

**BID FORM**  
**Bid # TF-2017-11**  
**DUE DATE: February 21, 2017 @ 2:30 P.M.**

Item	Price
one (1) vertical turbine pump and motor at the Seguin Water Plant, as specified herein	\$120,191.29
Make/Model of Equipment Bid: Hydroflo 14MH4C-21071-W-14MH 4 stage Vertical Turbine Pump, w/ GE 300 HP VHS, 1800 RPM, 460V 3 Phase, TEFC Motor, Allen Bradley Switchgear, ABB Stand Alone Q Series VFD Panel	
Days to deliver following receipt of Purchase Order: 84-98 calendar days	

The Undersigned affirms that it is duly authorized to submit this bid, that this bid has not been prepared in collusion with any other bidder, and that the content of this bid has not been communicated to any other bidder prior to the official receipt of this bid. The City of Seguin reserves the right to reject any and all bids.

Austin Armature Works  
Company Name

304 Commercial Drive  
Address

Buda, TX 78610  
City, State, Zip Code

512-312-0088  
Phone No.

Email Address: Chuckm@aawems.com

Chuck Moore  
Authorized Signature

Chuck Moore  
Printed Name

Sales Consultant  
Title

## BIDDER EXCEPTION FORM

This form must be completed and signed by an authorized representative of the company. Failure to do so may cause total bid to be rejected. If no exceptions are to be proposed, indicate by station "No Exceptions to Specifications: and sign in the appropriate space.

STATEMENT OF BIDDER:

WE PROPOSE THE FOLLOWING EXCEPTIONS TO THE SPECIFICATIONS:

<u>SECTION</u>	<u>PAGE #</u>	<u>PARAGRAPH</u>	<u>EXCEPTION</u>
<u>NO</u>	<u>          </u>	<u>          </u>	<u>          </u>
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<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>

NOTE: If additional pages are needed, attach to the back of this page and note "See Page 2-Exceptions" on this page.

Austin Armature Works  
Company Name

  
Authorized Signature



Austin Armature Works, LP  
304 Commercial drive, Buda, TX 78610  
Phone (512)312 0088 Fax (512)312 0988

## Quote

Customer ID

Quote Date

Quote Number

001227

5/2/2016

FRQ1450

Attn

cc

Emory Gallagher

### Customer Information

CITY OF SEGUIN  
PO BOX 591  
SEGUIN, TX 78156

### Ship To Information

CITY OF SEGUIN  
816 FRED BYRD DR  
SEGUIN, TX 78155

Quote By: Phillip Sansom

PO #:

RFQ #:

Salesperson: Charles Moore Jr

Phone: (830) 660-5128 x

Fax: (830) 401-2499 x

Terms: Net 30

### Nameplate Information

### Quote Information

**Reason Sent For Repair:** Provide customer with budgetary pricing to upgrade existing 50 HP jockey pump to a full size 300 HP pump, motor, drive panel and Allen Bradley gear section with 600 amp disconnect turn key.

**Required Work:**

- Add Allen Bradley switch gear section with 600 amp switch included.
- Add concrete house keeping pad from edge of existing MCC to the wall .
- Run conduit from new switch gear to new VFD cabinet for line and load, and
- Use existing raceway under MCC to route the motor feeders to existing 3" conduits under Jockey pump control bucket.
- Extend 3" seal tight to new motor from existing parallel 3" rigid conduits.
- Make up motor and test operation.
- Use existing jockey pump controls to operate new HS pump.
- Add 300 HP stand alone ABB Q series VFD panel in MCC
- Pull existing pump and motor and install new hydroflo pump and GE motor.

DESIGN: 2801 GPM @ 290' TDH, 1770 RPM, \*

83.1% Efficient, 246 BHP, 202.07 Inch TPL (+/- 1.5")  
1 14MH4C-21071-w\_B5 14MH - 4 Stage W/L VERTICAL TURBINE PUMP ASSEMBLY

- 1.6875" x 416SS Head Shaft Assembly w/ 10TPI Bronze Adjusting Nut and Key
- L-Style Fabricated Steel Head with 12" 125# Discharge Flange for 20" BD X 24" Barrel O.D. with 21" Dia x " Thick Integral Round Base
- 1.6875" Cast Iron Mechanical Seal Housing with B10 C932 Brass Bearing and Hydro99 Cartridge Seal
- \* Seal Material: Tungsten vs. Tungsten / 316SS / Viton
- 1 Piece Column Assembly: ~ 118.00" of 12" x .250" Wall Steel Water Lubricated Column
- 6-8 mils TNE MEC 141 Epoxy: Coating ID and OD-Tnemec 141 of Column Assembly
- 1 Piece Lineshaft Assembly: 1.6875" -10TPI x 120" x 416SS w/ 416SS Couplings
- 14MH - 4 Stage Product Lubricated Bowl Assembly w/ 18-8 SS Fasteners including:
- 12" Butt Thread, Ductile Iron Discharge Case with B10 C932 Brass Bearing
- Cast Iron Bowls
- B10 C932 Brass Bowl Bearings
- 201SS Impellers with 3Cr13 Collets
- 416SS Bowl Shaft: 8.00" Water Lube Projection x 1.6875" DIA - 10TPI
- 10" NPT, Cast Iron Suction Case with B10 C932 Brass Bearing
- 6-8 mils TNE MEC 141 Epoxy: Coating Outside Only-Tnemec 141 of Pump End
- 304SS Bolt-On Basket Strainer
- Crating and Painting
- Min. Submergence from Bottom of Suction for Vortex Suppression = 40" (In.).

\*\*This does not include NPSHr requirements. NPSHr at Duty Point = 25.9' (Ft.).

GE 300HP Vertical Hollow Shaft Motor, Type KS, 1800RPM, 460Volts, Class H Insulation, 1.15 Service Factor, 40 Deg C Ambient, Cont Duty, 120V 1Ph Space Heater (Leads out Main Box), High Thrust Design, Oil Lubricated Upper Brg, Grease Lubricated Lower Guide Brg, Non Reverse Ratchet W/1.688" BX Coupling Bore, Special Balance, Frame L449TP20, TEFC-Severe Duty, Cast Iron Construction, Premium Efficient, Two Year Factory

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

PO# ( IF NOT ALREADY ISSUED ):

Ship Via: \_\_\_\_\_





Austin Armature Works, LP  
304 Commercial drive, Buda, TX 78610  
Phone (512)312 0088 Fax (512)312 0988

## Quote

Customer ID

001227

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SEGUIN, TX 78155

Quote By: Phillip Sansom

PO #:

RFQ #:

Salesperson: Charles Moore Jr

Phone: (830) 660-5128 x

Fax: (830) 401-2499 x

Terms: Net 30

Warranty

\*\*\*Quoted is a turn key install including all labor, materials and start up of equipment\*\*\*

Labor

Material

Unit Price

Ext Price

Total for : 67,174.09

Unit Price

Ext Price

Total for Labor : 12,250.00

Unit Price

Ext Price

Total for Material : 40,767.20

Subtotal : 120,191.29

Tax : 0.00

Total for Quote FRQ1450 : 120,191.29

Quote is valid for 30 days

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

PO# ( IF NOT ALREADY ISSUED ):

Ship Via: \_\_\_\_\_



# QUOTATION

Date: January 24, 2017

## ZERO LEAD PUMPS®

Quote #: Q-20054-w-B6

Project: Sequin, TX

Job #: .

Page #: 1 of 9

Attention:  
E-Mail:  
Phone:  
Fax:  
Company: Austin Armature Works  
Address:  
City, State:

From:  
E-Mail:  
Phone:  
Fax:  
Address:  
City, State:

Qty	Part #	Description	Unit Price	Total
		<p>* DESIGN: 2801 GPM @ 290' TDH, 1770 RPM, *</p> <p>81.1% Efficient, 253 BHP, 202.07 Inch TPL (+/- 1.5")</p>		
1	14MH4C-21071-w_B6	<p>14MH - 4 Stage W/L VERTICAL TURBINE PUMP ASSEMBLY</p> <p>*** Fully Assembled Vertical Turbine ***</p> <p><b>DISCHARGE HEAD ASSEMBLY SECTION</b></p> <ul style="list-style-type: none"> <li>• 1.6875" x 56" x 416SS Head Shaft Assembly w/ 10TPI Bronze Adjusting Nut and Key</li> <li>• L-Style Fabricated Steel Head with 12" 125# Discharge Flange for 20" BD X 24" Barrel O.D. with 21" Dia x " Thick Integral Round Base</li> <li>- 1.6875" Cast Iron Mechanical Seal Housing with Hydroflo FEP Bearing and Hydro99 Cartridge Seal</li> <li>* Seal Material: Tungsten vs. Silicon / 316SS / Viton</li> </ul> <p><b>COLUMN ASSEMBLY SECTION</b></p> <ul style="list-style-type: none"> <li>• 1 Piece Column Assembly: ~ 118.00" of 12" x .250" Wall Steel Water Lubricated Column</li> <li>- 6-8 mils TNE MEC 141 Epoxy: Coating ID and OD-Tnemec 141 of Column Assembly</li> <li>• 1 Piece Lineshaft Assembly: 1.6875" -10TPI x 120" x 416SS w/ 416SS Couplings</li> </ul> <p><b>BOWL ASSEMBLY SECTION</b></p> <ul style="list-style-type: none"> <li>• 14MH - 4 Stage Product Lubricated Bowl Assembly w/ 18-8 SS Fasteners including: <ul style="list-style-type: none"> <li>- 12" Butt Thread, Ductile Iron Discharge Case with Hydroflo FEP Bearing</li> <li>- Cast Iron Bowls</li> <li>- Hydroflo FEP Bowl Bearings</li> <li>- 201SS Impellers with 3Cr13 Collets</li> <li>- 416SS Bowl Shaft: 8.00" Water Lube Projection x 1.6875" DIA - 10TPI</li> <li>- 10" NPT, Cast Iron Suction Case with Hydroflo FEP Bearing</li> <li>- 6-8 mils TNE MEC 141 Epoxy: Coating Outside Only-Tnemec 141 of Pump End</li> </ul> </li> <li>• 304SS Bolt-On Basket Strainer</li> <li>• Crating and Painting</li> <li>• Min. Submergence from Bottom of Suction for Vortex Suppression = 40" (In.).</li> <li>**This does not include NPSHr requirements. NPSHr at Duty Point = 25.9' (Ft.).</li> <li>• Estimated Total Assembly Weight As Above: 2436 Lbs.</li> </ul>		
<p>Standard time to have ready to ship is ~ 10 to 12 weeks A.R.O. based on current inventory and factory loads.</p> <p>* Please advise of your delivery needs and we will do our best to meet them.</p>				

1 GE

300hp GE 460/3/60 VHS TEFC 1800 RPM Motor w/ NRR

All quotations and contracts are subject to Hydroflo Pumps USA, Inc. Standard Terms and Conditions attached. Placing an order is acceptance of these terms. Shipment time is an approximation based on current inventory and factory production schedules. Quotation is valid for 30 days from Quote date. \*\*All certified performance tests will be administered according to the ANSI/HI 14.6 standards set by the Hydraulic Institute. Test results will be measured according to the grade 2B tolerances for pumps rated with a shaft power of 134HP or less and grade 1B for those over 134HP. Pumps meeting these tolerances will be considered passing the tests. It is recommended that the customer refer to the Hydraulic Institute Standards to understand performance guidelines and hydraulic design.



## QUOTATION

Date: January 24, 2017

**ZERO LEAD PUMPS®**

Quote #: Q-20054-w-B6

Project: Sequin, TX

Job #: .

Page #: 2 of 9

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Terms: Net 30

Ship Via: FedEx Freight

Proposal Total:

Freight: F.O.B. Shipping Point: Prepaid and Add



Company: Austin Armature Works

Name:

Date: 1/24/2017



#### Pump:

Size: 14MH (4 stage)  
 Type: Vertical  
 Synch Speed: 1800 rpm  
 Curve: 14MH  
 Specific Speeds:  
 Dimensions:  
 Vertical Turbine:  
 Speed: 1770 rpm  
 Dia: 11.13 in  
 Impeller: 14MH SS ENCL  
 Ns: 2978  
 Nss: —  
 Suction: 10 in  
 Discharge: 12 in  
 Bowl Size: 14 in  
 Max Lateral: 1 in  
 Thrust K Factor: 13 lbf/ft

#### Search Criteria:

Flow: 2800 US gpm Head: 290 ft

#### Fluid:

Water  
 Density: 62.32 lb/ft<sup>3</sup>  
 Viscosity: 0.9946 cP  
 NPSHa: —  
 Temperature: 68 °F  
 Vapor Pressure: 0.3391 psi a  
 Atm Pressure: 14.7 psi a

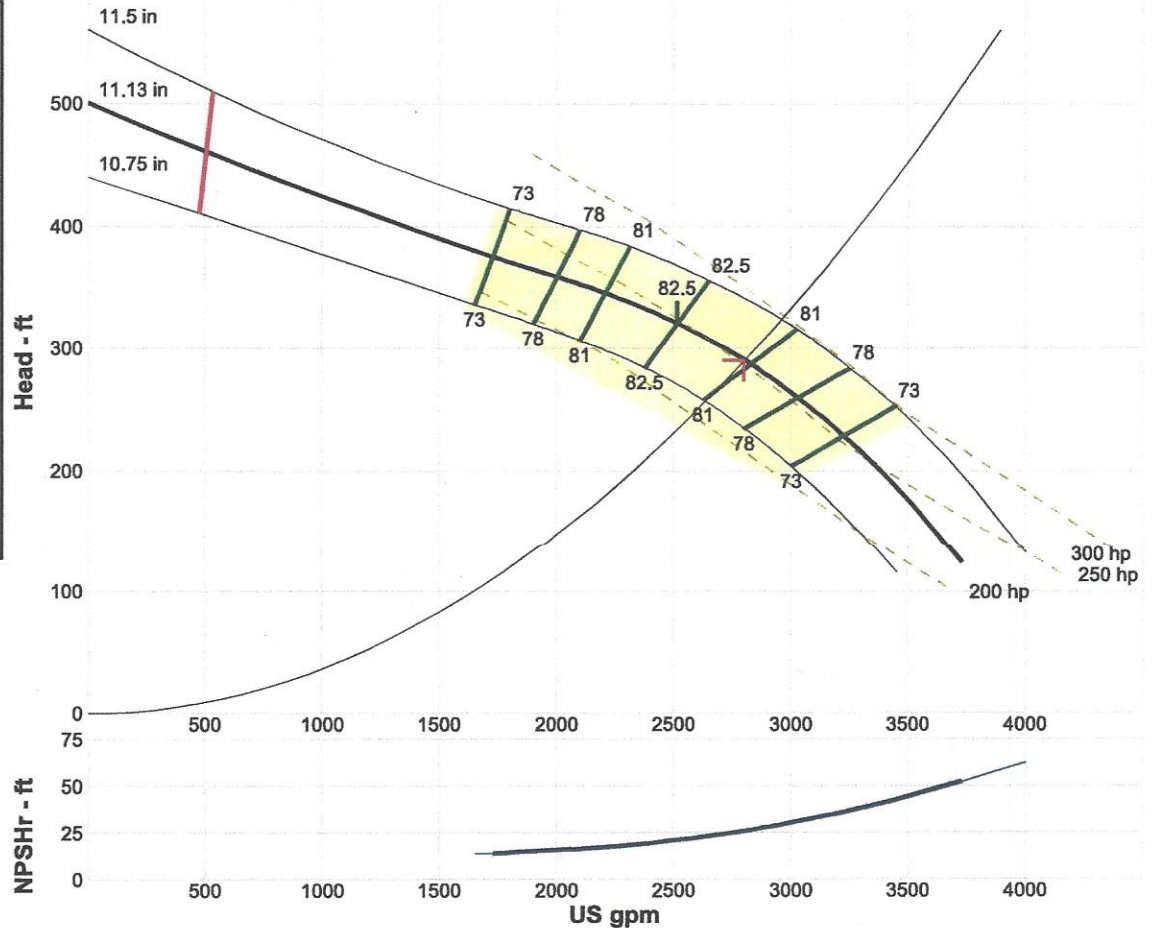
#### Motor:

Standard: NEMA  
 Enclosure: WP1  
 Sizing Criteria: Max Power on Design Curve  
 Size: 300 hp  
 Speed: 1800 rpm  
 Frame: 447T

#### Pump Limits:

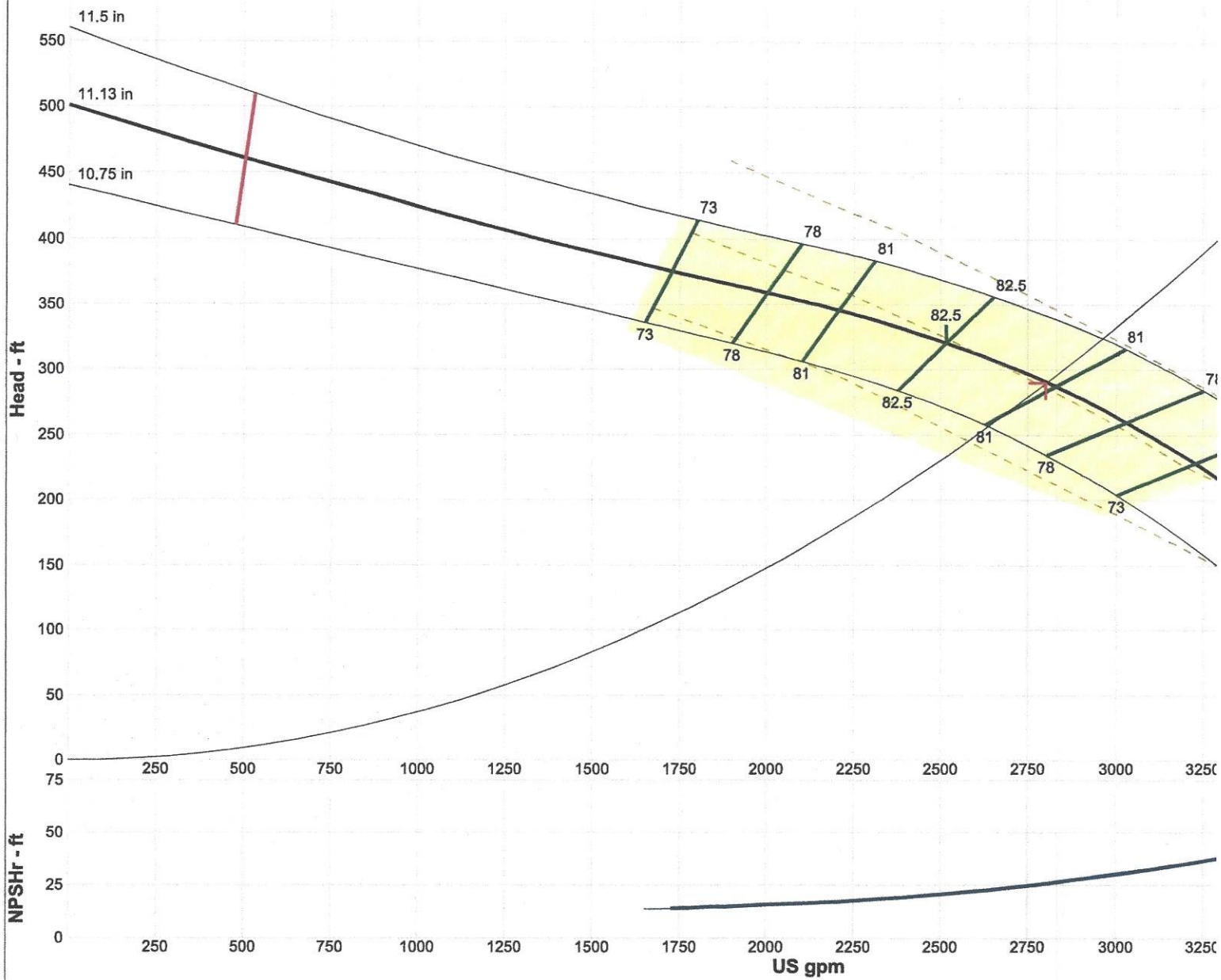
Temperature: 140 °F  
 Pressure: 300 psi g  
 Sphere Size: 1.56 in  
 Power: 600 hp  
 Eye Area: 48.4 in<sup>2</sup>

Duty Point	
Flow:	2801 US gpm
Head:	290 ft
Eff:	81.1%
Power:	253 hp
NPSHr:	25.9 ft
Design Curve	
Shutoff Head:	501 ft
Shutoff dP:	217 psi
Min Flow:	503 US gpm
BEP:	82.5% @ 2514 US gpm
NOL Power:	255 hp @ 3225 US gpm
Max Curve	
Max Power:	301 hp @ 3445 US gpm



#### Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
3360	1770	201	67.7	245	40.3
2800	1770	290	81.1	252	25.9
2240	1770	343	81.2	239	17.6
1680	1770	379	72.2	223	14.1
1120	1770	420	62	206	14.1



Company: Austin Armature Works  
 Name:  
 1/24/2017

Hydroflo Pumps USA, Inc.  
 Catalog: Hydroflo VS Pumps.60, Vers 18.3  
 Vertical - 1800 rpm  
 Design Point: 2800 US gpm, 290 ft

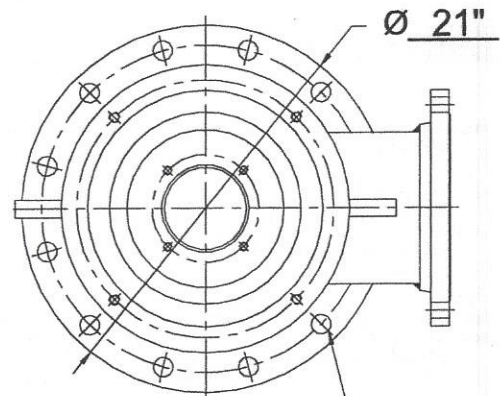
Size: 14MH (4 stage)  
 Speed: 1770 rpm  
 Dia: 11.13 in  
 Curve: 14MH  
 Impeller: 14MH SS ENCL



**THIS DRAWING MUST BE SIGNED  
AND RETURNED WITH THE ORDER**

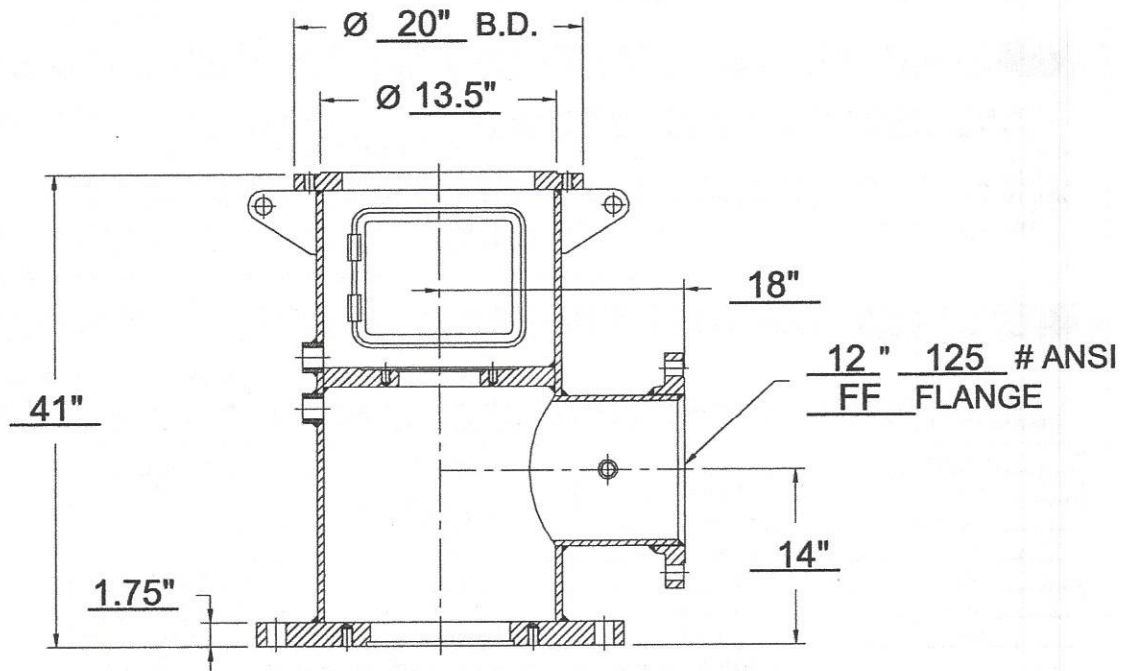
**SPECIAL NOTES:**

DATE:     /     /



12 X Ø 1.125" HOLES THRU  
EQ. SPACED ON Ø 18.75" B.C.

### TOP VIEW



### SIDE VIEW

REV	DATE	REVISION	CH

**HydrofloPumps**  
Fluid Solutions™  
A Taco Group Company

CONFIGURATION No.: C-21071-w		HF L-Type Fabricated Head Measurements Worksheet		
CUSTOMER P.O.:				
DR BY:	DATE:	Form NO. HFLFDH01R0	SHT. 1 of 1	Rev 0
CK BY: -	DATE: -/-/-			

BID TABULATION:  
 BID OPENING DATE:  
 BID NUMBER:

Purchase and Installation of Vertical Turbine Pump - Water Plat  
 February 21, 2017  
 TF-2017-11

	Austin Armature Works	Advanced Water Well Technologies	J & K Utility Services LLC
	Buda, TX	Converse, TX	Creedmoor, TX
1 vertical turbine pump and motor installed at the Seguin Water Plant, as specified	\$120,191.29	\$138,985.00	\$149,393.00
Delivery after receipt of order:	12 - 14 weeks	10-15 weeks	20 weeks