	_____	_____

Shop Order_____Certified by_____Date_____

VERTIFLO

The Vertical Pump Specialists

PUMPS FOR INDUSTRY

CONTENTS:

0407

VERTIFLO SERIES 1100
Quality Design Features Assure Long, Trouble-Free Service

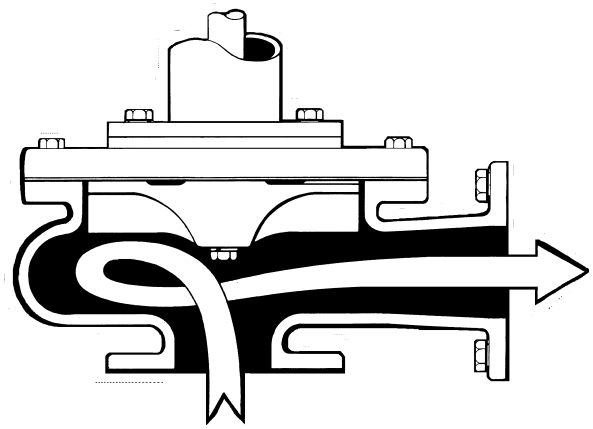
WIDE RANGE OF APPLICATIONS:
- Coal Fine and Slurry
- Waste Paper Stock
- Clay and Water
- Iron Ore Slurry
- Process Water
- Black Liquor

CAPABILITIES:
- Capacities to 1600 GPM
- Heads to 170 Feet
- Temperature to 400°F
- Pump Length to 6 Feet
- Shaft Diameter to 5"
- Construction: Cast Iron, 316 Stainless Steel, Alloy 20, CD4MC$_u$
- Solids up to 4" Diameter Spheres

CONSTRUCTION:

Standard
- All iron
- Fully recessed impeller
- High thrust, double row thrust bearing
- Stress-proof steel shaft
- Round, square or oval cover plates
- External impeller adjustment
- Flanged suction and discharge on all sizes

Options
- Stainless steel fitted
- All stainless steel
- Alloy 20
- Heavy wall discharge pipe
- Special floor plate sizes and configurations
- Control panels
- Level controls
- V-Belt Drives



Vortex Design provides an unrestricted flow since the impeller is not normally in contact with the solids being pumped.

All cantilever pumps are hydraulically selected and engineered at the factory

Superior Features

1.Flexible Coupling

2. External Impeller Adjustment
High performance maintained without dismantling pump

3. Bearings
All bearings are located above the floor plate. Moisture-proof enclosure with (2) grease seals, purge type grease lubrication. Extra heavy construction incorporating long bearing span for increased shaft rigidity and long pump life.

4. Direct or Belt Drives
Direct drive with standard Nema "C" face motor- Belt drive with standard "T" frame motor mounting also available

5.Shafting
Rugged alloy accurately machined with taper to precision tolerances

6. Column
Heavy duty steel with welded flanges.

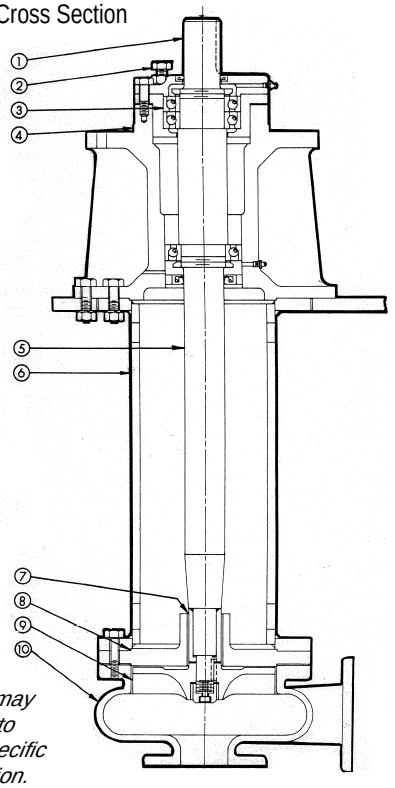
7. Shaft Sleeve (optional)
Protects shaft from abrasive particles at the throttle area.

8. Positive Machined Fits
Rabbet fit to assure positive alignment throughout pump construction.

9. Impeller
Fully recessed vortex design eliminates clogging when handling large or fibrous solids. Eductor vanes reduce pressure and solid particle buildup behind the impeller.

10. Casing
Vortex-type concentric design. Extra heavy wall thickness for corrosion allowance. Designed to allow passage of large solids.

Typical Cross Section

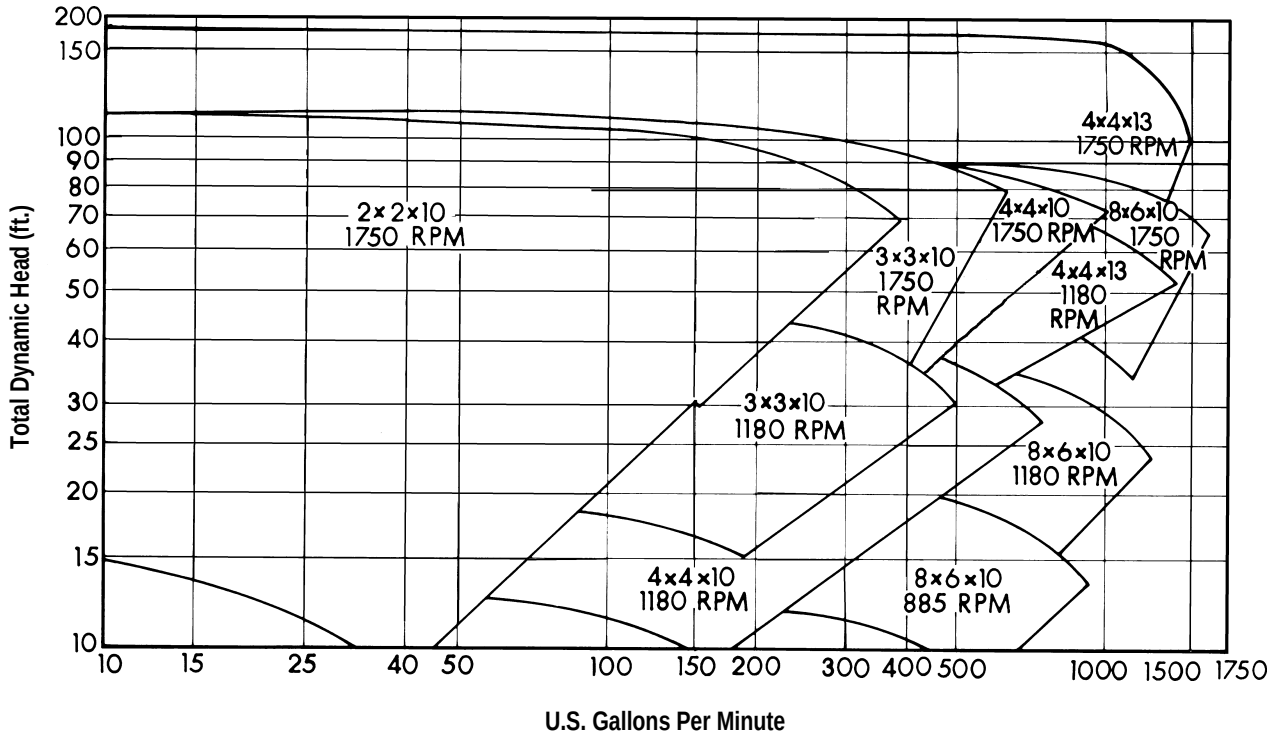


Design may change to meet specific application.

Materials of Construction

Part Description	All Iron	316 Stainless Fitted	All 316 Stainless	Alloy 20
Support Head	Steel or Cast iron	Steel or Cast Iron	Steel or Cast Iron	Steel or Cast Iron
Thrust Bearing Housing, Bearing Cap	Steel	Steel	Steel	Steel
Thrust Bearing, Radial Bearing	Steel	Steel	Steel	Steel
Lip Seals	Nitrile	Nitrile	Nitrile	Nitrile
Shaft	Steel C1144	Stainless Steel AISI-316	Stainless Steel AISI-316	Alloy 20
Shaft Sleeve (optional)	Stainless Steel AISI-316	Stainless Steel AISI-316	Stainless Steel AISI-316	Alloy 20
Impeller Nut	Stainless Steel AISI-316	Stainless Steel AISI-316	Stainless Steel AISI-316	Alloy 20
Case Adaptor	Steel	Steel	Stainless Steel AISI-316	Alloy 20
Impeller	Cast Iron Class-30	Stainless Steel AISI-316	Stainless Steel AISI-316	Alloy 20
Casing	Cast Iron Class 30	Cast Iron Class 30	Stainless Steel AISI-316	Alloy 20
Column, Discharge Pipe, Discharge Elbow	Steel	Steel	Stainless Steel AISI-316	Alloy 20

Series 1100 Composite Chart



Refer to Series 900 for Specific Vortex Performance Curves

1100

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

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VERTIFLO SERIES 1200

Quality Design Features Assure Long, Trouble-Free Service

WIDE RANGE OF APPLICATIONS:

- Industrial Process
- Corrosive Liquids
- Paint
- Waste Water
- Chemical Slurries

CAPABILITIES:

- Capacities to 3000 GPM
- Heads to 230 Feet
- Temperature to 400° F
- Pump Length to 6 Feet
- Shaft Diameter to 5"
- Construction: Cast Iron, 316 Stainless Steel, Alloy 20, $CD4MC_u$

CONSTRUCTION:

Standard

- All iron
- Semi-open centrifugal impeller
- High thrust, double row thrust bearing
- Stress proof steel shaft
- Round, square or oval cover plates
- External impeller adjustment
- Flanged suction and discharge on all sizes
- Pump lengths up to 6 feet
- Shaft diameters to 5"

Options

- Stainless steel fitted
- All stainless steel
- Alloy 20
- Heavy wall discharge pipe
- Special floor plate sizes and configurations
- Control panels
- Level controls

All cantilever pumps are hydraulically selected and engineered at the factory

1.Flexible Coupling

2. External Impeller Adjustment
High performance maintained without dismantling pump

3. Bearings
All bearings are located above the floor plate. Moisture-proof enclosure with (2) grease seals, purge type grease lubrication. Extra heavy construction incorporating long bearing span for increased shaft rigidity and long pump life.

4. Direct or Belt Drives
Direct drive with standard Nema "C" face motor- Belt drive with standard "T" frame motor mounting also available

5.Shafting
Rugged alloy accurately machined with taper to precision tolerances

6. Column
Heavy duty steel with welded flanges

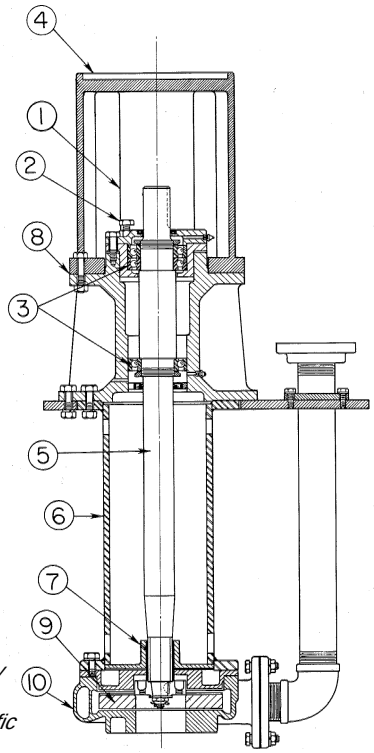
7. Shaft Sleeve (optional)
Protects shaft from abrasive particles at the throttle area

8 Positive Machined Fits
Rabbet fit to assure positive alignment throughout pump construction

9. Impeller
Semi-open centrifugal design with balance ring and eductor vanes

10. Casing
Sizes 4 X 3 X 10 and larger are double volute. Heavy wall thickness for corrosion allowance

Typical Cross Section

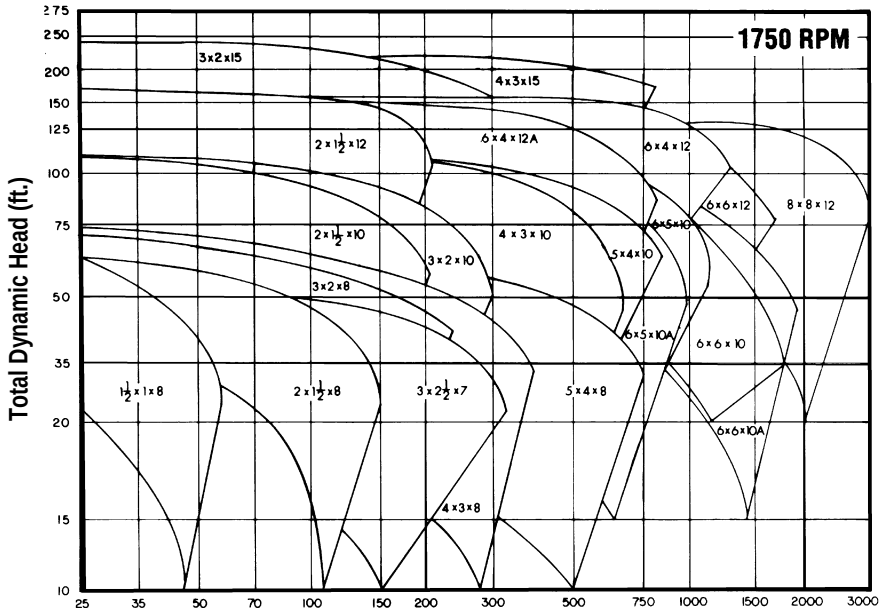


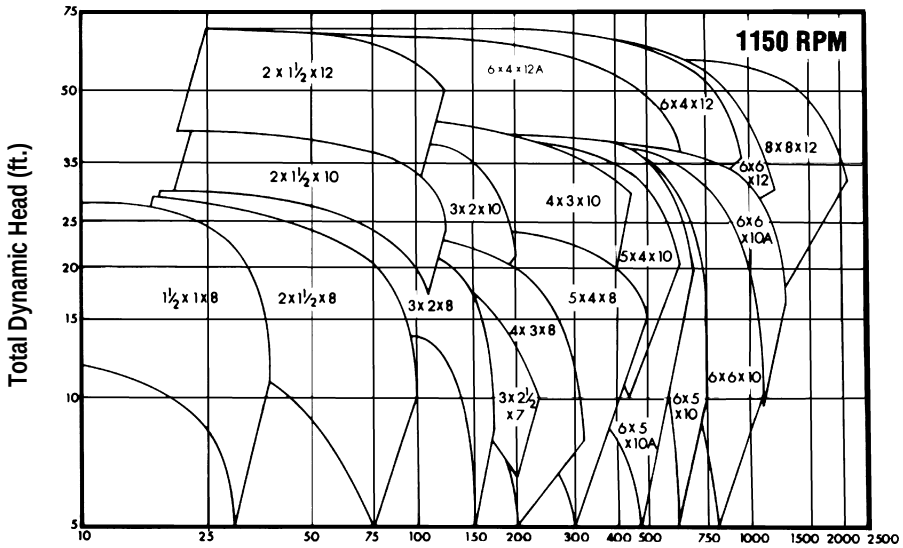
Design may change to meet specific application.

Materials of Construction

Part Description	All Iron	316 Stainless Fitted	All 316 Stainless	Alloy 20
Support Head	Steel or Cast iron	Steel or Cast Iron	Steel or Cast Iron	Steel or Cast Iron
Thrust Bearing Housing, Bearing Cap	Steel	Steel	Steel	Steel
Thrust Bearing, Radial Bearing	Steel	Steel	Steel	Steel
Lip Seals	Nitrile	Nitrile	Nitrile	Nitrile
Shaft	Steel C1144	Stainless Steel AISI-316	Stainless Steel AISI-316	Alloy 20
Shaft Sleeve (optional)	Stainless Steel AISI-316	Stainless Steel AISI-316	Stainless Steel AISI-316	Alloy 20
Impeller Nut	Stainless Steel AISI-316	Stainless Steel AISI-316	Stainless Steel AISI-316	Alloy 20
Case Adaptor	Steel	Steel	Stainless Steel AISI-316	Alloy 20
Impeller	Cast Iron Class-30	Stainless Steel AISI-316	Stainless Steel AISI-316	Alloy 20
Casing	Cast Iron Class 30	Cast Iron Class 30	Stainless Steel AISI-316	Alloy 20
Column, Discharge Pipe, Discharge Elbow	Steel	Steel	Stainless Steel AISI-316	Alloy 20

Series 1200 Composite Performance Charts





Refer to Series 800 for Specific Performance Curves

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

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VERTIFLO

The Vertical Pump Specialists

PUMPS FOR INDUSTRY

CONTENTS:

0407

VERTIFLO SERIES 1300, MODEL 1312
Quality Design Features Assure Long, Trouble-Free Service

WIDE RANGE OF APPLICATIONS:

- General Pumping
- Process
- Chemicals
- Deionized Water
- Wash Systems
- OEM

CAPABILITIES:

- Capacities to 240 GPM
- Heads To 160 Feet TDH
- 1750 and 3500 RPM

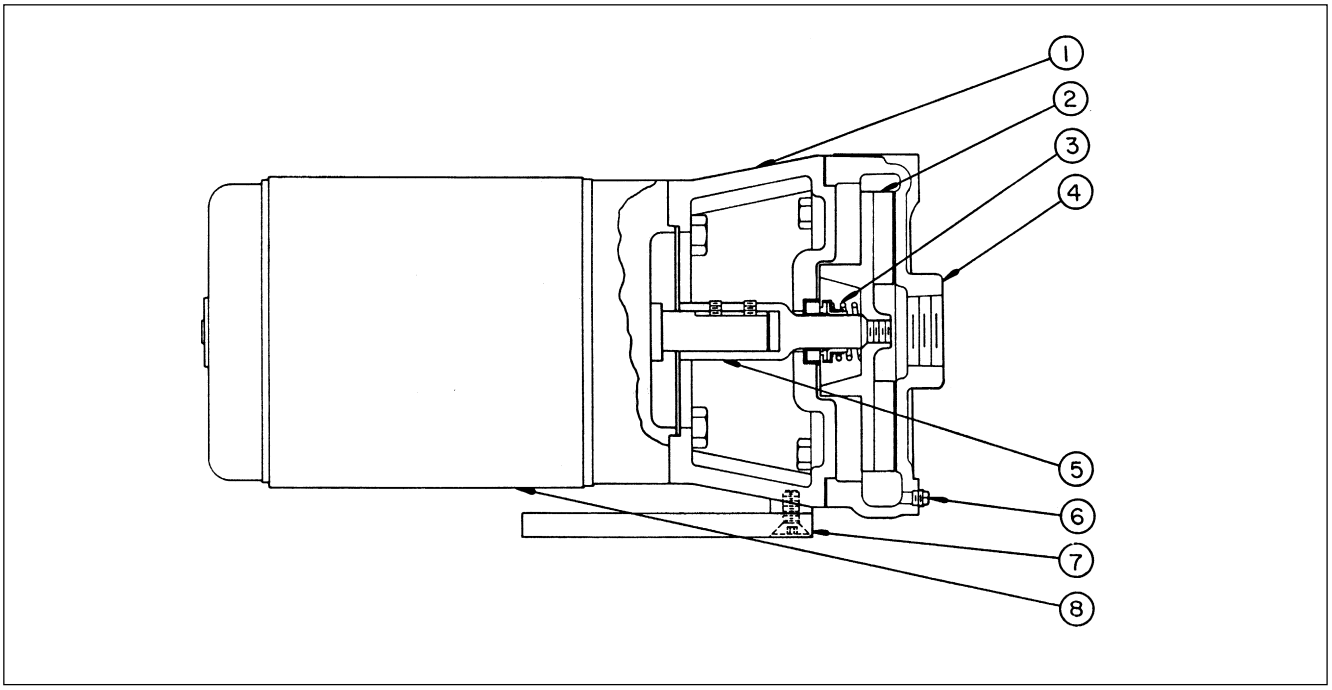
CONSTRUCTION:

- All Iron
- Bronze Fitted
- 316 Stainless Steel Fitted
- All 316 Stainless Steel

FEATURES:

- Close-Coupled Design Saves Installation Space
- Back Pull-Out Design
- Standard NEMA C-Face Motor
- Standard Size Mechanical Seal
- Pump Volute, Impeller and Mounting Bracket are Heavy Cast Metal
- Semi-Open Impeller
- Threaded NPT Suction and Discharge Connections

Model 1312 horizontal motor-mounted end suction pumps are designed for use with NEMA standard C-face electric motors. This rugged and dependable pump will provide many years of dependable service.



CUSTOMER Benefits

1. Motor Support and Seal Housing
one-piece casting

•Assures positive alignment of motor and pump with registered fits

2. Impeller
semi-open design with balance hub. Secured to shaft by taper and threads.

• High quality - smooth performance
• Easily removed

3. Mechanical Seal
Self-aligning design

• No adjustment required

4. Casing
Back pull-out design. Discharge orientation options.

• Rotating element easily removed - casing remains in piping
• Casing may be rotated in 90° increments to accommodate various piping requirements

5. Shaft
316 stainless steel material. Standard with taper and threads.

• Long lasting and replacable

6. Support Foot Adaptor (optional)

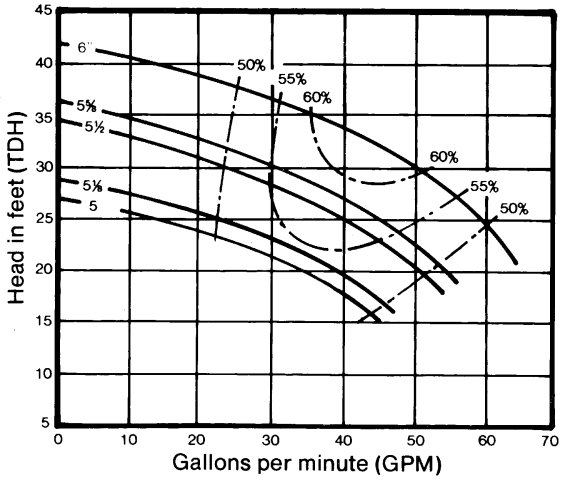
• Bolt-on type design for versatility

7. C-Face Motor
Standard

• Readily available

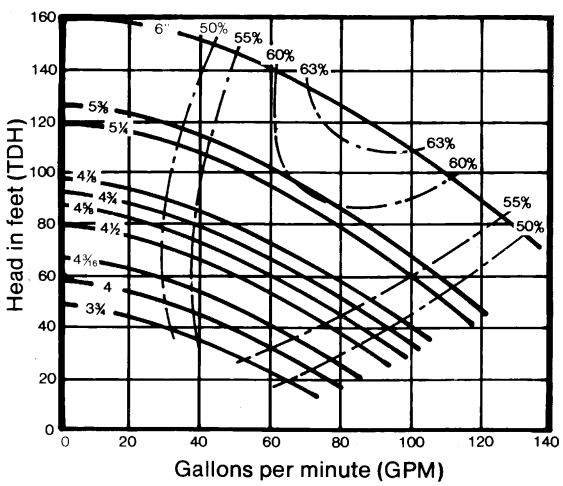
Series 1300 / Model 1312 Size 1 1/2 X 1 X 6

1750 RPM



HP	SF	DIA
¾	1.15	6
	1.00	6
½	1.15	5 ⅝
	1.00	5½
⅓	1.15	5⅛
	1.00	5

3500 RPM

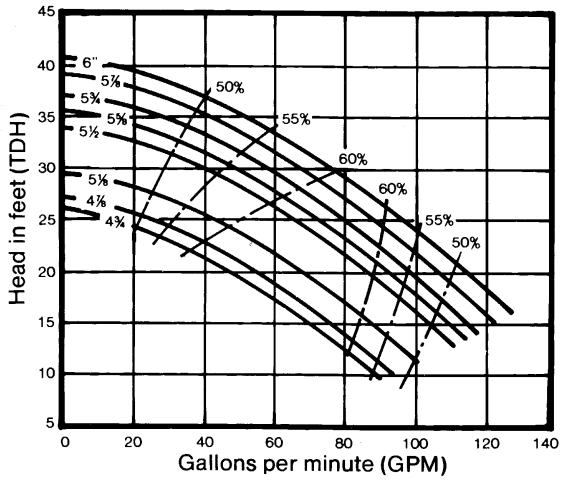


HP	SF	DIA
5	1.15	6
	1.00	6
3	1.15	5 ⅜
	1.00	5¼
2	1.15	4⅞
	1.00	4¾

HP	SF	DIA
1½	1.15	4⅝
	1.00	4½
1	1.15	4⅜
	1.00	4

Series 1300 / Model 1312 Size 2 X 1 1/2 X 6

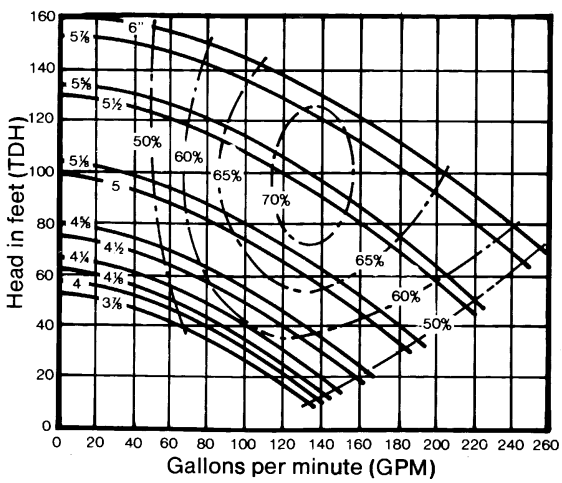
1750 RPM



HP	SF	DIA
1½	1.15	6
	1.00	6
1	1.15	5⅞
	1.00	4⅞

HP	SF	DIA
¾	1.15	5⅝
	1.00	5½
½	1.15	5⅛
	1.00	4⅞

3500 RPM



HP	SF	DIA
7½	1.15	6
	1.00	5⅞
5	1.15	5 ⅝
	1.00	5½
3	1.15	5⅛
	1.00	5

HP	SF	DIA
2	1.15	4⅝
	1.00	4½
1½	1.15	4¼
	1.00	4⅛
1	1.15	4
	1.00	3⅞

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

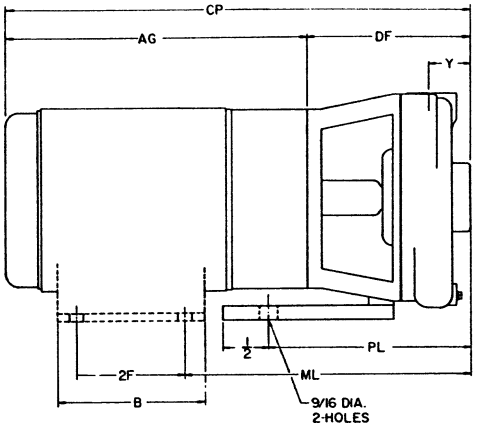
ENGINEER _____

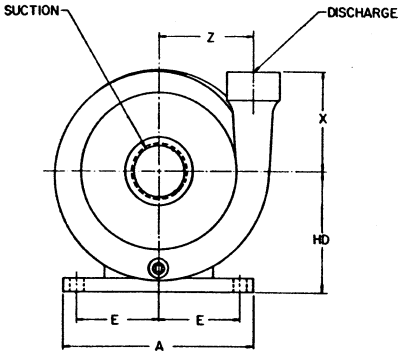
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Dimensions

1300 Series / Model 1312





Size 1½ x 1 x 6

RPM	HP	PUMP FOOT	SUC	DIS	A	AG	B	CP	E	2F	DF	H*	HD	ML	PL	X	Y	Z
1750	⅓	NOT REQ'D	1½" NPT	1" NPT	6.50	9.29	4.25	15.17	2.44	3.00	5.88	NA	4.38	8.75	5.50	3.75	1.25	3.50
	½																	
	¾																	
	1					9.94		15.82										
3500	1					9.29		15.19				.44	4.50					
	1½					10.29		16.17										
	2					11.06	5.94	16.94	2.75	5.00								
	3					12.07		17.82										
	5					13.68	6.50	19.56	3.75	5.50								

Dimensions are for TEFC motors only
****Optional pump foot shown for motors less feet***

Size 2 x 1½ x 6

RPM	HP	PUMP FOOT	SUC	DIS	A	AG	B	CP	E	2F	DF	H*	HD	ML	PL	X	Y	Z
1750	½	NOT REQ'D	2" NPT	1½" NPT	6.50	9.29	4.25	15.67	2.44	3.00	6.38	NA	4.38	9.25	6.00	3.88	1.63	3.63
	¾																	
	1					9.94		16.32										
	1½					10.19		16.57										
3500	1½					10.29		16.67										
	2					11.06	5.94	17.44	2.75	5.00								
	3					12.07		18.32				.44	4.50					
	5				8.63	13.68	6.50	20.06	3.75	5.50								
	7½					15.18		21.56										

Dimensions are for TEFC motors only. NA= not applicable
****Optional pump foot shown for motors less feet***

Not for construction unless certified, some dimensions may vary ± 1/2". Pump Construction:_____

CUSTOMER_____CUSTOMER NO._____
PROJECT_____SERIAL NO._____
ENGINEER_____LOCATION_____
CONTRACTOR_____

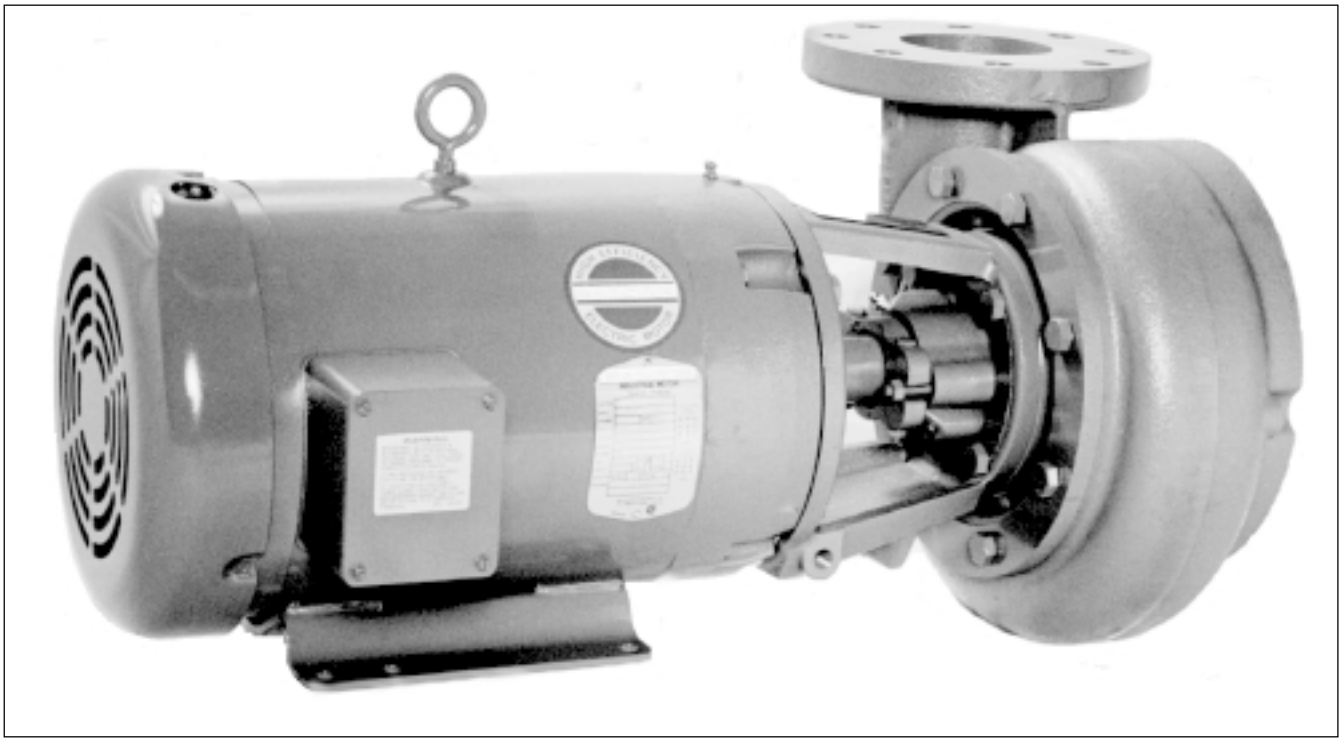
PUMP DATA	Model	Size	Curve No.	GPM	Head	SP. GR.@Temp.
	_____	_____	_____	_____	_____	_____

MOTOR DATA	Mfgr.	HP	RPM	Volt-Phase-Cycle	Frame	ENC.	Furnished by	Mounted by
	_____	_____	_____	_____	_____	_____	_____	_____

Shop Order_____Certified by_____Date_____

VERTIFLO SERIES 1300

Quality Design Features Assure Long, Trouble-Free Service



WIDE RANGE OF APPLICATIONS:

- Industrial Process
- Pollution Control
- General Pumping
- Spray Systems
- Deionized Water
- Waste Water
- Clear Liquids
- Corrosive Liquids
- Chemicals
- Acids

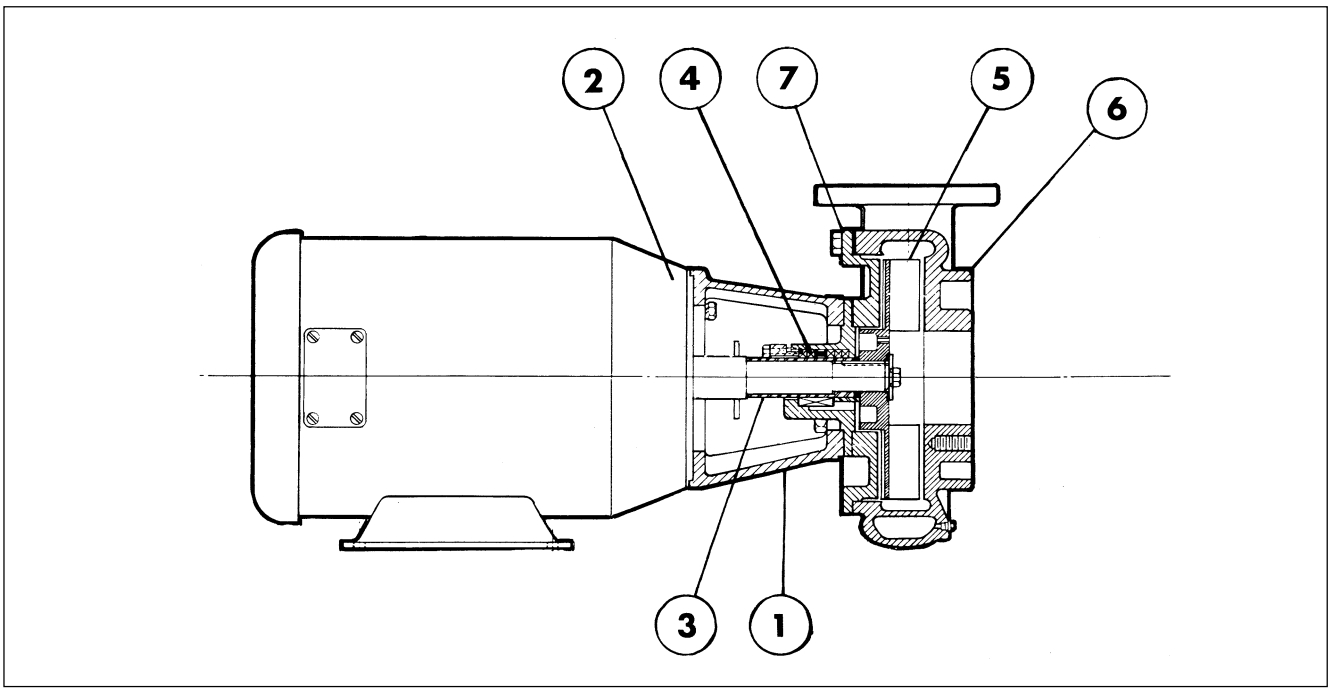
CAPABILITIES

- Capacities to 3600 GPM
- Heads To 275 Feet TDH
- Temperature to 250˚ F
- Back Pull-Out Construction
- Semi-Open Impeller
- Packing or Mechanical Seal

CONSTRUCTION:

- Cast Iron
- 316 Stainless Steel Fitted
- All 316 Stainless Steel
- Alloy 20
- $CD4MC_u$

Series 1300 horizontal close-coupled end suction pumps are designed for use with any NEMA Standard JP Shaft Motor. VERTIFLO's close-coupled pumps are designed with back pull-out feature. This important feature allows for easy inspection or service/ maintenance (if ever needed) without disturbing the piping to the pump: An important cost saving feature. Packing or various mechanical seal arrangements are available as standard options of this rugged, dependable product.



1. Mounting Bracket
Rugged cast iron design which assures a solid, dependable pump installation and operation. Three brackets fit all pump sizes.

2. Motor
NEMA standard JP shaft extension allows for easy interchangability to packing, standard mechanical seal or optional single or double mechanical seals of various designs and materials of construction.

3. Shaft Sealing
Packed arrangement utilizes a 2-piece split gland, slinger, Teflon® split lantern ring and 5-ring packing set. Grease lubrication is standard with product or water flush available. Wide choice of John Crane and Durametallic mechanical seals of various configurations and materials are optional.

4. Shaft Sleeve
316 stainless steel is standard. Positively driven and gasketed, protecting motor shaft from liquid being pumped.

E.I DuPont registered®

5. Impeller
Semi-open design which accommodates passage of solids or fines. All impellers have holes near the impeller hub which reduce thrust load and pressure in the packing or seal area. Wiping vanes reduce axial loading and prevent dirt from entering the sealing area. Impeller is keyed to shaft, and an impeller locking screw assures positive attachment.

6. Casing
High efficiency volute design. 4X3X10 and larger sizes are double volute, containing a splitter, which reduces bearing loading and shaft deflection; thus extending bearing and packing or mechanical seal life. All suction and discharge openings are flanged for installation ease and integrity.

7. Back Pull-Out
All pumps* are designed with back pull-out feature which allows for removal of all pump rotating components without disturbing the piping connections.

*except size 2 X 1 1/2 X 12

Standard
- All iron construction
- 316 stainless steel shaft sleeve
- Semi-open impeller
- Back pull-out design
- Packed stuffing box or mechanical seal
- Flanged suction and discharge on all pump sizes
- NEMA standard JP shaft motor

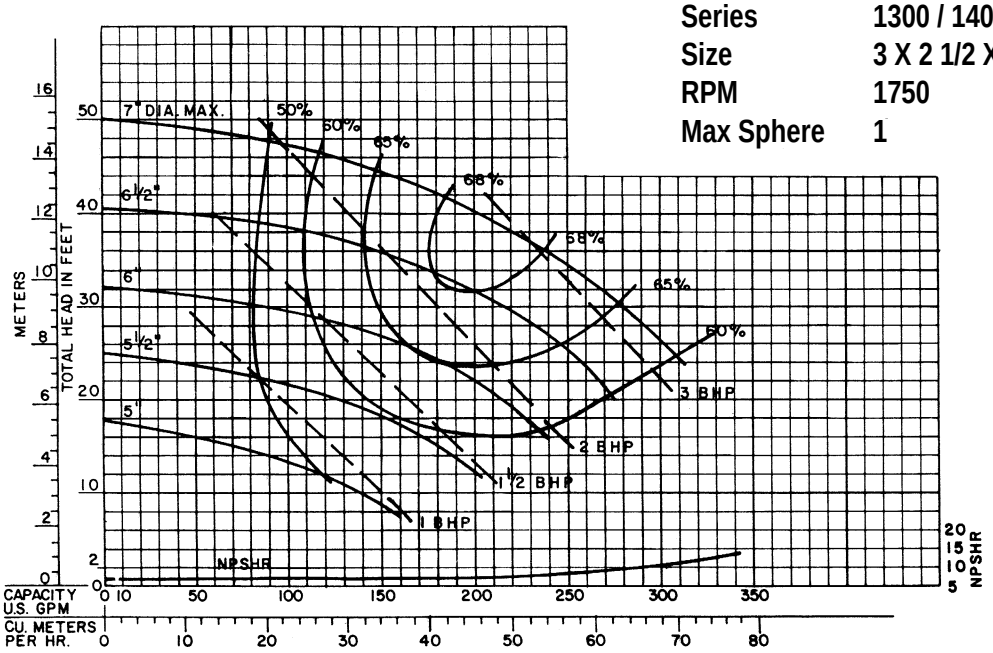
Options
- 316 stainless steel impeller
- All 316 stainless stee, Alloy 20, $CD4MC_u$
- Single or double mechanical seal (various materials)
- Product or fresh water flush to packing or mechanical seal
- Teflon® packing (standard in s.s. and alloy units)
- ODP, TEFC

Design Details	Model 1320	Model 1326	Model 1334
Rotation from driver end	CW	CW	CW
Outside diameter of shaft sleeve	1.250	1.625	2.125
Shaft diameter at impeller	0.875	1.250	1.750

VERTIFLO PUMP COMPANY Performance Curves

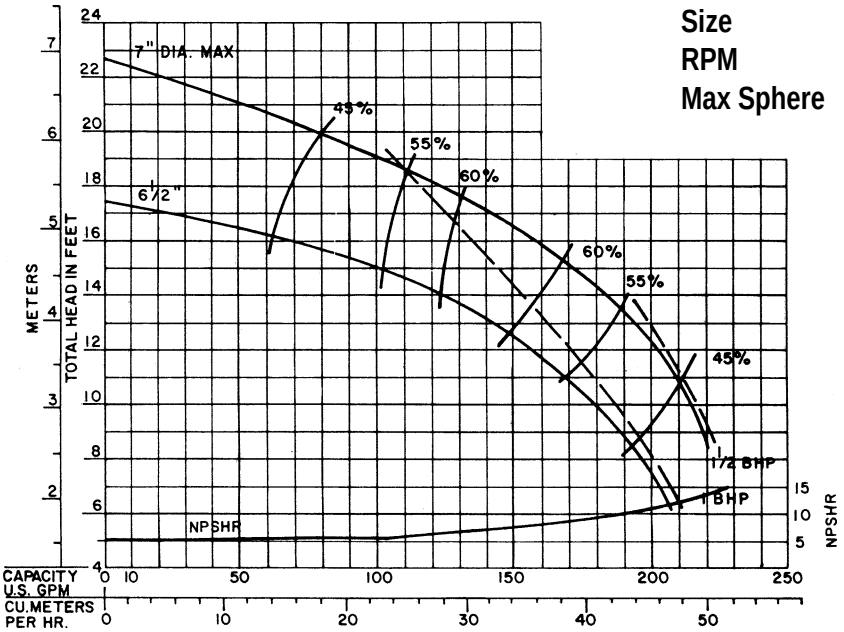
Curve PV-1525

Series	**1300 / 1400**
Size	**3 X 2 1/2 X 7**
RPM	**1750**
Max Sphere	**1**



Curve RV-1525

Series	**1300 / 1400**
Size	**3 X 2 1/2 X 7**
RPM	**1150**
Max Sphere	**1**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

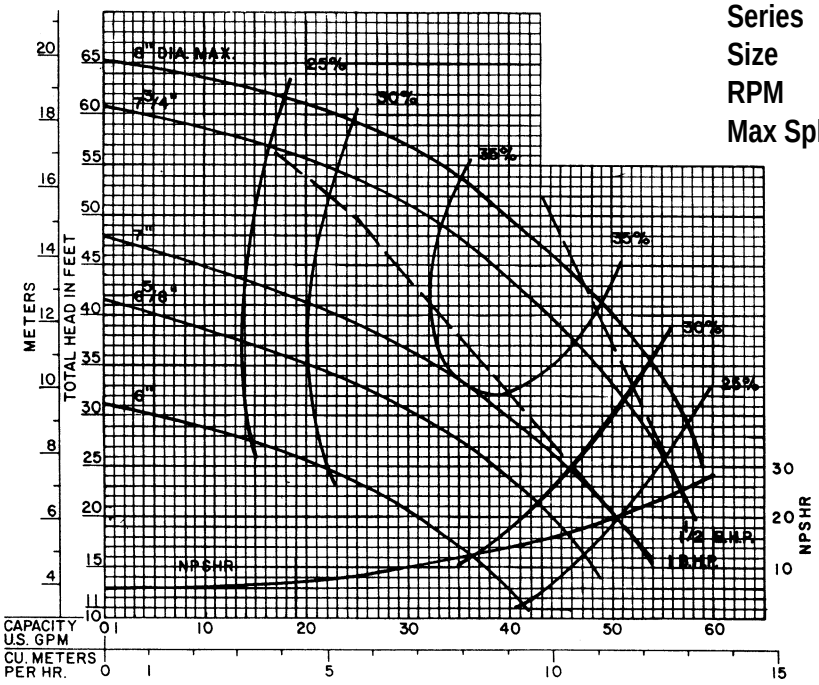
ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

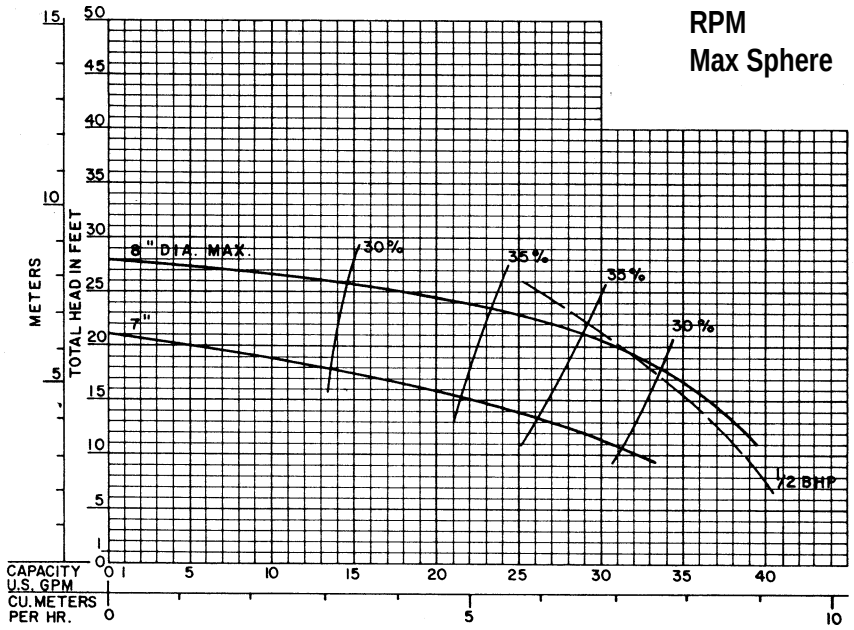
VERTIFLO PUMP COMPANY Performance Curves

Curve AS-1610



Series	**1300 / 1400**
Size	**1 1/2 X 1 X 8**
RPM	**1750**
Max Sphere	**1/4**

Curve BS-1610



Series	**1300 / 1400**
Size	**1 1/2 X 1 X 8**
RPM	**1150**
Max Sphere	**1/4**

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

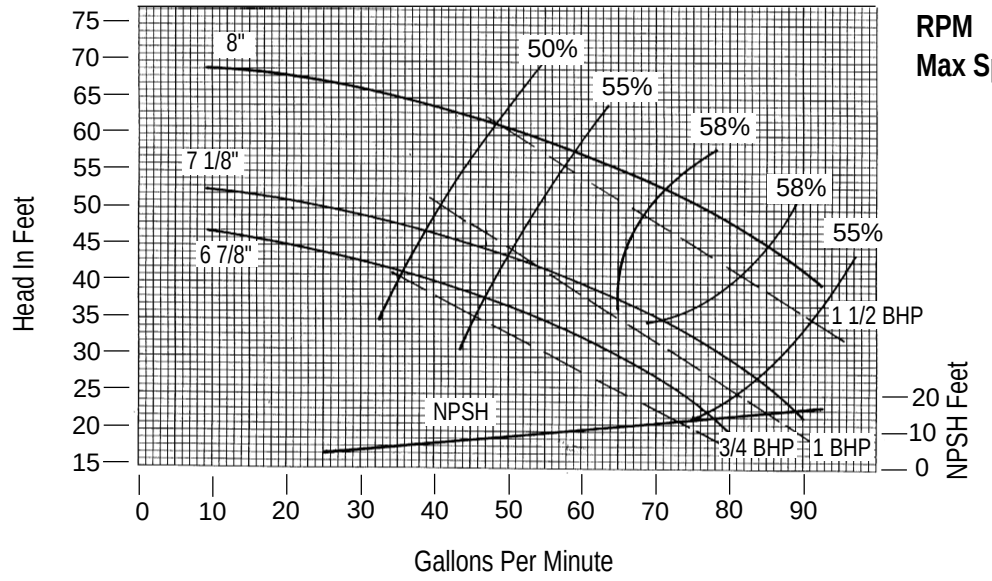
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

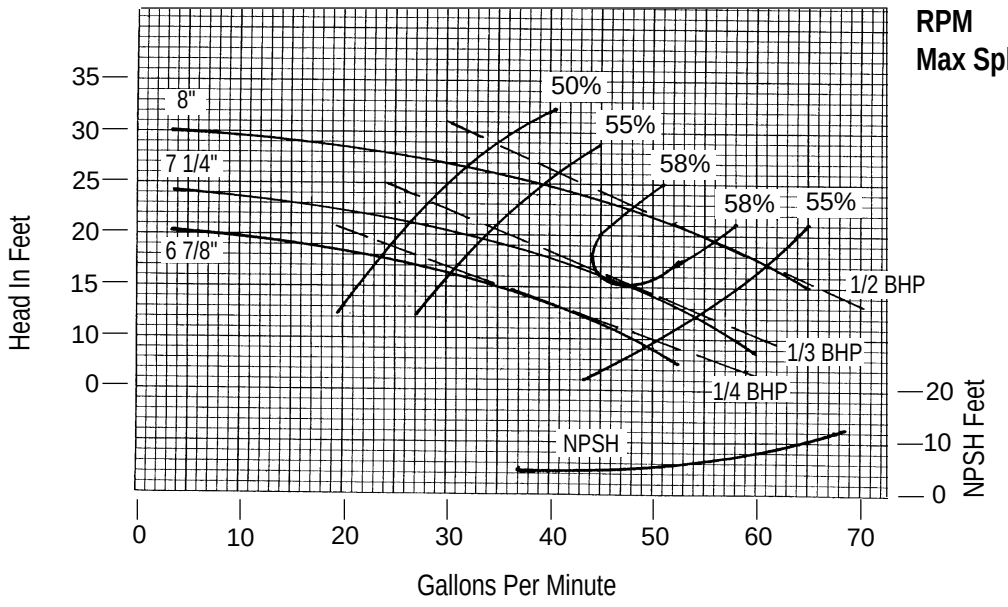
Curve AS-1612

Series	**1300 / 1400**
Size	**1 1/2 X 1 1/4 X 8**
RPM	**1750**
Max Sphere	**5/16**



Curve BS-1612

Series	**1300 / 1400**
Size	**1 1/2 X 1 1/4 X 8**
RPM	**1150**
Max Sphere	**5/16**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

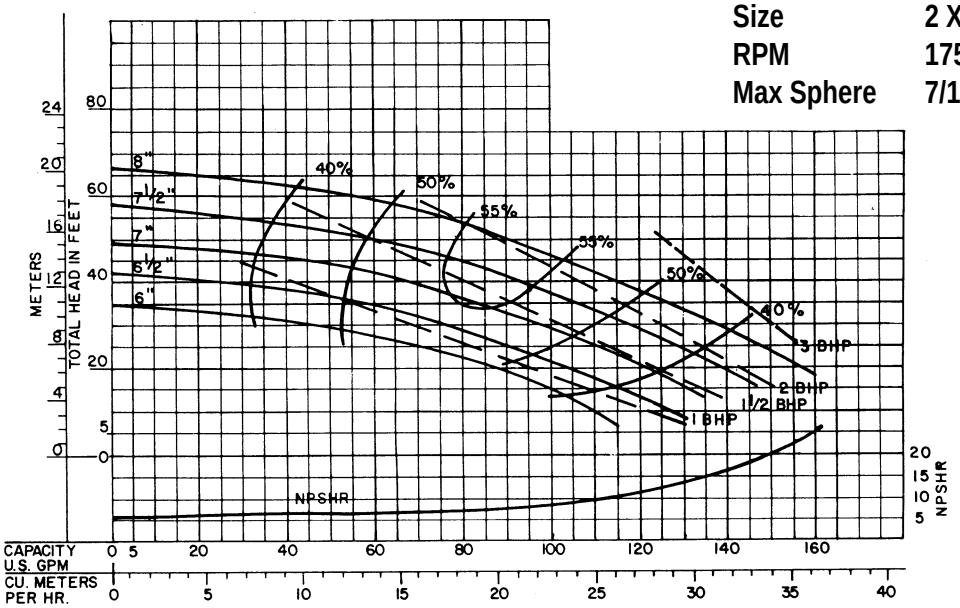
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

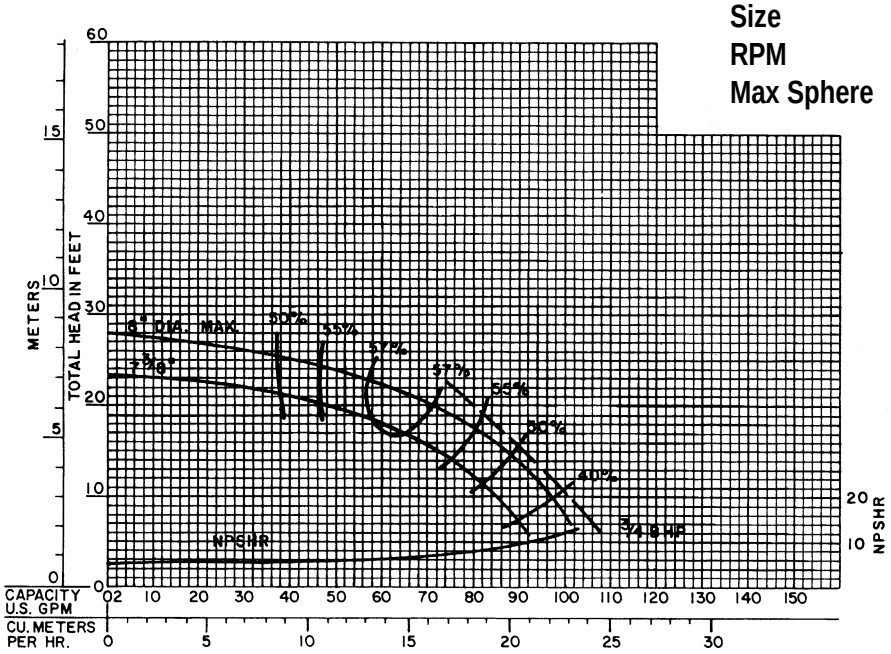
Curve BS-1615

Series	**1300 / 1400**
Size	**2 X 1 1/2 X 8**
RPM	**1750**
Max Sphere	**7/16**



Curve CS-1615

Series	**1300 / 1400**
Size	**2 X 1 1/2 X 8**
RPM	**1150**
Max Sphere	**7/16**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

CONTRACTOR _____

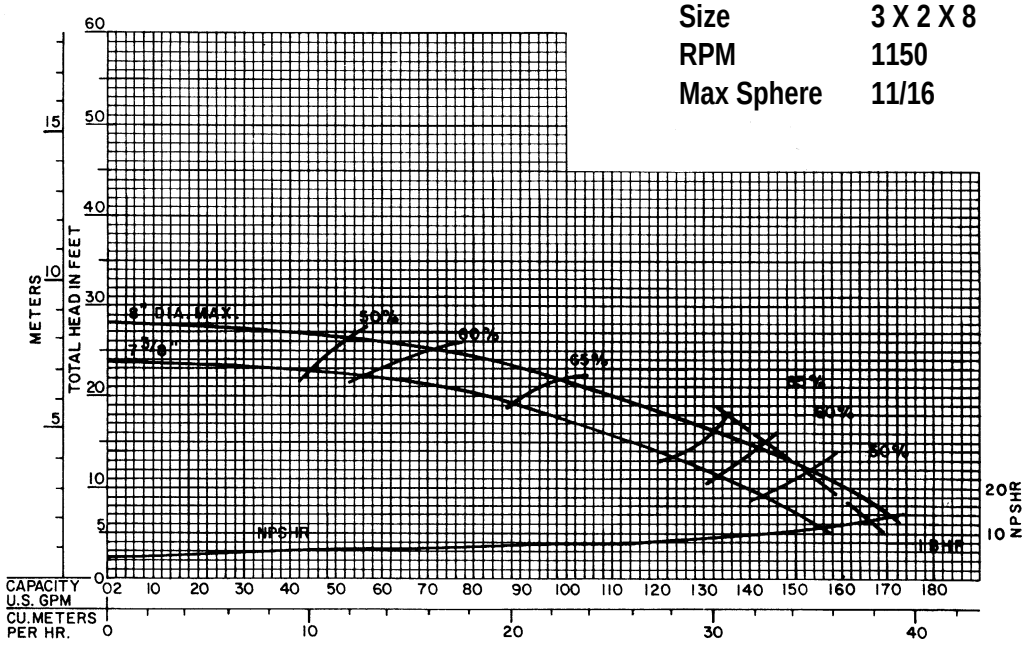
CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

Curve CS-1620

Series	**1300 / 1400**
Size	**3 X 2 X 8**
RPM	**1750**
Max Sphere	**11/16**

Curve DS-1620



Series	**1300 / 1400**
Size	**3 X 2 X 8**
RPM	**1150**
Max Sphere	**11/16**

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

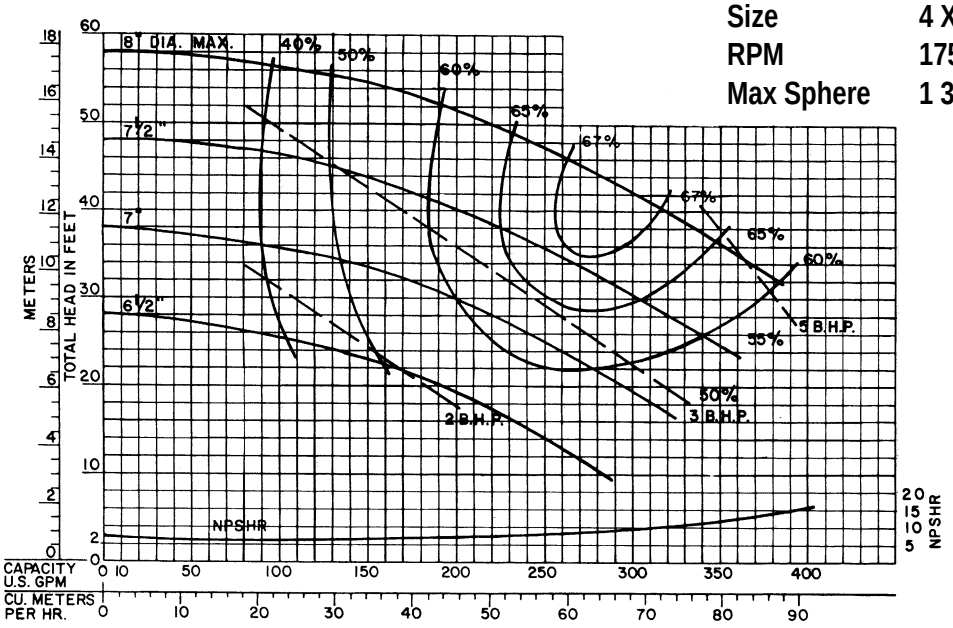
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

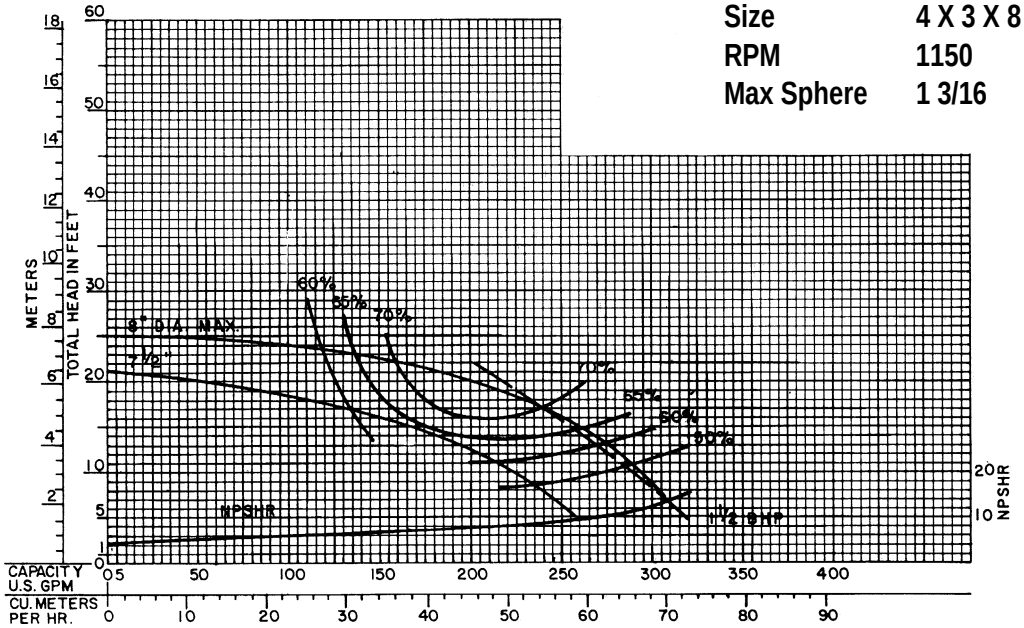
Curve CS-1630

Series	**1300 / 1400**
Size	**4 X 3 X 8**
RPM	**1750**
Max Sphere	**1 3/16**



Curve DS-1630

Series	**1300 / 1400**
Size	**4 X 3 X 8**
RPM	**1150**
Max Sphere	**1 3/16**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

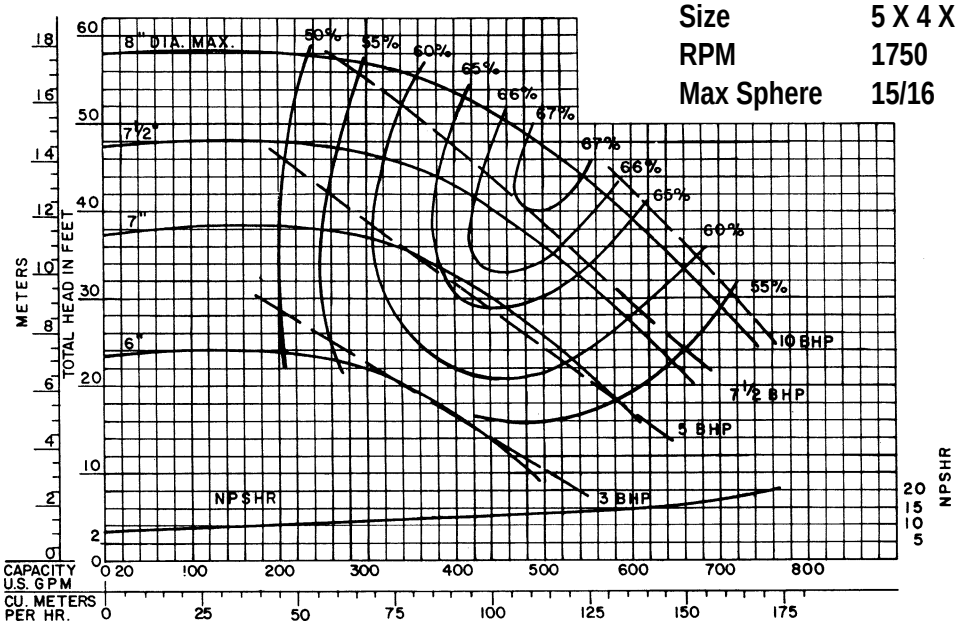
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

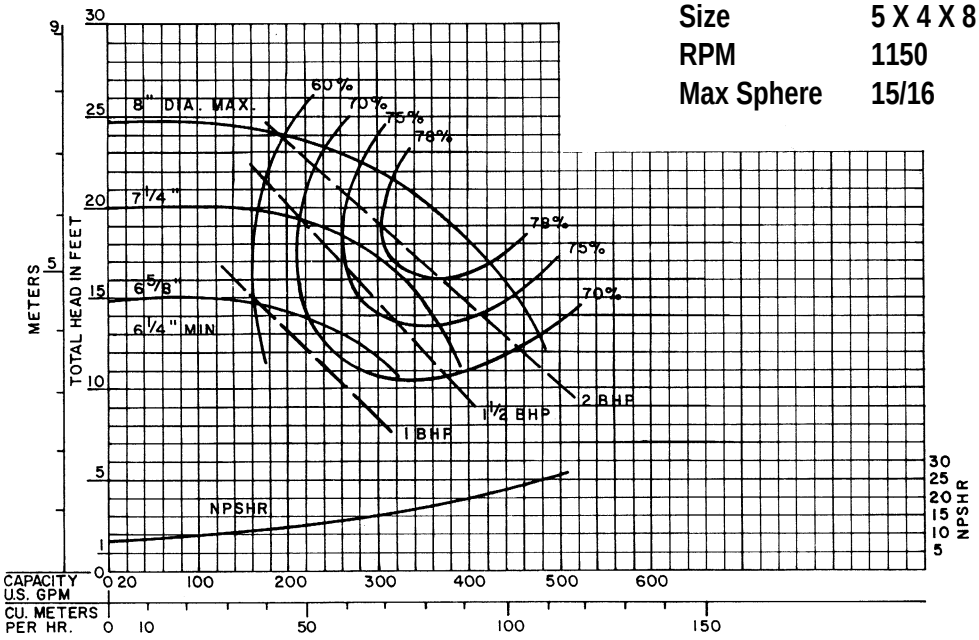
Curve ES-1640

Series	**1300 / 1400**
Size	**5 X 4 X 8**
RPM	**1750**
Max Sphere	**15/16**



Curve DS-1640

Series	**1300 / 1400**
Size	**5 X 4 X 8**
RPM	**1150**
Max Sphere	**15/16**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

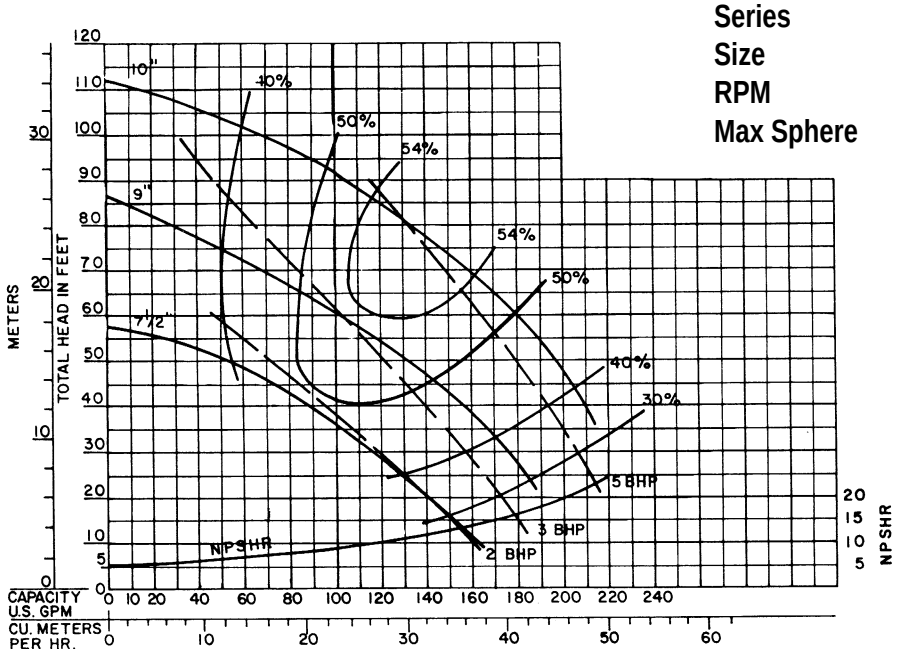
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

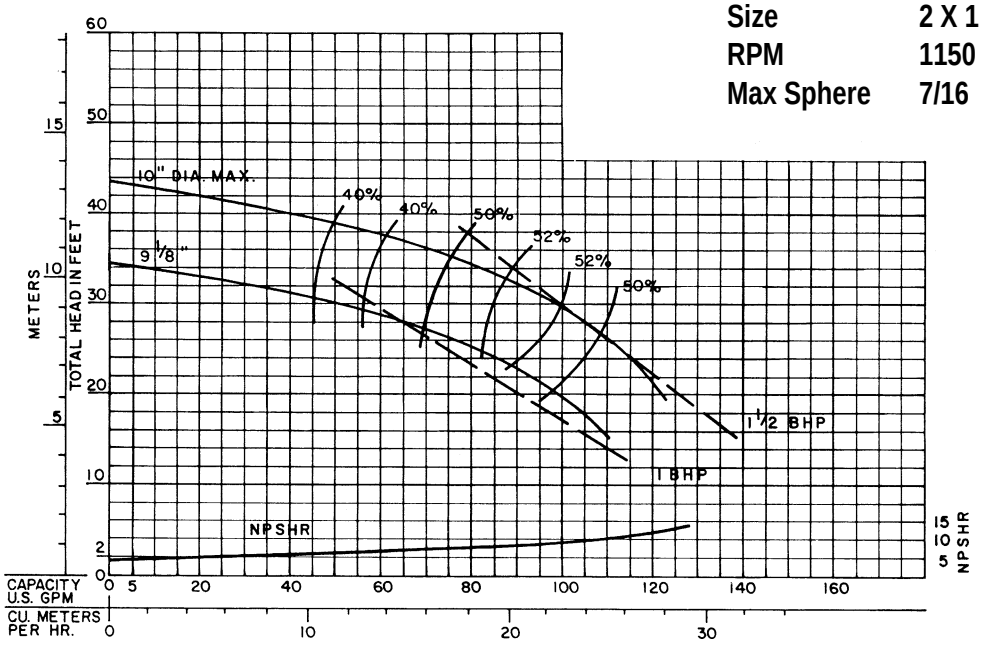
Curve SM-1915

Series	**1300 / 1400**
Size	**2 X 1 1/2 X 10**
RPM	**1750**
Max Sphere	**7/16**



Curve TM-1915

Series	**1300 / 1400**
Size	**2 X 1 1/2 X 10**
RPM	**1150**
Max Sphere	**7/16**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

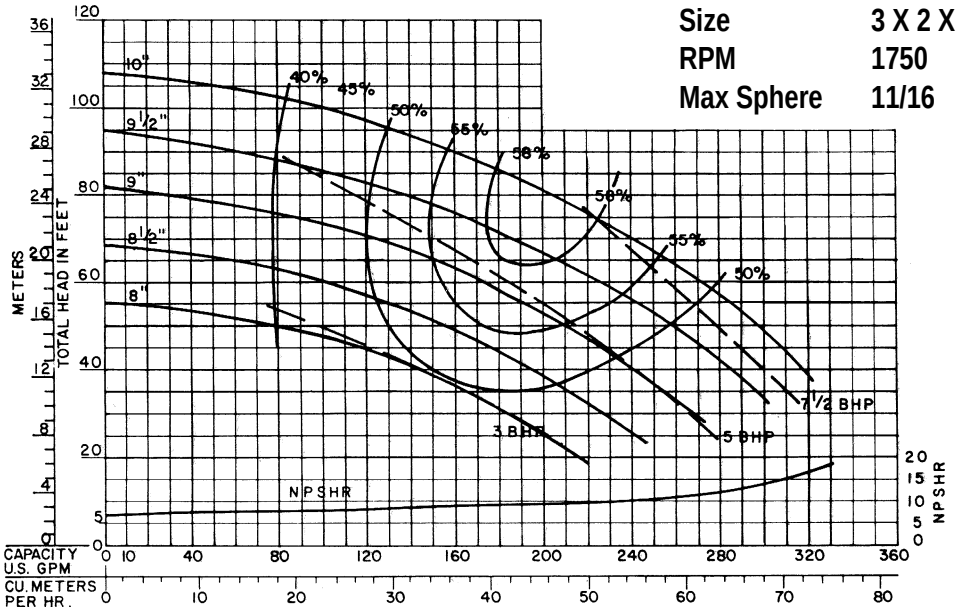
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

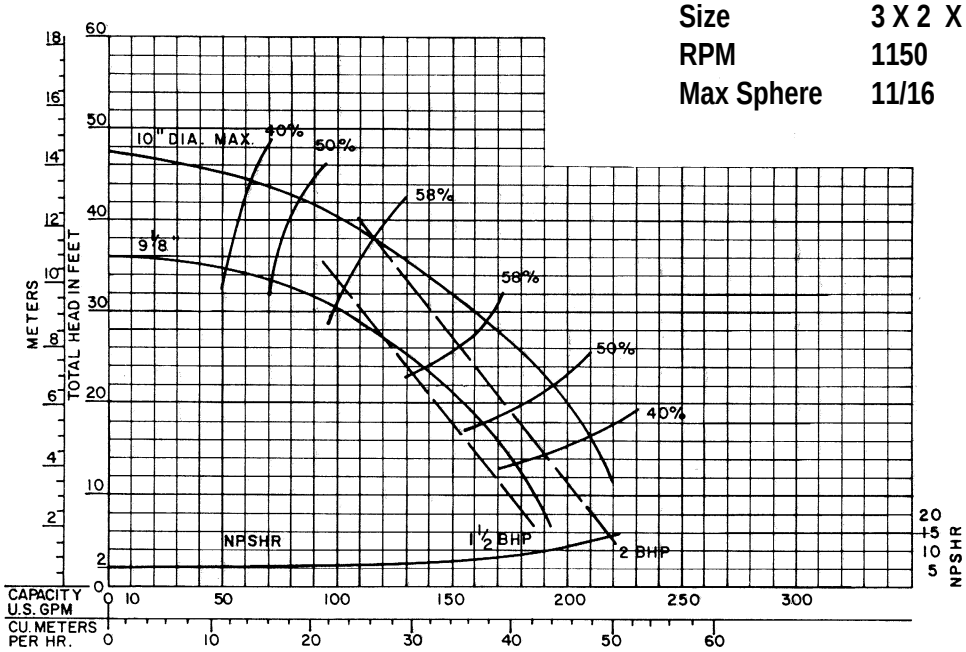
Curve JM-1720

Series	**1300 / 1400**
Size	**3 X 2 X 10**
RPM	**1750**
Max Sphere	**11/16**



Curve KM-1720

Series	**1300 / 1400**
Size	**3 X 2 X 10**
RPM	**1150**
Max Sphere	**11/16**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

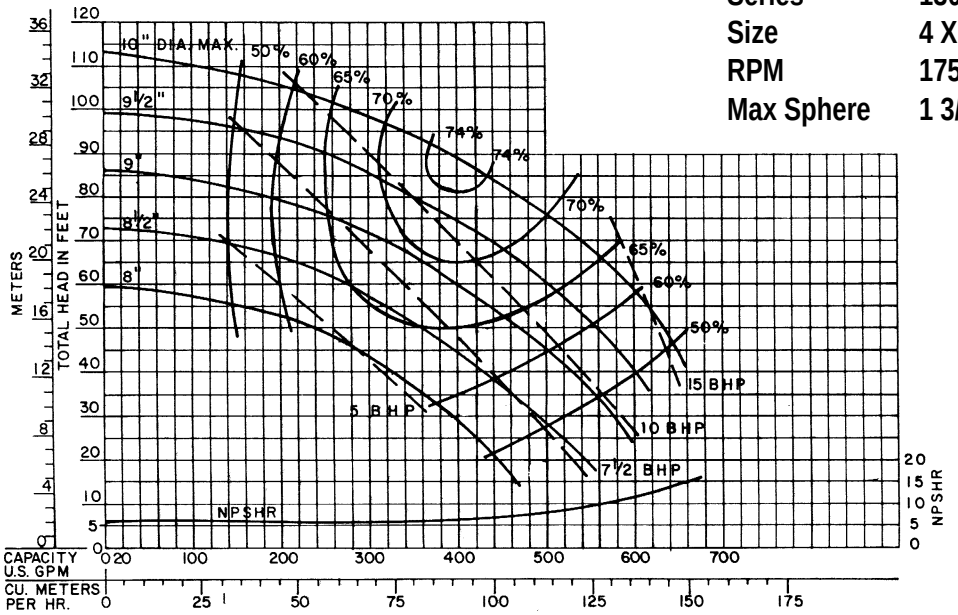
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

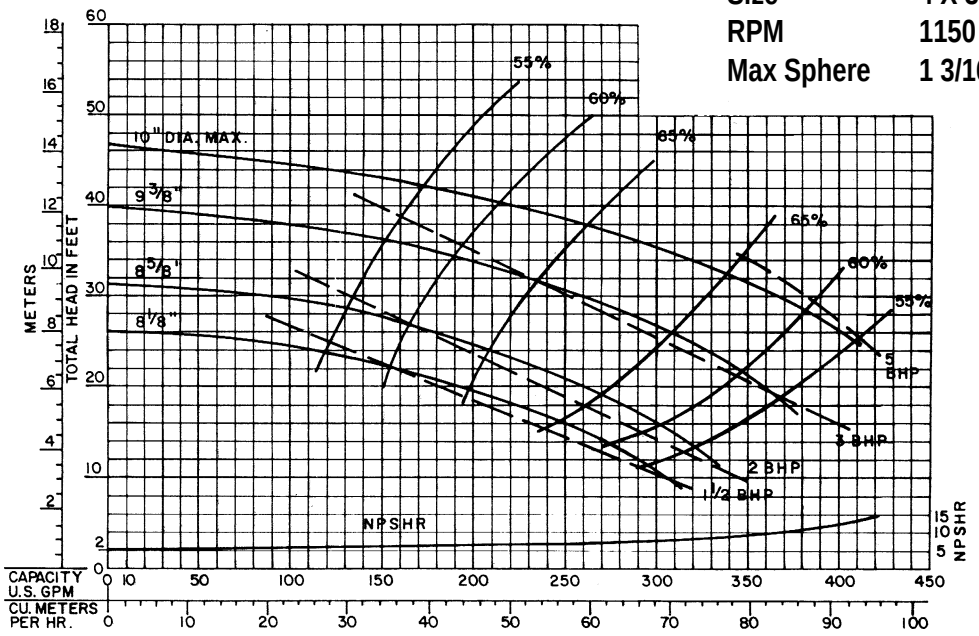
Curve RM-1730

Series	**1300 / 1400**
Size	**4 X 3 X 10**
RPM	**1750**
Max Sphere	**1 3/16**



Curve SM-1730

Series	**1300 / 1400**
Size	**4 X 3 X 10**
RPM	**1150**
Max Sphere	**1 3/16**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

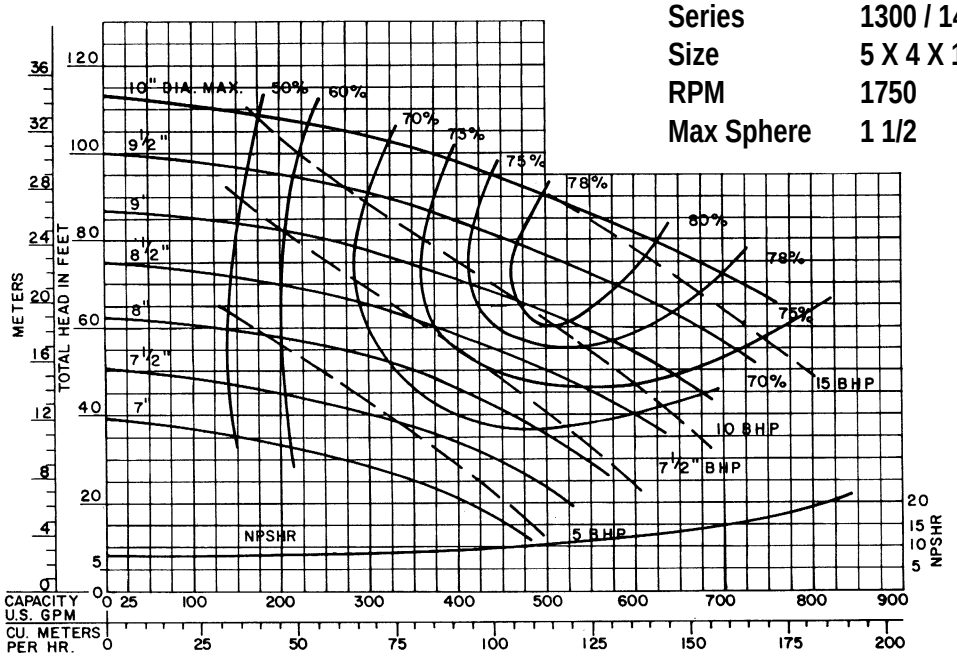
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

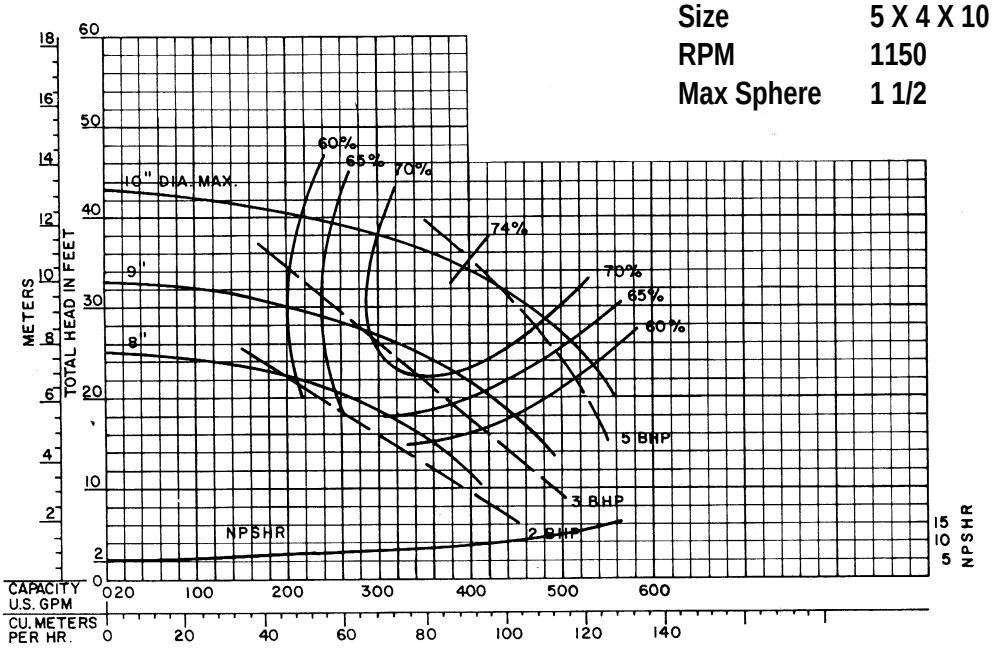
Curve TM-1740

Series	**1300 / 1400**
Size	**5 X 4 X 10**
RPM	**1750**
Max Sphere	**1 1/2**



Curve UM-1740

Series	**1300 / 1400**
Size	**5 X 4 X 10**
RPM	**1150**
Max Sphere	**1 1/2**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

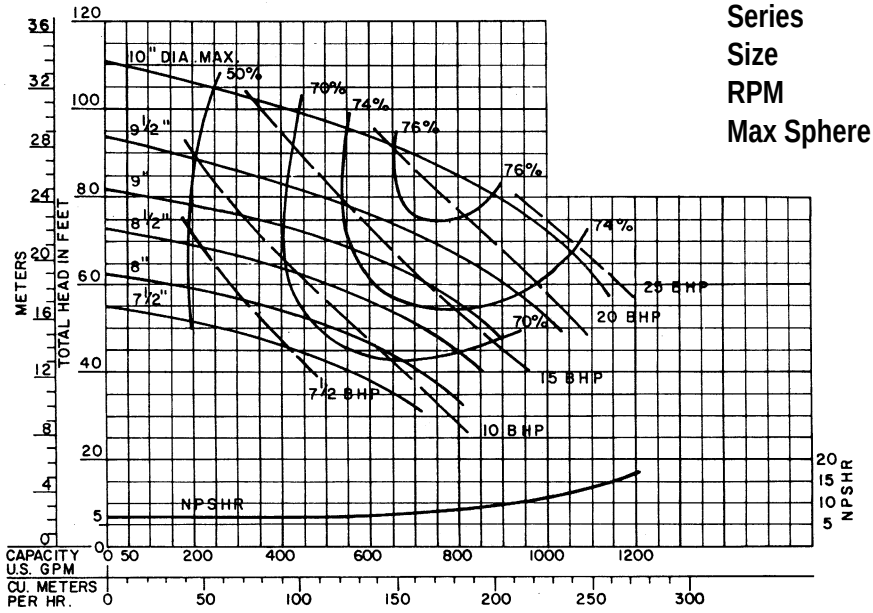
ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

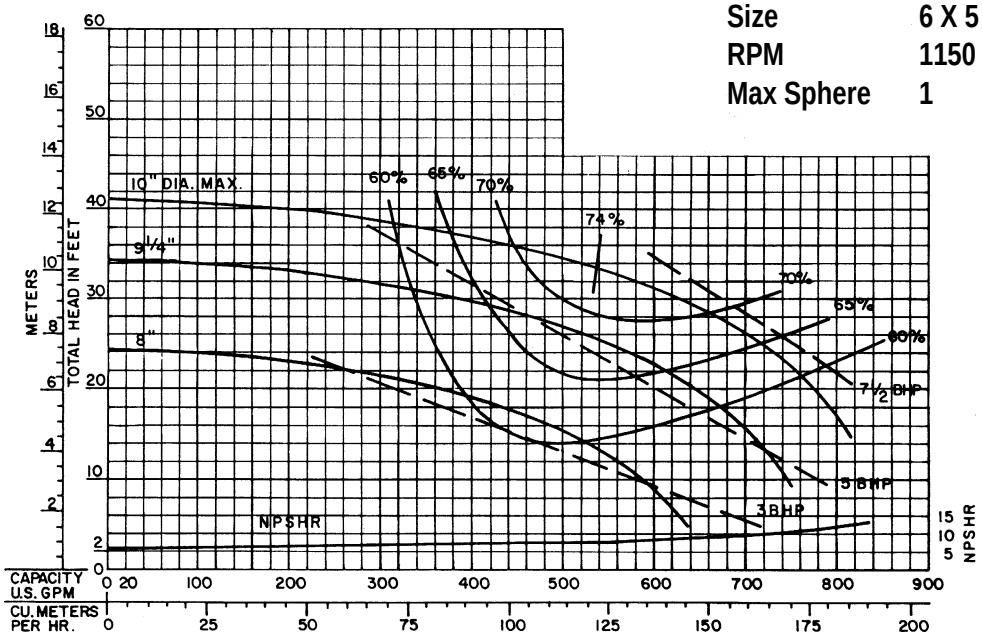
VERTIFLO PUMP COMPANY Performance Curves

Curve UM-1750



Series	**1300 / 1400**
Size	**6 X 5 X 10**
RPM	**1750**
Max Sphere	**1**

Curve VM-1750



Series	**1300 / 1400**
Size	**6 X 5 X 10**
RPM	**1150**
Max Sphere	**1**

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

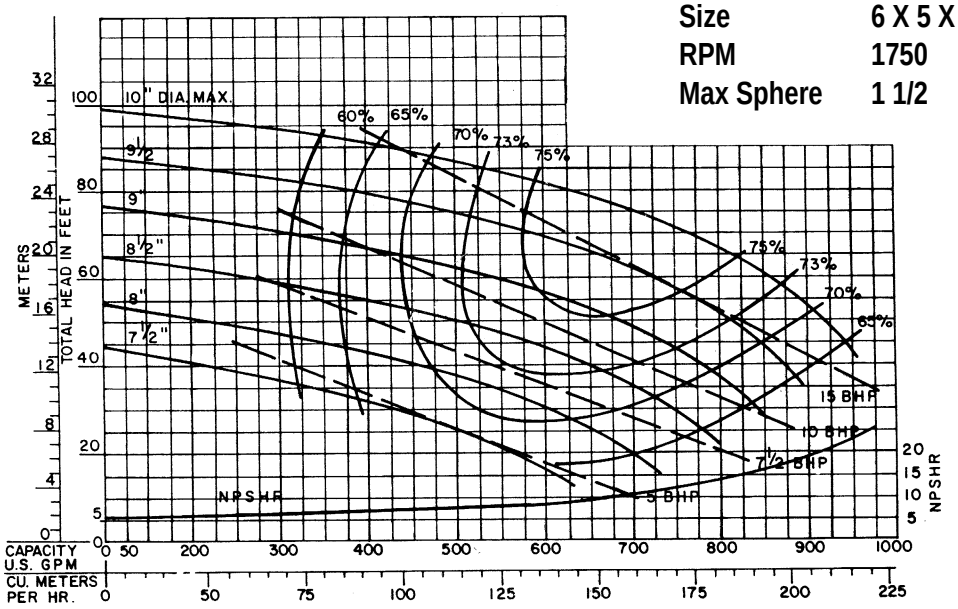
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

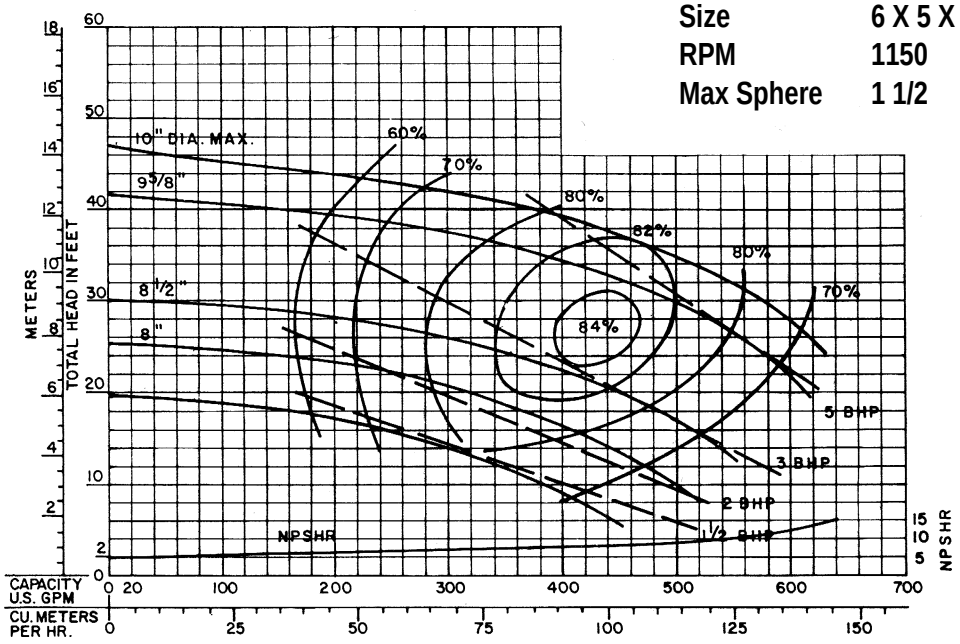
Curve SM-1750

Series	**1300 / 1400**
Size	**6 X 5 X 10A**
RPM	**1750**
Max Sphere	**1 1/2**



Curve SM-1850

Series	**1300 / 1400**
Size	**6 X 5 X 10A**
RPM	**1150**
Max Sphere	**1 1/2**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

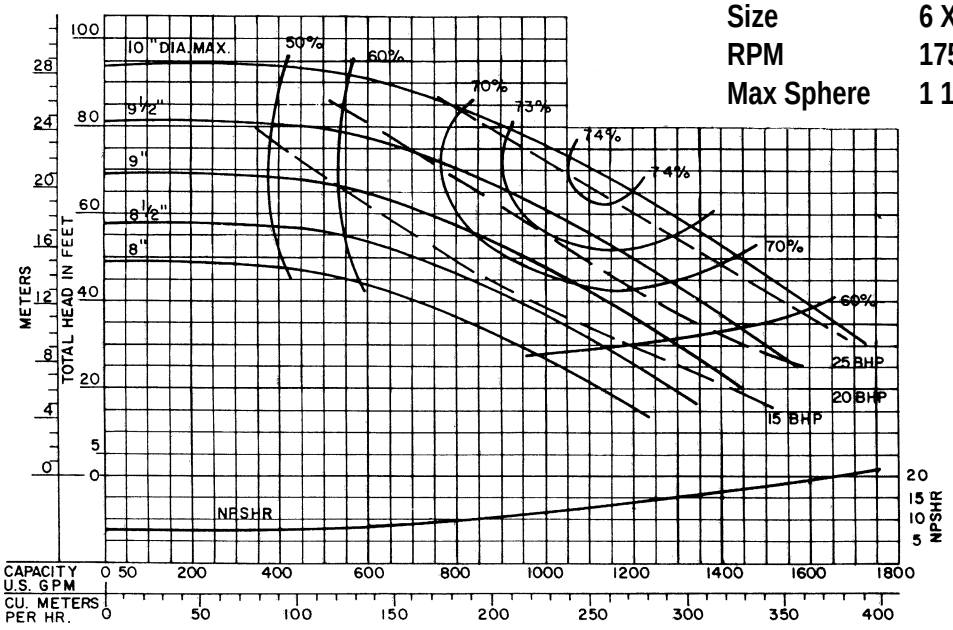
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

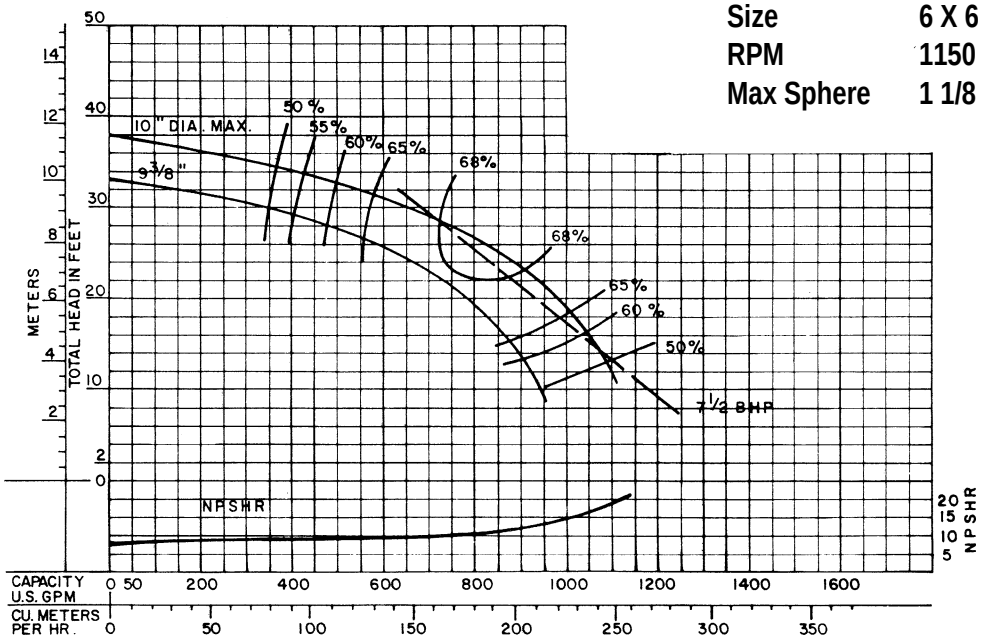
Curve TM-1760

Series	**1300 / 1400**
Size	**6 X 6 X 10**
RPM	**1750**
Max Sphere	**1 1/8**



Curve UM-1760

Series	**1300 / 1400**
Size	**6 X 6 X 10**
RPM	**1150**
Max Sphere	**1 1/8**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

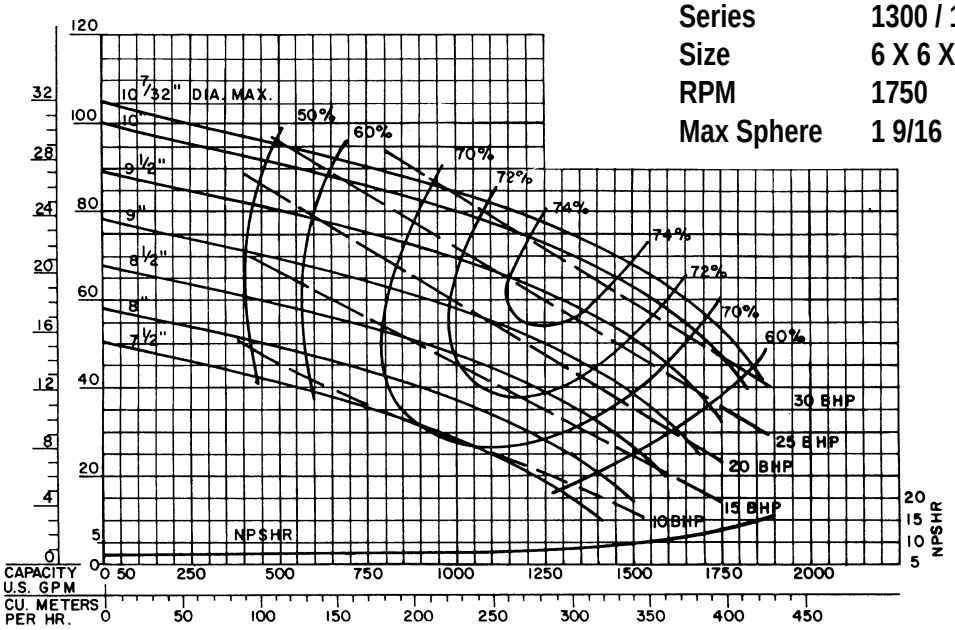
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

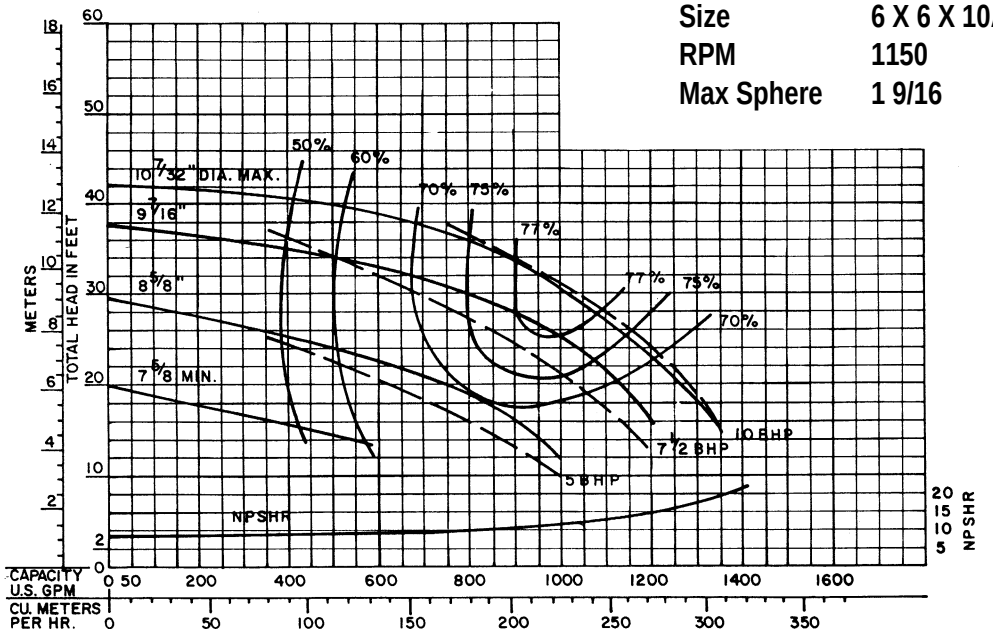
Curve LM-1760

Series	**1300 / 1400**
Size	**6 X 6 X 10A**
RPM	**1750**
Max Sphere	**1 9/16**



Curve LM-1860

Series	**1300 / 1400**
Size	**6 X 6 X 10A**
RPM	**1150**
Max Sphere	**1 9/16**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

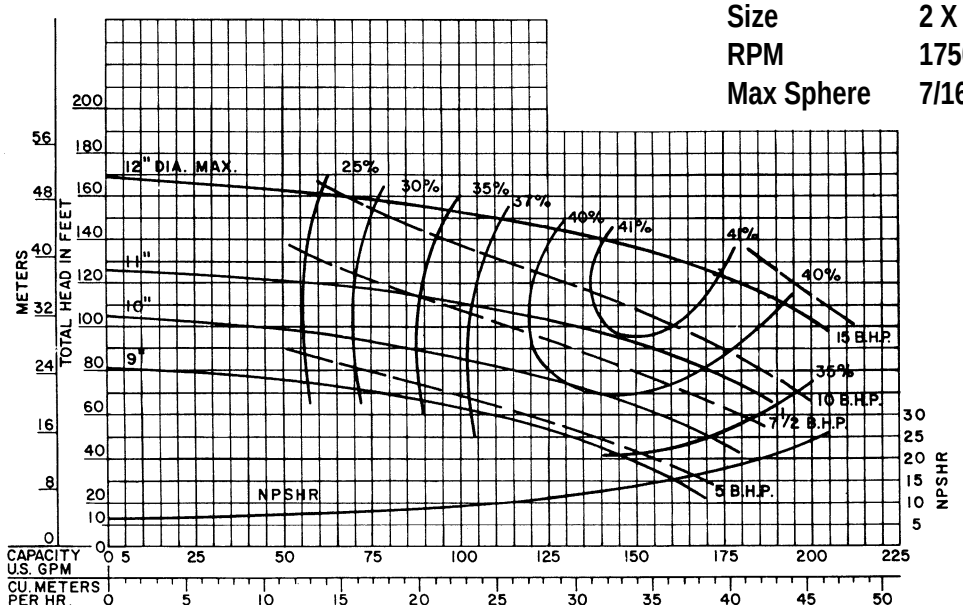
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

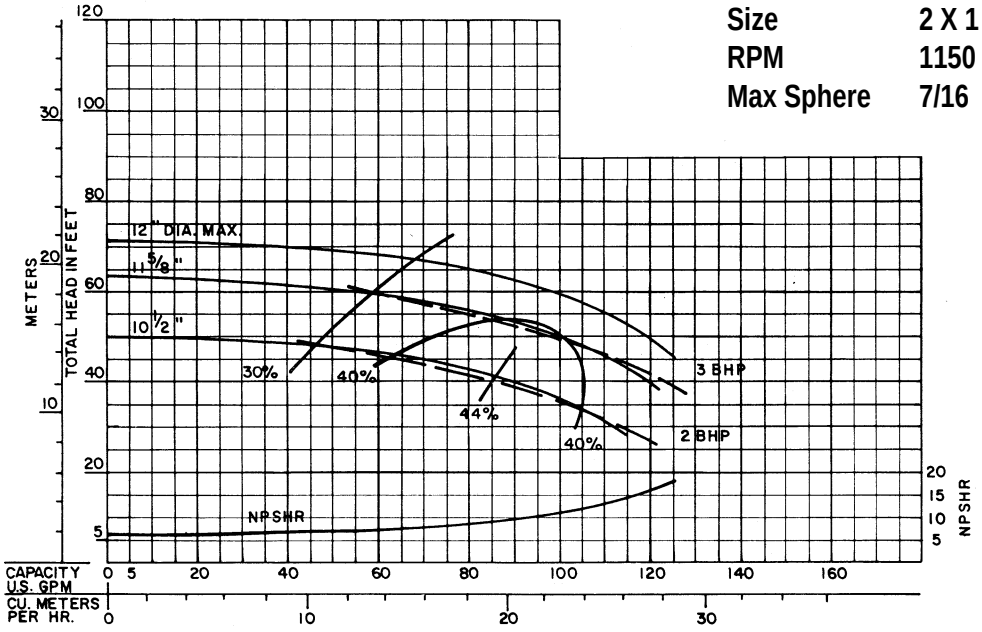
Curve KL-1915

Series	**1300 / 1400**
Size	**2 X 1 1/2 X 12**
RPM	**1750**
Max Sphere	**7/16**



Curve LL-1915

Series	**1300 / 1400**
Size	**2 X 1 1/2 X 12**
RPM	**1150**
Max Sphere	**7/16**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

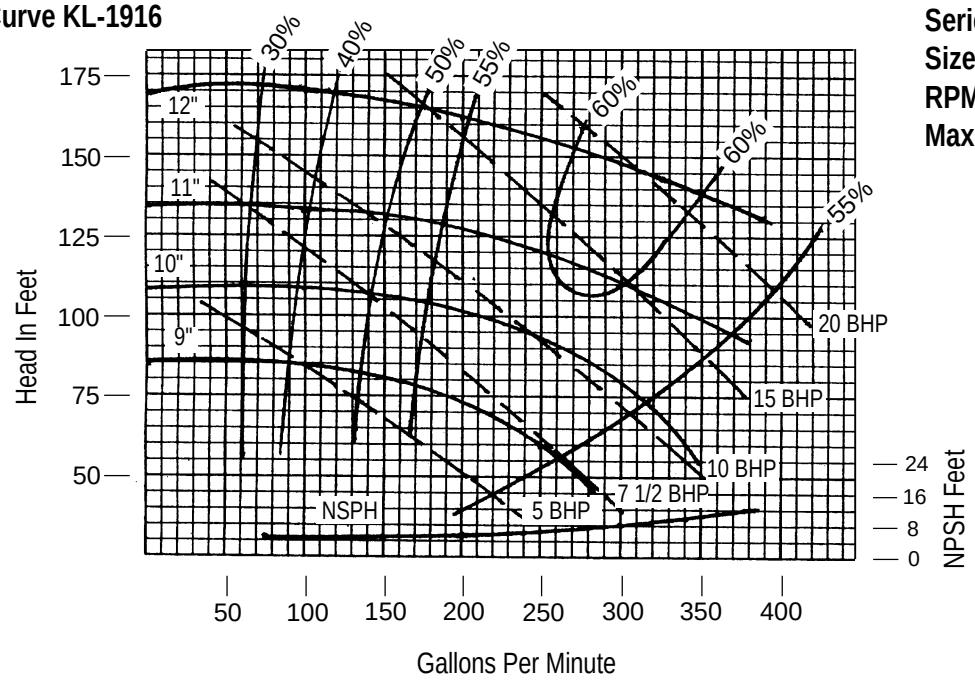
ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

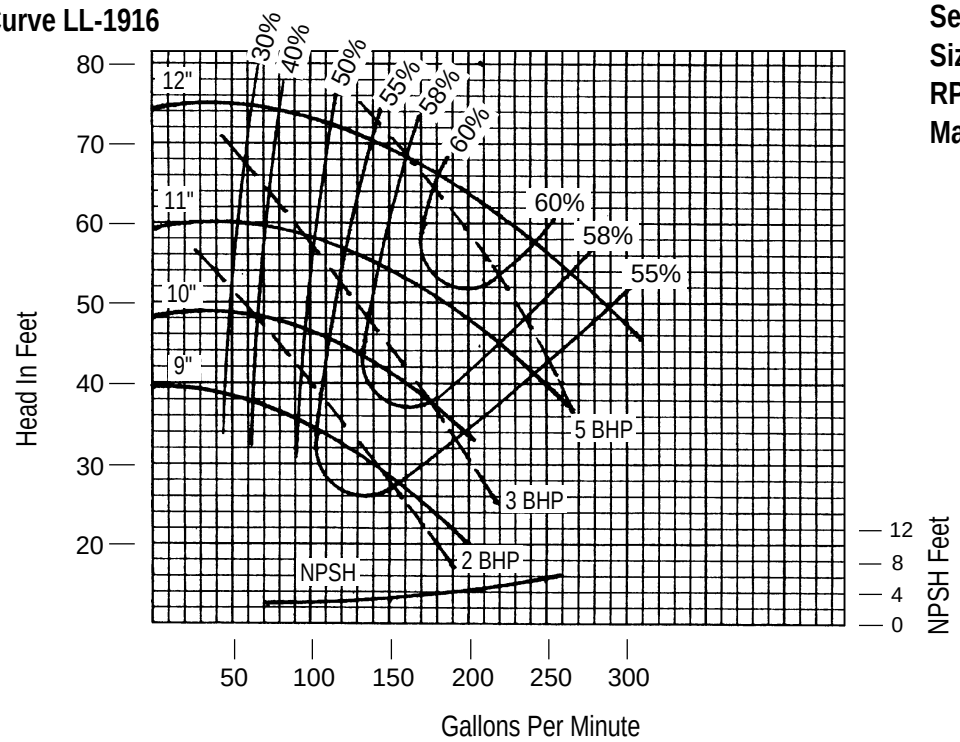
VERTIFLO PUMP COMPANY Performance Curves

Curve KL-1916



Series	**1300/1400**
Size	**3 X 2 X 12**
RPM	**1750**
Max Sphere	**3/4**

Curve LL-1916



Series	**1300/1400**
Size	**3 X 2 X 12**
RPM	**1150**
Max Sphere	**3/4**

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

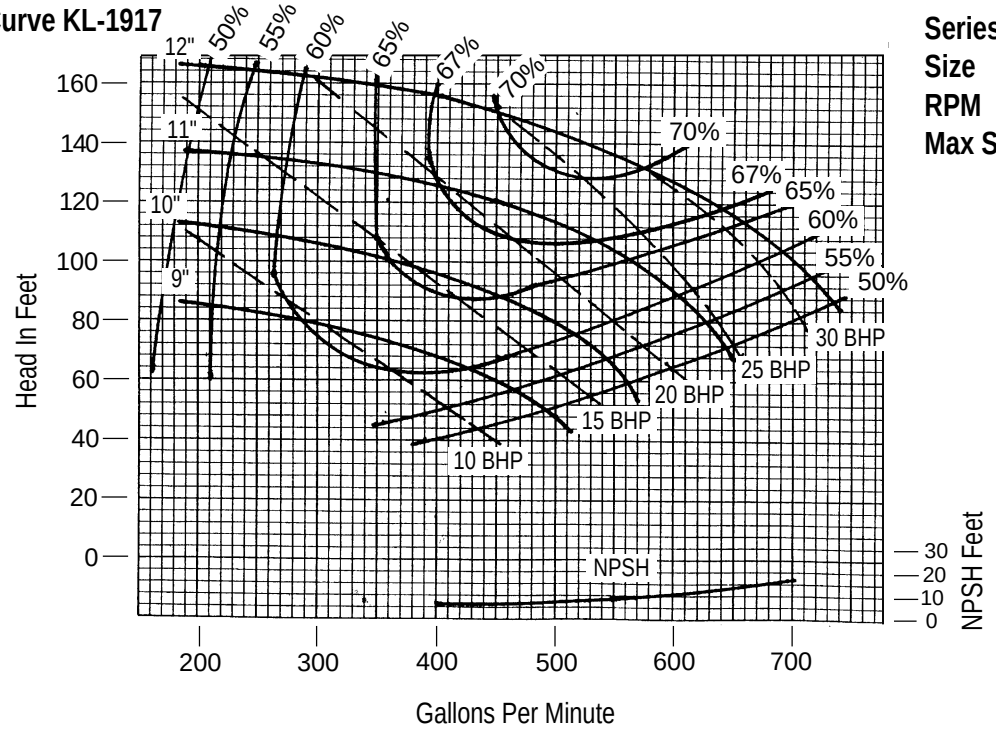
ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

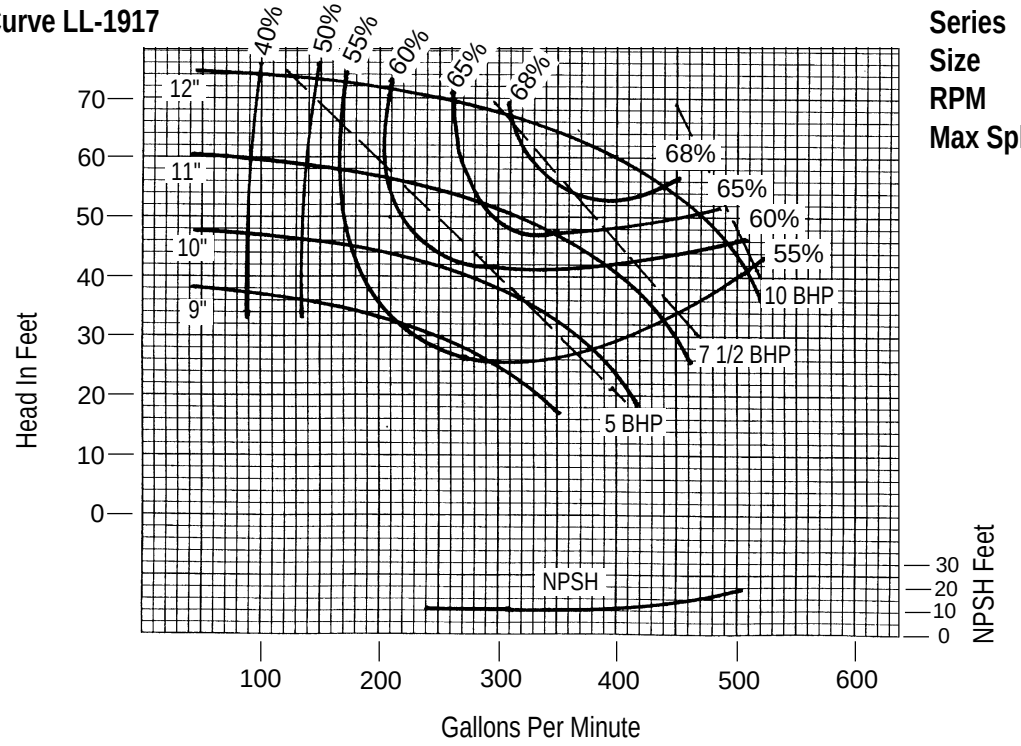
VERTIFLO PUMP COMPANY Performance Curves

Curve KL-1917



Series	**1300 / 1400**
Size	**4 X 3 X 12**
RPM	**1750**
Max Sphere	**1 1/4**

Curve LL-1917



Series	**1300 / 1400**
Size	**4 X 3 X 12**
RPM	**1150**
Max Sphere	**1 1/4**

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

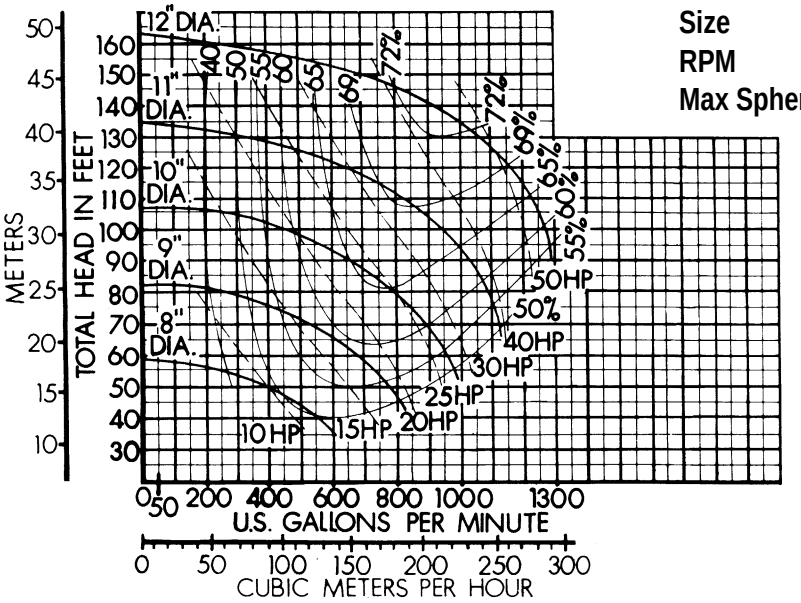
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

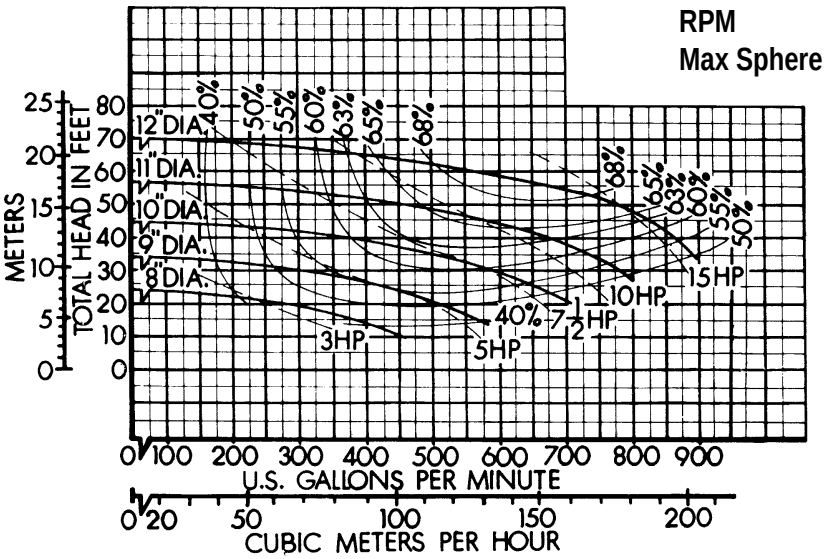
Curve 64124

Series	**1300 / 1400**
Size	**6 X 4 X 12**
RPM	**1750**
Max Sphere	**1 1/2**



Curve 64126

Series	**1300 / 1400**
Size	**6 X 4 X 12**
RPM	**1150**
Max Sphere	**1 1/2**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

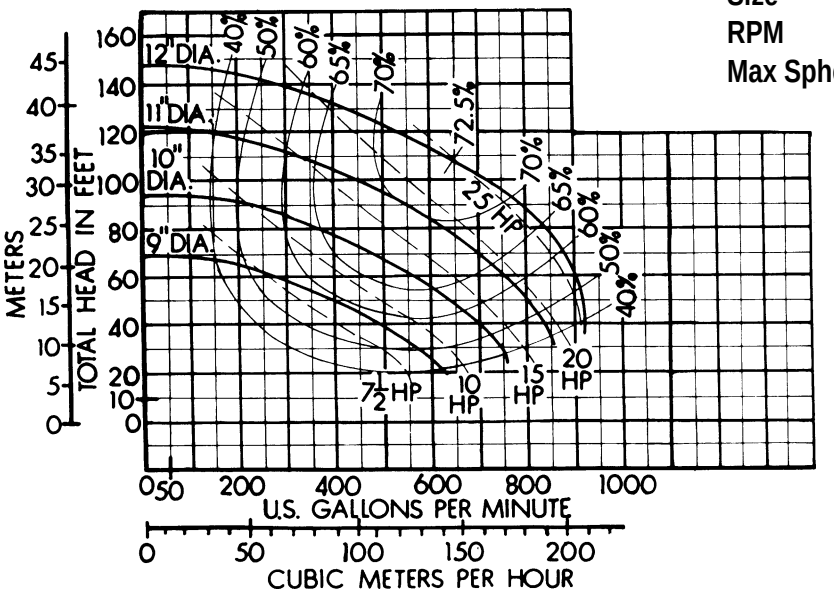
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

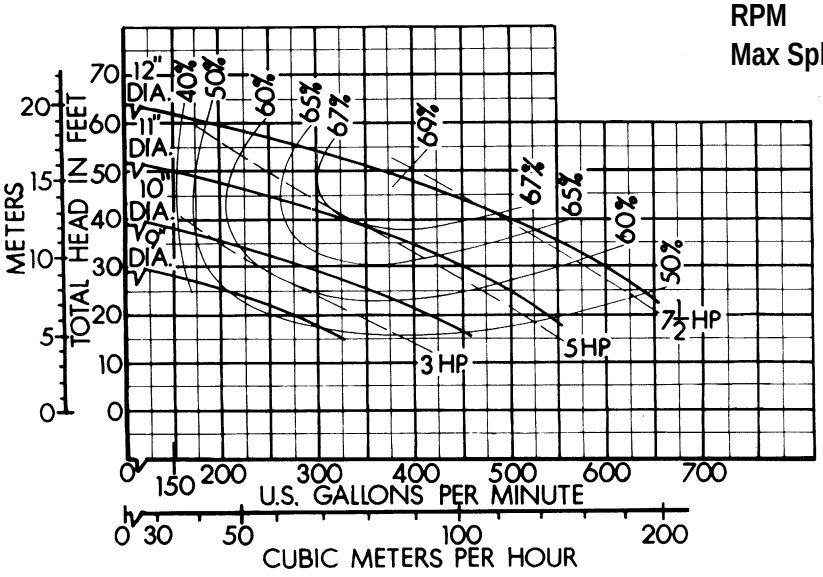
Curve 6412A4

Series	**1300 / 1400**
Size	**6 X 4 X 12A**
RPM	**1750**
Max Sphere	**1 1/8**



Curve 6412A6

Series	**1300 / 1400**
Size	**6 X 4 X 12A**
RPM	**1150**
Max Sphere	**1 1/8**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

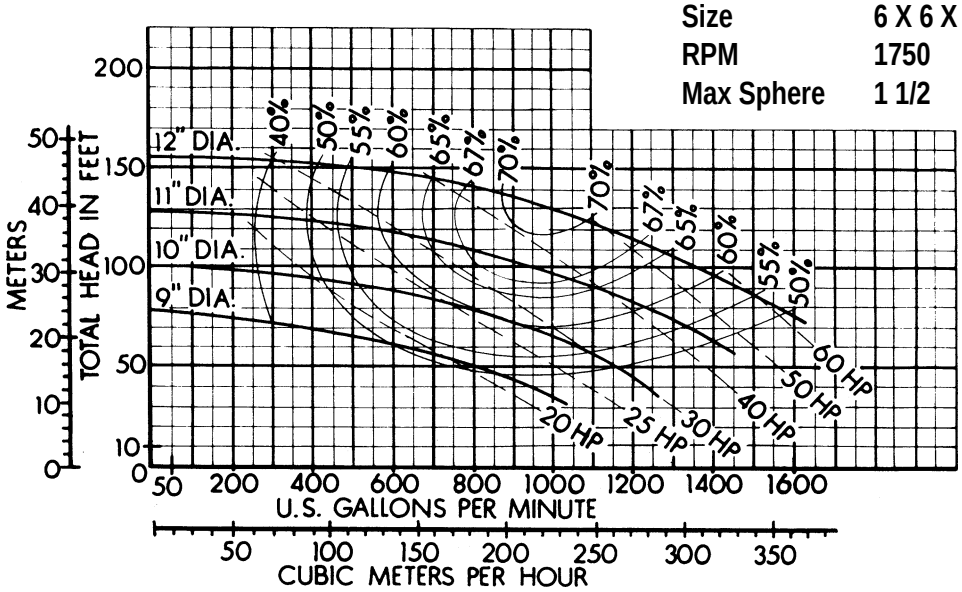
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

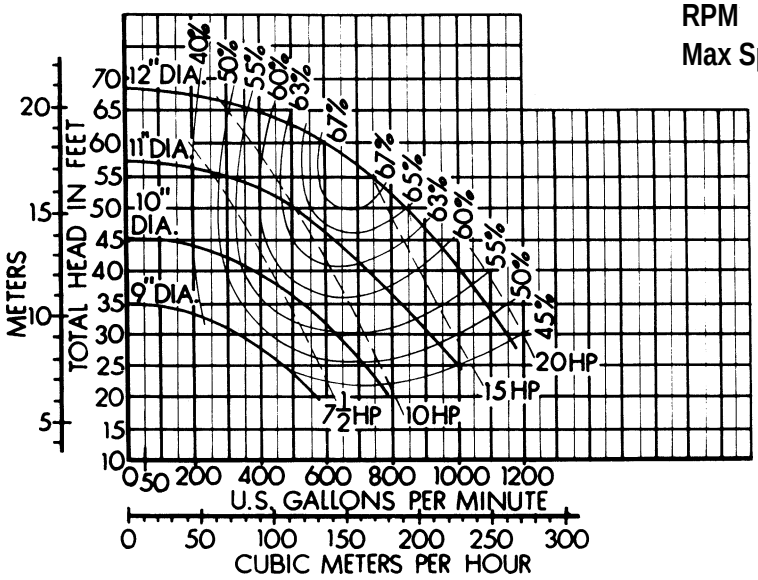
Curve 66124

Series	**1300 / 1400**
Size	**6 X 6 X 12**
RPM	**1750**
Max Sphere	**1 1/2**



Curve 66126

Series	**1300 / 1400**
Size	**6 X 6 X 12**
RPM	**1150**
Max Sphere	**1 1/2**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

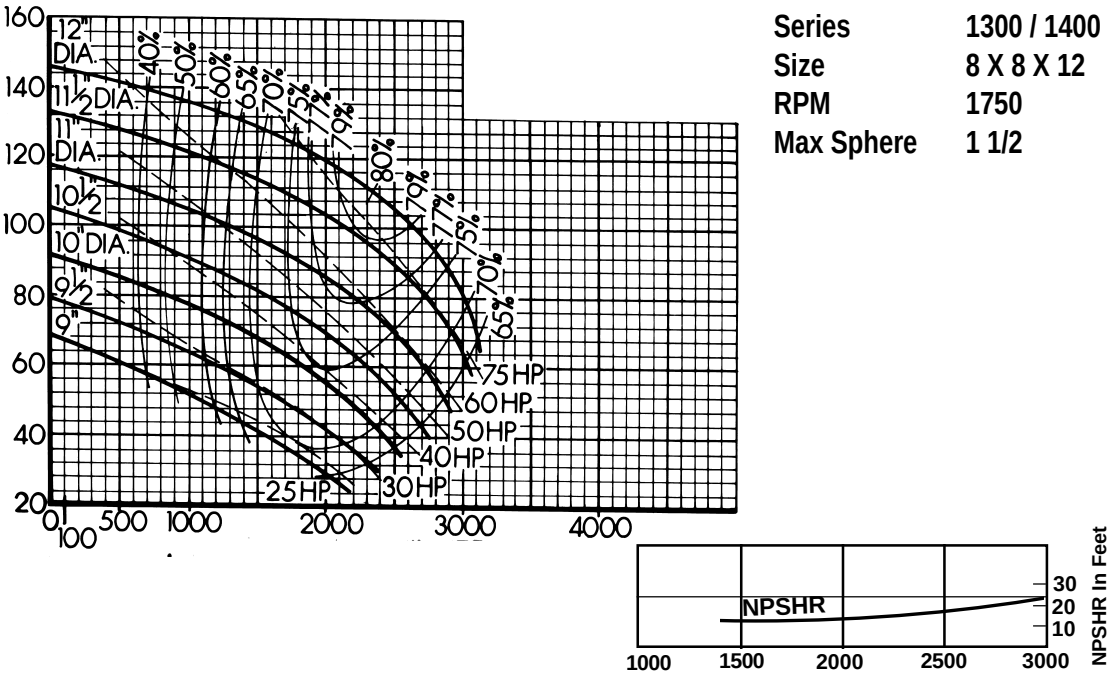
PROJECT _____

ENGINEER _____

CONTRACTOR _____

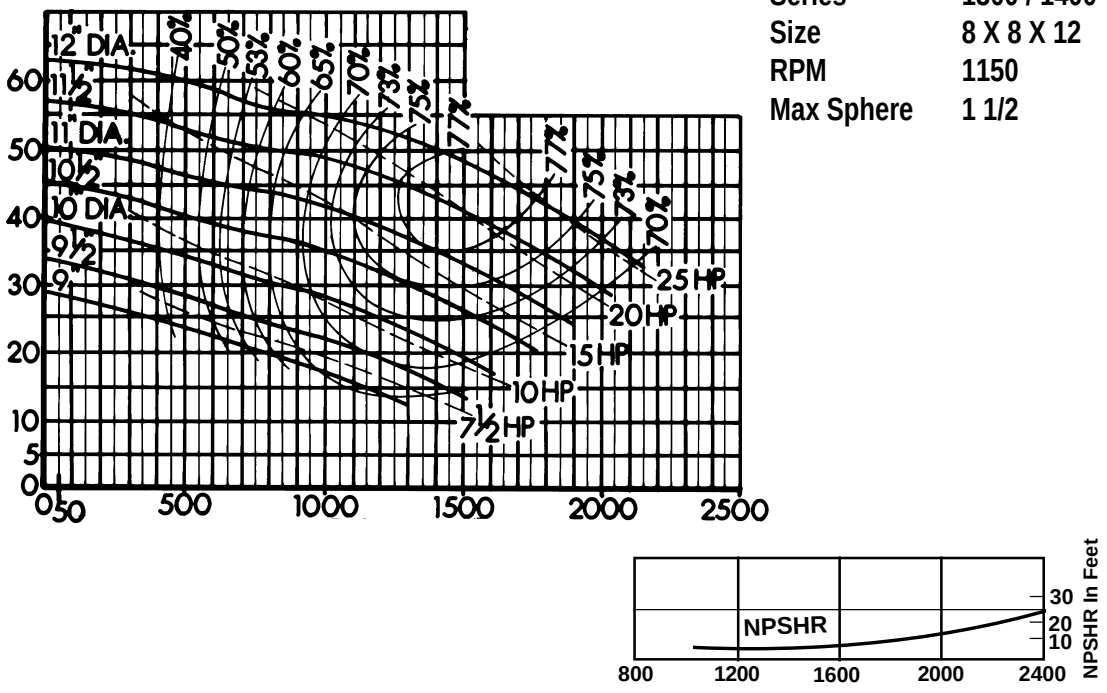
CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

Curve 88124



Series	**1300 / 1400**
Size	**8 X 8 X 12**
RPM	**1750**
Max Sphere	**1 1/2**

Curve 88126



Series	**1300 / 1400**
Size	**8 X 8 X 12**
RPM	**1150**
Max Sphere	**1 1/2**

1300

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

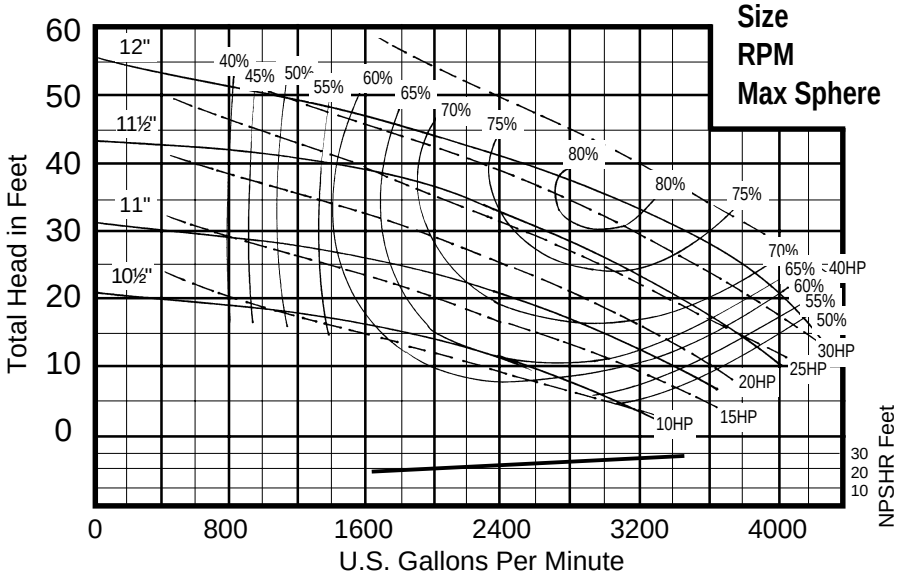
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY

Curve 101012

Series	**1300 / 1400**
Size	**10 X 10 X 12**
RPM	**1750**
Max Sphere	**1 1/2**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

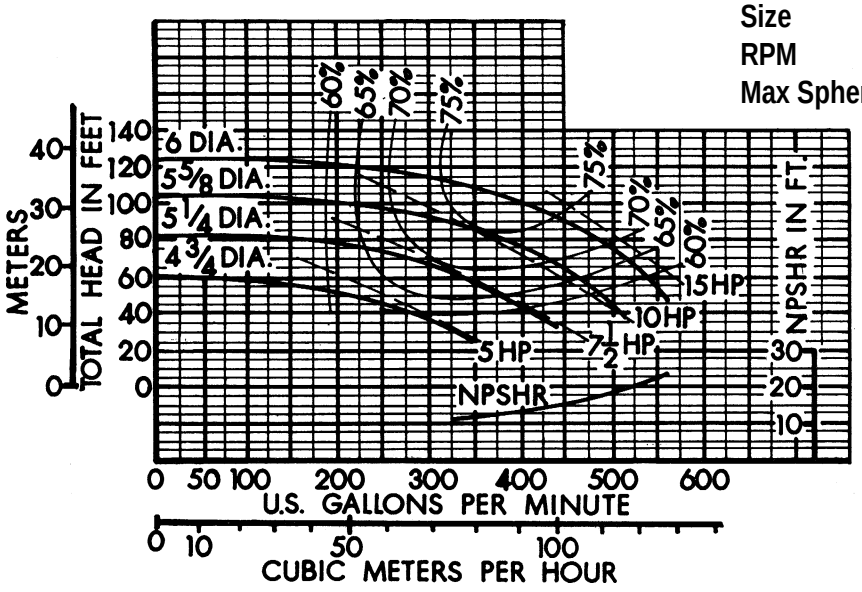
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

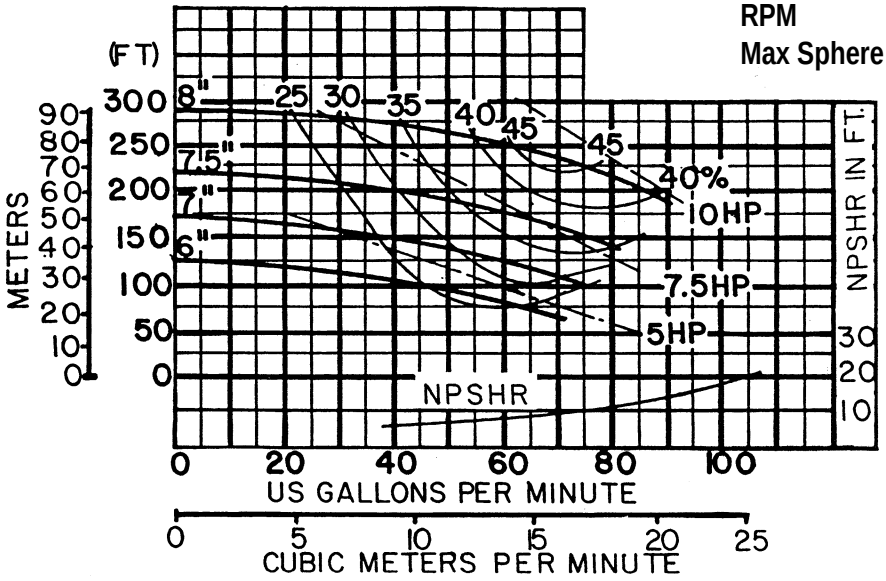
Curve 3272

Series	**1300 / 1400**
Size	**3 X 2 1/2 X 7**
RPM	**3500**
Max Sphere	**1**



Curve 11082

Series	**1300 / 1400**
Size	**1 1/2 X 1 X 8**
RPM	**3500**
Max Sphere	**1/4**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

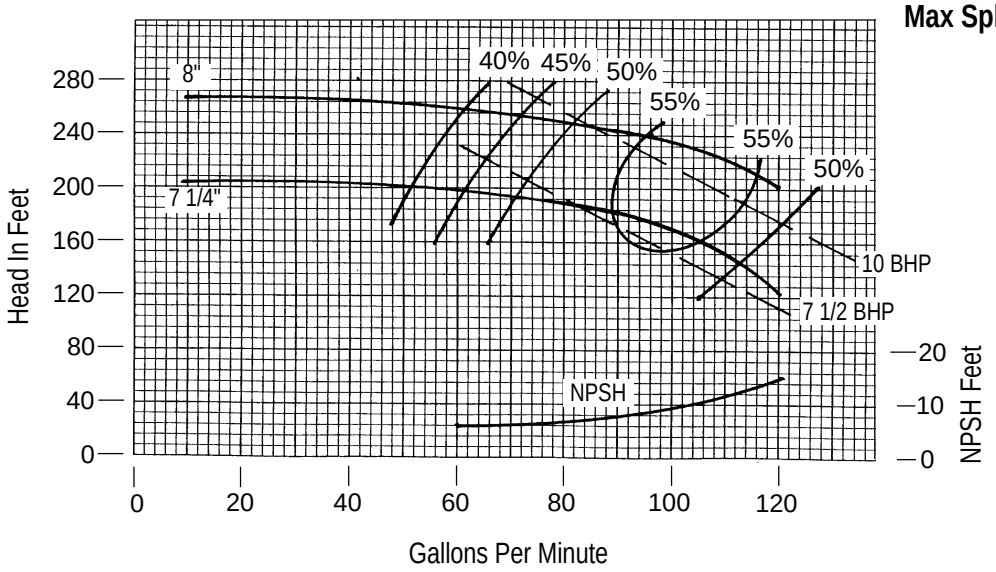
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

Curve 11092

Series	**1300 / 1400**
Size	**1 1/2 X 1 1/4 X 8**
RPM	**3500**
Max Sphere	**5/16**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

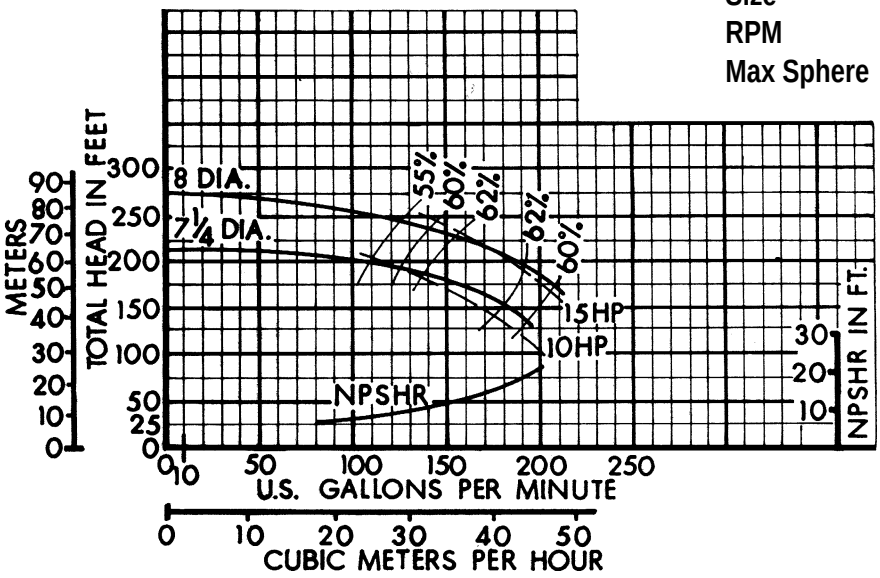
ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

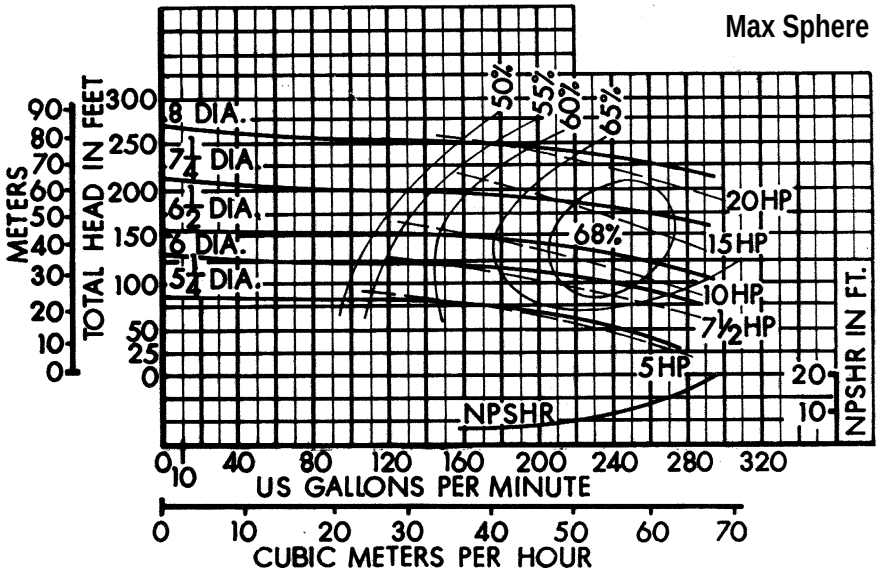
Curve 2182

Series	**1300 / 1400**
Size	**2 X 1 1/2 X 8**
RPM	**3500**
Max Sphere	**7/16**



Curve 3282

Series	**1300 / 1400**
Size	**3 X 2 X 8**
RPM	**3500**
Max Sphere	**11/16**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

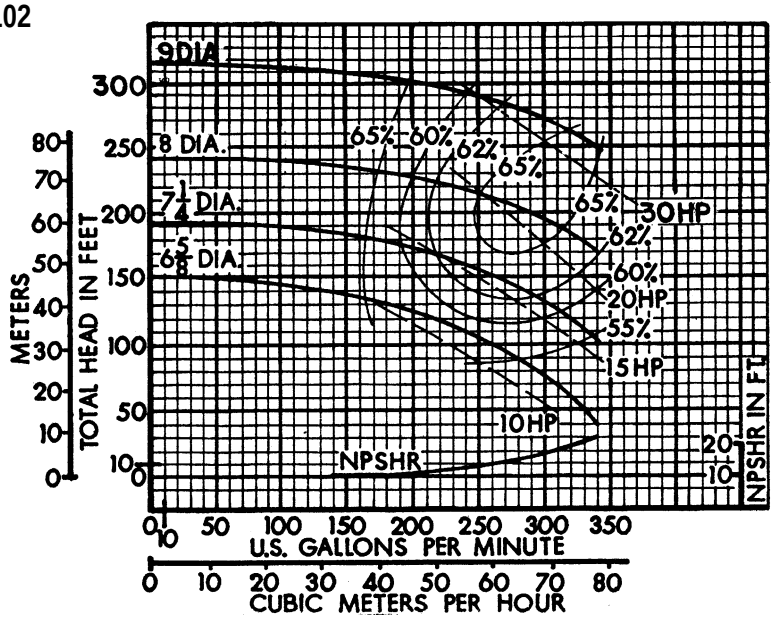
ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

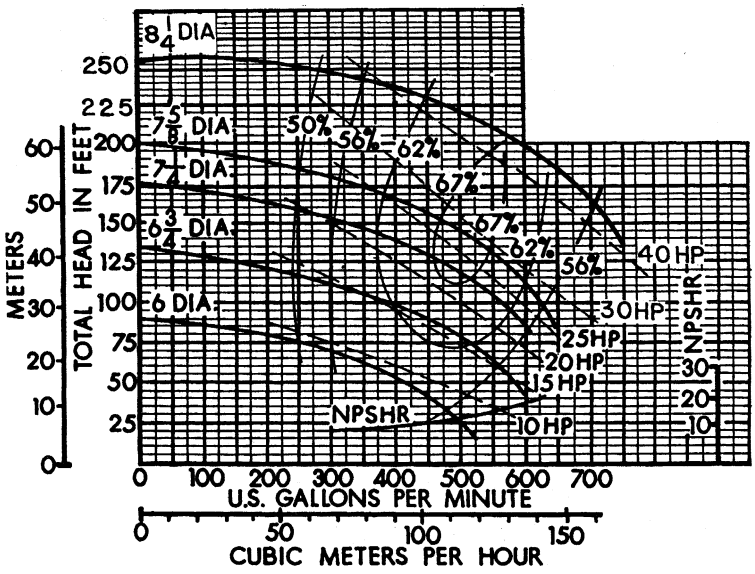
VERTIFLO PUMP COMPANY Performance Curves

Curve 32102



Series	**1300 / 1400**
Size	**3 X 2 X 10**
RPM	**3500**
Max Sphere	**11/16**

Curve 11082



Series	**1300 / 1400**
Size	**4 X 3 X 10**
RPM	**3500**
Max Sphere	**1 3/16**

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

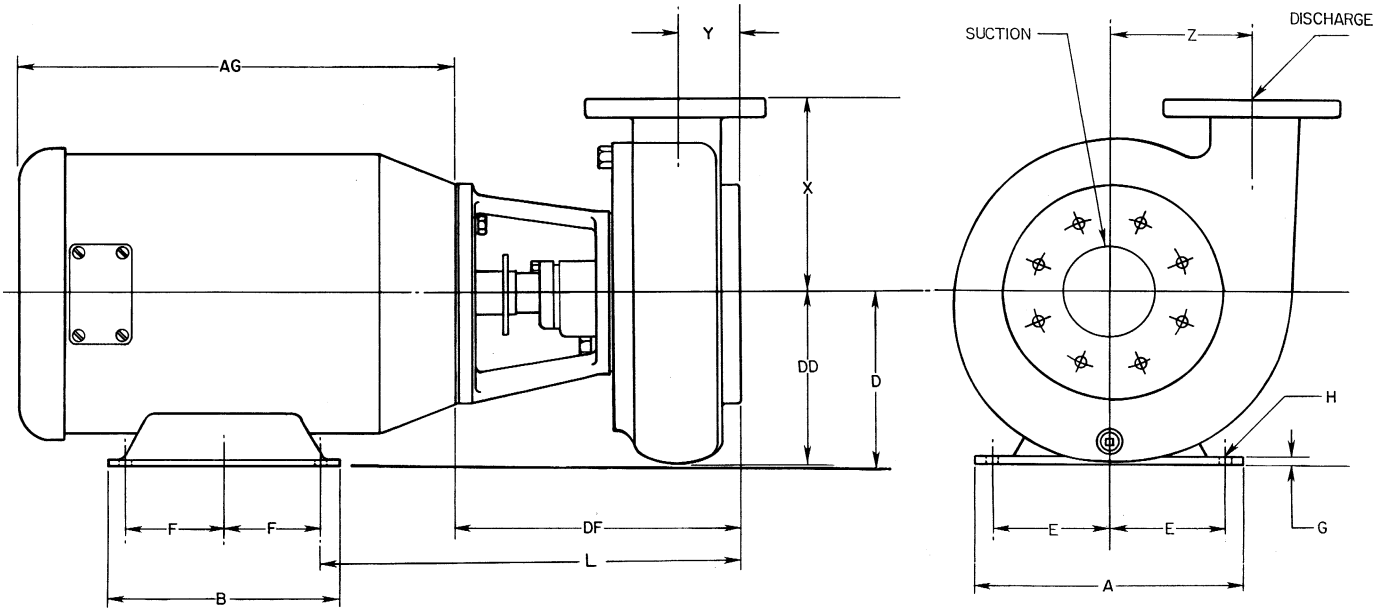
ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Dimensions

1300 Series - 8" Line



MOTOR DATA

FRAME	A	B	D	E	F	G	H	AG
143 JP	6½	6	3½	2¾	2	⅛	11/32	9 7/16
145 JP	6½	6	3½	2¾	2½	⅛	11/32	9 7/16
182 JP	8⅜	6⅜	4½	3¾	2¼	⅜	13/32	13½
184 JP	8⅜	6⅜	4½	3¾	2¾	⅜	13/32	13½
213 JP	9½	7⅜	5¼	4¼	2¾	⅝	13/32	15½
215 JP	9½	8⅞	5¼	4¼	3½	⅝	13/32	17
254 JP	11⅜	10 11/16	6¼	5	4⅛	1 1/16	17/32	20⅛
256 JP	11⅜	12 7/16	6¼	5	5	1 1/16	17/32	21⅞
284 JP	12⅞	12¼	7	5½	4¾	¾	17/32	22⅜

Dimensions Based on TEFC, JP Frame Motors.

1300

Not for construction unless certified, some dimensions may vary ± 1/2". Pump Construction:_____

CUSTOMER_____CUSTOMER NO._____
PROJECT_____SERIAL NO._____
ENGINEER_____LOCATION_____
CONTRACTOR_____

PUMP DATA	Model	Size	Curve No.	GPM	Head	SP. GR.@Temp.
	_____	_____	_____	_____	_____	_____

MOTOR DATA	Mfgr.	HP	RPM	Volt-Phase-Cycle	Frame	ENC.
	_____	_____	_____	_____	_____	_____

Shop Order_____Certified by_____Date_____

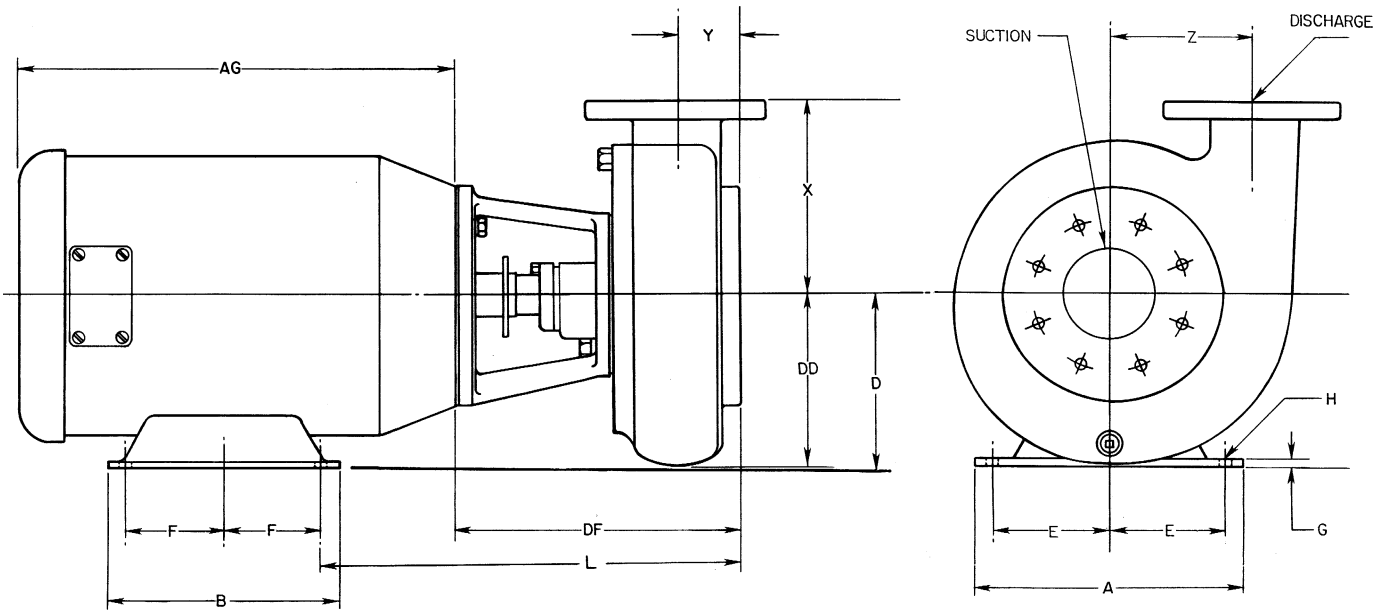
VERTIFLO PUMP COMPANY Dimensions

1300 Series - 8" Line

			SUCTION FLANGE						DISCHARGE FLANGE												
LIQUID END	PUMP MODEL	MOTOR FRAME	FLG. SIZE	DIA. FLG.	# OF HOLES	HOLE DIA.	TAP	B.C.	FLG. SIZE	DIA. FLG.	# OF HOLES	HOLE DIA.	B.C.	DF	L	X	Y	Z	DD	R_1	R_2
3 x 2½ x 7	1320	143 JP	3	7½	4	—	⅝ 11	6	2½	7	4	¾	5½	10 9/16	13 9/16	6¼	2⅜	4¾	5½		
		145 JP													13 5/16						
		182 JP													14¼						
		184 JP																			
	1326	213 JP												11⅛	15 11/16						
		215 JP																			
		254 JP													16 3/16						
1½ x 1 x 8	1320	143 JP	1½	5	4	—	½ 13	3⅞	1	4¼	4	⅝	3⅛	9⅜	12 1/16	6	1⅝	4½	5¼		
		145 JP													11 3/16						
		182 JP													12¾						
		184 JP																			
	1326	213 JP												9 15/16	14½						
		215 JP																			
1½ x 1¼ x 8	1320	143 JP	1½	5	4	—	½ 13	3⅞	1¼	4⅝	4	⅝	3½	9⅜	13 5/16	5¾	1 13/16	4¾	5⅜	5½	5¾
		145 JP													13 1/16						
		182 JP													14						
		184 JP																			
	1326	213 JP												9¾	15 7/16						
		215 JP													15 15/16						
		254 JP																			
		256 JP																			
2 x 1½ x 8	1320	143 JP	2	6	4	—	⅝ 11	4¾	1½	5	4	9/16	3⅞	9 13/16	12¾	5¾	2	4¾	5⅜		
		145 JP													12½						
		182 JP													13 7/16						
		184 JP																			
	1326	213 JP												10⅜	14 15/16						
		215 JP																			
3 x 2 x 8	1320	143 JP	2½	7	4	—	⅝ 11	5½	2	6	4	¾	4¾	10 1/16	13	6¼	2⅛	4¾	5¾		
		145 JP													12¾						
		182 JP													13 11/16						
		184 JP																			
	1326	213 JP												10⅝	15 3/16						
		215 JP																			
		254 JP													15 11/16						
		256 JP																			
4 x 3 x 8	1320	145 JP	4	9	8	—	⅝ 11	7½	3	7½	4	¾	6	11	13¾	7	2¾	5¼	6		
		182 JP													14 11/16						
		184 JP																			
5 x 4 x 8	1320	145 JP	5	10	8	—	¾ 10	8½	4	9	8	¾	7½	11⅜	14¼	7	2⅞	6	7⅛		
		182 JP													15 1/16						
		184 JP																			
	1326	213 JP												11 15/16	16½						
		215 JP																			

VERTIFLO PUMP COMPANY Dimensions

1300 Series - 10/12" Line



MOTOR DATA

FRAME	A	B	D	E	F	G	H	AG
143 JP	6½	6	3½	2¾	2	⅛	11/32	97/16
145 JP	6½	6	3½	2¾	2½	⅛	11/32	97/16
182 JP	8⅜	6⅜	4½	3¾	2¼	⅜	13/32	13½
184 JP	8⅜	6⅜	4½	3¾	2¾	⅜	13/32	13½
213 JP	9½	7⅜	5¼	4¼	2¾	⅝	13/32	15½
215 JP	9½	8⅞	5¼	4¼	3½	⅝	13/32	17
254 JP	11⅜	10 11/16	6¼	5	4⅛	11/16	17/32	20⅛
256 JP	11⅜	12 7/16	6¼	5	5	11/16	17/32	21⅞
284 JP	12⅞	12¼	7	5½	4¾	¾	17/32	22⅜
286 JP	12⅞	13¾	7	5½	4¾	¾	17/32	23⅞
324 JP	15¾	13½	8	6¼	5¼	1⅛	21/32	24 11/16
326 JP	15¾	16	8	6¼	6	1⅛	21/32	26 3/16
364 JP	17¾	14¼	9	7	5⅝	1¼	21/32	26 9/16

Dimensions Based on TEFC, JP Frame Motors.

Not for construction unless certified, some dimensions may vary ± 1/2". Pump Construction:_____

CUSTOMER_____CUSTOMER NO._____
PROJECT_____SERIAL NO._____
ENGINEER_____LOCATION_____
CONTRACTOR_____

PUMP DATA	Model	Size	Curve No.	GPM	Head	SP. GR.@Temp.
	_____	_____	_____	_____	_____	_____

MOTOR DATA	Mfgr.	HP	RPM	Volt-Phase-Cycle	Frame	ENC.
	_____	_____	_____	_____	_____	_____

Shop Order_____Certified by_____Date_____

VERTIFLO PUMP COMPANY Dimensions

1300 Series 10/12" Line

			SUCTION FLANGE						DISCHARGE FLANGE										
LIQUID END	PUMP MODEL	MOTOR FRAME	FLG. SIZE	DIA. FLG.	# OF HOLES	HOLE DIA.	TAP	B.C.	FLG. SIZE	DIA. FLG.	# OF HOLES	HOLE DIA.	B.C.	DF	L	X	Y	Z	DD
2x1½x10	1320	145 JP	2	6	4	—	⅝ 11	4¾	1½	5	4	⅝	3⅞	9 11/16	12 7/16	6½	2	5¾	6⅜
		182 JP													13⅜				
		184 JP																	
	1326	213 JP												10¼	14 13/16				
		215 JP																	
		254 JP													15 5/16				
		256 JP																	
3x2x10	1320	145 JP	3	7½	4	—	⅝ 11	6	2	6	4	¾	4¾	10 1/16	12¾	7	2⅛	5¾	6½
		182 JP													13 11/16				
		184 JP																	
	1326	213 JP												10⅝	15 3/16				
		215 JP																	
		254 JP													15 11/16				
		256 JP																	
		284 JP																	
4x3x10	1320	145 JP	4	9	8	—	⅝ 11	7½	3	7½	4	¾	6	10⅝	13 5/16	8⅜	2 7/16	6¼	7
		182 JP													14¼				
	1326	213 JP												11¼	15¾				
		215 JP																	
		254 JP													16¼				
		256 JP																	
		284 JP																	
5x4x10	1320	184 JP	5	10	8	—	¾ 10	8½	4	9	8	¾	7½	11 3/16	14 13/16	9	2¾	6½	7½
	1326	213 JP												11¾	16⅜				
		215 JP																	
		254 JP													16⅞				
		256 JP																	
6x5x10 6x5x10A	1320	145 JP	6	11	8	—	¾ 10	9½	5	10	8	⅞	8½	11 5/16	13⅞	9	2 13/16	7⅛	8⅜
		182 JP													14 13/16				
	1326	213 JP												11⅞	16 7/16				
		215 JP																	
		254 JP													16 15/16				
		256 JP																	
		284 JP																	
6x6x10 6x6x10A	1326	215 JP	6	11	8	—	¾ 10	9½	6	11	8	⅞	9½	12 3/16	16¾	9	2 15/16	8	10
		254 JP													17¼				
		256 JP																	
		284 JP																	
2x1½x12	1320	184 JP	2	6	4	¾	—	4¾	1½	5	4	⅝	3⅞	11½	15	7½	3¾	6¾	3⅞
	1326	213 JP												12 1/16	16½				
		215 JP																	
		254 JP													17				

VERTIFLO PUMP COMPANY Dimensions

			SUCTION FLANGE						DISCHARGE FLANGE										
LIQUID END	PUMP MODEL	MOTOR FRAME	FLG. SIZE	DIA. FLG.	# OF HOLES	HOLE DIA.	TAP	B.C.	FLG. SIZE	DIA. FLG.	# OF HOLES	HOLE DIA.	B.C.	DF	L	X	Y	Z	DD
3x2x12	1326	213 JP	3	7½	4	—	⅝ 11	6	2	6	4	¾	4¾	12⅛	16⅝	9½	2⁵⁄₁₆	5	7⅞
		215 JP																	
		254 JP													17⅛				
		256 JP																	
		284 JP																	
4x3x12	1326	215 JP	4	9	8	—	⅝ 11	7½	3	7½	4	¾	6	11¾	16¼	8½	2½	7⅜	8½
		254 JP													16¾				
		256 JP																	
		284 JP																	
		286 JP																	
6x4x12	1326	254 JP	6	11	8	—	¾ 10	9½	4	9	8	⅞	7½	12¼	17¼	9	2¾	7¾	9
		256 JP																	
		284 JP																	
		286 JP													17¾				
		324 JP																	
		326 JP																	
	1334	364 JP													18⅜				
6x6x12	1326	256 JP	6	11	8	—	¾ 10	9½	6	11	8	¾	9½	13	18	9	3¼	8⅜	9⅞
		284 JP																	
		286 JP																	
		324 JP													18½				
		326 JP																	
	1334	364 JP													19⅛				
8x8x12	1326	256 JP	8	13½	8	—	¾ 10	11¾	8	13½	8	¾	11¾	14½	19½	11	4½	10½	13⅜
		284 JP																	
		286 JP																	
		324 JP													20				
		326 JP																	
	1334	364 JP													20⅝				
10x10x12	1326	256 JP	10	16	12	—	⅞	14¼	10	16	12	⅞	14¼	16½	21½	11	5½	10⅝	13¾
		284 JP																	
		286 JP																	
		324 JP													22				
		326 JP																	
	1334	364 JP													22⅝				

Dimension DF will be larger on frame 364 and larger.

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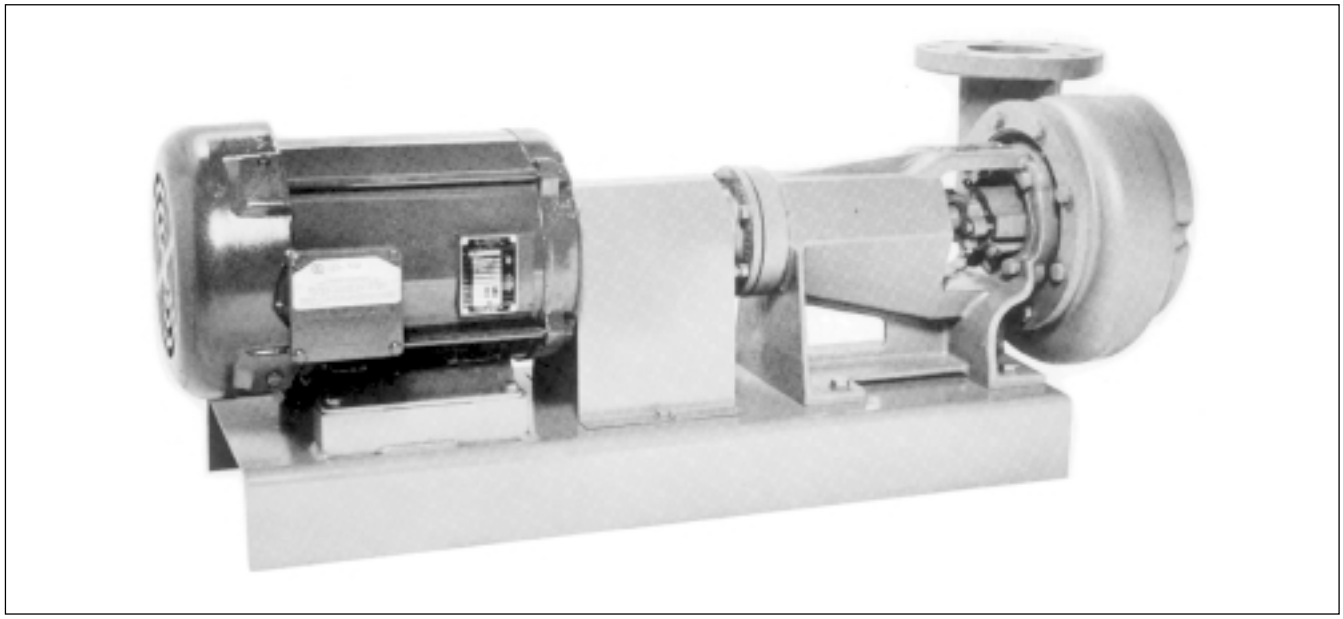
VERTIFLO SERIES 1400 Models 1420/1424
Quality Design Features Assure Long, Trouble-Free Service



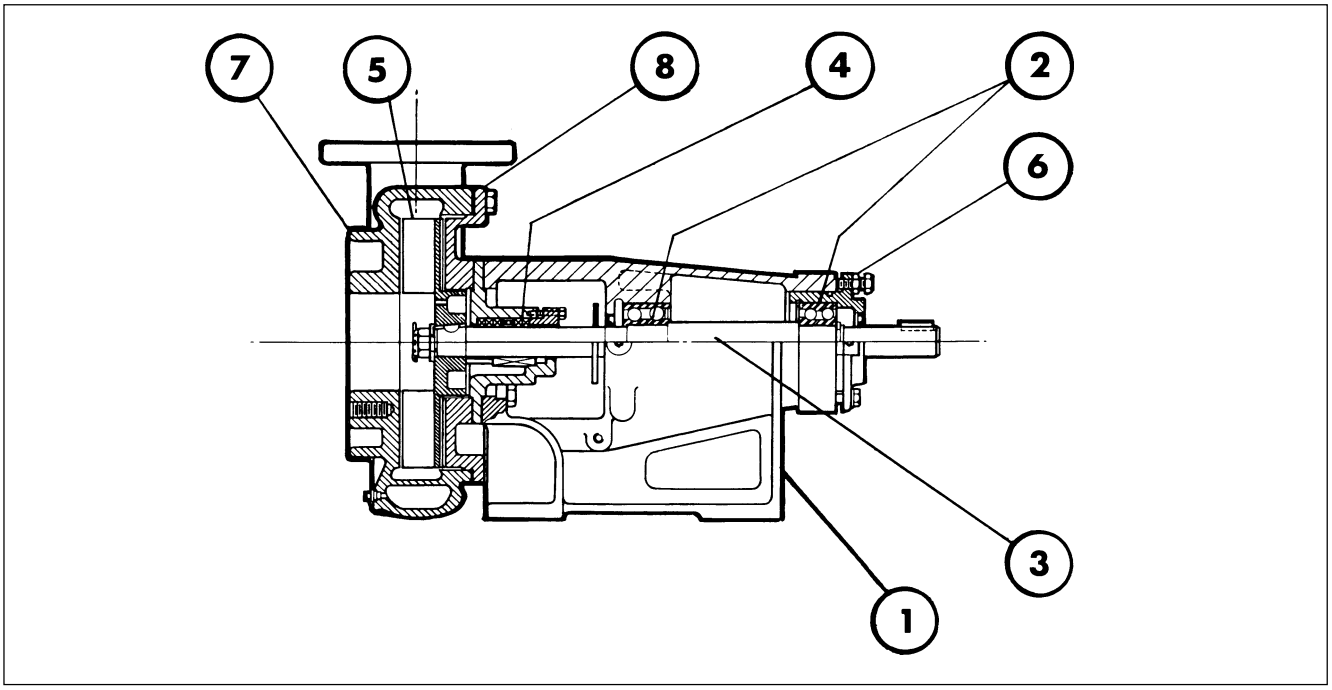
WIDE RANGE OF APPLICATIONS:
- Industrial Process
- Pollution Control
- General Pumping
- Spray Systems
- Deionized Water
- Waste Water
- Clear Liquids
- Corrosive Liquids
- Chemicals
- Acids
- Water

CAPABILITIES
- Capacities to 1800 GPM
- Heads To 275 Feet TDH
- Temperature to 250° F
- Back Pull-Out Construction
- Semi-Open Impeller
- External Impeller Adjustment
- Packing or Mechanical Seal

CONSTRUCTION:
- Cast Iron
- 316 Stainless Steel Fitted
- All 316 Stainless Steel
- Alloy 20CD4MC$_u$

Series 1400 horizontal base-mounted end suction pumps are designed for use with any T or U frame motor, or with virtually any type of drive. VERTIFLO's base-mounted pumps are designed with back pull-out feature. This important feature allows for easy inspection or service/ maintenance (if ever needed) without disturbing the piping to the pump: an important cost saving feature.

Packing or various mechanical seal arrangements are available as standard options of this rugged, dependable product.



1. Power Frame
Rugged heavy duty cast iron design incorporating integrally cast support and ribbed mounting feet which assure a solid, dependable pump installation and operation. One frame fits all pump sizes. External impeller adjustment is standard. Grease lubrication of bearings is standard; oil lubrication available.

2. Bearings
Series 1400 contains a high capacity cartridge-mounted double row thrust bearing allowing use on high suction pressure applications. Radial bearing is single row or double row and floats in a precision bored housing.

3. Shaft
416 stainless steel, precision machined with preferred taper at impeller location. Positive attachment is provided with castellated impeller nut and cotter pin, which assures that the impeller will not back off the shaft if the pump is accidentally operated in reverse rotation. 316 stainless steel shaft is optional.

4. Shaft Sealing
Packed arrangement utilizes a 2-piece split gland, slinger, Teflon® split lantern ring and 5-ring packing set. Grease lubrication is standard with product or water flush available. Wide choice of John Crane and Durametallic mechanical seals of various configurations and materials are optional.

E.I DuPont registered®

5. Impeller
Semi-open design which accommodates passage of solids or fines. All impellers have balance holes near the impeller hub which reduce thrust load and pressure in the packing or seal area. Wiping vanes reduce axial loading and prevent dirt from entering the sealing area. Impeller is keyed to shaft with a positive taper fit to assure perfect attachment.

6. Impeller Adjustment
Every power frame contains an external impeller adjustment utilizing jackscrews which provides for clearance adjustment between the impeller vanes' face and casing. This adjustment feature compensates for internal wear. Expensive casing and impeller wearing rings are eliminated.

7. Casing
High efficiency volute design. 4X3X10 and larger sizes are double volute, containing a splitter, which reduces bearing loading and shaft deflection; thus extending bearing and packing or mechanical seal life. All suction and discharge openings are flanged for installation ease and integrity.

8. Back Pull-Out
All pumps* are designed with back pull-out feature which allows for removal of all pump rotating components without disturbing the piping connections. *except size 2X1 1/2X12

Standard
- All iron construction
- 416 stainless steel shaft
- Semi-open impeller
- Back pull-out design
- Packed stuffing box or mechanical seal
- External impeller adjustment
- Heavy duty power frame
- Regreaseable ball bearings
- Flanged suction and discharge on all sizes
- Flexible coupling
- Steel mounting base

Options
- 316 stainless steel shaft
- 316 stainless steel impeller
- All 316 stainless steel, alloy 20 or hastelloy construction (all wetted parts)
- Teflon® packing (standard in s.s. and alloy units)
- Single or double mechanical seal (various materials)
- Product or fresh water flush to packing or mechanical seal
- Oil lubricated bearings with sight level indicator
- Coupling guard (recommended)
- ODP, TEFC, XP motors
- Steam turbine drive
- Diesel or gasoline engine drive

	Design Details	Model 1420	Model 1424
Pump	Rotation from driver end	CW	CW
Shaft	Diameter through stuffing box	1.250	1.500
	Diameter between bearings	1.750	1.750
	Diameter at coupling end	1.250	1.250
	Coupling key - square	0.250	0.250
	Bearing centers	6.692	6.692

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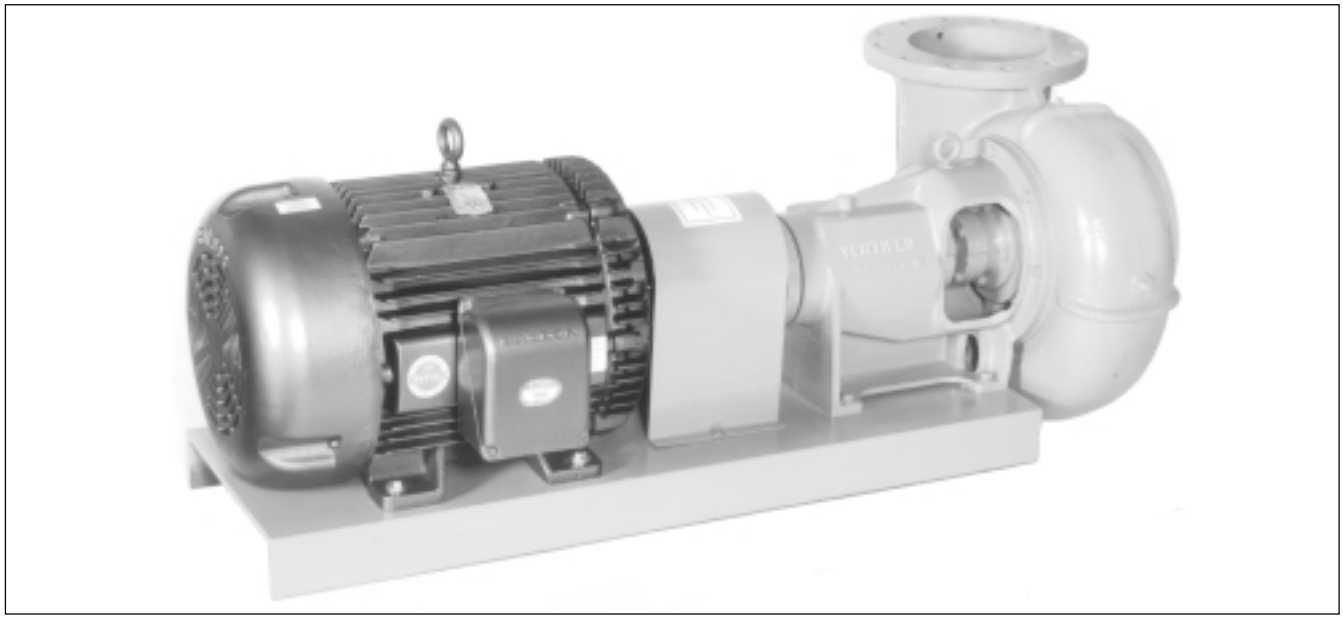
VERTIFLO Model 1434
Quality Design Features Assure Long, Trouble-Free Service



WIDE RANGE OF APPLICATIONS:
- Industrial Process
- Waste Water
- Chemicals
- Deionized Water
- Polution Control
- Solids Pumping
- General Water Pumping

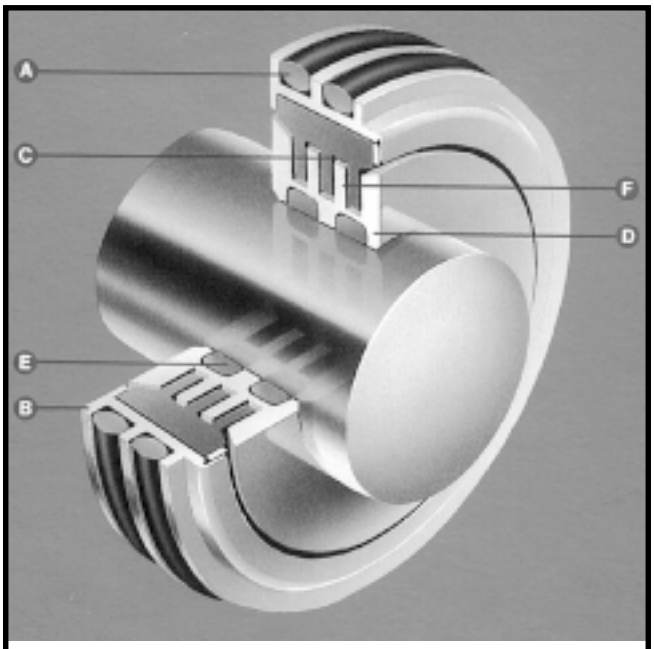
CAPABILITIES
- Capacities to 3600 GPM
- Heads To 160 Feet
- Temperature to 250˚ F
- Back Pull-Out Construction
- Semi-Open Impeller
- External Impeller Adjustment
- Packing or Mechanical Seal

CONSTRUCTION:
- Cast Iron
- 316 Stainless Steel Fitted
- All 316 Stainless Steel
- Alloy 20

Model 1434 horizontal base-mounted end suction pumps are designed for use with any T or U frame motor, or with virtually any type of drive. VERTIFLO's base-mounted pumps are designed with back pull-out feature. This important feature allows for easy inspection or service/ maintenance (if ever needed) without disturbing the piping to the pump: an important cost saving feature.

Packing or various mechanical seal arrangements are available as standard options of this rugged, dependable product.

John Crane Type 31 Series Labri-Seal Bearing Protectors



A. Outer ring O-rings when space permits
B. Stationary outer ring
C. Inward projecting PTFE “fingers”
D. Moving/free-floating inner ring
E. Shaft-side inner ring O-rings
F. Outward projecting stainless steel “fingers”

- Exclusive “finger-locking” design traps and blocks oil leakage.
- Stationary outer ring projects special PTFE composition “fingers” inward. They mesh perfectly with outward projecting steel “fingers” of moving/free floating inner ring. The flexible labyrinth blocks bearing oil. Leakage is virtually *zero*. Drag is virtually *zero*.
- Contamination threats from outside are blocked, too.

VERTIFLO Feature Selector

Standard

- All iron construction
- 416 stainless steel shaft
- Semi-open impeller
- 316 stainless steel shaft sleeve
- Back pull-out design
- Packed stuffing box or mechanical seal
- External impeller adjustment
- Heavy duty power frame
- Regreaseable ball bearings
- Flanged suction and discharge on all sizes
- Dual volute casing 6x4x12 and larger

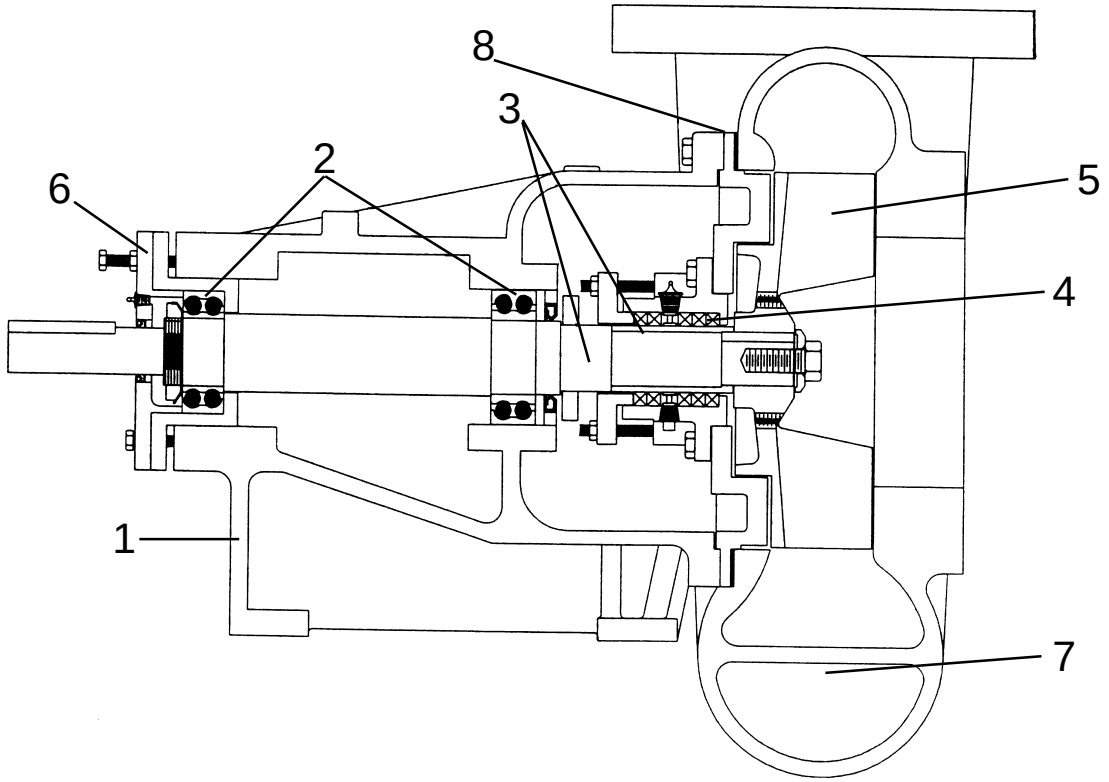
Options

- Labri-seal bearing protectors
- 316 stainless steel shaft
- 316 stainless steel impeller
- All 316 stainless steel or alloy 20 construction (all wetted parts)
- Teflon® packing (standard in s.s. and alloy units)
- Single or double mechanical seal (various materials)
- Product or fresh water flush to packing or mechanical seal
- Oil lubricated bearings with sight level indicator
- Coupling guard (recommended)
- ODP, TEFC, XP motors
- Flexible coupling
- Steel mounting base
- Cartridge mechanical seal

E.I DuPont registered®

Design Details

Pump Shaft	Model 1434
Rotation from driver end	CW
Diameter over shaft sleeve	2.125
Diameter between bearings	2.500
Diameter at coupling end	1.500
Coupling key - square	0.375
Bearing centers	9.750



1. Power Frame
Rugged heavy duty cast iron design incorporating integrally cast support and ribbed mounting feet which assure a solid, dependable pump installation and operation. One frame fits all pump sizes. External impeller adjustment is standard. Grease lubrication of bearings is standard; oil lubrication available.

2. Bearings
Model 1434 contain a high capacity cartridge-mounted double row thrust bearing allowing use on high suction pressure applications. Radial bearing is double row and floats in a precision bored housing.

3. Shaft and Shaft Sleeve
A 416 stainless steel shaft is standard with a 316 stainless steel shaft sleeve. A 316 stainless steel shaft is optional.

4. Shaft Sealing
Packed arrangement utilizes a 2-piece split gland, slinger, Teflon® split lantern ring and 5-ring packing set. Grease lubrication is standard with product or water flush available. Wide choice of John Crane and Durametallic mechanical seals of various configurations and materials. Oversized seal housing is ready to adapt for cartridge-type mechanical seal.

E.I DuPont registered®

5. Impeller
Semi-open design which accommodates passage of solids or fines. All impellers have balance holes near the impeller hub which reduce thrust load and pressure in the packing or seal area. All impellers have a balancing ring. Impeller is keyed to shaft.

6. Impeller Adjustment
Power frame contains an external impeller adjustment which provides for clearance adjustment between the impeller vanes' face and casing. This adjustment feature compensates for internal wear. Expensive casing and impeller wearing rings are eliminated.

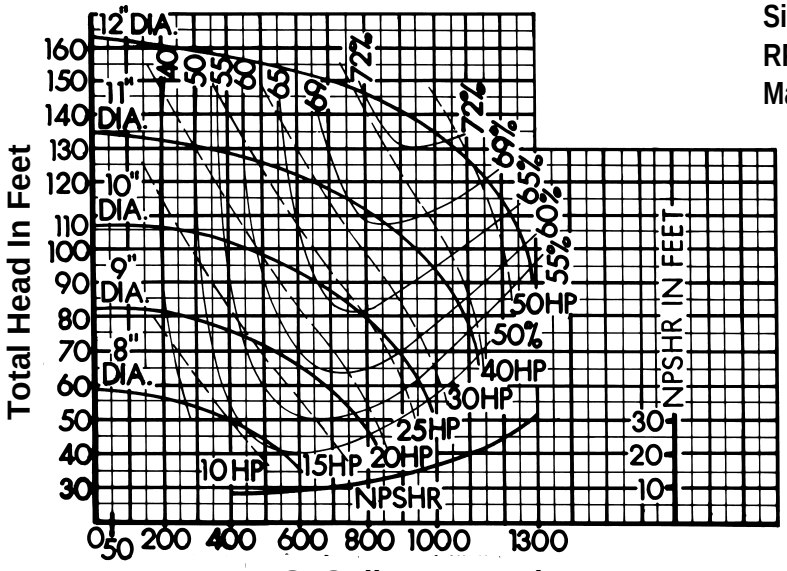
7. Casing
High efficiency volute design. Sizes, 6 x 4 x 12 and larger, are double volute, containing a splitter, which reduces bearing loading and shaft deflection; thus extending bearing and packing or mechanical seal life. All suction and discharge openings are flanged for installation ease and integrity.

8. Back Pull-Out
All pumps are designed with back pull-out feature which allows for removal of all pump rotating components without disturbing the piping connections.

VERTIFLO PUMP COMPANY Performance Curves

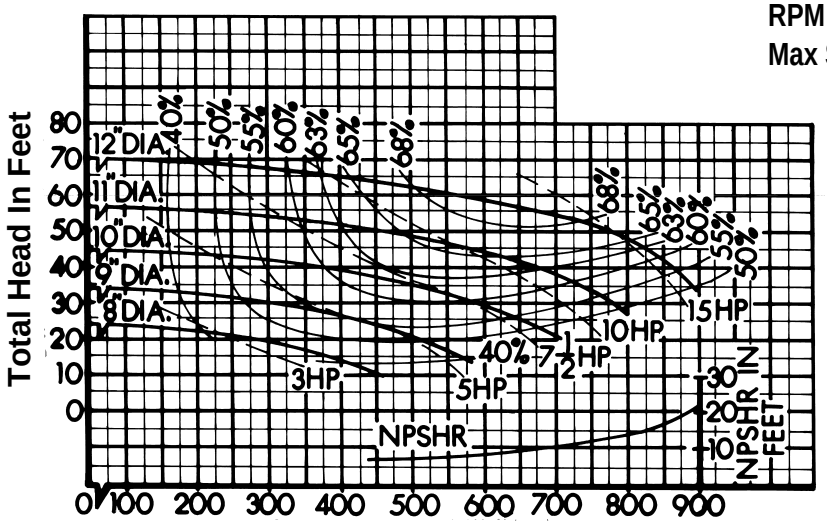
Curve 64124

Model	**1434**
Size	**6 X 4 X 12**
RPM	**1750**
Max Sphere	**1 1/2**



Curve 64126

Model	**1434**
Size	**6 X 4 X 12**
RPM	**1150**
Max Sphere	**1 1/2**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

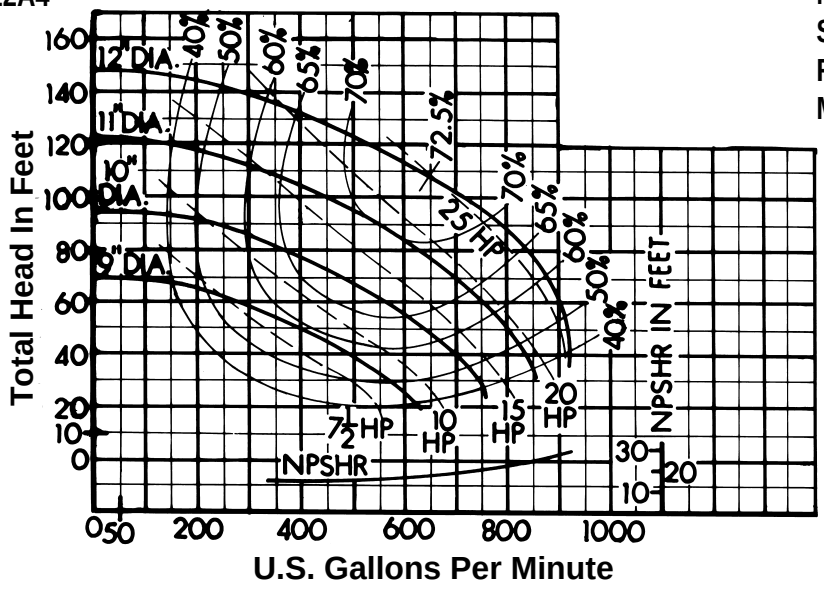
PROJECT _____

ENGINEER _____

CONTRACTOR _____

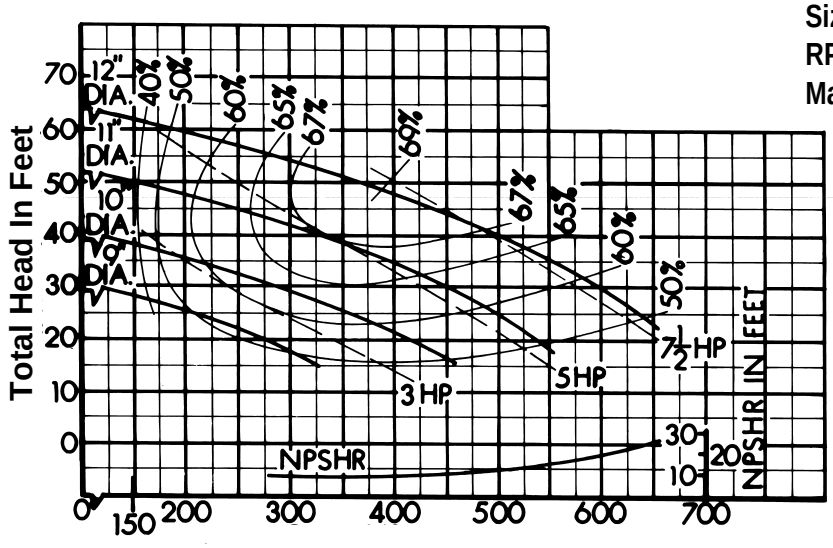
CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

Curve 6412A4



Model	**1434**
Size	**6 X 4 X 12A**
RPM	**1750**
Max Sphere	**1 1/8**

Curve 6412A6



Model	**1434**
Size	**6 X 4 X 12A**
RPM	**1150**
Max Sphere	**1 1/8**

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

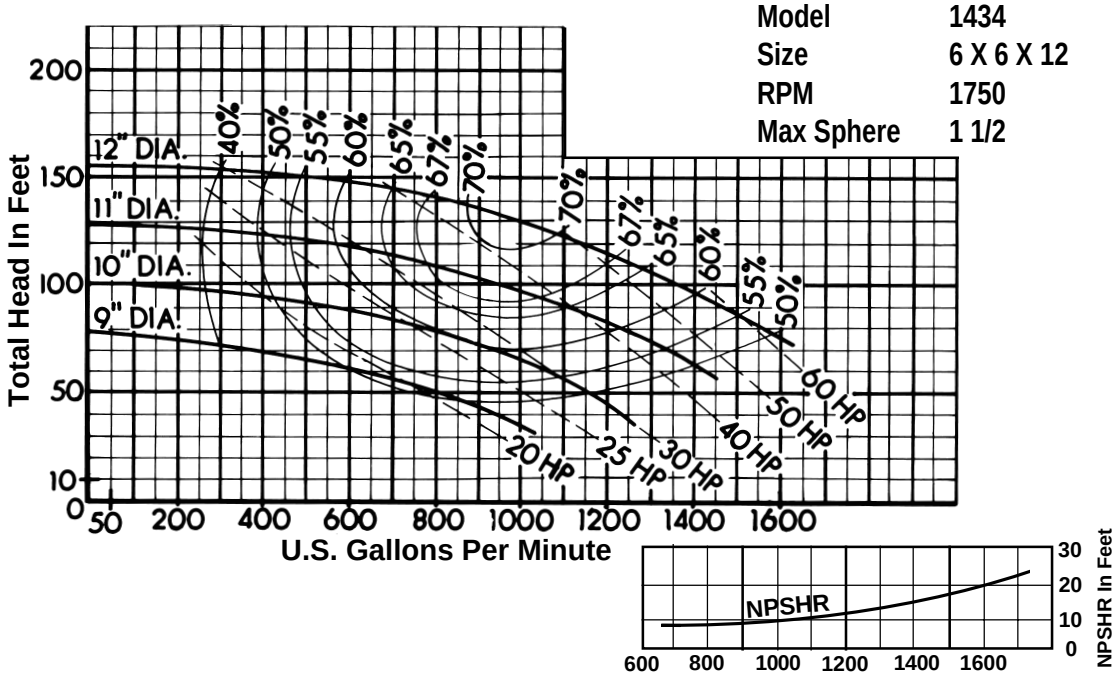
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

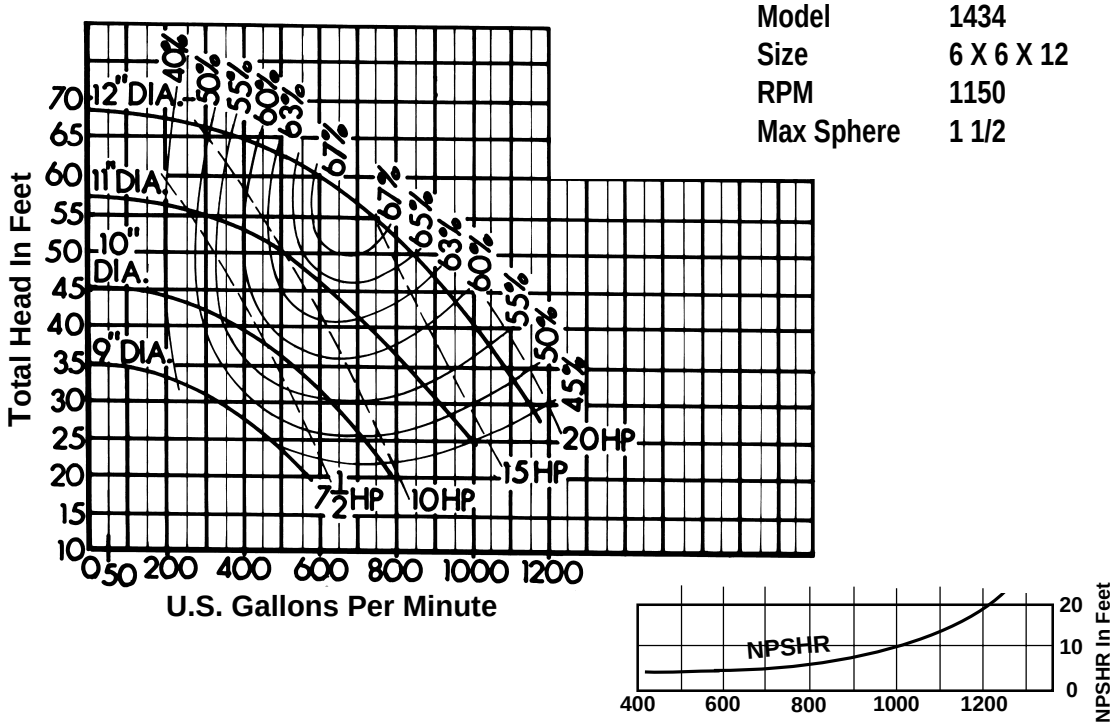
Curve 66124

Model	**1434**
Size	**6 X 6 X 12**
RPM	**1750**
Max Sphere	**1 1/2**



Curve 66126

Model	**1434**
Size	**6 X 6 X 12**
RPM	**1150**
Max Sphere	**1 1/2**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

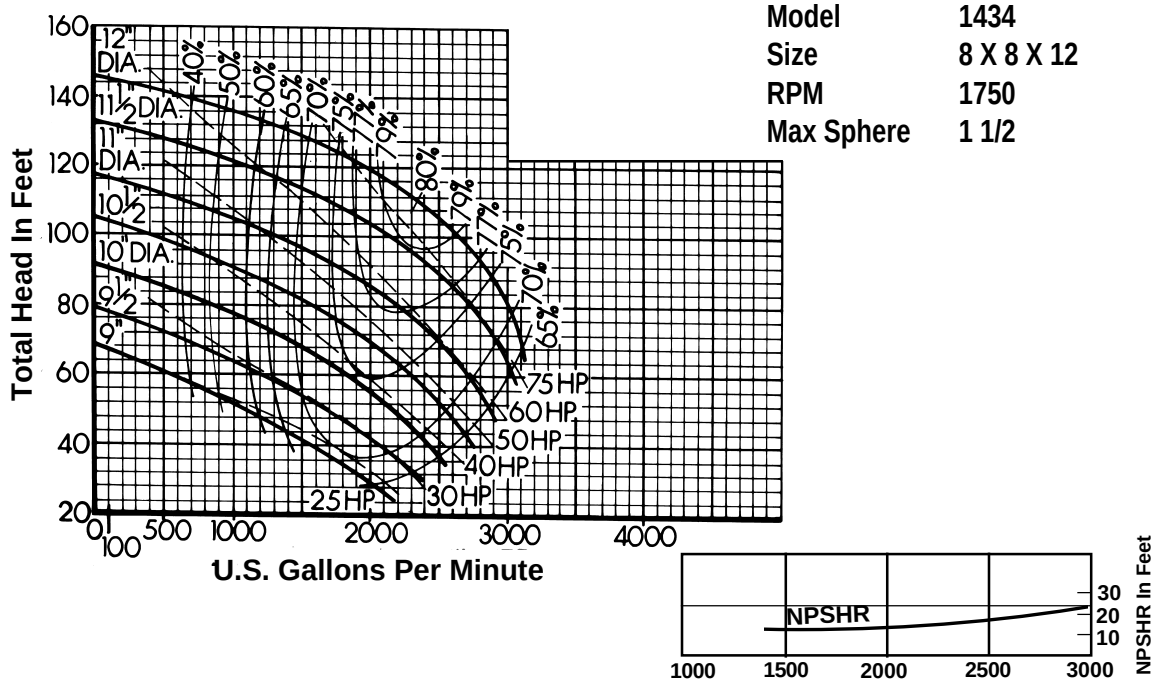
ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

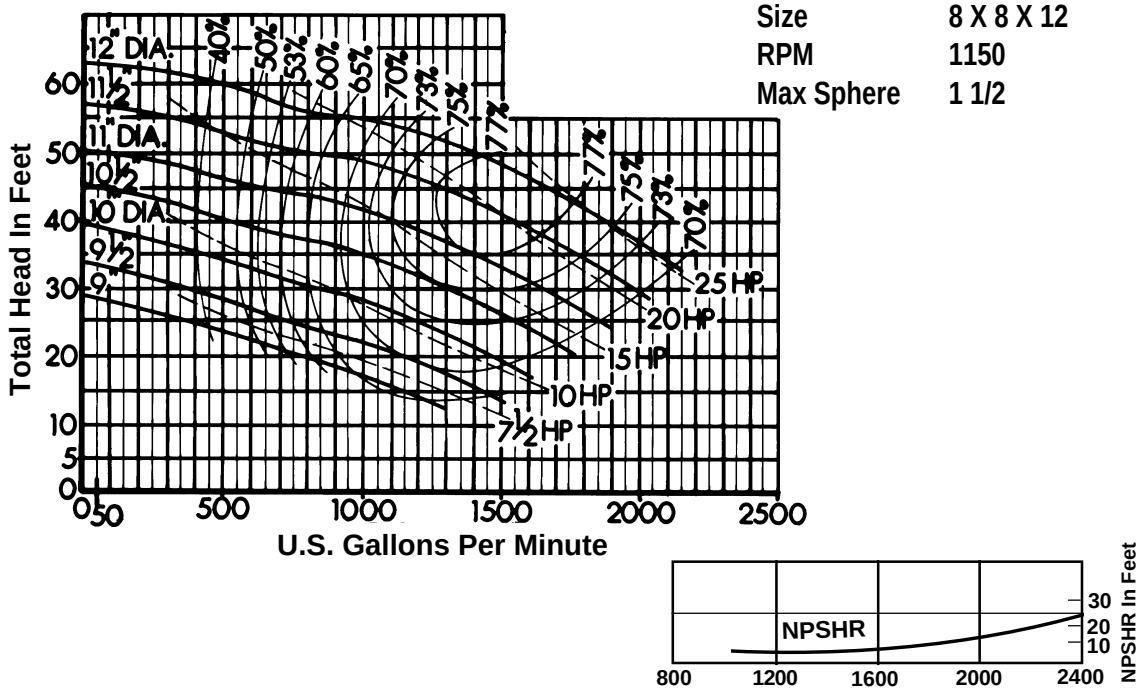
VERTIFLO PUMP COMPANY Performance Curves

Curve 88124



Model	**1434**
Size	**8 X 8 X 12**
RPM	**1750**
Max Sphere	**1 1/2**

Curve 88126



Model	**1434**
Size	**8 X 8 X 12**
RPM	**1150**
Max Sphere	**1 1/2**

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

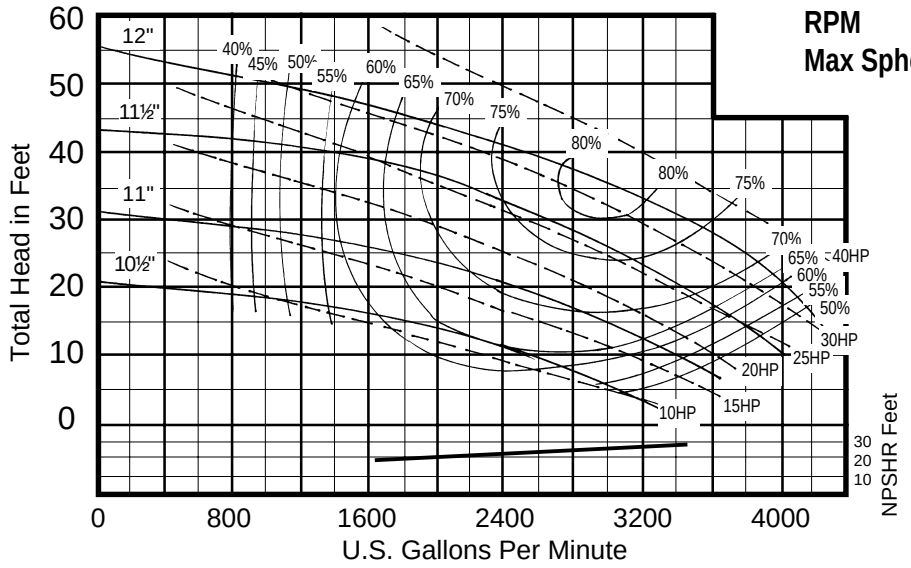
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

Curve 101012

Model	**1434**
Size	**10 X 10 X 12**
RPM	**1150**
Max Sphere	**1 5/8**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

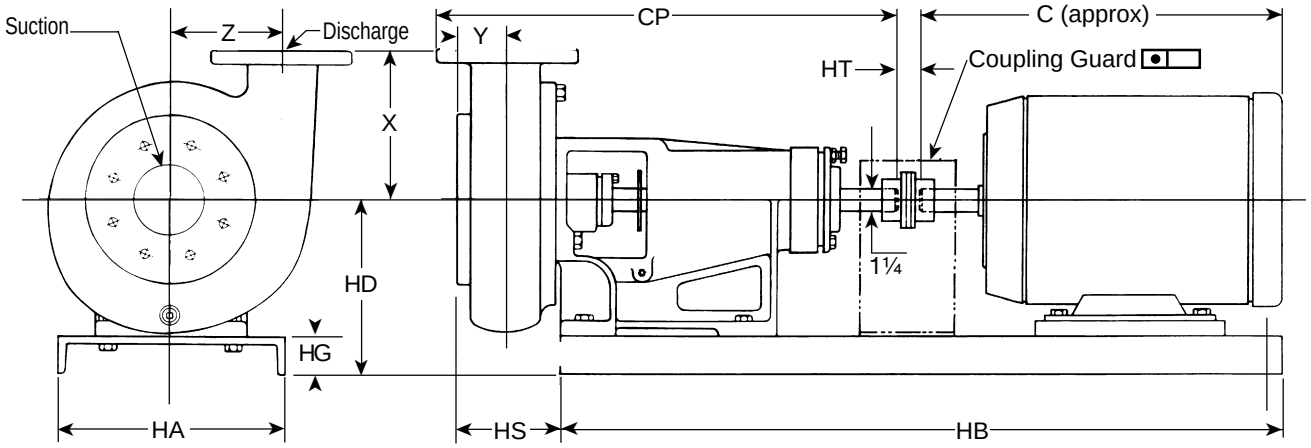
ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Dimensions

1400 Series - Base-Mounted
Models 1420/1424



Not for construction unless certified, some dimensions may vary ± 1/2". Pump Construction:_____

CUSTOMER_____CUSTOMER NO._____
PROJECT_____SERIAL NO._____
ENGINEER_____LOCATION_____
CONTRACTOR_____

PUMP DATA	Model	Size	Curve No.	GPM	Head	SP. GR.@Temp.
	_____	_____	_____	_____	_____	_____

MOTOR DATA	Mfgr.	HP	RPM	Volt-Phase-Cycle	Frame	ENC.	Furnished by	Mounted by
	_____	_____	_____	_____	_____	_____	_____	_____

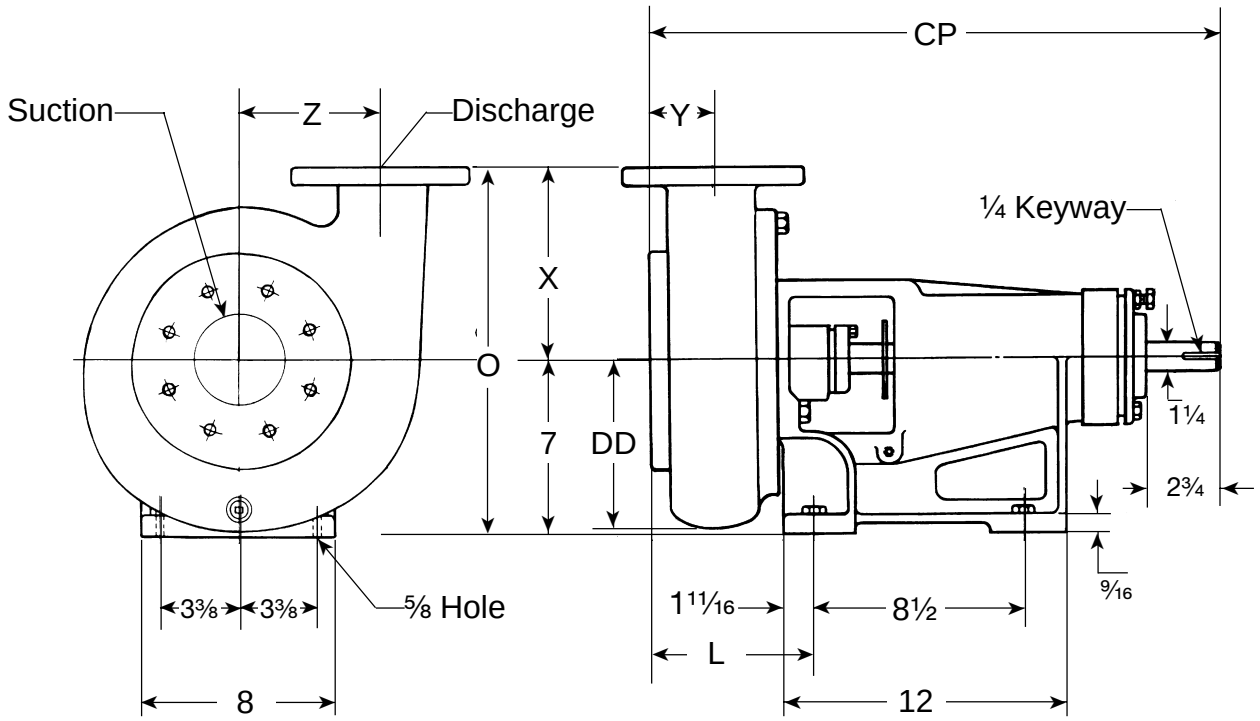
Shop Order_____Certified by_____Date_____

	SUCTION FLANGE						DISCHARGE FLANGE												
Liquid End	FLG. Size	DIA. FLG.	# of Holes	Tap	Hole DIA.	Bolt Circle DIA.	FLG. Size	DIA FLG.	# of Holes	Hole DIA.	Bolt Circle DIA.	X	Y	Z	CP	HS	DD	L	O
3x2½x7	3	7½	4	⅝-11		6	2½	7	4	¾	5½	6¼	2⅜	4¾	22¾	5¼	5½	6 15/16	13¼
1½x1x8	1½	5	4	½-13		3⅞	1	4¼	4	⅝	3⅛	6	1⅝	4½	21½	4	5¼	5 11/16	13
1½x1¼x8	1½	5	4	½-13		3⅞	1¼	4⅝	4	¾	4¾	5¾	1⅞	4¾	20 1/16	4¼	5¼	4¼	12¾
2x1½x8	2	6	4	⅝-11		4¾	1½	5	4	9/16	3⅞	5¾	2	4¾	22	4½	5⅜	6 3/16	12¾
3x2x8	2½	7	4	⅝-11		5½	2	6	4	¾	4¾	6¼	2⅛	4¾	22¼	4¾	5¾	6 7/16	13¼
4x3x8	4	9	8	⅝-11		7½	3	7½	4	¾	6	7	2¾	5¼	23⅛	5⅝	6	7 5/16	14
5x4x8	5	10	8	¾-10		8½	4	9	8	¾	7½	7	2⅞	6	23½	6	7⅛	7 11/16	14
2x1½x10	2	6	4	⅝-11		4¾	1½	5	4	⅝	3⅞	6½	2	5¾	21⅞	4⅜	6⅜	6 1/16	13½
3x2x10	3	7½	4	⅝-11		6	2	6	4	¾	4¾	7	2 3/16	5¾	22¼	4¾	6½	6 7/16	14
4x3x10	4	9	8	⅝-11		7½	3	7½	4	¾	6	8⅜	2⅜	6¼	22¾	5¼	7	6 15/16	15
5x4x10	5	10	8	¾-10		8½	4	9	8	¾	7½	9	2¾	6½	23⅜	5⅞	7½	7 9/16	16
6x5x10	6	11	8	¾-10		9½	5	10	8	⅞	8½	9	2 13/16	7⅛	23½	6	8⅜	7 11/16	16
6x5x10A	6	11	8	¾-10		9½	5	10	8	⅞	8½	9	2 13/16	7⅛	23½	6	8⅜	7 11/16	16
6x6x10	6	11	8	¾-10		9½	6	11	8	⅞	9½	9	2 15/16	8	23¾	6¼	10	7 15/16	16
6x6x10A	6	11	8	¾-10		9½	6	11	8	⅞	9½	9	2 15/16	8	23¾	6¼	10	7 15/16	16
2X1½x12	2	6	4		¾	4⅜	1½	5	4	⅝	3⅞	7½	3¾	6¾	23½	6	7⅜	7 11/16	14½
3x2x12	3	7½	4	⅝-11		6	2	6	4	¾	4¾	9½	2 5/16	5	22 1/16	5⅞	7¾	6¼	16½
4x3x12	4	9	8	⅝-11		7½	3	7½	4	¾	6	8½	2½	7⅜	21 11/16	5½	8 5/16	5⅞	15½
6x4x12	6	11	8	¾-10		9½	4	9	8	¾	7½	9	2¾	7¾	22 3/16	6	9	6⅜	16
6x6x12	6	11	8	¾-10		9½	6	11	8	⅞	9½	9	3¼	8⅜	22 15/16	6¾	9⅞	7⅛	16

Frame No.	143T	145T	182T	184T	213T	215T	254T	256T	284TS	284T	286TS	286T	324TS	324T	326T	326TS	364TS	364T	365TS	365T
HA	12	12	12	12	12	12	15	15	15	15	15	15	18	18	18	18	18	18	18	18
HB	36	36	36	36	36	36	44	44	44	44	44	44	48	48	48	48	48	48	48	48
C	13⅛	13⅛	14⅝	15⅝	17¾	19¼	22⅞	24⅝	24½	25⅞	26	27⅜	27¼	28¾	28¾	30¼	31	33⅛	32	34⅛
HD	10	10	10	10	10	10	10⅜	10⅜	10⅜	10⅜	10⅜	10⅜	12	12	12	12	13	13	13	13
HG	3	3	3	3	3	3	3⅜	3⅜	3⅜	3⅜	3⅜	3⅜	4	4	4	4	4	4	4	4
HT	¾	¾	¾	¾	¾	¾	1	1	1	1	1	1	1	1	1	1	1	1	1	1

VERTIFLO PUMP COMPANY Dimensions

1400 Series - Pump Only
Models 1420/1424



Not for construction unless certified, some dimensions may vary ± 1/2". Pump Construction:_____

CUSTOMER_____CUSTOMER NO._____
PROJECT_____SERIAL NO._____
ENGINEER_____LOCATION_____
CONTRACTOR_____

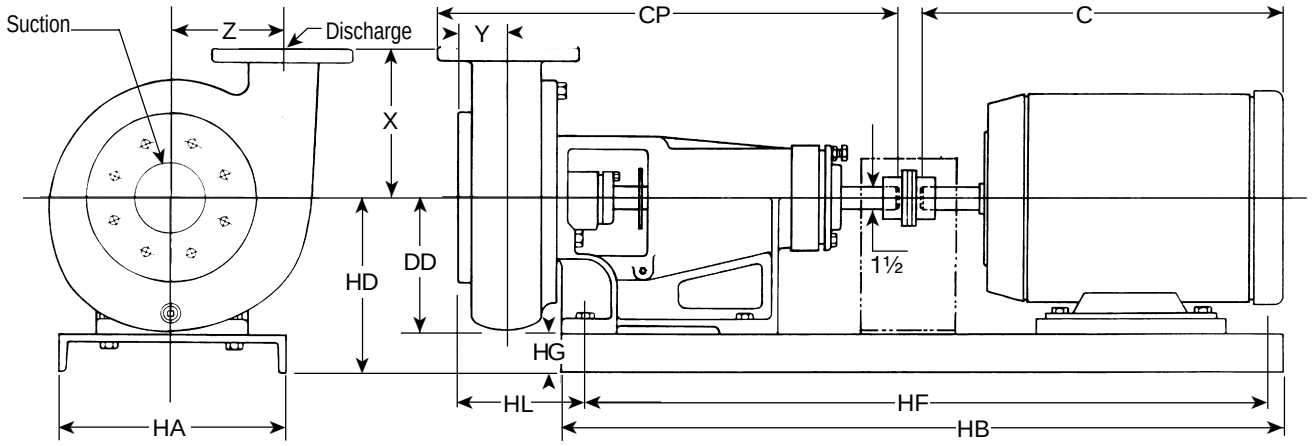
PUMP DATA	Model	Size	Curve No.	GPM	Head	SP. GR.@Temp.
	_____	_____	_____	_____	_____	_____

MOTOR DATA	Mfgr.	HP	RPM	Volt-Phase-Cycle	Frame	ENC.	Furnished by	Mounted by
	_____	_____	_____	_____	_____	_____	_____	_____

Shop Order_____Certified by_____Date_____

VERTIFLO PUMP COMPANY Dimensions

1400 Series - Base-Mounted Model 1434



	SUCTION				DISCHARGE									
Pump Size	Size	DIA. FLG.	Bolts	BC	Size	DIA. FLG.	Bolts	BC.	X	Y	Z	CP	DD	HS
6x4x12	6	11	8-¾	9½	4	9	8-⅝	7½	9	2¾	7¾	28⅛	9	7⅛
6x4x12A	6	11	8-¾	9½	4	9	8-⅝	7½	9	2¾	7¾	28⅛	9	7⅛
6x6x12	6	11	8-¾	9½	6	11	8-¾	9½	9	3¼	8⅜	28⅞	10¼	7⅞
8x8x12	8	13½	8-¾	11¾	8	13½	8-¾	11¾	11	4½	10½	30⅜	13⅜	9⅜
10x10x12	10	16	12-⅞	14¼	10	16	12-⅞	14¼	11	5½	10⅝	32⅜	13¾	11⅜

Frame Size	213T	215T	254T	256T	284TS	284T	286TS	286T	324TS	324T	326TS	326T	364TS	364T	365TS	365T	404TS	404T	405TS	405T
C	17¾	19¼	22⅞	24⅝	24½	25⅞	26	27⅜	27¼	28¾	28¾	30¼	31	33⅛	32	34⅛	34¼	37¼	36	38⅞
HA	15	15	15	15	15	15	15	15	18	18	18	18	18	18	18	18	25	25	25	25
HB	40	40	43	47	47	47	47	47	51	51	51	51	51	51	51	51	50	57	50	57
HD	12⅜	12⅜	12⅜	12⅜	12⅜	12⅜	12⅜	12⅜	13	13	13	13	13	13	13	13	15½	15½	15½	15½
HD 8x8x12	14⅜	14⅜	14⅜	14⅜	14⅜	14⅜	14⅜	14⅜	15	15	15	15	15	15	15	15	15½	15½	15½	15½
HD 10x10x12	14⅜	14⅜	14⅜	14⅜	14⅜	14⅜	14⅜	14⅜	15	15	15	15	15	15	15	15	15½	15½	15½	15½
HF	37½	37½	40½	44½	44½	44½	44½	44½	48½	48½	48½	48½	48½	48½	48½	48½	47	54	47	54
HG	3⅜	3⅜	3⅜	3⅜	3⅜	3⅜	3⅜	3⅜	4	4	4	4	4	4	4	4	4½	4½	4½	4½

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

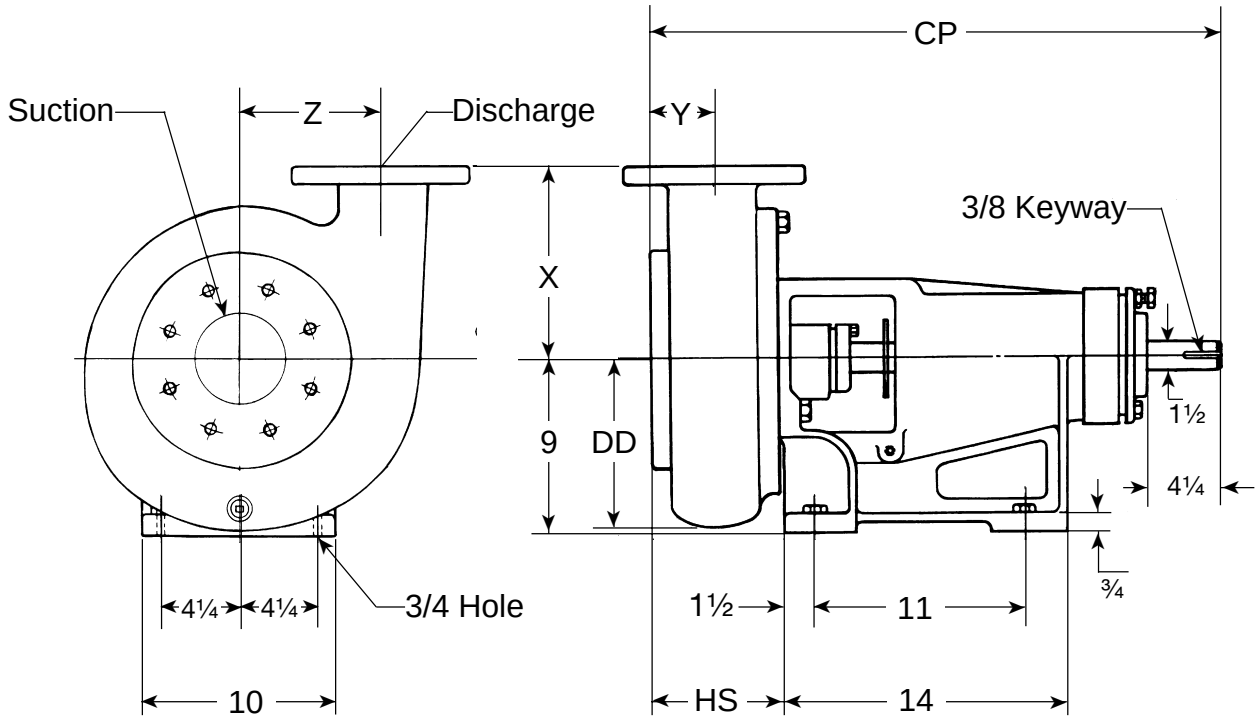
ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Dimensions

Model 1434 - Pump Only



1400

Not for construction unless certified, some dimensions may vary ± 1/2". Pump Construction:_____

CUSTOMER_____ CUSTOMER NO._____
PROJECT_____ SERIAL NO._____
ENGINEER_____ LOCATION_____
CONTRACTOR_____

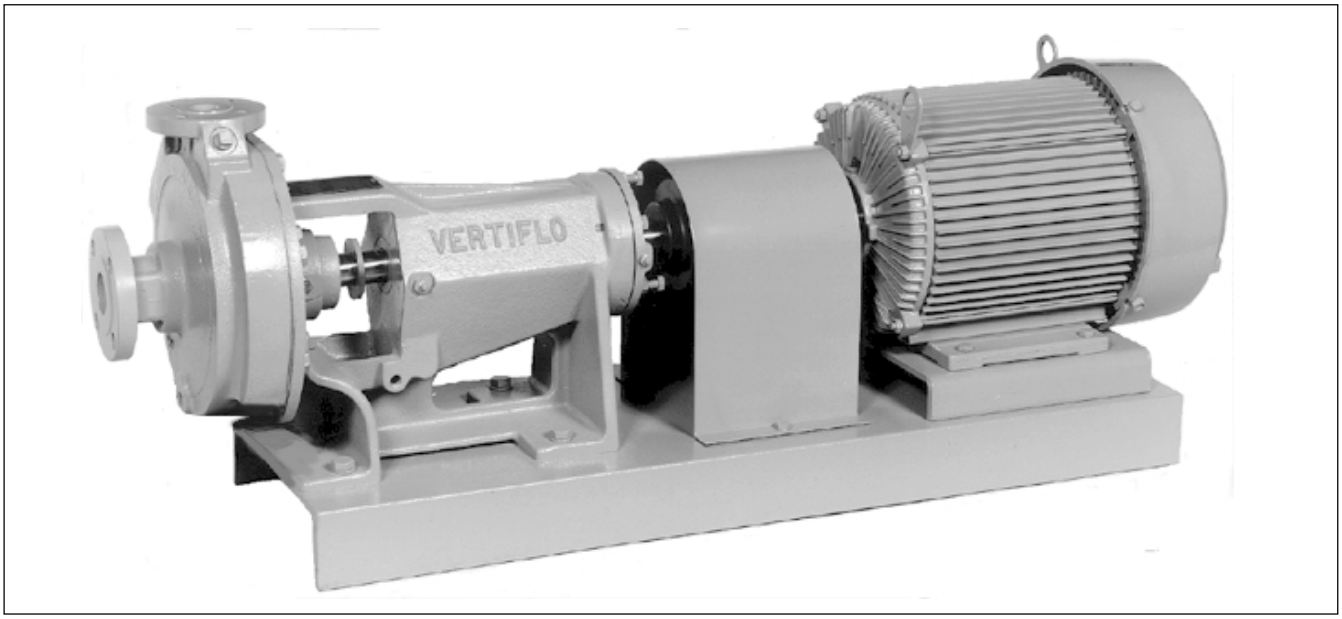
PUMP DATA	Model	Size	Curve No.	GPM	Head	SP. GR.@Temp.	Pump Length	Plate

MOTOR DATA	Mfgr.	HP	RPM	Volt-Phase-Cycle	Frame	ENC.	Furnished by	Mounted by

Shop Order_____ Certified by_____ Date_____

VERTIFLO Model 1400LF

Quality Design Features Assure Long, Trouble-Free Service



WIDE RANGE OF APPLICATIONS:

- Boiler Feed
- Condensate
- Chemical Process
- Washdown
- Spray Washers

Also available as vertical wet pit pump

CAPABILITIES

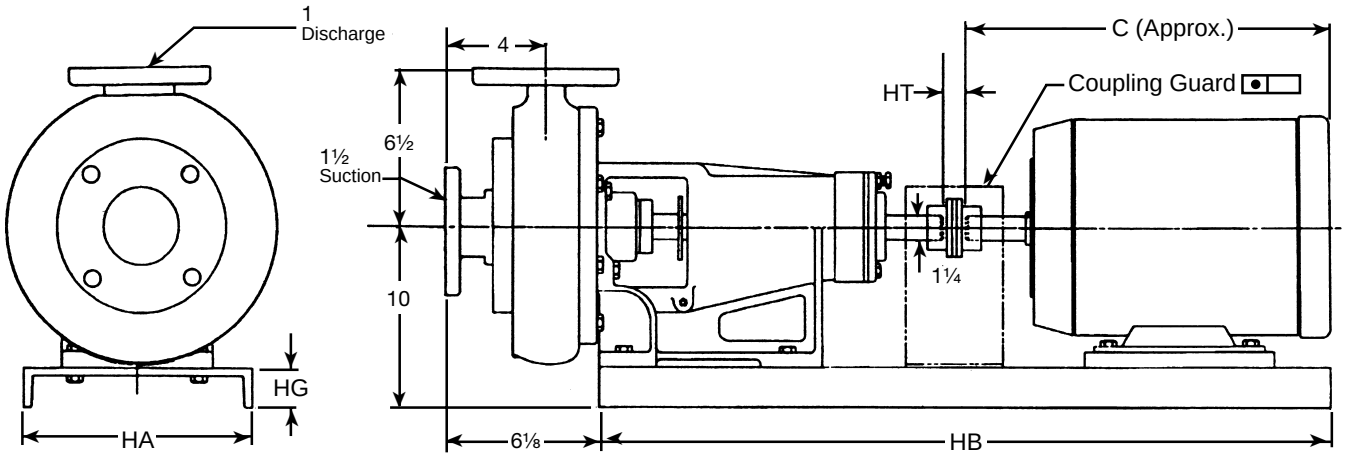
- Capacities to 50 GPM
- Heads To 345 Feet TDH
- Temperature to 250˚ F
- Back Pull-Out Construction
- Radial Vane Impeller
- External Impeller Adjustment
- Packing or Mechanical Seal

CONSTRUCTION:

- Ductile Iron
- Bronze Fitted
- 316 Stainless Steel Fitted
- All 316 Stainless Steel

Series 1400 horizontal base-mounted end suction pumps are designed for use with any T or U frame motor, or with virtually any type of drive. VERTIFLO's base-mounted pumps are designed with back pull-out feature. This important feature allows for easy inspection or service/ maintenance (if ever needed) without disturbing the piping to the pump: an important cost saving feature.

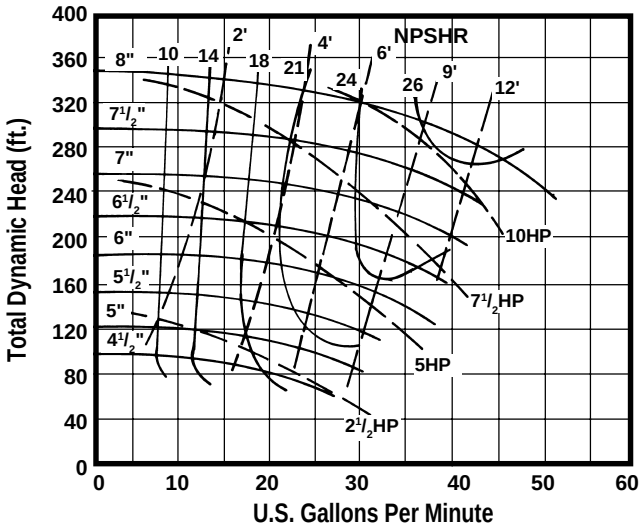
Packing or various mechanical seal arrangements are available as standard options of this rugged, dependable product.



1400LF Dimensions

Frame No.	143T	145T	182T	184T	213T	215T	254T	256T	284TS	284T
HA	12	12	12	12	12	12	15	15	15	15
HB	36	36	36	36	36	36	44	44	44	44
C	13⅛	13⅛	14⅝	15⅝	17¾	19¼	22⅞	24⅝	24½	25⅞
HG	3	3	3	3	3	3	3⅜	3⅜	3⅜	3⅜
HT	¾	¾	¾	¾	¾	¾	1	1	1	1

1400LF Performance Curve



VERTIFLO

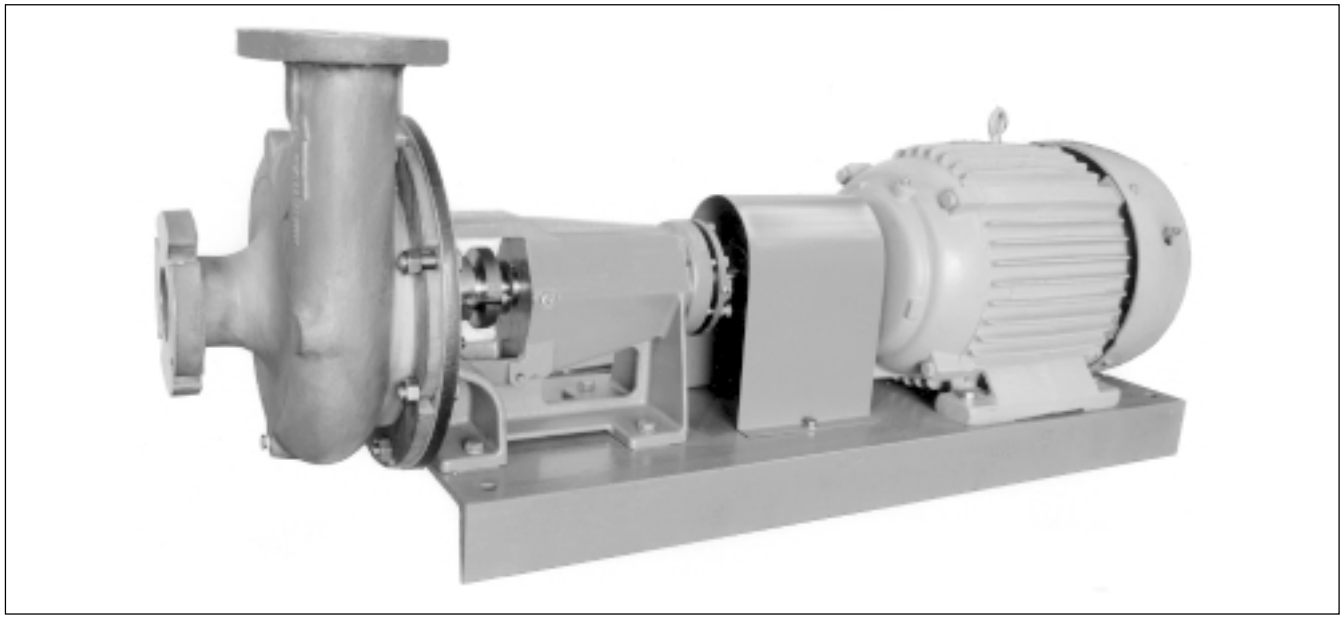
The Vertical Pump Specialists

PUMPS FOR INDUSTRY

CONTENTS:

 0407

VERTIFLO SERIES 1500
Quality Design Features Assure Long, Trouble-Free Service



WIDE RANGE OF APPLICATIONS:

- Food Processing Solids
- Waste Water Treatment
- Pollution Control
- Slurries
- Industrial Process
- Solids

CAPABILITIES:

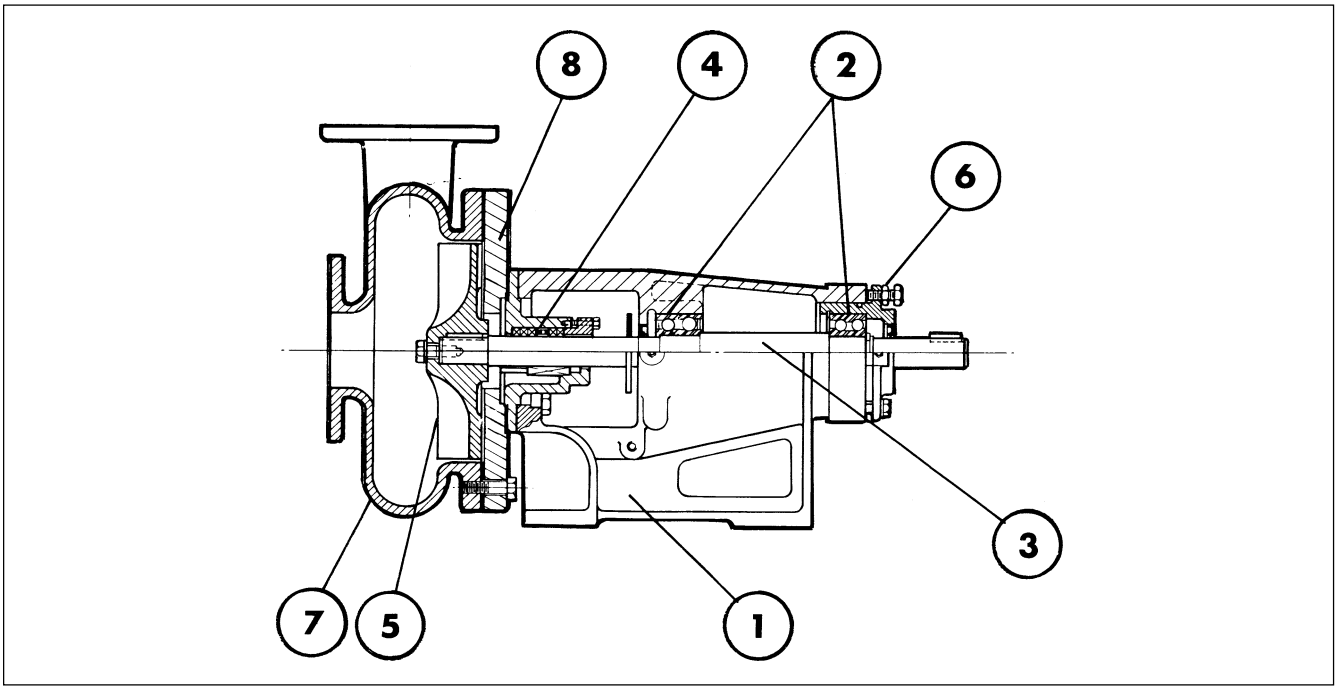
- Capacities to 1600 GPM
- Heads To 170 Feet TDH
- Temperature to 250°F
- Back Pull-Out Construction
- Fully Recessed Vortex Impeller
- External Impeller Adjustment
- Packing or Mechanical Seal

CONSTRUCTION:

- Cast Iron
- 316 Stainless Steel Fitted
- All 316 Stainless Steel
- Alloy 20
- CD4MC$_u$

Series 1500 horizontal base-mounted end suction pumps are designed for use with any T or U frame motor, or with virtually any type of drive. VERTIFLO's base-mounted pumps are designed with back pull-out feature. This important feature allows for easy inspection or service/ maintenance (if ever needed) without disturbing the piping to the pump: an important cost saving feature.

Packing or various mechanical seal arrangements are available as standard options of this rugged, dependable product.



1. Power Frame
Rugged heavy duty cast iron design incorporating integrally cast support and ribbed mounting feet which assure a solid, dependable pump installation and operation. One frame fits all pump sizes. External impeller adjustment is standard. Grease lubrication of bearings is standard; oil lubrication available.

2. Bearings
Series 1500 contains a high capacity cartridge-mounted double row thrust bearing allowing use on high suction pressure applications. Radial bearing is single row or double row and floats in a precision bored housing.

3. Shaft
416 stainless steel, precision machined with preferred taper at impeller location. Positive attachment is provided with castellated impeller nut and cotter pin, which assures that the impeller will not back off the shaft if the pump is accidentally operated in reverse rotation. 316 stainless steel shaft is optional.

4. Shaft Sealing
Packed arrangement utilizes a 2-piece split gland, slinger, Teflon® split lantern ring and 5-ring packing set. Grease lubrication is standard with product or water flush available. Wide choice of John Crane and Durametallic mechanical seals of various configurations and materials are optional.

E.I DuPont registered®

5. Impeller
Fully recessed design which accommodates passage of solids. All impellers have wiping vanes which reduce axial loading and prevent dirt from entering the sealing area. Impeller is keyed to shaft with a positive taper fit to assure perfect attachment.

6. Impeller Adjustment
Every power frame contains an external impeller adjustment utilizing jackscrews which provides for clearance adjustment of the impeller. This adjustment feature compensates for internal wear. Expensive casing and impeller wearing rings are eliminated.

7. Casing
Vortex-type concentric design. Extra heavy wall thickness for corrosive allowance. All suction and discharge openings are flanged for installation ease and integrity.

8. Back Pull-Out
All pumps are designed with back pull-out feature which allows for removal of all pump rotating components without disturbing the piping connections.

Standard

- All iron construction
- 416 stainless steel shaft
- Fully recessed impeller
- Back pull-out design
- Packed stuffing box or mechanical seal
- External impeller adjustment
- Heavy duty power frame
- Regreaseable ball bearings
- Flanged suction and discharge on all sizes
- Flexible coupling
- Steel mounting base

Options

- 316 stainless steel shaft
- 316 stainless steel impeller
- All 316 stainless steel, Alloy 20
- Teflon® packing (standard in s.s. and alloy units)
- Single or double mechanical seal (various materials)
- Product or fresh water flush to packing or mechanical seal
- Oil lubricated bearings with sight level indicator
- Coupling guard (recommended)
- ODP, TEFC, XP motors
- Steam turbine drive
- Diesel or gasoline engine drive

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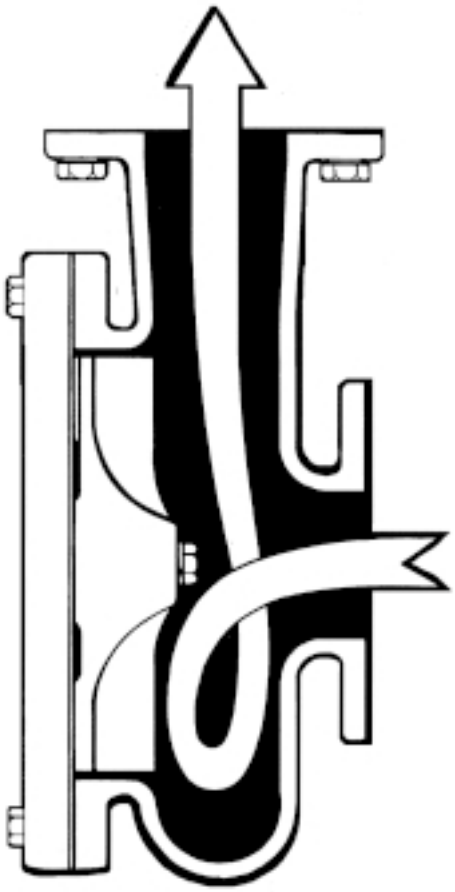


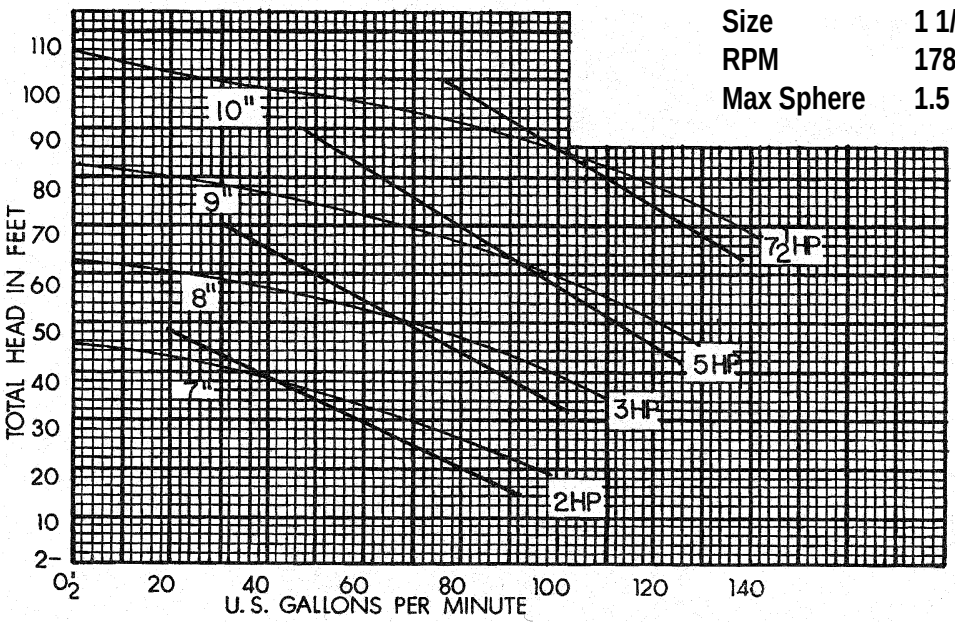
Vortex Design provides an unrestricted flow since the impeller is not normally in contact with the solids being pumped

	Design Details	Model 1520	Model 1524
Pump Shaft	Rotation from driver end	CW	CW
	Diameter through stuffing box	1.250	1.500
	Diameter between bearings	1.750	1.750
	Diameter at coupling end	1.250	1.250
	Coupling key - square	0.250	0.250
	Bearing centers	6.692	6.692

VERTIFLO PUMP COMPANY Performance Curves

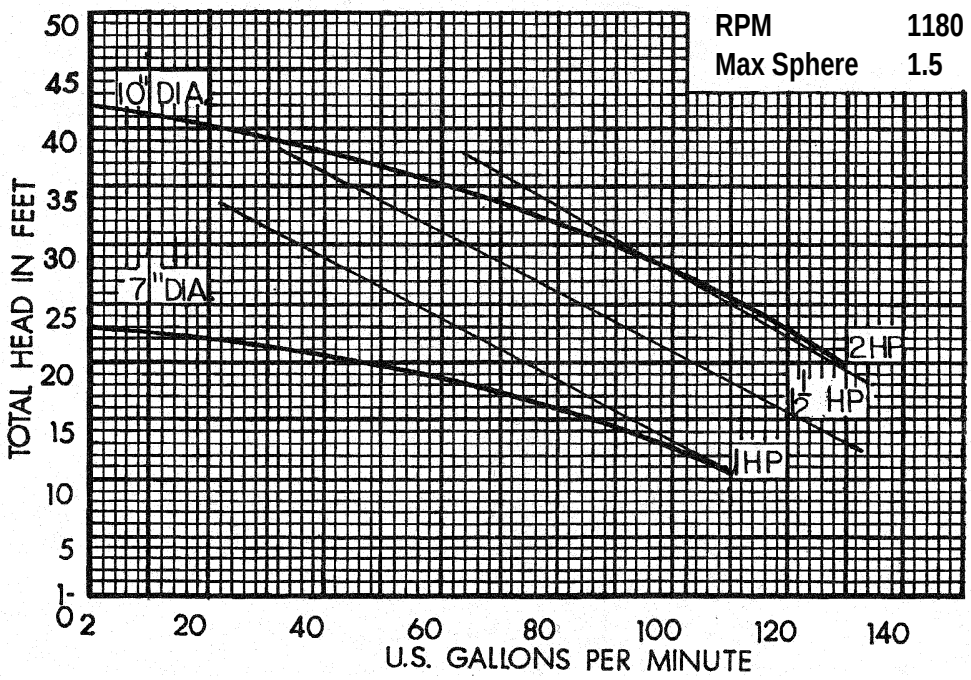
Curve 11104

Series	**1500 /1600**
Size	**1 1/2 X 1 1/2 X 10**
RPM	**1780**
Max Sphere	**1.5**



Curve 11106

Series	**1500 /1600**
Size	**1 1/2 X 1 1/2 X 10**
RPM	**1180**
Max Sphere	**1.5**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

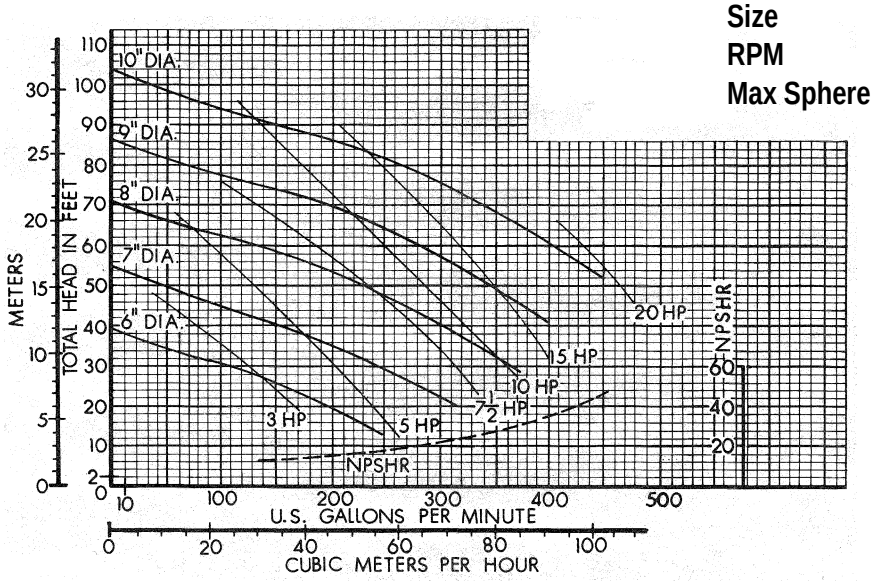
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

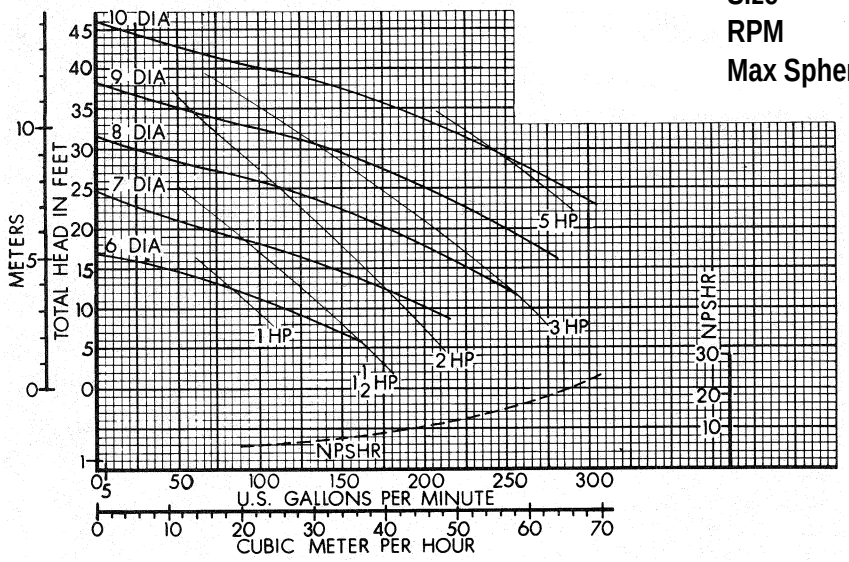
Curve 22104

Series	**1500 / 1600**
Size	**2 X 2 X 10**
RPM	**1780**
Max Sphere	**2**



Curve 22106

Series	**1500 /1600**
Size	**2 X 2 X 10**
RPM	**1180**
Max Sphere	**2**



1500

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

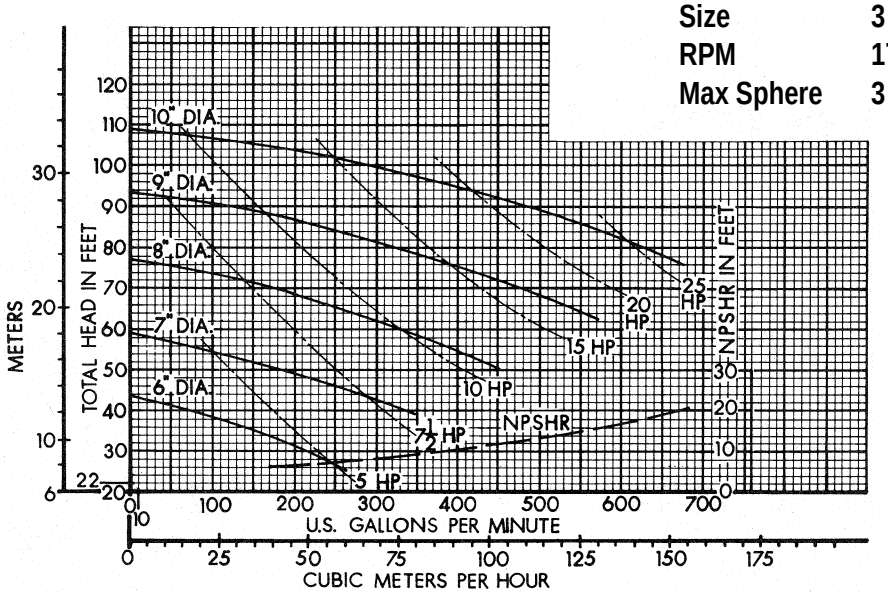
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

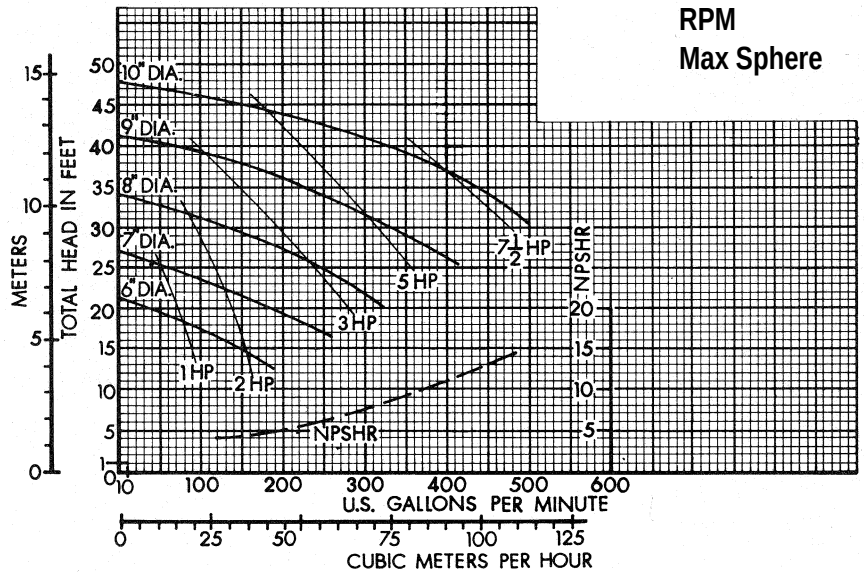
Curve 33104

Series	**1500 /1600**
Size	**3 X 3 X 10**
RPM	**1780**
Max Sphere	**3**



Curve 33106

Series	**1500 /1600**
Size	**3 X 3 X 10**
RPM	**1180**
Max Sphere	**3**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

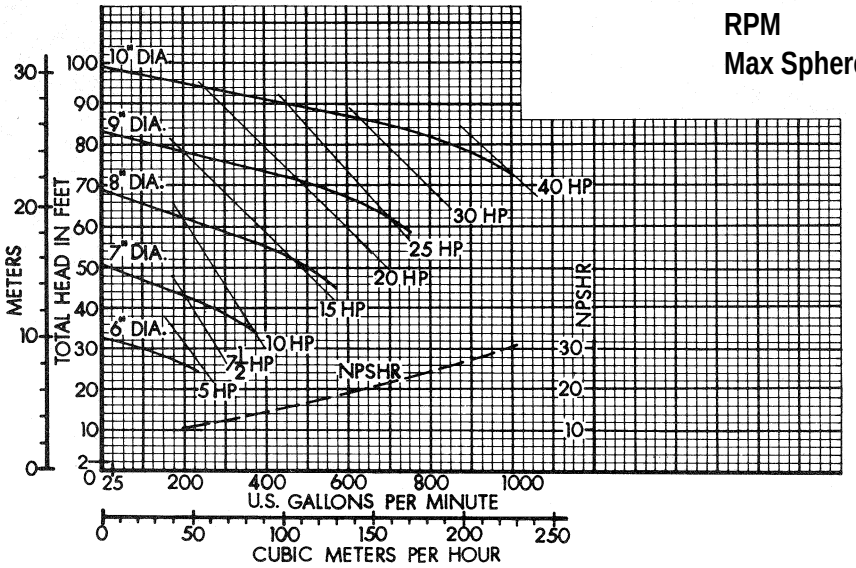
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

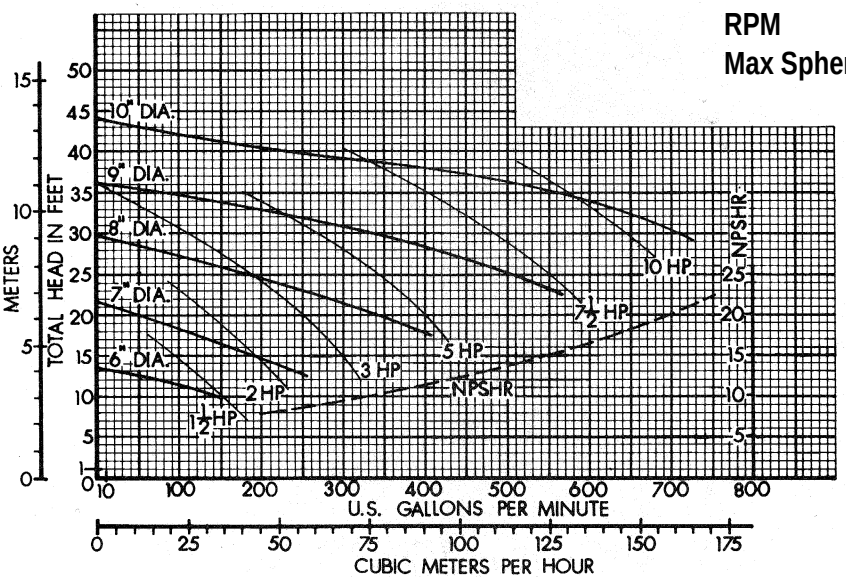
Curve 44104

Series	**1500 /1600**
Size	**4 X 4 X 10**
RPM	**1780**
Max Sphere	**4**



Curve 44106

Series	**1500 /1600**
Size	**4 X 4 X 10**
RPM	**1180**
Max Sphere	**4**



1500

Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

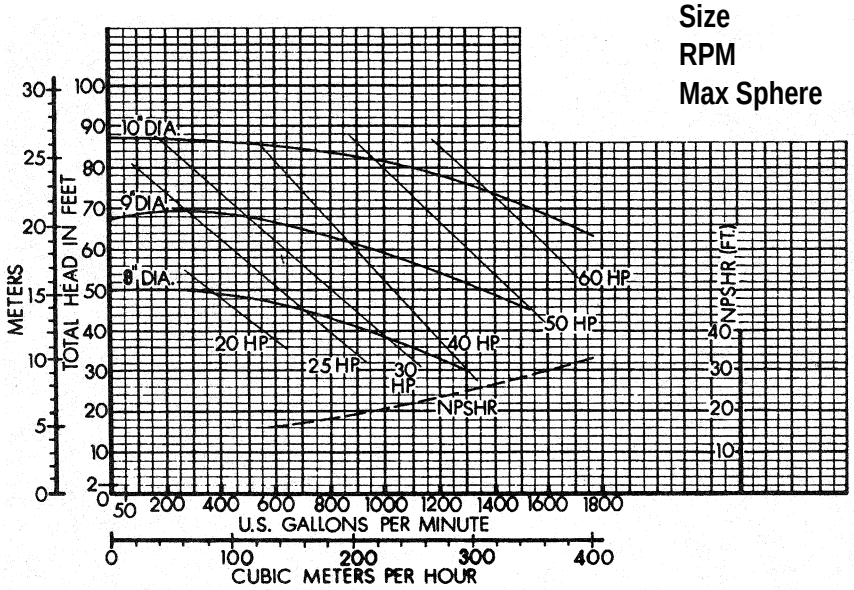
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

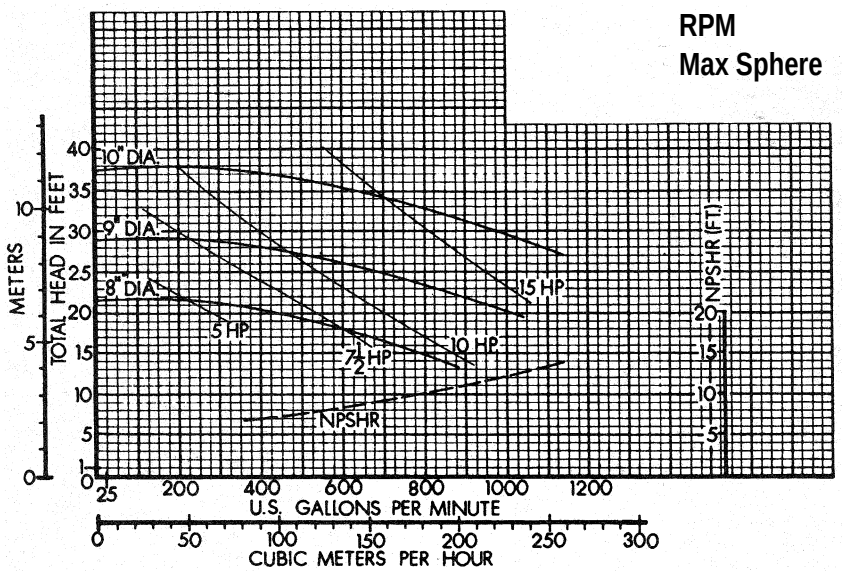
Curve 86104

Series	**1500 /1600**
Size	**8 X 6 X 10**
RPM	**1780**
Max Sphere	**6**



Curve 86106

Series	**1500 /1600**
Size	**8 X 6 X 10**
RPM	**1180**
Max Sphere	**6**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

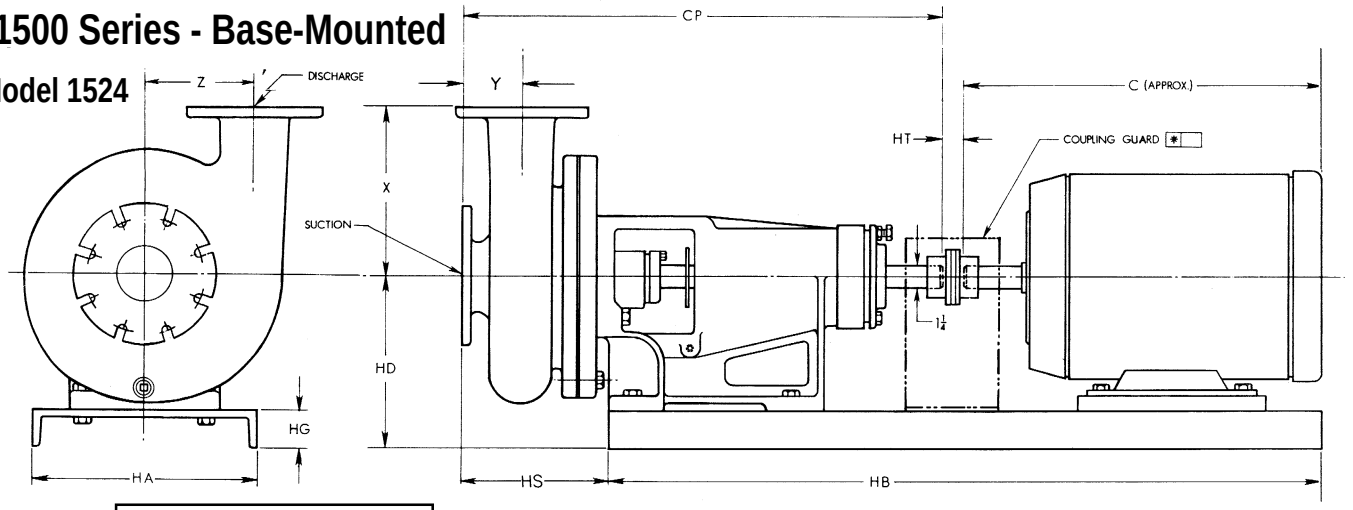
CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Dimensions

1500 Series - Base-Mounted

Model 1524



	Flanges									
Liquid End	FLG. Size	DIA. FLG.	# of Holes	Slot Width	DIA. Circle	X	Y	Z	CP	HS
1½x1½x10	1½	5	4	⅝	3⅞	9	4 3/16	5¼	24 11/16	7 3/16
2x2x10	2	6	4	¾	4¾	9 11/16	5⅛	5 3/16	26 1/16	8 9/16
3x3x10	3	7½	4	¾	6	11	5⅞	5 3/16	27 11/16	10 3/16
4x4x10	4	9	8	¾	7½	11 13/16	7 3/16	5 3/16	30 1/16	12 9/16
8x6x10	8	13½	8	⅞	11¾	11¾	7⅞	5¼	30 15/16	13 7/16
	6	11	8	⅞	9½	11¾	7⅞	5¼	30 15/16	13 7/16

Frame No.	143T	145T	182T	184T	213T	215T	254T	256T	284TS	284T	286TS	286T	324TS	324T	326T	326TS	364TS	364T	365TS	365T
HA	12	12	12	12	12	12	15	15	15	15	15	15	18	18	18	18	18	18	18	18
HB	36	36	36	36	36	36	44	44	44	44	44	44	48	48	48	48	48	48	48	48
C	13⅛	13⅛	14⅝	15⅝	17¾	19¼	22⅞	24⅝	24½	25⅞	26	27⅜	27¼	28¾	28¾	30¼	31	33⅛	32	34⅛
HD	10	10	10	10	10	10	10⅜	10⅜	10⅜	10⅜	10⅜	10⅜	12	12	12	12	13	13	13	13
HG	3	3	3	3	3	3	3⅜	3⅜	3⅜	3⅜	3⅜	3⅜	4	4	4	4	4	4	4	4
HT	¾	¾	¾	¾	¾	¾	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Not for construction unless certified, some dimensions may vary ± 1/2". Pump Construction:_____

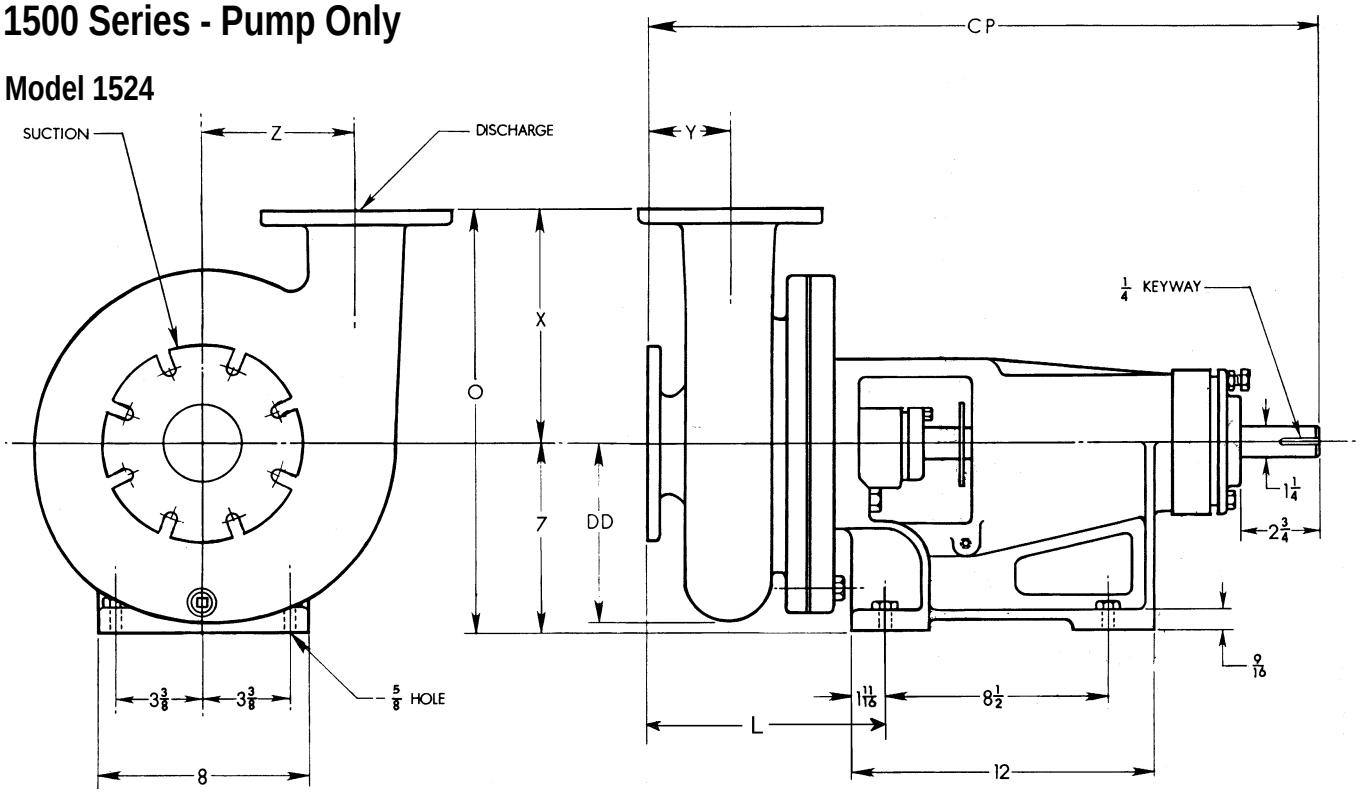
1500

CUSTOMER_____ CUSTOMER NO._____
PROJECT_____ SERIAL NO._____
ENGINEER_____ LOCATION_____
CONTRACTOR_____
PUMP DATA: Model _____ Size _____ Curve No. _____ GPM _____ Head _____ SP. GR.@Temp. _____
MOTOR DATA: Mfgr. _____ HP _____ RPM _____ Volt-Phase-Cycle _____ Frame _____ ENC. _____ Furnished by _____ Mounted by _____
Shop Order_____ Certified by_____ Date_____

VERTIFLO PUMP COMPANY Dimensions

1500 Series - Pump Only

Model 1524



	Flanges											
Liquid End	FLG. Size	DIA. FLG.	# of Holes	Slot Width	DIA. Circle	X	Y	Z	CP	DD	L	O
1½x1½x10	1½	5	4	5/8	3 7/8	9	4 3/16	5 1/4	24 11/16	7 1/2	7 1/4	16
2x2x10	2	6	4	¾	4¾	9 11/16	5 1/8	5 3/16	26 1/16	7 1/2	8 5/8	16 11/16
3x3x10	3	7½	4	¾	6	11	5 7/8	5 3/16	27 11/16	7 1/2	10 1/4	18
4x4x10	4	9	8	¾	7½	11 13/16	7 3/16	5 3/16	30 1/16	7 1/2	12 1/8	18 13/16
8x6x10	8	13½	8	7/8	11¾	11¾	7 7/8	5 1/4	30 15/16	8 5/8	13 7/16	20 3/8
	6	11	8	7/8	9½	11¾	7 7/8	5 1/4	30 15/16	8 5/8	13 7/16	20 3/8

Not for construction unless certified, some dimensions may vary ± 1/2". Pump Construction:_____

CUSTOMER_____CUSTOMER NO._____
PROJECT_____SERIAL NO._____
ENGINEER_____LOCATION_____
CONTRACTOR_____

PUMP DATA	Model	Size	Curve No.	GPM	Head	SP. GR.@Temp.
	_____	_____	_____	_____	_____	_____

MOTOR DATA	Mfgr.	HP	RPM	Volt-Phase-Cycle	Frame	ENC.	Furnished by	Mounted by
	_____	_____	_____	_____	_____	_____	_____	_____

Shop Order_____Certified by_____Date_____

VERTIFLO SERIES 1600
Quality Design Features Assure Long, Trouble-Free Service

WIDE RANGE OF APPLICATIONS:

- Food Processing Solids
- Waste Water Treatment
- Pollution Control
- Slurries
- Industrial Process
- Solids

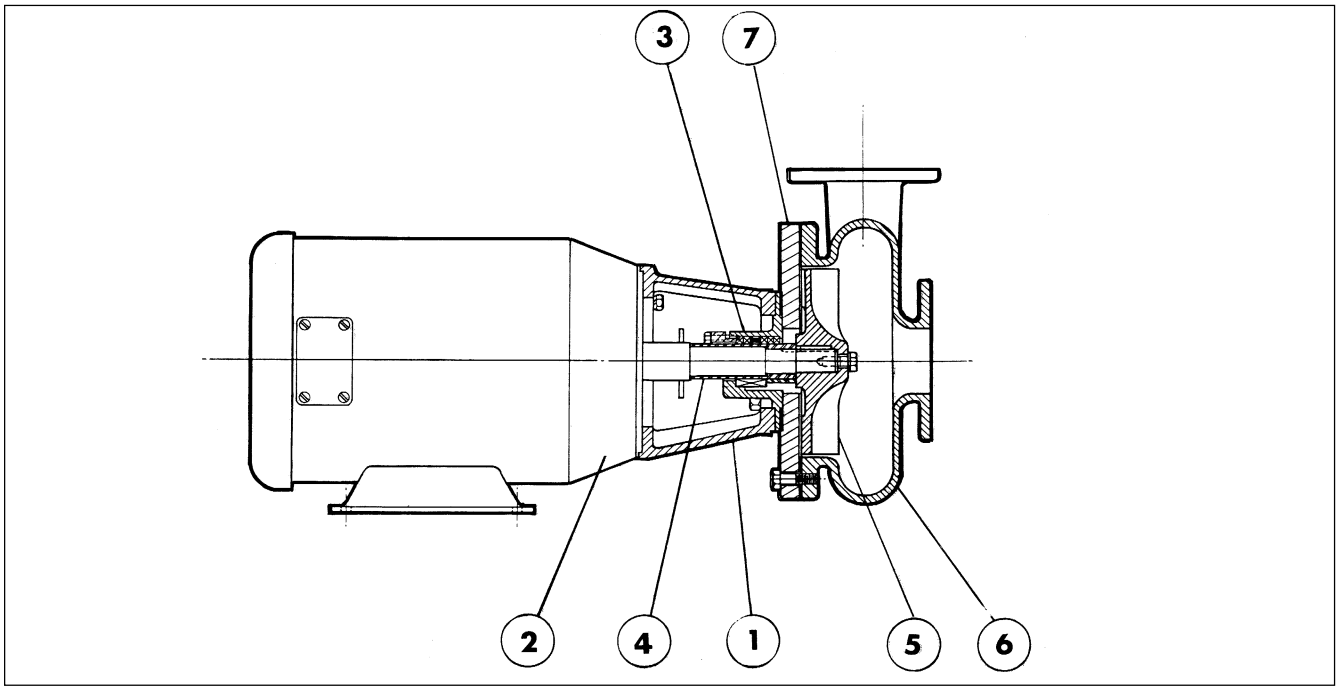
CAPABILITIES:

- Capacities to 1600 GPM
- Heads To 170 Feet TDH
- Temperature to 250°F
- Back Pull-Out Construction
- Fully Recessed Vortex Impeller
- Packing or Mechanical Seal

CONSTRUCTION:

- Cast Iron
- 316 Stainless Steel Fitted
- All 316 Stainless Steel
- Alloy 20
- $CD4MC_u$

Series 1600 horizontal close-coupled end suction pumps are designed for use with any NEMA Standard JP Shaft Motor. VERTIFLO's close-coupled pumps are designed with back pull-out feature. This important feature allows for easy inspection or service/ maintenance (if ever needed) without disturbing the piping to the pump: An important cost saving feature. Packing or various mechanical seal arrangements are available as standard options of this rugged, dependable product.



1. Mounting Bracket
Rugged cast iron design which assures a solid, dependable pump installation and operation. Three brackets fit all pump sizes.

2. Motor
NEMA standard JP shaft extension allows for easy interchangability to packing, standard mechanical seal or optional single or double mechanical seals of various designs and materials of construction.

3. Shaft Sealing
Packed arrangement utilizes a 2-piece split gland, slinger, Teflon® split lantern ring and 5-ring packing set. Grease lubrication is standard with product or water flush available. Wide choice of John Crane and Durametallic mechanical seals of various configurations and materials are optional.

4. Shaft Sleeve
316 stainless steel is standard. Positively driven and gasketed, protecting motor shaft from liquid being pumped.

5. Impeller
Fully recessed design which accommodates passage of solids. All impellers have wiping vanes which reduce axial loading and prevent dirt from entering the sealing area. Impeller is keyed to shaft, and an impeller locking screw assures positive attachment.

6. Casing
Vortex-type concentric design. Extra heavy wall thickness for corrosion allowance. All suction and discharge openings are flanged for installation ease and integrity.

7. Back Pull-Out
All pumps are designed with back pull-out feature which allows for removal of all pump rotating components without disturbing the piping connections.

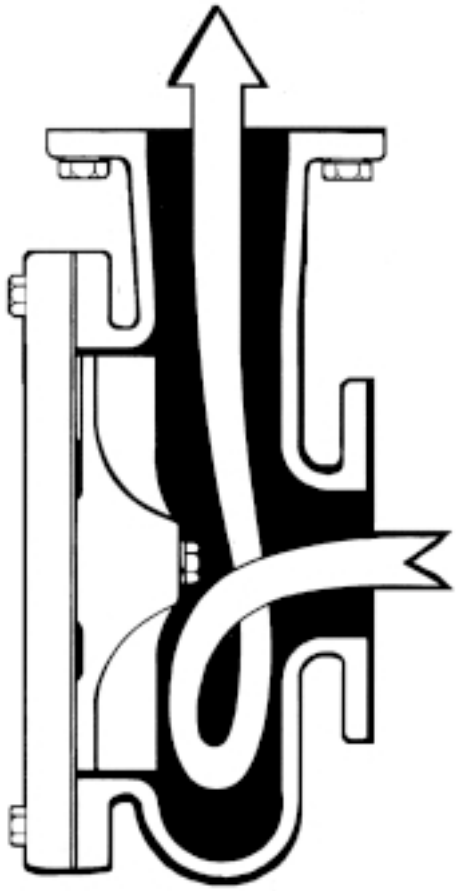
E.I DuPont registered®

Standard

- All iron construction
- 316 stainless steel shaft sleeve
- Fully recessed impeller
- Back pull-out design
- Packed stuffing box or mechanical seal
- Flanged suction and discharge on all pump sizes
- NEMA standard JP shaft motor

Options

- 316 stainless steel impeller
- All 316 stainless steel or Alloy 20 construction
- Single or double mechanical seal (various materials)
- Product or fresh water flush to packing or mechanical seal
- Teflon® packing (standard in s.s. and alloy units)
- ODP, TEFC



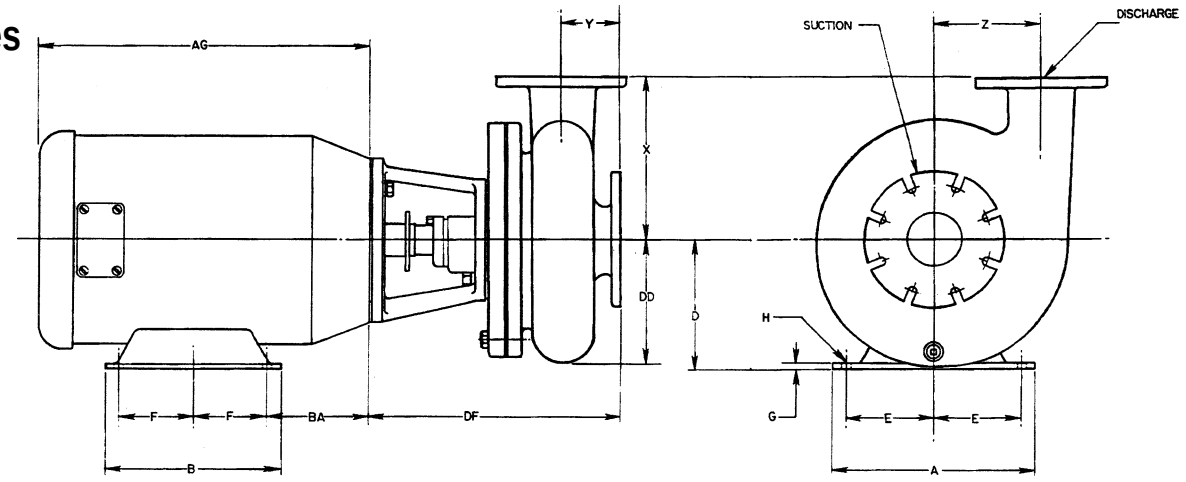
Vortex Design provides an unrestricted flow since the impeller is not normally in contact with the solids being pumped.

Design Details	Model 1620	Model 1626
Rotation from driver end	CW	CW
Outside diameter of shaft sleeve	1.250	1.625
Shaft diameter at impeller	0.875	1.250

VERTIFLO PUMP COMPANY Dimensions

1600 Series

Models
1620, 1626



	Flanges								
Liquid End	FLG. Size	DIA. FLG.	# of Holes	Slot Width	DIA. Circle	X	Y	Z	DD
1½x1½x10	1½	5	4	⅝	3⅞	9	4 3/16	5¼	7½
2x2x10	2	6	4	¾	4¾	9 11/16	5⅛	5 3/16	7½
3x3x10	3	7½	4	¾	6	11	5⅞	5 3/16	7½
4x4x10	4	9	8	¾	7½	11 13/16	7 3/16	5 3/16	7½
8x6x10	8	13½	8	⅞	11¾	11¾	7⅞	5¼	8⅝
	6	11	8	⅞	9½	11¾	7⅞	5¼	8⅝

Motor Details

	A	B	D	E	F	G	H	AG	BA
143JP	6½	6	3½	2¾	2	⅛	11/32	9 7/16	4½
145JP	6½	6	3½	2¾	2½	⅛	11/32	9 7/16	4½
182JP	8⅜	6⅜	4½	3¾	2¼	⅜	13/32	13½	5⅛
184JP	8⅜	6⅜	4½	3¾	2¾	⅜	13/32	13½	5⅛
213JP	9½	7⅜	5¼	4¼	2¾	⅝	13/32	15½	6⅞
215JP	9½	8⅞	5¼	4¼	3½	⅝	13/32	17	6⅞
254JP	11⅜	10 11/16	6¼	5	4⅛	11/16	17/32	20⅛	7⅜
256JP	11⅜	12 7/16	6¼	5	5	11/16	17/32	21⅞	7⅜
284JP	12⅞	12¼	7	5½	4¾	¾	17/32	22⅜	7⅜

	DF	
Pump Size	56-184 JP	213-326 JP
1½x1½x10	12⅝	13⅛
2x2x10	14	14½
3x3x10	15⅝	16⅛
4x4x10	18	18½
8x6x10	22½	23

Not for construction unless certified, some dimensions may vary ± 1/2". Pump Construction:_____

CUSTOMER_____CUSTOMER NO._____
PROJECT_____SERIAL NO._____
ENGINEER_____LOCATION_____
CONTRACTOR_____

PUMP DATA	Model	Size	Curve No.	GPM	Head	SP. GR.@Temp.
	_____	_____	_____	_____	_____	_____

MOTOR DATA	Mfgr.	HP	RPM	Volt-Phase-Cycle	Frame	ENC.	Furnished by	Mounted by
	_____	_____	_____	_____	_____	_____	_____	_____

Shop Order_____Certified by_____Date_____

VERTIFLO

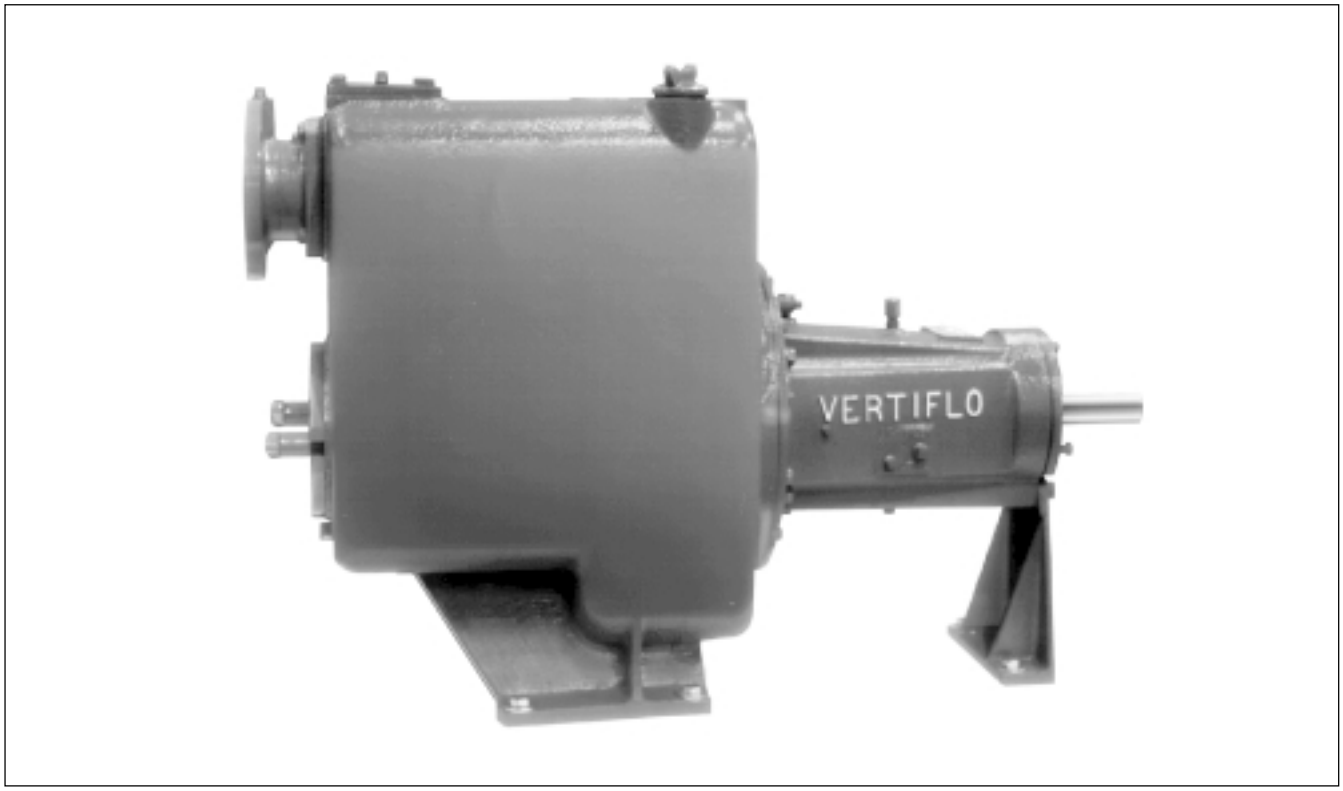
The Vertical Pump Specialists

PUMPS FOR INDUSTRY

CONTENTS:

 0407

VERTIFLO Series 2100
Quality Design Features Assure Long, Trouble-Free Service



WIDE RANGE OF APPLICATIONS:

- Liquids Entrained with Solids
- General Industrial, Pulp & Paper, Mining, Meat Packing
- Raw Sewage, Sludge
- Slurries
- Trash
- Wastewater

CAPABILITIES:

- Capacities to 1300 GPM
- Heads to 112 Feet TDH
- Sizes: 3", 4", and 6"
- Solids Handling: Up to 3" Diameter Sphere
- Suction Lifts to 25 Feet

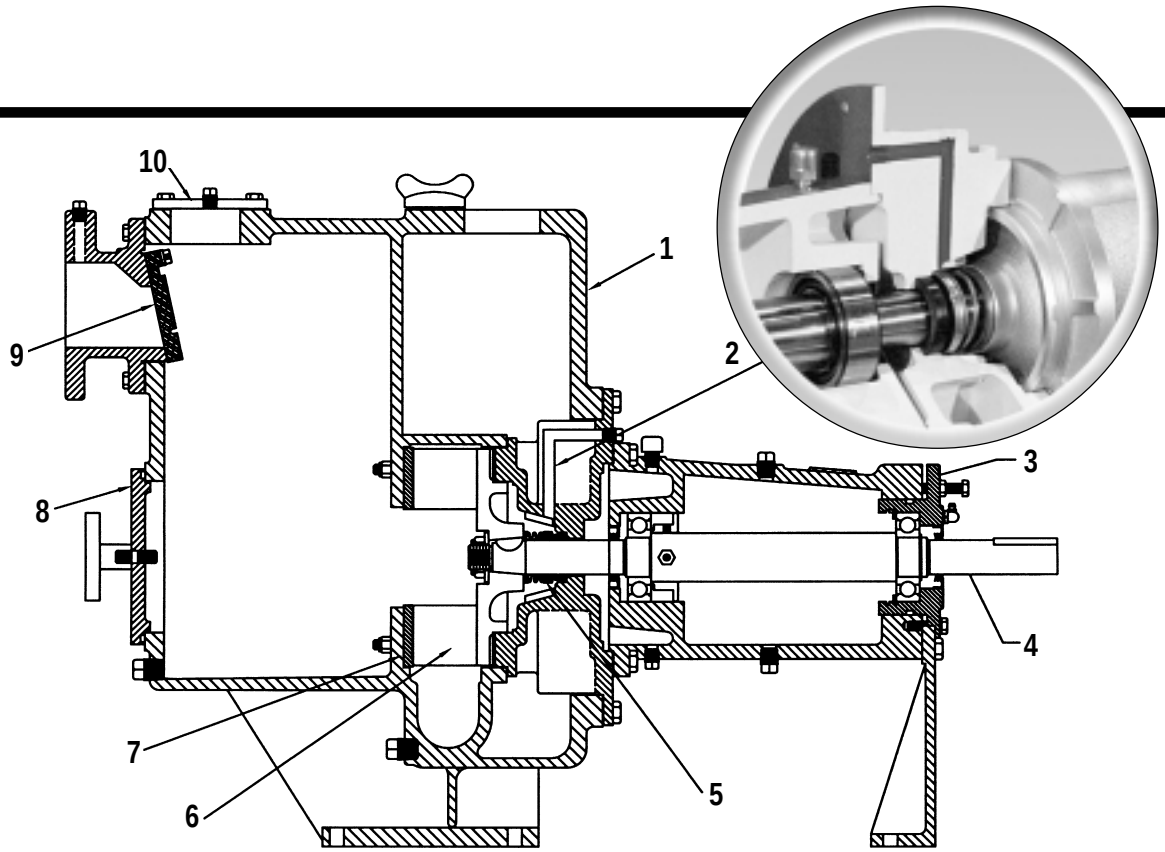
CONSTRUCTION:

- Cast Iron
- CD4MCu Fitted
- All CD4MCu
- 316 S.S. Fitted
- All 316 S.S.

Vertiflo's Trash- and Solids-Handling Self-Primer is designed for service simplicity and quick and easy access to the impeller and case to remove debris. Its oversized, tapered bore, self-flushing seal chamber, with ***an industry first*** *optional external flush, results in greatly extended seal life. Back pullout design with external impeller adjustment, plus a replaceable case wearplate allows for continuous high efficiency performance.*

Revised 9-1-04

2100's Superior Design Features



1. Priming Chamber
Heavy-duty cast construction with large capacity volute allows continual re-priming.

2. Seal Chamber
Oversized tapered bore chamber with flow bars to eject sound and abrasives otherwise trapped in the chamber. An industry first, external fresh water flush is optionally available for the most difficult pumping applications.

3. External Impeller Adjustment
Heavy-duty cast iron power frame with replaceable and adjustable thrust bearing housing utilizing jackscrews, maintains impeller adjustment.

4. Shaft
High-strength 17-4ph stainless steel with self-locking taper, along with Woodruff key and locknut assures perfect impeller attachment.

5. Mechanical Seal
Single, self-aligning solid silicon carbide vs silicon carbide faced seal for abrasive industrial wastewater service.

6. Impeller
Semi-open, solid-handling design with rear wiping vanes and balancing hub that reduce seal chamber pressure and axial loading.

7. Wear Plate
Replaceable heavy-duty wear plate protects priming chamber from wear of erosion.

8. Inspection-Cleanout Cover
6" diameter cover weighing only 5½ lbs. provides quick, direct access into priming chamber and impeller.

9. Check Valve
Replaceable, molded in one piece with integral rupture disc valve allows re-priming and protects the priming chamber from high pressure or vaporization.

10. Check Valve Cover Plate
Check valve inspection and service is possible by removing this plate. Draining of pump or removal of piping is not necessary.

Revised 10-15-02

Parts Description	Standard Fitted	316 S. S. Fitted	CD4MCu Fitted	All 316 S.S.	All CD4MCu
Case	Cast Iron	Cast Iron	Cast Iron	316 S.S.	CD4MCu
Seal Cover	Cast Iron	Cast Iron	Cast Iron	316 S.S.	CD4MCu
Mechanical Seal	Silicon Carbide vs Silicon Carbide				
Power Frame	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron
Shaft	17-4ph	17-4ph	17-4ph	17-4ph	17-4ph
Suction Inlet	Cast Iron	Cast Iron	Cast Iron	316 S.S.	CD4MCu
Check Valve	Buna N	Buna N	Buna N	Viton	Viton
Clean Out Plate	Cast Iron	Cast Iron	Carbon Steel	316 S.S.	CD4MCu
Case Gasket	Synthetic Fiber with EPDM Binder				
Wear Plate	Steel	316 S.S.	CD4MCu	316 S.S.	CD4MCu
Impeller	Cast Iron	316 S.S.	CD4MCu	316 S.S.	CD4MCu
Bearing Cartridge	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron
Impeller Trim	Carbon Steel/ 316SS	316 S.S.	316S.S. / CD4MCu	316 S.S.	CD4MCu / Alloy 20

OPTIONAL:

316 stainless steel fitted and CD4MCu fitted pumps are available with optional 316 stainless steel or CD4MCu seal cover in lieu of cast iron.

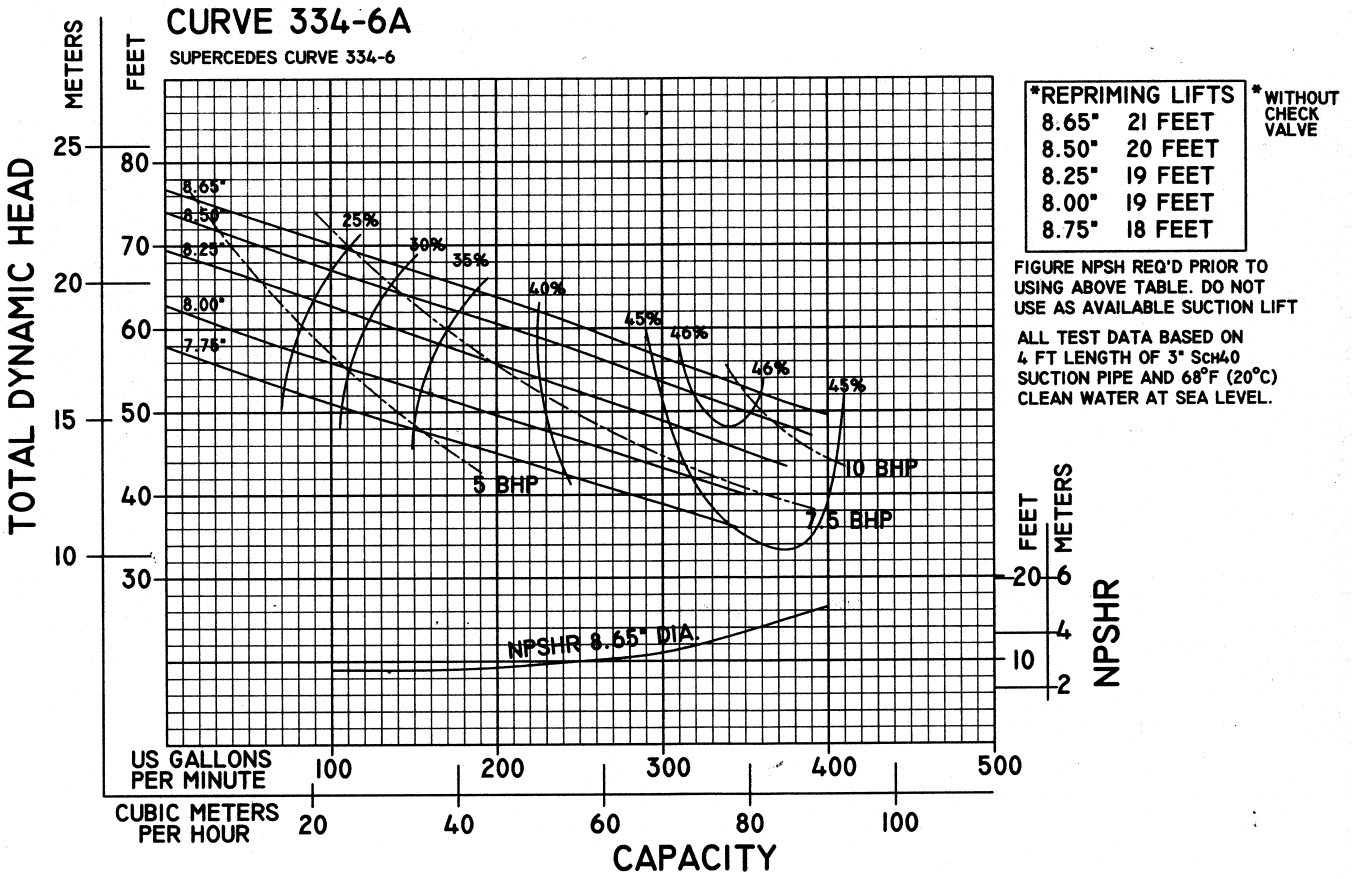
Construction Details

		3x3	4x4	6x6
Priming Chamber	Suction/Discharge Flange	3"/125 lb.	4"/125 lb.	6"/125 lb.
	Maximum Pressure	85 PSIG	85 PSIG	85 PSIG
	Minimum Thickness	0.44	0.44	0.44
	Capacity of Chamber	19 gal.	24 gal.	32 gal.
	Rotation from Driver End	cw	cw	cw
Shaft	Diameter at Impeller	1.38"	1.75"	1.75"
	Diameter through Seal Cover	1.38"	1.75"	1.75"
	Diameter Between Bearings	2.0"	2.25"	3.0"
	Diameter at Coupling End	1.38"	1.63"	2.0"
Bearings	Bearing Span Centers	9.66"	9.75"	10.94"
	Average L'10 Bearing Life	Excess of 100,000 Hours		
Maximum Solids		2.75"	3.0"	3.0"

Revised 10-15-02

VERTIFLO PUMP COMPANY Performance Curves

Model	2122-3x3
Size	3x3
RPM	1780
Max Sphere	2¾"



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU, Ambient Temperature

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

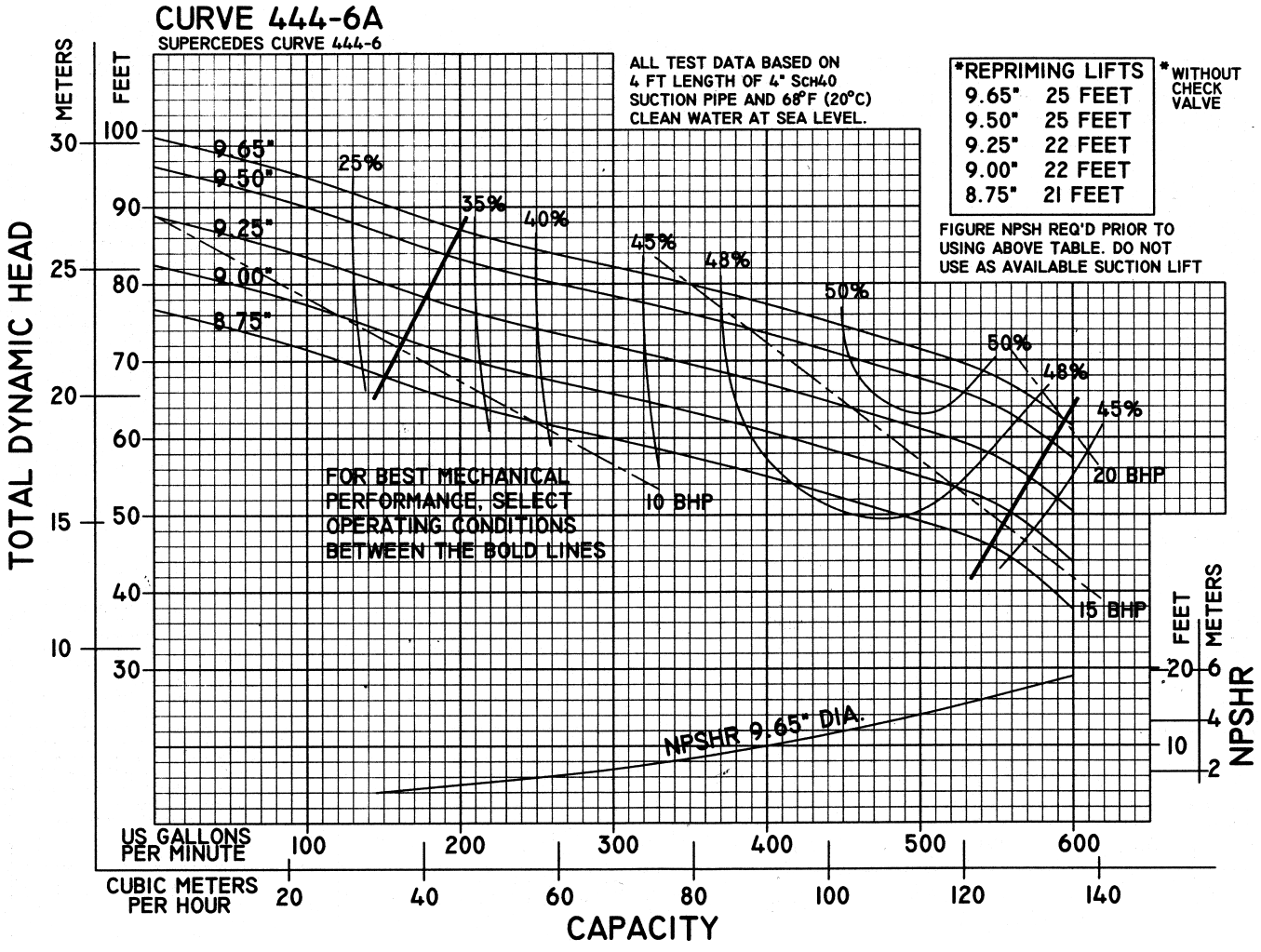
ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

Model	**2128-4x4**
Size	**4x4**
RPM	**1780**
Max Sphere	**2¾"**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU, Ambient Temperature

CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

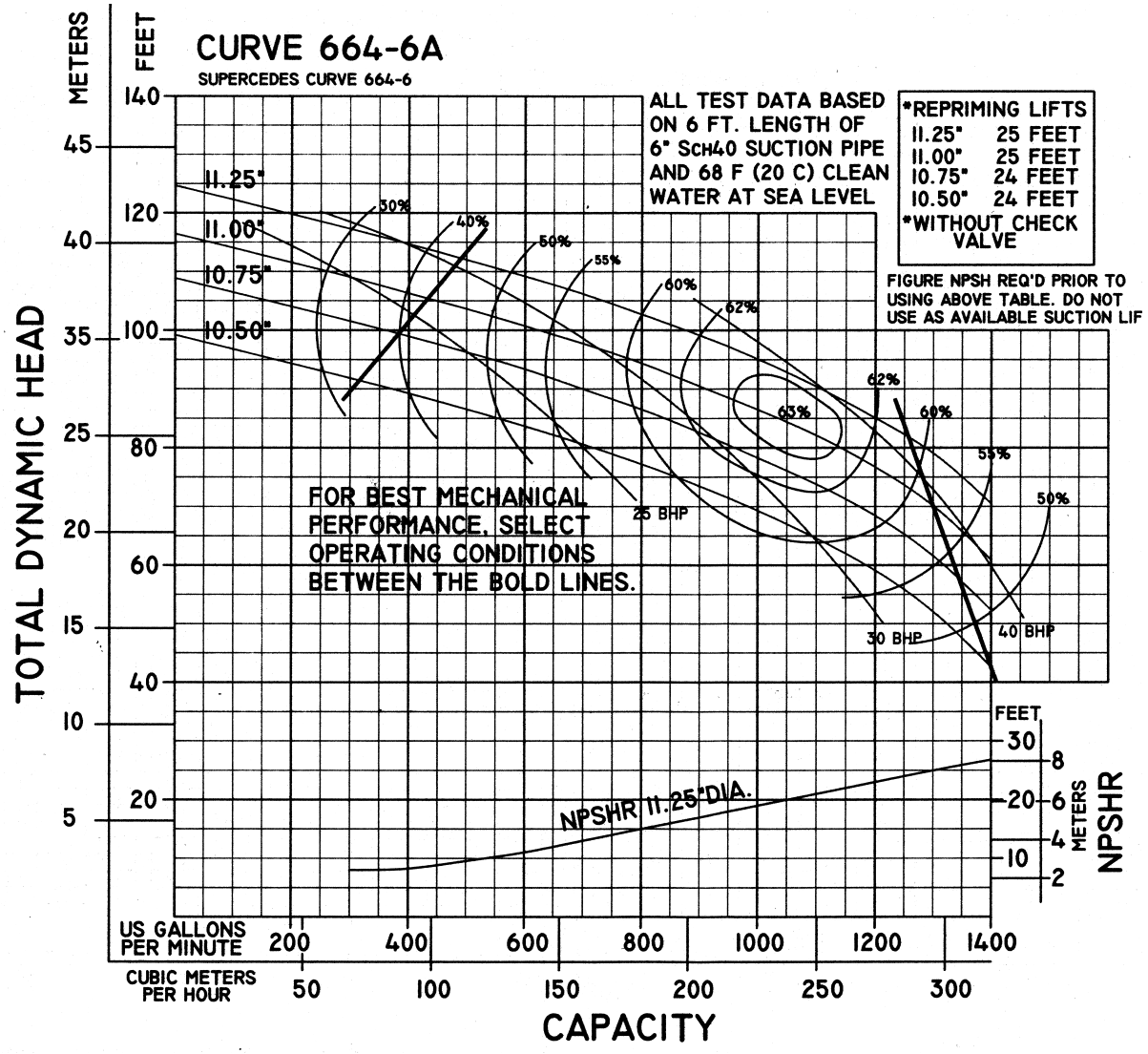
ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____

VERTIFLO PUMP COMPANY Performance Curves

Model	**2128L-6x6**
Size	**6x6**
RPM	**1780**
Max Sphere	**2¾"**



Performance at Casing Discharge Flange

Curves Show Performance with Liquid Having Specific Gravity 1.0 Viscosity • 30 SSU, Ambient Temperature

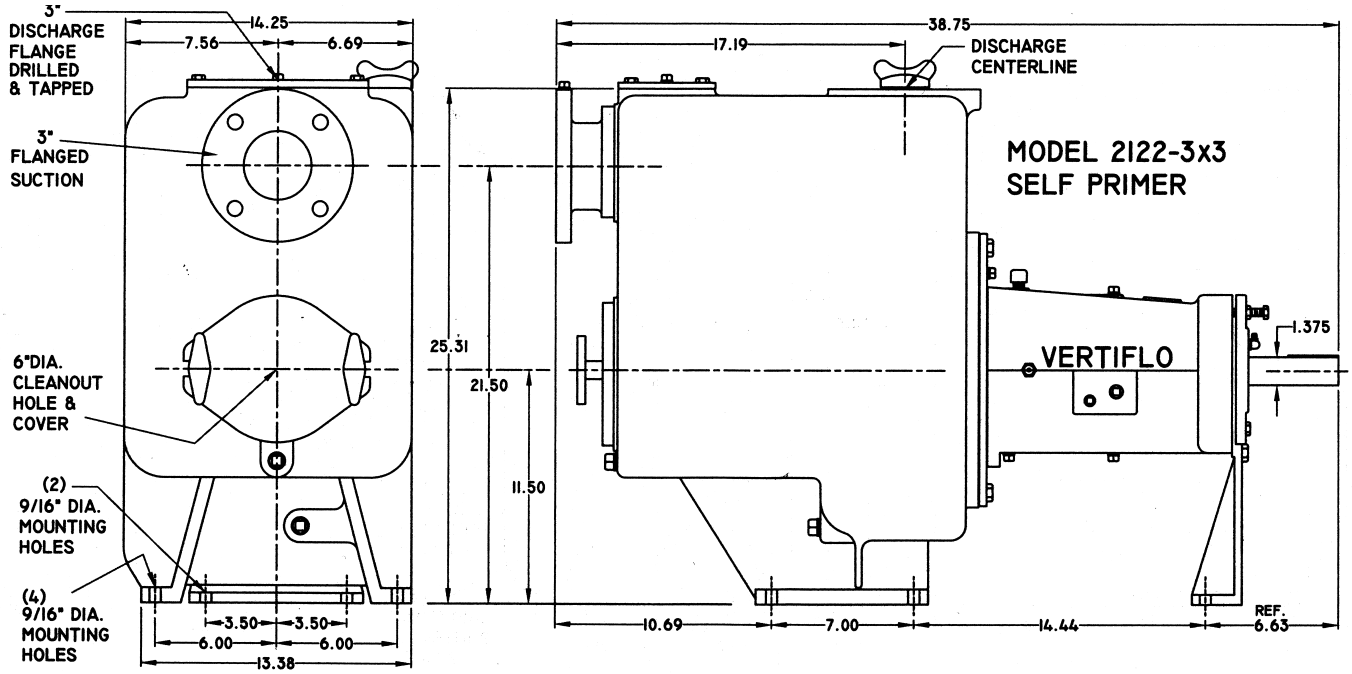
CUSTOMER _____ CUSTOMER NO. _____

PROJECT _____

ENGINEER _____

CONTRACTOR _____

CONDITIONS:_____GPM_____TDH_____HP_____EFF%_____IMP. DIA _____



CUSTOMER_____ CUSTOMER NO._____

PROJECT_____ SERIAL NO._____

ENGINEER_____ LOCATION_____

CONTRACTOR_____

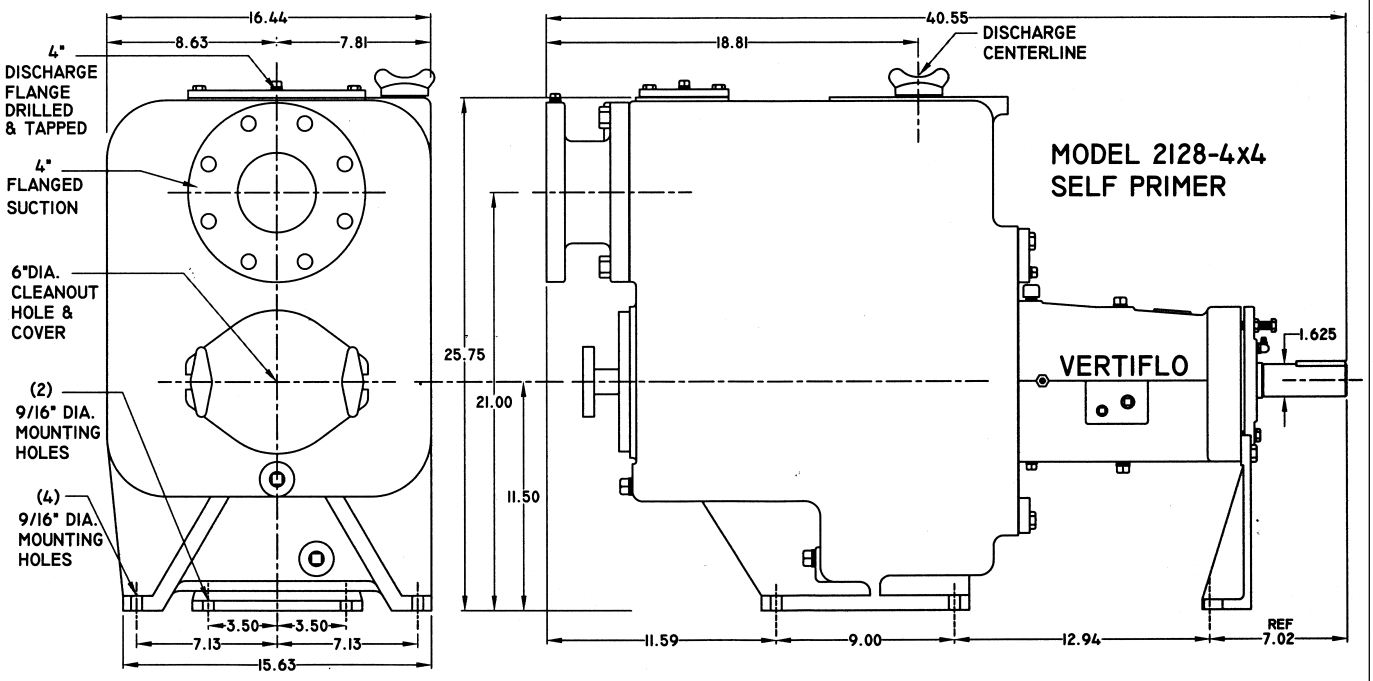
	Model	Size	Curve No.	GPM	Head	SP. GR.@Temp.
PUMP DATA	_____	_____	_____	_____	_____	_____

	Mfgr.	HP	RPM	Volt-Phase-Cycle	Frame	ENC.	Furnished by	Mounted by
MOTOR DATA	_____	_____	_____	_____	_____	_____	_____	_____

Shop Order_____ Certified by_____ Date_____

Revised 10-15-02

VERTIFLO PUMP COMPANY Dimensions Model 2128-4x4 Self-Primer



CUSTOMER_____ CUSTOMER NO._____

PROJECT_____ SERIAL NO._____

ENGINEER_____ LOCATION_____

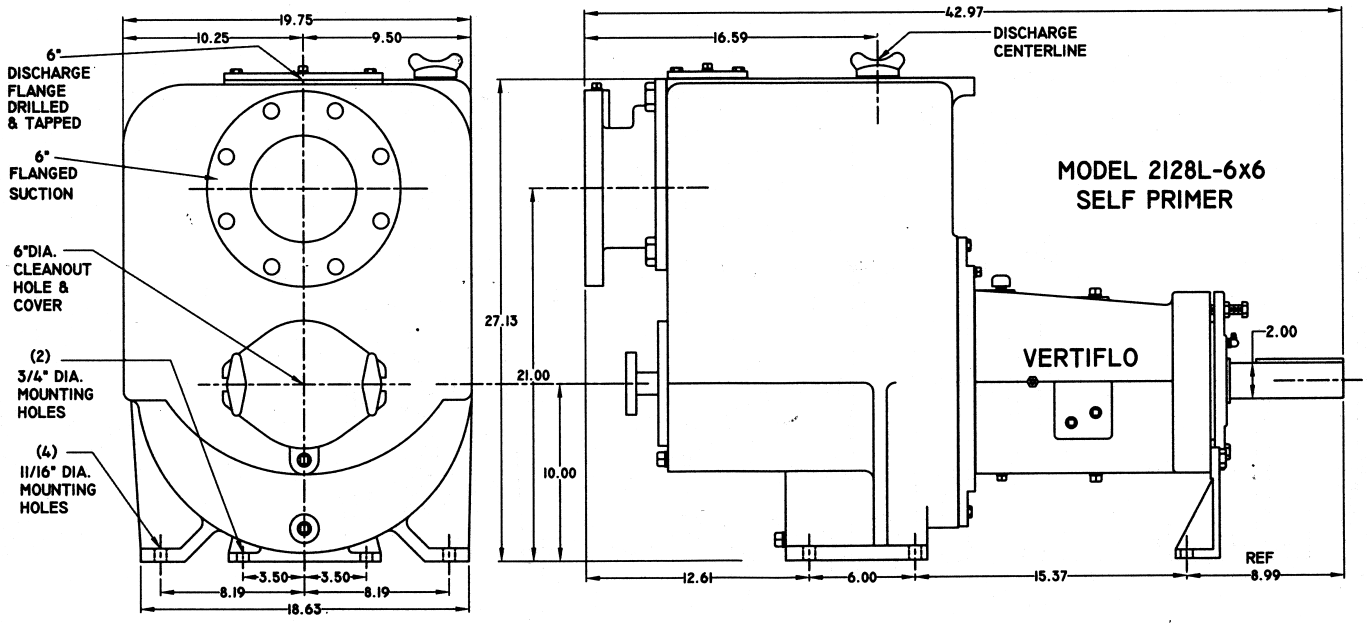
CONTRACTOR_____

	Model	Size	Curve No.	GPM	Head	SP. GR.@Temp.
PUMP DATA	_____	_____	_____	_____	_____	_____

	Mfgr.	HP	RPM	Volt-Phase-Cycle	Frame	ENC.	Furnished by	Mounted by
MOTOR DATA	_____	_____	_____	_____	_____	_____	_____	_____

Shop Order_____ Certified by_____ Date_____

Revised 10-15-02



CUSTOMER_____ CUSTOMER NO._____

PROJECT_____ SERIAL NO._____

ENGINEER_____ LOCATION_____

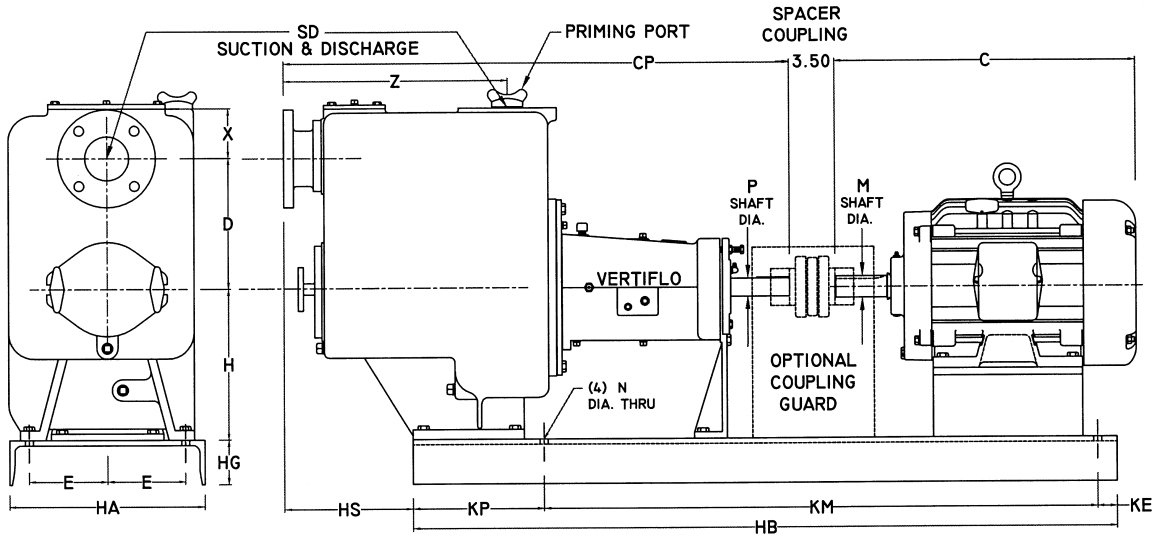
CONTRACTOR_____

PUMP DATA	Model	Size	Curve No.	GPM	Head	SP. GR.@Temp.			
	_____	_____	_____	_____	_____	_____			
MOTOR DATA	Mfgr.	HP	RPM	Volt-Phase-Cycle		Frame	ENC.	Furnished by	Mounted by
	_____	_____	_____	_____		_____	_____	_____	_____

Shop Order_____ Certified by_____ Date_____

Revised 10-15-02

VERTIFLO PUMP COMPANY



Model	Motor Frame	M	C	CP	D	E	H	HA	HB	HG	HS	KE	KM	KP	N	P	SD	X	Z
2122-3X3	182-84T	1.125	14.3	38.75	10	6	11.5	15	48	3.4	9.88	1.5	36.5	10	.63	1.375	3	3.81	17.19
	213-15T	1.375	17.9						54				42.5						
	254-56T	1.625	21.1																
2128-4X4	182-84T	1.125	14.3	40.55	9.5	7.5	11.5	18	48	4	10.84	1.0	35	12	.	1.625	4	4.75	18.81
	213-15T	1.375	17.9						54				41		.63				
	254-56T	1.625	21.1																
	284-86T	1.875	27.8						60				46.5						
2128L-6X6	254-56T	1.625	21.1	42.97	11	9	10	22	60	3.5	11.28	1.5	46.5	12	.75	2	6	6.13	16.59
	284-86T	1.875	27.8																
	324-26T	2.125	30.3																

Motor dimensions are based on the larger of the paired frame sizes since most motor manufacturers provide dual drilling for mounting of either frame size. Motor dimensions are for Baldor TEFC motors at 1750RPM. Motor overall length, (C), will vary based upon specific motor type, enclosure, and manufacturer. Dimension between shafts will vary with coupling type.

CUSTOMER_____CUSTOMER NO._____
PROJECT_____SERIAL NO._____
ENGINEER_____LOCATION_____
CONTRACTOR_____
PUMP DATA Model _____ Size _____ Curve No. _____ GPM _____ Head _____ SP. GR.@Temp. _____
MOTOR DATA Mfgr. _____ HP _____ RPM _____ Volt-Phase-Cycle _____ Frame _____ ENC. _____ Furnished by _____ Mounted by _____
Shop Order_____Certified by_____Date_____

Revised 7-15-04

VERTIFLO

The Vertical Pump Specialists

PUMPS FOR INDUSTRY

CONTENTS:

0407

Furnish and install (as shown on the plans) **VERTIFLO Series 700** vertical immersion non-clog sewage ejector, pump size x x of all iron construction. Each pump shall be capable of pumping GPM when operating against a total dynamic head of feet, at specific gravity, temperature and viscosity indicated. Each pump shall operate at RPM and shall be percent efficient at the design condition point. Pump shall be designed for installation in a deep sump and furnished with inch discharge pipe and inch (round) (square) (oval) cover plate.

The pump casing shall have an integrally-cast long radius discharge elbow and shall be flanged. The impeller shall be of the non-clog 2-vane centrifugal design. The pump shaft shall have a minimum diameter of (1.250 inches) (1.500 inches). Column pipe shall be minimum 4.00 inch diameter, with welded flanges machined for registered fits. A separate bottom bearing housing of the same material as the liquid end shall be located directly behind the impeller and shall include replaceable bearings of material.

A replaceable intermediate bearing housing of the same material as the pump liquid end shall be provided on pumps built for pit depths over 6'-0". One intermediate bearing shall be provided for each 5'-0" pump length increment. Bottom and intermediate bearings shall be (grease) (water) lubricated through separate lubrication lines.

Pump shall be furnished with a separate thrust bearing housing with a grease lubricated angular contact thrust bearing in a splash-proof enclosure with grease seals. External impeller and shaft axial adjustment shall be provided. Separate motor support with registered fits shall be bolted to the thrust bearing housing. Pump shall be driven through a factory choice flexible coupling.

Pump(s) operation shall be controlled by a (float switch) (alternator) in a NEMA enclosure. Float shall be (304) (316) stainless steel with a (fiberglass) (316 stainless steel) rod and stops. All duplex pump sets shall be equipped with a factory manufactured independent switch bracket and control assembly, which shall be located independently of either pump, and provide for operation of either pump when one (1) is removed from the sump.

Pump shall be driven by a standard "C" face, HP, RPM, Phase, Cycle, Volt, enclosure, electric motor.

Pump and motor unit shall be installed according to the manufacturer's recommendations. In accordance with the Standards of the Hydraulic Institute, there shall be no strain transmitted to the pump.

Furnish and install (as shown on the plans) **VERTIFLO Series 800** vertical immersion sump pump size x x of (standard fitted) (stainless steel fitted) (316 stainless steel) (alloy 20) construction. Each pump shall be capable of pumping GPM when operating against a total dynamic head of feet, at specific gravity, temperature and viscosity indicated. Each pump shall operate at RPM and shall be percent efficient at the design point. Shut-off head shall be not less than feet. Pump shall be designed for installation in a deep sump and furnished with inch discharge pipe and inch (round) (square) (oval) cover plate.

The pump casing shall have an integrally cast discharge flange. The impeller shall be of the semi-open design. The impeller shall be affixed to the shaft with Woodruff key, washer, castellated nut and cotter pin. The pump shaft shall have a minimum diameter of (1.250 inches) (1.500 inches) (2.000 inches) and shall be of the tapered design, (416) (316) stainless steel. Column pipe shall be minimum (4.00) (6.00) inch diameter, with welded flanges machined for registered fits. A separate replaceable bottom bearing housing of the same material as the liquid shall be located directly behind the impeller and shall include replaceable bearing(s) of material.

A replaceable intermediate bearing housing of the same material as the liquid end shall be provided on pumps built for pit depths over 6'-0". One intermediate bearing shall be provided for each 5'-0" pump length increment. Bottom and intermediate bearing(s) shall be (grease) (water) (product) lubricated through separate lubrication lines.

Pump shall be furnished with a separate thrust bearing housing with a grease lubricated angular contact thrust bearing in a splash-proof enclosure with grease seals. External impeller and shaft axial-adjustment shall be provided. Separate motor support with registered fits shall be bolted to the thrust bearing housing. Pump shall be driven through a factory choice flexible coupling.

Pump(s) operation shall be controlled by a (float switch) (alternator) in a NEMA enclosure. Float shall be (304) (316) stainless steel. All duplex pump sets shall be equipped with a factory manufactured independent switch bracket and control assembly, which shall be located independently of either pump, and provide for operation of either pump when one (1) pump is removed.

Pumps shall be driven by a standard "C" face HP, RPM, Phase, Cycle, Volt, enclosure, electric motor.

Pump and motor unit shall be installed according to the manufacturer's recommendations. In accordance with the Standards of the Hydraulic Institute, there shall be no strain transmitted to the pump.

Furnish and install (as shown on the plans) **VERTIFLO Model 814** vertical immersion sump pump size x x of (standard fitted) (stainless steel fitted) (316 stainless steel) construction. Each pump shall be capable of pumping GPM when operating against a total dynamic head of feet, at specific gravity, temperature and viscosity indicated. Each pump shall operate at RPM and shall be percent efficient at the design point. Shut-off head shall be not less than feet. Pump shall be designed for installation in a deep sump and furnished with inch discharge pipe and inch (round) (square)) cover plate.

A replaceable intermediate bearing housing of the same material as the liquid end shall be provided on pumps built for pit depths over 5'-0'. One intermediate bearing shall be provided for each 4'-0" pump length increment. Bottom and intermediate bearing(s) shall be carbon graphite and (fresh water) (product) lubricated through separate lubrication lines.

External impeller and shaft axial adjustment shall be provided. Separate motor support with registered fits shall be bolted to the thrust bearing housing. Pump shall be driven through a factory choice flexible coupling.

Pump(s) operation shall be controlled by a (float switch) (alternator) in a NEMA enclosure. Float shall be (316 stainless steel) with a (fiberglass) (316 stainless steel) rod and stops. All duplex pump sets shall be equipped with a factory manufactured independent switch bracket and control assembly, which shall be located independently of either pump, and provide for operation of either pump when one (1) is removed.

Pump shall be driven by a standard "C" face HP, RPM, Phase, Cycle, Volt, enclosure, electric motor.

Pump and motor unit shall be installed according to the manufacturer's recommendations. In accordance with the Standards of the Hydraulic Institute, there shall be no strain transmitted to the pump.

Furnish and install (as shown on the plans) **VERTIFLO Series 900** vertical recessed impeller vortex pump, size x x of (All Iron) (316 S.S. Fitted) (All 316 S.S.) construction. Each pump shall be capable of pumping GPM against a total dynamic head of feet. Each pump shall operate at RPM. Pump shall be designed for installation in a deep sump and furnished with a discharge pipe assembly terminating above the mounting plate with flange. A " (round) (square) mounting plate shall be furnished as part of the pump assembly. The pump casing shall have an integrally-cast discharge flange. The impeller shall be of the fully recessed vortex type with educator vanes and have the capacity of passing " diameter solids.

The pump shaft shall have a minimum diameter of (1.250 inches) (1.500 inches) (2.000 inches) and shall be of the tapered design, (416) (316) stainless steel. Column pipe shall be minimum (4.00) (6.00) inch diameter, with welded flanges machined for registered fits. The bottom lineshaft bearing housing shall be located directly behind the impeller and shall include replaceable bearings of carbon graphite material.

An intermediate bearing housing assembly shall be provided on pumps built for pit depths over 6'-0'. One intermediate bearing assembly with two carbon graphite bearings shall be provided for each 5'-0" pump length increment. Bottom and intermediate bearings shall be fresh water lubricated through separate lubrication lines.

Pump shall be furnished with a separate thrust bearing housing with a grease lubricated angular contact thrust bearing in a splash-proof enclosure with grease seals. External impeller and shaft axial adjustment shall be provided. Separate motor support with registered fits shall be bolted to the thrust bearing housing. Pump shall be driven through a factory choice flexible coupling.

Pump shall be driven by a standard "C" face HP, RPM, phase, cycle , volt, enclosure electric motor.

Pump and motor unit shall be installed according to the manufacturer's recommendations. In accordance with the Standards of the Hydraulic Institute, there shall be no strain transmitted to the pump.

Furnish and install (as shown on the plans) **VERTIFLO Series 1100**, Model (1101), 1102, 1103) vertical immersion cantilever vortex pump size x x of (All Iron) (316 Stainless Steel Fitted) (All 316 Stainless Steel) construction. Pump shall be capable of pumping GPM when operating against a total dynamic head of feet, at specific gravity, temperature and viscosity indicated. Pump shall operate at RPM. Pump shall be designed for installation in a deep sump.

The pump casing shall have an integrally cast suction and discharge flange. The impeller shall be of the fully recessed vortex design. The impeller shall be affixed to the shaft with a key, nut and/or impeller locking screw. The shaft shall have a minimum diameter of " and shall be of the tapered design. A protective shaft sleeve (shall, shall not) be required. Column pipe shall be " diameter, with welded flange machined for registered fit.

Pump shall be constructed with a separate thrust bearing housing with a grease lubricated duplex angular contact thrust bearing in a splash-proof enclosure with grease seals. External impeller and shaft axial adjustment shall be provided. Pump shall be driven through a factory choice flexible coupling.

Pump shall be driven by a standard "C" face HP, RPM, Phase, Cycle, Volt, enclosure, electric motor.

Pump and motor unit shall be installed according to the manufacturer's recommendations. In accordance with the Standards of the Hydraulic Institute, there shall be no strain transmitted to the pump.

VERTIFLO PUMP COMPANY Vertical Wet Pit Cantilever Centrifugal Pumps

Furnish and install (as shown on the plans) **VERTIFLO Series 1200**, Model (1201, 1202, 1203) vertical immersion cantilever centrifugal pump size x x of (all Iron) (316 Stainless Steel Fitted) (All 316 Stainless Steel) construction. Each pump shall be capable of pumping GPM when operating against a total dynamic head of feet, at specific gravity, temperature and viscosity indicated. Pump shall operate at RPM. Pump shall be designed for installation in a deep sump.

The pump casing shall have an integrally cast suction and discharge flange, and shall be double volute when size 4 X 3 X 10 or larger is required. The impeller shall be of the semi-open centrifugal design. The impeller shall be affixed to the shaft with a key, nut and/or impeller locking screw. The shaft shall have a minimum diameter of " and shall be of the tapered design. A protective shaft sleeve (shall, shall not) be required. Column pipe shall be " diameter, with welded flange machined for registered fit.

Pump shall be constructed with a separate thrust bearing housing with a grease lubricated duplex angular contact thrust bearing in a splash-proof enclosure with grease seals. External impeller and shaft axial adjustment shall be provided. Pump shall be driven through a factory choice flexible coupling.

Pump shall be driven by a standard "C" face HP, RPM, Phase, Cycle, Volt, enclosure, electric motor.

Pump and motor unit shall be installed according to the manufacturer's recommendations. In accordance with the Standards of the Hydraulic Institute, there shall be no strain transmitted to the pump.

The contractor shall furnish and install (as shown on the plans) **VERTIFLO Series 1300**, Model (1320, 1326) horizontal close-coupled back pull-out centrifugal pump(s) size x x of (all iron) (316 stainless steel fitted) (all 316 stainless steel) construction. Each pump shall have a capacity of GPM at FT total head, with a temperature of °F., specific gravity. Each pump is to be furnished with (packing) (mechanical seal). A Teflon® lantern ring and split packing gland shall be furnished in all packed pumps. Impeller shall be semi-open and have the capability of passing " diameter solids. Shaft sleeve shall be 316 stainless steel. Suction and discharge openings shall be flanged and pumps 4 X 3 X 10 and larger shall be double volute. The pump shall be close-coupled to a horizontal foot-mounted JP shaft motor, HP Phase Cycle Volts RPM (drip-proof) (totally enclosed) (explosion-proof) (chemical duty) electric motor.

Pump and motor unit shall be installed according to the manufacturer's recommendations. In accordance with the Standards of the Hydraulic Institute, there shall be no strain transmitted to the pump.

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The contractor shall furnish and install (as shown on the plans) **VERTIFLO Series 1400**, Model (1420, 1424) horizontal flexible coupled back pull-out centrifugal pump(s) size x x of (all iron) (316 stainless steel fitted) (all 316 stainless steel) construction. Each pump shall have a capacity of GPM at FT total head, with a temperature of °F., specific gravity. Pump is to be furnished with (packing)(mechanical seal). A Teflon® lantern ring and split packing gland shall be furnished in all packed pumps. Impeller shall be semi-open and have the capability of passing " diameter solids. Impeller shall be externally adjustable. Shaft shall be (416 stainless steel) (316 stainless steel) and tapered at the impeller and attached with castellated nut, washer and cotter pin. Thrust and radial bearings shall be (grease) (oil) lubricated. Cast iron power frame shall be one piece construction. Suction and discharge openings shall be flanged and all pumps 4 X 3 X 10 and larger shall be double volute. Pump and motor shall be mounted on a common steel base. The pump shall be flexible coupled to a horizontal HP RPM (drip-proof) (totally enclosed) (explosion-proof) (chemical duty) electric motor.

Pump and motor unit shall be installed according to the manufacturer's recommendations. In accordance with the Standards of the Hydraulic Institute, there shall be no strain transmitted to the pump.

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The contractor shall furnish and install (as shown on the plans) **VERTIFLO Series 1500**, Model (1520, 1524) horizontal flexible coupled back pull-out Vortex recessed impeller pump(s) size x x of (all iron) (316 stainless steel fitted) (all 316 stainless steel) construction. Each pump shall have a capacity of GPM at FT total head, with a temperature of °F., specific gravity. Each pump is to be furnished with (packing) (mechanical seal). A Teflon® lantern ring and split packing gland shall be furnished in all packed pumps. Impeller shall be fully recessed and have the capability of passing " diameter solids. Impeller shall be externally adjustable. Shaft shall be (416 stainless steel) (316 stainless steel) and shall be tapered at impeller attached with castellated nut, washer and cotter pin. Thrust and radial bearings shall be (grease) (oil) lubricated. Cast iron power frame shall be one-piece construction. Suction and discharge openings shall be flanged. Pump and motor shall be mounted on a common steel base. The pump shall be flexible coupled to a horizontal HP RPM (drip-proof) (totally enclosed) (explosion-proof) (chemical duty) electric motor.

Pump and motor unit shall be installed according to the manufacturer's recommendations. In accordance with the Standards of the Hydraulic Institute, there shall be no strain transmitted to the pump.

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The contractor shall furnish and install (as shown on the plans)**VERTIFLO Series 1600**, Model (1620, 1626) horizontal close-coupled back pull-out Vortex recessed impeller pump(s) size x x of (all iron) (316 stainless steel fitted) (all 316 stainless steel) construction. Each pump shall have a capacity of GPM at FT total head, with a temperature of °F., specific gravity. Each pump is to be furnished with (packing) (mechanical seal). A Teflon® lantern ring and split packing gland shall be furnished in all packed pumps. Impeller shall be fully recessed and have the capability of passing " diameter solids. Shaft sleeve shall be 316 stainless steel. Suction and discharge openings shall be flanged. The pump shall be close-coupled to a horizontal foot-mounted JP shaft motor, HP Phase Hertz Volts RPM (drip-proof) (totally enclosed) (explosion-proof) (chemical duty) electric motor.

Pump and motor unit shall be installed according to the manufacturer's recommendations. In accordance with the Standards of the Hydraulic Institute, there shall be no strain transmitted to the pump.

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The contractor shall furnish and install (as shown on the plans) VERTIFLO Series 2100, (Model 2122, 2128 2128L), size_____x_____, solid-handling, self-priming centrifugal pump. Material of construction shall be (cast iron), (316 stainless steel fitted), (CD4Mcu fitted), (all 316 stainless steel), (all CD4Mcu). Pump shall have a capacity of _____GPM against_____feet of TDH, including a maximum total dynamic suction lift of _____feet, and a minimum re-prime lift of _____ feet. The pump shall pass a sphere _____inch(es) in diameter.

The priming chamber shall be a one-piece, heavy-duty casting with an integral smooth wall volute, priming plug, 6" diameter inspection/clean-out cover and check valve cover plate. Suction and discharge connections shall be flanged. Seal chamber shall have oversized tapered bore with flow bars and external fresh water flush to seal faces. Mechanical seal shall be a single, self-aligning, with solid Silicon Carbide vs Silicon Carbide seal faces.

Heavy-duty cast iron Power Frame. Back pullout design with external impeller adjustment. Grease or oil lube bearings. Shaft shall be 17-4ph stainless steel and shall be tapered at impeller, attached with locknut, washer and Woodruff key.

Impeller shall be semi-open, solid handling with rear wiping vanes and balancing hub. Pump shall be fitted with a replaceable impeller wear plate.

Suction inlet flange shall be cast and with gauge tap. Replaceable, molded one-piece Neoprene or Viton check valve with integral rupture disc shall be inspected and serviced through the check valve cover plate without draining the priming chamber or removing piping.

Unit shall be installed according to the manufacturer's recommendations. In accordance with the standards of The Hydraulic Institute, there shall be no strain transmitted to the pump, suction or discharge piping.

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