



**ESVELT ENVIRONMENTAL ENGINEERING, LLC**

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Date: November 15, 2021

Project: City of Stevenson (City)  
Wastewater Treatment Plant Improvements – Major Equipment Procurement

Subject: Section 43 25 00 – Submersible Screw Centrifugal Pump Bids Evaluation

Prepared For: City of Stevenson, Leana Kinley, City Administrator  
Wallis Engineering, Jane Vail, Principal Engineer

Prepared By: Allison Esvelt, MSCE, PE, BCEE, Principal, Esvelt Environmental Engineering, LLC

The purpose of this technical memorandum is to summarize and evaluate the bids for the Submersible Screw Centrifugal Pumps for the City of Stevenson Wastewater Treatment Plant Improvements Project. Bids were received from the following Bidders:

- APSCO, LLC, Redmond, WA representative of Trillium Pumps (APSCO/Trillium)
- APSCO, LLC, Redmond, WA representative of Hidrostal Pumps (APSCO/Hidrostal)
- Hayward Gordon, ULC, Halton Hills, Ontario, Canada (Hayward Gordon)

Table 1 below includes the summary of the bids. Table 2 provides the summary of Bid completeness. All Bidders completed the Bid Form properly and submitted the Bids by the proper deadline.

**Table 1. Summary of Bids**

	APSCO/Trillium	APSCO/Hidrostal	Hayward Gordon
Base Bid Price	\$79,408.00	\$124,076.00	\$130,200.00
Sales Tax (7.7%)	\$6,114.42	\$9,553.85	\$10,025.40
Total Base Bid Price	\$85,522.42	\$133,629.85	\$140,225.40

**Table 2. Summary of Bid Completeness**

	APSCO/Trillium	APSCO/Hidrostal	Hayward Gordon
Bid Form Complete and Addendums Acknowledged	✓	✓	✓
Bid Security	✓	✓	✓
Evidence of Authority to do Business in Washington	✓	✓	✓
Bidder Qualification Statement Form	✓(1)	✓	✓(1)
<i>Specification Section 01 33 00, Submittals</i>			
Paragraph 2.03.B.2: Mechanical drawings including equipment layout drawings and equipment dimensions.	✓	✓	(2)
Paragraph 2.03.C.1: Manufacturer’s catalog information.	✓	✓	(2)
Paragraph 2.03.C.2: Manufacturer’s specifications for materials and manufacturing.	✓	✓	✓
Paragraph 2.03.C.6: Design calculations and performance curves demonstrating compliance with the performance and design criteria of the specifications.	✓	✓	(2)
Paragraph 2.03.C.15: List of all variances from the Specifications.	✓(3)	✓	✓

Notes:

- (1) References not submitted with Bid due to confidentiality but would be submitted if awarded Contract. References for APSCO/Trillium submitted after the Bid opening.
- (2) Not submitted with Bid.
- (3) Variances submitted with Bid are attached to this memo.

Recommendation of Award: APSCO/ Trillium included a list of variances from the specifications with its bid which is attached to this memorandum for reference. The primary difference between the APSCO/Trillium pumps and the specified pumps is the method of cooling the pump motor (glycol versus oil heat-exchange system).

Also, APSCO/Trillium did not submit information to the Engineer to be prequalified as an "Or-Equal" item in accordance with Specification Section 00 20 00-Article 10 and does not comply with the qualification criteria of the pump specifications. The APSCO/Trillium pump reference list includes only installations since 2018. The pairing of the WEMCO pump and the WILO immersible motor is a new offering for Trillium. The qualification requirements of the specifications require the pump installations be in satisfactory operation within the United States for at least 10 years.

Due to the cost savings, the City requested that references of the APSCO/Trillium pump be submitted and contacted to verify that existing installations are operating satisfactorily prior to award. The contractor and City staff of Eagle Mountain wastewater treatment plant in Utah were contacted. Both entities indicated that the pumps have been in satisfactory operation for approximately six months following commissioning and control system adjustments of the pump operations.

The City of Stevenson staff reviewed the information submitted with the Bid and the pump operation and maintenance manual, and indicated they were comfortable selecting the APSCO/Trillium pump via e-mail on 11/15/2021. It is recommended that the contract be awarded to APSCO/Trillium with the lowest responsive Bid.



## PROPOSAL

October 8, 2021

To: All Bidding Contractors

**SUBJECT: WEMCO PUMPS**  
**JOB: Stevenson, WA**  
**PROPOSAL NO. 1496276**

Thank you for your inquiry for WEMCO equipment. We are pleased to offer our quotation as described below:

### Scope of Supply – 43 25 00 – Submersible Screw Centrifugal Pumps

Tags: P-A-MLR-1, 2, 3

**Qty. (3)** 6" X 5" MODEL SFD3-R-BFDOW WEMCO Screw-Flow horizontal screw centrifugal pumps

- ASTM A48 cast iron case, backplate and impeller flange
- ASTM A532 high chrome iron impeller and suction liner
- 15.5hp 1710RPM HC 20.1-4/17GEx WILO immersible Motor
- Cast iron fastout/steel base
- Cast iron guide shoe
- 30 foot stainless steel lifting cable
- Factory certified performance and hydrostatic testing
- Spare parts: (1) set motor bearings, (1) mechanical seal, (1) set o-rings
- Tnemec high performance coating
- Extended two (2) year warranty

#### Following items are NOT included in the scope:

- Anchor bolts, field hardware, valves, or gauges
- Gauges, valves, piping, pipe fittings, pipe supports, spare parts, extra paint or lubricants.
- Controls or instrumentation of any kind, including VFDs or starters.
- Installation & alignment
- Field testing
- 2 Days/1 Trip for Installation Assistance, functional and performance testing, and training provided by APSCO.

#### Technical Comments/Clarifications:

Section 43 25 00

- 2.02.A.4 Pump discharge will be 5"
- 2.02.A.8 B10 bearing life will be 50,000 hours.
- 2.05.E The motor shall be cooled via a water/glycol medium circulated through a jacket surrounding the air-filled motor cavity. The water/glycol cooling medium shall be circulated by an impeller mounted above the motor and shall move due to a hysteresis effect caused by a magnetic coupling.
- 2.05.H The copper wound stator shall be dipped in epoxy enamel and hardened to withstand a temperature of 155 °C (or 180 °C for Class H as defined in NEMA Standard MG-1. Each winding phase or layer shall be laced with Class H glass lined paper
- 2.05.J Each pump shall be provided with a block (cartridge) seal consisting of dual mechanical seals with the seal housing constructed of AISI 420 series (1.4028) stainless steel and the spring system constructed of AISI 301 series (1.4310) stainless steel. The seal shall be mounted in a

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separate and isolated seal chamber. The seal chamber shall be filled with non-conductive lubricating oil as recommended by the manufacturer

- 2.06.A.1 Proposal includes cast iron fastout and steel base. Stainless steel is not available.
- 2.07.A.1, 2 Tnemec Series 446 PermaShield has been discontinued. Tnemec Hi Build Epoxoline II Series L69 is provided instead

**Document and Shipment Schedule:**

- Document submittal:.....4-6 weeks after executed PO
- Shipment:.....30 weeks after submittal approval

**Price:** See Billboard

**Terms and Conditions**

**Bid Price:** Pricing is F.O.B. jobsite, Full Freight Allowed. Detailed receiving inspection is required within 72 hours of delivery and notification of damage claims must occur within 5 working days of delivery. No taxes or duties of any kind are included.

Pricing is firm for the shipment(s) indicated, provided the included schedules are maintained.

**Payment Terms:** 100% Net 30 days. Payment terms in this proposal may not be changed without written authorization from APSCO.

**Bid Validity:** This proposal is valid for an order for 60 days from the bid date and based on all conditions herein.

**Purchase orders must be made out to APSCO LLC**

This quotation is conditioned on Buyer's acceptance of the Seller's Terms and Conditions of Sale (attached). Any modification to these terms and conditions may result in a price and/or delivery impact.

Thank you for the opportunity of submitting our proposal on WEMCO pumping equipment, and if we may be of further service, you can contact this office directly.

APSCO  
P.O. Box 2639  
Kirkland, WA 98083-2639  
Tel: (425) 822-3335, Fax: (425) 827-6171

Sincerely,

Shawn Clark  
Vice President  
APSCO LLC  
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