Mountain Regional Water
a Special Service District of Summit County
5739 Paintbrush Rd.
Park City, UT 84098-1640
Tel. (435) 940-1916
Fax (435) 940-1945

Purchase Order No.:
MRW2026-10-19

MOUNTAIN REGIONAL WATER

PURCHASE ORDER

Vendor Info.

Name:	Nickerson Company Inc
Address:	2301 W Indiana Ave
City, State Zip:	Salt Lake City, UT 84125
Phone/Contact:	801-597-4686 / Jeff Stucki

Ship To

Name:	Mountain Regional Water SSD
Address:	5739 Paintbrush Rd.
City, State Zip:	Park City, Utah 84098-1640
Phone:	435-940-1916

Qty.	Units	Description	Unit Price	TOTAL
		Lost Canyon Pump #1 - Pump & Motor Assembly		$ -
				$ -
1		See Quote Number: JCS10142026, dated 10/14/2026, for details	$ 142,983.00	$ 142,983.00
				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
			Sub Total	$ 142,983.00
			Shipping & Handling	
			TOTAL	$ 142,983.00

Shipping Method:

Requested by: Sam Grenlie

Account Number:

Notes/Remarks:

REQUIRED SIGNATURES:

Financial Officer

General Manager *(required if over $20,000)*

Governing Board *(required if over $50,000)*

Mountain Regional Water is a political subdivision of Summit County and thereby exempt from State and Local Sales Tax. If a tax exemption certificate is required, please request a completed Utah State Form 721 from Financial Officer.

MOUNTAIN REGIONAL WATER
Bidding Information Form

General Information

Vendor Name: Nickerson Company Inc

Today's Date: 10/19/2026

Please Check the First (1st) Box Below that Applies to this Payment:

[X] 1 **Sole Source Procurement**

Check all Boxes Below Accurately Describe the Sole Source Purchase:

[ ]	Only One Source for Item	Criteria: Compatibility with existing equipment, technology, software, accessories, replacement parts or service
[X]	Transitional Costs Unreasonable or Prohibitive	Training, conversion, compatibility, downtime, disruption of service, staff time, installation, ancillary software, hardware, equipment, or construction costs

Chief Procurement Officer Justification:

In 2024, (3) suppliers were competitively evaluated: (1) Tech-Flow/Goulds: Lowest responsive quote and awarded the PO, but nearly 2 years later, has not provided a conforming 3,600 RPM pump and motor assembly. (2) Nickerson/National Pump: Provided a compliant design for the existing barrel, piping, electrical system, and required 925-gpm-at-1,180 feet operating point, but was more expensive. (3) Delco/Flowserve: Evaluated during procurement, but its proposed pump was ultimately determined unsuitable and removed from consideration. Nickerson is now the only previously evaluated supplier with a compliant solution. Section 3.2.4 of our procurement policy allows sole source when compatibility and the costs of changing suppliers-including additional downtime-make another competitive process impractical. As we are over 2 years into this process, this situation would qualify.

Check the Box Below that Applies to This Sole Source Purchase:

[ ] **The total amount of this purchase is less than $50,000**

[X] **The total amount of this purchase is $50,000 or More**

[ ] 2 **Emergency Procurement**

The procurement must be necessary to "avoid harm or risk of harm to the public health, safety, welfare, or property."

Chief Procurement Officer Justification:

[ ] 3 **Funding Mandated Procurements**

Chief Procurement Officer Explanation of Vendor Required by Funding Mandate:

[ ] 4 **All Other Procurements** Complete and attach a *'Summary of Bids Form'*

Signatures

Name of Person Completing this Form: Sharon M. Kellner

Date: 10/19/2026

Signature: Sharon M. Kellner

Chief Procurement Officer: Alpellmed

Date: 10/20/26

Required for Sole Source and Emergency Procurements; and if Low Bid is not Accepted (see Vendor Quote Form)

Quote

Nickerson Company, Inc.
P.O. Box 25425
2301 West Indiana Ave.
Salt Lake City, UT 84125

Date:	10/14/2026
Customer:	MOUNTAIN REGIONAL WATER
Attention:	BRANDON WITHERS / SAM GRENLIE
Phone Number:	
Email Address:	
Quote Number:	JCS10142026
Estimate Number:	1
Notes:	LOST CANYON PUMP #1

Qty	Item	Description	Unit	Extension
1	PUMP AND MOTOR ASSEMBLY	NATIONAL PUMP MODEL K10LC-7 STAGE, CAST IRON/ENAMEL & DUCTILE IRON BOWLS, BRONZE IMPELLERS DYNAMICALLY BALANCED, BRONZE BOWL BEARINGS, 6" X 1 1/2" COLUMN ASSEMBLY TO FIT 11.5' BARREL, NFT DISCHARGE HEAD WITH 8" SUCTION, 6" DISCHARGE, FABRICATED STEEL, SINGLE MECHANICAL SEAL WITH PLAN 13 SEAL FLUSH, AFS ADJUSTABLE SPACER COUPLING, AND ENAMEL PAINT	$ 142,983.00	$ 142,983.00
		G.E. 400 HP VERTICAL SOLID SHAFT MOTOR, 3/60/460 VOLT, TEFC ENCLOSURE, 3600 RPM, VFD DUTY, 5008VP FRAME, 24" BASE DIAMETER.		
		LEAD TIME:		
		8 WEEKS SUBMITTALS, 2 WEEKS APPROVAL, 16 WEEKS PRODUCTION		

*** LEAD TIMES ARE ESTIMATES AND MAY CHANGE WITHOUT NOTICE.**

*** NICKERSON COMPANY, INC. TERMS AND CONDITIONS MUST BE SIGNED AND RETURNED WITH THIS QUOTE.**

*** PRICING MAY BE AFFECTED BY TAXES, DUTIES, AND/OR TARRIFS. PLEASE SEE TERMS AND CONDITIONS SECTION 11 FOR POLICY DETAILS.**

Freight: Included
Tax: Not Included
Total Price: $ 142,983.00

Terms: Net 30 Days
Quoted By: Jeff Stucki

Quote Good for 30 Days Unless Otherwise Noted

Phone: (801) 973-8888
Fax: (801) 973-8267

Shipment: SEE ABOVE
FOB: SALT LAKE CITY, UT

Nickerson Company, Inc. Warranty, Terms, and Conditions of Sale

Purchaser: _____

Purchase Order: _____

Description: _____

All orders must be directed to Nickerson Company, Inc., at PO Box 25425, Salt Lake City, Utah 84125, and are subject to Nickerson Company, Inc.'s acceptance.

1. Agreement

These terms and conditions govern the sale of goods by Nickerson Company, Inc. ("Nickerson") to the buyer ("Buyer"). These terms supersede and reject any conflicting terms and conditions submitted by the Buyer, regardless of any statement to the contrary. Exceptions to these terms must be in a written document signed by an authorized officer of Nickerson. No representations have been made except as stated herein. This agreement supersedes all prior communications and negotiations regarding the goods, and Nickerson will furnish only the quantities and items specified on the face of this agreement. Nickerson assumes no responsibility for other equipment or materials shown in any plans or specifications for the project to which the ordered goods pertain. Any action for breach of contract must commence within one year after the cause of action accrues. Prices, discounts, terms, and conditions are subject to change without prior notice.

2. Prices

Unless otherwise stated on the face of this agreement, prices are net F.O.B. Point of Origin. Service time for factory-trained personnel is not included and may be charged separately. Applicable taxes or other government charges on the production, sale, shipment, or use of the goods will be added to the invoice unless the Buyer provides a valid exemption certificate.

3. Warranty and Limitation of Liability

If, within one year from the date of shipment, equipment sold by Nickerson fails to function properly under normal, proper, and rated use due to defects in material or workmanship existing at the time of delivery, and the Buyer promptly notifies Nickerson in writing, Nickerson will, at its option, either inspect the equipment at the Buyer's location or request its return (transportation prepaid by the Buyer) to Nickerson's Salt Lake City plant. Nickerson will then, at its expense, repair or replace the defective equipment or parts F.O.B. to its Salt Lake City plant or issue credit for the defective items. This warranty does not apply to equipment altered or repaired after shipment by anyone other than Nickerson's authorized employees, unless such alteration or repair is made with Nickerson's prior written consent. The Buyer is solely responsible for determining the suitability of the equipment for its intended use. Nickerson is not liable in any way in this respect. Equipment or parts manufactured by others and furnished by Nickerson will be repaired or replaced only to the extent of the original manufacturer's warranty. Nickerson's obligations and liabilities hereunder are contingent upon full payment for the equipment. If the Buyer resells the products, the Buyer will include in its resale contract provisions that limit recoveries against Nickerson in accordance with this section. If Nickerson fails to meet any performance representation, Nickerson may, at our option, remove and reclaim the equipment at its own expense and discharge all liability by refunding to the Buyer all sums received on account of the purchase price. THE FOREGOING OBLIGATIONS ARE IN LIEU OF ALL OTHER OBLIGATIONS AND LIABILITIES, INCLUDING NEGLIGENCE, AND ALL WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE, EXPRESS OR IMPLIED, IN CONNECTION WITH THE SALE OR FURNISHING OF GOODS OR PARTS, THEIR DESIGN, SUITABILITY FOR USE, INSTALLATION, OR OPERATION. NICKERSON WILL NOT BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, OR CONSEQUENTIAL DAMAGES OR DELAY RESULTING FROM ANY DEFECT WHATSOEVER, AND ITS LIABILITY UNDER NO CIRCUMSTANCES WILL EXCEED THE CONTRACT PRICE FOR THE GOODS FOR WHICH LIABILITY IS CLAIMED.

4. Delivery

Delivery, shipment, and installation dates are estimates only and, unless otherwise specified, are calculated from the date Nickerson receives complete technical data and approved drawings, if applicable. Nickerson is not liable for delays caused by carriers, labor difficulties, shortages, strikes, stoppages, fires, accidents, failure or delay in obtaining materials or manufacturing facilities, acts of government, weather, or any other causes beyond its reasonable control. Estimated delivery dates will be extended accordingly. Nickerson will not be liable for any damages or penalties whatsoever, whether direct, indirect, special, or consequential, resulting from its failure to perform or delay in performing, unless otherwise agreed in writing by an authorized officer.

5. Operating Conditions and Acceptance

Quotations and recommendations are based on operating conditions specified by the Buyer. If actual conditions differ and adversely affect equipment performance, the Buyer is responsible for the cost of all necessary changes to the equipment. Nickerson reserves the right to cancel the order, and the Buyer will reimburse Nickerson for all costs and expenses incurred. Nickerson reserves the right to refuse any order based on a quotation containing an error. Specifications or charts issued by Nickerson are descriptive only and are not warranties or representations. Nickerson will, upon request, certify the rated capacity of any product. Capacity, head, and efficiency certifications are based on shop tests using clear, fresh water at a temperature not exceeding 85°F. Certifications apply only to this specified rating and do not cover sustained performance or conditions varying from these.

6. Shipping

Unless the Buyer specifies otherwise in writing, (a) goods will be boxed or crated as Nickerson deems appropriate for normal handling, and additional charges will apply for special packaging (e.g., preservation, waterproofing, export boxing); and (b) routing and method of shipment will be at Nickerson's discretion and may be insured at the Buyer's expense (value to be declared at order price). For all shipments F.O.B. Nickerson's plant, delivery to the initial carrier constitutes delivery to the

Buyer, and the goods are shipped at the Buyer's risk. Claims for loss or damage in transit must be filed by the Buyer with the carrier. Acceptance of material from a common carrier constitutes a waiver of any claims against Nickerson for delay, damage, or loss.

7. Cancellation and Returns

Orders may be canceled only with Nickerson's written consent and upon payment of reasonable and proper cancellation charges. Goods may be returned only with Nickerson's prior written authorization. Buyers will be charged for costs incurred by Nickerson in placing returned goods in saleable condition, any related sales expenses, a restocking charge, and all transportation costs paid by Nickerson.

8. Credit and Payment

Payment is due 30 days net. Pro-rata payments are due upon partial shipments. A late charge of 2% per month, or the maximum rate permitted by law (whichever is less), will be applied to all past-due invoices. Nickerson reserves the right to alter, suspend, or change credit terms if, in its sole judgment, the Buyer's financial condition so warrants. Failure to pay invoices when due, at Nickerson's election, makes all subsequent invoices immediately due and payable, regardless of terms, and Nickerson may withhold subsequent deliveries until the full account is settled and may terminate this agreement. Acceptance of partial payment does not waive any of Nickerson's rights. The Buyer represents that it is not insolvent as defined in applicable state or federal statutes. Buyers will notify Nickerson in writing if it becomes insolvent before delivery. Failure to provide such notice at the time of delivery will be deemed a reaffirmation of solvency. Regardless of the delivery destination, Nickerson has the right to withhold or reclaim goods under applicable state and federal statutes. If the Buyer is responsible for shipping delays, the date of completion of the goods may be deemed the shipment date for payment purposes. Completed goods held at the Buyer's request are at the Buyer's cost and risk, and Nickerson may bill the Buyer for reasonable storage and insurance expenses. All orders will be invoiced for a minimum of $200.00 net, regardless of the quoted price.

9. Inspection

The Buyer may inspect goods at Nickerson's plant, provided such inspection does not unduly interfere with Nickerson's workflow and the Buyer submits complete details of the desired inspection in writing in advance.

10. Records, Audits, and Proprietary Data

Unless otherwise agreed in writing signed by an authorized officer of Nickerson, the Buyer will not have any right to examine or audit Nickerson's cost accounts, books, or records, or have access to or control over any engineering or production prints, drawings, or technical data that Nickerson considers proprietary.

11. Taxes, Duties, and Tariffs

The Buyer is responsible for all taxes, duties, fees, tariffs, and other charges related to the contract, its performance, or payment for work under it. This includes, but is not limited to, taxes on consumption, gross receipts, imports, property, sales, stamps, turnover, use, and value-added, as well as any withholding taxes, deficiencies, penalties, additions to tax, interest, or assessments, regardless of the government authority imposing them and whether imposed on the Buyer, Seller, or their subcontractors.

Acceptance

By placing an order, the Buyer accepts these terms and conditions and acknowledges being bound by them. Title to and right of repossession of the property remains with Nickerson until payment is received in full. Upon any default of this contract, the Buyer agrees to return the merchandise in good order upon demand, and all prior payments will be forfeited as compensation for rental and use, plus any legal or attorney fees incurred by Nickerson in enforcing these provisions.

Signature: _____ ***Title:*** _____

Date: _____

Mountain Regional Water
a Special Service District of Summit County
6421 North Business Park Loop Road, Unit A
PO Box 982320
Park City, UT 84098
Tel. (435) 940-1916
Fax (435) 940-1945

Purchase Order No.:
MRW2025-01-15

MOUNTAIN REGIONAL WATER

PURCHASE ORDER

Vendor Info.

Name:	Tech-Flow
Address:	1104 North 1600 West
City, State Zip:	Layton, Utah 84041
Phone/Contact:	801-920-1116/Brett Hazen

Ship To

Name:	Mountain Regional Water SSD
Address:	6421 N. Business Park Loop Rd., Ste A
City, State Zip:	Park City, Utah 84098
Phone:	453.940.1916

Qty.	Units	Description	Unit Price	TOTAL
		Lost Canyon Pump 1 Replacement		
		Goulds 9RCHC vertical turbine pump		$ 109,672.00
		Installation fee		$ 4,000.00
		Freight		$ 2,800.00
		See attached quote BH1690		
			Sub Total	$ 116,472.00
			Shipping & Handling	
			TOTAL	$ 116,472.00

Shipping Method:

Requested by: Sam Grenlie

Account Number:

Notes/Remarks:

REQUIRED SIGNATURES:

Financial Officer

General Manager (required if over $20,000)

Governing Board (required if over $50,000)

Mountain Regional Water is a political subdivision of Summit County and thereby exempt from State and Local Sales Tax. If a tax exem certificate is required, please request a completed Utah State Form 721 from Financial Officer.

MOUNTAIN REGIONAL WATER
Bidding Information Form

MOUNTAIN REGIONAL WATER

General Information

Vendor Name: Tech-Flow

Today's Date: 1/15/2025

Please Check the First (1st) Box Below that Applies to this Payment:

[ ] 4 **Sole Source Procurement**

Check all Boxes Below Accurately Describe the Sole Source Purchase:

[ ]	Only One Source for Item	Criteria: Compatibility with existing equipment, technology, software, accessories, replacement parts or service
[ ]	Transitional Costs Unreasonable or Prohibitive	Training, conversion, compatibility, downtime, disruption of service, staff time, installation, ancillary software, hardware, equipment, or construction costs

Chief Procurement Officer Justification:

This sole source justification relates to the refurbishment of a water pump owned by Mountain Regional Water SSD. The cost associated with pump refurbishment is unknown until the pump is disassembled and, at that point, it cannot be taken to another vendor. Mountain Regional Water has extensive experience with the three local vendors available for this type of work; Nickerson has been selected as a sole source provider based on our experience with them providing competitive pricing and superior workmanship standards compared with the other local vendors.

Check the Box Below that Applies to This Sole Source Purchase:

[ ] **The total amount of this purchase is less than $50,000**

[ ] **The total amount of this purchase is $50,000 or More**

[ ] 5 **Emergency Procurement**

The procurement must be necessary to "avoid harm or risk of harm to the public health, safety, welfare, or property."

Chief Procurement Officer Justification:

[ ] 6 **Funding Manadated Procurements**

Chief Procurement Officer Explanation of Vendor Required by Funding Mandate:

[X] 7 **All Other Procurements** Complete and attach a '*Summary of Bids Form*'

Signatures

Name of Person Completing this Form: Steve Anderson Date: 01/15/2025

Signature:

Chief Procurement Officer: Date:

Required for Sole Source and Emergency Procurements; and if Low Bid is not Accepted (see Vendor Quote Form)

MOUNTAIN REGIONAL WATER
Summary of Bids Form

1/15/2025

Purchases Under $20,000

Purchases above $20,000

Quotes may be oral, but must be summarized below for each item, including vendor name, contact peson, telephone number and quoted amount.
Written quotes from vendors must be on Vendor letterhead (for quotes under $50,000, email is allowable); signed by an authorized individual; include Item Description and Model Number, Number of Items, Price per Item, Total Cost Per Item, Total Cost for All Items; and the date the quote is effective through. These written quotes must be attached, and summarized below for each item.

Item 1 **Description:**

Include Description, Model Number and Quantity

400 HP vertical turbine pump, meeting Hydraulic Institute (HI) requirements for velocities in the pump bowls.

	Quote 1	Quote 2	Quote 3
Vendor Name	Tech-Flow	Nickerson Company, Inc.	
Person Contacted	Brett Hazen	Jeff Stucki	
Telephone Number	801.920.1116	801.973.8888	
Quoted Amount	$116,472.00	$127,107.00	

Lowest quote must be accepted unless other factors impact overall value. If lowest quote not accepted, please explain:

Item 2 **Description:**

Include Description, Model Number and Quantity

	Quote 1	Quote 2	Quote 3
Vendor Name			
Person Contacted			
Telephone Number			
Quoted Amount			

Lowest quote must be accepted unless other factors impact overall value. If lowest quote not accepted, please explain:

Item 3 **Description:**

Include Description, Model Number and Quantity

	Quote 1	Quote 2	Quote 3
Vendor Name			
Person Contacted			
Telephone Number			
Quoted Amount			

Lowest quote must be accepted unless other factors impact overall value. If lowest quote not accepted, please explain:

Signatures

Name of Person Completing this Form: ___ Sharon M. Kellner

Date: 01.15.2025

Signature: Sharon M. Kellner

Quotation

PO Box 209.
Layton, UT 84041
Phone: (801) 444-9900
Fax: (801) 444-9901
Cell: (801) 920-1116
Email: brett.hazen@tech-flow.com

To: Mountain Regional
Attn: Sam
cc:

Date: 19-Nov-24
Quote: BH1690

Sent by email Nov. 19, 2024

Reference:
Phone:
Fax:
email:
Application:
Job Name:
Job Site:

We are pleased to quote the following for your favorable consideration:

Line	Qty	Part No.	Description	Price ea.	Ext. Price
1	1		Goulds 9RCHC vertical turbine pump 400 hp GE motor Wolong # V4875 Vertical Solid Shaft 400HP-1800-460V-TEFC-509VP30 frame Discharge head HEAD 816T12 150# flanges 6"x8" CONNECTION TO 14" UNDERGROUND BARREL 11' 6" length Column piping Dynamically balanced impellers Adjustable Spacer Coupling API Plan 13 Flush seal Mechanical seal MECH SEAL-HP (SXSXII-1.500") Stuffing Box	$106,101.00	$109,672.00
2	1		Installation fee inlcudes crane setting setting impeller and startup	$4,000.00	$4,000.00
3	1		Sales tax will be added if you are not tax exempt	$0.00	$0.00
4	1		Frieght costs will be prepaid and added to the final invoice	$2,800.00	$2,800.00
				Grand Total:	$116,472.00

Delivery:
Routing:
FOB:
Valid For: 60 days
Terms: net 30

Thank you for the opportunity to quote.
Please call or fax our office if we can be of further assistance.

Quoted By: Brett Hazen

Pump Data Sheet - Turbine 60 Hz

Company:
Name:
Date: 10/28/2024

Customer:

GOULDS WATER TECHNOLOGY
a xylem brand

Pump:

Size:	9RCHC (stages: 6)	Dimensions:	
Type:	Lineshaft	Suction:	---
Synch Speed:	3600 rpm	Discharge:	---
Dia:	6.88 in	Vertical Turbine:	
Curve:	---	Eye Area:	
		Bowl Size:	9.25 in
		Max Lateral:	0.88 in
		Thrust K Factor:	4.9 lb/ft

Search Criteria:

Flow:	925 US gpm	Near Miss:	---
Head:	1180 ft	Static Head:	0 ft

Pump Selection Warnings:

None

Fluid:

Name:	Water		
SG:	1	Vapor Pressure:	0.256 psi a
Density:	62.4 lb/ft³	Atm Pressure:	14.7 psi a
Viscosity:	1.1 cP		
Temperature:	60 °F	Margin Ratio:	1

Pump Limits:

Temperature:	---	Sphere Size:	0.75 in
Wkg Pressure:	---		

Motor:

Standard:	NEMA	Size:	400 hp
Enclosure:	WPI	Speed:	3600 rpm
Frame:	5007		
Sizing Criteria:	Max Power on Design Curve		

--- Duty Point ---

Flow:	925 US gpm
Head:	1181 ft
Eff:	83.6%
Power:	330 hp
NPSHr:	24.1 ft
Speed:	3540 rpm

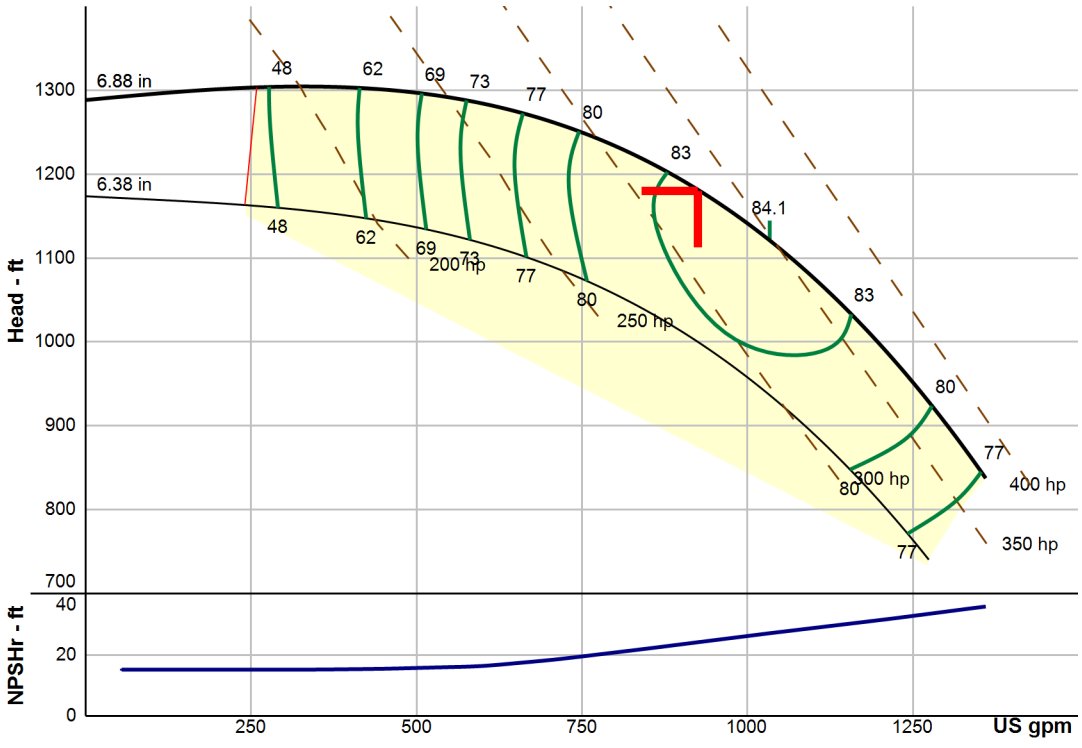
--- Design Curve ---

Shutoff Head:	1288 ft
Shutoff dP:	558 psi
Min Flow:	258 US gpm

BEP: 84.1% @ 1034 US gpm
NOL Power:
375 hp @ 1360 US gpm

--- Max Curve ---

Max Power:
375 hp @ 1360 US gpm



Performance Evaluation:

Flow	Speed	Head	Efficiency	Power	NPSHr
US gpm	rpm	ft	%	hp	ft
1110	3540	1069	83.6	358	29
925	3540	1181	83.6	330	24.1
740	3540	1253	79.8	293	19.2
555	3540	1291	71.9	252	16
370	3540	1304	58	210	15.2

Selected from catalog: Xylem.TTO.Goulds Lineshaft.60 MOC, Vers 4.1.6

WOLONG

Product Information Packet

June 21, 2024

Data shown is for the current revision model #. Ensure your nameplate model # matches.

Model Number:	**5KS509XAJ6420**
Catalog Number:	**V4875**
Instruction Manual:	GEI-M1045
Connection Diagram:	GEM2034E-FIG20
Outline Drawing:	148CB59INLSFGLC0001

Accessory Connection Diagrams

Bearing Thermocouple:	None	**Heater:**	3027JE-1C
RTD:	None	**Thermistor:**	None
Thermostat:	None	**Winding Thermocouple:**	None
Bearing RTD:	None		

Table of Contents

Specification	01
Performance Characteristics	02
Outline Drawing	03
Connection Drawing(s)	04

Marks:

MODEL NUMBER:	**5KS509XAJ6420**	**Estimated Weight:**	4607 Lbs
Outline Drawing:	148CB59INLSFGLC0001	**Time Rating:**	CONT
Connection Diagram:	GEM2034E-FIG20	**Enclosure:**	TEFC
Instruction Book:	GEI-M1045	**Encl Construction:**	841
Design Code:	50ED1526A	**Ambient Max(°C):**	40
Type:	KS	**Alt Ambient Max(°C):**	--
Frame:	B509VP30	**Insulation Class:**	F
Phases:	3	**NEMA Design:**	B
Poles:	4	**Nominal Efficiency:**	96.2 %
Output Power:	400HP 296KW	**Guaranteed Efficiency:**	95.4 %
RPM:	1785	**3/4 Load Efficiency:**	--
Voltage:	460	**KVA Code:**	G
Hertz:	60	**Max KVAR:**	92.3
Amps - FL:	445.0	**Power Factor:**	87.5
Service Factor:	1.15	**Bearing - DE:**	6219ZC3
Alt Service Factor:	--	**Bearing - ODE:**	7326

Enclosure is Totally Enclosed Fan-Cooled

Stamped Nameplate Notes:

EXCEPTION TO IEEE-STD-841-2009
ALUMINUM FAN
VERTICAL-841
DE BRG 95BC02JP3 ODE BRG 130BT03MD00
GE SELF DECLARED CLASS I DIV 2
GROUP A,B,C,D MOTOR
MAX EXPOSED INTERNAL AND EXTERNAL SURFACE
TEMPERATURES UNDER USUAL SERVICE CONDITION
AT 1.00 S.F. DO NOT EXCEED 200 DEG C
TEMP CONT HTR LDS HE1-HE2 115V 200W
UPPER BRG OIL: 18.0 QTS
LOWER BRG OIL: 2.5 QTS
0 DEG C TO 40 DEG C : ISO 32(MINERAL OR SYNTHETIC)
-25 DEG C TO 0 DEG C : ISO 32 SYNTHETIC
ROT CCW FACING TOP LEAD/PH SEQ 3-2-1/1-2-3
ROT CW FACING TOP LEAD/PH SEQ 1-2-3/1-2-3
MAXIMUM SPACE HEATER SURFACE
TEMPERATURE 160 DEG C
INVERTER DUTY PER NEMA MG1 PART 31

Additional Information:

ALTERNATE RATING FOR PWM CONTROL
1.0 SF. VAR TORQUE RANGE 0-60 HZ
NOTE TO MFG: ROUTINE TEST REPORT & 5 POINT
VIBRATION TEST REQD
LEADS WITH SLEEVING
BOLTED COUPLING
PAINT INSIDE OF FRAME,FAN COVER, SHAFT
PAINT OUTSIDE OF ODE END SHIELD
4 POLE,VERT SOLID SHAFT HIGH THRUST (1D)
TEMP CONTRL 115V HEATER LEADS TO CON BOX
RCF=2451 CPM CG=28.72IN STAT DEF=0.0059 IN
COPPER WASHER UNDER HEADS OF BRG CAP BOLTS
APPLY TITE - SEAL (A50CD427A) ON BEARING
CAP SCREWS, RABBETS AND PLUG THREADS
SHAFT RUNOUT .0015 TIR
C/B GRD PLATE
BEARING LIFE 8760 HOURS AT 12400 LB THRUST
2500 Cu. In. CBOX

Performance Characteristics 1st Winding 1st Connection **Design: 50ED1526A**

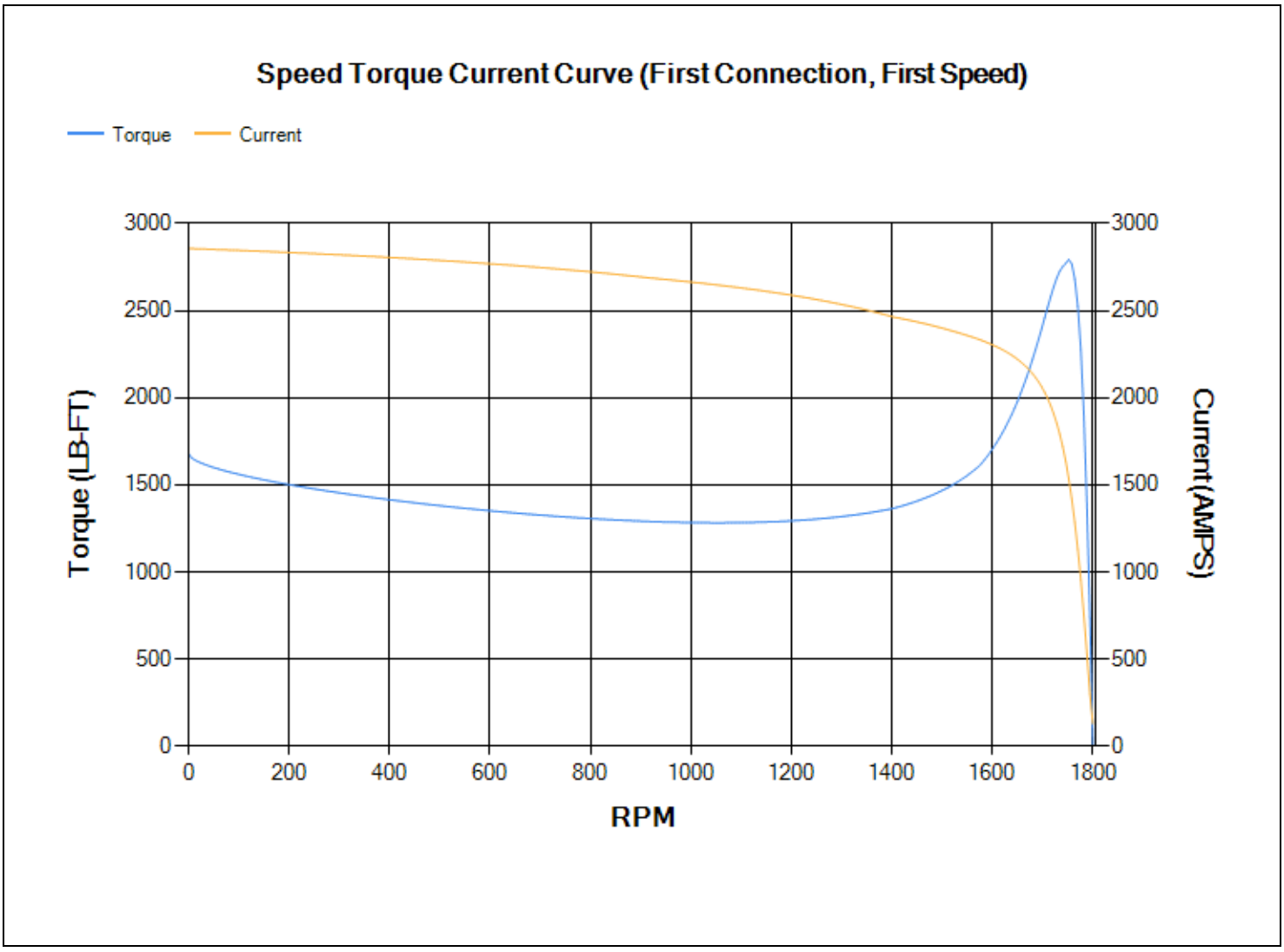
Marks:

LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	95.63	95.76	96.1	95.89	95.3	92.58	0.00
% PF	87.88	87.82	88.31	84.91	78.05	57.96	5.04
AMPS	556.8	511.95	440.65	344.85	251.63	174.4	128.73

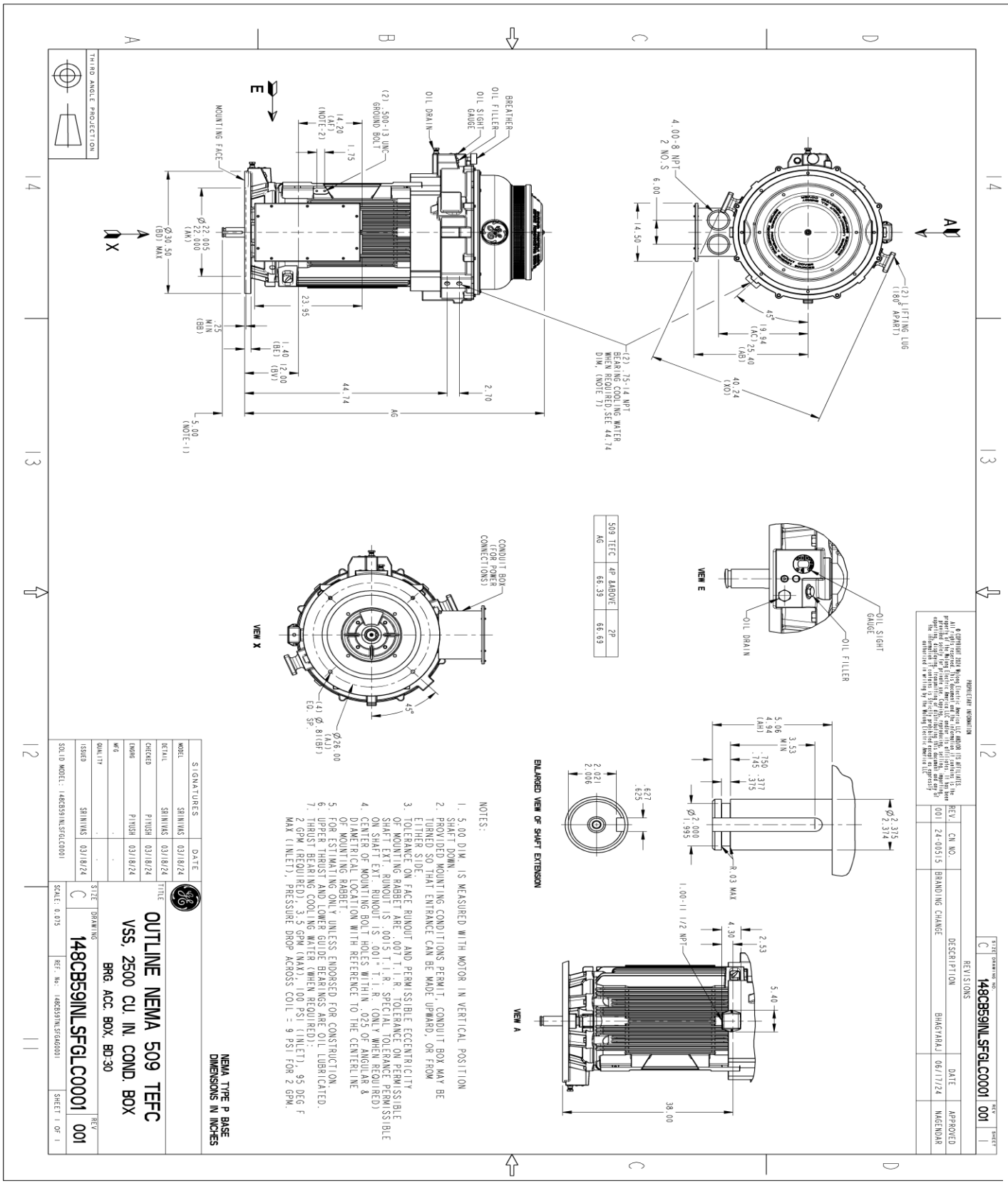
TORQ(FL)#FT	1175.66	**TORQ(LR)%FL**	143.08	**TORQ(BD)%FL**	234.36
AMPS(LR)	2857.08	**PF AT START**	0.2		

This motor is capable of two cold or one hot start with a maximum connected load inertia of 5217 Lb-Ft Sq (219.64 Kg-meter Sq)at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 29 seconds. Safe stall time at 100% voltage is 67 seconds cold, 35 seconds hot. Rotor inertia is 143.91 Lb-Ft Sq (6.06 Kg-meter Sq).

Open Circuit A-C:	1.171	**Short Circuit D-C:**	0.042
Short Circuit A-C:	0.05	**X/R Ratio:**	15.926
Stator Slots:	72	**Rotor Slots:**	58



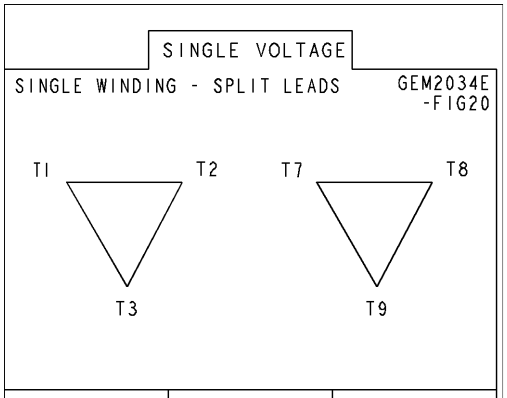
Marks:


MOUNTING FACE
BREATHER
OIL FILLER
OIL SIGHT GAUGE
OIL DRAIN
(2) .500-13 UNC GROUND BOLT
(2) LIFTING LUG (180° APART)
4.00-8 NPT 2 NO.S
(2) .75-14 NPT BEARING COOLING WATER WHEN REQUIRED SEE 44.74 DIM. (NOTE 7)
CONDUIT BOX (FOR POWER CONNECTIONS)
VIEW E
VIEW X
VIEW A
ENLARGED VIEW OF SHAFT EXTENSION
NEMA TYPE P BASE DIMENSIONS IN INCHES
509 TEFC | 4P &ABOVE | 2P
AG | 66.39 | 66.69
NOTES:
1. 5.00 DIM. IS MEASURED WITH MOTOR IN VERTICAL POSITION SHAFT DOWN.
2. PROVIDED MOUNTING CONDITIONS PERMIT, CONDUIT BOX MAY BE TURNED SO THAT ENTRANCE CAN BE MADE UPWARD, OR FROM EITHER SIDE.
3. TOLERANCE ON FACE RUNOUT AND PERMISSIBLE ECCENTRICITY OF MOUNTING RABBET ARE .007 T.I.R. TOLERANCE ON PERMISSIBLE SHAFT EXT. RUNOUT IS .0015 T.I.R. SPECIAL TOLERANCE PERMISSIBLE ON SHAFT EXT. RUNOUT IS .001" T.I.R. (ONLY WHEN REQUIRED)
4. CENTER OF MOUNTING BOLT HOLES WITHIN .025 OF ANGULAR & DIAMETRICAL LOCATION WITH REFERENCE TO THE CENTERLINE OF MOUNTING RABBET.
5. FOR ESTIMATING ONLY UNLESS ENDORSED FOR CONSTRUCTION.
6. UPPER THRUST AND LOWER GUIDE BEARINGS ARE OIL LUBRICATED.
7. THRUST BEARING COOLING WATER (WHEN REQUIRED): 2 GPM (REQUIRED), 3.5 GPM (MAX), 100 PSI (INLET), 95 DEG F MAX (INLET), PRESSURE DROP ACROSS COIL = 9 PSI FOR 2 GPM.
SIGNATURES | DATE
MODEL SRINIVAS 03/8/24
DETAIL SRINIVAS 03/8/24
CHECKED PINUSH 03/8/24
ENGRG PINUSH 03/8/24
MFG
QUALITY
ISSUED SRINIVAS 03/8/24
SOLID MODEL: 148CB59INLSFGLC0001
TITLE
OUTLINE NEMA 509 TEFC
VSS, 2500 CU. IN. COND. BOX
BRG. ACC. BOX, BD:30
SIZE C
DRAWING 148CB59INLSFGLC0001
REV 001
SCALE: 0.075
REF. No: 148CB59INLSFGAG0001
SHEET 1 OF 1
REVISIONS
REV. | CN. NO. | DESCRIPTION | DATE | APPROVED
001 | 24-00515 | BRANDING CHANGE | 06/17/24 | NAGENDAR
SIZE C | DRAWING NO. 148CB59INLSFGLC0001 | REV 001 | SHEET 1
THIRD ANGLE PROJECTION
PROPRIETARY INFORMATION
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Marks:

Connection Diagram

GEM2034E-FIG20



L1	L2	L3
T1-T7	T2-T8	T3-T9

Heater Connection

3027JE-1C



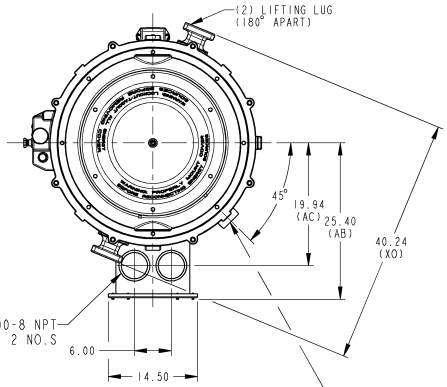
SUPPLY VOLTAGE LEADS	L1	L2
HEATER LEADS	HE1	HE2

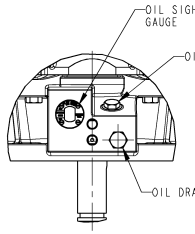
PROPRIETARY INFORMATION
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SIZE	DRAWING NO.	REV	SHEET
C	148CB59INLSFGLC0001	001	1

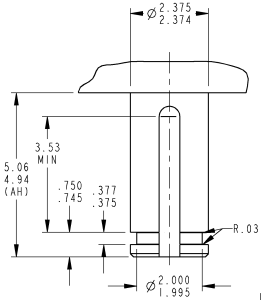
REVISIONS

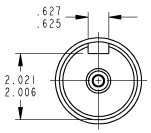
REV.	CN NO.	DESCRIPTION	DATE	APPROVED
001	24-00515	BRANDING CHANGE BHAGYARAJ	06/17/24	NAGENDAR



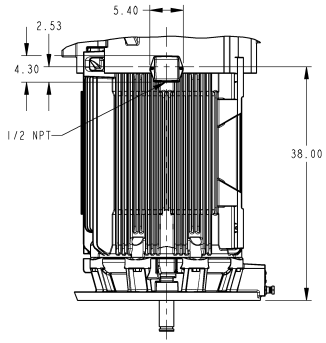


VIEW E



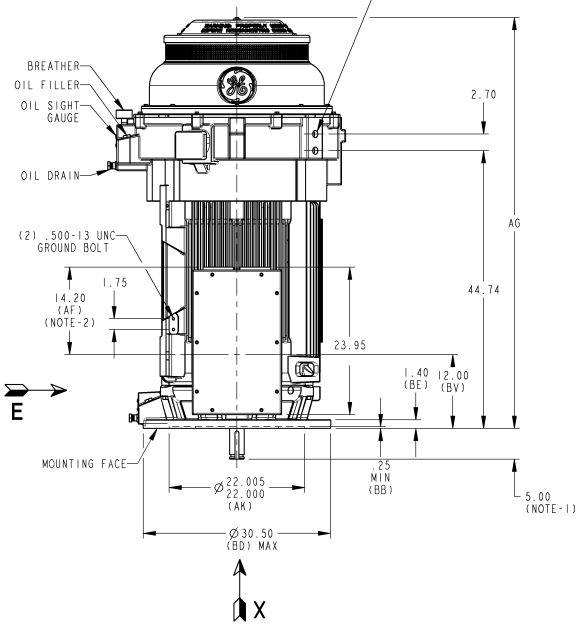


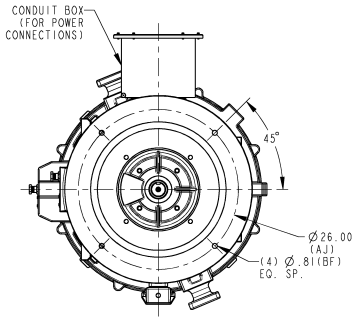
ENLARGED VIEW OF SHAFT EXTENSION



VIEW A

509 TEFC	4P &ABOVE	2P
AG	66.39	66.69





VIEW X

NOTES:

1. 5.00 DIM. IS MEASURED WITH MOTOR IN VERTICAL POSITION SHAFT DOWN.
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5. FOR ESTIMATING ONLY UNLESS ENDORSED FOR CONSTRUCTION.
6. UPPER THRUST AND LOWER GUIDE BEARINGS ARE OIL LUBRICATED.
7. THRUST BEARING COOLING WATER (WHEN REQUIRED): 2 GPM (REQUIRED), 3.5 GPM (NAX), 100 PSI (INLET), 95 DEG F MAX (INLET), PRESSURE DROP ACROSS COIL = 9 PSI FOR 2 GPM.

NEMA TYPE P BASE
DIMENSIONS IN INCHES

SIGNATURES		DATE
MODEL	SRINIVAS	03/18/24
DETAIL	SRINIVAS	03/18/24
CHECKED	PIYUSH	03/18/24
ENGRG	PIYUSH	03/18/24
MFG	.	.
QUALITY	.	.
ISSUED	SRINIVAS	03/18/24

SOLID MODEL: 148CB59INLSFGLC0001

THIRD ANGLE PROJECTION

TITLE
OUTLINE NEMA 509 TEFC
VSS, 2500 CU. IN. COND. BOX
BRG. ACC. BOX, BD:30

SIZE	DRAWING	REV
C	148CB59INLSFGLC0001	001

SCALE: 0.075 | REF. No: 148CB59TNLSFGAG0001 | SHEET 1 OF 1

Estimate Sheet

Nickerson Company, Inc.
P.O. Box 25425
2301 West Indiana Ave.
Salt Lake City, UT 84125

	Customer:	AQUA ENGINEERING / MOUNTAIN REGIONAL WATER	11/6/2024
	Attention:	NICK GRAUE / SAM GRENLIE	REV.2
	Phone:	801-683-3733 / 801-712-8598	
	Fax:		
	Job Name:	MOUNTAIN REGIONAL PUMP UPGRADE	
	Condition of Service:	925 GPM @ 1180' HD	

#	Item	Description	Unit	Extension
				$ -
1	PUMP ASSEMBLY	NATIONAL PUMP MODEL K10LC-7 STAGE, CAST IRON/ENAMEL & DUCTILE IRON BOWLS, BRONZE IMPELLERS DYNAMICALLY BALANCED, BRONZE BOWL BEARINGS, 6" X 1 1/2" COLUMN ASSEMBLY TO FIT 11.5' BARREL, NFT DISCHARGE HEAD WITH 8" SUCTION, 6" DISCHARGE, FABRICATED STEEL, SINGLE MECHANICAL SEAL WITH PLAN 13 SEAL FLUSH, AFS ADJUSTABLE SPACER COUPLING, AND ENAMEL PAINT	$ 48,113.00	$ 48,113.00
				$ -
1	MOTOR	G.E. 400 HP VERTICAL SOLID SHAFT MOTOR, 3/60/460 VOLT, TEFC ENCLOSURE, 3600 RPM, VFD DUTY, 5008VP FRAME, 24" BASE DIAMETER.	$ 78,994.00	$ 78,994.00
				$ -
				$ -
				$ -
				$ -
		LEAD TIME:		$ -
		8 WEEKS SUBMITTALS, 2 WEEKS APPROVAL, 16 WEEKS PRODUCTION		$ -
				$ -
				$ -
				$ -
				$ -
				$ -
	Freight:			INCLUDED
	Tax			NOT INCLUDED
	Total Price:			$ 127,107.00
	Shipment:	SEE ABOVE		
	FOB:	SALT LAKE CITY, UTAH		

QUOTE GOOD FOR 30 DAYS

Terms: Net 30 days
Quoted by: Jeff Stucki

Phone: 801-973-8888
Fax: 801-973-8267

NICKERSON COMPANY, INC. WARRANTY, TERMS AND CONDITIONS OF SALE.

PURCHASER:_____P.O.#_____

DESCRIPTION_____

All orders shall be made out to Nickerson Company, Inc. at P.O. Box 25425, Salt Lake City, Utah 84125 and shall be subject to acceptance by Nickerson Company, Inc.

1**. CONSTRUCTION AND LEGAL EFFECT**. Our sale to you will be solely upon the terms and conditions set forth herein. They supersede and reject any conflicting terms and conditions of yours, any statement in yours to the contrary notwithstanding. Exceptions to any of our terms and conditions must be contained in a written or typed (not printed) statement received from you; we shall not be deemed to have waived any of our terms and conditions or to have assented to any modification or alteration of such terms and conditions unless such waiver or assent is in writing and signed by an authorized officer. No representation of any kind has been made by us except as set forth herein; this agreement conclusively supersedes all prior writings and negotiations with respect thereto and we will furnish only the quantities and items specifically listed on the face hereof; we assume no responsibility for furnishing other equipment or material shown in any plans and/or specification for a project to which the goods ordered herein pertain. Any action for breach of contract must be commenced within one year after the cause of action has accrued Our quoted prices, discounts, terms and conditions are subject to change without notice.

2**. PRICES.** Unless otherwise noted on the face hereof, prices are net F.O.B. Point of Origin. Service time of a factory-trained service man is not included and may be charged extra. The amount of any applicable present or future tax or other government charge upon the production, sale, shipment or use of goods ordered or sold will be added to billing unless you provide us with an appropriate exemption certificate.

3. **DEFECTIVE EQUIPMENT AND LIMITATION OF WARRANTIES. Providing purchaser notifies us promptly, if within one year from date of shipment equipment sold by Nickerson Company, Inc. fails to function properly under normal, proper and rated use and service because of defects in material or workmanship demonstrated to our satisfaction to have existed at the time of delivery, the company reserving the right to either inspect them in your hands or request their return to us will at our option repair or replace at our expense F.O.B. our Salt Lake City plant, or give you proper credit for such equipment or parts determined by us to be defective, if returned transportation prepaid by purchaser. The foregoing shall not apply to equipment that shall have been altered or repaired after shipment to you by anyone except our authorized employees, and the company will not be liable in any event for alterations or repairs except those made with its written consent. Purchaser shall be solely responsible for determining suitability for use and the company shall in no event be liable in this respect. The equipment or parts manufactured by others but furnished by us will be repaired or replaced only to the extent of the original manufacturer's guarantee. Our obligations and liabilities hereunder shall not be enforceable until such equipment has been fully paid for. Purchaser agrees that if the products sold hereunder are resold by purchaser, he will include in the contract for resale, provisions which limit recoveries against us in accordance with this section. In case of our failure to fulfill any performance representation, it is agreed that we may at our option remove and reclaim the equipment covered by this agreement at our own expense and discharge all liability by repayment to the purchaser of all sums received on account of the purchase price. (The foregoing obligations are in lieu of all other obligations and liabilities including negligence and all warranties, or merchantability or fitness for a particular purpose or otherwise, express or implied by connection with the sale or furnishing of goods or parts, their design, suitability for use, installation or operation.) We will in no event be liable for any direct, indirect, special or consequential damages or delay resulting from any defect whatsoever, and our liability under no circumstances will exceed the contract price for the goods for which liability is claimed.**

4**. DELIVERY**. Delivery, shipment and installation dates are estimated dates only, and unless otherwise specified, are figured from date of receipt of complete technical data and approved drawings as such may be necessary. In estimating such dates, no allowance has been made, nor shall we be liable directly or indirectly for delays of carriers or delays from labor difficulties, shortages, strikes or stoppages of any sort, fires, accidents, failure or delay in obtaining materials or manufacturing facilities, acts of govemment affecting us directly or indirectly, bad weather, or any causes beyond our control or causes designated Acts of God or force majeure by any court of law, and the estimated delivery date shall be extended accordingly. We will not be liable for any damages or penalties whatsoever, whether direct, indirect, special consequential, resulting from our failure to perform or delay in performing unless otherwise agreed in writing by an authorized officer.

5. **OPERATING CONDITIONS AND ACCEPTANCE**. Recommendations and quotations are made upon the basis of operating conditions specified by the Purchaser. If actual conditions are different than those specified and performance of the equipment is adversely affected thereby, Purchaser will be responsible for the cost of all expenses incurred in, and reasonable profit for, performance of the equipment is adversely affected thereby, Purchaser will be responsible for the cost of all changes in the equipment required to accommodate such conditions, and we reserve the right to cancel this order and Purchaser shall reimburse us for all costs and expenses incurred in, and reasonable profit for, performance hereunder. We reserve the right to refuse any order based upon a quotation containing an error. The provisions in any specification or char issued by Nickerson Co. are descriptive only and are not warranties or representations; Nickerson Co. will certify to a rated capacity in any particular product upon request. Capacity head and efficiency certifications are based on shop tests and when handling clear, fresh water at a temperature not over 85° F. Certifications are at this specified rating only and do not cover sustained performance over any period of time nor under conditions varying from these.

6**. SHIPPING**. Unless you specify otherwise in writing, (a) goods will be boxed or crated as we may deem proper for protection against normal handling, and extra charge will be made for preservation, waterproofing, export boxing and similar added protection of goods; (b) routing and manner of shipment will be at our discretion, and may be insured at your expense, value to be stated at order price. On all shipment F.O.B. our plant, delivery of goods to the initial carrier will constitute delivery to you and all goods will be shipped at your risk. A claim for loss of damage in transit must be entered with the carrier and prosecuted by you. Acceptance of material from a common carrier constitutes a waiver of any claims against us for delay or damage or loss.

7. **CANCELLATION AND RETURNED EQUIPMENT**. Orders may be cancelled only with our written consent and upon payment or reasonable and proper cancellation charges. Goods may be returned only when specifically authorized and you will be charged for placing returned goods in saleable condition, any sales expenses then incurred by us, plus a restocking charge and any outgoing and incoming transportation costs which we pay.

8**. CREDIT AND PAYMENT**. Payment for products shall be 30 days net. Pro-rata payments shall become due with partial shipments. A late charge of 2 percent per month or the maximum permitted by law, which ever is less, will be imposed on all past due invoices. We reserve the right at any time to alter, suspend, credit, or to change credit terms provided herein, when in our sale opinion your financial condition so warrants. In such case, in addition to any other remedies herein or by law provided. Failure to pay invoices at maturity date at our election makes all. subsequent invoices immediately due and payable irrespective of terms, and we may withhold all subsequent deliveries until the full account is settled, and we may terminate this agreement. Acceptance by us of less than full payment shall not be a waiver of any of our rights. You represent by sending each purchase order to us that you are not insolvent as that term is defined in applicable state or federal statutes. In the event you become insolvent before delivery of any products purchased hereunder, you will notify us in writing. A failure to notify us of insolvency at the time of delivery shall be construed as a reaffirmation of your solvency at that time. Irrespective of whether the products purchased hereunder are delivered directly to you, or to a customer of yours, and irrespective of the size of shipment, we shall have the right to withhold or reclaim goods under the applicable state and federal statutes. Where youCare responsible for any delay in shipment the date of completion of goods may be treated by us as the date of shipment for purposes of payment. Completed goods shall be held at your cost and risk and we shall have the right to bill you for reasonable storage and insurance expenses. Regardless of price quoted, all orders will be invoiced in the minimum amount of $50.00 net.

9. I**NSPECTION**. Inspection of goods in our plant by you or your representative will be permitted insofar as this does not unduly interfere with our workflow, provided that complete details of the inspection you desire are submitted to us in writing in advance.

10. **RECORDS, AUDITS AND PROPRIETARY DATA**. Unless otherwise specifically agreed in writing signed by an authorized officer, neither you nor any representative of yours, nor any other person, shall have any right to examine or audit our cost accounts, books or records of any kind or on any matter, or be entitled to, or have control over, any engineering or production prints, drawings or technical data which we, in our sale discretion, may consider in whole or part proprietary to ourselves.

The undersigned accepts this quotation and agrees to the warranty terms and conditions printed on this sheet, and acknowledges that he and, or she is bound thereby and it is fully understood and agreed that ownership, title and right of unrestricted repossession of property, shall remain with the Nickerson Company, Inc., until paid for in full. The signers hereof agree that if any default of this contract occurs, they will retum all above merchandise in good order upon demand, and all payments previously made are to be forfeited for rental and use thereof, plus an additional sum for any legal or attorney fees incurred in the enforcement of above provisions.

SIGNED_____TITLE_____DATE_____

Please sign and return to Nickerson Co. with order.

Pump Data Sheet - National Pump Company

Company: National Pump Company
Name: NICKERSON CO
Date: 6/28/2024

Pump:

Size: K10LC (7 stage)

Type: VERT.TURB.ENCLOSED
Synch Speed: 3600 rpm

Speed: 3540 rpm
Dia: 7.62 in

Curve: CVK10LC2P6CY

Impeller: K10LC (1/8)

Specific Speeds:

Ns: 2501
Nss: 7501

Dimensions:

Suction: ---
Discharge: ---

Vertical Turbine:

Bowl Size: 9.75 in
Max Lateral: 1 in
Thrust K Factor: 6.6 lbf/ft

Pump Limits:

Temperature: 180 °F
Pressure: 370 psi g
Sphere Size: 0.63 in

Power: 569 hp
Eye Area: 12.8 in²

Search Criteria:

Flow: 925 US gpm

Head: 1180 ft

Fluid:

Water
SG: 1
Viscosity: 0.9946 cP

Temperature: 68 °F
Vapor Pressure: 0.3391 psi a
Atm Pressure: 14.7 psi a

NPSHa: ---

Motor:

Standard: NEMA
Enclosure: WP-I

Size: 400 hp
Speed: 3600 rpm
Frame: 5008

Sizing Criteria: Max Power on Design Curve

Curve Corrections:

---- Duty Point ----

Flow:	925 US gpm
Head:	1195 ft
Eff:	82.6%
Power:	338 hp
NPSHr:	34.2 ft

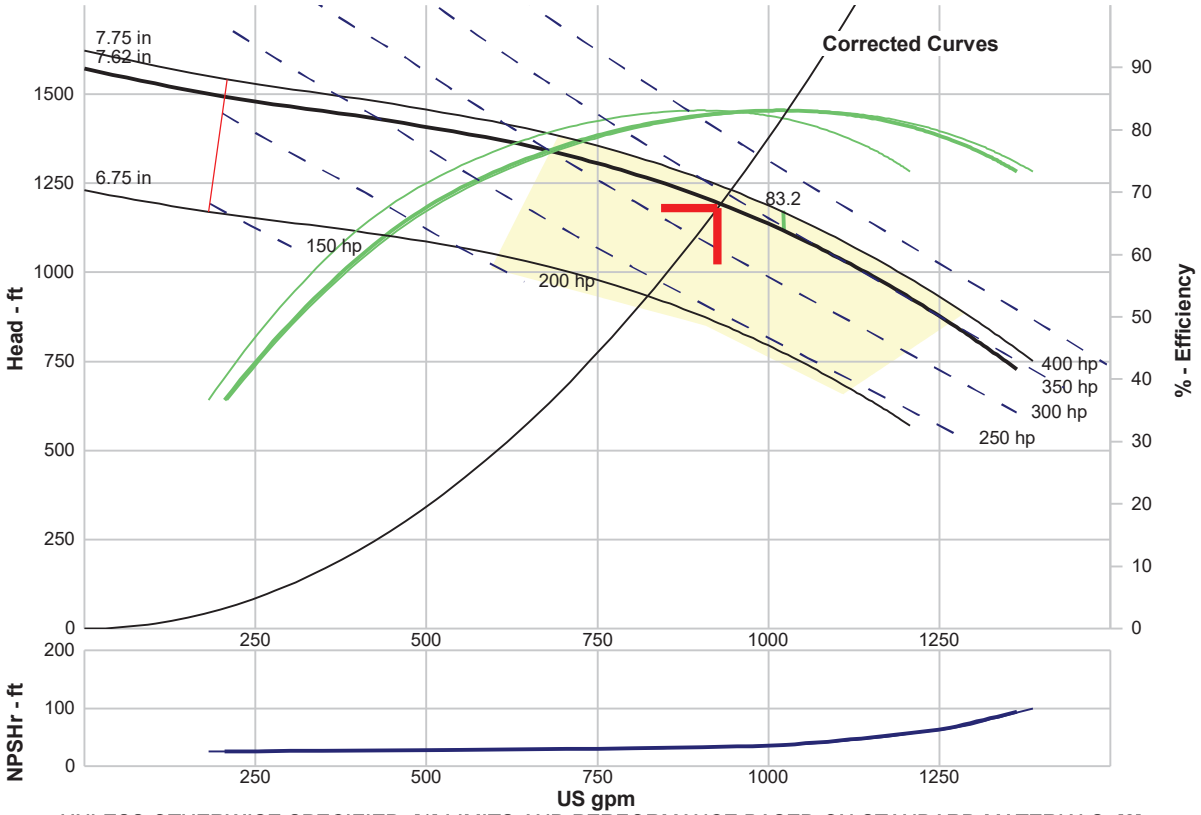
---- Design Curve ----

Shutoff Head:	1573 ft
Shutoff dP:	681 psi
Min Flow:	204 US gpm
BEP:	83.2% @ 1022 US gpm

NOL Power:
351 hp @ 1185 US gpm

-- Max Curve --

Max Power:
369 hp @ 1205 US gpm



UNLESS OTHERWISE SPECIFIED: [1] LIMITS AND PERFORMANCE BASED ON STANDARD MATERIALS. [2] PERFORMANCE SHOWN MEETS HI 14.6-2011 GRADE 1B TOLERANCES AT THE RATED CONDITION WITHIN THE SELECTION WINDOW. [3] NPSHR AT 1ST STAGE IMPELLER CENTERLINE.

Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
1110	3540	1034	82.5	351	45.5
925	3540	1195	82.6	338	34.2
740	3540	1311	78.7	310	30.6
555	3540	1387	69.7	274	28.9
370	3540	1448	55.2	239	27.3