



CENTRALBIDDING
FROM CENTRAL AUCTION HOUSE

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Central Bidding Time: Tue Jan 14 2020 14:05:16 GMT-0600 (Central Standard Time)

Place a Bid: 5000128995 ONE TIME PURCHASE OF A QUANTITY OF PUMPS

Enter all required details into the fields below

Louisiana Contractor ID#

Enter all information required on the outside of the sealed envelope in the box below

<input type="text"/>	<input type="text"/>
Gulf States Engineering Co., Inc. 17961 Painters Row Covington, LA 70435 Jefferson Parish Government Bid 5000128995 One Time Purchase of a Quantity of Pumps Bid Date 1/14/20	

Bid Bond #

Jefferson Parish Vendor #:

Upload Attachment(s)

While this site accepts various file types, sizes and quantities, the preferred method for delivering all of the appropriate and required bid documents is one single scanned PDF file. Vendors submitting bids with multiple uploaded images/photos of bid responses are solely responsible for clarity. If uploaded images/documents are not legible, the bidder's submission will be rejected. Please note all requirements in this bid package for electronic bid submission.

Upload a file

Click the Upload button in order to upload bid related documents

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Central Auction House, LTD

DATE: 12/10/2019
BID NO.: 50-00128995

INVITATION TO BID
THIS IS NOT AN ORDER

Page: 1

JEFFERSON PARISH

PURCHASING DEPARTMENT
P.O. BOX 9
GRETNA, LA. 70054-0009
504-364-2678

BUYER: DNELSON@jeffparish.net

BIDS WILL BE RECEIVED IN THE WEST BANK PURCHASING DEPT, SUITE 4400, JEFFERSON PARISH GENERAL GOVERNMENT BUILDING, 200 DERBIGNY STREET, GRETNA, LA 70053 UNTIL 2:00 PM, 1/14/2020 AND PUBLICLY OPENED THEREAFTER.

For convenience, bidders may also submit bids in the East Bank Purchasing Department, Suite 404, Jefferson Parish Joseph S. Yenni Building, 1221 Elmwood Park Blvd., Jefferson LA 70123. However, if submitting bids on the day of bid opening, bidders must submit at the West Bank location only. All bids will be publicly opened at the West Bank location.

At no charge, bidders may also submit via Jefferson Parish's electronic procurement page by visiting www.jeffparishbids.net to register for this free site. Additional instructions are included in the text box highlighting electronic procurement.

LATE BIDS WILL NOT BE ACCEPTED

Unless submitting via online (see Page 3), each bid must be submitted in a sealed envelope bearing on the outside; the name of the Bidder, his address, and the name of the project for which the bid is submitted and the bid number.

NOTE: ONLY BIDS WRITTEN IN INK OR TYPEWRITTEN, AND PROPERLY SIGNED BY A MEMBER OF THE FIRM OR AUTHORIZED REPRESENTATIVE, WILL BE ACCEPTED. PENCIL AND/OR PHOTOSTATIC FIGURES OR SIGNATURES SHALL RESULT IN BID REJECTION.

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

THE FOLLOWING INSTRUCTIONS APPLY TO ALL BIDS

All bids submitted are subject to these instructions and general conditions and any special conditions and specifications contained herein, all of which are made part of this bid proposal reference. By submitting a bid, vendor agrees to comply with all provisions of Louisiana Law as well be in compliance with the Jefferson Parish Code of Ordinances, Louisiana Code of Ethics, applicable Jefferson Parish ethical standards and Jefferson Parish Resolution No. 113646 and/or Resolution No. 113647.

Jefferson Parish adheres to the Louisiana Code of Governmental Ethics, contained in Louisiana Revised Statutes Annotated, R.S. 42:1101, et seq. Vendor/Proposer by this submission, warrants that there are no "conflicts of interest" related to this procurement that would violate applicable Louisiana Law. Violation of the Louisiana Code of Governmental Ethics may result in rescission of contract, permit or licenses, and the imposition of fines and/or penalties, without contractual liability to the public in accordance with applicable law.

All vendors submitting bids should register as a Jefferson Parish vendor if not already yet registered. Registration forms may be downloaded from <http://purchasing.jeffparish.net> and by clicking on Vendor Information. Current W-9 forms with respective Tax Identification numbers and vendor applications may be submitted at any time; however, if your company is not registered and/or a current W-9 form is not on file, vendor registration is mandatory. Further, a current W-9 form and respective Tax Identification number must be supplied upon contract execution, should you be awarded a contract and/or issued purchase order. Failure to do so may result in delay of payment.

All quotations shall be based on F.O.B. Agency warehouse or job site, anywhere within the Parish as designated by the Purchasing Department. This provision does not apply to public works projects

JEFFERSON PARISH requires all products to be new (current) and all work must be performed according to standard practices for the project. Unless otherwise specified, no aftermarket parts will be accepted. Unless otherwise specified, all workmanship and materials must have at least one (1) year guaranty, in writing, from the date of delivery and/or acceptance of the project. Any deviations or alterations from the specifications must be indicated and/or supporting documentation supplied with bid submission.

Bidders should submit all questions in writing via email to the buyer's email address as indicated above, no later than Five (5) working days prior to the bid opening. Bid numbers should be mentioned in all requests. If submitting online, vendors may send questions via the E-Procurement site no later than Five (5) working days prior to the bid opening.

If this bid requires a pre-bid conference (see Additional Requirements section), bidders are advised that such conference will be held to allow bidders the opportunity to identify any discrepancies in the bid specifications and seek further clarification regarding instructions. The Purchasing Department will issue a written response to bidders' questions in the form of an Addendum. Please note that all official communication will be expressed in the form of an addendum.

Visit our website at [HTTP://PURCHASING.JEFFPARISH.NET](http://PURCHASING.JEFFPARISH.NET)

All formal Addenda require written acknowledgement on the bid form by the bidder. Failure to acknowledge an Addendum on the bid form shall cause the bid to be rejected. JEFFERSON PARISH reserves the right to award bid to next lowest responsive and responsible bidder in this event.

JEFFERSON PARISH will accept one price for each item unless otherwise indicated. Two or more prices for one item will result in bid rejection. Bidders are required to complete, sign and return the bid form and/or complete and return the associated line item pricing forms as indicated. Vendors must not alter the bid forms. Doing so will cause the bid to be rejected.

A corporate resolution or written evidence of the individual signing the bid having such authority must be submitted with the bid. Failure to comply will cause bid to be rejected. For corporate entities, such written evidence may be a printout of the Louisiana Secretary of State's website listing the signatory as an officer. Such printout shall be included with the bid submission. Bids submitted by Owners or Sole Proprietorships must include certification that he or she owns the entity for which the bid is signed. This documentation must be submitted with the bid. Failure to do so will result in bid rejection.

NOTE: A sample corporate resolution can be downloaded from our website <http://purchasing.jeffparish.net> or you may provide your own document. A sample certification of sole proprietorship can also be downloaded from our website <http://purchasing.jeffparish.net> or you may provide your own document.

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

A. AWARD OF CONTRACT: JEFFERSON PARISH reserves the right to award contracts or place orders on a lump sum or individual item basis, or such combination, as shall in its judgment be in the best interest of JEFFERSON PARISH. Every contract or order shall be awarded to the LOWEST RESPONSIVE and RESPONSIBLE BIDDER, taking into consideration the CONFORMITY WITH THE SPECIFICATIONS and the DELIVERY AND/OR COMPLETION DATE. SPLIT AWARDS MADE TO SEVERAL VENDORS WILL ONLY BE GRANTED TO THOSE DEEMED RESPONSIVE AND RESPONSIBLE.

All bid prices shall remain valid for 45 days. Jefferson Parish and the lowest responsive and responsible bidder(s) by mutual written consent may mutually agree to extend the deadline for award by one (1) or more extensions of thirty (30) calendar days.

PROTESTS: Only those vendors that submit bids in response to this solicitation may protest any element of the procurement, in writing to the Director of the Purchasing Department. Written protest must be received within 48 hours of the release of the bid tabulation by the Purchasing Department. After consultation, the Parish Attorney's Office will then respond to protests in writing. (For more information, please see Chapter 2, Article VII, Division 2, Sec. 2-914.1 of the Jefferson Parish Code of Ordinances.)

PREFERENCE: Unless federal funding is directly spent by Jefferson Parish for this purchase, preference is hereby given to materials, supplies, and provisions produced, manufactured or grown in Louisiana, quality being equal to articles offered by competitors outside the state. "LSA – R.S. 38:2251-2261"

B. USE OF BRAND NAMES AND STOCK NUMBERS: Where brand names and stock numbers are specified, it is for the purpose of establishing certain minimum standards of quality. Bids may be submitted for products of equal quality, provided brand names and stock numbers are specified. Complete product data may be required prior to award.

C. CANCELLATION OF CONTRACT: JEFFERSON PARISH reserves the right to cancel all or any part if not shipped promptly. No charges will be allowed for parking or cartage unless specified in quotation. The order must not be filled at a higher price than quoted. JEFFERSON PARISH reserves the right to cancel any contract at anytime and for any reason by issuing a THIRTY (30) day written notice to the contractor.

For good cause and as consideration for executing a contract with Jefferson Parish, vendor conveys, sells, assigns and transfers to Jefferson Parish or its assigns all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of Louisiana, relating to the particular good or services purchased or acquired by Jefferson Parish.

D. PRICES: Jefferson Parish is exempt from paying sales tax under LSA-R.S. 47:301 (8)(c). All prices for purchases by Jefferson Parish of supplies and materials shall be quoted in the unit of measure specified and unless otherwise specified, shall be exclusive of state and Parish taxes. The price quoted for work shall be stated in figures. In the event there is a difference in unit prices and totals, the unit price shall prevail.

Quantities listed are for bidding purposes only. Actual requirements may be more or less than quantities listed.

Bidders are not to exclude from participation in, deny the benefits of, or subject to discrimination under any program or activity, any person in the United States on the grounds of race, color, national origin, or sex; nor discriminate on the basis of age under the Age Discrimination Act of 1975, or with respect to an otherwise qualified handicapped individual as provided in Section 504 of the Rehabilitation Act of 1973, or on the basis of religion, except that any exemption from such prohibition against discrimination on the basis of religion as provided in the Civil Rights Act of 1964, or Title VI and VII of the Act of April 11, 1968, shall also apply. This assurance includes compliance with the administrative requirements of the Revenue Sharing final handicapped discrimination provisions contained in Section 51.55 (c), (d), (e), and (k)(5) of the Regulations. New construction or renovation projects must comply with Section 504 of the 1973 Rehabilitation Act, as amended, in accordance with the American National Standard Institute's specifications (ANSI A17.1-1961).

Jefferson Parish and its partners as the recipients of federal funds are fully committed to awarding a contract(s) to firm(s) that will provide high quality services and that are dedicated to diversity and to containing costs. Thus, Jefferson Parish strongly encourages the involvement of minority and/or woman-owned business enterprises (DBE's, including MBE's, WBE's and SBE's) to stimulate participation in procurement and assistance programs.

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

The purpose and intention of this invitation to bid is to afford all suppliers an equal opportunity to bid on all construction, maintenance, repair, operating supplies and/or equipment listed in this bid proposal. JEFFERSON PARISH WILL ACCEPT ONE BID ONLY FROM EACH VENDOR. Items bid must meet specifications.

Advertised bids will be tabulated and a copy of the tabulation will be forwarded to each responding bidder.

IN ACCORDANCE WITH STATE REGULATIONS JEFFERSON PARISH OFFERS ELECTRONIC PROCUREMENT TO ALL VENDORS

This electronic procurement system allows vendors the convenience of reviewing and submitting bids online. This is a secure site and authorized personnel have limited read access only. Bidders are encouraged to submit electronically using this free service; while the website accepts various file types, one single PDF file containing all appropriate and required bid documents is preferred. Bidders submitting uploaded images of bid responses are solely responsible for clarity. If uploaded images/documents are not legible, then bidder's submission will be rejected. Please note all requirements contained in this bid package for electronic bid submission.

Please visit our E-Procurement Page at www.jeffparishbids.net to register and view Jefferson Parish solicitations. For more information, please visit the Purchasing Department page at <http://purchasing.jeffparish.net>.

The general specifications for construction projects and the purchase of materials, services and/or supplies are those adopted by the JEFFERSON PARISH Council by Resolution No. 113646 or 113647 dated 12/09/09. The general conditions adopted by this resolution shall be considered as much a part of this document as if they were written wholly herein. A copy may be obtained from the Office of the Parish Clerk, Suite 6700, Jefferson Parish General Government Building, 200 Derbigny Street, Gretna, LA 70053. You may also obtain a copy by visiting the Purchasing Department webpage at <http://purchasing.jeffparish.net> and clicking on Online Forms.

ADDITIONAL REQUIREMENTS FOR THIS BID

PLEASE MATCH THE NUMBERS PRINTED IN THIS BOX WITH THE CORRESPONDING INSTRUCTIONS BELOW.

13,15

1. All bidders must attend the MANDATORY pre-bid conference and will be required to sign in and out as evidence of attendance. In accordance with LSA R.S. 38:2212(I), all prospective bidders shall be present at the beginning of the MANDATORY pre-bid conference and shall remain in attendance for the duration of the conference. Any prospective bidder who fails to attend the conference or remain for the duration shall be prohibited from submitting a bid for the project.
2. Attendance to this pre-bid conference is optional. However, failure to attend the pre-bid conference shall not relieve the bidder of responsibility for information discussed at the conference. Furthermore, failure to attend the pre-bid conference and inspection does not relieve the successful bidder from the necessity of furnishing materials or performing any work that may be required to complete the work in accordance with the specification with no additional cost to the owner.
3. Contractor must hold current applicable JEFFERSON PARISH licenses with the Department of Inspection and Code Enforcement. Contractor shall obtain any and all permits required by the JEFFERSON PARISH Department of Inspection and Code Enforcement. The contractor shall be responsible for the payment of these permits. All permits must be obtained prior to the start of the project. Contractor must also hold any and all applicable Federal and State licenses. Contractor shall be responsible for the payment of these permits and shall obtain them prior to the start of the project.
4. A LA State Contractor's License will be required in accordance with LSA R.S. 37-2150 et. seq. and such license number will be shown on the outside of the bid envelope. Failure to comply will cause the bid to be rejected. Additionally if submitting the bid electronically, then the license number must be entered in the appropriate field in the Electronic Procurement system. Failure to comply will cause the bid to be rejected.
5. It is the bidder's responsibility to visit the job site and evaluate the job before submitting a bid.
6. Job site must be clean and free of all litter and debris daily and upon completion of the contract. Passageways must be kept clean and free of material, equipment, and debris at all times. Flammable material must be removed from the job site daily because storage will not be permitted on the premises. Precautions must be exercised at all times to safeguard the welfare of JEFFERSON PARISH and the general public.

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

7. **PUBLIC WORKS BIDS:** All awards for public works in excess of \$5,000.00 will be reduced to a formal contract which shall be recorded at the contractor's expense with the Clerk of Court and Ex-Officio Recorder of Mortgages for the Parish of Jefferson. A price list of recordation costs may be obtained from the Clerk of Court and Ex-Officio Recorder of Mortgages for the Parish of Jefferson. All awards in excess of \$25,000.00 will require both a performance and a payment bond. Unless otherwise stated in the bid specifications, the performance bond requirements shall be 100% of the contract price. Unless otherwise stated in the bid specifications, the payment bond requirements shall be 100% of the contract price. Both bonds shall be supplied at the signing of the contract.
8. **NON-PUBLIC WORKS BIDS:** A performance bond will be required for this bid. The amount of the bond will be 100% of the contract price unless otherwise indicated in the specifications. The performance bond shall be supplied at the signing of the contract.
9. **NON-PUBLIC WORKS BIDS:** A payment bond will be required for this bid. The amount of the bond will be 100% of the contract price unless otherwise indicated in the specifications. The payment bond shall be supplied at the signing of the contract.
10. All bidders must comply with the requirements stated in the attached "Standard Insurance Requirements" sheet attached to this bid solicitation. Prior to contract executions/purchase order issuance, the successful bidder will be required to provide final insurance certificates which shall name Jefferson Parish as an additional insured in accordance with the instructions in the aforementioned "Standard Insurance Requirements" sheet.
11. A bid bond will be required with bid submission in the amount of 5% of the total bid, unless otherwise stated in the bid specifications. Acceptable forms shall be limited to cashier's check, certified check, or surety bid bond. All sureties must be in original format (no copies) If submitting a bid online, vendors must submit an electronic bid bond through the respective online clearinghouse bond management system(s) as indicated in the electronic bid solicitation on Central Auction House. No scanned paper copies of any bid bond will be accepted as part of the electronic bid submission.
12. This is a requirements contract to be provided on an as needed basis. JEFFERSON PARISH makes no representations on warranties with regard to minimum guaranteed quantities unless otherwise stated in the bid specifications.
13. Freight charges should be included in total cost when quoting. If not quoted FOB DELIVERED, freight must be quoted as a separate item. Bid may be rejected if not quoted FOB DELIVERED or if freight charges are not indicated on bid form.
14. **PUBLIC WORKS BIDS - Completed, Signed and Properly Notarized Affidavits Required;** This applies to all solicitations for construction, alteration or demolition of public buildings or projects, in conformity with the provisions contained in LSA-RS 38:2212.9, LSA-RS 38:2212.10, LSA-RS 38:2224, and Sec 2-923.1 of the Jefferson Parish Code of Ordinances. For bidding purposes, all bidders must submit with bid submission COMPLETED, SIGNED and PROPERLY NOTARIZED Affidavits, including: Non-Collusion Affidavit, Non-Collusion Affidavit, Campaign Contribution Affidavit, Debt Disclosures Affidavit and E-Verify Affidavit. For the convenience of vendors, all affidavits have been combined into one form entitled PUBLIC WORKS BID AFFIDAVIT. This affidavit must be submitted in its original format, and without material alteration, in order to be compliant and for the bid to be considered responsive. A scanned copy of the completed, signed and properly notarized affidavit may be submitted with the bid, however, the successful bidder must submit the original affidavit in its original format and without material alteration upon contract execution. Failure to comply will result in the bid submission being rejected as non-responsive. The Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event.
15. **NON PUBLIC WORK BIDS - Completed, Signed and Properly Notarized Affidavits Required** in conformity with the provisions contained in LSA – RS 38:2224 and Sec 2-923.1 of the Jefferson Parish Code of Ordinances. For bidding purposes, all bidders must submit with bid submission COMPLETED, SIGNED and PROPERLY NOTARIZED Affidavits, including: Non-Collusion Affidavit, Debt Disclosures Affidavit and Campaign Contribution Affidavit. For the convenience of vendors, all affidavits have been combined into one form entitled NON PUBLIC WORKS BID AFFIDAVIT. This affidavit must be submitted in its original format, and without material alteration, in order to be compliant and for the bid to be considered responsive. A scanned copy of the completed, signed and properly notarized affidavit may be submitted with the bid, however, the successful bidder must submit the original affidavit in its original format and without material alteration upon contract execution. Failure to comply will result in the bid submission being rejected as non-responsive. The Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event.
16. The ensuing contract for this bid solicitation may be eligible for FEMA reimbursement and/or Federal funding/reimbursement. As such, the referenced appendix will be applicable accordingly and shall be considered a part of the bid documents. All applicable certifications must be duly completed, signed and submitted with bid submission. Failure to submit applicable certifications with bid submission will result in bid rejection.
17. For this project, the Contractor shall not pay any state or local sales or use taxes on materials and equipment which are affixed and made part of the immovable property of the project or which permanently incorporated in the project (hereinafter referred to as "applicable materials and equipment"). All purchases of applicable materials or equipment shall be made by the contractor on behalf of and as the agent of Jefferson Parish (Owner), a political subdivision of the State of Louisiana. No state and local sales and use taxes are owned on applicable materials and equipment under the provisions of Act 1029 of the 1991 Regular Session – Louisiana Revised Statute 47:301(8)(c). Owner will furnish contractor a certificate form which certifies that Owner is not required to pay such state or local sales and use taxes, and contractor shall furnish a copy of such certificate to all vendors or suppliers of the applicable materials and equipment

It shall be the duty of every parish officer, employee, department, agency, special district, board, and commission; and the duty of every contractor, subcontractor, and licensee of the parish, and the duty of every applicant for certification of eligibility for a parish contract or program, to cooperate with the Inspector General in any investigation, audit, inspection, performance review, or hearing pursuant to Jefferson Parish Code of Ordinances Section 2-155.10(19). By submitting a bid, vendor acknowledges this and will abide by all provisions of the referenced Jefferson Parish Code of Ordinances.

See Page 1 for Conflicts of Interest Statement

DATE: 12/10/2019

Page: 5

BID NO.: 50-00128995

BID FORM
Non Public Works

All Public Work Projects are required to use the Louisiana Uniform Public Work Bid Form

All prices must be held firm unless an escalation provision is requested in this bid. Jefferson Parish will allow one escalation during the term of the contract, which may not exceed the U.S. Bureau of Labor Statistics National Index for all Urban Consumers, unadjusted 12 month figure. The most recently published figure issued at the time an adjustment is requested will be used. A request must be made in writing by the vendor, and the escalation will only be applied to purchases made after the request is made.

Are you requesting an escalation provision?

YES _____ NO X

MAXIMUM ESCALATION PERCENTAGE REQUESTED _____ %

INITIAL BID PRICES WILL REMAIN FIRM THROUGH THE DATE OF _____.

For the purposes of comparison of bids when an escalation provision is requested, Jefferson Parish will apply the maximum escalation percentage quoted by the bidder to the period to which it is applied in the bid. The initial price and the escalation will be used to calculate the total bid price. It will be assumed, for comparison of prices only, that an equal amount of material or labor is purchased each month throughout the entire contract.

DELIVERY: FOB JEFFERSON PARISH

INDICATE DELIVERY DATE ON EQUIPMENT AND SUPPLIES 10-12 Weeks ARO

LOUISIANA CONTRACTOR'S LICENSE NO.: (if applicable) N/A

THIS SECTION MUST BE COMPLETED BY BIDDER:

FIRM NAME: Gulf States Engineering Co., Inc.

ADDRESS: 17961 Painters Row

CITY, STATE: Covington, LA ZIP: 70435

TELEPHONE: (985) 893-3631 FAX: (985) 893-5484

EMAIL ADDRESS: jgibson@gsengr.com

In the event that addenda are issued with this bid, bidders MUST acknowledge all addenda on the bid form. Bidder must acknowledge receipt of an addendum on the bid form as indicated. Failure to acknowledge any addendum on the bid form will result in bid rejection.

Acknowledge Receipt of Addenda: NUMBER: n/a

NUMBER: _____

NUMBER: _____

NUMBER: _____

TOTAL PRICE OF ALL BID ITEMS: \$ 75,849.00

AUTHORIZED SIGNATURE: 

James Gibson

Printed Name

TITLE: Inside Sales

SIGNING INDICATES YOU HAVE READ AND COMPLY WITH THE INSTRUCTIONS AND CONDITIONS.

NOTE: All bids should be returned with the BID NUMBER and BID OPENING DATE indicated on the outside of the envelope submitted to the Purchasing Department.

INVITATION TO BID FROM JEFFERSON PARISH - continued

BID NO.: 50-00128995

SEALED BID

ITEM NUMBER	QUANTITY	U/M	DESCRIPTION OF ARTICLES	UNIT PRICE QUOTED	TOTALS
1	3.00	EA	<p>ONE (1) TIME PURCHASE OF A QUANTITY OF PUMPS FOR JEFFERSON PARISH PUBLIC WORKS DEPARTMENT, SEWERAGE</p> <p>0001 - Submersible pump, 15 HP - 230/3, with corrosion resist Tungsten Carbide</p>	\$19,248.00	\$57,744.00
2	3.00	EA	<p>mechanical seals, inverter duty rated motor, and high chrome impeller and insert wear ring, shield power cable and FM explosion proof motor Item no. NP3153.095</p> <p>FOR CANAL AND FOCIS SEWER LIFT STATION (H6-3A)</p> <p>0002 - Smart Run VFD's for 15HP Triplex Operation</p> <p>Model no. SRC311</p>	\$5,480.00	\$16,440.00
3	1.00	EA	<p>0003 - Submersible Pressure Transducer, 16.4 feet with 40 foot cable</p> <p>Model no. MJK3400</p>	\$896.00	\$896.00
4	1.00	EA	<p>0004 - Transportation of Goods and other Freight Charges</p>	\$769.00	\$769.00

December 27, 2019

Jefferson Parish Department of Sewage – East Bank

Subject: Jefferson Parish Pump Replacement Proposal – Canal & Focis PS

Thank you for the opportunity to provide a proposal for the subject lift station to address performance concerns and operation as per our recent discussions and correspondence. Accordingly, we offer the following:

Scope & Pricing

Qty.	Item Model	Description	Unit Price	Total Price
3	NP3153.095	15 Hp - 230/3Submersible Pump with Corrosion Resistant Tungsten Carbide Mechanical Seals, Inverter Duty Rated Motor, and High Chrome Impeller and Insert Wear Ring, Shield Power Cable and FM Explosion Proof Motor	\$19,248.00	\$57,744.00
3	SRC311	SmartRun VFD	\$5,480.00	\$16,440.00
1	MJK3400	Submersible Level Transducer - 16.4 Feet with 40' Cable	\$896.00	\$896.00
Equipment Sub-Total				\$75,080.00
1	Frgt	Freight to Jefferson Parish	\$769.00	\$769.00
Grand Total				\$75,849.00

Freight FOB Shipping Point
Delivery: Factory 10-12 Weeks After Release

COMMENTS:

1. We have quoted on above listed standard equipment only subject to Engineer/Owner approval. We have not included any miscellaneous accessories, external discharge piping or valve vault inner discharge piping, electrical wiring outside of the control panel, valves, installation etc. not specifically mentioned herein.
2. We **have not** included any applicable federal, state or local sales taxes.
3. We have not included service start-up time in above price, for each pump station. Any additional time would be charged at our prevailing rates.

4. We can not accept any back charges, penalties or liquidated damages for late delivery. However, we feel that the quoted delivery can be met barring any unforeseen delivery problems.
5. All equipment will have factory standard paints and the manufacturer's standard warranty will apply.

Attached hereto are a copy of our standard Terms and Conditions, which become a part of this quotation. If we can be of any additional service, please do not hesitate to contact us.

Please let me know if you have questions or need any additional information.

With Very Best Regards,

George Peart
Director of Sales
Gulf States Engineering Co., Inc.

cc. Job File in NEDS

CORPORATE RESOLUTION

EXCERPT FROM MINUTES OF MEETING OF THE BOARD OF DIRECTORS OF
Gulf States Engineering Co., Inc.
INCORPORATED.

AT THE MEETING OF DIRECTORS OF Gulf States Engineering Co., Inc.
INCORPORATED, DULY NOTICED AND HELD ON December 16, 2019
A QUORUM BEING THERE PRESENT, ON MOTION DULY MADE AND SECONDED. IT
WAS:

RESOLVED THAT James Gibson, BE AND IS HEREBY
APPOINTED, CONSTITUTED AND DESIGNATED AS AGENT AND ATTORNEY-IN-
FACT OF THE CORPORATION WITH FULL POWER AND AUTHORITY TO ACT ON
BEHALF OF THIS CORPORATION IN ALL NEGOTIATIONS, BIDDING, CONCERNS
AND TRANSACTIONS WITH THE PARISH OF JEFFERSON OR ANY OF ITS AGENCIES,
DEPARTMENTS, EMPLOYEES OR AGENTS, INCLUDING BUT NOT LIMITED TO, THE
EXECUTION OF ALL BIDS, PAPERS, DOCUMENTS, AFFIDAVITS, BONDS, SURETIES,
CONTRACTS AND ACTS AND TO RECEIVE ALL PURCHASE ORDERS AND NOTICES
ISSUED PURSUANT TO THE PROVISIONS OF ANY SUCH BID OR CONTRACT, THIS
CORPORATION HEREBY RATIFYING, APPROVING, CONFIRMING, AND ACCEPTING
EACH AND EVERY SUCH ACT PERFORMED BY SAID AGENT AND ATTORNEY-IN-
FACT.

I HEREBY CERTIFY THE FOREGOING TO BE
A TRUE AND CORRECT COPY OF AN
EXCERPT OF THE MINUTES OF THE ABOVE
DATED MEETING OF THE BOARD OF
DIRECTORS OF SAID CORPORATION, AND
THE SAME HAS NOT BEEN REVOKED OR
RESCINDED.

Jeannine James

SECRETARY-TREASURER

12/16/19

DATE

Debt Disclosures

(Choose A or B, if option A is indicated please include the required attachment):

Choice A _____ Attached hereto is a list of all debts owed by the affiant to any elected or appointed official of the Parish of Jefferson, and any and all debts owed by any elected or appointed official of the Parish to the Affiant.

Choice B X There are **NO** debts which would require disclosure under Choice A of this section.

Affiant further said:

That Affiant has employed no person, corporation, firm, association, or other organization, either directly or indirectly, to secure the public contract under which he received payment, other than persons regularly employed by the Affiant whose services in connection with the construction, alteration or demolition of the public building or project or in securing the public contract were in the regular course of their duties for Affiant; and

[The remainder of this page is intentionally left blank.]

That no part of the contract price received by Affiant was paid or will be paid to any person, corporation, firm, association, or other organization for soliciting the contract, other than the payment of their normal compensation to persons regularly employed by the Affiant whose services in connection with the construction, alteration or demolition of the public building or project were in the regular course of their duties for Affiant.

Jeanne James
Signature of Affiant

Jeanne James
Printed Name of Affiant

SWORN AND SUBSCRIBED TO BEFORE ME
ON THE 16 DAY OF Dec., 2019

Sal II
Notary Public

Salvadore A. Mortillaro, II
Notary Public for Life
Parish of St. Tammany, LA
Notary ID #88181

Notary/Bar Roll Number

My commission expires _____.

Print

Notary Search - Detail

Name: MR. SALVADORE A. MORTILLARO II
Address: 1102 N. HWY 190, STE K
COVINGTON, LA 70433

Phone: (985) 875-2222
Phone 2: (504) 455-4444

Notary ID Number: 88181
Parish: ST. TAMMANY with STATEWIDE JURISDICTION
Agency: N/A
Notary Type: Non Attorney
Status: Active

Commission Date: 02/09/2009
Oath Date: 02/06/2009
Surety Expiration Date: 02/05/2020
Annual Report Current: Yes

Notary Events

Suspension From: 02/07/2014 To: 02/11/2014

Deceased, Inactivated, Leave of Absence, Pre-Assessment Registration, Pre-Assessment Taken, Resigned, Retirement, and Revoked events are not available prior to February 11, 2012.

[Back to Search Results](#)[New Search](#)

26995

Form **W-9**
(Rev. October 2007)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Give form to the
requester. Do not
send to the IRS.

Print or type
See Specific Instructions on page 2.

Name (as shown on your income tax return)
Swif States Engineering Co Inc

Business name, if different from above

Check appropriate box: Individual/Sole proprietor Corporation Partnership
 Limited liability company. Enter the tax classification (D=disregarded entity, C=corporation, P=partnership) ▶ Exempt payee
 Other (see instructions) ▶

Address (number, street, and apt. or suite no.)
17961 Painters Row

City, state, and ZIP code
Covington, LA 70435

List account number(s) here (optional)
Remit to Address: P.O. Box 52511 Metairie, LA 70505-2511

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on Line 1 to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Social security number

or

Employer identification number
72-0641015

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Part II Certification

Under penalties of perjury, I certify that

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
- I am a U.S. citizen or other U.S. person (defined below).

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the Certification, but you must provide your correct TIN. See the instructions on page 4.

Sign Here Signature of U.S. person *Maureen Perkins / Swif States Eng Co Inc 9/30/10*

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

- Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
- Certify that you are not subject to backup withholding, or
- Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

Note. If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

The person who gives Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States is in the following cases:

- The U.S. owner of a disregarded entity and not the entity,



GULFSTA-04

BJOY

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
10/15/2019

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER License # 231432 Hub International Gulf South 3510 N. Causeway Boulevard, Suite 300 Metairie, LA 70002	CONTACT NAME: PHONE (A/C, No., Ext): (800) 256-2842	FAX (A/C, No.): (504) 834-2995
	E-MAIL ADDRESS: INSURER(S) AFFORDING COVERAGE INSURER A : Travelers Commercial Casualty Company	
INSURED Gulf States Engineering Co, 17961 Painters Row Covington, LA 70435	NAIC # 40282	
	INSURER B :	
	INSURER C :	
	INSURER D :	
	INSURER E :	
INSURER F :		

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER:			Y6609262N786PHX19	10/8/2019	10/8/2020	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 \$
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY			BA9262N78619CAG	10/8/2019	10/8/2020	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<input type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$ 10,000			CUP-8J435428-19-14	10/8/2019	10/8/2020	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ Aggregate \$ 5,000,000
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input type="checkbox"/> Y/N If yes, describe under DESCRIPTION OF OPERATIONS below		N/A	UB1L0754481814G	10/8/2019	10/8/2020	<input type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER **CANCELLATION**

For Infomational Purposes Only	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE



ADDITIONAL REMARKS SCHEDULE

AGENCY Hub International Gulf South		License # 231432	NAMED INSURED Gulf States Engineering Co, 17961 Painters Row Covington, LA 70435
POLICY NUMBER SEE PAGE 1			
CARRIER SEE PAGE 1	NAIC CODE SEE P 1	EFFECTIVE DATE: SEE PAGE 1	

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,
FORM NUMBER: ACORD 25 FORM TITLE: Certificate of Liability Insurance

Additional Terms and Conditions

COMMERCIAL GENERAL LIABILITY:

Additional Insured status is extended to any person or organization when agreed upon by the Named Insured in a written contract or agreement executed prior to the loss. Waiver of Subrogation is extended to any person or organization when agreed upon by the Named Insured in a written contract or agreement executed prior to the loss.

AUTO LIABILITY:

Additional Insured status is extended to any person or organization when agreed upon by the Named Insured in a written contract or agreement executed prior to the loss. Waiver of Subrogation is extended to any person or organization when agreed upon by the Named Insured in a written contract or agreement executed prior to the loss.
Comprehensive and Collision are included on the Auto policy for symbols 2 & 8. There is a \$1,000 deductible for each.

WORKERS' COMPENSATION/EMPLOYERS LIABILITY:

Policy contains Voluntary Compensation Employers Liability, Longshore and Harbor Workers Compensation Act, Gulf of Mexico Extension, Outer Continental Shelf Lands Act, Maritime Coverage (\$100,000), Voluntary Compensation Maritime. Waiver of Subrogation is extended to any person or organization when agreed upon by the Named Insured in a written contract or agreement executed prior to the loss. Item 3A - LA, MS. Item 3C - AL, AR, AZ, CA, CO, CT, DC, DE, FL, GA, HI, IA, ID, IL, IN, KS, KY, MA, MD, ME, MI, MN, MO, MT, NC, NE, NH, NJ, NM, NV, NY, OK, OR, PA, RI, SC, SD, TN, TX, UT, VA, VT, WI, WV.

UMBRELLA LIABILITY:

Policy follows form over the Commercial General Liability, Auto Liability and Employers Liability.

Subject policies shall be primary insurance and exclusive of any other existing valid and collectable insurance coverage available to any member of Company Group.

All terms, conditions, and coverages apply as per the actual policies.



CENTRALBIDDING
FROM CENTRAL AUCTION HOUSE

5000128995 ONE TIME PURCHASE OF A QUANTITY OF PUMPS
Jefferson Parish Government

Project documents obtained from www.CentralBidding.com

11-Dec-2019 06:41:20 PM



JEFFERSON PARISH

Department of Purchasing

Michael S. Yenni
Parish President

Renny Simno
Director

June 2019

CHANGES TO JEFFERSON PARISH BIDDING PROCEDURES

The Jefferson Parish Purchasing Department would like to make vendors aware of the following changes:

DEDUCTIBLES: The Parish Attorney with concurrence of the Director of Risk Management have waived the deductible section of the Terms and Conditions for all Invitations to Bid, until further notice.

PROTESTS: Only those vendors that submit bids in response to a solicitation may protest any element of the procurement, in writing to the Director of the Purchasing Department. Written protest must be received within 48 hours of the release of the bid tabulation by the Purchasing Department. After consultation, the Parish Attorney's Office will then respond to protests in writing. (For more information, please see Chapter 2, Article VII, Division 2, Sec. 2-914.1 of the Jefferson Parish Code of Ordinances.)

Please contact the Jefferson Parish Purchasing Department at 504-364-2678 if you have any questions or need assistance.

**SPECIFICATIONS
SOLIDS-HANDLING SUBMERSIBLE PUMPS
AND CONTROL COMPONENTS
JEFFERSON PARISH
DEPARTMENT OF SEWERAGE
CANAL & FOCIS LIFT STATION (H6-3A)**

PART 1 - GENERAL

1.0 GENERAL DESCRIPTION

1.01 SCOPE

The vendor shall provide three (3) Flygt submersible pumps, Model No. NP3153.095, three SmartRun VFDs, Model No. SRC311, and one (1) submersible level transducer Model No. MJK3400, or approved equals. Pumps must fit the existing system, utilize the existing sealing flanges, and fit into the aluminum hatches at sewer lift station H6-3A. Any bids submitted for alternate pump manufacturers, other than as specified, must include in their bid all information needed to fully demonstrate complete compliance with requirements of these specifications and dimensional duplicity of the existing pumps. Jefferson Parish reserves the right to reject any bids that are incomplete or do not demonstrate that they are equal to the requirement of these specifications. The pumps shall be supplied by a factory authorized agent for Jefferson Parish.

The pumps, controls, and accessories as noted shall be provided by a single source supplier, to insure complete responsibility for an integrated pumping and controls solution; the System Supplier. The equipment performance and material specifications shall be used to establish a level of quality suitable for the intended service. The control system shall be capable of being integrated into the JEFFERSON PARISH SCADA system if so desired and that work shall be performed by JEFFERSON PARISH personnel.

Furnish three (3), Submersible Solids-Handling Pumps with integral electric submersible motors, cooled by closed loop cooling system, sliding bracket, and other accessories required for complete installation. Control Components shall also be furnished by the equipment supplier to insure single source responsibility for a fully functioning pump system. Pumps shall have suction and discharge sizes and motor ratings as noted in the performance table below.

The Bidder shall be responsible for supplying the equipment specified herein to meet or exceed these specifications as obtained from the System Supplier for this bid. The System Supplier shall be an Authorized Distributor of the proposed products and shall be capable of servicing the products with repair service and

parts availability within two (2) hours of JEFFERSON PARISH. The System Supplier shall routinely stock complete pumps, controls, and parts to repair those units in their own facility. All equipment approved for this project shall meet or exceed all performance, service, and warranty requirements of this specification.

1.02 QUALITY ASSURANCE

A. Manufacturer's Qualifications

1. All equipment approved for this project shall meet or exceed all performance, service, and warranty requirements of this specification.
2. The solids-handling pumps shall be suitable for domestic sewage, pre-treatment plant effluent, and possibly storm water and shall be designed and fully guaranteed for this use. The fluid temperature range shall be from 40 degrees to 104 degrees Fahrenheit.

1.03 TESTING

A. General

Each pump shall be shop tested and field tested as specified hereinafter. All costs for the tests shall be borne by the Bidder. In the event any equipment fails to meet the performance values set forth in this specification, the equipment shall be modified and re-tested or replaced with equipment that performs in accordance with this specification.

B. Shop Tests

Each pump and motor shall be performance tested as specified hereinafter; all pumps shall be tested with motor cable to be supplied with the pumps. Three copies of certified test reports, including actual test records, shall be submitted and approved by the Department of Sewerage prior to shipment of the equipment.

Each pump shall be tested for performance at the factory to determine the head vs. capacity, motor total electrical power draw (KVA), and motor active electrical power draw (KW) for the full speed at which the pumps are specified and shown on a performance test curve, certified by a registered professional engineer, as continuous functions throughout the pump's performance range. Tests of models, prototypes, or similar units will not be accepted.

The motor and cable on each pump shall be tested for moisture content or

insulation defects. After the test, the pump cable end shall be fitted with a shrink-fit rubber boot to protect it from moisture or water.

C. Field Tests

Equipment shall be field tested as specified hereinafter. Field testing shall be composed of preliminary tests and acceptance tests. The Bidder shall provide the services of authorized equipment supplier's representatives to conduct all field tests.

1. Preliminary tests shall be run on all pumps, motors, and control systems to demonstrate that they are in proper working order.
2. Acceptance tests shall be run to demonstrate that the pumping units, motors, and control system meet the following requirements:
 - a. The pumping units operate as specified without excessive noise, cavitation, vibration, and without overheating of the bearings.
 - b. All automatic and manual controls function in accordance with the specified requirements.

1.04 PERFORMANCE

Performance Requirement	Nominal 15 HP Pumps – 4 inch High Head
Minimum Shutoff Head (ft.) – 60 Hz	112 Feet
Pump Rating (GPM/FV/Hydraulic Efficiency) – at 60 Hz	560 GPM@ 64 feet @70%
Maximum Allowable Specific Energy at Rating (KWHr/MG)	327 KWH/MG
Maximum NPSH _r at Either Rating (Ft.)	15 feet
Secondary Curve Point (GPM/FV/Efficiency) – at or below 60 Hz	900 GPM@ 37 feet TDH @60%
Min - Max Motor Rating (HP) at 40 degrees C	12-15 HP
Voltage/Cycle/Phase -	230/60Hz/3
Motor Design Type	NEMA B – Inverter Duty per NEMA MG1, Part 31, FM – Explosion Proof, Class 1 Div 1, Group D
Motor Service Factor	1.15
Motor Insulation Rating	H
Maximum Pump Speed (RPM)	1800 RPM
Maximum Rated Current (A)	39 Amps
Minimum Rated (FL) Power Factor (%)	0.82
Maximum Starting Current (A)	228 Amps
Pump Discharge Connection Size (inches)	4 inch

* - NOTE: Pump Suction and Discharge Must Be on Same Centerline.

1.05 SUBMITTALS

- A. Furnish complete assembly, foundation support, and installation drawings, together with detailed specifications and data covering pumps, motors, material used, parts, devices and other accessories forming a part of the equipment furnished shall be submitted for approval in accordance with the procedure as set forth.

Data and specifications for the equipment shall include, but shall not be limited to the following:

- a. Setting Plans. Setting plans shall include:

1. Anchor bolt layout
2. Anchor bolt dimensions
3. Outline dimensions and weights of pumps, bases, motors, and control enclosures.

b. Pumps. Data and drawings shall include:

1. Manufacturer, type, and model number.
2. Assembly drawing, nomenclature and material list, O&M manual, and parts list.
3. Type, manufacturer, model numbers, location and spacing of bearings.
4. Impeller type, diameter, thru-let dimensions, shredder size, number of vanes, and identification number.
5. Complete motor performance data including: rating, voltage/phase/frequency; design type; service factor; insulation class; motor pole number; actual rotation speed when combined with the specified pumps; current, power factor, and active input power (KW) as a continuous function of shaft power from no load to at least 115 percent load, start (max. inrush) current; locked rotor current; NEC code letter; and motor torque as a continuous function through the motor start cycle from no rotation to synchronous speed.
6. Complete performance test curve(s) showing full range (shutoff to run-out) head vs. Capacity, NPSHR, hydraulic efficiency, motor active (KW) input power, motor total (KVA) input power (Based on measured current and voltage), and shaft power (BHP).
7. Location and description of Service Centers and spare parts stock.
8. Warranty for the proposed equipment.

The manufacturer shall indicate, by arrows to points on the Q/H curves, limits recommended for stable operation, between which the pumps are to be operated to prevent surging, cavitation, and vibration. The stable operating range shall be as large as possible, shall be based on actual hydraulic and mechanical characteristics of the units, and shall meet the hydraulic performance requirements of the proposed system.

- B. Furnish shop drawings and other pertinent data and obtain approval before fabrication. The drawings shall be complete with respect to dimensions, materials of construction, wiring diagrams, and all supporting engineering information.
- C. At least one month before installation, submit four (4) copies of operation

and maintenance instructions to the Owner.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle equipment in a manner that will prevent any damage.
- B. Follow manufacturer's instructions for short term and long term storage, particularly with respect to proper lubricants and periodic rotation of shafts and bearing.
- C. Touch up shop paint to prevent corrosion.

PART 2 - PRODUCTS

2.01 Solids-Handling Pumps with Electric Submersible Motors

- A. Furnish three (3) Submersible Solids-Handling Pumps. Each pump shall be equipped with closed-loop cooling, inverter duty rated, submersible electric motors connected for operation on 460 volts, 3 phase, 60 hertz, and 4-wire service. Pumps shall be furnished with 50 feet of shielded submersible cable (SUBCAB) suitable for submersible pump applications. The power cable shall be sized according to NEC and ICEA standards and also meet with P-MSHA Approval. Each pump shall be have discharge of 4 inches drilled on an ANSI B16.1 bolt pattern.
 - 1. Acceptable Manufacturers will be those who meet or exceed all performance, material, warranty and service requirements of these specifications.

2.02 PUMP DESIGN

- A. The pumps for this application shall be designed to operate in a completely dry pit configuration without the need of an external cooling source except as noted. The motors and cable entry system shall be capable of complete submergence and capable of handling a liquid temperature of at least 104 degrees Fahrenheit.

2.03 PUMP CONSTRUCTION

- A. Major pump components shall be of gray cast iron, ASTM A-48, Class 35B, with smooth surfaces devoid of blow holes or other casting irregularities. Higher density cast irons (Class 40 and above) with reduced vibration dampening capacity, will not be acceptable for pump driver

castings, such as stator and bearing housings. All exposed nuts or bolts shall be AISI type 316 stainless steel. All metal surfaces coming into contact with the pumped media, other than stainless steel and/or brass, shall be protected by a factory-applied spray coating of acrylic dispersion zinc phosphate primer with a polyester resin paint finish on the exterior of the pump.

Sealing design shall incorporate metal-to-metal contact between machined surfaces. Pump/Motor unit mating surfaces where watertight sealing is required shall be machined and fitted with Nitrile or Viton Rubber O-rings. Joint sealing will be the result of controlled compression of rubber O-rings in two planes and O-ring contact of four sides without the requirement of a specific bolt torque limit.

Rectangular cross sectioned gaskets that require specific torque limits to achieve compression will not be accepted. No secondary sealing compounds, elliptical O-rings, grease or other devices shall be used.

2.04 COOLING SYSTEM

- A. Each unit shall be provided with an adequately designed integral cooling system that allows up to 15 motor starts per hour with completely dry conditions, fully or partially-submerged motor on a continuous basis in an ambient 104 degree Fahrenheit environment, and in a standard available version, with no damage to motor windings, bearings, or drive shaft seals. The pump supplied under this specification shall be suitable for continuous operation; under, all noted conditions. The cooling system shall be a glycol cooled, stainless steel cooling jacket system providing for dissipation of motor heat, regardless of the type of pump installation.

2.05 CABLE ENTRY SEAL

- A. The cable entry seal design shall provide strain relief and preclude specific torque requirements to insure a watertight and submersible seal. The cable entry shall consist of at least two elastomer grommets, flanked by washers, all having a close tolerance fit against the cable outside diameter and the cable entry inside diameter; and compressed by the body containing a strain relief function, separate from the function of sealing the cable. The assembly shall provide ease of changing the cable when necessary using the same entry seal. Epoxies, silicones, or other secondary sealing systems will not be accepted.

The cable junction chamber shall be sealed off from the stator housing and shall allow connection of the motor leads to the power cable in an isolated sealing chamber.

2.06 MOTOR

- A. Each pump shall be driven by a vertical, submersible squirrel cage induction motor, shell type NEMA B design, housed in a dry watertight chamber. The motor and the pump shall be produced by the same manufacturer.

The stator winding shall be insulated with moisture resistant Class H insulation, rated for a temperature of 180 degrees Celsius. The stator shall be insulated by the trickle impregnation method using Class H monomer-free polyester resin, resulting in a winding fill factor of at least 95 percent. The stator shall be heat shrink fitted into the cast iron stator housing. The use of multiple step dip and bake type stator insulation process will not be accepted. The use of bolts, pins, screws, or other fastening devices used to locate or hold the stator and that penetrate the stator housing will not be accepted. The motor shall be designed for continuous duty, while handling pumped media of up to 104 degrees Fahrenheit. The motor shall be capable of withstanding at least 10 evenly spaced starts per hour. The rotor bars and short circuit rings shall be made of aluminum.

Three thermal switches shall be embedded in the stator end coils, one per phase winding, to monitor the stator temperature. These thermal switches shall be used in conjunction with, and supplemental to, external motor overload protection, and shall be connected to the motor control panel.

The motor service factor (combined effect of voltage, frequency, viscosity, and specific gravity) shall be 1.15. The motor shall have a voltage tolerance of plus or minus 10 percent. The motor shall be designed for continuous operation in a 40 degree Celsius ambient environment, and shall have a NEMA Class B maximum operating temperature rise of 80 degrees Celsius. A motor performance curve shall be provided upon request, showing torque as a function of speed, and current, power factor, speed, input power in KW, and efficiency as a function of shaft power.

The motor shall be sized to be non-overloading when the pump is operated at any point on the pump performance characteristic curve.

Pump and motor shaft shall be a solid continuous unit. The pump shaft is an extension of the motor shaft. Couplings and shafts incorporating sleeves will not be accepted. The pump shaft shall be completely isolated from the pumped liquid.

Pump motor power cables installed shall be oil resistant chloroprene rubber jacketed, type SPC multi-conductor cable, suitable for submersible pump applications and heavy mechanical stresses. The power cable shall also be sized according to NEC and ICEA standards, and also have P-MSHA

approval. The total length of each cable shall be a minimum of 60 feet long. Power cables shall each include a ground check conductor.

Motors shall be Inverter Duty Rated in accordance with NEMA MG-1, Part 31 and shall be rated by Factory Mutual for NEC Class I, Division I, Group C & D Locations.

2.07 BEARINGS

- A. The integrated pump/motor shaft shall rotate on two (2) sealed and permanently lubricated bearings. External bearing lubrication ports, which allow bearing contamination and over-packing, will not be accepted. The upper bearing, providing for radial thrust, shall be a single row, roller or ball bearing. The lower bearing shall consist of one double row angular contact bearing for combined axial and radial loads. Minimum L₁₀ bearing life shall be 50,000 hours at any usable portion of the pump curve.

2.08 MECHANICAL SEAL

- A. Each pump shall be provided with dual tandem mechanical shaft seal system comprising two totally independent seal assemblies. The seals shall operate in a seal lubricant buffer chamber that hydro-dynamically lubricates the lapped seal faces at a constant rate. The inner seal, located between the lubricant buffer chamber and the stator housing, shall contain one stationary and one positively driven rotating ring, functioning as an independent secondary barrier between the pumped liquid and the stator housing. Both inner seal faces shall be corrosion resistant Tungsten Carbide (WCCR). The outer of the tandem set of seals functions as the primary barrier between the pumped liquid and the stator housing. This set shall consist of a stationary ring and a positively driven rotating ring, both of which shall be corrosion resistant WCCR.

Each interface shall be held in contact by its own spring system supplemented by external liquid pressures. The seals shall require neither maintenance nor adjustment, but shall be easily inspected and replaceable. The lower (outer) seal shall not bear on the impeller and shall remain fixed upon impeller removal.

Upon request of Jefferson Parish (as a Submittal or Pre-Submittal requirement for equipment acceptance on this project), the pump manufacturer shall provide dry-run/leakage test procedures and data for the specific pump shaft seal system on pumps proposed for this project.

Shaft seals without positively driven rotating members, or conventional double mechanical seals with a common single or double spring acting

between the upper and lower units requiring a substantial pressure differential to offset external pressure and effect sealing, will not be accepted, nor considered equal to the dual independent seal system specified. Cartridge-type seals comprising a single rotating element sandwiched between dual stationary elements will not be considered a dual tandem seal system and will not be accepted. Seals shall not be of the uni-directional type, but capable of dual rotation with no damage. The shaft sealing system shall be capable of withstanding volute pressures up to 1.5 times pump shutoff head. No seal damage shall result from operating the pumping unit in its liquid environment, from running pump dry, or from reverse pump operation. The seal system shall not rely upon the pumped media for lubrication.

Each pump shall be provided with a seal buffer chamber containing FDA-approved, non-toxic lubricant for the shaft sealing system. Petroleum-based oil in the buffer chamber will not be accepted. The buffer chamber shall be designed to ensure that air is left in the buffer chamber to absorb the expansion of the lubricant due to temperature variations. The drain and inspection plug, with positive anti-leak seal, shall be easily accessible from the outside.

2.09 PUMP SHAFT

- A. The pump and motor shaft shall be a single piece unit. The pump shaft is an extension of the motor shaft. Shafts using mechanical couplings will not be accepted. The shaft shall be stainless steel – ASTM A479 S43100-T. Shaft sleeves will not be accepted.

2.10 IMPELLER

The impeller shall be of Hi-Chrome Iron, ASTM A532 (Alloy III A) 25 percent dynamically balanced, semi-open, multi-vane, back swept, screw-shaped, non-clog design. The impeller leading edges shall be mechanically self-cleaned automatically upon each rotation as they pass across a spiral groove located on the volute suction. The screw-shaped leading edges of the impeller shall be capable of handling solids, fibrous materials, heavy sludge, and other matter normally found in back wash water. The impeller to volute clearance shall be readily adjustable by the means of a single trim screw. The Impeller shall be locked to the shaft, held by an impeller bolt, and treated with a corrosion inhibitor. The design as stated above shall be used, with a Brinnell hardness of at least 500.

Mass moment of inertia calculations of the rotating assembly shall be provided by the pump manufacturer upon request.

2.11 VOLUTE

The pump volute shall be a single piece gray cast iron, ASTM A-48, Class 35B, non-concentric design with smooth passages of sufficient size to pass any solids that may enter the impeller. Minimum discharge size shall be 10 inches. The volute shall have integral spiral-shaped, sharp-edged insert ring that is pressed into the suction cover of the volute. The spiral groove(s) of the insert ring shall provide the sharp edge(s) across which each impeller vane leading edge shall cross during rotation so to remain unobstructed. The insert ring shall provide effective sealing between the multi-vane semi-open impeller and the volute. It shall be constructed of ASTM A532 (Alloy III A) 25 percent – Hi-Chrome Iron.

2.12 PROTECTION

- A. All stators shall incorporate thermal switches in series to monitor the temperature of each phase winding. At 140 degrees Celsius the thermal switches shall open, stop the motor, and activate an alarm.

USE OF VOLTAGE SENSITIVE SOLID STATE SENSORS AND TRIP TEMPERATURE ABOVE 140 degrees Celsius WILL NOT BE ACCEPTED.

- B. Each pump/motor unit shall be provided with a stator leakage sensor that will sense water intrusion into the motor housing in the event of seal failure or cable entry failure.

PART 3 - EXECUTION

3.01 INSPECTION

Inspect all equipment upon arrival at job site and prior to installation. Notify manufacturer of any damage and/or shortage.

3.02 PREPARATION

Make corrections and/or repairs as required for items inspected and found to be deficient.

3.03 FIELD QUALITY CONTROL

The manufacturer's field engineer or representative shall inspect and check the installation after erection and be on hand for initial start-up of the equipment for a period of at least three days. He shall also instruct Department of Sewerage personnel in the operation and maintenance of

the system.

3.04 ADJUSTING AND CLEANING

- A. Adjust equipment as required and within limits of manufacturer's instructions for proper alignment.
- B. Apply proper type and quantity of lubricants for short term storage or start-up operation, as applicable.
- C. Clean equipment of any foreign matter or substances.
- D. Field paint all components to be painted in accordance with manufacturer's recommendations.

3.05 PROTECTION

After installation and painting protect the equipment from any damage by work of other trades. Repair any damage that nevertheless occurs.

PART 4 – DUPLEX CONTROL PANEL COMPONENTS

4.01 SCOPE

The Pump Supplier shall provide components for a Duplex Pump Control system furnished by JEFFERSON PARISH that shall control 2 pumps in an energy conservation mode of operation. The system shall be capable of adapting to changing inflow conditions and shall automatically regulate pumped outflow based on inflow conditions and shall seek an optimal energy efficiency for the pump station. This shall be accomplished by either providing a Programmable Logic Controller (PLC) with Variable Frequency Drives (VFDs) to provide this adaptable feature or Variable Frequency Drive with integral software that is SCADA ready for operation. This system will incorporate the functionality as noted in the following sections.

4.02 Electrical Control Panel Furnished by JEFFERSON PARISH

- A. JEFFERSON PARISH shall furnish a NEMA 3R stainless steel control panel that will house the equipment furnished herein to provide integral liquid level control, moisture and thermal protection modules and/or PLC and/or VFD's and will be provided with the minimum of the following:
 - (a) Mainline lugs of the appropriate sizes shall be furnished for connecting the incoming supply power. The lugs shall be

- suitable for use with aluminum or copper conductors.
- (b) Each pump motor circuit shall be protected by a properly sized E frame molded case circuit breaker. Each pole of these breakers shall provide inverse time delay overload protection and instantaneous short circuit protection by means of a thermal magnetic element. The breaker shall be operated by a toggle type handle and shall have a Quick-make, Quick-break over center switching mechanism that is mechanically trip free from the handle so that the contacts cannot be held closed against short circuits and abnormal currents. Tripping due to overload or short circuit shall be clearly indicated by the handle automatically assuming a position midway between the manual "ON" and "OFF" position. The minimum interrupting rating of the breaker shall be 42,000 amps at 460 VAC. Pump motor circuit breaker toggle shall be operable through a cutout in the inner door.
 - (c) Hand-Off-Automatic (integral the VFD HMI) switches to select the operating mode for each pump installed on the control panel inner deadfront door.
 - (d) Elapsed time meters for each pump motor.
 - (e) In the event either pump operation selector switch is in the "Off" position, the control system software shall automatically designate the operating pump motor as the "next pump motor to operate" after that pump motor is started.
 - (f) The hinged inner door shall be provided fabricated from, 5052-H32.080, marine alloy aluminum. The hinged inner door shall contain cutouts for all circuit breaker toggles. Control switches and indicators shall be labeled and mounted to the hinged inner door to keep operators from entering the live electrical compartment. A warning sign stating "DANGER -- Disconnect All Sources Of Power Before Opening Door" shall be installed on the inner door. The inner door shall be completely removable for ease of service and shall be held closed by at least (2) hand operated 1/4 turn fasteners. The following items shall be mounted on the inner door:
 - (g) Pilot lights – Alarm, Pump Run, Pump Fail
 - (h) Hand-Off-Automatic – Integral to the VFD Operator Interface
 - (i) Hour meters
 - (j) Back-panel
 - (k) The control system enclosure shall include a removable back-panel. The back-panel shall be painted white and fabricated from cold roll steel.
 - (l) Components shall be fastened to the back-panel using

- stainless steel pinhead machine screws.
- (m) All devices shall be clearly labeled in accordance with the schematic ladder diagram.
- (n) Transient Voltage Surge Suppressors on the 120VAC circuit
- (o) Loop Power Surge Suppressor
- (p) Lightening Arresstor

B. Energy Management Components furnished by the Pump Supplier

(a) A Variable Frequency Drive shall be provided for each pump in the system, sized for the appropriate voltage and power. The pump drive shall be supplied by the pump manufacturer and designed for wastewater pumping and with functionality pre-programmed for the specific pump model used or a PLC of equivalent functionality shall be provided. The pump drive shall provide all level control functionality, hand/auto operation, pump alternation, pump over temperature monitoring, seal leakage monitoring, pump self-cleaning, sump cleaning and pipe cleaning algorithms. The pump drive shall also include capability to monitor station inflow, pump speed and energy consumption in order to automatically operate the pump station at optimal energy efficiency.

The pump drive shall be tested and approved in accordance with national and international standards and comply with Directive 98/37/EC, Safety of Machinery and EN60204-1.

It shall conform to the relevant safety provisions of the Low Voltage Directive 2006/95/EC and the EMC Directive 2004/108/EC and has been designed and manufactured in accordance with the following harmonized European standards:

EN 61800-5-1: 2003	Adjustable speed electrical power drive systems. Safety requirements. Electrical, thermal and energy.
EN 61800-3 2nd Ed: 2004	Adjustable speed electrical power drive systems. EMC requirements and specific test methods
EN 55011: 2007	Limits and Methods of measurement of radio disturbance characteristics of industrial, scientific and medical (ISM) radio-frequency equipment (EMC)
EN60529 : 1992	Specifications for degrees of protection provided by enclosures

The variable frequency drive ampere rating shall be equal to or greater than the ampere rating listed on the motor being driven by the variable frequency drive.

- (b) The drive units shall be modularly constructed. Printed circuit boards shall be connected in such manner that they are easily removed from the unit. Power components shall be readily accessible and be connected in such manner that they are easily removed from the unit. The pump drive shall be freestanding for wall mounting or cabinet installation construction, for 230-480V, 60HZ 3Phase supply. It holds an IP55 and IP66 isolation class.

C. System Operation – VFD or PLC Functionality

a. High/Low Level Sump Control:

The pump controls system shall provide automatic level control via means of a submersible pressure transducer (4-20mADC) and one (1) non-mercury liquid level float switch. User-programmable Start Level shall indicate the point at which the pump will start. Upon activation the pump shall run at maximum speed for a pre-determined period, then ramp down to the energy efficient Optimal speed, calculated by the pump drive. When the water level reaches the Stop Level, the pump shall stop. The Optimal Speed shall either be calculated by the pump drive or manually entered by the user.

In case of high inflow, the pump drive shall increase pump speed until the water level begins to decrease. When the water level reaches the Stop Level, the pump shall stop.

In case of very high inflow, in a duplex installation, when a single pump is unable to overcome the inflow conditions even at maximum speed, additional pumps shall be activated and run at maximum speed until the Stop Level is reached. If water levels continue to rise, a High Level Alarm shall be activated.

The pump drive shall incorporate a Minimum Speed function that prevents the pump from operating at speeds too low to move water based on the pump curve.

b. Run Time Averaging (Duplex Application Only):

In cases of duplex pumps/drives, the pump drive shall provide capability to balance run times for even wear. This shall be an internal function of the drive and not require external devices, such

as an Alternating Relay. The function shall operate by determining a "random" start level based on the Start Level setting. Each drive shall determine its own random start level independent of each other. New random start levels will be determined every 24 hours. The pump with the lowest random start level shall be first to start on any given pump cycle. The second pump shall remain in Standby capacity in case the lead pump shall not be able to lower the water level as described in the section above. By recalculating the random start levels every 24 hours, balanced run times are accomplished.

c. Pump Cleaning Function:

The Pump drive shall incorporate a "self-cleaning" function to remove debris from the impeller. The cleaning shall be triggered by three circumstances:

1. Soft Clogging: When motor current equals 20 percent or greater above rated motor current, in the drive, for a period of 7 seconds
2. Hard Clogging: When motor current equals 80 percent or greater above rated current for a period of 0.01 seconds
3. Schedule Cleaning: The pump drive is pre-programmed to perform cleaning regularly

The cleaning function shall consist of forced stopping, reversal, and forward runs timed to allow for debris to fall from the impeller. After cleaning cycle is complete, drive shall resume to automatic operation.

d. Sump Cleaning Function:

The pump drive shall incorporate a sump cleaning function to ensure surface solids and grease is regularly removed from the sump. The sump cleaning function shall perform regularly when enabled by the operator. Sump cleaning shall consist of the following functions

1. Sump cleaning is triggered when internal timer expires and during a normal pump down cycle
2. Pump is automatically ramped to maximum speed
3. Pump runs at maximum speed for designated time or until the pumps are "snoring."
4. When Sump Cleaning is over, the pump is shut off and resumes normal operation.

e. Pipe Cleaning Function:

The pump drive shall incorporate a pipe cleaning function to avoid discharge pipe sedimentation and clogging due to reduced pump speed. This shall be an automatic feature that initiates with every pump cycle. Upon reaching Pump Start Level, the drive shall operate the pump at 100 percent speed for a determined time before ramping down to the most energy efficient speed for the duration of the cycle.

f. Energy efficient speed finder:

The pump drive shall provide a function that automatically calculates the most energy efficient speed for the pump based on station inflow characteristics. An algorithm calculates the optimal speed whereby the most water is pumped using the least amount of energy, the optimal speed is constantly adjusted to account for changes in inflow without requiring operator adjustment, multiple setpoints, etc.

The energy efficient function prevents the drive from running off of the system curve for the pump. This will ensure maximum hydraulic efficiency as well as electrical efficiency is maintained.

g. Alarms & Monitoring:

The pump drive shall provide alarms and monitoring for the drive, pump and sump. Alarms shall be presented on the LCD display, via a Summary Alarm relay and via Modbus registers. All alarms, when occurring, shall remain active until reset. Alarms shall have a built-in 4 second delay to prevent nuisance tripping. Alarms shall be as follows:

1. Pump Monitoring:
 - a. Pump Over Temperature (thermal contacts in motor stator)
 - b. Pump Seal Leak (Flygt FLS leakage sensor)
2. Sump Monitoring:
 - a. High Sump Level (via level float switch or submersible transducer)
 - b. Submersible transducer Sensor Error (Submersible transducer is not connected, reports faulty values or the wrong start level is used)
3. Pump drive Monitoring (includes, but not limited to):
 - a. Drive Overcurrent
 - b. Drive Overload Trip
 - c. Drive Overvoltage
 - d. Drive Undervoltage
 - e. Drive Overtemperature (internal)
 - f. Drive Overtemperature (ambient)
 - g. Drive Undertemperature (ambient)
 - h. Input Phase Loss
 - i. Drive Output Max Torque Exceeded'

D. Submersible Pressure Transducer

1. The liquid level of the wet well shall be sensed by a submersible level transducer. The transducer shall be a 2-wire type to operate from the level controller's regulated loop power supply and produce an instrumentation signal (4-20mA) in direct proportion to the measured level excursion over a factory-calibrated range of zero to (10) feet of water.
2. The transducer shall be of the solid-state head-pressure sensing type, suitable for continuous submergence and operation and shall be installed in accordance with manufacturer's instructions. The bottom diaphragm face of the sensor shall be installed approximately 6 inches above the wet well floor. The sensor shall be mounted using a stainless steel cable suspension system in a location and as shown on the job plans.
3. The transducer housing shall be fabricated of type 316 stainless steel with a bottom diaphragm 2-5/8 inch diameter of heavy-duty, limp, foul-free, molded Teflon (TM) bonded to a synthetic rubber back/seal.
4. A hydraulic fill liquid behind the diaphragm shall transmit the sensed pressure to a solid-state variable-capacitance transducer element to convert the sensed pressure to a corresponding electrical value. The sensed media shall exert its pressure against the diaphragm that flexes minutely so as to vary the proximity between an internal ceramic diaphragm and a ceramic substrate to vary the capacitance of an electrical field created between the two surfaces. A stable, hybrid, operational amplifier assembly shall be incorporated in the transducer to excite and demodulate the sensing mechanism. The transducer shall incorporate laser-trimmed, temperature compensated, high quality components and construction to provide a precise, reliable, stable output signal directly proportional to the sensed pressure over a factory-calibrated range.
5. The transducer element shall incorporate high over-pressure protection and be designed to withstand intermittent overpressures five times the full-scale range being sensed. Metallic diaphragms shall not be acceptable in that they are subject to damage or distortion. Sensing principles employing LVDTs, resistive or pneumatic elements will not be accepted.
6. The internal pressure of the lower transducer assembly shall be relieved to atmospheric pressure through a heavy-duty urethane jacketed hose/cable assembly and a slack PVC bellows mounted in the control panel. The sealed breather system shall compensate for variations in barometric pressure and expansion and contraction of air due to temperature changes and altitude as well as prevent fouling from moisture and other corrosive elements.

7. The transducer assembly shall be installed where directed by the Dept. of Sewerage, and connected with other system elements and placed in successful operation.
8. The sensor shall be suspension-mounted using a stainless steel cable suspension mounting kit. The mounting kit shall consist of a 2 foot long one-inch NPT type 316 stainless steel pipe with coupling, bolt, cable clamps and hardware. The required length of 1/8 inch diameter 7 x 19 stainless steel cable shall also be provided.

PART 5- SERVICE AND WARRANTY

5.01 SERVICE

- A. The pump manufacturer shall have an authorized factory service center capable of completely servicing the proposed pumps within two (2) hours of the project site. The pump manufacturer shall have a direct factory service center/stocking facility capable of completely servicing, and which stocks identical complete drive units, and spare parts for, the proposed pumps within two (2) hours of the project site.

5.02 WARRANTY

- A. The pump manufacturer shall provide a prorated warranty for the units supplied to the Jefferson Parish against defects in material and workmanship for a period of at least five (5) years or 10,000 operating hours in writing under the operating conditions presented by this project, in accordance with their standard published Municipal Pump Warranty. Pump manufacturer shall demonstrate ability to support claimed warranty coverage by meeting all requirements of this specification.

DATE: 12/10/2019
BID NO.: 50-00128995

INVITATION TO BID
THIS IS NOT AN ORDER

Page: 1

JEFFERSON PARISH

PURCHASING DEPARTMENT
P.O. BOX 9
GRETNA, LA. 70054-0009
504-364-2678

BUYER: DNELSON@jeffparish.net

BIDS WILL BE RECEIVED IN THE WEST BANK PURCHASING DEPT, SUITE 4400, JEFFERSON PARISH GENERAL GOVERNMENT BUILDING, 200 DERBIGNY STREET, GRETNA, LA 70053 UNTIL 2:00 PM, 1/14/2020 AND PUBLICLY OPENED THEREAFTER.

For convenience, bidders may also submit bids in the East Bank Purchasing Department, Suite 404, Jefferson Parish Joseph S. Yenni Building, 1221 Elmwood Park Blvd., Jefferson LA 70123. However, if submitting bids on the day of bid opening, bidders must submit at the West Bank location only. All bids will be publicly opened at the West Bank location.

At no charge, bidders may also submit via Jefferson Parish's electronic procurement page by visiting www.jeffparishbids.net to register for this free site. Additional instructions are included in the text box highlighting electronic procurement.

LATE BIDS WILL NOT BE ACCEPTED

Unless submitting via online (see Page 3), each bid must be submitted in a sealed envelope bearing on the outside; the name of the Bidder, his address, and the name of the project for which the bid is submitted and the bid number.

NOTE: ONLY BIDS WRITTEN IN INK OR TYPEWRITTEN, AND PROPERLY SIGNED BY A MEMBER OF THE FIRM OR AUTHORIZED REPRESENTATIVE, WILL BE ACCEPTED. PENCIL AND/OR PHOTOSTATIC FIGURES OR SIGNATURES SHALL RESULT IN BID REJECTION.

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

THE FOLLOWING INSTRUCTIONS APPLY TO ALL BIDS

All bids submitted are subject to these instructions and general conditions and any special conditions and specifications contained herein, all of which are made part of this bid proposal reference. By submitting a bid, vendor agrees to comply with all provisions of Louisiana Law as well be in compliance with the Jefferson Parish Code of Ordinances, Louisiana Code of Ethics, applicable Jefferson Parish ethical standards and Jefferson Parish Resolution No. 113646 and/or Resolution No. 113647.

Jefferson Parish adheres to the Louisiana Code of Governmental Ethics, contained in Louisiana Revised Statutes Annotated, R.S. 42:1101, et seq. Vendor/Proposer by this submission, warrants that there are no "conflicts of interest" related to this procurement that would violate applicable Louisiana Law. Violation of the Louisiana Code of Governmental Ethics may result in rescission of contract, permit or licenses, and the imposition of fines and/or penalties, without contractual liability to the public in accordance with applicable law.

All vendors submitting bids should register as a Jefferson Parish vendor if not already yet registered. Registration forms may be downloaded from <http://purchasing.jeffparish.net> and by clicking on Vendor Information. Current W-9 forms with respective Tax Identification numbers and vendor applications may be submitted at any time; however, if your company is not registered and/or a current W-9 form is not on file, vendor registration is mandatory. Further, a current W-9 form and respective Tax Identification number must be supplied upon contract execution, should you be awarded a contract and/or issued purchase order. Failure to do so may result in delay of payment.

All quotations shall be based on F.O.B. Agency warehouse or job site, anywhere within the Parish as designated by the Purchasing Department. This provision does not apply to public works projects

JEFFERSON PARISH requires all products to be new (current) and all work must be performed according to standard practices for the project. Unless otherwise specified, no aftermarket parts will be accepted. Unless otherwise specified, all workmanship and materials must have at least one (1) year guaranty, in writing, from the date of delivery and/or acceptance of the project. Any deviations or alterations from the specifications must be indicated and/or supporting documentation supplied with bid submission.

Bidders should submit all questions in writing via email to the buyer's email address as indicated above, no later than Five (5) working days prior to the bid opening. Bid numbers should be mentioned in all requests. If submitting online, vendors may send questions via the E-Procurement site no later than Five (5) working days prior to the bid opening.

If this bid requires a pre-bid conference (see Additional Requirements section), bidders are advised that such conference will be held to allow bidders the opportunity to identify any discrepancies in the bid specifications and seek further clarification regarding instructions. The Purchasing Department will issue a written response to bidders' questions in the form of an Addendum. Please note that all official communication will be expressed in the form of an addendum.

Visit our website at [HTTP://PURCHASING.JEFFPARISH.NET](http://PURCHASING.JEFFPARISH.NET)

All formal Addenda require written acknowledgement on the bid form by the bidder. Failure to acknowledge an Addendum on the bid form shall cause the bid to be rejected. JEFFERSON PARISH reserves the right to award bid to next lowest responsive and responsible bidder in this event.

JEFFERSON PARISH will accept one price for each item unless otherwise indicated. Two or more prices for one item will result in bid rejection. Bidders are required to complete, sign and return the bid form and/or complete and return the associated line item pricing forms as indicated. Vendors must not alter the bid forms. Doing so will cause the bid to be rejected.

A corporate resolution or written evidence of the individual signing the bid having such authority must be submitted with the bid. Failure to comply will cause bid to be rejected. For corporate entities, such written evidence may be a printout of the Louisiana Secretary of State's website listing the signatory as an officer. Such printout shall be included with the bid submission. Bids submitted by Owners or Sole Proprietorships must include certification that he or she owns the entity for which the bid is signed. This documentation must be submitted with the bid. Failure to do so will result in bid rejection.

NOTE: A sample corporate resolution can be downloaded from our website <http://purchasing.jeffparish.net> or you may provide your own document. A sample certification of sole proprietorship can also be downloaded from our website <http://purchasing.jeffparish.net> or you may provide your own document.

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

A. AWARD OF CONTRACT: JEFFERSON PARISH reserves the right to award contracts or place orders on a lump sum or individual item basis, or such combination, as shall in its judgment be in the best interest of JEFFERSON PARISH. Every contract or order shall be awarded to the LOWEST RESPONSIVE and RESPONSIBLE BIDDER, taking into consideration the CONFORMITY WITH THE SPECIFICATIONS and the DELIVERY AND/OR COMPLETION DATE. SPLIT AWARDS MADE TO SEVERAL VENDORS WILL ONLY BE GRANTED TO THOSE DEEMED RESPONSIVE AND RESPONSIBLE.

All bid prices shall remain valid for 45 days. Jefferson Parish and the lowest responsive and responsible bidder(s) by mutual written consent may mutually agree to extend the deadline for award by one (1) or more extensions of thirty (30) calendar days.

PROTESTS: Only those vendors that submit bids in response to this solicitation may protest any element of the procurement, in writing to the Director of the Purchasing Department. Written protest must be received within 48 hours of the release of the bid tabulation by the Purchasing Department. After consultation, the Parish Attorney's Office will then respond to protests in writing. (For more information, please see Chapter 2, Article VII, Division 2, Sec. 2-914.1 of the Jefferson Parish Code of Ordinances.)

PREFERENCE: Unless federal funding is directly spent by Jefferson Parish for this purchase, preference is hereby given to materials, supplies, and provisions produced, manufactured or grown in Louisiana, quality being equal to articles offered by competitors outside the state. "LSA – R.S. 38:2251-2261"

B. USE OF BRAND NAMES AND STOCK NUMBERS: Where brand names and stock numbers are specified, it is for the purpose of establishing certain minimum standards of quality. Bids may be submitted for products of equal quality, provided brand names and stock numbers are specified. Complete product data may be required prior to award.

C. CANCELLATION OF CONTRACT: JEFFERSON PARISH reserves the right to cancel all or any part if not shipped promptly. No charges will be allowed for parking or cartage unless specified in quotation. The order must not be filled at a higher price than quoted. JEFFERSON PARISH reserves the right to cancel any contract at anytime and for any reason by issuing a THIRTY (30) day written notice to the contractor.

For good cause and as consideration for executing a contract with Jefferson Parish, vendor conveys, sells, assigns and transfers to Jefferson Parish or its assigns all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of Louisiana, relating to the particular good or services purchased or acquired by Jefferson Parish.

D. PRICES: Jefferson Parish is exempt from paying sales tax under LSA-R.S. 47:301 (8)(c). All prices for purchases by Jefferson Parish of supplies and materials shall be quoted in the unit of measure specified and unless otherwise specified, shall be exclusive of state and Parish taxes. The price quoted for work shall be stated in figures. In the event there is a difference in unit prices and totals, the unit price shall prevail.

Quantities listed are for bidding purposes only. Actual requirements may be more or less than quantities listed.

Bidders are not to exclude from participation in, deny the benefits of, or subject to discrimination under any program or activity, any person in the United States on the grounds of race, color, national origin, or sex; nor discriminate on the basis of age under the Age Discrimination Act of 1975, or with respect to an otherwise qualified handicapped individual as provided in Section 504 of the Rehabilitation Act of 1973, or on the basis of religion, except that any exemption from such prohibition against discrimination on the basis of religion as provided in the Civil Rights Act of 1964, or Title VI and VII of the Act of April 11, 1968, shall also apply. This assurance includes compliance with the administrative requirements of the Revenue Sharing final handicapped discrimination provisions contained in Section 51.55 (c), (d), (e), and (k)(5) of the Regulations. New construction or renovation projects must comply with Section 504 of the 1973 Rehabilitation Act, as amended, in accordance with the American National Standard Institute's specifications (ANSI A17.1-1961).

Jefferson Parish and its partners as the recipients of federal funds are fully committed to awarding a contract(s) to firm(s) that will provide high quality services and that are dedicated to diversity and to containing costs. Thus, Jefferson Parish strongly encourages the involvement of minority and/or woman-owned business enterprises (DBE's, including MBE's, WBE's and SBE's) to stimulate participation in procurement and assistance programs.

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

The purpose and intention of this invitation to bid is to afford all suppliers an equal opportunity to bid on all construction, maintenance, repair, operating supplies and/or equipment listed in this bid proposal. **JEFFERSON PARISH WILL ACCEPT ONE BID ONLY FROM EACH VENDOR.** Items bid must meet specifications.

Advertised bids will be tabulated and a copy of the tabulation will be forwarded to each responding bidder.

IN ACCORDANCE WITH STATE REGULATIONS JEFFERSON PARISH OFFERS ELECTRONIC PROCUREMENT TO ALL VENDORS

This electronic procurement system allows vendors the convenience of reviewing and submitting bids online. This is a secure site and authorized personnel have limited read access only. Bidders are encouraged to submit electronically using this free service; while the website accepts various file types, one single PDF file containing all appropriate and required bid documents is preferred. Bidders submitting uploaded images of bid responses are solely responsible for clarity. If uploaded images/documents are not legible, then bidder's submission will be rejected. Please note all requirements contained in this bid package for electronic bid submission.

Please visit our E-Procurement Page at www.jeffparishbids.net to register and view Jefferson Parish solicitations. For more information, please visit the Purchasing Department page at <http://purchasing.jeffparish.net>.

The general specifications for construction projects and the purchase of materials, services and/or supplies are those adopted by the JEFFERSON PARISH Council by Resolution No. 113646 or 113647 dated 12/09/09. The general conditions adopted by this resolution shall be considered as much a part of this document as if they were written wholly herein. A copy may be obtained from the Office of the Parish Clerk, Suite 6700, Jefferson Parish General Government Building, 200 Derbigny Street, Gretna, LA 70053. You may also obtain a copy by visiting the Purchasing Department webpage at <http://purchasing.jeffparish.net> and clicking on Online Forms.

ADDITIONAL REQUIREMENTS FOR THIS BID

PLEASE MATCH THE NUMBERS PRINTED IN THIS BOX WITH THE CORRESPONDING INSTRUCTIONS BELOW.

13,15

1. All bidders must attend the MANDATORY pre-bid conference and will be required to sign in and out as evidence of attendance. In accordance with LSA R.S. 38:2212(l), all prospective bidders shall be present at the beginning of the MANDATORY pre-bid conference and shall remain in attendance for the duration of the conference. Any prospective bidder who fails to attend the conference or remain for the duration shall be prohibited from submitting a bid for the project.
2. Attendance to this pre-bid conference is optional. However, failure to attend the pre-bid conference shall not relieve the bidder of responsibility for information discussed at the conference. Furthermore, failure to attend the pre-bid conference and inspection does not relieve the successful bidder from the necessity of furnishing materials or performing any work that may be required to complete the work in accordance with the specification with no additional cost to the owner.
3. Contractor must hold current applicable JEFFERSON PARISH licenses with the Department of Inspection and Code Enforcement. Contractor shall obtain any and all permits required by the JEFFERSON PARISH Department of Inspection and Code Enforcement. The contractor shall be responsible for the payment of these permits. All permits must be obtained prior to the start of the project. Contractor must also hold any and all applicable Federal and State licenses. Contractor shall be responsible for the payment of these permits and shall obtain them prior to the start of the project.
4. A LA State Contractor's License will be required in accordance with LSA R.S. 37-2150 et. seq. and such license number will be shown on the outside of the bid envelope. Failure to comply will cause the bid to be rejected. Additionally if submitting the bid electronically, then the license number must be entered in the appropriate field in the Electronic Procurement system. Failure to comply will cause the bid to be rejected.
5. It is the bidder's responsibility to visit the job site and evaluate the job before submitting a bid.
6. Job site must be clean and free of all litter and debris daily and upon completion of the contract. Passageways must be kept clean and free of material, equipment, and debris at all times. Flammable material must be removed from the job site daily because storage will not be permitted on the premises. Precautions must be exercised at all times to safeguard the welfare of JEFFERSON PARISH and the general public.

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

7. PUBLIC WORKS BIDS: All awards for public works in excess of \$5,000.00 will be reduced to a formal contract which shall be recorded at the contractor's expense with the Clerk of Court and Ex-Officio Recorder of Mortgages for the Parish of Jefferson. A price list of recordation costs may be obtained from the Clerk of Court and Ex-Officio Recorder of Mortgages for the Parish of Jefferson. All awards in excess of \$25,000.00 will require both a performance and a payment bond. Unless otherwise stated in the bid specifications, the performance bond requirements shall be 100% of the contract price. Unless otherwise state in the bid specifications, the payment bond requirements shall be 100% of the contract price. Both bonds shall be supplied at the signing of the contract.
8. NON-PUBLIC WORKS BIDS: A performance bond will be required for this bid. The amount of the bond will be 100% of the contract price unless otherwise indicated in the specifications. The performance bond shall be supplied at the signing of the contract.
9. NON-PUBLIC WORKS BIDS: A payment bond will be required for this bid. The amount of the bond will be 100% of the contract price unless otherwise indicated in the specifications. The payment bond shall be supplied at the signing of the contract.
10. All bidders must comply with the requirements stated in the attached "Standard Insurance Requirements" sheet attached to this bid solicitation. Prior to contract executions/purchase order issuance, the successful bidder will be required to provide final insurance certificates which shall name Jefferson Parish as an additional insured in accordance with the instructions in the aforementioned "Standard Insurance Requirements" sheet.
11. A bid bond will be required with bid submission in the amount of 5% of the total bid, unless otherwise stated in the bid specifications. Acceptable forms shall be limited to cashier's check, certified check, or surety bid bond. All sureties must be in original format (no copies) If submitting a bid online, vendors must submit an electronic bid bond through the respective online clearinghouse bond management system(s) as indicated in the electronic bid solicitation on Central Auction House. No scanned paper copies of any bid bond will be accepted as part of the electronic bid submission.
12. This is a requirements contract to be provided on an as needed basis. JEFFERSON PARISH makes no representations on warranties with regard to minimum guaranteed quantities unless otherwise stated in the bid specifications.
13. Freight charges should be included in total cost when quoting. If not quoted FOB DELIVERED, freight must be quoted as a separate item. Bid may be rejected if not quoted FOB DELIVERED or if freight charges are not indicated on bid form.
14. PUBLIC WORKS BIDS - Completed, Signed and Properly Notarized Affidavits Required; This applies to all solicitations for construction, alteration or demolition of public buildings or projects, in conformity with the provisions contained in LSA-RS 38:2212.9, LSA-RS 38:2212.10, LSA-RS 38:2224, and Sec 2-923.1 of the Jefferson Parish Code of Ordinances. For bidding purposes, all bidders must submit with bid submission COMPLETED, SIGNED and PROPERLY NOTARIZED Affidavits, including: Non-Conviction Affidavit, Non-Collusion Affidavit, Campaign Contribution Affidavit, Debt Disclosures Affidavit and E-Verify Affidavit. For the convenience of vendors, all affidavits have been combined into one form entitled PUBLIC WORKS BID AFFIDAVIT. This affidavit must be submitted in its original format, and without material alteration, in order to be compliant and for the bid to be considered responsive. A scanned copy of the completed, signed and properly notarized affidavit may be submitted with the bid, however, the successful bidder must submit the original affidavit in its original format and without material alteration upon contract execution. Failure to comply will result in the bid submission being rejected as non-responsive. The Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event.
15. NON PUBLIC WORK BIDS - Completed, Signed and Properly Notarized Affidavits Required in conformity with the provisions contained in LSA - RS 38:2224 and Sec 2-923.1 of the Jefferson Parish Code of Ordinances. For bidding purposes, all bidders must submit with bid submission COMPLETED, SIGNED and PROPERLY NOTARIZED Affidavits, including: Non-Collusion Affidavit, Debt Disclosures Affidavit and Campaign Contribution Affidavit. For the convenience of vendors, all affidavits have been combined into one form entitled NON PUBLIC WORKS BID AFFIDAVIT. This affidavit must be submitted in its original format, and without material alteration, in order to be compliant and for the bid to be considered responsive. A scanned copy of the completed, signed and properly notarized affidavit may be submitted with the bid, however, the successful bidder must submit the original affidavit in its original format and without material alteration upon contract execution. Failure to comply will result in the bid submission being rejected as non-responsive. The Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event.
16. The ensuing contract for this bid solicitation may be eligible for FEMA reimbursement and/or Federal funding/reimbursement. As such, the referenced appendix will be applicable accordingly and shall be considered a part of the bid documents. All applicable certifications must be duly completed, signed and submitted with bid submission. Failure to submit applicable certifications with bid submission will result in bid rejection.
17. For this project, the Contractor shall not pay any state or local sales or use taxes on materials and equipment which are affixed and made part of the immovable property of the project or which permanently incorporated in the project (hereinafter referred to as "applicable materials and equipment"). All purchases of applicable materials or equipment shall be made by the contractor on behalf of and as the agent of Jefferson Parish (Owner), a political subdivision of the State of Louisiana. No state and local sales and use taxes are owned on applicable materials and equipment under the provisions of Act 1029 of the 1991 Regular Session - Louisiana Revised Statute 47:301(8)(c). Owner will furnish contractor a certificate form which certifies that Owner is not required to pay such state or local sales and use taxes, and contractor shall furnish a copy of such certificate to all vendors or suppliers of the applicable materials and equipment

It shall be the duty of every parish officer, employee, department, agency, special district, board, and commission; and the duty of every contractor, subcontractor, and licensee of the parish, and the duty of every applicant for certification of eligibility for a parish contract or program, to cooperate with the Inspector General in any investigation, audit, inspection, performance review, or hearing pursuant to Jefferson Parish Code of Ordinances Section 2-155.10(19). By submitting a bid, vendor acknowledges this and will abide by all provisions of the referenced Jefferson Parish Code of Ordinances.

See Page 1 for Conflicts of Interest Statement

All Public Work Projects are required to use the Louisiana Uniform Public Work Bid Form

All prices must be held firm unless an escalation provision is requested in this bid. Jefferson Parish will allow one escalation during the term of the contract, which may not exceed the U.S. Bureau of Labor Statistics National Index for all Urban Consumers, unadjusted 12 month figure. The most recently published figure issued at the time an adjustment is requested will be used. A request must be made in writing by the vendor, and the escalation will only be applied to purchases made after the request is made.

Are you requesting an escalation provision?

YES _____ NO ✓

MAXIMUM ESCALATION PERCENTAGE REQUESTED n/a %

INITIAL BID PRICES WILL REMAIN FIRM THROUGH THE DATE OF 2/14/21

For the purposes of comparison of bids when an escalation provision is requested, Jefferson Parish will apply the maximum escalation percentage quoted by the bidder to the period to which it is applied in the bid. The initial price and the escalation will be used to calculate the total bid price. It will be assumed, for comparison of prices only, that an equal amount of material or labor is purchased each month throughout the entire contract.

DELIVERY: FOB JEFFERSON PARISH

INDICATE DELIVERY DATE ON EQUIPMENT AND SUPPLIES 12-14 weeks

LOUISIANA CONTRACTOR'S LICENSE NO.: (if applicable) _____

THIS SECTION MUST BE COMPLETED BY BIDDER:

FIRM NAME: Allan J Harris Company, Inc.

ADDRESS: 616 Papworth Avenue

CITY, STATE: Metairie, LA ZIP: 70005

TELEPHONE: (504) 834-4994 FAX: (504) 834-5354

EMAIL ADDRESS: ryan@allanjharris.com

In the event that addenda are issued with this bid, bidders MUST acknowledge all addenda on the bid form. Bidder must acknowledge receipt of an addendum on the bid form as indicated. Failure to acknowledge any addendum on the bid form will result in bid rejection.

Acknowledge Receipt of Addenda: NUMBER: _____
NUMBER: _____
NUMBER: _____
NUMBER: _____

TOTAL PRICE OF ALL BID ITEMS: \$ 45,900 (FOB Delivered)

AUTHORIZED SIGNATURE: M. M. Stuedgole

MICHAEL M. STUEGOLE
Printed Name

TITLE: PRESIDENT

SIGNING INDICATES YOU HAVE READ AND COMPLY WITH THE INSTRUCTIONS AND CONDITIONS.

NOTE: All bids should be returned with the BID NUMBER and BID OPENING DATE indicated on the outside of the envelope submitted to the Purchasing Department.

INVITATION TO BID FROM JEFFERSON PARISH - continued

BID NO.: 50-00128995

SEALED BID

ITEM NUMBER	QUANTITY	U/M	DESCRIPTION OF ARTICLES	UNIT PRICE QUOTED	TOTALS
1	3.00	EA	<p>ONE (1) TIME PURCHASE OF A QUANTITY OF PUMPS FOR JEFFERSON PARISH PUBLIC WORKS DEPARTMENT, SEWERAGE</p> <p>0001 - Submersible pump, 15 HP - 230/3, with corrosion resist Tungsten Carbide</p>		
			<p>mechanical seals, inverter duty rated motor, and high chrome impeller and insert wear ring, shield power cable and FM explosion proof motor Item no. NP3153.095</p>	\$10,500."	\$31,500."
			<p>FOR CANAL AND FOCIS SEWER LIFT STATION (H6-3A)</p>		
2	3.00	EA	<p>0002 - Smart Run VFD's for 15HP Triplex Operation</p> <p>Model no. SRC311</p>	\$4,200	\$12,600
3	1.00	EA	<p>0003 - Submersible Pressure Transducer, 16.4 feet with 40 foot cable</p> <p>Model no. MJK3400</p>	\$600	\$600
4	1.00	EA	<p>0004 - Transportation of Goods and other Freight Charges</p>	\$1200	\$1200
				(FOB Delivered)	

CORPORATE RESOLUTION

EXCERPT FROM MINUTES OF MEETING OF THE BOARD OF DIRECTORS OF
ALLAN T. HARRIS Co INC.
INCORPORATED.

AT THE MEETING OF DIRECTORS OF ALLAN T. HARRIS Co. INC.
INCORPORATED, DULY NOTICED AND HELD ON 1/11/2020,
A QUORUM BEING THERE PRESENT, ON MOTION DULY MADE AND SECONDED. IT
WAS:

RESOLVED. THAT MICHAEL M. STACKPOLE, BE AND IS HEREBY
APPOINTED, CONSTITUTED AND DESIGNATED AS AGENT AND ATTORNEY-IN-
FACT OF THE CORPORATION WITH FULL POWER AND AUTHORITY TO ACT ON
BEHALF OF THIS CORPORATION IN ALL NEGOTIATIONS, BIDDING, CONCERNS
AND TRANSACTIONS WITH THE PARISH OF JEFFERSON OR ANY OF ITS AGENCIES,
DEPARTMENTS, EMPLOYEES OR AGENTS, INCLUDING BUT NOT LIMITED TO, THE
EXECUTION OF ALL BIDS, PAPERS, DOCUMENTS, AFFIDAVITS, BONDS, SURETIES,
CONTRACTS AND ACTS AND TO RECEIVE AND RECEIPT THEREFOR ALL
PURCHASE ORDERS AND NOTICES ISSUED PURSUANT TO THE PROVISIONS OF
ANY SUCH BID OR CONTRACT, THIS CORPORATION HEREBY RATIFYING,
APPROVING, CONFIRMING, AND ACCEPTING EACH AND EVERY SUCH ACT
PERFORMED BY SAID AGENT AND ATTORNEY-IN-FACT.

I HEREBY CERTIFY THE FOREGOING TO BE
A TRUE AND CORRECT COPY OF AN
EXCERPT OF THE MINUTES OF THE
ABOVE DATED MEETING OF THE BOARD
OF DIRECTORS OF SAID CORPORATION,
AND THE SAME HAS NOT BEEN
REVOKED OR RESCINDED.

M. M. Stackpole
SECRETARY-TREASURER

1/14/2020
DATE

Non-Public Works Bid Affidavit Instructions

- **Affidavit is supplied as a courtesy to Affiants, but it is the responsibility of the affiant to insure the affidavit they submit to Jefferson Parish complies, in both form and content, with federal, state and parish laws.**
- **Affidavit must be signed by an authorized representative of the entity or the affidavit will not be accepted.**
- **Affidavit must be notarized or the affidavit will not be accepted.**
- **Notary must sign name, print name, and include bar/notary number, or the affidavit will not be accepted.**
- **Affiant MUST select either A or B when required or the affidavit will not be accepted.**
- **Affiants who select choice A must include an attachment or the affidavit will not be accepted.**
- **If both choice A and B are selected, the affidavit will not be accepted.**
- **Affidavit marked N/A will not be accepted.**
- **It is the responsibility of the Affiant to submit a new affidavit if any additional campaign contributions are made after the affidavit is executed but prior to the time the council acts on the matter.**

Instruction sheet may be omitted when submitting the affidavit

Non-Public Works Bid

AFFIDAVIT

STATE OF LOUISIANA

PARISH/COUNTY OF JEFFERSON

BEFORE ME, the undersigned authority, personally came and appeared: _____

M. M. Stachurski, (Affiant) who after being by me duly sworn, deposed and said that he/she is the fully authorized AGENT of ALLAN J. HARRIS, Co. Inc (Entity), the party who submitted a bid in response to Bid Number 50-00128995, to the Parish of Jefferson.

Affiant further said:

Campaign Contribution Disclosures

(Choose A or B, if option A is indicated please include the required attachment):

Choice A _____ Attached hereto is a list of all campaign contributions, including the date and amount of each contribution, made to current or former elected officials of the Parish of Jefferson by Entity, Affiant, and/or officers, directors and owners, including employees, owning 25% or more of the Entity during the two-year period immediately preceding the date of this affidavit or the current term of the elected official, whichever is greater. Further, Entity, Affiant, and/or Entity Owners have not made any contributions to or in support of current or former members of the Jefferson Parish Council or the Jefferson Parish President through or in the name of another person or legal entity, either directly or indirectly.

Choice B X there are **NO** campaign contributions made which would require disclosure under Choice A of this section.

Debt Disclosures

(Choose A or B, if option A is indicated please include the required attachment):

Choice A _____ Attached hereto is a list of all debts owed by the affiant to any elected or appointed official of the Parish of Jefferson, and any and all debts owed by any elected or appointed official of the Parish to the Affiant.

Choice B There are **NO** debts which would require disclosure under Choice A of this section.

Affiant further said:

That Affiant has employed no person, corporation, firm, association, or other organization, either directly or indirectly, to secure the public contract under which he received payment, other than persons regularly employed by the Affiant whose services in connection with the construction, alteration or demolition of the public building or project or in securing the public contract were in the regular course of their duties for Affiant; and

[The remainder of this page is intentionally left blank.]

That no part of the contract price received by Affiant was paid or will be paid to any person, corporation, firm, association, or other organization for soliciting the contract, other than the payment of their normal compensation to persons regularly employed by the Affiant whose services in connection with the construction, alteration or demolition of the public building or project were in the regular course of their duties for Affiant.

M. M. Stackpole
Signature of Affiant

MICHAEL M. STACKPOLE
Printed Name of Affiant

SWORN AND SUBSCRIBED TO BEFORE ME

ON THE 14th DAY OF JANUARY, 2014.

John D. Fitzmorris, Jr.

Notary Public

JOHN D. FITZMORRIS, JR.
Printed Name of Notary

Bar Roll # 05594
Notary/Bar Roll Number

My commission expires Life.

Print

Notary Search - Detail

Name: MR. JOHN D. FITZMORRIS JR.
Address: 2115 ELLEN PARK PL.
NEW ORLEANS, LA 70131

Phone: (504) 566-1801

Notary ID Number: 59026
Parish: ORLEANS with STATEWIDE JURISDICTION
Agency: N/A
Notary Type: Attorney
Bar Roll #: 5594

Status: Active

Commission Date: 07/07/1999
Oath Date: 05/17/1999
Surety Expiration Date: Not Required
Annual Report Current: Not Applicable

[Back to Search Results](#)[New Search](#)

Request for Taxpayer Identification Number and Certification

Give form to the requester. Do not send to the IRS.

Print or type See Specific Instructions on page 2.	Name (as shown on your income tax return)	
	Business name, if different from above ALLAN J. HARRIS COMPANY INC.	
	Check appropriate box: <input type="checkbox"/> Individual/Sole proprietor <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Limited liability company. Enter the tax classification (D=disregarded entity, C=corporation, P=partnership) ▶ <input checked="" type="checkbox"/> Exempt payee <input type="checkbox"/> Other (see instructions) ▶	
	Address (number, street, and apt. or suite no.) 616 PAPWORTH AVENUE	Requester's name and address (optional)
	City, state, and ZIP code METAIRIE LA 70005	
List account number(s) here (optional)		

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on Line 1 to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Social security number
or
Employer identification number
72 0631674

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
- I am a U.S. citizen or other U.S. person (defined below).

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the Certification, but you must provide your correct TIN. See the instructions on page 4.

Sign Here	Signature of U.S. person ▶ <i>M. M. Stackpole</i>	Date ▶ <i>1/1/2020</i>
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General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

- Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
- Certify that you are not subject to backup withholding, or
- Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

Note. If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

The person who gives Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States is in the following cases:

- The U.S. owner of a disregarded entity and not the entity,



ALLAN J HARRIS
company, inc.

SUBMITTAL DATA

January 14th, 2020

SUBMITTED DATA

Grundfos Pumps

PROJECT NAME

Bid No. 50-00128995
Canal & Focis Sewer Lift Station (H6-3A)

CUSTOMER

Jefferson Parish

REPRESENTATIVE

Allan J. Harris Company, Inc.
P.O. Box 9024
Metairie, LA 70055
Phone: 504-834-4994
Attn: Ryan Fitzmorris

GRUNDFOS SE & SL RANGES
SUBMERSIBLE AND DRY-INSTALLED WASTE WATER PUMPS

1.5-42 HP 2, 4, 6-POLE
60 Hz

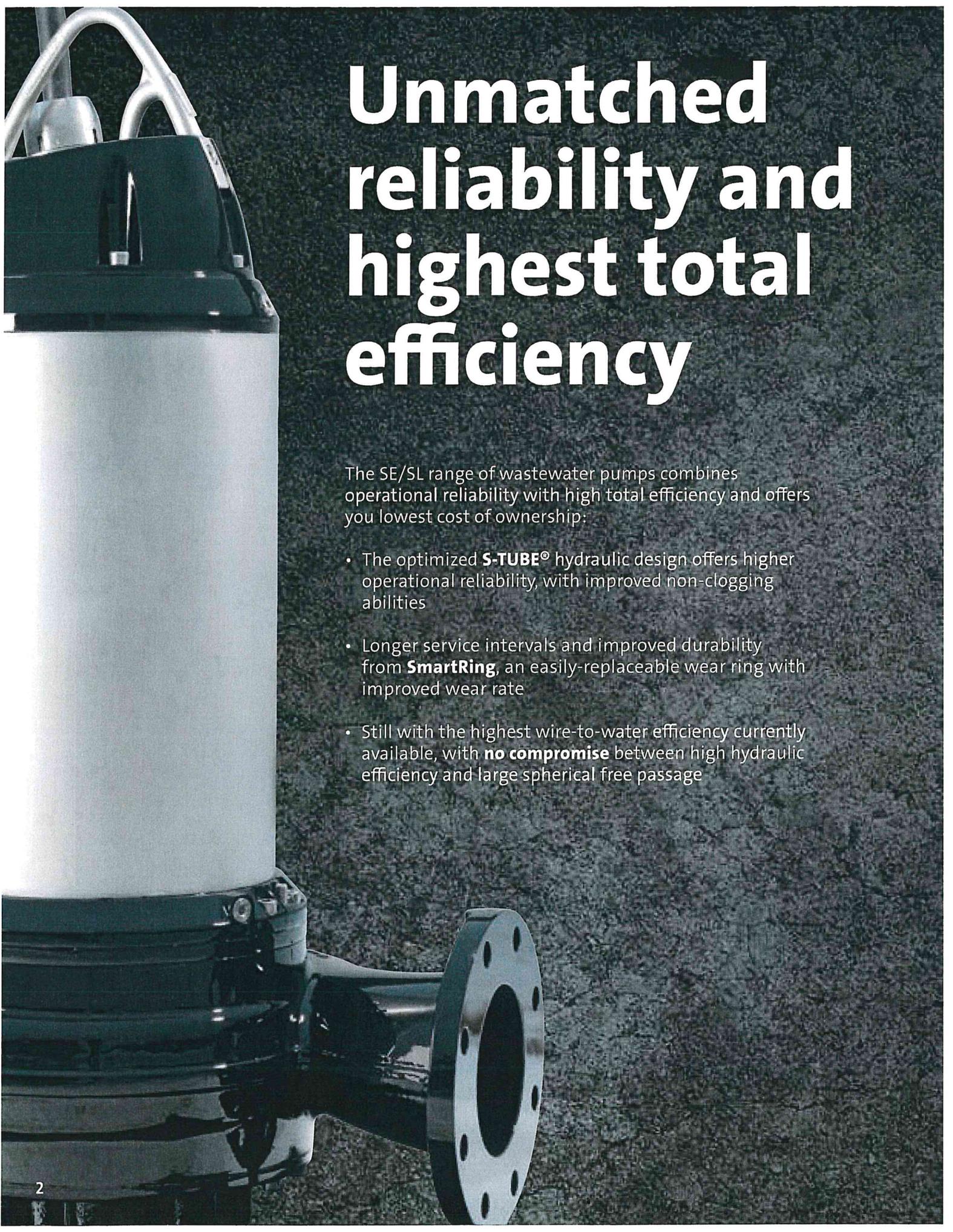
NO COMPROMISE

UNMATCHED RELIABILITY AND EFFICIENCY



be
think
innovate

GRUNDFOS 

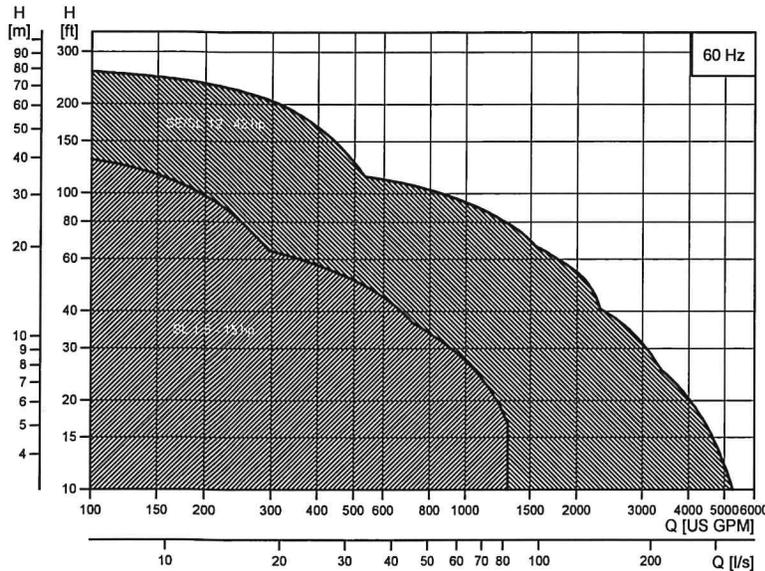


Unmatched reliability and highest total efficiency

The SE/SL range of wastewater pumps combines operational reliability with high total efficiency and offers you lowest cost of ownership:

- The optimized **S-TUBE**® hydraulic design offers higher operational reliability, with improved non-clogging abilities
- Longer service intervals and improved durability from **SmartRing**, an easily-replaceable wear ring with improved wear rate
- Still with the highest wire-to-water efficiency currently available, with **no compromise** between high hydraulic efficiency and large spherical free passage

HIGHEST EFFICIENCY OVER A WIDER RANGE



Performance range of the combined SE and SL pump program
For more product information please visit www.grundfos.com

DESIGNED WITH STATE-OF-THE-ART HYDRAULICS

When we designed new hydraulics specifically for pumping wastewater, we looked at the technologies available on the market and decided that we had to keep things simple. We were not just chasing the highest efficiency at a specific duty point. Wastewater pumps always run with varying loads, and we wanted our new hydraulics to have extremely high efficiencies over a wider range of the curve, without compromising free passage and reliability.

The S-TUBE® impeller developed by Grundfos includes a tube-shaped impeller and a pump housing around it that matches the tube shape through the entire pump. This hydraulic solution contributes to making the SE and SL ranges the

most innovative, efficient and robust wastewater pumps available today.

The S-TUBE® impeller is wet-balanced. This lowers the vibration level dramatically.

Highest efficiency and outstanding reliability

When you experience the S-TUBE®, you get the highest efficiency over a wider performance range and the largest free passage. We have created an impeller that is quite simply the best at fulfilling the core function for which a wastewater impeller is designed: providing the user with robust, efficient and trouble-free operation, and outstanding reliability.

THE BEST TOTAL WIRE-TO-WATER EFFICIENCY

Although the pump system may not be the largest single investment in the wastewater installation, over the installation's lifetime, it is the component in the system that is the key element to ensuring long-term cost-effectiveness of the wastewater installation. Therefore, it is important that we and our customers have a common understanding when we talk efficiencies.

When we say total efficiency, we mean the total, wire-to-water efficiency. In a wastewater pump there will be electrical, mechanical, and hydraulic losses. A pump manufacturer needs to master these without compromising reliability.

At Grundfos, we do precisely this and can therefore supply high efficiency products. We have listened to and understood our customers' concerns with the costs they incur for inefficient operation, maintenance and downtime.

All SE/SL wastewater pumps are built with high-efficiency motors using IEC, IE3 and NEMA premium efficiency motor components, and to this we add the innovative and elegant S-TUBE® impeller, intelligent controls and smart solutions such as SmartRing, a replaceable wear ring. What you get are wastewater pumping solutions with the best performance and highest level of reliability currently available.

Designed for the most demanding applications and tested to the highest standards

The key to optimizing performance in your system is to minimize known risk factors and reduce maintenance requirements. The SE and SL ranges are available in multiple versions from 1.5-42 hp. The SL range is for submerged installation and the SE range for dry and submerged installation.

These pumps can handle municipal, industrial and domestic wastewater, drainage and surface water, and process water.

They are designed for water and wastewater transportation from water utility, industrial and commercial applications, and are ideal for network pumping stations and wastewater treatment plants.

The SE and SL ranges of wastewater pumps can be installed using an auto-coupling guide-rail system or with a fixed pipe connection, and are also for freestanding installation as transportable utility pumps. SE pumps are designed to be installed vertically and horizontally in dry pit installations as well as wet pit applications.

Perfect for your refurbishment project

These products leave a small footprint on your existing installation. By this we mean that you can replace your wastewater pumps with new SE and SL pumps, without having to change your system or sump. This means the benefits of high total efficiency pump operation are immediately available to you with minimal investment.

SE and SL pumps are available in two material variants; pump variants are all complete cast iron and cast iron pumps fitted with stainless steel impeller (Q variants).

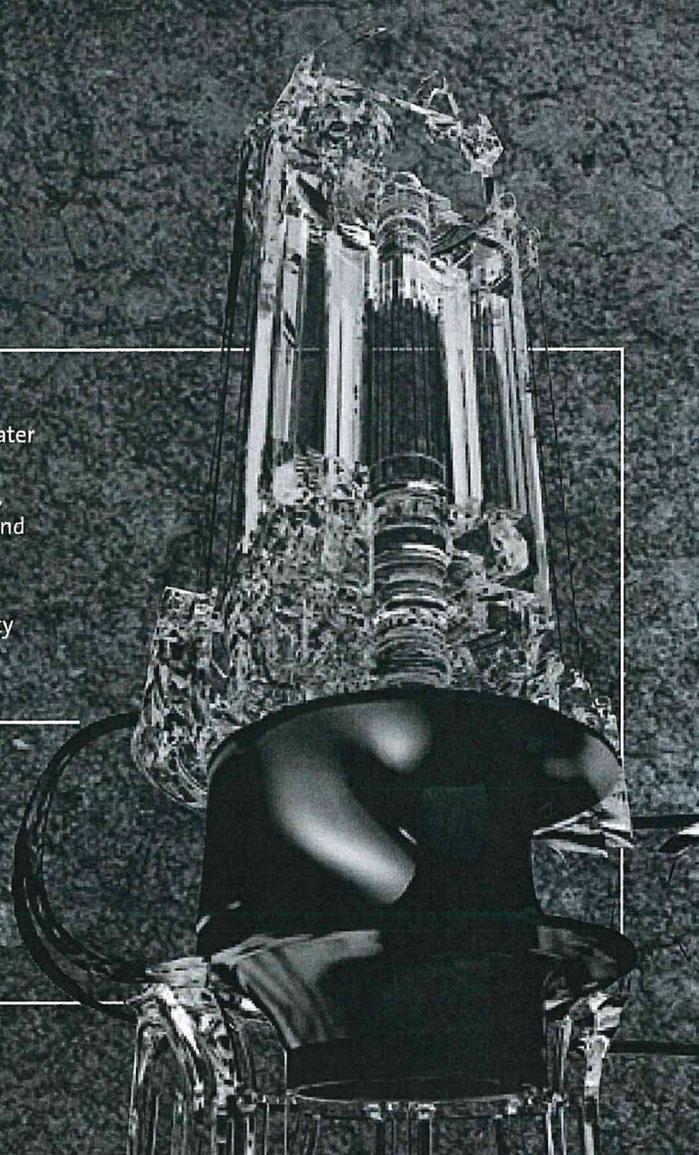
Intelligent pumping solutions

At the heart of Grundfos iSOLUTIONS is our dedicated wastewater controller for larger wastewater pumps that works with motor protection unit or variable frequency drives. For local networks, SE/SL wastewater pumps and iSOLUTIONS can be configured and scaled precisely to match your requirements.

Find out more about the wide range of operational benefits offered by Grundfos iSOLUTIONS on Grundfos.com/water-utility and check 'Wastewater Transport'.

Motor efficiency

Grundfos ensures the highest standards of motor efficiencies and substantial energy and cost savings by applying the best in class designs. SE/SL pumps are fitted with motors built using high-efficiency IEC, IE3 and NEMA premium motor components.



Choice of impeller

The S-TUBE® impeller ensures no compromise between the highest efficiency over a wider performance range, and the largest free passage. Greater free passage means better solids handling and greater non-clogging abilities. All S-TUBE® impellers are wet-balanced to obtain a low vibration level. With the introduction of the two-channel S-TUBE® design for larger capacities, the vibration level is further reduced.



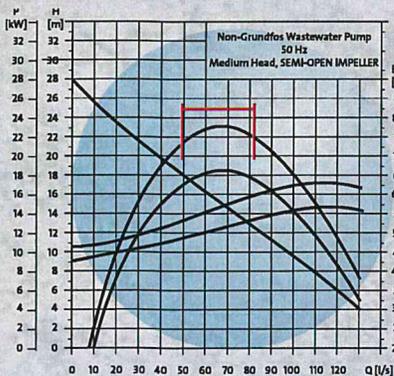
Higher dry solids content – SE/SL pumps fitted with SuperVortex:

For applications with intermittent operation and where dry solids content is over 3 %, the SuperVortex impeller with spherical free passage up to 4" is ideal.

The S-TUBE® impeller is a 'vaneless' closed channel-impeller design without leading edges that prevents clogging in the impeller. A threaded sealing system (patent pending) offers effective and robust sealing between the impeller and volute.

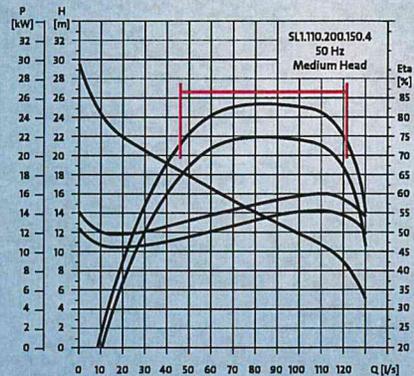
Greater free passage – SE/SL pumps fitted with S-TUBE®:

Perfect for applications with continuous operation and where dry solids content is up to 3 %, the S-TUBE® impeller with spherical free passage up to 5" is ideal.



SEMI-OPEN IMPELLER

- BEP = 78.2 % hydraulic efficiency
- BEP = 66.8 % overall efficiency
- Approximately 22 % of the curve is above 75 % hydraulic efficiency
- Free passage 2" (the blue circle above)



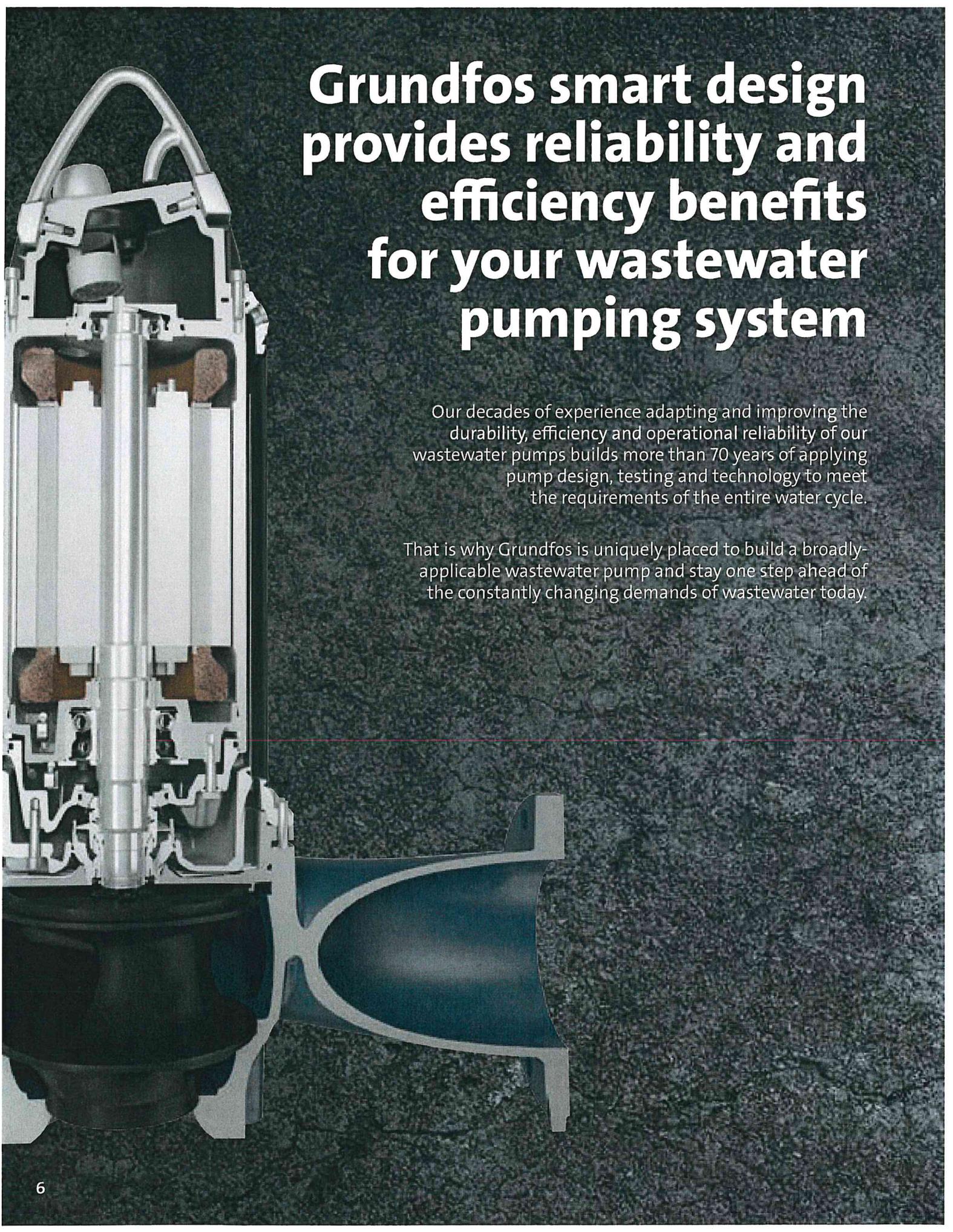
S-TUBE®

- BEP = 81 % hydraulic efficiency
- BEP = 72 % overall efficiency
- Approximately 75 % of the curve is above 75 % hydraulic efficiency
- Free passage 3" (the blue circle above)

Industry-leading product development

At Grundfos, we have decades of experience using simulations and testing to optimize pump reliability and efficiency and to ensure a quality product design that matches the customer's application requirements. Extensive field testing is carried out before a new product range is released to the market.

By combining test-driven development and simulation-driven development, we have increased our capacity to build Engineered-To-Order products, tailored to specific customer requirements. On leaving the factory, all our wastewater pumps are performance tested to ANSI HI 11.6:2012 3B as standard, and up to Grade 1U on request.



Grundfos smart design provides reliability and efficiency benefits for your wastewater pumping system

Our decades of experience adapting and improving the durability, efficiency and operational reliability of our wastewater pumps builds more than 70 years of applying pump design, testing and technology to meet the requirements of the entire water cycle.

That is why Grundfos is uniquely placed to build a broadly-applicable wastewater pump and stay one step ahead of the constantly changing demands of wastewater today.

SmartRing - replaceable wear ring

For higher operational reliability and durability, and to maintain high hydraulic efficiency, add SmartRing between the impeller and the volute. SmartRing works seamlessly with SmartTrim, ensuring optimal wear resistance and extending the lifetime of the pump.

SmartTrim

Patented easy adjustment of the factory-set impeller clearance helps maintain maximum pump efficiency and increased reliability. No special tools are required for dismantling the pump.

Double mechanical shaft seal

Primary and secondary seal in one cartridge unit providing longer seal lifetime and easy fail-proof replacement - even in the field. Replacement can be done without special tools.

Short rotor shaft

Compact motor construction reduces vibrations to protect shaft seals and bearings, and this ensures longer operational lifetime with less maintenance.

Easy-to-remove cable entry

The innovative and patented stainless steel cable entry ensures that liquid cannot penetrate through the cable inlet into the motor and is easy to dismantle in case of service.

One cable to the pump

With just one cable to connect sensors and power supply, an important at-risk area is removed, simplifying pump installation, commissioning and maintenance.

Easy-to-open clamp (up to 15 hp)

The stainless steel clamp assembly system requires no tools for the quick and easy disassembly of pump from motor unit, offers easy access for pump maintenance. The bolts used on larger pumps are easy to remove and do not require special tools.

Patented SmartSeal

The patented Grundfos SmartSeal auto-coupling gasket provides a completely leak-proof connection between the pump and the base unit of the auto-coupling system.

Lifting handle

The lifting handle is designed for optimum point-of-balance, ensures correct lifting and will protect the auto-coupling sealing.

Smooth, easy-to-clean surface

The extremely robust impact-resistant surface is smooth and easily cleaned.



GRUNDFOS



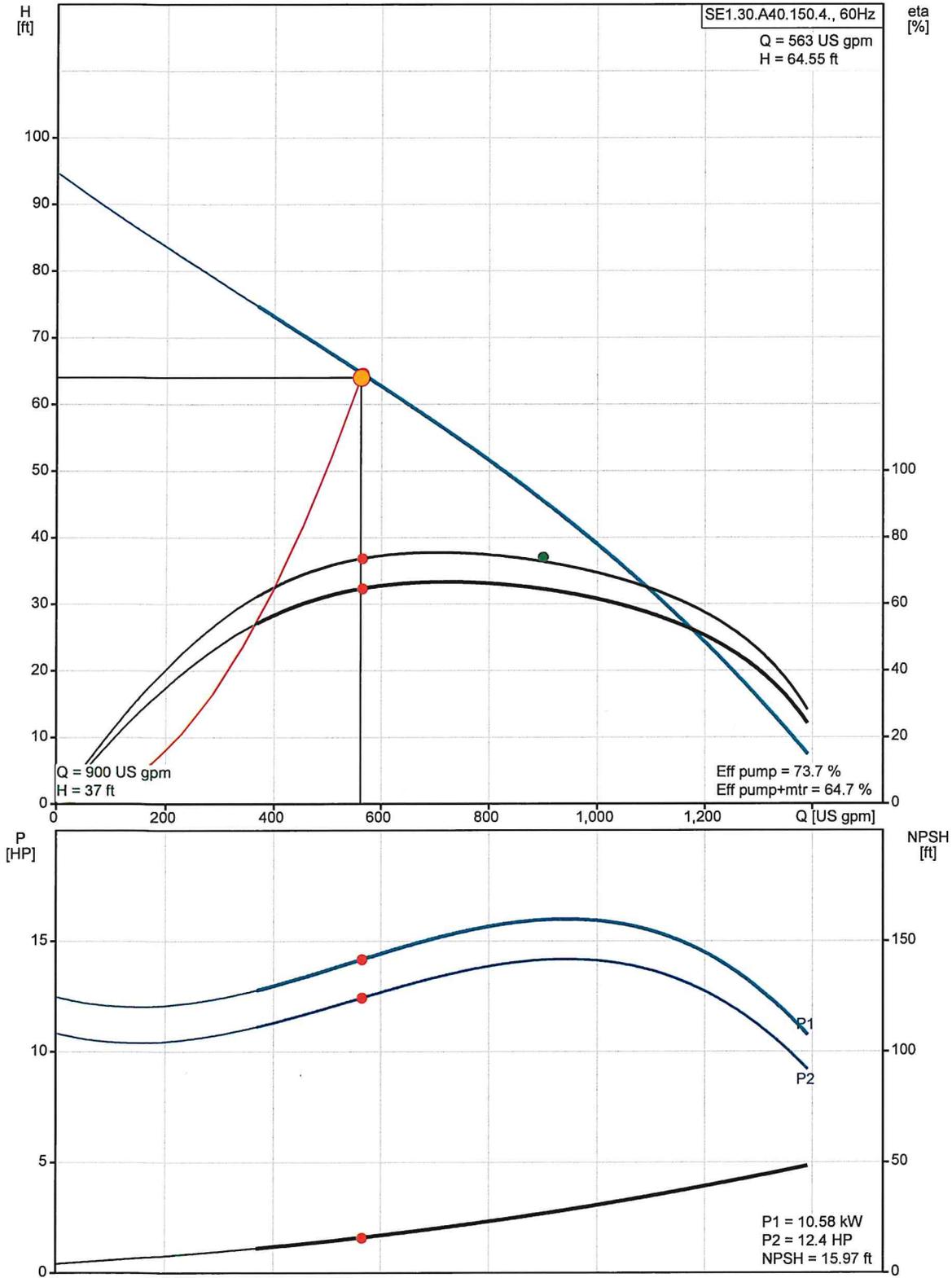
Grundfos offers a complete portfolio of products and solutions for the Municipal market through a number of marquee brands.



Company name:
Created by:
Phone:

Date: 1/10/2020

SE1.30.A40.150.4.52H.C.EX.61R 60 Hz





Company name:
Created by:
Phone:

Date: 1/10/2020

Description	Value
General information:	
Product name:	SE1.30.A40.150.4.52H.C.EX.61 R
Product No.:	-
EAN:	-
	-
Technical:	
Actual calculated flow:	563 US gpm
Max flow:	1010 US gpm
Resulting head of the pump:	64.55 ft
Head max:	75.46 ft
Type of impeller:	S-TUBE
Maximum particle size:	3 1/8 in
Primary shaft seal:	SIC-SIC
Secondary shaft seal:	SIC-CARBON
Curve tolerance:	ANSI/HI11.6:2012 3B
Cooling jacket:	with cooling jacket
Materials:	
Pump housing:	Cast iron EN 1561 EN-GJL-250 ASTM A48 35B
Impeller:	Cast iron EN 1561 EN-GJL-250 ASTM A48 35B
Motor:	Cast iron EN 1561 EN-GJL-250 ASTM A48 35B
Installation:	
Maximum ambient temperature:	104 °F
Flange standard:	ANSI
Pump inlet:	6 inch
Pump outlet:	4 inch
Pressure stage:	PN 10
Maximum installation depth:	65.6 ft
Installation:	C
Inst dry/wet:	D/S
Installation:	vertical
Auto-coupling:	97626238
Inst vertical:	96308238
Base stand:	96102314
Frame range:	52
Liquid:	
Pumped liquid:	any viscous fluid
Liquid temperature range:	32 .. 104 °F
Density:	62.29 lb/ft ³
Electrical data:	
Power input - P1:	12.4 kW
Rated power - P2:	15 HP
Main frequency:	60 Hz
Rated voltage:	3 x 230/460 V
Voltage tolerance:	+10/-10 %
Max starts per. hour:	20
Rated current:	37/19 A
Maximum current consumption:	37 A
Starting current:	279/192 A
Rated current at no load:	12.3 A
Rated speed:	1782 rpm
Motor efficiency at full load:	89 %



Company name:

Created by:

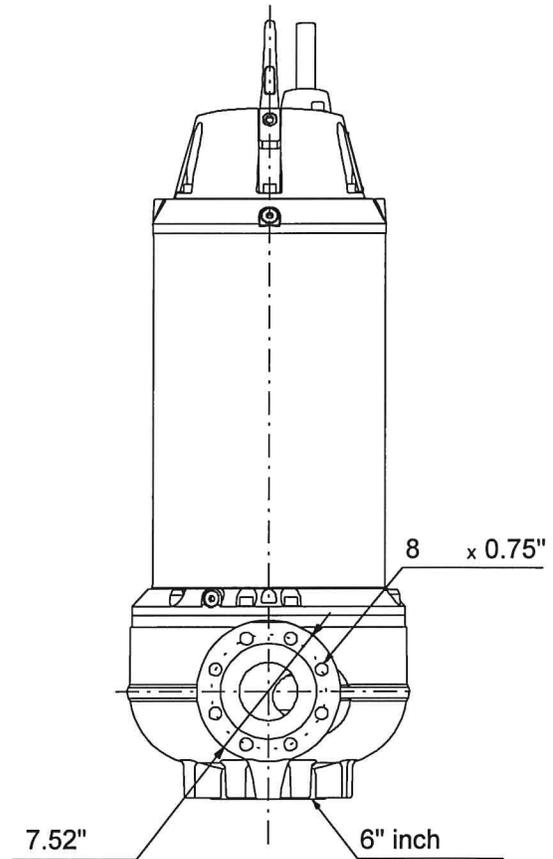
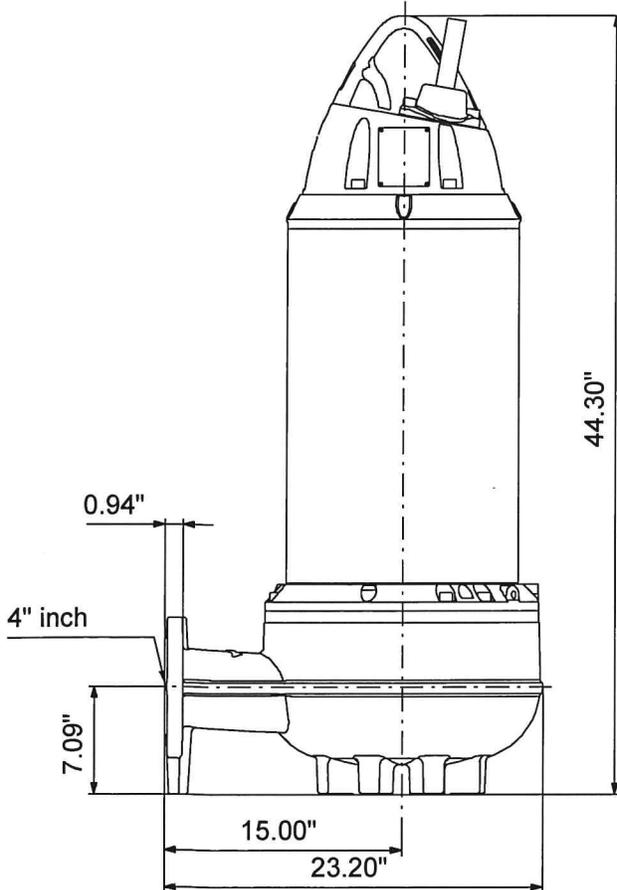
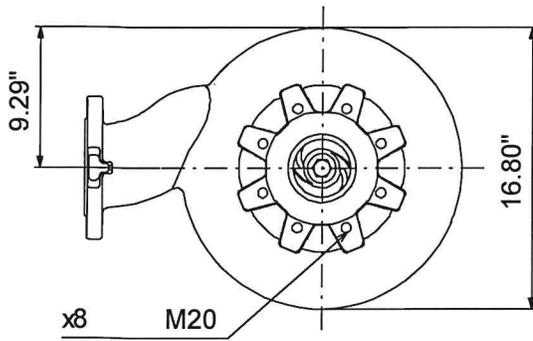
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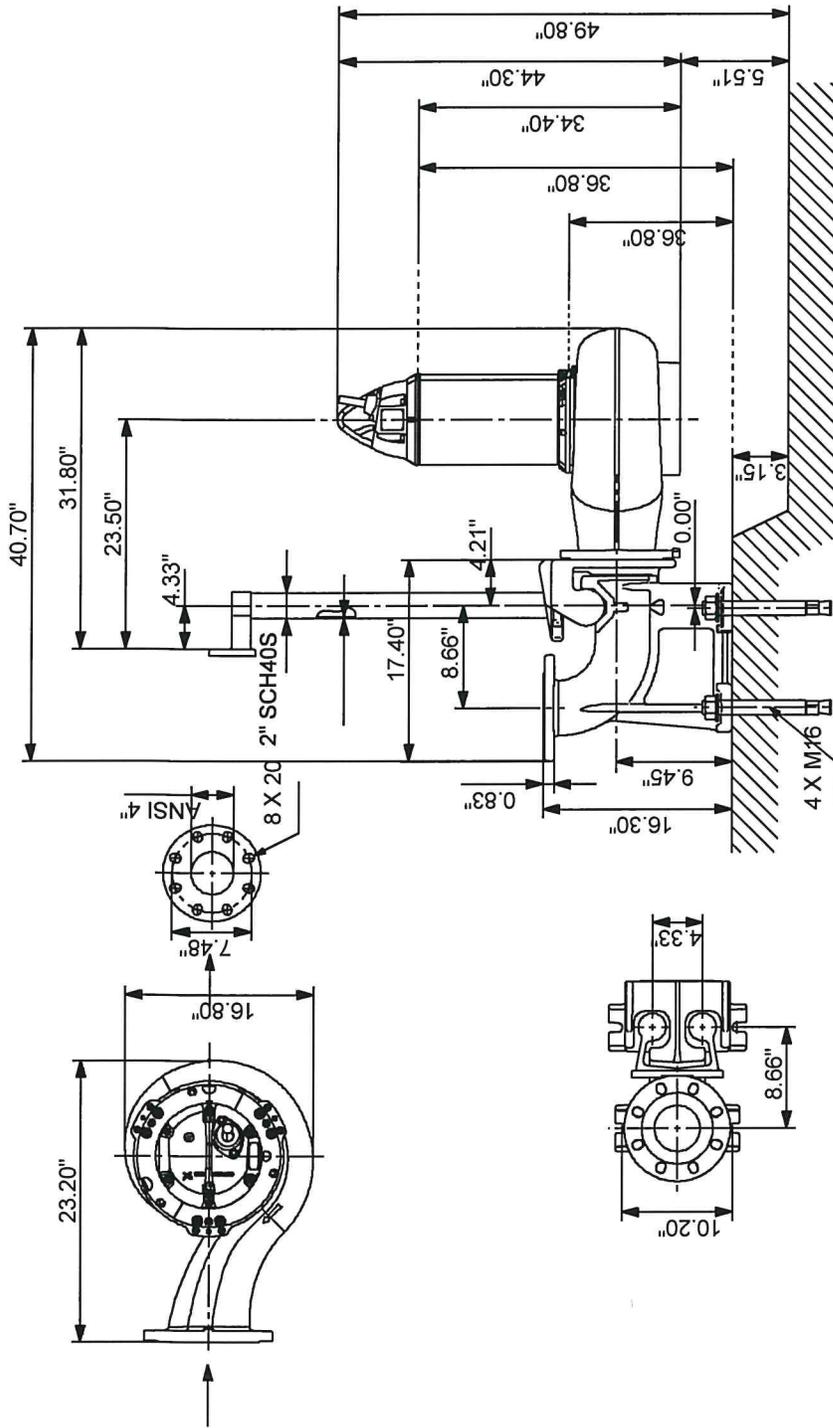
Description	Value
Motor efficiency at 3/4 load:	87 %
Motor efficiency at 1/2 load:	84 %
Number of poles:	4
Start. method:	direct-on-line
Enclosure class (IEC 34-5):	IP68
Insulation class (IEC 85):	H
Explosion proof:	yes
Motor protection:	KLIXON
Length of cable:	82 ft
Cable type:	S1BN8-F
Cable size:	7X6 + 5X1,5
Cable resistance:	3.30 mOhm/m
Winding resistance:	0.235 Ohm
Cos phi 1/1:	0.86
Cos phi 1/2:	0.74
Cos phi 3/4:	0.80
Controls:	
Moisture sensor:	with moisture sensors
Water-in-air sensor:	N
Others:	
Net weight:	767 lb
Sales region:	Namreg
Country of origin:	US

SE1.30.A40.150.4.52H.C.EX.61R 60 Hz



Note! All units are in [in] unless otherwise stated.
Disclaimer: This simplified dimensional drawing does not show all details.

SE1.30.A40.150.4.52H.C.EX.61R 60 Hz

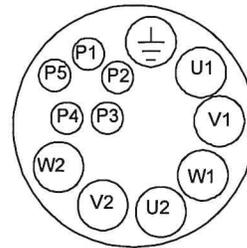
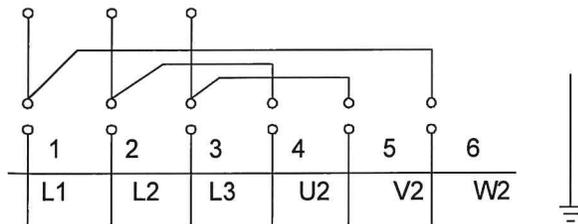


Note! All units are in [in] unless otherwise stated.
Disclaimer: This simplified dimensional drawing does not show all details.

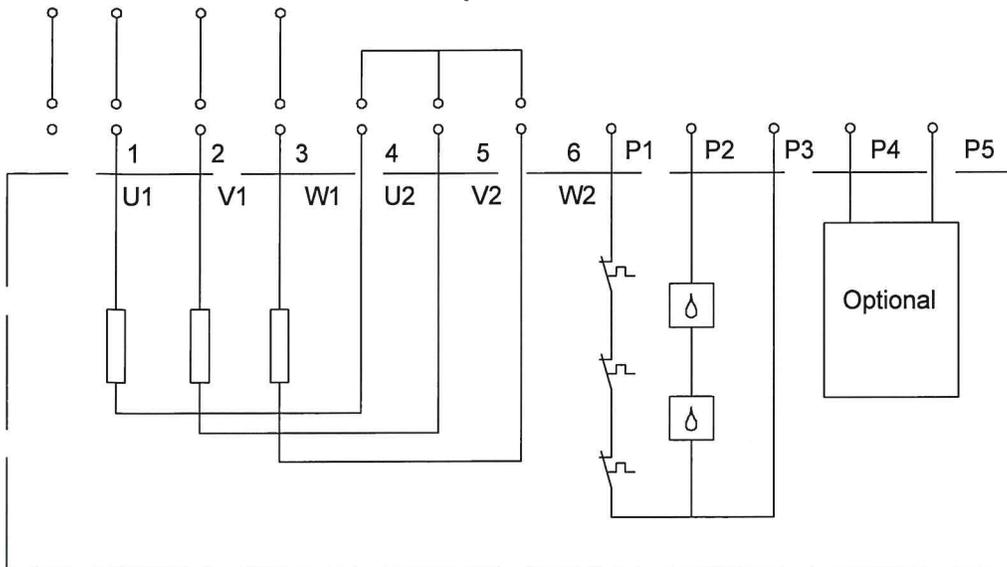
SE1.30.A40.150.4.52H.C.EX.61R 60 Hz

Wiring diagram. 12-wire cable

L1 L2 L3 Delta
△



L1 L2 L3 Star
Y



All units are [in] unless otherwise presented.

CANAL & FOCIS (H6-3A)

TECHNICAL DESCRIPTION/ SPECIFICATION

SUBMERSIBLE SENSOR VERSION WET PIT SEWAGE PUMPS Model SE > 12 Hp <43 Hp

PART 1 - GENERAL SYSTEM DESCRIPTION

PERFORMANCE REQUIREMENTS:

Three (3) Pumping Units capable of the following:
Operating Conditions - Design: 560 GPM @ 64 FT TDH
Maximum Motor HP: 15 HP
Minimum Hydraulic Efficiency (at design): 73%
Maximum Motor RPM: 1750 RPM

QUALITY ASSURANCE - REFERENCED STANDARDS:

American Iron & Steel Institute (AISI)
American Society for Testing and Materials (ASTM)
Factory Mutual (FM)
Hydraulic Institute Standards for Centrifugal, Rotary, and Recip Pumps (HI)
National Fire Protection Agency (NFPA)
National Electric Code (NEC)
National Electrical Manufacturers Association (NEMA)
Anti-Friction Bearing Manufacturers Association (AFBMA)
International Standards Organization (ISO) - ISO9001

WARRANTY

The pump manufacturer shall warrant the pump and motor to the Owner against defects in workmanship and materials for a period of five (5) years under normal use and service. The pump manufacturer warranty shall be in published form, and shall apply to all similar units. A copy of the warranty shall be provided to the Owner at startup.

PART 2 - PRODUCTS

ACCEPTABLE MANUFACTURERS

Subject to compliance with the Contract Documents, the following are acceptable:
Grundfos
Equal alternates as approved by the engineer prior to bid

All products, whether named as "acceptable" or proposed as "equal" must fully comply with these specifications. Standard product must be modified, if required, for compliance.

MATERIALS

SUBMERSIBLE SEWAGE PUMPS:

Pump Case: Cast Iron, ASTM A48, Class 35B
Motor Housing: Cast Iron, ASTM A48, Class 35B
Impeller: 316 Stainless Steel
Intermediate Housing (Backplate): Cast Iron, ASTM A48, Class 35B
Cooling Jacket: Stainless Steel A276 Type 304
Discharge Base Elbow: Cast Iron, ASTM A48, Class 35B
Pump/Motor Shaft: Duplex Stainless Steel, ASTM A743
O-Rings: Nitrile Rubber (NBR)
Fasteners (including impeller fastener): Stainless Steel, ASTM A276 Type 316
Nameplate: Stainless Steel Type 316
Shaft Seal Faces: Tungsten Carbide/Tungsten Carbide
Guide rails and guide support brackets: Stainless steel schedule pipe guides
Lifting Chain: Stainless Steel, ASTM A276 Type 316
Lifting Bail: ASTM A276 Type 316
Power/Control Cable Jacket: Neoprene with non-wicking fillers

ACCESSORIES

POWER CABLE

The pump shall be provided with 82 ft of power/control cable with each pump, suitable for submersible wastewater application, sized in accordance with NEC requirements. Provide cable exiting the top of motor housing to prevent cable damage when removing or reinstalling the pump on its guide rail system. The power/control cable entry shall allow for the removal of both the cable entry complete, plus the pumps terminal block through the top of the pump, through the hole where the cable entry mounts, without the need to remove the junction box cover / top of the pump. Thus allowing for extreme ease of servicing.

FABRICATION

GENERAL

Provide pumps capable of successful operation in the application as described. If handling raw unscreened wastewater, the pump shall be capable of passing at minimum a 4" spherical non-compressible solid. The pumps design shall allow for removal and reinstallation without the need to enter the wet well and without removal of bolts, nuts, or other fasteners. The pump motor shall be encircled by a Type 304 SS cooling jacket that is self-contained filled with an FDA Approved glycol liquid. The pump shall be capable of operating in a completely dry mode continuously. The pump shall connect to a permanently mounted discharge elbow by simple downward motion, without rotation, guided by at least two non-load-bearing SS guides. The pump guide pipes shall be held by stainless steel upper brackets and by cast hubs on the discharge elbow. A flexible gasket o-ring shall be furnished in the face of the pump discharge flange so that the final connection shall insure zero leakage between the pump and discharge elbow. No part of the pump shall bear directly on the floor of the wet well. Provide Type 316 stainless steel chain of sufficient length to properly and safely lift the pumps from the wet well. All exposed cast iron and ferrous surfaces shall be cleaned of dirt and grease, sandblasted to near white finish, and coated with a powder coat two part epoxy resin to insure that the exterior of the pump shall be smooth to eliminate the adherence of debris, fecal matter, or other solids normally found in the application. A separate and extra data plate shall be provided with each pump for installation in the pumps control panel so that data plate information can be reviewed without the need for pulling the pump.

MAJOR COMPONENTS

Major components (pump case, intermediate housing, and motor housing) shall be of at minimum ASTM A48 Class 35 cast iron material as specified with smooth surfaces devoid of blow holes and other irregularities. The pump casing design shall incorporate a centerline discharge for stability when mounted on the base elbow. The entire rotating assembly (motor and impeller) shall be easily removed from the volute casing for inspection and cleaning.

IMPELLER

The impeller shall be single vane, "non-clog" in design capable of passing at minimum a four inch spherical solid. All vertical edges forming the single flow channel shall be formed on an angle and carefully contoured with no right angle corners or contour restrictions where rags could easily collect. The impeller shall be dynamically wet balanced.

To insure long pump and impeller life, the wear gap between the rotating impeller and the stationary pump casing or wear plate shall be either axial or radial in design. If axial in design, and to allow for ease of maintenance, the suction gap adjustment, between the impeller and the pump casing, shall be able to be performed without the need to dis-assemble the pump, but instead, shall be able to be performed by simple use of integral "jack screws" without using "special" tools. This adjustment shall be capable of being performed each time the pump is pulled for routine maintenance at the job site. This adjustment will allow taking the suction gap tolerances back to factory original parameters.

If the pump design incorporates a suction gap that is radial in design, and to insure critical clearances are able to be periodically maintained to within original factory specifications, the pump design shall incorporate both impeller and casing wear rings of hardened stainless steel having at minimum a Brinnell Hardness Rating (BHR) of 450.

SHAFT

The pump shall be supplied with a common pump/motor shaft of sufficient size to transmit full driver output with a maximum deflection of 0.002 inches measured at the lower mechanical seal. Machine the shaft of at minimum ASTM A743 Duplex Stainless Steel and isolate the shaft from the pumped media. The shaft end shall be tapered to facilitate impeller removal and insure ease of service.

SHAFT SEAL

Two mechanical seals shall be installed in tandem, totally enclosed within a common Duplex Stainless Steel cylinder. The cylinder, with the entirety of both seals, shall be located entirely within a sealed chamber containing an FDA approved liquid with drain and inspection plug (with positive anti-leak seal) for easy access from external to the pump. All seals and seal springs shall be located completely inside of the seal chamber where they are completely isolated from the pump media and cannot be fouled by rags or other stringy material as can happen with common dual seal set designs. Seal faces shall be silicon carbide or tungsten carbide faces on the lower seal. The seals shall require neither routine maintenance nor adjustment, but capable of being easily inspected and replaced.

BEARINGS

The pumps shall be furnished with upper and lower bearings as needed to provide a B10 life of at minimum, 50,000 hours at all anticipated axial and radial loadings. The bearings shall be sealed/shielded (permanently lubricated) type. The lower (primary thrust) bearing shall be double row angular contact type. The upper (support) bearing shall be single row ball design.

MOTOR

The motor shall be squirrel cage, induction in design, housed in a completely watertight having at minimum a 1.15 service factor. The motor shall be adequately sized and rated for continuous operation at a maximum fluid temperature of 104° F (40° C). The motor shall have at minimum Class H insulation rated for 180 Degrees C, and shall allow for at minimum 20 starts per hour. The motor shall be FM listed for use in Class I Division 1 Groups C&D hazardous locations as defined by the National Electric Code. The same motor shall also be CSA Approved. Motor insulation shall fulfill NEMA MG1 part 31 requirements for inverter duty. The motor and pump set complete shall be designed and manufactured by the same company.

The motor shall also be furnished with three temperature monitoring PT1000 devices, one in each winding, for use in conjunction with and supplemental to external motor overload protection. These sensors are capable of providing actual continuous readouts of motor temperatures. Arrange controls to shut down pump should any of the monitors detect high temperature and automatically reset once motor temperature returns to normal. Set temperature monitors at levels recommended by pump manufacturer

The motor shall also be supplied with PT1000's to monitor both upper and lower bearing temperatures. These shall be capable of indicating actual bearing temperatures continuously as well as providing bearing over-temperature monitoring through the use of a pump manufacturer's supplied monitoring module for mounting in the control cabinet.

Further, the pump/motor shall be supplied with a vibration sensor mounted in the junction chamber to monitor gross pump displacement. This device shall terminate in the same supplied module as required for the bearing temperature monitoring, and shut down the pump in the case of vibration displacements above set limits.

SEAL LEAK DETECTION

Provide fault free detectors in both the junction chamber and the motor's stator cavity sump to detect any possible intrusion of moisture/leakage into the pumps hermetically sealed chambers. The upper moisture detector shall monitor any possible leakage into the pumps high voltage electrical connection junction chamber. The lower seal leakage detector shall provide a positive indication of seal leakage presence. Both detectors shall operate without generating false indications.

SOURCE QUALITY CONTROL

EQUIPMENT TESTS

All supplied pumps will be tested at the factory before shipment. These tests shall include: Pump performance - Head and Flow; Measurement of supplied voltage U1, U2, U3; Line Amperages; Input Power; and Wire-to-water efficiencies. All test data shall be recorded and supplied to the end user at no cost and become a permanent part of their records. A copy of this test shall accompany the pump in shipment. These tests shall be standard to all pumps of the type supplied. These test reports shall be given to the end user for incorporation into their permanent job files to insure later repairs, replacements, etc. return the pump station to original specifications.

TRAINING & STARTUP

2 Days of Field Service shall be provided by an authorized, factory trained representative of the Pump Manufacturer. Services shall include, but not necessarily be limited to, inspection of the completed installation to ensure that it has been performed in accordance with the manufacturer's instructions and recommendations, supervision of all field-testing and activation of the Manufacturer's Prescribed Warranty.

At time of commissioning, the end user shall be supplied with access to a movie that completely describes the "tear-down" and building of the pump supplied. This movie shall become part of the end users permanent job record for access after the pump station is formally accepted.

GRUNDFOS CUE

VERSATILE E-SOLUTIONS WITH GRUNDFOS CUE

WALL-MOUNTED SOLUTIONS WITH E-PUMPS FUNCTIONALITY

be
think
innovate

GRUNDFOS 

THE ULTIMATE IN CONTROL

EASY AND FLEXIBLE – TAKING E-SOLUTIONS EVEN FARTHER

Grundfos CUE is the latest addition to the E-solutions program of speed-controlled pump systems for industry, building services, municipal water supply, municipal wastewater, and irrigation applications.

Our new, comprehensive series of wall-mounted frequency converters with E-pump functionality and user interface is a complementary product to the Grundfos E-pumps featuring an integrated frequency converter.

With a CUE solution, you can control the speed of most Grundfos pumps regardless of size, power range, and application area.

WE THINK GREEN. DO YOU?

Sustainable development is key at Grundfos.

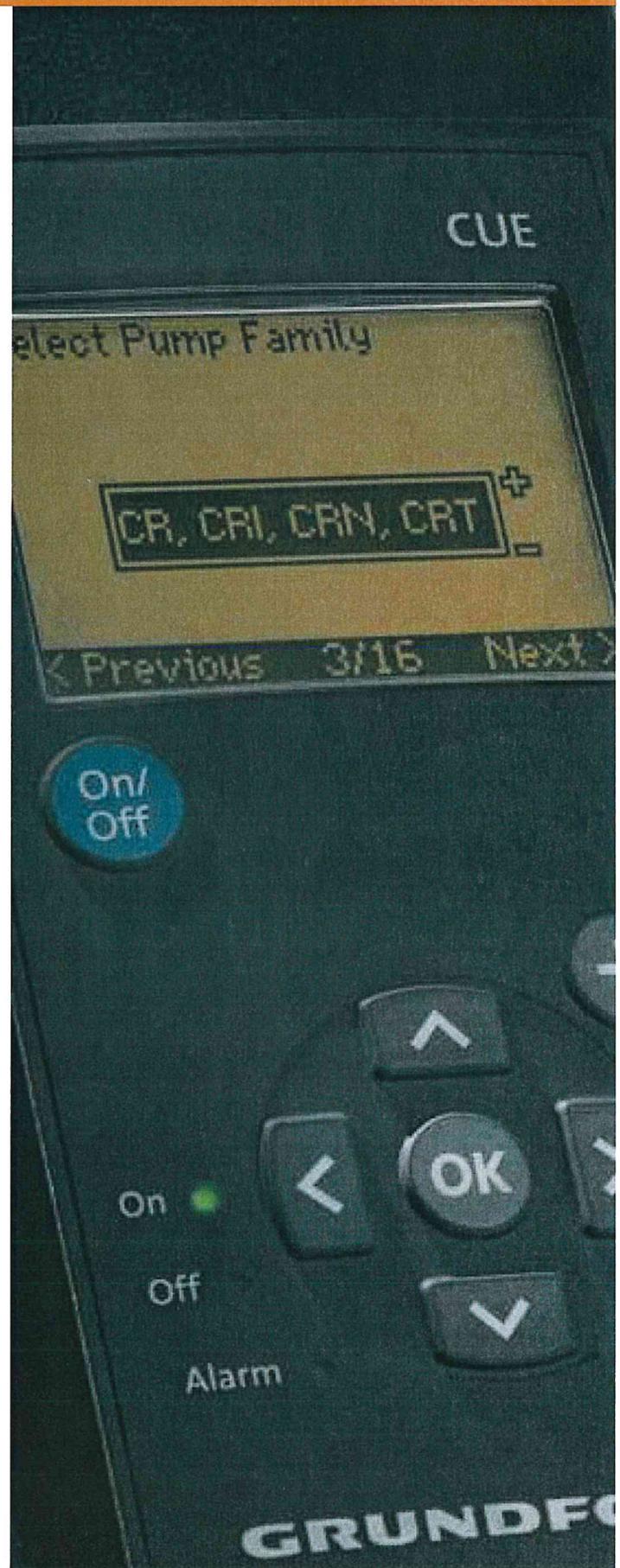
Our goal is to be one step ahead in the marketplace and encourage our customers and suppliers to go with forward-thinking environmentally friendly solutions.

Approximately 70% of the total costs incurred during the life of a variable-speed pump is attributed to power consumption. Being able to control pump speed according to demand contributes significantly to energy savings and reduced CO₂ emissions.

With a Grundfos speed-controlled pump, you can reduce your energy consumption and operating costs by as much as 50%.

SPEED CONTROL FOR EVERYONE

Speed control by way of frequency converters has been part of our product portfolio for almost 25 years. Since the early 1990s, integrated solutions – such as UPE pumps and E-pumps (CRE, CHIE, TPE) – have been a primary focus at Grundfos and in high demand with our customers as well.



FACTS ABOUT E-SOLUTIONS

E-solution versus fixed-speed solution in a typical pump application with variable pumping demand*

ANNUAL ENERGY SAVINGS

Up to 50% (typically 25-35%)

ANNUAL REDUCTION IN CO₂ EMISSIONS

Typically 2,150 lbs. per 5 hp

REDUCTION IN LIFE CYCLE COSTS

Typically 25%

PAYBACK TIME FOR THE EXTRA INVESTMENT IN AN E-SOLUTION

2 to 3 years

** Figures are based on a pump with a 5 hp motor in an application running 12 hours per day, 220 days per year. Average CO₂ per kWh is set to 0.82 lb. Life cycle cost calculation is based on a 10-year period.*



A speed-controlled solution is now the first choice for many pump professionals and end users – and the reasons are obvious.

Speed control in variable-demand applications saves an enormous amount of energy and money while increasing comfort and convenience for both installers and end users.

With a CUE solution, everything is automatic, which means you're in total control of your pump application at all times.

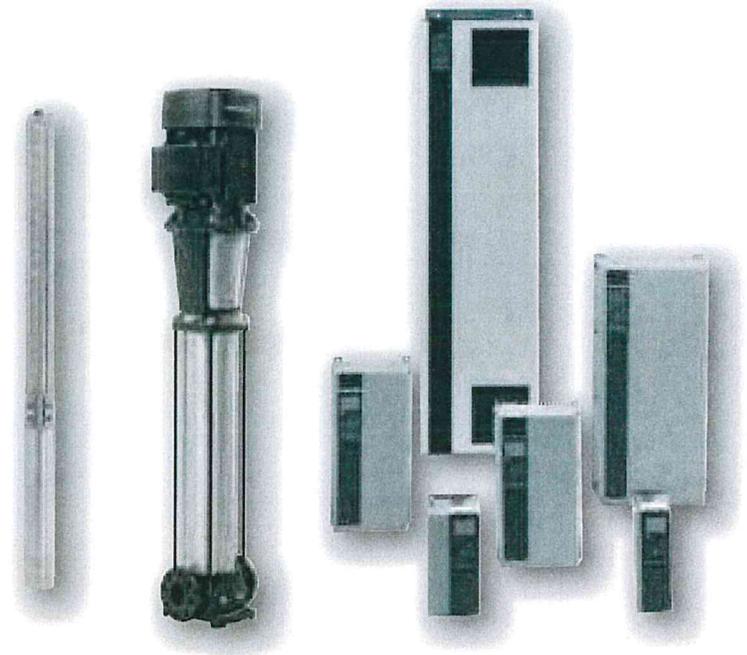
VERSATILE RANGE AND TYPICAL APPLICATIONS

The Grundfos CUE is suitable for most centrifugal pump types, all application areas, and all power ranges outside the E-pump range.

The CUE can be used in connection with both new and existing Grundfos pumps and in installations where the integrated solution will not fit, is not wanted, or prohibited.

Typical application areas include:

- Most ranges outside of E-pumps
- Submersible installations
- Wastewater applications
- Water supply and irrigation applications
- Hazardous or explosive areas
- Sanitary installations





THE POWER OF BEING IN CONTROL

EFFORTLESS CONTROL

Performance, reliability, and convenience are unmatched in the CUE series. It offers plug-and-pump installation and operation coupled with extensive control and monitoring possibilities.

All the well-known functionalities of the E-pump, including the unique user interface, have been incorporated into these new wall-mounted frequency converters to provide the same exceptional ease of operation.

Along with an extremely efficient frequency converter for automatic energy optimization, the CUE also includes an advanced controller and a number of monitoring functions.

NEW WAYS TO GO

The CUE opens up a whole new range of opportunities. The advantages of speed control can now be extended to pump areas and markets not currently covered by the E-pump program.

The CUE offers speed-controlled pump solutions with E-pump functionality and user interface for pumps above 30 hp, as well as for power supplies outside the E-pump program.

You can also implement E-solutions in sanitary applications, explosive or hazardous areas, and in many other application settings where electronics are unwanted or prohibited.

PLUG-AND-PUMP CONVENIENCE

When installing and commissioning the CUE, all you need to do is designate a few application-specific settings and variables. Using the Grundfos R100 Remote Control makes this a simple and easy task done in just minutes.

The CUE also offers extensive possibilities for monitoring of the pump, motor, frequency converter, and surroundings – as well as remote control and supervision via bus interface and input/outputs.

AN ARRAY OF SUPERIOR FEATURES

A CUE solution offers excellent features that provide increased comfort and convenience for the user. For example, water hammering is eliminated with a soft start and stop feature. Plus, the built-in PID controller is your guarantee for constant pressure independent of the required flow.

ONE SOLUTION, ONE SUPPLIER

With the CUE, you can rest assured knowing that the entire pump solution (pump, frequency converter, controller, and sensor) is perfectly matched and configured for your specific pump application and that all system interfaces and settings are optimized.

In addition to increased system security, dealing with just one supplier means that initial design, configuration, installation, and commissioning are greatly enhanced. Whenever you need expert assistance and service during the life of your CUE solution, you'll know where to go.

GREAT VALUE FOR THE MONEY

Everyone in the value chain has something to gain from a CUE E-solution.

THE WHOLESALER/DEALER

Your business can reap extensive benefits from systems sales. Instead of selling individual parts, you can offer a complete, speed-controlled pump solution from one supplier.

THE INSTALLER

You'll experience the comfort and convenience of a plug-and-pump concept as compared to that of a standard frequency converter. In addition, ordering everything you need from the same supplier makes selection, order handling, and installation significantly faster and easier.

THE END USER

You get an easy-to-operate, high-performance pump solution with low life cycle costs. It's your guarantee for years of cost-efficient and trouble-free pump operation.



GRUNDFOS CUE

A COMPREHENSIVE RANGE WITH FEATURE-RICH BENEFITS

With more than 100 different configuration possibilities, encompassing a power range from 0.75 hp to 300 hp, the CUE represents one of the most comprehensive and versatile ranges of frequency converters for pump applications currently on the market.

The CUE range is available with five different power supplies, two enclosure classes (IP20/21 (Nema 1)/IP55 (Nema 12)) and more than 24 different output powers – which means you'll find the perfect solution for your specific need.

The CUE is packed with exceptional features for providing you with maximum convenience and enhanced operational ease. Take a look at some of the added value that comes with a CUE.

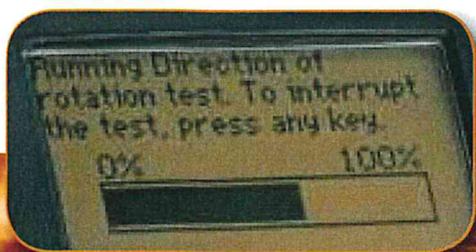
INTUITIVE START-UP GUIDE

The CUE start-up guide ensures easy installation and commissioning and plug-and-pump convenience. Only a few settings need to be specified on-site by the installer while the rest is either done automatically or preset at the factory.

SMART USER INTERFACE

The unique and user-friendly operating panel consists of a graphical display with backlight and buttons for pump start/stop, navigation, and menu settings.

With the CUE, you get the same “look and feel” as other Grundfos E-solutions: the user interface and menu structure are identical to the R100 Remote Control operating panel used in conjunction with E-pumps. Operating a CUE solution is basically like operating an E-pump.



AUTOMATIC DIRECTION OF ROTATION

A CUE solution offers automatic detection and setting of correct direction of rotation. During start-up, the CUE will automatically check the rotation and ensure that the pump is running in the proper direction.

If the rotation direction is wrong, the CUE will change it electronically, eliminating the need for manual interchange of motor wires.

CONSTANT – WHENEVER, WHATEVER

When we say constant, we mean constant! The CUE has a built-in PID controller that provides a closed-loop control of virtually any value you want to control, including:

Constant Pressure With or Without a Stop Function *With a stop function:*

The pressure remains constant at high flow; on/off operation at low flow.

Without a stop function:

The pressure remains constant, regardless of flow rate.

Constant Differential Pressure

Differential pressure remains constant, regardless of flow rate.

Proportional Pressure

Pressure is reduced at low flow and at increased high flow.

Constant Level With or Without a Stop Function *With a stop function:*

The fluid level remains constant at high flow; on/off operation at low flow.

Without a stop function:

The fluid level remains constant, regardless of flow rate.

Constant Temperature

Fluid temperature remains constant, regardless of flow rate.

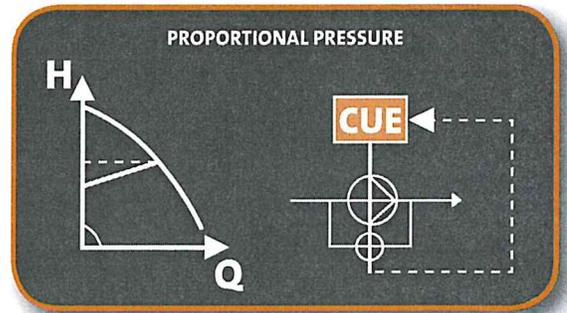
Constant Flow

Flow remains constant, regardless of pressure.

USER-FRIENDLY FUNCTIONS

Proportional Pressure

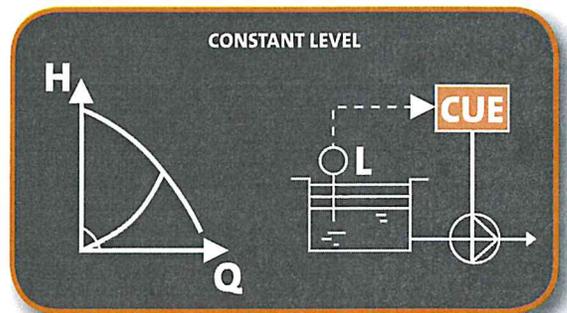
The proportional pressure function ensures that the differential pressure in a circulating application (i.e., a heating or air-conditioning system) is sufficient at low-flow as well as at high-flow demands. The differential pressure is automatically elevated with increased flow.



Stop Function

In most water supply applications, the required flow can be very low, sometimes even equal to zero. In those situations, on/off operation of the pump according to demand is more economical.

The CUE offers a stop function for constant pressure or constant level applications. The stop function prevents the pump from running against a closed valve with the risk of heating up the water in the pump and causing damage to the shaft seal, which can result in the growth of unhealthy bacteria.

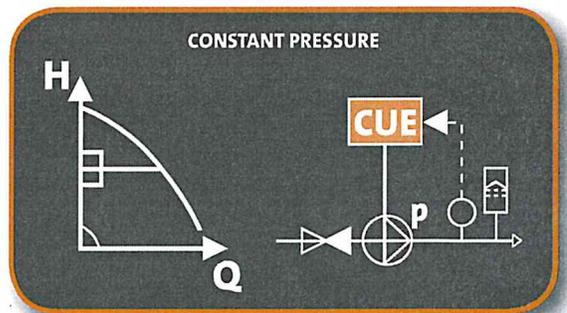


Dry-Running Protection

The CUE offers protection against dry running, as one of the inputs can be dedicated to a dry-running detector.

Duty/Standby

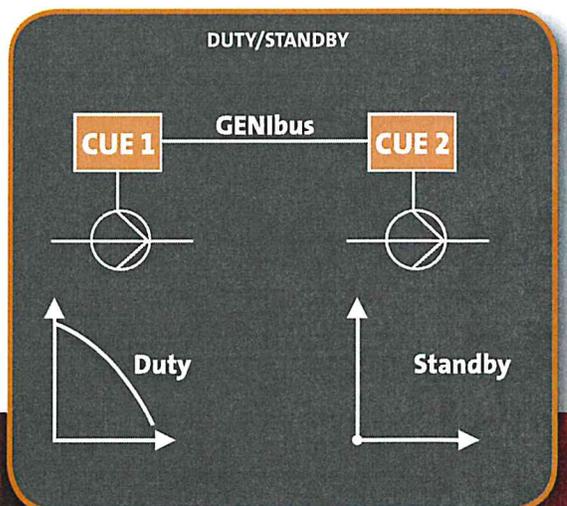
By interconnecting two CUE frequency converters via the standard built-in GENibus interface, a duty/standby function of the two pumps can be obtained.



Motor Bearings Supervision

The CUE has a motor bearings monitoring function that displays an automatic warning when it's time for relubrication or replacement of bearings.

This function can be further optimized by the addition of bearings temperature measurement (requires an IO module), which provides a warning or discontinues pump operations automatically in case of overheating.

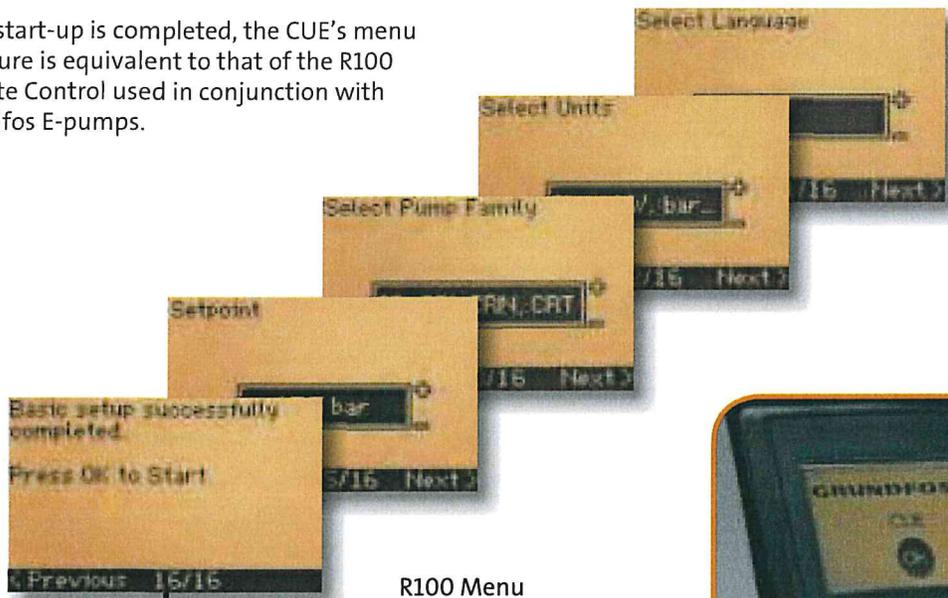
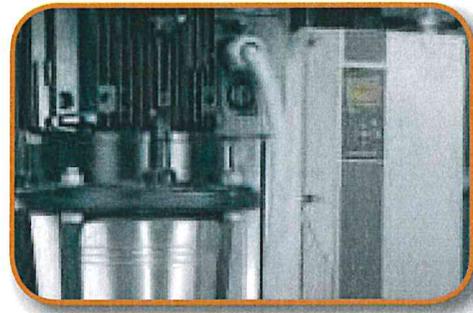


A SMART USER INTERFACE

The CUE requires only a few settings at start-up, making set-up and commissioning quick and easy.

Simply key in application-specific variables, such as motor data, pump family, control function (i.e., constant pressure), sensor type, and setpoint, and the CUE automatically sets all the necessary parameters: ramp times, minimum speed, controller constants, available functions, etc.

After start-up is completed, the CUE's menu structure is equivalent to that of the R100 Remote Control used in conjunction with Grundfos E-pumps.

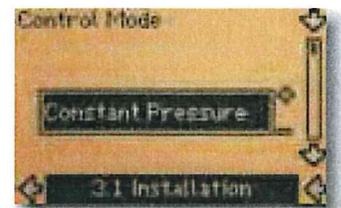
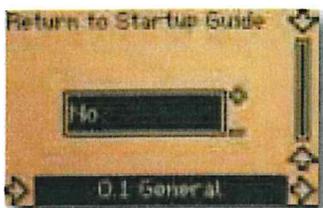


0. General

1. Operation

2. Status

3. Installation



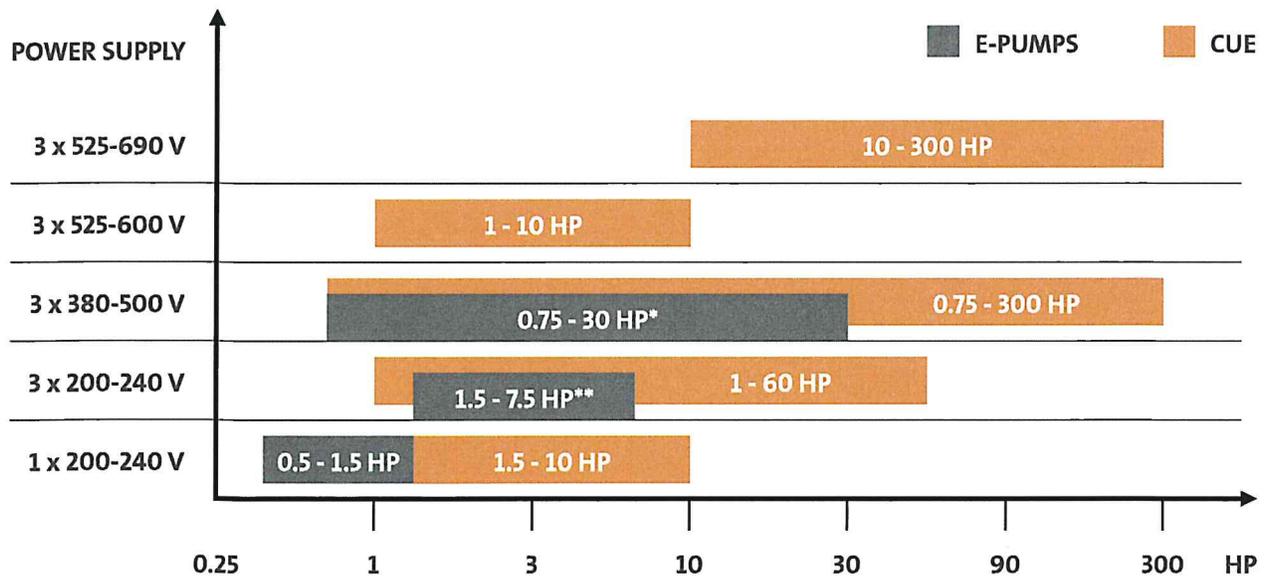


THE COMPREHENSIVE CUE RANGE

When you select a CUE solution, you get a choice of the following versions:

- > 1-phase, 1x200-240 V, 50/60 Hz (1.5 - 10 hp)
- > 3-phase, 3x200-240 V, 50/60 Hz (1 - 60 hp)
- > 3-phase, 3x380-500 V, 50/60 Hz (0.75 - 300 hp)
- > 3-phase, 3x525-600 V, 50/60 Hz (1 - 10 hp)
- > 3-phase, 3x525-690 V, 50/60 Hz (10 - 300 hp)

All CUE solutions are available in two enclosure classes: IP21 (Nema 1) or IP55 (Nema 12).



* Power supply only up to 480 V

** Power supply only 208 to 230 V

INPUT/OUTPUT POSSIBILITIES

FOUR DIGITAL INPUTS

One dedicated input for external start/stop.
Remaining inputs can be set to:

- › Min. (min. curve)
- › Max. (max. curve)
- › Ext. fault (external fault)
- › Flow switch
- › Alarm reset
- › Dry running (from external sensor)
- › Not active

THREE ANALOGUE INPUTS

- › One 0-10 V or 0/4-20 mA input for external setpoint
- › One 0/4-20 mA input for sensor feedback
- › One additional 0/4-20 mA input for sensor (requires an additional IO module)

TWO PT100/1000 INPUTS

Used in connection with motor bearings:

- › temperature measurement or alternative
- › temperature measurement, such as media
- › temperature (requires an additional IO module)

ONE ANALOGUE OUTPUT

Can be set to indicate different parameters such as speed, actual value, etc.

TWO DIGITAL RELAY OUTPUTS

Can be set to report different operation modes such as running, warning, alarm, etc.

RS485 GENibus INTERFACE

The CUE comes equipped with a standard RS485 interface that can communicate with Grundfos control systems and, via a Grundfos gateway, can be connected to other bus systems such as LONWorks, Profibus, Modbus, etc.



ACCESSORIES

ADD-ON CARD

Analogue IO module offering:

- › Two inputs for Pt100/1000 temperature sensors (the card will automatically detect if there is a Pt100 or a Pt1000 sensor)
- › One analogue 0/4-20 mA input for an additional sensor

MOTOR FILTERS

All CUE frequency converters deliver a non-sinusoidal voltage to the motor. In some cases, it's required or desired to filter the output voltage to make it more sinusoidal because

- › It reduces the dv/dt and the peak voltage delivered to the motor,
- › It reduces the acoustic noise generated in the motor windings, or
- › It allows the use of long motor cables.

The following motor filters are available:

dU/dt FILTERS	
Split on 16 different filters covering:	
Power Range	15 - 300 hp
Voltage Range	3x380-500V and 3x525-690V
Insulation Class	IP20
Ambient Temperature	max. 45°C

SINE WAVE FILTERS	
Split on 23 different filters covering:	
Power Range	0.75 - 300 hp
Voltage Range	1x200-240V, 3x200-240V, 3x380-500V, and 3x525-690V
Insulation Class	IP20
Ambient Temperature	max. 45°C

SENSORS

The following sensors can be used in connection with the CUE. All sensors come with a 4-20 mA output signal.

- › Pressure sensors – up to 25 bar
- › Temperature sensors
- › Differential pressure sensors
- › Differential temperature sensors
- › Flow sensors
- › Level sensors
- › Potentiometer box for external setpoint setting

GATEWAYS

The CUE is equipped with a standard RS485 GENIbus interface. Gateways to convert to other bus standards can be delivered as an accessory.

The CIU family can convert to the most common fieldbuses in the world:

- › CIU100 converts from GENIbus to LonWorks
- › CIU150 converts from GENIbus to Profibus
- › CIU200 converts from GENIbus to Modbus
- › CIU250 is a GSM modem, which can send SMS messages in case of alarms, etc.

OTHER ACCESSORIES

- › Dry-running protection sensor LiqTec
- › Control MPC – a multi-pump control system for parallel-connected E-pumps

E-SOLUTIONS WITH GRUNDFOS E-PUMPS

If you want an all-in-one solution with integrated pump and electronics, then select a Grundfos E-pump in place of a CUE. E-pumps are suitable for virtually all industry and building applications.

The E-pump program is available in a 1x208-230V version up to 1.5 hp, a 3x208-230V version up to 7.5 hp, and a 3x460-480V version up to 30 hp.

All-in-one solutions with integrated frequency converter are covered by the E-pump program (for more information, see the Grundfos E-pump brochure Lit. No. L-IND-SL-02).

be think innovate

L-IND-SL-03 Rev. 11-12

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GRUNDFOS 

Submersible pressure transmitter for level measurement Model LS-10, standard version



Applications

- ▣ Level measurement in rivers and lakes
- ▣ Level measurement in vessel and storage systems
- ▣ Control of sewage lift and pumping stations
- ▣ Monitoring of sewage, settling and stormwater retention basins

Special features

- ▣ Robust
- ▣ Reliable
- ▣ Economical



Submersible pressure transmitter model LS-10

Description

For simple measuring tasks

The model LS-10 submersible pressure transmitter has been optimised for simple measuring requirements in level measurement. It offers excellent quality, is cost-effective and reliable.

It has been designed to the current demands of the industry and has a 4 ... 20 mA output as standard, an accuracy of 0.5% and PUR cable. With IP 68 ingress protection, it is suitable for permanent level measurement up to 100 m water column.

Reliable and long-lasting

The submersible pressure transmitter features a hermetically-sealed and exceptionally robust stainless steel case. The proven, fully-welded construction ensures a long service life and permanent sealing.

Measuring ranges

Relative pressure						
bar	Measuring range	0 ... 0.25	0 ... 0.4	0 ... 0.6	0 ... 1	0 ... 1.6
	Overpressure limit	2	2	3	5	8
	Burst pressure	2.4	2.4	4	6	10
	Measuring range	0 ... 2.5	0 ... 4	0 ... 6	0 ... 10	
	Overpressure limit	8	10	10	10	
	Burst pressure	10	10	10	10	
inWC	Measuring range	0 ... 100	0 ... 150	0 ... 250		
	Overpressure limit	750	750	1,100		
	Burst pressure	950	950	1,600		
psi	Measuring range	0 ... 5	0 ... 10	0 ... 15	0 ... 25	0 ... 50
	Overpressure limit	30	45	70	120	150
	Burst pressure	35	60	90	180	150
	Measuring range	0 ... 100	0 ... 160			
	Overpressure limit	150	160			
	Burst pressure	150	160			
mH₂O	Measuring range	0 ... 2.5	0 ... 4	0 ... 6	0 ... 10	0 ... 16
	Overpressure limit	20	20	30	50	80
	Burst pressure	24	24	40	60	100
	Measuring range	0 ... 25	0 ... 40	0 ... 60	0 ... 100	
	Overpressure limit	80	100	100	100	
	Burst pressure	100	100	100	100	

The given measuring ranges are also available in mbar, kPa and MPa.

Output signal

Analogue signal

4 ... 20 mA

Load in Ω

$\leq (\text{power supply} - 10 \text{ V}) / 0.02 \text{ A} - (\text{cable length in m} \times 0.14 \Omega)$

Voltage supply

Power supply

DC 10 ... 30 V

Reference conditions

Temperature

15 ... 25 °C

Atmospheric pressure

860 ... 1,060 mbar

Humidity

45 ... 75 % relative

Power supply

DC 24 V

Accuracy data

Accuracy at reference conditions

≤ ±0.5 % of span

Including non-linearity, hysteresis, zero offset and end value deviation (corresponds to measured error per IEC 61298-2).

Non-linearity (per IEC 61298-2)

≤ ±0.2 % of span

Non-repeatability

≤ ±0.1 % of span

Temperature error at 0 ... 50 °C

- Mean temperature coefficient of zero point
Measuring ranges ≤ 0.25 bar: ≤ ±0.4 % of span/10 K
Measuring ranges > 0.25 bar: ≤ ±0.2 % of span/10 K

- Mean temperature coefficient of span
≤ ±0.2 % of span/10 K

Long-term stability at reference conditions

≤ ±0.2 % of span/year

Operating conditions

Ingress protection (per IEC 60529)

IP 68

Permissible temperature ranges

- Medium: -10 ... +50 °C
- Ambient: -10 ... +50 °C
- Storage: -30 ... +80 °C

Immersion depth

up to 100 m

Maximum tensile strength of the cable

- without strain relief: up to 350 N
- with strain relief: up to 1,000 N

Weight

- Level probe: approx. 180 g
- Cable: approx. 80 g/m
- Additional weight (accessories): approx. 500 g

Electrical connection

Short-circuit resistance

S₊ vs. U₋

Reverse polarity protection

U₊ vs. U₋

Insulation voltage

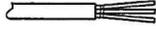
DC 500 V

Cable lengths

Available cable lengths					
Meter (m)	1.5	3	5	10	15
	20	25	30	40	50
	60	80	100		
Feet (ft)	5	10	20	30	40
	50				

Other cable lengths on request

Connection diagram

Cable outlet		
	U ₊	brown
	U ₋	green
	Shield	grey

Materials

Wetted parts

- Case from stainless steel
- Sensor out of stainless steel
- Protection cap from PA
- Cable from PUR

Approvals, directives and certificates

Approval

- CSA
- GOST-R

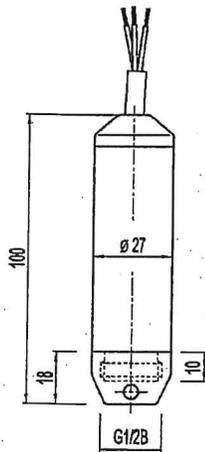
for further approvals, see local website

CE conformity

EMC directive 2004/108/EC, EN 61326 emission (group 1, class B) and immunity (industrial application)

Dimensions in mm

Cable outlet
Cable from PUR



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NOLTA

NOLTA SensorGuard

PRODUCT DESCRIPTION

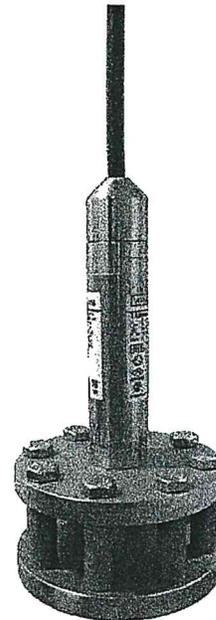
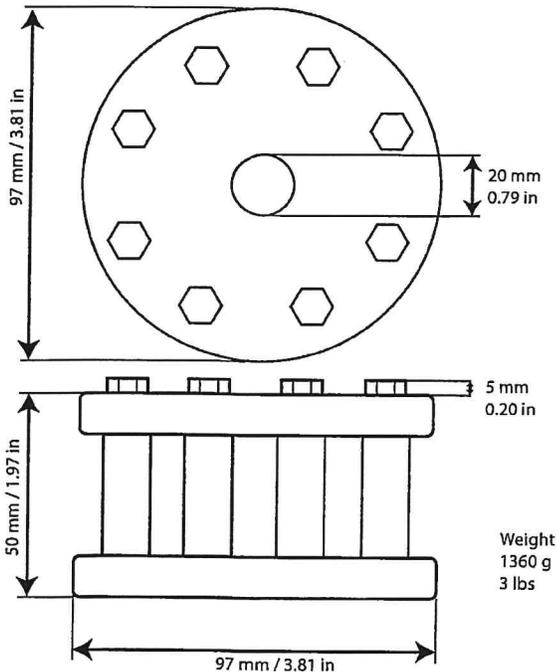
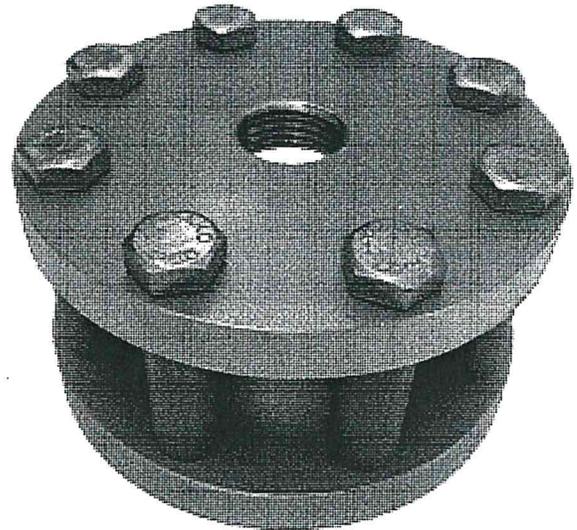
The Nolta SensorGuard attaches to the IL-10 level sensor and keeps it in place. The cage like layout protects the sensor from floating debris. Its weight pulls the Sensor to the ground fixing it in its position, even in light turbulence.

Application

Suitable for all sensors with a G1/2B thread.

Technical Data

Max. temperature:	-4° ... +212° F
Thread	G1/2B
Weight	App. 3 lbs (1360g)
Height / diameter:	1.97 / 3.81 in
Material	1.4301 Stainless Steel (similar to AISI 304)



Contact

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www.noltainc.com



Cut sheet for information purposes only. For detailed instructions please see manual or go to www.noltainc.com



Grundfos Water Utility
 3905 Enterprise Court
 Aurora, IL 60504
 (630) 236-5500

**66 MONTH PRO-RATED
 WARRANTY
 for
 MUNICIPAL APPLICATIONS**

1. Grundfos Water Utility submersible pumps, including products produced under the “Yeomans”, and “Chicago” brand names, is warranted for a period of 66 months, from date of shipment to the Original Buyer, to be free from defects in material and/or workmanship and to conform to any applicable drawings and specifications approved by Grundfos Water Utility.
2. The 66 month warranty is a prorated warranty as shown below. Parts will be replaced within the time period noted, and buyer will be invoiced at the given percentage rate of the price in effect at the time of shipment.

Months from Date of Shipment to Original Buyer	0-24	24-31	32-45	46-66
Percentage Rate of Warranty	0%*	25%	50%	75%

*Refer to Item 5

3. If within this period Grundfos Water Utility receives from the Original Buyer written notice of any alleged defect in any such apparatus, and if the apparatus is found not to be in conformity with this warranty (the Buyer having provided Grundfos Water Utility a reasonable opportunity to perform any appropriate tests required thereon) Grundfos Water Utility will, at its option and expense, either repair the same or supply replacement equipment.
4. Grundfos Water Utility, under either option, shall have the right to require the Original Buyer to deliver the apparatus to a Grundfos authorized service center; the Original Buyer shall pay all charges of inbound and outbound transportation. Grundfos Water Utility shall pay only the direct and actual cost of apparatus, repair or replacement as provided in item 3.
5. Labor charges for in-warranty repairs performed by Grundfos Water Utility or its authorized service center shall be assumed by Grundfos Water Utility if the repair is completed within 24 months from date of shipment to Original Buyer.
6. After repair, pumps are warranted for the residual period on the initial warranty.
7. The Submersible Pump and Motor have a double seal with a moisture detection system. The warranty shall cover the cost of replacement of the outer seal only. IF THE MOISTURE DETECTION SYSTEM IS NOT CONNECTED, THE WARRANTY IS VOID! The submersible Motor has motor winding thermostats. The thermostats must be connected per local, state and/or National Electric Code. IF THE MOTOR WINDING THERMOSTATS ARE NOT CONNECTED, THE WARRANTY IS VOID!
8. Only equipment utilized in Municipal Applications is eligible for the 66 month pro-rated warranty. For all other applications, please refer to the standard warranty information located in the product manual.
9. Pumps destined for long term storage shall be stored in accordance with the appropriate Service Bulletins. Any damage to the pumps due to improper storage conditions shall void the warranty.
10. Any claims by Buyer with reference to the equipment sold hereunder for any cause shall be deemed waived by Buyer unless submitted to Grundfos Water Utility in writing within thirty (30) days from the date Buyer discovered, or should have discovered, any claimed breach. Unless agreed to the contrary by Grundfos Water Utility in writing, any work done, materials furnished, repairs or designs made by others, shall void the warranty.

Grundfos Water Utility shall not be liable for incidental or consequential losses, damages or expenses, directly or indirectly arising from the sale, handling or use of the equipment, or from any other cause relating thereto, and Grundfos Water Utility liability hereunder in any case is expressly limited to the replacement (in the form originally shipped) of equipment or any part thereof, not complying with this order, or at Grundfos Water Utility’s election, to the repayment of, or crediting Buyer with an amount equal to the purchase price of such equipment, whether such claims are for breach or warranty or negligence. Please refer to Grundfos Terms and Conditions for complete warranty information.

