

INVITATION FOR BID
May 10, 2024

INVITATION FOR BID NUMBER	IFB 24-019
NAME OF BID	Purchase of Two (2) Vertical Hollow Shaft Motors Re-Bid
BIDS WILL BE RECEIVED AT	MAWSS Bid Box Donaghey Business Entrance 4725A Moffett Road or PO Box 180249 Mobile, AL 36618
BID OPENING DATE	May 22, 2024
BID CLOSING TIME	10:30 am Central Time
AWARD WILL BE MADE BY	Total Cost & Lead Time
MATERIAL DELIVERED TO	MAWSS Wright Smith WWTP 1879 N. Conception St Rd Mobile, AL 36610
ADDITIONAL INFORMATION CONTACT	Jed Barbour (251) 222-2363 Email: jbarbour@mawss.com Tedric Scott (251) 709-4711 Email: tscott@mawss.com
APPLICABLE SDP POLICY	None


Sealed bids must be in the Purchasing Department no later than the time specified in order to be considered. Submissions received after the deadline will not be considered. Envelopes must bear the name of the supplier, company address and the words "IFB 24-019 Vertical Hollow Shaft Motors" or "IFB 24-019 NO QUOTE." Facsimile or email bids will not be accepted.

All bids must be submitted on the attached forms or your bid will be disqualified. Bidder shall furnish all the information required by the solicitation. The bidder's name must be typed or printed on the bid sheet, and signed by the bidder or appropriate authorized executive officer of the bidder's company. Bidders must initial any changes or erasures. Bidders should retain a copy of bids for their records.

Bidders shall acknowledge receipt of all addenda to this solicitation by signing and returning each addendum or by identifying the addendum number and the date on the bid form. Failure to acknowledge receipt of any addendum by a bidder will result in rejection of the bid if MAWSS determines that the addendum contains information that materially changes the requirements.

All bids shall be quoted FOB Destination, freight prepaid with no additional charges. Unless otherwise specified in the bid, all prices will be on a firm-fixed price basis and are not subject to adjustments based on costs incurred. MAWSS reserves the right to reject any or all bids submitted, to waive any informality in any bid or in the bid process, or to terminate the bid process at any time, if deemed by MAWSS to be in MAWSS's best interest.

A Purchase Order and this "Invitation for Bid" with "Specifications," "Conditions," "Bid Form," signed by the successful bidder's authorized representative, and all attached drawings and other documents furnished by MAWSS to the bidders with the Invitation for Bid in order to illustrate the contract requirements, will constitute a contract for the goods and/or services to be purchased.


Joyce Sawyer, Buyer II
Board of Water and Sewer Commissioners

IFB 24-019 VERTICAL HOLLOW SHAFT MOTORS CONDITIONS

The Board of Water and Sewer Commissioners of the City of Mobile will accept bids for the **Purchase of Two (2) Vertical Hollow Shaft Motors** in our Purchasing Department Bid Box located in the Business Entrance at 4725 Moffett Road, Mobile, AL. 36618 **no later than 10:30 a.m.** local time on **May 22, 2024**. Bids will be opened immediately after bid closing time in the Operations Center Board room located at the Customer Service entrance. Award will be by **Total Cost & Lead Time**. The bidder offers and agrees, if this bid is accepted, to furnish the items as defined in the specifications for the unit price set opposite each item. Pricing shall be FOB Mobile, Alabama. All items shall be delivered to **Wright Smith Jr. WWTP** located at **1879 Conception St Rd.** or to the job site as needed. The bidder shall state the expected length of delivery time on the Bid Form.

Bidder understands and agrees that manufacturer and part numbers are provided for descriptive purposes only. Items of equal or better quality will be considered but must be approved by MAWSS in writing. Upon delivery, if the quality, durability or performance of any product represented as equal or better is determined by MAWSS to be unsatisfactory, MAWSS will require a suitable substitute or will require that the originally specified item be delivered, at the unit price originally offered by bidder. No substitution for items to be provided pursuant to this contract shall be permitted during the contract period without the express written consent of MAWSS. All items provided shall be for commercial use and for the purposes reflected in the contract documents.

No bid on closed out or discontinued item(s) will be accepted. Item(s) that have a determinable shelf life must be disclosed at the time of bid submittal. Bidder understands that his/her bid shall be good and may not be withdrawn for a period of sixty (60) calendar days after the scheduled closing time for receiving bids.

MAWSS shall not be committed to the purchase of a pre-established minimum quantity for any one item.

A bidder may not modify its bid after bid opening. Errors in the extension of unit prices stated in a bid or in multiplication, division, addition or subtraction in a bid may be corrected by the MAWSS Purchasing Buyer prior to award. In such cases, unit prices shall not be changed.

It is the responsibility of the bidder to determine prior to the bid opening whether any amendment, additions, deletions or changes of any type have been made to this Invitation for Bid, Conditions, Specifications, Bid Form or any of the other bid documents. Bid documents and any amendments made to this bid will be posted on our website at www.mawss.com.

Invoicing Requirements: MAWSS is requiring additional information for all work performed and services provided. On the vendor's invoice for payment should be a detailed listing of work performed, services provided, dates completed, locations involved and any other pertinent information needed to verify the work and/or services were completed in accordance to the bid specs. This additional information can be supplied in the form of detailed invoices, work orders, checklists or any other documents used to track the work performed or services provided but details must be included on the actual invoice. A copy of the invoice and these additional details must be sent to the "ADDITIONAL INFORMATION CONTACT" found on Page 1 of the bid documents and a copy emailed to Accounts Payable at AcctsPayable@mawss.com.

END OF CONDITIONS

IFB 24-019 VERTICAL HOLLOW SHAFT MOTORS SPECIFICATIONS

SUMMARY

The specifications contained herein are for the purchase of Two (2) Vertical, Hollow-Shaft Motors for spare equipment inventory for the Wright-Smith Jr., Wastewater Treatment Plant. The motors are considered critical spare parts for use in a vertical turbine pump application.

PART 1 BID ITEMS

1.01 TRICKLING FILTER RECIRCULATION PUMP MOTOR

A. One (1) Motor that matches, either in kind or specification, a U.S. Motors Model HF54 Hollow Shaft Motor

1. Catalog #HO50P3BLGX
2. 50 Horsepower
3. 365TP Frame
4. 3 Phase, 460 VAC, 60Hz
5. 1190 RPM
6. 1.5" Shaft Size

1.02 SECONDARY PUMPING STATION MOTOR

B. One (1) Motor that matches, either in kind or specification, a U.S. Motors ID# R01P0850071R-2 Hollow Shaft Motor

1. 100 Horsepower
2. 4444TP Frame
3. 3 Phase, 460 VAC, 60Hz
4. 1190 RPM
5. 1.5" Shaft Size

PART 2 SUBMITTALS

2.01 SUBMITTALS

A. Action Submittals:

1. Descriptive information
2. Nameplate data in accordance with NEMA MG 1

3. Additional Rating Information:
 - a. Service factor
 - b. Locked rotor current
 - c. No load current
 - d. Safe stall time for motors 50 hp and larger
 - e. Multi-speed load classification (for example: variable torque)
 - f. Adjustable frequency drive motor load classification (for example: variable torque) and minimum allowable motor speed for that load classification
 - g. Guaranteed minimum full load efficiency and power factor
 4. Enclosure type and mounting (such as: horizontal, vertical)
 5. Dimensions and total weight
 6. Conduit box dimensions and usable volume as defined in NEMA MG 1 and NFPA 70
 7. Bearing type
 8. Bearing lubrication
 9. Bearing life
 10. Space heater voltage and watts
 11. Description, ratings, and wiring diagram of motor thermal protection
 12. Motor sound power level in accordance with NEMA MG 1
 13. Maximum brake horsepower required by the equipment driven by the motor
 14. Description and rating of submersible motor moisture sensing system
 15. Anchorage and bracing data sheets and drawings as required by Section 01 88 15, Anchorage and Bracing
- B. Informational Submittals:
1. Anchorage and bracing calculations as required by Section 01 88 15, Anchorage and Bracing
 2. Factory test reports
 3. Component and attachment testing seismic certificate of compliance as required by Section 01 45 33, Special Inspection, Observation, and Testing
 4. Operation and Maintenance Data: As specified in Section 01 78 23, Operation and Maintenance Data
 5. Manufacturer's Certificate of Proper Installation, in accordance with Section 01 43 33, Manufacturers' Field Services

PART 3 PRODUCTS

3.01 MANUFACTURERS

- A. Materials, equipment, and accessories specified in this section shall be products of:
 - 1. General Electric
 - 2. Baldor
 - 3. U.S. Electrical Motors

3.02 GENERAL

- A. For multiple units of the same type of equipment, furnish identical motors and accessories of a single manufacturer
- B. In order to obtain single source responsibility, use a single supplier to provide drive motor, its driven equipment, and specified motor accessories
- C. Meet requirements of NEMA MG 1
- D. Provide motors specifically designed for the use and conditions intended, with a NEMA design letter classification to fit the application
- E. Lifting lugs on motors weighing 100 pounds or more
- F. Operating Conditions:
 - 1. Maximum ambient temperature not greater than 40 degrees C
 - 2. Provide motors suitable for operating conditions without reduction in nameplate rated horsepower or exceeding rated temperature rise
 - 3. Overspeed in either direction in accordance with NEMA MG 1

3.03 HORSEPOWER RATING

- A. As designated in motor-driven equipment specification
- B. Constant Speed Applications: Brake horsepower of driven equipment at any head capacity point on pump curve not to exceed motor nameplate horsepower rating, excluding service factor.
- C. Adjustable Frequency and Adjustable Speed Applications (Inverter Duty Motor): Driven equipment brake horsepower at any head capacity point on pump curve not to exceed motor nameplate horsepower rating, excluding service factor. The use of inverter ready motors for any application in which the motors speed shall be varied will not be accepted. Any application in which the motors speed shall be varied shall require the use of inverter duty rated motors without exception.

3.04 EFFICIENCY AND POWER FACTOR

A. For all motors

1. Efficiency:
 - a. Tested in accordance with NEMA MG 1, Paragraph 12.59
 - b. Guaranteed minimum at full load in accordance with NEMA MG 1 Table 12-12, Full-load Efficiencies for NEMA Premium Efficiency Electric Motors Rated 600 Volts or Less (Random Wound), or as indicated in motor-driven equipment specification.
2. Power Factor: Guaranteed minimum at full load shall be manufacturer's standard or as indicated in motor-driven equipment specification.

3.05 TERMINAL (CONDUIT) BOXES

- A. Oversize main terminal boxes for motors
- B. Diagonally split, rotatable to each of four 90-degree positions. Threaded hubs for conduit attachment.
- C. Except ODP, furnish gaskets between box halves and between box and motor frame
- D. Terminal for connection of equipment grounding wire in each terminal box
- E. Coordinate motor terminal box conduit entries versus size and quantity of conduits shown on Drawings

3.06 BEARINGS AND LUBRICATION

A. Hollow Shaft Vertical Motors:

1. Thrust Bearings:
 - a. Antifriction bearing
 - b. Manufacturer's standard lubrication 100 hp and smaller
 - c. Oil lubricated 125 hp and larger
 - d. Minimum 50,000 hours L-10 bearing life
2. Guide Bearings:
 - a. Manufacturer's standard bearing type
 - b. Manufacturer's standard lubrication 200 hp and smaller
 - c. Minimum 100,000 hours L-10 bearing life

- B. Oil Lubrication Systems:
 - 1. Oil reservoirs with sight level gauge
 - 2. Oil fill and drain openings with opening plugs
 - 3. Provisions for necessary oil circulation and cooling
- C. Inverter Duty Rated Motors Larger than 50 hp, Bearing Isolation: Provide electrically isolated bearings to prevent stray current damage.

3.07 NOISE

- A. Measured in accordance with NEMA MG 1
- B. Maximum Sound Level for Motors Controlled by Adjustable Frequency Drive Systems: 3 dBA higher than NEMA MG 1

3.08 BALANCE AND VIBRATION CONTROL

- A. In accordance with NEMA MG 1, Part 7

3.09 EQUIPMENT FINISH

- A. Protect Motor for Service Conditions:
 - 1. ODP Enclosures: Indoor industrial atmospheres
 - 2. Other Enclosures: Outdoor industrial atmospheres, including moisture and direct sunlight exposure
- B. External Finish: Prime and finish coat manufacturer's standard
- C. Internal Finish: Bore and end turns coated with clear polyester or epoxy varnish

3.10 SPECIAL FEATURES AND ACCESSORIES

- A. Screen Over Air Openings: Stainless steel on motors with ODP, WPI, and WPII enclosures meeting requirements for guarded machine in NEMA MG 1, and attached with stainless steel screws.
- B. Nameplates:
 - 1. Raised or stamped letters on stainless steel or aluminum
 - 2. Display motor data required by NEMA MG 1, Paragraph 10.39 and Paragraph 10.40 in addition to bearing numbers for both bearings
 - 3. Premium efficiency motor nameplates to display NEMA nominal efficiency, guaranteed minimum efficiency, full load power factor, and maximum allowable kVAR for power factor correction capacitors.

PART 4 DELIVERY & WARRANTY

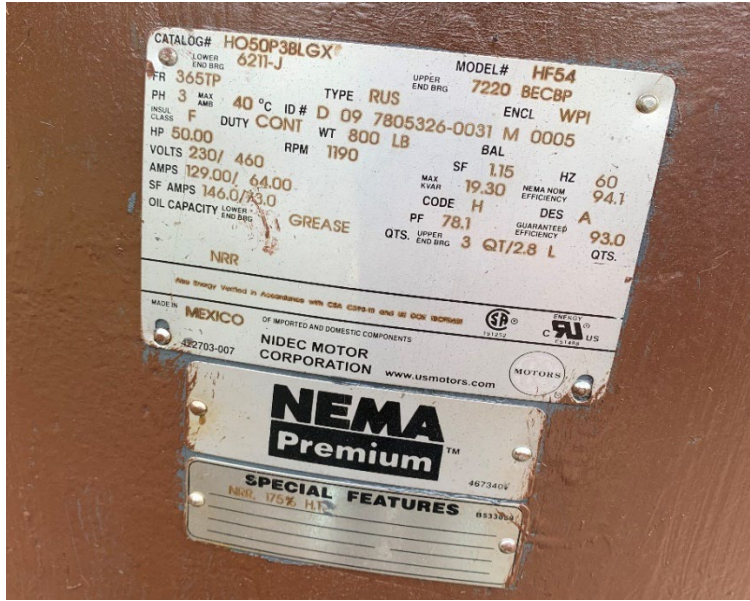
4.01 DELIVERY

- A. Transportation costs shall be included in the bid price.
- B. Motors shall be delivered concurrently to the Wright-Smith Jr., Wastewater Treatment Plant located at 1879 North Conception Street Rd., Mobile, Alabama 36610.

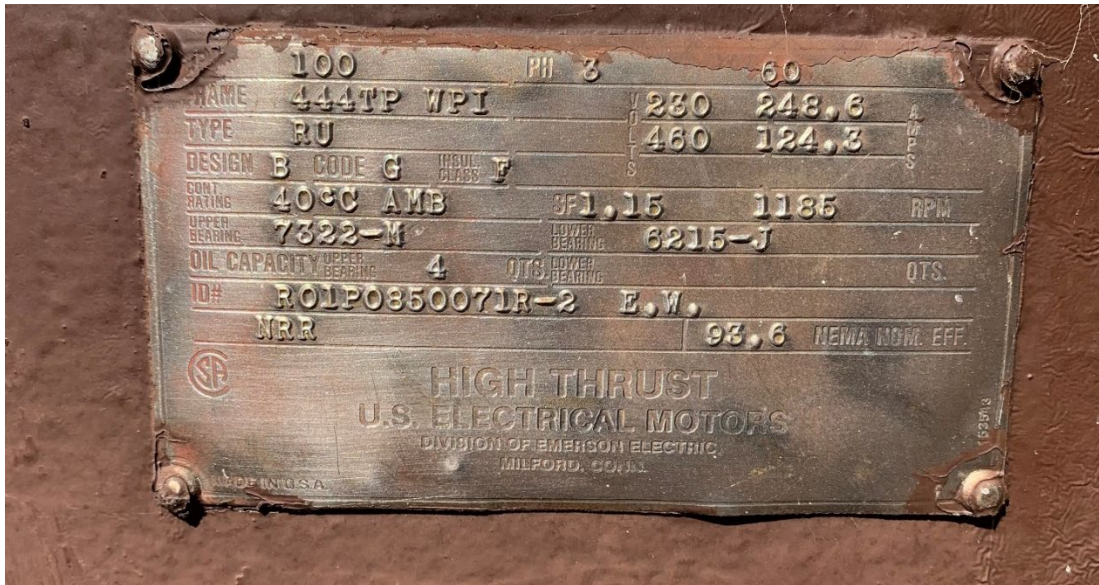
4.02 WARRANTY

- A. At minimum, a 1-year manufacturer's warranty on all parts is required.

END OF SPECIFICATIONS



Data Plate from one of our 50hp motors



Data Plate from one of our 100hp motors

