

RESOLUTION NO. 2021 - 32

A RESOLUTION BY THE BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA, AUTHORIZING THE COUNTY ADMINISTRATOR, OR DESIGNEE, TO PURCHASE AND EXECUTE A PURCHASE ORDER FOR A GARDNER DENVER NASH HOFFMAN AND LAMSON MULTISTATE CENTRIFUGAL BLOWER.

RECITALS

WHEREAS, the County seeks to purchase blower equipment for St Johns County Utility Department; and

WHEREAS, in accordance with section 302.6.5.3 of the St. Johns County Purchasing Manual, entitled "Sole Source", the County is authorized to make said purchase as authorized by the Board of County Commissioners; and

WHEREAS, in accordance with section 306.5 of the St. Johns County Purchasing Manual, entitled "Standardization" to waiver bidding procedures to standardize the installation of the blower equipment; and

WHEREAS, the sole sales representative for the requested Gardner Nash Hoffman and Lamson Multistage Centrifugal Blower is TSC Jacobs-North for the State of Florida; and

WHEREAS, Single/Source (SS) No. 21-22 was posted on DemandStar for verification of single/source in accordance with Florida State Statute 287.057(5)(c) and 120.57(3) with no responses; and

WHEREAS, the purchase of the reference blower equipment serves a public purpose.

NOW, THEREFORE BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA, as follows:

Section 1. The above Recitals are incorporated by reference into the body of this Resolution and such Recitals are adopted as finds of fact.

Section 2. The County Administrator, or designee, is hereby authorized to purchase the referenced blower equipment.

Section 3. Upon Board approval, the County Administrator, or designee, is authorized to execute a purchase order in the amount of \$123,965.00 for the purchase of the referenced blower equipment from TSC Jacobs-North.

Section 4. To the extent that there are typographical and/or administrative errors that do not change the tone, tenor, or concept of this Resolution, then this Resolution may be revised without subsequent approval by the Board of County Commissioners.

PASSED AND ADOPTED by the Board of County Commissioners of St. Johns County, Florida, this 19 day of January, 2021.

**BOARD OF COUNTY COMMISSIONERS OF
ST. JOHNS COUNTY, FLORIDA**

By: Henry Dean
Henry Dean, Vice Chairman

**ATTEST: CLERK OF THE CIRCUIT COURT
& COMPTROLLER;** Brandon J. Patty, Clerk

By: Sam Halter
Deputy Clerk

RENDITION DATE 1/21/21





DATE: November 4, 2020

PROPOSAL NO. SF-1043826 Option 1

TO: The Constantine Group

REFERENCE: St. Johns County Utilities, Anastasia Island WWTP
Multistage Centrifugal air blower

NASH is pleased to offer the following proposal;

EQUIPMENT SCOPE:

Quantity ONE (1) **Hoffman Model 74107** Multistage Centrifugal Air Blower with a capacity of 1945 SCFM at 8.0 PSIG Outlet Pressure, with 14.7 PSIA Barometer, 14.7 PSIA at blower inlet flange, 100° Inlet air temperature, and 90% relative humidity Summer, 15F, 30% RH Winter

The blower will be our standard heavy-duty construction with cast iron inlet and outlet heads, cast iron intermediate sections, and aluminum-alloy impellers. The impellers will be assembled on a heavy steel shaft and supported by two outboard mounted ball bearings. The blower 8" inlet & 8" outlet flanges are drilled to 125# ANSI standards. Blower bearings housings with vibration sensors and 100 Ohm platinum RTD's.

The blower and motor will be mounted on a common structural steel base plate with the blower driven by a **125 HP** electric motor, 3550 RPM, 3 ph, 60 hertz, 460 volt, TEFC enclosure, 40 C ambient, 1.15 service factor, Class F insulation, Class B temperature rise. 120 volt space heater, 100 Ohm platinum stator RTDs.

The following accessories are included for each Blower Package:

- 1 - Set Base Isolation Pads
- 1 - Shaft coupling, non-spacer, with composite Orange Peel coupling guard
- 1 - Inlet air Filter/Silencer, 8" bottom outlet flange, ultra-synthetic media, 99% Efficiency on 1 microns
- 1 - Inlet Expansion Joint, 8"
- 1 - Discharge Expansion Joint, 8"
- 1 - Discharge Check Valve, 8", Wafer Style (Short Form)
- 1 - Discharge Butterfly Valve, discharge isolation, 8", Wafer body, manual lever operator
- 1 - Inlet butterfly valve, 8" Wafer body, modulating electric motor operator
- 1 - Air temperature gauge, 50-300F range
- 1 - Discharge pressure gauge, 0-15 PSIG Range



Blower Local Control Panel:

1 - Blower Protection Panel; Blower surge and motor overload protection, blower bearing temperature and blower bearing vibration protection, Inlet filter DP, Inlet air temperature, discharge air pressure, control of blower inlet butterfly valve. Major components to include:

1 – NEMA 12 Wall Mount Enclosure for Indoor, Non-Corrosive, Non-Hazardous Temperature Controlled Environment (Not for Installation in Direct Sunlight) Surrounding Air Temperature Range:

32 deg F – 90 deg F. Estimated panel size: 36" high x 24" wide x 8" deep

1 – 6" Color Touch HMI, HMI Screens provided in English Language

1 – AB MicroLogix 1400 PLC

With inputs for:

(1) Blower Motor Current, 0-5 AAC Converted to 4-20mADC

(2) Blower Bearing Temperature, 100-Ohm RTD

(2) Blower Bearing Vibration, 4-20 mADC

(1) Blower Inlet Differential Pressure, 4-20mA

(1) Blower Inlet Temperature, 100-Ohm RTD

(1) Blower Discharge Pressure, 4-20mA

(1) Inlet Valve Position (4-20 mADC)

And outputs for:

(1) Inlet Valve Throttling (4-20 mADC)

1 – 24 VDC power supply

1 – Alarm horn

1 – Indicating light for "Power On"

1 – Ethernet Switch, Unmanaged

1 – Current to Current Transducer

1- GFCI

- Any Lights/Alarms not specifically referenced above are assumed to be soft operators on the HMI
- A/R – Terminal blocks, relays, wire, and other hardware required for complete panel assembly
- Fully assembled and tested. Customer to provide 120 VAC power.
- Un-witnessed Factory Test (UFT) using simulation equipment to verify full functionality according to operational description (Birmingham, AL location)
- Ethernet/IP communications to SCADA
- UL508A panel label



FACTORY TESTING:

Blowers are given a standard factory mechanical test consisting of operating the unit for a minimum of one hour after stabilization. Speed, vibration, and temperature levels are recorded and verified to be within Gardner Denver engineering and ISO quality PTC9016 standards during this test. The customer shall consider successful performance of this equipment as measured by the above mechanical and test as the basis for acceptance unless otherwise noted. In addition, blowers requiring a factory performance test will be tested per ASME PTC-10 standards under Gardner Denver procedure PT9014. Performance testing will be completed at manufacturer's designated testing facility.

Tests will be conducted with the job-specific motor when specified and when possible based on test cell power limitations. When necessary, a calibrated factory test motor will be used to provide the engineer and owner with a baseline of performance, peak vibration and temperature readings. A certified test curve for each blower will be provided to the engineer to verify compliance with specified design criteria. Each blower will be tested once with results use to compare to the baseline design criteria. Alternate design points will be calculated rather than a test run for each specified design point.

Standard acceptance for the flow on the pressure curve is +/- 4% when differential pressure is greater than or equal to 6.0 PSIG. Acceptance criteria for the flow on the pressure curve is +/- 0.25 PSIG when differential pressure is less than 6.0 PSIG. Standard acceptance criteria for power is less than 104% of the specified BHP at the design flow. Test reports will be generated using "Original Units" of measure as shown on the predicted blower performance curve. Revised reports using alternate units of measure may result in additional charges.

- Mechanical Run Test
- Dynamic Rotor Balance

CLARIFICATIONS AND COMMENTS:

- The complete scope of supply is as noted herein. Any item not specifically noted is not included. Any accessories quoted are shipped loose for mounting by others unless otherwise noted.
- Unloading, storage, installation or installation supervision, motor starters, switchgear, interconnecting wiring and conduit, pipes, fittings, gaskets, hardware and anchor bolts are not included.
- Preparation procedures and paint shall be manufacturer's standard specification paint system and standard Revolution Blue factory color unless otherwise noted.
- Blower coupling alignment must be checked and adjusted to limits as noted in O&M manual by others after equipment is installed and prior to start-up at the job site, not by the representative.
- On-site blower start up assistance by a factory blower technician or authorized representative is included, 1 trip, 3 days on site total.

Proposal No. SF-1043826 Option 1 November 4, 2020
St. Johns County Utilities, Anastasia Island WWTP
The Constantine Group



COMMERCIAL TERMS:

Pricing for this project is shown below. Price shall be FOB Factory with freight included to the job site. Equipment will be shipped in one shipment via standard flatbed trucks to the job site. Prices are firm through shipment provided written release to production is received within four weeks of initial drawing submittal and acceptance of our proposed shipment schedule. Any delays to either will result in adjusting the price to price in effect at the time of shipment.

The following Gardner Denver forms are attached and apply:

- Terms and Condition of Sale
- Field Service – Rates

Payment: Per Gardner Denver standard Terms and Conditions. Subject to Gardner Denver credit manager approval, proposed payment terms are 10% at acceptance of the order, 40% upon release for manufacturing, 45% at shipment, 5% at acceptance of startup, not to exceed 120 days from shipment.

Shipment: 16 weeks after receipt of a written order and/or approval of all drawings. Lead-time is estimated and is subject to confirmation when an order is received and production load at time of release.

TOTAL PRICE: - \$123,965.00 US Dollars

This proposal is valid for 60 days from the proposal date.
Price escalation may apply if order is not shipped within one year of order date

Respectfully Yours,

Keith Collins
Sr. Application Sales Engineer

Gardner Denver NASH, LLC
200 Simko Boulevard
Charleroi, PA 15022

Cell: 678-852-8576
keith.collins@gardnerdenver.com

Paul Wachter
Manufacturer's representative

TSC – Jacobs North
24156 SR 54, Suite 3
Lutz, FL 33559

Ph.: 813-242-2660
Cell: 813-997-1527
Paultscjn@verizon.net

EXCEPT AS OTHERWISE AGREED IN WRITING, THESE TERMS AND CONDITIONS GOVERN ALL OUR CONTRACTS TO THE EXCLUSION OF OTHER TERMS AND CONDITIONS. OUR QUOTATIONS AND ESTIMATES ARE NOT OFFERS CAPABLE OF ACCEPTANCE BY YOU, AND ANY ORDER PLACED BY YOU WILL ONLY BE ACCEPTED BY OUR WRITTEN CONFIRMATION OF SUCH ORDER.

GENERAL PROVISIONS

1. The definition of terms used, interpretation of this agreement and rights of parties hereto shall be construed under and governed by the Uniform Commercial Code of the State of Illinois. "Seller" when used herein means GARDNER DENVER, INC. "Purchaser" when used herein means the person, firm or corporation to whom this quotation is addressed. And "Equipment" or "Products" means those articles, supplies, and drawings, data or other property or services described herein.
2. All quotations are for immediate acceptance and subject to change or withdrawal without notice before an order is acknowledged by Seller. This proposal shall not become effective until accepted by an authorized employee of the Seller. This proposal cannot be changed or varied by any verbal agreement. If this proposal is deemed to constitute an offer, it may be accepted only on terms set forth in this proposal, including, without limitation, these Terms and Conditions. If this proposal constitutes an acceptance of an offer, such acceptance is expressly conditioned on Purchaser's assent solely to the terms of proposal, including, without limitation, these Terms and Conditions. An acceptance of any part of the Equipment or services covered hereunder shall be deemed to constitute such assent. Any additional and/or different terms and conditions proposed by Purchaser and/or any attempt by Purchaser to vary any of these terms and conditions shall be deemed a material alteration and is hereby objected to and rejected.
3. Unless otherwise agreed by Seller in writing, Seller's prices are subject to change without advance notice at any time prior to order acknowledgment. Seller reserves the right to adjust the invoice price, after the price is quoted and/or acknowledged, to take account of any material variation in Seller's costs beyond Seller's reasonable control since the date of the quotation or (if no quotation is issued) the order acknowledgement, and the invoice so adjusted shall be payable as if the price set out therein were the original contract price. All sales are subject to increase without notification by the amount of any sales or excise tax levied or charged by any governmental agency and are subject to any price adjustment necessitated by Seller's compliance with any government action.
4. All sales under all orders and these terms and conditions are subject to Seller and/or Government priorities, laws and regulations, now or hereafter established.
5. The Seller reserves the right to change, discontinue or modify the design and construction of any product or to substitute material equal to or superior to that originally specified, without notice to the Purchaser.
6. All claims by Purchaser for shortages in a shipment of Equipment or Equipment damaged in transit must be made against the carrier. All claims by Purchaser against Seller for nonconforming Equipment and claims for shortages in a shipment or damaged Equipment (other than claims to be made against the carrier) must be made in writing to Seller within ten (10) days after receipt of shipment or thirty (30) days after date of shipment, whichever occurs first, or they are waived.
7. Any action for breach of the contract hereunder must be commenced within one year after the cause of action has accrued. Only variations or modifications to the contract, which are made in writing signed by Seller and Purchaser, shall be enforceable. Any failure by Seller to enforce its rights under this contract will not be deemed a waiver of such rights.
8. All disputes arising under or in connection with this Contract shall be resolved by (a) good-faith negotiations by knowledgeable, responsible representatives of each party who are fully authorized to settle any such dispute, or (b) in the event such negotiations do not resolve such dispute, binding arbitration held in Chicago, Illinois, by a single arbitrator pursuant to the Commercial Arbitration Rules of the American Arbitration Association. Each party shall bear its own costs of these procedures; the parties shall equally split the fees of the arbitration and the arbitrator. Notwithstanding the above, either party shall have the right to seek a temporary restraining order or an injunction related to the purposes of this Contract, to compel compliance with confidentiality obligations, or to file suit to compel compliance with this dispute resolution process.
9. Purchaser may not assign, novate or otherwise transfer its rights or obligations under this contract without Seller's prior written consent, and any attempt to do so shall be null and void and of no effect.
10. The minimum order value is \$100.00.

CANCELLATION

Purchaser cannot cancel orders under any circumstances without Purchaser first reaching an agreement in writing with Seller covering all Sellers' damages. For standard Equipment (catalogue equipment, ordinarily carried in stock), such agreement shall provide, at a minimum, a cancellation charge of at least 15% of the purchase price of the goods covered by the cancelled orders to cover overhead and profit. In addition, for special Equipment (i.e., equipment manufactured per Purchaser's

requirements, and not stocked as a standard product), cancellation charges must, at a minimum, reimburse Seller for all expenses incurred (including but not limited to costs of purchased materials), engineering costs, and an amount to cover overhead and profit, and be will based on the following schedule of minimum values, whichever is greater: Order Entry --- 10% of purchase order value; Completion of Engineering --- 25% of purchase order value; Materials on Order --- 50% of purchase order value; Fabrication Started --- 100% of purchase order value.

ENGINEERING CRITERIA

The Equipment furnished by Seller are sophisticated engineering products; accordingly, Purchaser undertakes:

1. That it has provided and will promptly provide all the information reasonably necessary to enable Seller to (i) evaluate the requirements for performing and (ii) perform the Contract, and that all such information is full and accurate;
2. That all premises, plant, engineering support, spare parts, connected pipe work and machinery and inputs that it is required to provide for the design, engineering, installation, testing and use of the Products are fit for their purpose and of good engineering quality;
3. Fully to co-operate with Seller in the design, engineering, installation, testing and use of the Products;
4. To use the Products for the intended purpose only and in accordance with the Product literature; and
5. Not under any circumstances, to use any unapproved spare part, connected machinery, service or repair or use the Products in any manner as may render the Products dangerous and agrees that any breach of these negative criteria will negate all specific and implied conditions and obligations on the part of Seller relating to the quality of the Products. Purchaser further agrees that it will be liable to Seller for any costs, expenses and losses it suffers by reason of any breach of these undertakings.

DRAWINGS, DESIGNS AND CONFIDENTIALITY

1. All of Seller's specifications, designs, drawings, indications of physical, chemical and electronic properties and indications of inlet pressure or vacuum, pressure output and power consumptions ("the Designs") are made in good faith and are approximate indications only and are not binding in detail unless Purchaser has specified in writing a particular indication upon which he is relying and Seller shall be entitled to vary the same and/or to correct errors and omissions provided the Products remain in substantial conformity with the contractual requirements.
2. The Designs (including all copyright, design right and other intellectual property in them) shall as between the parties be the property of Seller; and Purchaser is not entitled to make any use of the Designs other than for the purpose of this Contract.
3. Any inventions, modifications, improvements, techniques or know-how affecting the Products made or gained in the course of performing this Contract shall belong to Seller absolutely.
4. Neither party shall disclose to third parties or use for its own purposes any confidential information or trade secrets of the other party.

SHIPMENT, PAYMENT AND CREDIT

1. Credit Terms of Payment: A. Domestic - Net thirty (30) days from date of invoice. Delinquent accounts shall bear interest at 18% per annum thereafter, until paid. Said interest rate shall be reduced to the maximum permissible rate in any state having laws, which so require. B. International - Unless otherwise agreed to by the Seller's Manager of Credit and Collection, payment shall be in U.S. Funds by wire transfer or irrevocable Letter of Credit, confirmed by a major U.S. Bank. In addition to such late payment charges, Seller may add to the amount past due any costs associated with collection thereof, including reasonable attorneys' fees.
2. Seller may, in its sole discretion, accept payment for Products by cash in advance or by money-down with scheduled progress payments, and, unless Seller agrees otherwise in writing, in its sole discretion, orders over \$100,000 will be subject to progress payments.
3. Shipments and deliveries shall be subject to approval of Seller's Credit Department. If Purchaser fails to fulfill the terms of payment, or if at any time before payment in full is made (whether or not payment is yet due) a petition is presented or resolution passed for the winding up or bankruptcy of Purchaser, or in the event of the appointment of a receiver or administrator of Purchaser's business, Seller may defer further shipment or at its option, cancel the unshipped balance. Seller reserves the right previous to making any shipments, to require from Purchaser satisfactory security for performance of Purchaser's obligation. No failure of Seller to exercise any right accruing from any default of Purchase shall impair Seller's right in case of any shipment default of Purchaser.
4. All sales are ex-works unless otherwise expressly stipulated. Seller may, in its discretion, select the carrier unless specified in advance by Purchaser.

5. Seller's responsibility for damages in transit ceases upon delivery of goods to destination specified in the Order and Purchaser then assumes responsibility for damage determination and collection from carrier.
6. While expected dates of delivery of goods are given in good faith, the same are not of the essence of or in any way terms of the contract or representations of fact. All shipping dates given are approximate, and while effort is made to maintain schedules, Seller will not be liable for damages on account of delay. In case of delay by Purchaser in furnishing complete schedules or information, delivery dates may be extended for a reasonable time depending on factory conditions. The Seller shall not be responsible for reasonable or excusable delays nor shall the Purchaser refuse to accept delivery because of any such delays. Excusable delays include, without limitation, delays resulting from accidents, fires, floods, severe weather or other acts of God, strike, lockout or other labor difficulties, embargoes, government controls or other forms of intervention, inability to obtain labor, materials or services and other causes beyond Seller's control. If there is a scarcity in any of its products or goods, Seller will allocate its available supply in its sole discretion.
7. All Equipment or parts furnished by Seller shall remain the property of Seller until paid for in full. Pending payment of the full purchase price of the Equipment or parts furnished by Seller, Purchaser shall at all times keep the Equipment or parts comprehensively insured against loss or damage by accident, fire, theft and other risks usually covered by insurance in the type of business carried on by Purchaser in an amount at least equal to the balance of the price for the same from time to time remaining outstanding.
8. Between delivery and payment in full, the risk in the Equipment furnished by Seller shall be with Purchaser, who shall keep the same in good condition and repair, properly stored and labeled as being Seller's property.
9. In the event of Cancellation in accordance with the provisions hereof, or in the event of non-payment (in full or in part) for the Equipment by the due date, Purchaser hereby irrevocably licenses Seller (insofar as it is able) to enter upon any premises to repossess the Equipment.

INDEMNITY

Purchaser will indemnify, defend and hold Seller, its affiliated companies and their respective directors, officers, employees and agents harmless from any loss, claim, cost, expense or damage (including payment of reasonable attorneys' fees) suffered or incurred by any of them and/or for which any of them may be liable to any third party due to, arising from or in connection with, directly or indirectly:

- (i.) any violation of law, negligence, omission or intentional misconduct on the part of the Purchaser, its servants, agents or employees; (ii.) Purchaser's instructions or lack of instructions or Purchaser's failure or delay in taking delivery;
- (iii.) the breach of any provision of this Agreement by Purchaser; or
- (iv.) any infringement or alleged infringement of patents, trademarks, copyright, design, right or other intellectual property right occasioned by the importation, manufacture or sale of the Equipment if made to the specification or special requirement of Purchaser.

LIABILITY

Seller's total liability for any and all claims, damages, losses and injuries arising out of or relating to Seller's performance or breach of any term herein shall not exceed the purchase price of the Equipment. IN NO EVENT, WHETHER IN CONTRACT, TORT OR OTHERWISE, SHALL SELLER BE LIABLE FOR LIQUIDATED, INDIRECT, EXEMPLARY, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES, EXPENSES OR COSTS, INCLUDING BUT NOT LIMITED TO: (1) LOSS OF PROFITS, BUSINESS OR GOODWILL; (2) LOSS OF USE OF EQUIPMENT OR FACILITIES; OR (3) LOSS RESULTING FROM UNUSABLE MACHINERY OR FACILITY DOWNTIME, HOWSOEVER CAUSED AND EVEN IF THE POTENTIAL FOR SUCH DAMAGES WAS DISCLOSED AND/OR KNOWN.

DISCLAIMER OF WARRANTY

SELLER DOES NOT WARRANT THE MERCHANTABILITY OF ITS PRODUCTS AND DOES NOT WARRANT THE FITNESS OF THE PRODUCTS FOR A PARTICULAR PURPOSE. SELLER DOES NOT MAKE, AND HEREBY DISCLAIMS AND EXCLUDES, ANY WARRANTY, EXPRESS OR IMPLIED, OTHER THAN THE WARRANTY CONTAINED HEREIN. THERE ARE NO WARRANTIES EXPRESS OR IMPLIED BEYOND THAT WHICH IS DESCRIBED BELOW.

WARRANTY OF GOODS MANUFACTURED BY SELLER

1. Except to the extent Seller specifies another warranty period in writing, Seller warrants products and parts manufactured by it and sold hereunder to be free from material defect in material and workmanship for a period of twelve (12) months from date of startup or eighteen (18) months from date of shipment whichever occurs sooner (the "Warranty Period") provided, however, that Seller's sole responsibility under this warranty shall be to either repair or replace at Seller's option, any part which fails during the Warranty Period because of a defect in workmanship and material. Such replacement parts shall be provided at no cost to Purchaser, at the business establishment of Seller, or a repair facility authorized by Seller, during regular working hours. No Equipment may be returned by Purchaser without Seller's prior written consent, and Seller will not be liable for costs incurred by Purchaser in connection with returning equipment or parts, or otherwise, without Seller's prior written consent. Seller's obligation under this warranty shall not include any transportation charges, cost of installation, duty, taxes or any other charges whatsoever.
2. Seller shall be under no liability for breach of the warranty set forth herein: (i) unless the Equipment has been properly installed, used, maintained and serviced; (ii) unless Purchaser has promptly informed Seller in writing of the defect alleged within the Warranty Period and within 7 days of the discovery thereof; (iii) with respect to wearing and consumable parts; (iv) if Purchaser places Products in long-term storage and fails to perform proper long-term storage preparations per Seller's instructions; and/or (v) to Equipment or component parts or accessories thereof not manufactured by Seller.
3. Seller makes no representation regarding compliance with any state, provincial, or local law, rules, regulations, building code or ordinance relating to the installation or operation of the Equipment.
4. If the Purchaser informs the Seller of a defect after the Warranty Period has expired, then Seller may offer advice (free of charge) and may offer repair or replacement at Purchaser's expense. Any dispute as to whether a defect is covered by the Warranty shall be immediately referred to an expert to be agreed by Seller and Purchaser whose decision shall be final and binding upon the parties.
5. There are no third party beneficiaries of the Warranty granted by Seller herein.

WARRANTY OF OTHER MANUFACTURER'S PRODUCTS

Seller makes no warranties or representations of any kind whatsoever, either expressed, implied or statutory on any component parts or accessories sold hereunder which are not manufactured by Seller. Seller hereby extends the manufacturer's warranty or guarantees, if any, given to Seller by the manufacturer of said component parts and accessories, but only to the extent Seller is able to enforce such warranty or guarantees. Seller does not guaranty warranties of other manufacturers' products. Claims under any manufacturer's warranty shall be made in accordance with the manufacturer's requirements regarding the return, repair or replacement of the goods. Seller agrees to use its best efforts and will cooperate with Purchaser in enforcing any claims against manufacturer(s) for defects that may occur.

Seller has not authorized any party to make any representation or warranty other than the above warranty statements.

CONFLICTING LAW

Some jurisdictions provide rights in addition to those listed above, or do not allow the exclusion or limitation of implied warranties, or liability for incidental or consequential damages. If any provision or part of a provision of these terms is found to be illegal, invalid or unenforceable under any applicable law, such provision or part of a provision shall, insofar as it is severable from the remaining terms, be deemed omitted from these terms and shall in no way affect the legality, validity or enforceability of the remaining terms.

SPECIAL PROVISIONS

The Equipment or parts sold hereunder are not designed or manufactured for use in or with any atomic installation or activity. If Purchaser or the ultimate user of these products intends to use them in such an installation or activity, Seller's Terms for Nuclear Sales shall be a part of this Contract. Seller will furnish Purchaser with a copy of its Terms for Nuclear Sales upon request.



Policy
2021 Field Service Rates
Centrifugal Products

Jan 1, 2021 – December 31, 2021

POLICY:

The services of a technician or engineer from Gardner Denver Engineered Products Division to inspect or repair a machine in the field, whether under warranty or not, are subject to a service charge. A firm commitment in the form of a hard copy purchase order will be required before the technician or engineer is scheduled and/or departs for any job site.

A PURCHASE ORDER MUST BE EMAILED, ALONG WITH GARDNER DENVER SITE READINESS COMPLETED PAPERWORK (IF APPLICABLE), TO OUR SERVICE DEPARTMENT AT SERVICE.CF@GARDNERDENVER.COM BEFORE ANY SERVICE CAN BE PERFORMED.

If the machine in question is within the warranty period and inspection by the Gardner Denver technician or engineer reveals a defect in workmanship or materials for which the factory is accountable, the service charge will be rescinded. However, if in the judgment of Gardner Denver, the factory is not accountable for whatever defect or deficiency exists, then the service charge will apply. Gardner Denver terms and conditions of sale apply to all field service work.

LEVELS OF SERVICE:

Field Service Technicians provide customers with

- Preventative Maintenance / Warranty Renewal Programs
- Exclusive to Hoffman & Lamson
- Comprehensive set of service and maintenance procedures
- Designed to return your blower to a warrantable condition
- Provides increased reliability and performance
- Start-up
- Laser Alignment
- Troubleshooting
- Diagnostics & Testing

Training, Controls Tuning & Site Analysis provide customers with

- Certified Vibration Analysis
- Training and Maintenance Seminars

Engineering Services provide customers with

- Blower reconfiguration for performance changes
- Performance curves
- Amp curves
- System Consulting
- Technical product support
- Customer application engineering
- Seismic Calculation
- Product Upgrades
- Instrumentation upgrades

Level of service required and associated rates will be verified prior to commencing service work.



Policy
2021 Field Service Rates
Centrifugal Products

NORTH AMERICA SERVICE RATES:

- Field Service Technician: \$180.00 USD per hour (6-hour minimum)
- Training, Controls Tuning & Site Analysis: \$200.00 USD per hour (6-hour minimum)
- Engineering Services: \$220.00 USD per hour (6-hour minimum)
- Transportation
 - By company car \$0.80 per mile, rental cars – as incurred.
 - By common carrier – as incurred
- Living Expenses - \$305 per diem

INTERNATIONAL SERVICE RATES:

- Field Service Technician: \$225.00 USD per hour (6-hour minimum)
- Training, Controls Tuning & Site Analysis: \$255.00 USD per hour (6-hour minimum)
- Engineering Services: \$290.00 USD per hour (6-hour minimum)
- Transportation
 - By company car \$0.80 per mile, rental cars – as incurred.
 - By common carrier – as incurred
- Living Expenses - \$305 per diem

OVERTIME & EXPENSES:

Work and/or travel totaling over 8 hours per day Monday through Friday and all Saturday work or travel will be charged at 1.5 times the applicable rate. All chargeable Sundays and holidays will be 2 times the applicable rate. Where work extends from one week to the next, but no work is performed over weekend, customer has option. (1) Paying roundtrip to base point including time and expenses, or (2) retaining Representative in local area, paying living expenses. Rates at 1.5 times daily rates for Saturdays and/or 2 times for Sundays not worked. *Service rates for emergency field service requests (typically 2 weeks or less from request to departure) will incur 20% for labor and travel rates before a technician or engineer departs and will be communicated in advance.*

PARTS:

Any parts used for service will be invoiced at prevailing prices unless repair is being covered under warranty. All parts are shipped Ex-works, factory, Charleroi, PA 15022 USA.

INCREASE OF SERVICE RATES:

Rates quoted herein are subject to adjustment without notice. Charges for engineering or technical field service will be based upon rates in effect at the time the services are performed, but in no case will an increase exceed 10% of the quoted rates. *Service Quotes provided are estimates, actual time and expenses will be invoiced.*

Gardner Denver Nash, LLC 200 Simko Blvd, Charleroi PA 15022 ph +1 724.239.1500

www.gardnerdenver.com/en-us/hoffmanandlamson



HOFFMAN

by Gardner Denver



LAMSON

Policy
2021 Field Service Rates
Centrifugal Products

STARTUP:

If the Field Service Technician is required to make a second trip because the job is not ready for start-up, or any other items in the checklist are incomplete, a hard copy purchase order to Gardner Denver Inc. will be required before the technician returns to the jobsite. This start-up trip is also contingent on a current account in good standing.

PAYMENT:

Subject to Gardner Denver terms and conditions of sale. Net 30 days subject to Gardner Denver credit manager approval. Orders over \$100,000.00 USD may be subject to progress payments. We accept approved credit card orders. No international service work will commence without the customer having opened a letter of credit or cash in advance. The cost of the service will be estimated beforehand and adjusted after the work is completed. There will be no exceptions to this policy.

INTERNATIONAL TRAVEL:

Gardner Denver company policy allows for business class travel for any international flight of eight (8) hours or more in duration.

**REQUEST FOR APPROVAL
ST JOHNS COUNTY PURCHASING**

SUBJECT: AI WWTP Blower Addition – Purchase of 3rd Blower

SUGGESTED VENDOR: Gardner Denver NASH, LLC c/o TSC Jacobs North

ESTIMATE: \$123,965.00

REASON FOR REQUEST:

PURCHASING POLICY NUMBER:

- | | | |
|--|--|---|
| A. <input checked="" type="checkbox"/> Standardization | D. <input type="checkbox"/> Only Known Supplier | G. <input type="checkbox"/> Public Safety Emergency |
| B. <input checked="" type="checkbox"/> Spare Parts | E. <input type="checkbox"/> Delay of Construction Contractor | H. <input type="checkbox"/> Time Restriction |
| C. <input checked="" type="checkbox"/> Replacement Parts | F. <input type="checkbox"/> Environmental Urgency | I. <input checked="" type="checkbox"/> Other |

BUDGET ACCOUNT NO/DESCRIPTION: 4483-56302-6911-56302 **BUDGETED AMOUNT:** \$125,000.00

Please see attached Memo for detailed justification.

To purchase a 3rd matching blower to two existing blowers to provide adequate air to the AI WWTP treatment process. Space, mechanical piping, equipment pad, and electrical infrastructure is already in place. Additionally, to operation as a system, the Blower needs to be mechanically the same, have the exact same air flows and pressures, match the curve, and be compatible with the existing control panels and instrumentation.

REQUISITIONER: Scott Trigg, P.E., Chief Engineer CIP *ST* **DATE:** 12/11/20

DEPT. MANAGER: Gordon Smith, P.E., Utility Engineering Manager *CS* **DATE:** 12/11/20

DIVISION MANAGER: William G. Young, Director of Utilities *WY* **DATE:** 12/11/20

PURCHASING REVIEW

- DISPOSITION:** A. Concurs with Request
 B. Does not concur with Request
 C. Requires approval(s) as listed below

COMMENTS:

BUYER: _____ **DATE:** _____ **PURCHASING DIRECTOR:** Leigh Daniels **DATE:** _____

MANAGEMENT REVIEW

- DISPOSITION:** A. Concurs with Request
 B. Does not concur with Request

COMMENTS:

____ Brad Bradley, Assistant County Administrator **DATE:** _____

____ Joy Andrews, Assistant County Administrator **DATE:** _____

____ Hunter S. Conrad, County Administrator **DATE:** _____

(Use reverse side for additional comments)
Return to Purchasing when completed.

Revised 04/05/07



ST. JOHNS COUNTY
UTILITY DEPARTMENT
1205 STATE ROAD 16
SAINT AUGUSTINE, FLORIDA 32084-8646

I N T E R O F F I C E M E M O R A N D U M

TO: Jaime Locklear, Asst. Director, Purchasing & Contracts
FROM: Scott Trigg, P.E., Chief Engineer Capital Improvements *ST*
SUBJECT: AI WWTP Blower Addition – Equipment Approval and Justification.
DATE: December 1, 2020

The AI WWTP is experiencing growth and has had some issues maintaining Dissolved Oxygen (DO) levels in its treatment basins. The treatment basin design in 2009 accounted for three (3) blowers to provide enough air into the basin for adequate treatment. Due to financial constraints at that time, a third blower was value engineered out of the construction. However, an equipment pad with electrical and header pipe connections, were installed to allow for easy installation of a third blower at a future date.

In September 2020, the Utility contracted out engineering services to evaluate the air requirements necessary at high flows, to adequately meet the treatment process. The consultant reviewed the existing blowers' air flows, curves, compatibility of equipment, and provided a mechanical plan and specifications for the purchase of an additional blower.

The specification and plan requires that the third blower match the existing blowers to be able to use each interchangeably, match existing blowers curves, air flows and pressures, fit mechanically in the proper space on the equipment pad and to the header piping, to meet the electrical infrastructure provided as well as be compatible with the existing controls, instrumentation and control panel. It is for the previous mentioned reasons that we are requesting to purchase the exact same blower manufacturer and model type as the existing two blowers.

Please find attached as supporting documentation, the specification describing the requirements necessary to match the existing Hoffman Model 74107 Multistage Centrifugal Air Blower and accessories, the mechanical drawing sheet showing the existing blowers, equipment room layout, piping arrangement, and the proposal from the manufacturer detailing the equipment scope and price.

The Utility is requesting that Purchasing provide this memo along with the attached documentation and the Request For Approval (RFA) form as a Board Agenda Item at the next available BOCC meeting for approval. The purchase price for the equipment is as proposed in the documents at \$123,965.00.



December 16, 2020

To: Whom it may concern

TSC Jacobs is the sole sales representative for Gardner Denver Nash Hoffman and Lamson multistage centrifugal blowers for the State of Florida for the Municipal Water and Wastewater Treatment market.

As such, Hoffman and Lamson multistage centrifugal blowers, Hoffman Revolution high speed turbo blowers, Turbotron regenerative blowers, and blower accessories are available for quotation and purchase only from **TSC Jacobs** for this region.

Gardner Denver Nash is the sole owner and manufacturer of Lamson and Hoffman multistage centrifugal blowers, Hoffman Revolution high speed turbo blowers, and Turbotron regenerative blowers, and replacement parts for those blowers.

Orders may be placed directly with Gardner Denver Nash.

Gardner Denver mailing address for orders is:

Gardner Denver NASH
200 Simko Boulevard
Charleroi, PA 15022

Please contact us if you have any questions.

Sincerely,

A handwritten signature in black ink that reads 'Keith E. Collins'.

Keith E. Collins
Sr. Application Sales Engineer
Phone (678)-852-8576

SECTION 11370

MULTISTAGE CENTRIFUGAL BLOWER

PART 1 - GENERAL

1.01 SCOPE OF WORK

- A. This specification covers the supply of one (1) multi-stage centrifugal aeration blower. The principal items to be furnished under this project and project specification section will include one (1) base mounted blower and electric motor driver, shaft coupling, and coupling guard. All accessory items and blower control panels as described herein and as shown on the plans, which are required for proper operation of the centrifugal blowers, will be supplied under this scope of work.

1.02 PERFORMANCE AND DESIGN REQUIREMENTS

- A. The blower shall be capable of producing 1,945 SCFM of air flow (measured at 68 degrees F, 14.7 PSIA, and 36% RH) to a discharge pressure of 8.0 PSIG when operated at an ambient pressure of 14.696 PSIA (Sea level), blower inlet pressure of 14.50 PSIA, inlet air temperature of 96 degrees F, 90% relative humidity. In addition, at the winter temperature of 40 degrees F, the blower horsepower will not exceed the motor horsepower rating (excluding service factor) at the design air flow and pressure.
- B. The blower shall be capable of operating at a reduced air flow rate of 1,100 SCFM when throttled by the inlet supply valve and shall have minimum 1.2 PSIG rise to surge above design air flow and discharge pressure at 100F intake air temperature and 90% RH. Horsepower shall not exceed 125 BHP when operating at the design flow and temperature.
- C. The blower shall be selected based upon data previously established by tests in accord with the ASME power test code for centrifugal blowers, PTC-10.

1.03 MANUFACTURER'S QUALIFICATIONS

- A. The equipment covered by this specification is intended to be standard equipment of proven reliability as manufactured by a reputable manufacturer having experience in the design and production of such equipment. The equipment furnished shall be designed, manufactured, and installed following the best practices and methods and shall operate properly when installed in accordance with the contract drawings and operated per manufacturer's recommendation.
- B. All blowers shall be manufactured and tested in the United States of America. The manufacturer must have manufactured at least twenty (20) comparable units that have been used in similar service for a period of at least four (4) years and are operating satisfactorily.

MULTISTAGE CENTRIFUGAL BLOWER

- C. The Blower shall be manufactured in the United States of America by Gardner Denver NASH LLC model 74107-ADGI. No like, equivalent, reverse engineered, or "or equal" substitutions are permitted.

1.04 DRAWINGS AND DOCUMENTATION

- A. Submittals shall be provided in electronic format and shall including drawings, documentation and equipment catalog cut sheets indicating the selection of size and model where appropriate. Submittals shall include all dimensions for blower and accessories such as filters, silencers, expansion joints, couplings, valves, and other equipment that would affect equipment package layout at installation.

1.05 OPERATION AND MAINTENANCE MANUALS

- A. The blower manufacturer shall furnish up to six (6) copies of custom-made Operation & Maintenance manuals for all of the equipment specified. All manuals shall consist of Gardner Denver standard drawings, vendor drawings, and all applicable instructions for the proper installation and operation of the equipment.

1.06 WARRANTY

- A. The manufacturer shall warrant the products of its manufacture to be free from defects in material and/or workmanship under normal use and service for a period of one (1) year from date of operation or eighteen (18) months from date of shipment from the factory, whichever occurs first. Motors, accessories, and other equipment not manufactured by the blower manufacturer shall be guaranteed by their own individual manufacturer's warranties.

PART 2 - PRODUCTS

2.01 OPERATING REQUIREMENTS

A. General

- 1. The furnished equipment shall provide a constant volume of gaseous flow and operate at a pressure that is within the manufacturer's recommended limits.

B. Blower

- 1. The blower will be multi-stage centrifugal type as manufactured by Gardner Denver NASH LLC model 74107-ADGI, with outboard mounted bearing construction in which the impellers are keyed to a heavy ground steel shaft and supported by anti-friction type bearings. To prevent shifting of the impellers while in operation, the hubs of all impellers shall butt together, either directly or through one-piece metal spacers. The entire assembly shall be secured with a lock washer and lock nut. Blowers will be of the type in which the intermediate section is cast integrally with

MULTISTAGE CENTRIFUGAL BLOWER

the casing to assure optimum operating efficiency. Where the blower shaft passes through both the inlet and outlet heads, non-contact labyrinth seals will be provided to prevent leakage and to assure non-contamination of the bearing lubricant. Seals will be replaceable without having to disconnect inlet or discharge piping or removal of the blower. Blower casing shall be rated for a pressure of 25 PSIG.

C. Blower Sections and Heads

1. Impeller housings shall consist of ASTM A48 class 30 cast iron intermediate sections (Class 25 is not acceptable) held securely between cast iron inlet and outlet heads with steel tie rods. The modular housing components shall be sealed by precision-machined rabbet joints and bonded with a sealant that can withstand the operating temperature of the blower. A tapped drain hole with a stainless steel pipe plug shall be provided in the bottom of each section. The inlet and outlet connections shall have an ANSI 125 pound drilled, tapped, and flanged pattern. The flanged connections shall be an integral part of the head castings.

D. Impellers

1. Impellers shall be ASTM 6061-T6 fabricated aluminum or ASTM SC64C Sr-319 cast aluminum alloy construction. Each impeller will be dynamically balanced to insure mechanical operation of not more than .235 IPS (peak to peak) vibration amplitude when measured on the bearing housing in the vertical and horizontal direction for direct driven packages. Vibration readings will be taken with the blower at operating speed. Tip speed of the impellers will not exceed 400 ft./sec.

E. Diffusers

1. Diffuser sections shall be provided between impellers. These sections shall receive air from one impeller and guide it into the next impeller. Diffuser vanes shall be an integral part of the intermediate section casting. Guide vanes shall be an integral part of the return channel in the intermediate casting.

F. Baffle Rings

1. The blower shall have one-piece ASTM A240 Grade 304 stainless steel baffle rings connected to the castings directly or by mounting rings.

G. Shaft

1. The blower shaft shall be of sufficient diameter and rigidity/strength to operate below the first lateral critical speed and shall be fabricated from high strength ASTM A108 Grade 1045 HRS.

MULTISTAGE CENTRIFUGAL BLOWER

H. Bearing Housings

1. Bearings shall be mounted in ASTM A48 class 30 cast iron outboard bearing housings designed to isolate the bearing from the blower temperature. Each bearing housing shall have a bronze labyrinth, viton lip, or cast iron type insert in the area inboard of the bearing.

I. Seals

1. No contact shall be allowed between the rotating element and the housing, except at the shaft bearings or when special contact seals are provided. Non-contact labyrinth seals shall be provided to minimize air leakage.

J. Bearings

1. The blower shaft will be supported between two deep groove anti-friction ball bearings without filling slots. The bearings shall be able to be lubricated, inspected or replaced without disconnecting any piping or disassembling the blower. The blower bearing shall be oil lubricated. Bearings will be sized for extended L10 life, at the speeds and loads imposed by this application, in accord with AFBMA Standards for Ball and Roller bearings, Section 9.
2. The Engineer reserves the right to require substantiating bearing life calculations.

K. Base

1. Each motor-blower unit will be mounted on an ASTM A36 hot rolled structural steel fabricated base. Suitable resilient foundation mounting pads will be furnished and installed beneath the blower base.

L. Flexible Drive Coupling

1. The blower shall be connected to the driver with a suitable non-lubricated flexible elastomer type shaft coupling, with a minimum service factor of 1.35. The installing contractor shall check, and if necessary, adjust the alignment of the coupling(s) in accordance with the manufacturer's instructions. Each coupling shall be covered with a suitable coupling guard. During layout on packages 50 HP or greater a factory laser alignment shall be conducted prior to shipment to facilitate alignment in the field. Coupling shall be Rexnord Omega E series non-spacer type or equivalent.

2.02 BLOWER PACKAGE ACCESSORIES

A. Inlet Filter Silencer

MULTISTAGE CENTRIFUGAL BLOWER

1. The blower shall be provided with an air Intake Filter Silencer with 8" bottom outlet connection. The filter silencer shall be conical canister or panel type, rated for 2900 CFM air flow. Pressure drop across the entire unit, with clean filter elements, shall not exceed 3.0" water gauge, and shall have a minimum efficiency of 98% on 10 micron particles. The filter unit shall be shipped loose for field installation. Filter unit shall be Endustra P09 series without exception.

B. Expansion Joints

1. Reinforced, flexible rubber expansion connectors shall be supplied to mate with the blower's inlet and outlet flanges to isolate the blower from the piping system. The connectors shall be reinforced EPDM, rated for 20 PSIG (20" Hg Vac) and 300 degrees F operation. Expansion joints shall be General Rubber or equivalent. The connectors shall be shipped loose for field installation. An expansion joint is not required on the blower inlet if the inlet butterfly valve and inlet air filter are mounted on and supported by the blower intake flange.

C. Inlet Throttle Butterfly valve

1. A butterfly valve for mounting on the blower inlet shall be provided and be of the same size as the inlet. The valve shall be equipped with a motorized operator for modulating service. The valve motor shall be suitable for operation on 3/60/460-volt power supply. The valve shall be controlled from the blower control panel and shall be capable of remote control in the future. A valve position output signal shall be provided. Valve actuator shall communicate with the blower local control panel via a 4-20madc signal for remote control and position feedback. Butterfly valves shall be Crane Centerline 200, Bray Series 30, ABZ, or equivalent. Actuators shall be by Rotork, Limitorque, or AUMA. The valve assembly shall be shipped loose for field installation.

D. Discharge Check Valve

1. A check valve to prevent backflow shall be provided for installation in the discharge piping of each blower. The check valve shall be sized to match the blower discharge piping. It shall be of the positive sealing, springless, double leaf style with silicon seats suitable for 500 degrees F. Valve shall be Techno Series 5118 or Flexi-Hinge series 518. The valve shall be shipped loose for field installation.

E. Discharge Isolation Butterfly Valve

1. A discharge butterfly valve shall be provided for installation in the downstream piping. It shall provide positive line shutoff during periods of blower maintenance. Valve design shall have bi-directional flow, EPDM seat, 416 stainless steel shaft, and 200-PSI CWP rated, with a manual Lever

MULTISTAGE CENTRIFUGAL BLOWER

operator. Valves shall be Crane Centerline 200, Bray Series 30, ABZ, or equivalent. The valve shall be shipped loose for field installation.

F. Local Blower Protection / Control Panel

1. The blower supplier shall provide a digital multiple channel I/O system blower protection panel with a PLC and a 6" color touch screen graphics display in a NEMA 12 wall mounted control panel for one constant speed blower, with the following features
 - a. Display amps/ICFM digital values derived from a current transformer/transducer installed in MCC on the HMI and blower curve data.
 - b. Surge protection with impending warning and trip functions.
 - c. Overload protection with impending warning and trip functions
 - d. Blower bearing vibration digital readouts on an HMI Display (both bearings)
 - e. Blower bearing temperature digital readouts on an HMI Display (both bearings)
 - f. Inlet Valve control and position feedback via ethernet communication with a display of the valve position on the HMI.
 - g. Blower discharge pressure monitoring.
 - h. Inlet air filter differential pressure monitoring
 - i. Start/stop and reset pushbuttons on the HMI Display
 - j. Local/off/remote selector switch on the HMI Display
 - k. Control power on pilot light (WHT), 30 mm
 - l. Blower running Light (GRN) on HMI Display
 - m. Common warning light (AMB) on HMI Display
 - n. Common fault light (RED) on HMI Display
 - o. The operator shall have the ability to start/stop the blower from the local control panel or remotely via discrete remote start and remote stop commands.
2. When an impending shutdown, Impending Motor Overload, Impending Surge, High Bearing Vibration, or High Bearing Temperature condition

MULTISTAGE CENTRIFUGAL BLOWER

occurs, the blower or motor graphic on the HMI shall turn yellow to indicate a common warning. When any shutdown condition occurs, the blower graphic on the HMI shall turn red. When a shutdown condition is reached, the blower will be shut down, and the system must be manually reset using the operator interface in order to be restarted. Adjustable time delays shall be incorporated to allow uninterrupted motor start and to prevent nuisance shutdowns.

3. Controls shall provide a digital readout of motor amps based on a 0 to 5 amp output from a current transformer, converted to 4-20mA, or direct reading current transducer producing a 4-20mA signal proportional to the current. The transformer or transducer shall be provided loose for field installation in the blower motor starter enclosure by the electrical contractor.
4. An indication of blower flow rate expressed in ICFM shall be provided. Flow rate shall be derived from the motor amperage values and displayed on blower overview screen as a digital value. When the blower is approaching blower surge or motor overload, the blower graphic shall turn yellow a message banner shall be shown on the overview screen to alert the operator. When the blower operates in surge or the motor overloads for a settable time interval, the blower shall then be shut down and the blower HMI graphic shall turn red.
5. The panel shall provide a digital value indication of each blower bearing vibration level displayed in inches/second. The vibration detectors shall be 2-wire 4-20mA piezo electrical velocity transmitters mounted on each blower and motor bearing housing. One sensor is required for each blower bearing. When the vibration level reaches the warning set point, the blower or motor graphic shall turn yellow to indicate a common warning and a message banner shall be shown on the overview screen to alert the operator. When the bearing vibration level reaches the shutdown set point for a settable time interval, the blower graphic shall turn red to indicate a common alarm and the blower shall then be shut down.
6. The panel shall provide a digital value indication of each blower bearing operating temperature displayed in degrees Fahrenheit. Temperature detectors shall be 3-wire 100 Ohm platinum RTDs. When the temperature level reaches the warning set point, the blower graphic shall turn yellow to indicate a common warning and a message banner shall be shown on the overview screen to alert the operator. When the bearing temperature approaches the critical level, the blower graphic on the HMI shall turn red and the blower shall be shut down. The bearing temperature at time of shut down shall be displayed on the panel HMI.
7. All above measured variables shall be displayed graphically as trends. The color display shall be a back lit LCD of not less than 12 square inches in

MULTISTAGE CENTRIFUGAL BLOWER

area with 256x128 pixel graphics. The HMI shall have the capability of displaying trending data for up to 24 hours.

8. All trip functions shall be "frozen" upon a shut-down so that the shut-down status can be determined and the values at shut down are preserved.
9. When any warning or alarm condition exists, a message banner shall appear on the blower overview screen to alert the operator. An alarm history screen shall be provided to enable the operator to view previous alarms (up to 50 alarms). Setup screens that enable the user to adjust set points shall be password protected for security purposes.
10. The panel shall be pre-wired with a master terminal strip to accommodate all inputs and outputs. Interconnecting wiring between the control panel, blower inlet control valve, field instruments such as RTDs, vibration sensors, and current transformers, and the motor starter shall be provided by and terminated by the electrical contractor. All wiring external to control components within the panel shall be multi-strand copper no smaller than 16 gauge with each end properly numbered according to the manufacturer's drawings. Wiring will be done in a workmanship manner and run in covered trays. All wires that attach to door mounted components shall be neatly bundled and tied. All external connections shall terminate on a common terminal strip with at least 20% spare connection points.
11. Prior to shipment, the panel manufacturer shall test all control functions as far as is practicable. The blower start-up representative shall insure that all control functions are properly carried out by the control panel as part of the start-up procedure.

G. Drive Motor

1. Each blower will be furnished with a 125 HP squirrel-cage induction motor, 3 phase, 60 hertz, 460 volts, 3600 RPM, TEFC enclosure, 1.15 service factor, 40 C ambient, Class F insulation with Class B temperature rise. The motor shall be factory mounted with the blower. The service factor of the motor will not be used in establishing the nameplate rating. Motors will be suitable for starting on full voltage motor starter. Blower BHP at design conditions shall not exceed the nameplate rating of the motor. Motor shall be manufactured by NIDEC, WEG, ABB-Baldor, Toshiba, or Siemens.

PART 3 - EXECUTION

3.01 PERFORMANCE

- A. Each blower shall be tested at the manufacturer's facility to determine that vibration and bearing temperature levels are within specified tolerances. Each blower will be operated until it reaches a sustained temperature before

MULTISTAGE CENTRIFUGAL BLOWER

measurements are recorded. Each blower will be mechanically run tested prior to shipment with the job motor to provide a baseline measurement.

- B. ASME performance tests are not required for blowers built of parts cast in patterns, from which previous units have been cast, built and tested. Performance for untested blowers will be guaranteed by the manufacturer to be within performance allowances on the predicted blower performance curves.

3.02 INSTALLATION

- A. All piping will be supported so as to preclude the possibility of exerting undue forces and moments on the blower flanges. Suitable flexible connectors will be furnished to isolate the blower from the piping system. Each blower unit shall be mounted on a flat and level concrete pad suitable for supporting the dead weight of the unit.
- B. The blower manufacturer shall furnish the services of a qualified, factory authorized representative to check the installation of the blower package and instruct the buyer in making any necessary adjustments. 1 man, 1 trip, 2 days on site.

3.03 OPERATION AND MAINTENANCE MANUALS

- A. The blower manufacturer shall furnish up to six (6) copies of custom-made Operation & Maintenance manuals for all of the equipment specified. All manuals shall consist of Gardner Denver standard drawings, vendor drawings, and all applicable instructions for the proper installation and operation of the equipment.

3.04 WARRANTY

- A. The manufacturer shall warrant the products of its manufacture to be free from defects in material and/or workmanship under normal use and service for a period of one (1) year from date of operation or eighteen (18) months from date of shipment from the factory, whichever occurs first. Motors, accessories, and other equipment not manufactured by the blower manufacturer shall be guaranteed by their own individual manufacturer's warranties.

END OF SECTION

MULTISTAGE CENTRIFUGAL BLOWER

THIS PAGE INTENTIONALLY LEFT BLANK



St. Johns County Board of County Commissioners

Purchasing Division

NOTICE OF SINGLE OR SOLE SOURCE PROCUREMENT

St Johns County, FL
Purchasing Division
500 San Sebastian View
St. Augustine, FL 32084
Office: (904) 209-0150

Sole/Single Source No: SS No: 21-22

Date Posted: December 21, 2020

Written Response due: January 5, 2021 by or before 12:00PM

RESPONSES SUBMITTED TO:

Name: David E. Pyle

Email Address: dpyle@sjcfl.us

Phone Number: (904) 209-0148

This is NOT a formal solicitation (RFB, RFP, RFQ) and there are no solicitation documents available. A contract or purchase order is proposed for the product(s) or service(s) identified below. St Johns County, FL, intends to negotiate and award a PO or contract to the vendor indicated in accordance with Florida State Statute 287.057(5)(c) and 120.57(3). Any responses received as a result of this Notice shall be considered solely for the purpose of determining whether an equivalent product or service can be provided by alternative source(s), which may warrant a competitive solicitation. Responses will NOT be considered as proposals, bids or quotes.

PRODUCT/SERVICE REQUIRED:

Purchase/Delivery One Hoffman Model 74107 Multistage Centrifugal Air Blower; no alternates

DESCRIPTION:

Hoffman Model 74107 Multistage Centrifugal Air Blower with a capacity of 1945 SCFM at 8.0 PSIG outlet Pressure, with 14.7 PSIA barometer, 14.7 PSIA at blower inlet flange, 100degree Inlet air temperature and 90% relative humidity Summer, 15F, 30% RH Winter.

The blower will be standard heavy-duty construction with cast iron inlet and outlet heads, cast iron intermediate sections and aluminum alloy impellers. The impellers will be assembled on a heavy steel shaft and supported by two outboard mounted ball bearings. The lower 8" inlet & 8" outlet flanges are drilled 125# ANSI Standards. Blower bearing housing with vibration sensors and 100 Ohm platinum RTD's.

The blower and motor will be mounted on a common structural steel base plate with the blower driven by a 125 HP electric motor, 3550 RPM, 3 ph 60 Hertz, 460 volt, TEFC enclosure, 40 C ambient, 1.15 service factor, Class F insulation Class B temperature rise. 120 volt space heater, 100 ohm platinum stator RTDs.

Accessories:

- 1 Set Base Isolation Pads
- 1 Shaft coupling, non-spacer, with composite Orange Peel coupling guard
- 1 Inlet Air Filter/Silencer, 8" bottom outlet flange, ultra-synthetic media, 99% Efficiency on 1 microns
- 1 Inlet Expansion Join, 8"
- 1 Discharge Expansion Joint, 8"
- 1 Discharge check Valve, 8", Wafer Style (Short Form)
- 1 Discharge Butterfly Valve, discharge isolation, 8", Wafer body, manual lever operator
- 1 Inlet butterfly valve, 8" Wafer body, modulating electric motor operator
- 1 Air temperature gauge, 50-300F range
- 1 Discharge pressure gauge, 0-15 PSIG Range

INTENDED SOLE/SINGLE SOURCE CONTRACTOR/VENDOR:

Gardner Denver NASH, LLC c/o TSC Jacobs-North

PROPOSED BUDGET/COST: \$123,965.00

PROPOSED CONTRACT/PURCHASE TERM:

Purchase of item/s for FY 21: 10/1/2020 through 10/31/21.

JUSTIFICATION FOR SOLE/SINGLE SOURCE:

The blower is exact match as existing equipment and must be able to connect to existing controls and connections and installation setup on site (Anastasia Island WWTP). The selected vendor is considered the single source vendor for Gardner Denver Nash Hoffman and Lamson multistage centrifugal blowers for the State of Florida for the Municipal Water and Wastewater Treatment market. The blower is required to be the exact one described; no alternate or replacement.

RESPONSE TO SOLE/SINGLE SOURCE:

Firms/Vendors who are capable of providing an equivalent product as stated herein may submit the following, in writing: Company Name, address, point of contact, contact information (phone #, email, etc.) and statement, description and/or capability to provide an equivalent product/service and cost. Responses shall be submitted to the Point of Contact shown above, by or before the due date provided herein. Responses received after the provided due date shall not be considered.