

RESOLUTION NO. 2022 - 80

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 AN ISO-DISC CLOTH FILTER FROM ALFA LAVAL, INC.

RECITALS

WHEREAS, the County seeks to purchase one (1) ISO-Disc Cloth Filter for St Johns County Utility Department SR16 Wastewater Treatment Facility (WWTF); 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" bidding procedures may be waived provided the item meets the other criteria within the definition of a sole source item; and

WHEREAS, the sole sales representative for the requested ISO-Disc Cloth Filter is ALFA Laval, Inc., and utilizing an alternative piece of equipment would require re-design and demolition of existing connections, resulting in a higher cost and longer timeframe to accomplish the required replacement; and

WHEREAS, Single/Source (SS) No. 22-27 was posted on DemandStar for verification of single/source in accordance with Florida State Statute 287.057(5)(c) and 120.57(3), and received no responses; and

WHEREAS, the purchase of the ISO-Disc Cloth Filter 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 make the single source purchase of the referenced ISO-Disc Cloth Filter.

Section 3. Upon Board approval, the County Administrator, or designee, is authorized to execute a purchase order in the amount of \$370,114.00 for the purchase of the referenced ISO-Disc Cloth Filter from Alfa Laval, Inc.

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 15 day of March, 2022.

BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA

By: Henry Dean
Henry Dean, Chair

ATTEST: Brandon J. Patty, Clerk of the Circuit Court & Comptroller

By: Pam Halterman
Deputy Clerk

Rendition Date 3/17/22



Budgetary Proposal



DATE: January 21, 2022

TO: Paul Wachter, P.E.

COMPANY: TSC Jacobs

CC: Jaime Bengoechea
Jeff Devine

FROM: Michael Yang, Applications Engineer

SUBJECT: St. Johns SR16 WWTF, St. Augustine, FL
ISO-Disc™ Cloth Disk Filter

Process Systems Group
10470 Deer Trail Drive
Houston, TX 77038
Phone: (281) 985-4423
Fax: (281) 449-1324
Email: michael.yang@alfalaval.com

QUOTE NUMBER: 42146 R1

In response to your inquiry to filter an average flow of 1.0 MGD and a peak flow of 1.95 MGD for the St. Johns SR16 WWTF, St. Augustine, Florida project, Alfa Laval, Inc. is pleased to offer one (1) ISO-Disc™ cloth disk filter made of 304 SS and a price for 316 SS. The filter offered matches the existing filter installed at the WWTF, with modifications to the influent trough.

Description of Operation

The ISO-Disc™ Cloth Disk Filter utilizes an outside-in flow pattern (disks are fully submerged during operation) and stationary disks to minimize mechanical requirements of the system. All components of the system are constructed from corrosion resistant materials that have been designed for continuous operation:

The flow enters the filter tank through the influent flange. As the water passes through the cloth material, it enters into the core of each disk. The water exits each disk through one filtrate line located on the top of the disk. This line passes the filtrate to the filtrate collection trough. During the filtration process, the entire filter operates in static mode. As the filter cloth collects solids on the outer surface, headloss across the media gradually increases to a set point elevation in the tank. At this point, the backwash cleaning system energizes in a set sequence of cleaning operations. Influent continues to be processed during the backwash cleaning cycle, allowing for continuous filtration, 24 hours per day.

*Ashbrook
Simon-Hartley*



The backwash cleaning system is controlled by a PLC-based operating system furnished with the filter equipment.

Basis of Design

Average design flow (ADF):	694 gpm (1.0 MGD)
Peak design flow (PDF):	1,354 gpm (1.95 MGD)
Influent temperature (°C):	15-30 °C
Filter model selected:	IDDF-7D60S-304SS
Effective filtration area available per disk:	50 ft ²
Number of disks per filter:	7
Effective filtration area available per filter:	350 ft ²
Number of disk filters required:	1
Total effective filtration area available:	350 ft ²
Filtration rate per filter (ADF):	1.98 gpm/ft ²
Filtration rate per filter (PDF):	3.87 gpm/ft ²
Maximum filter headloss across filter cloth (at ADF/PDF):	12 inches of water column
Maximum influent TSS concentration to filter:	20 mg/L
Average daily influent CBOD concentration to filter:	10 mg/L
Average monthly effluent TSS concentration:	≤ 5 mg/L
Average daily effluent CBOD concentration:	≤ 5 mg/L*

*Note: Average daily effluent CBOD concentration of 5 mg/L will be achieved only when the CBOD is associated with particulate form and not dissolved form.

Items Furnished by Alfa Laval, Inc.

The proposed ISO-Disc cloth filter will be complete and will include the following:

- One (1) filter tank made of 304 stainless steel
- Seven (7) filter disks (304 stainless steel) with filter grid and cloth media
- One (1) backwash vacuum cleaning assembly complete with vacuum shoes and valves
- One (1) 5 hp vacuum pump for the backwash system consisting of externally mounted Gorman-Rupp centrifugal pump, 480 volt, 60 Hz, 3 phase motor, electrically actuated valves for backwash & settled solids removal and underdrain piping
- One (1) 1.5 hp drive unit with 480 volt, 60 Hz, 3 phase motor
- One (1) PLC-based control panel with NEMA 4X 304SS enclosure and color HMI touchscreen, to include but not limited to, main disconnect circuit breaker, GFI receptacle, terminal blocks, motor starters for pumps and drives, pilot lights
- One (1) level pressure transducer with support bracket
- One (1) lot of high and low level, alarm floats



NOTE: All actuated valves for disk filter backwash and sludge removal will be pre-installed, pre-wired at the Alfa Laval factory. The control panel will be shipped loose for installation and conduit & wiring by others.

Field Service

- Two (2) trips to the jobsite
- Six (6) 8-hr days total

Items Furnished by Others

- Civil works
- Equipment unloading and installation, including plumbing and electrical from components to control panel enclosure
- Influent, final filtrate, backwash piping to and from the filters to the discharge point
- Access ladder(s), platforms, grating and handrails
- SCADA, VFDs, MCC
- Crane / hoist system

General Notes

1. Civil works, crane off-loading, field welding (if applicable), touch-up paint, interconnecting piping, installation of grating, handrail and component equipment, electrical wiring, and filling of the tank for testing are to be done by the general contractor.
2. There is no provision included in this budgeted price, unless noted, for field erection supervision, tests, inspections or adjustments of equipment.
3. **This is a budgetary quotation and it should not be considered binding.**

Pricing

Budgetary price, F.O.B. factory, with freight allowed to Saint Augustine, FL, off-loading by others..... **\$ contact Paul Wachter, P.E.**
\$358,600.00

Budgetary price for 316 SS tank and applicable filter internals, F.O.B. factory, with freight allowed to Saint Augustine, FL, off-loading by others..... **\$ contact Paul Wachter, P.E.**
\$370,114.00

Sincerely,

Alfa Laval, Inc.



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: 22-27

Date Posted: January 26, 2022

Written Response due: February 17, 2022 by or before 12:00PM

RESPONSES SUBMITTED TO:

Name: Leigh A. Daniels

Email Address: ldaniels@sjcfl.us

Phone Number: (904) 209-0154

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 of One (1) ISO-Disc Cloth Filter™ (Alfa Laval, Inc. to fit into the existing filter space.

DESCRIPTION:

The ISO-Disc™ Cloth Disk Filter utilizes an outside-in flow pattern (disks are fully submerged during operation) and stationary disks to minimize mechanical requirements of the system. All components of the system are constructed from corrosion resistant materials that have been designed for continuous operation.

The flow enters the filter tank through the influent flange. As the water passes through the cloth material, it enters into the core of each disk. The water exits each disk through one filtrate line located on the top of the disk. This line passes the filtrate to the filtrate collection trough. During the filtration process, the entire filter operates in static mode. As the filter cloth collects solids on the outer surface, headloss across the media gradually increases to a set point elevation in the tank. At this point, the backwash cleaning system energizes in a set sequence of cleaning operations. Influent continues to be processed during the backwash cleaning cycle, allowing for continuous filtration, 24 hours per day.

The backwash cleaning system is controlled by a PLC-based operating system furnished with the filter equipment.

The ISO-Disc cloth filter will be complete and will include the following:

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- One (1) 1.5 hp drive unit with 480 volt, 60 Hz, 3 phase motor
- One (1) PLC-based control panel with NEMA 4X 304SS enclosure and color HMI touchscreen, to include but not limited to, main disconnect circuit breaker, GFI receptacle, terminal blocks, motor starters for pumps and drives, pilot lights
- One (1) level pressure transducer with support bracket
- One (1) lot of high and low level, alarm floats

NOTE: All actuated valves for disk filter backwash and sludge removal will be pre-installed, pre-wired at the Alfa Laval factory. The control panel will be shipped loose for installation and conduit & wiring by others.

Field Service must be included in cost.

INTENDED SOLE/SINGLE SOURCE CONTRACTOR/VENDOR:

Alfa Laval, Inc.

PROPOSED BUDGET/COST: \$370,114.00

PROPOSED CONTRACT/PURCHASE TERM:

Single Purchase

JUSTIFICATION FOR SOLE/SINGLE SOURCE:

Alfa Laval, Inc. ISO-Disc Cloth Filter is currently installed at SR 16 WWTF. Alfa Laval, Inc. is the sole manufacture of ISO-Disc Cloth Filter.

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.