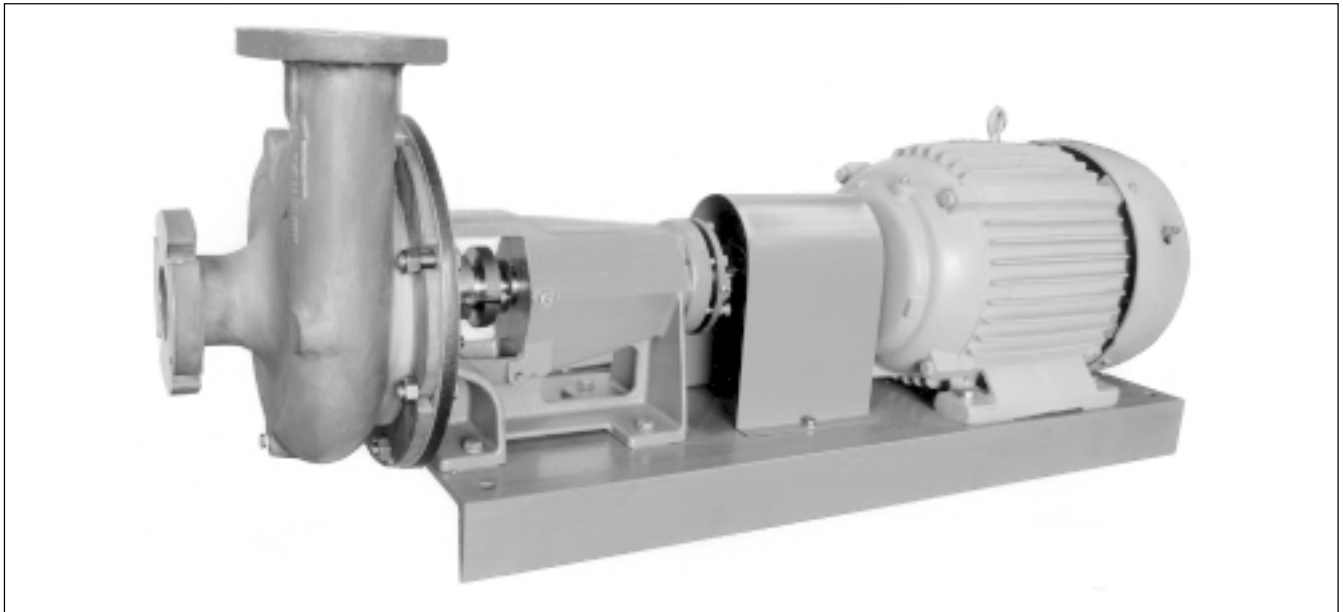


**VERTIFLO SERIES 1500**

**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:**

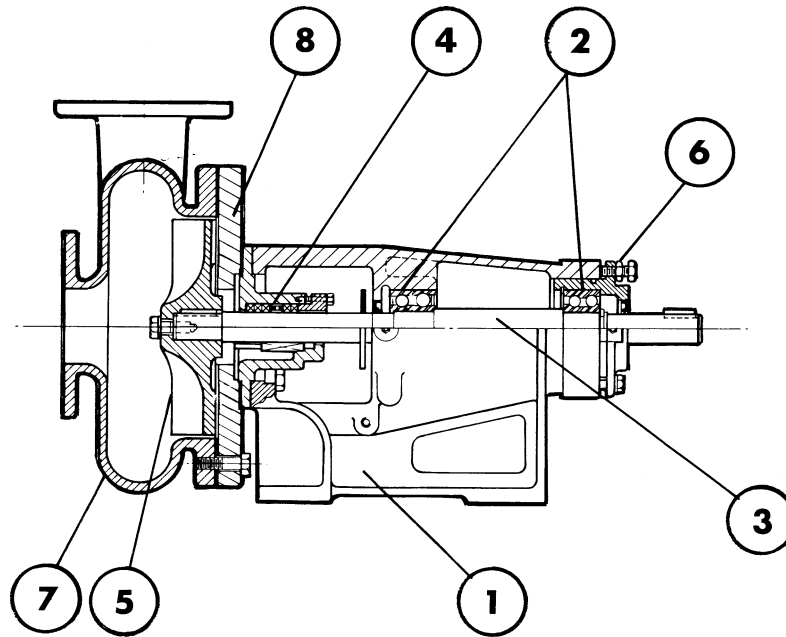
- Capacities to 1600 GPM
- Heads To 170 Feet TDH
- Temperature to 250°F
- Back Pull-Out Construction
- Fully Recessed Vortex Impeller
- External Impeller Adjustment
- Packing or Mechanical Seal

**CONSTRUCTION:**

- Cast Iron
- 316 Stainless Steel Fitted
- All 316 Stainless Steel
- Alloy 20
- CD4MC<sub>u</sub>

*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**

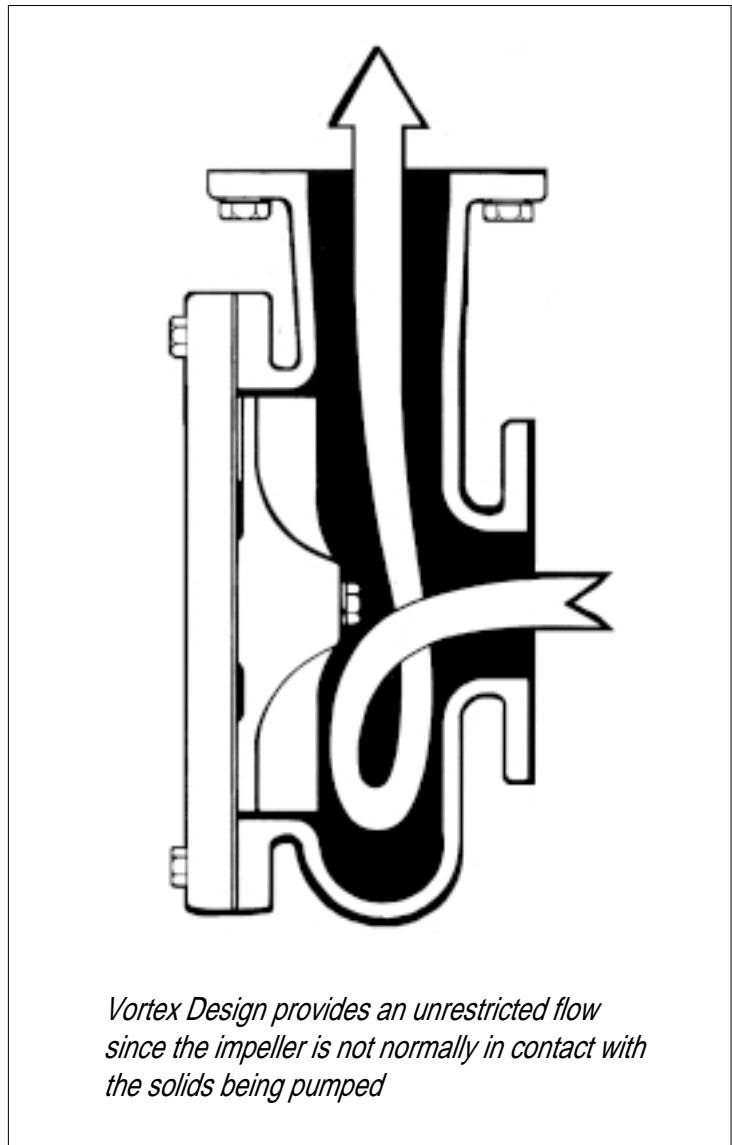
All pumps are designed with back pull-out feature which allows for removal of all pump rotating components without disturbing the piping connections.

**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



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

E. I DuPont registered®

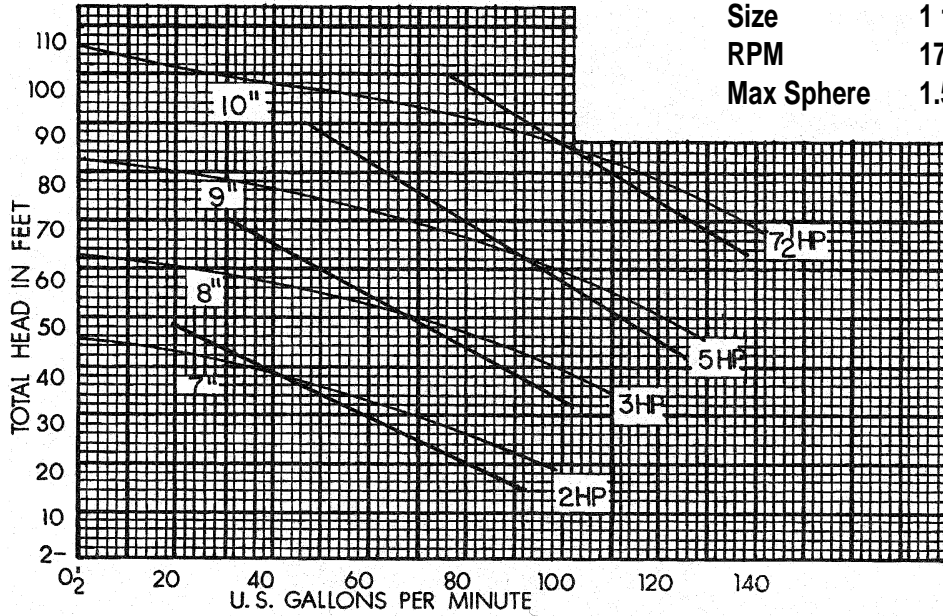


	<b>Design Details</b>	<b>Model 1520</b>	<b>Model 1524</b>
<b>Pump Shaft</b>	Rotation from driver end	CW	CW
	Diameter through stuffing box	1.250	1.500
	Diameter between bearings	1.750	1.750
	Diameter at coupling end	1.250	1.250
	Coupling key - square	0.250	0.250
	Bearing centers	6.692	6.692

# VERTIFLO PUMP COMPANY Performance Curves

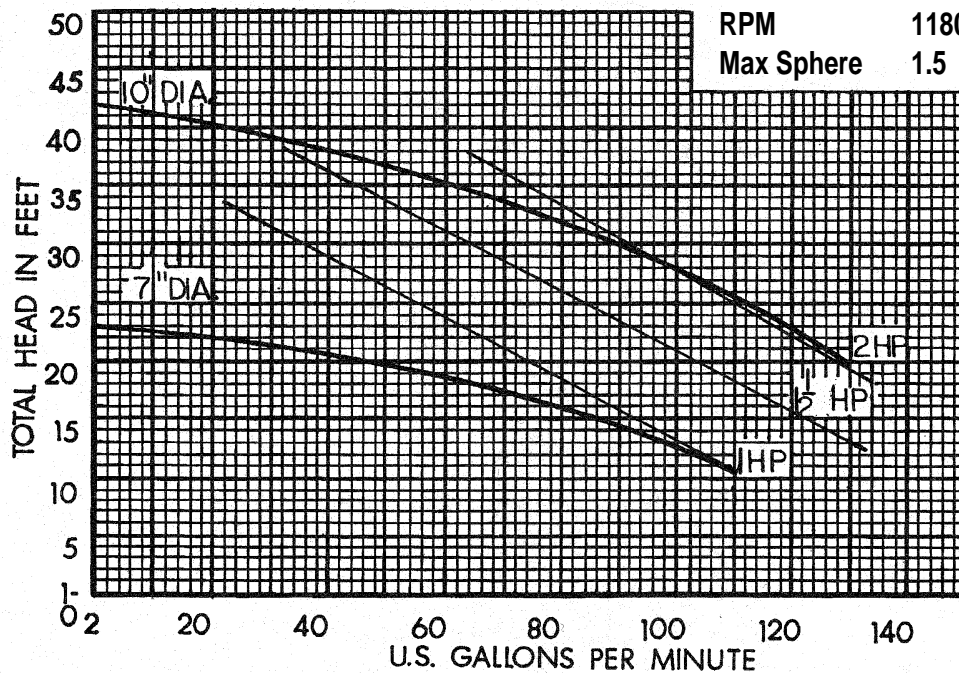
Curve 11104

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 \_\_\_\_\_

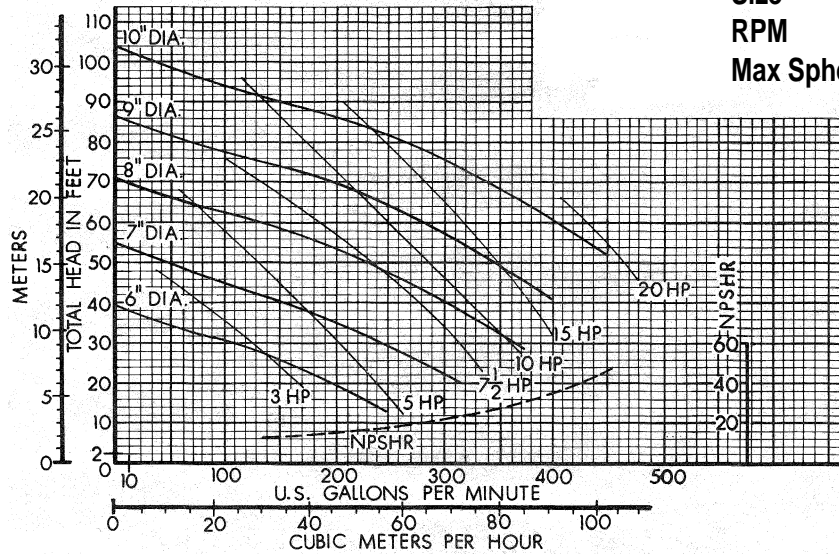
CONTRACTOR \_\_\_\_\_

CONDITIONS: \_\_\_\_\_ GPM \_\_\_\_\_ TDH \_\_\_\_\_ HP \_\_\_\_\_ EFF% \_\_\_\_\_ IMP. DIA \_\_\_\_\_

# VERTIFLO PUMP COMPANY Performance Curves

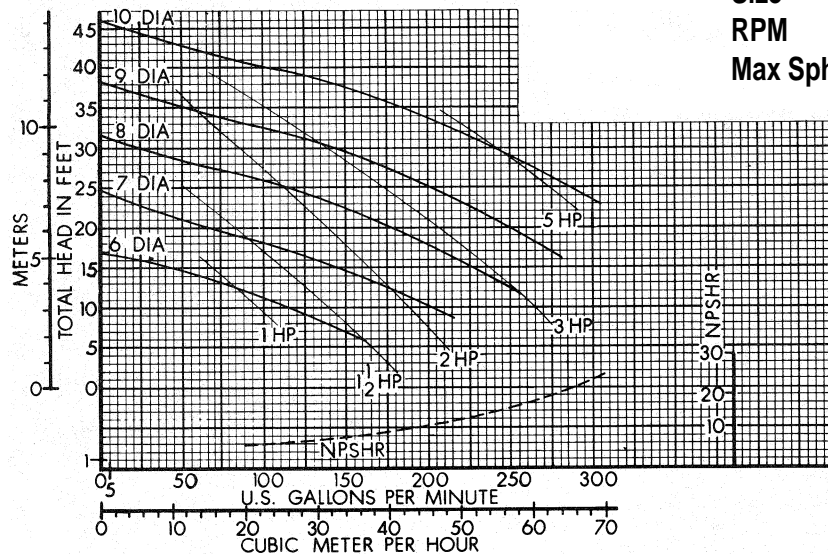
Curve 22104

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



Performance at Casing Discharge Flange

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

CUSTOMER \_\_\_\_\_ CUSTOMER NO. \_\_\_\_\_

PROJECT \_\_\_\_\_

ENGINEER \_\_\_\_\_

CONTRACTOR \_\_\_\_\_

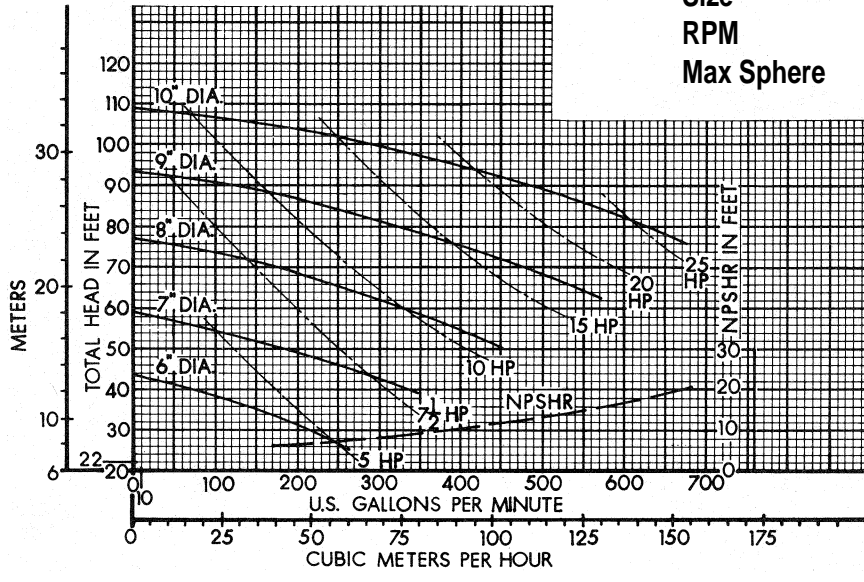
CONDITIONS: \_\_\_\_\_ GPM \_\_\_\_\_ TDH \_\_\_\_\_ HP \_\_\_\_\_ EFF% \_\_\_\_\_ IMP. DIA \_\_\_\_\_

1500

# VERTIFLO PUMP COMPANY Performance Curves

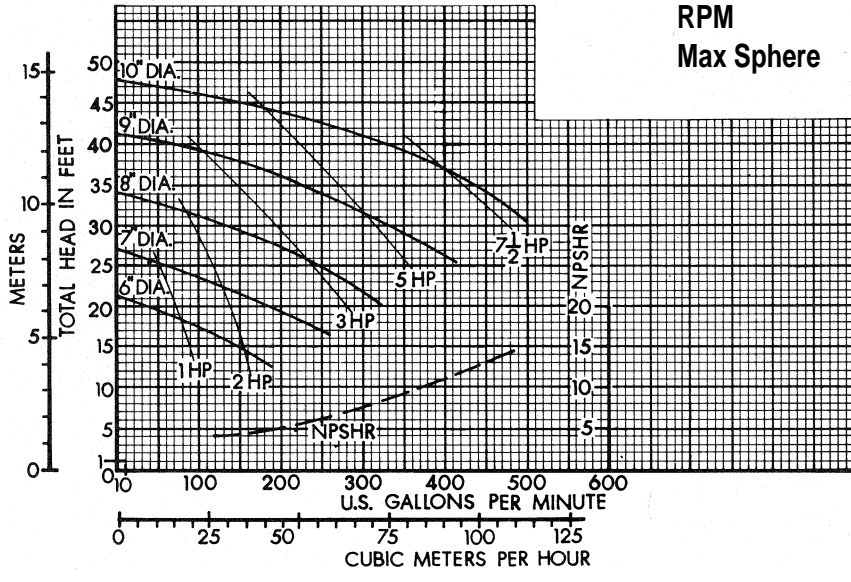
Curve 33104

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 \_\_\_\_\_

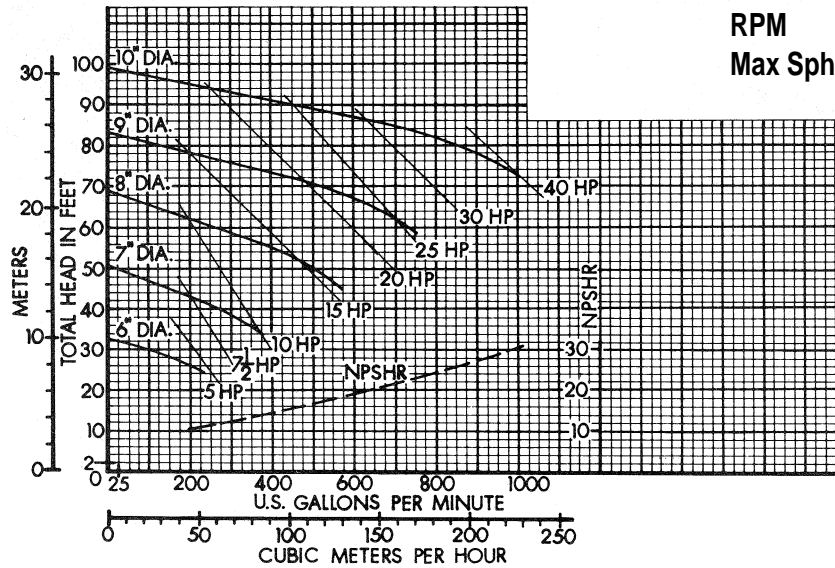
CONTRACTOR \_\_\_\_\_

CONDITIONS: \_\_\_\_\_ GPM \_\_\_\_\_ TDH \_\_\_\_\_ HP \_\_\_\_\_ EFF% \_\_\_\_\_ IMP. DIA \_\_\_\_\_

# VERTIFLO PUMP COMPANY Performance Curves

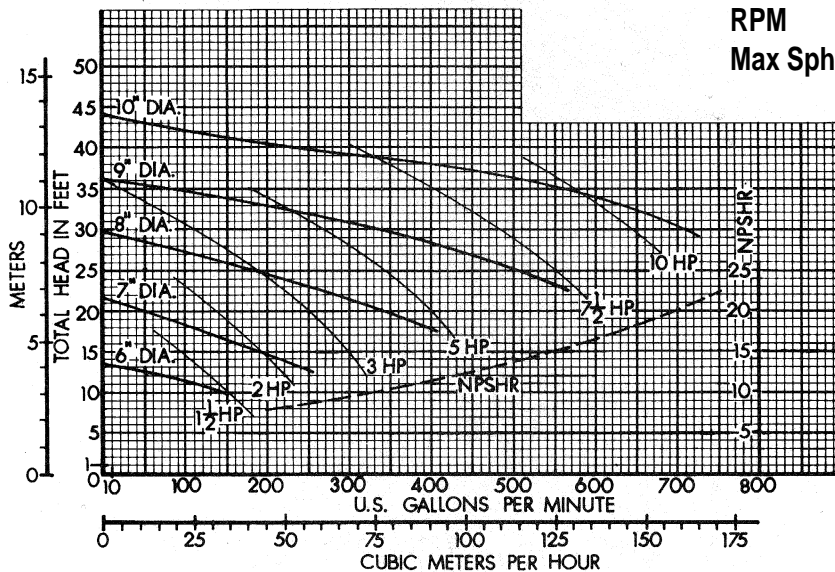
Curve 44104

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



Performance at Casing Discharge Flange

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

CUSTOMER \_\_\_\_\_ CUSTOMER NO. \_\_\_\_\_

PROJECT \_\_\_\_\_

ENGINEER \_\_\_\_\_

CONTRACTOR \_\_\_\_\_

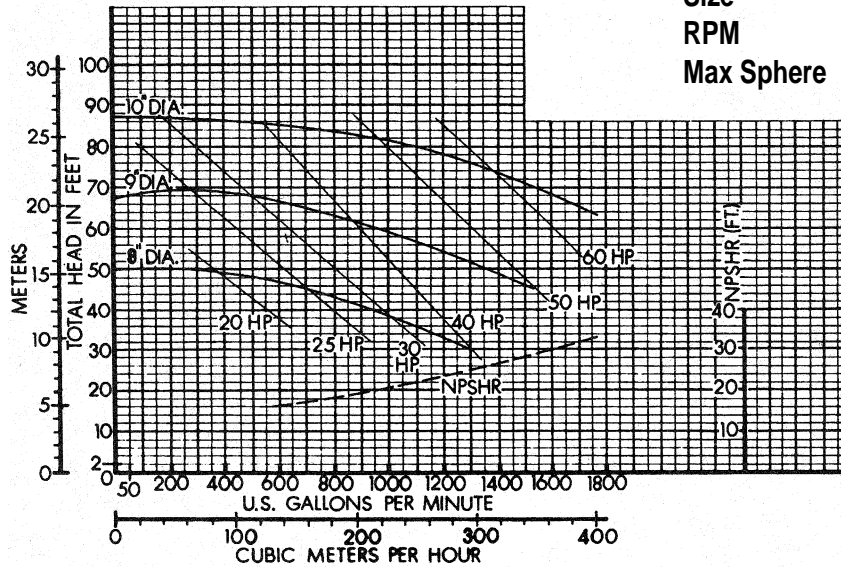
CONDITIONS: \_\_\_\_\_ GPM \_\_\_\_\_ TDH \_\_\_\_\_ HP \_\_\_\_\_ EFF% \_\_\_\_\_ IMP. DIA \_\_\_\_\_

1500

# VERTIFLO PUMP COMPANY Performance Curves

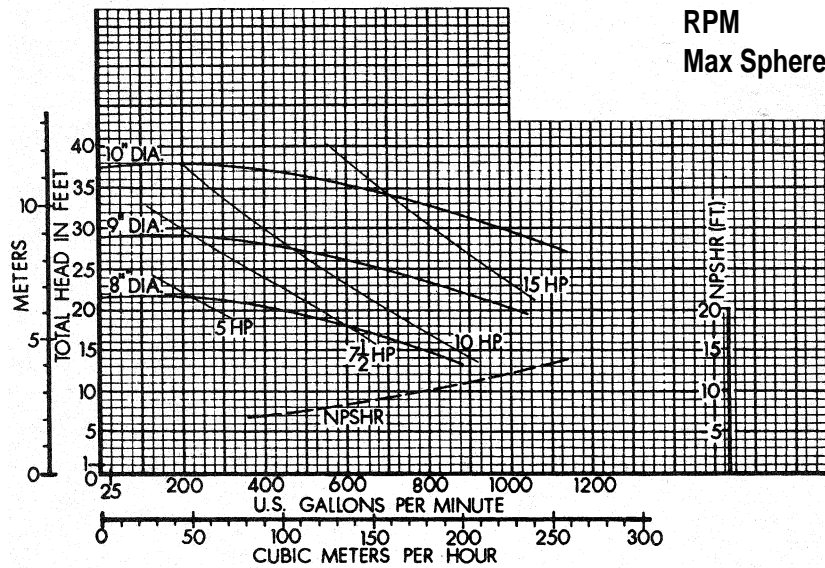
Curve 86104

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 \_\_\_\_\_

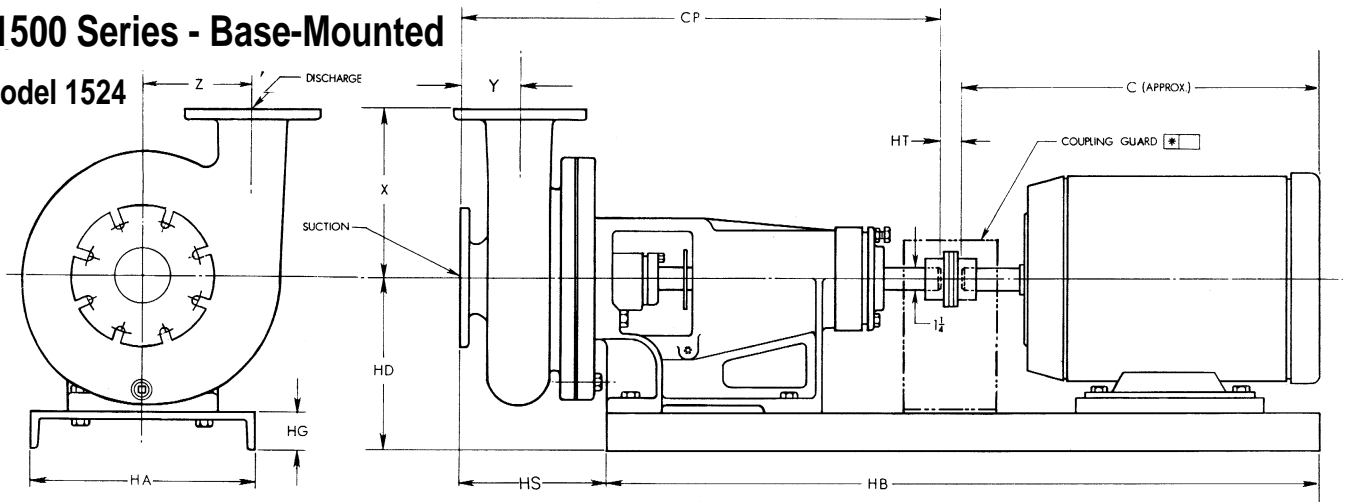
CONDITIONS: \_\_\_\_\_ GPM \_\_\_\_\_ TDH \_\_\_\_\_ HP \_\_\_\_\_ EFF% \_\_\_\_\_ IMP. DIA \_\_\_\_\_



# 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	4⅜	5¼	24 <sup>11</sup> / <sub>16</sub>	7 <sup>7</sup> / <sub>16</sub>
2x2x10	2	6	4	¾	4¾	9 <sup>11</sup> / <sub>16</sub>	5⅝	5 <sup>3</sup> / <sub>16</sub>	26 <sup>1</sup> / <sub>16</sub>	8 <sup>9</sup> / <sub>16</sub>
3x3x10	3	7½	4	¾	6	11	5⅞	5 <sup>3</sup> / <sub>16</sub>	27 <sup>11</sup> / <sub>16</sub>	10 <sup>9</sup> / <sub>16</sub>
4x4x10	4	9	8	¾	7½	11 <sup>19</sup> / <sub>16</sub>	7 <sup>9</sup> / <sub>16</sub>	5 <sup>3</sup> / <sub>16</sub>	30 <sup>1</sup> / <sub>16</sub>	12 <sup>9</sup> / <sub>16</sub>
8x6x10	8	13½	8	7/8	11¾	11¾	7 <sup>7</sup> / <sub>8</sub>	5¼	30 <sup>15</sup> / <sub>16</sub>	13 <sup>7</sup> / <sub>16</sub>
	6	11	8	7/8	9½	11¾	7 <sup>7</sup> / <sub>8</sub>	5¼	30 <sup>15</sup> / <sub>16</sub>	13 <sup>7</sup> / <sub>16</sub>

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	13⅜	13⅜	14⅝	15⅝	17¾	19¼	22⅞	24⅝	24½	25⅞	26	27⅞	27¼	28¾	28¾	30¼	31	33⅜	32	34⅜
HD	10	10	10	10	10	10	10%	10%	10%	10%	10%	10%	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: \_\_\_\_\_

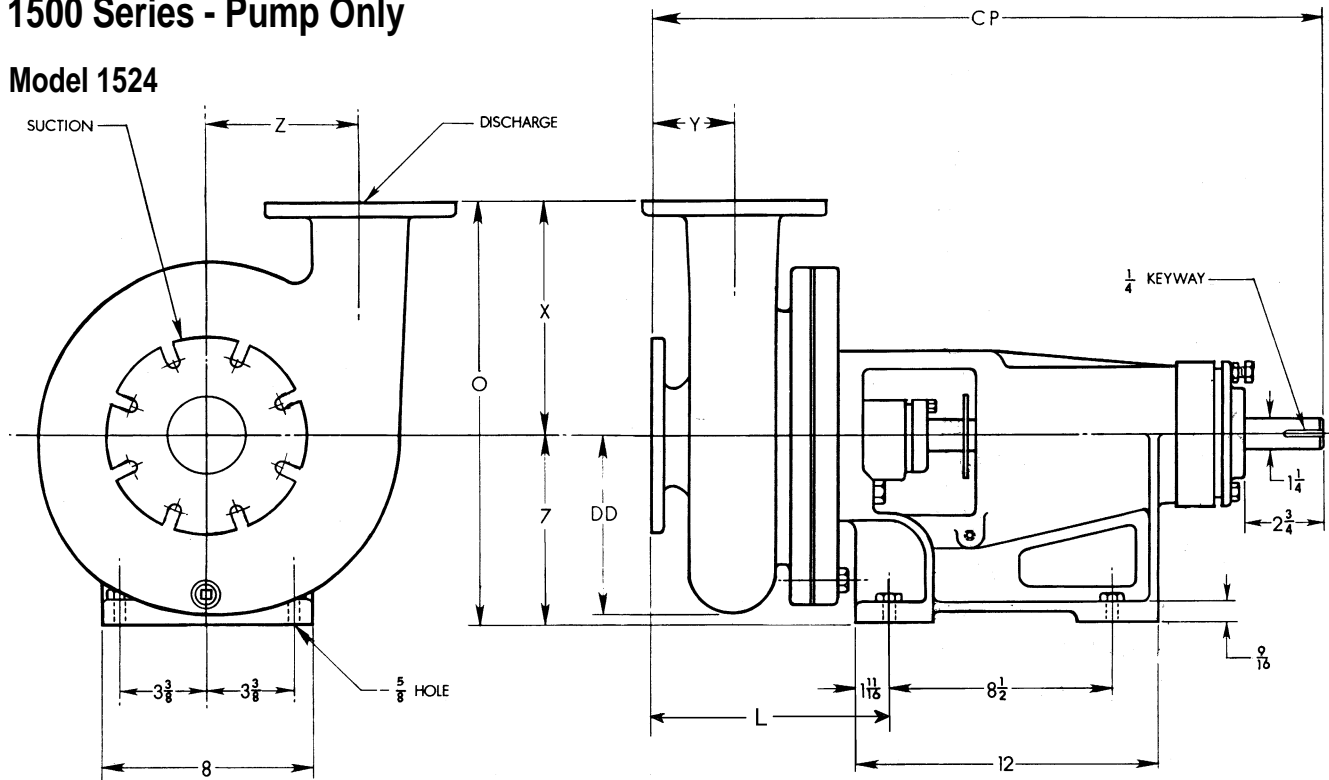
1500

CUSTOMER \_\_\_\_\_ CUSTOMER NO. \_\_\_\_\_  
 PROJECT \_\_\_\_\_ SERIAL NO. \_\_\_\_\_  
 ENGINEER \_\_\_\_\_ LOCATION \_\_\_\_\_  
 CONTRACTOR \_\_\_\_\_  
 PUMP Model \_\_\_\_\_ Size \_\_\_\_\_ Curve No. \_\_\_\_\_ GPM \_\_\_\_\_ Head \_\_\_\_\_ SP. GR. @Temp. \_\_\_\_\_  
 DATA \_\_\_\_\_  
 MOTOR Mfr. \_\_\_\_\_ HP \_\_\_\_\_ RPM \_\_\_\_\_ Volt-Phase-Cycle \_\_\_\_\_ Frame ENC. \_\_\_\_\_ Furnished by \_\_\_\_\_ Mounted by \_\_\_\_\_  
 DATA \_\_\_\_\_  
 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 3/8	9	4 9/16	5 1/4	24 11/16	7 1/2	7 1/4	16
2x2x10	2	6	4	3/4	4 3/4	9 11/16	5 1/8	5 3/16	26 1/16	7 1/2	8 5/8	16 11/16
3x3x10	3	7 1/2	4	3/4	6	11	5 7/8	5 3/16	27 11/16	7 1/2	10 1/4	18
4x4x10	4	9	8	3/4	7 1/2	11 13/16	7 3/16	5 3/16	30 1/16	7 1/2	12 1/8	18 13/16
8x6x10	8	13 1/2	8	7/8	11 3/4	11 3/4	7 7/8	5 1/4	30 15/16	8 5/8	13 7/16	20 3/8
	6	11	8	7/8	9 1/2	11 3/4	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 Model Size Curve No. GPM Head SP. GR. @Temp.  
 DATA \_\_\_\_\_  
 MOTOR Mfr. HP RPM Volt-Phase-Cycle Frame ENC. Furnished by Mounted by  
 DATA \_\_\_\_\_  
 Shop Order \_\_\_\_\_ Certified by \_\_\_\_\_ Date \_\_\_\_\_