



QUOTE NO. SNA6898

To: Don Scott

Date: June 23, 2025

Project: City of Wheatland, CA WWTP

Subject: S&N Airoflo Aeration Equipment for Waste Water Treatment
Horizontal Floating Brush Rotor

SCOPE OF SUPPLY

S&N Airoflo™ is pleased to submit a proposal for the supply of the following equipment and/or services:

ITEM 1 A. - Floating Brush Rotors

One (1) 10HP S&N Airoflo™ 2200 Series In-line Flex Drive, 304 Stainless Steel Horizontal Floating Brush Rotor, complete with the following features and components:

(OPTION for Hot Dipped Galvanized Unit - Priced on Page 5)

- **Motor:** 230/460 volt, 3-phase, 60 hertz, TEFC (totally enclosed fan cooled), horizontal electric motor. This motor meets the **NEMA Premium Efficiency** specifications. **Motor has a minimum 1.25 SF (at full load amps).**
- **Gear Reducer:** a constant-duty, AGMA class III, gear reducer at manufacturer's recommended operational load with the following features;
 - Gear reducers are upgraded with external labyrinth style seal guards designed to protect the gear reducer seals from grit, hair and the corrosive environment.
 - Gear reducers shall be equipped with a vent breather modified for use with S&N Airoflo rotors. This device is designed to prevent water vapor from collecting in the gear reducer reservoir. This in turn will extend the life of the gear reducer lubricant.
 - Gear reducer shall be fitted with a drain hose to allow for easier, cleaner oil changes.
 - Gear reducers shall be supplied with S&N Aeration Duty Gear Lube.

- ***Motor and Gear Reducer Drive Devices:*** Direct Drive Assembly consisting of a shaft mounted gear using a face mounted plate, is attached to the frame with heavy pins to allow tri-axial movement. The movement allowed by the pin and plate arrangement eliminates critical alignment issues, eliminating misalignment pressure on the bearings of the gear reducer. Further reduction of possible alignment issues is greatly reduced through the use of an elastomeric coupling between the motor & the gear.
- ***Drive Assembly Cover:*** The cover design is hinged to allow unimpeded access to the drive assembly for O&M inspections and repair. This cover has an open design to reduce moisture and solids retention in the drive assembly area.
- ***Horizontal Rotor Assembly:*** shall be constructed of 304 Stainless Steel. The torque tube is fitted with welded flanges on both ends to receive eight (8) bolt stub shaft assemblies. The blades are welded to the rotor for strength and then balanced. ***The Airoflo rotor design includes a unique blade shape with a C-shaped base and a blade placement pattern of alternating long & short blade lengths to maximize mixing and oxygen transfer.***
- ***Rotor Bearing Assembly:*** ***The bearing assembly consists primarily of a UHMW*** (Ultra High Molecular Weight) bearing block and wear sleeves (bronze & carbon steel) attached to the rotor shaft using a heavy heat shrink. The UHMW bearing block is uniquely machined to carry the weight of the rotor while allowing wastewater to flow through the bore for lubrication. A cutaway design provides an easy visual inspection of the condition of the bearing assembly. The maintenance free bearing assembly is designed to wear out over time, while eliminating scheduled greasing and possible catastrophic failure.
- ***Rotor Support:*** In-line Flex Drive Assemblies will include a Single UHMW Tail end bearing with a face mounted swing plate supporting the drive end. UHMW polyethylene self-wastewater lubricating (non-greasing, maintenance free) rotor bearing with bi-metallic wear sleeves are designed to absorb the wear and protect the shaft. The maintenance free UHMW bearing will eliminate the monthly greasing labor and possible contamination of the basin.
- ***Floatation Devices, Cradle Frames & Vertical Adjustable Linkage:*** Stainless Steel foam filled floats are mounted to the main frame with stainless steel cradles. The connecting linkage between the cradle and the frame is adjustable to vary the rotor submergence and to control amperage.

- **Main Frame:** The main frame is constructed primarily of 304 stainless steel structural square tubing. Non-skid platforms are welded to both the drive end and tail end of the frame for secure footing and safe access during O&M inspections.
- **Fasteners & Threaded Rods:** all bolts, threaded rods, pins and clips will be 304 Stainless Steel. All adjustment rods will have brass nuts and all bolts will have brass lock nuts to prevent seizing.
- **Anchoring:** This system will be supplied with a **Levee Anchoring System (LAS)**. **The 30' LAS** will allow the unit to float level and operate at the various water levels required for the application, while securing the unit in place and limiting lateral movement.
- **Shields:** **The Extended Vertical Shield (EVS)** on the drive end of the rotor consists of an 8' wide shield and a structural frame work, attached to the main frame. The EVS is sized and designed to provide a clean dry area around the motor and gear reducer. *The shield system also incorporates extra ordinary protection of the seal & bearing area of the gear. A floating rotor shaft seal is housed in the shield with shaft seals which prevent waste water from migrating along the rotor shaft.*

ITEM 2. - Electrical Panels & Disconnects:

- None quoted
- **Service Disconnect with a Hot Dipped Galvanized Mounting Bracket:** full details provided upon request
 - None quoted

ITEM 3. - Power Cable and/or Pre-wired Motors: full details provided upon request

- None Quoted
- **NOTE.....In order to meet the warranty requirements on 25hp and 30hp S&N Airoflo units, soft starts or VFDs with Soft Start Functions must be used. Because of the reduction in starting torque to reduce wear and tear on any rotor, S&N Airoflo also recommends their use on any rotor over 10HP**

ITEM 4. - EZ Access Systems: based on our 15+ years of experience, we recommend a simple access system to provide *safe & easy access for O&M inspections* and light repairs.

- None Quoted

ITEM 5. - Freight, Installation, Lifting Equipment, & Tech Service:

- **Freight:** FOB Destination, Freight Prepaid & Added
- **Installation:** None Quoted
- **Lifting Equipment:** Customer Responsibility
- **Tech Service and training:** None Quoted

ITEM 6. - Maintenance and Handling Accessories: S & N will provide the following to assist in handling the equipment and performing basic maintenance:

- **O&M Manual**
- **Lifting/handling bar for the units**

ITEM 7. - Spare Parts and Specialty Tools:

- **One elastomeric element for the coupling on the rotors**

*****PLEASE REFERENCE THE FOLLOWING PAGES FOR PRICING AND EXECUTION.***

PRICING AND EXECUTION

ITEMS 1,2,3, 4, 5, 6, & 7 Or otherwise above = **\$46,130.00 (FOB Destination)**
(Freight Prepaid & Added)
(Prices good for 30 days)

OPTION 1 (Hot Dipped Galvanized Aerators):

One (1) 10HP S&N Airoflo™ 2200 Series In-line Flex Drive, *Hot Dipped Galvanized* Horizontal Floating Brush Rotor
\$39,760.00 (FOB Destination)

EXCLUSIONS: State or local taxes, if applicable; interconnecting wiring, wiring and conduit from each unit-mounted electrical device to a terminal box or control panel, piping, connections, walkways, gratings, railings, installation, or any other auxiliary equipment or service **not detailed above.**

SPECIFICALLY EXCLUDED: LIQUIDATED AND CONSEQUENTIAL DAMAGES.

VALIDITY: The above price is firm for thirty days from the date of this proposal. Pricing is based on the schedules stated within this proposal.

OWNER/CONTRACTOR RESPONSIBILITY: *(The following will be the responsibilities of the Owner/Contractor unless specified otherwise within this document):*

- Equipment for unloading, uncrating, and installation. (Note: Installation will, at a minimum, require lifting equipment rated at 4,000 lbs. at its extended reach for non-stacked units)
- Sites with limited or difficult accessibility may require a crane or hoist.)
- ***Two inspections of the units...1st is start-up inspection. S&N will supervise and instruct start-up procedures if installation or tech service is included in your quote. 2nd inspection after 60 days of operation. 2nd inspection performed by contractor or owner. The 2nd inspection must be documented per the proper forms supplied in the O&M manual. Forms must be returned to the manufacturer, in order to execute the warranty.***

- Electrical connection and interconnecting wiring to or from any of the following except as noted above:
 - Motor
 - Disconnect
 - Controls

DELIVERY: **Eight to Ten (8 - 10) weeks after final submittal approval or Release to Manufacture.**

TERMS: **Net thirty (30) days after delivery.**

WARRANTY: **Standard warranty terms;** S&N Airoflo™ warrants their equipment to be free from defects in material and workmanship for a period of one (1) year following operation start-up and acceptance. During this one (1) year period, S&N Airoflo™ will replace or repair (F.O.B., factory) any part (or parts) returned that have failed under normal use and service. The electric motor and gear reducer warranties shall be as stated by the manufacturers.

The S&N warranty period ends twelve (12) months after the start-up date or eighteen (18) months after delivery, whichever comes first.

Any damages resulting from acts of God, vandalism, animals, or high or low voltage will not be covered under warranty.

Thank you for your consideration and the opportunity to provide this quote.

Buster Norris

