City of Port St. Lucie
Westport WWTF
Nutrient Reduction Improvements
Early Package #1

GMP-1

May 31, 2023

Presented by Wharton-Smith (CMAR)

Wharton-Smith Contact:
Daniel Mesquita – Project Manager
dmesquita@whartonsmith.com

Engineer: CHA

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SECTION 1 – EXECUTIVE SUMMARY

May 31, 2023

Mr. David Garland, PE
Utility Engineering Division
City of Port St. Lucie
101 SE Prineville Street
Port St. Lucie, FL 34983

Re: City of Port St. Lucie Westport WWTF Nutrient Reduction Improvements
GMP-1 (Early Package #1)

Dear Mr. Garland:

Wharton-Smith is pleased to submit the Guaranteed Maximum Price (GMP-1) for the Westport WWTF Nutrient Reduction Improvements – Early Package #1. A comprehensive breakdown of material, equipment, subcontractor, and labor is provided in the supporting documentation following this letter. The GMP is valued at **$6,721,703** for the Early Package #1 scope of work.

Please note the following clarifications regarding this proposal:

1. We have included all work in accordance with CHA Consulting Westport WWTF Nutrient Reduction Improvements 100% Draft design documents dated May 2023 as well as the revisions as part of Addendum No. 1 - 2. Please note that there are items shown within the plan set that are not included as part of the Early Package #1 and will be included in the overall project GMP. Generally, the Early Package #1 scope of work includes early equipment procurement of the following bid packages:
    a. Long-Lead Electrical Gear Procurement (Reference Bid Package Scope of Work)
    b. Turbocompressors (Blowers)
    c. Mechanical Bar Screens
    d. Grit Removal System
2. Please refer to Section 2 for the GMP Cost Summary, Directs, and General Conditions.
    a. We have included a 3% Contingency on each equipment bid package to be used for work that is a result of unanticipated costs, unforeseen conditions, unknowns, and uncertainties.
3. Bid evaluations and the recommendation of award for each of the competitively bid work packages has been included in Section 3.
4. We have included project management staff that is appropriate for the early procurement of the long lead equipment. We present to you the lead times for submittals and equipment delivery once submittals are approved and equipment is released for fabrication. In summary, here are the longest lead times for each equipment package:
    a. Long-Lead Electrical Gear Procurement – Submittals 12 Weeks, Delivery 64 Weeks
    b. Turbocompressors (Blowers) – Submittals 5 Weeks, Delivery 32 Weeks
    c. Mechanical Bar Screens – Submittals 6 Weeks, Delivery 20 Weeks
    d. Grit Removal System – Submittals 16 Weeks, Delivery 20 Weeks
5. The project schedule will be provided with the subsequent GMP for the overall project construction.

6. We have the following clarifications for the team's review and consideration:
    a. We have included a performance and payment bond, and insurances.
    b. ERP, FDEP, FDOT, & ROW permit costs are by others.
    c. Bid package clarifications and exceptions are presented in the bid evaluation forms and bid proposals for review and consideration.
    d. Davis-Bacon prevailing wage requirements are incorporated in the pricing per the City's direction.
    e. No American Iron and Steel (AIS), BABA, or other federal funding provisions are incorporated in the pricing at this time.
    f. We have identified a potential cost savings in material sales tax for GMP-1 of approximately $300,000+ by utilizing Owner Direct Purchase for the early procurement packages.
    g. All Pricing (Labor, Material, Equipment, Subcontract) is based on current market value.
    h. Duration of material lead times are based on current market conditions.

As always, I am available to discuss at your earliest convenience.

Very respectfully,

Jeff Wiley

Jeff Wiley
Wharton-Smith, Inc.

SECTION 2 – COST SUMMARY, DIRECTS, AND GENERAL CONDITIONS

CITY OF PORT ST. LUCIE WESTPORT WWTF NUTRIENT REDUCTION IMPROVEMENTS
GMP-1 EARLY PACKAGE #1 - LONG LEAD PURCHASE ITEMS
5/31/2023

COST SUMMARY

		LABOR	EQUIPMENT	MATERIALS	SUBS	TOTALS
Total Direct Costs		$ -	$ -	$ -	$ 5,717,963	$ 5,717,963
Total GC's		$ 118,187	$ -	$ -	$ 47,500	$ 165,687
Contingency	**2.9%**				$ 171,447	$ 171,447
Bond					$ 45,119	$ 45,119
Insurance					$ 80,660	$ 80,660
Fee	**8.75%**				$ 540,827	$ 540,827
TOTAL		**$118,187**	**$0**	**$0**	**$6,603,516**	**$6,721,703**

CITY OF PORT ST. LUCIE WESTPORT WWTF NUTRIENT REDUCTION IMPROVEMENTS
GMP-1 EARLY PACKAGE #1 - LONG LEAD PURCHASE ITEMS
5/31/23

DESCRIPTION	QTY	UOM	COST OF WORK				$ TOTALS	COMMENTS
			LABOR $ AMOUNT	EQUIPMENT $ AMOUNT	MATERIALS $ AMOUNT	SUBS $ AMOUNT		
GENERAL REQUIREMENTS DIVISION 0								
GENERAL REQUIREMENTS SUMMARY	1	LS	$ -	$ -	$ -	$ 3,080	$ 3,080	BUILDERS RISK
PURCHASE ORDERS							$ 2,301,783	
43 11 37 - TURBOCOMPRESSORS (BLOWERS)	1	LS	$ -	$ -	$ -	$ 852,355	$ 852,355	SULZER
46 21 11 - MECHANICAL BAR SCREENS	1	LS	$ -	$ -	$ -	$ 589,705	$ 589,705	PARKSON
46 23 24 - GRIT REMOVAL SYSTEM	1	LS	$ -	$ -	$ -	$ 859,724	$ 859,724	HYDRO INT'L
SUBCONTRACTS							$ 3,413,100	
LONG-LEAD ELECTRICAL GEAR PACKAGE	1	LS	$ -	$ -	$ -	$ 3,413,100	$ 3,413,100	LOVELAND ELEC.
TOTAL DIRECT COST			**$ -**	**$ -**	**$ -**	**$ 5,717,963**	**$ 5,717,963**	

CITY OF PORT ST. LUCIE WESTPORT WWTF NUTRIENT REDUCTION IMPROVEMENTS
GMP-1 EARLY PACKAGE #1 - LONG LEAD PURCHASE ITEMS
5/31/23

			BID PACKAGE VALUE
DESCRIPTION	**QTY**	**UOM**	**$ TOTALS**
GENERAL REQUIREMENTS DIVISION 0			$ 2,304,863
GENERAL CONDITIONS	1	LS	$ 165,687
GENERAL REQUIREMENTS	1	LS	$ 3,080
PURCHASE ORDERS			$ 2,301,783
43 11 37 - TURBOCOMPRESSORS (BLOWERS)	1	LS	$ 852,355
46 21 11 - MECHANICAL BAR SCREENS	1	LS	$ 589,705
46 23 24 - GRIT REMOVAL SYSTEM	1	LS	$ 859,724
SUBCONTRACTS			$ 3,413,100
LONG-LEAD ELECTRICAL GEAR PACKAGE	1	LS	$ 3,413,100
ALLOWANCES			$ -
TOTAL DIRECT COST			**$ 5,717,963**

PROJECT CONTINGENCY CALCULATION

PERCENT CONTINGENCY	TOTAL CONTINGENCY	COMMENTS
0.0%	$ -	
0.0%	$ -	
	$ -	
3.0%	$ 25,570.7	
3.0%	$ 17,691.1	
3.0%	$ 25,791.7	
0.0%		
3.0%	$ 102,393.0	
	$ 171,447	

TOTAL CONTINGENCY

Wharton–Smith, Inc.
CONSTRUCTION GROUP

JOB NAME: WESTPORT WWTF NUTRIENT REDUCTION IMPR.

ESTIMATE #: 0

GENERAL CONDITIONS

DESCRIPTION	QTY	UNIT	MH/ UNIT	BASE RATE	LABOR U/P	LABOR TOTAL MH	LABOR $ AMOUNT	EQUIPMENT HR/UNIT	EQUIPMENT RATE	EQUIPMENT $ AMOUNT	MATERIAL U/P	MATERIAL $ AMOUNT	MATERIAL $ AMOUNT	SUBCONTRACTS U/P	SUBCONTRACTS $ AMOUNT	$ TOTALS
PROJECT MANAGEMENT TEAM													W/ 7% TAX			
OFFICE STAFF				$0.00												
Senior Project Manager – Jeff Wiley	17	WK	20	$151.00	$3,020.00	347	$52,427			$0.00		$0	$0		$0	**$52,427**
Project Manager – Daniel Mesquita	17	WK	20	$134.00	$2,680.00	347	$46,525			$0.00		$0	$0		$0	**$46,525**
Project Engineer	17	WK	8	$83.00	$664.00	139	$11,527			$0.00		$0	$0		$0	**$11,527**
Project Engineer–Intern	17	WK	4	$40.00	$160.00	69	$2,778			$0.00		$0	$0		$0	**$2,778**
OTHER STAFF				$0.00												
Project Accountant	17	WK	4	$71.00	$284.00	69	$4,930			$0.00		$0	$0		$0	**$4,930**
RELATED MANAGEMENT COSTS																
Document Management Software – Ecomm	1	LS		$45.00	$0.00	0	$0			$0.00		$0	$0	$32,000	$32,000	**$32,000**
Software Costs	1	LS		$45.00	$0.00	0	$0			$0.00		$0	$0	$15,500	$15,500	**$15,500**
				$45.00	$0.00	0	$0			$0.00		$0	$0		$0	**$0**
TOTAL GENERAL CONDITIONS						972	$118,187			$0			$0		$47,500	$165,687

SECTION 3 – BID EVALUATIONS & RECOMMENDATIONS OF AWARD

Bid Evaluation Sheet

Trade Description: Long-Lead Electrical Gear
Project Name: Westport WWTF Nutrient Reduction Improvements
Owner: City of Port St. Lucie
Bid Date: Friday, May 26, 2023

Scope Item Description		Sinns & Thomas Mike Seiple 407-696-6042		Energy Efficient Electric Sean Viau 561-655-7211		Loveland Electric Tim McMullen 561-405-9558		N/A
Base Bid				**NO BID**				
Long-Lead Electrical Gear Package		$ 4,359,000.00				$ 3,413,000.00		
Indemnification		$ 100.00				$ 100.00		
Alternates								
N/A								
Bid Document Requirements								
Bid Form		Included				Included		
Clarifications / Exceptions		Yes, Square D BOM provided				None		
Acknowledged Addenda		Yes				Yes		
Additional Notes								
Submittal Package		4-6 Weeks				8-12 Weeks		
Delivery of MB-1/2		60 Weeks				64 Weeks		
Delvivery of SWBD-1001/1002		57 Weeks				61 Weeks		
Delivery of MCC-3001/3002		55 Weeks				59 Weeks		
Delivery of ATS-1/2		58 Weeks				62 Weeks		
Delivery of MTS-1000/2000/3000/4000		30 Weeks				34 Weeks		
Delivery of MCC-1001/1002/1003/2003 and MCC-9001/9002		40 Weeks				44 Weeks		
Delivery of MCC-2001/2002 w/ VFDs		55 Weeks				59 Weeks		
SUBTOTAL:		$ 4,359,100				$ 3,413,100		
Bond:		N/A				N/A		
Other Adjustments:		None				None		
Total Adjusted Scope:		**$ 4,359,100**				**$ 3,413,100**		
Recommendation: Loveland Electric						**$ 3,413,100**		

Recommend award to Loveland Electric as the lowest responsive bidder.

BID FORM

Project: Westport WWTF Nutrient Reduction Improvements

Bid Package: **Long-Lead Electrical Gear**

To: Daniel Mesquita – Project Manager
Wharton-Smith, Inc.
dmesquita@whartonsmith.com

Bidder Information:

Company: Loveland Electric II, LLC

Contact Name: Tim McMullen Title: Chief Estimator

Address: 1344 South Killian Drive, Lake Park, FL 33403

Phone Number: 561-405-9558 Email: Tim@Lovelandelec.com

Bid Proposal Documentation Checklist (check all that apply):

X	Bid Form		Value Engineering Proposal
	Sanctions and Litigation		List of Subcontractors
	Licenses		Certificate of Insurance
	Proof of Bonding Capability		Clarifications

Bidder's Acknowledgements:

1. The undersigned Bidder agrees if this bid is accepted, to enter into a Purchase Order or Subcontract Agreement with the Construction Manager per the Agreement terms included in the Bid Documents.
2. Bidder accepts all the terms and conditions of the Bid Documents.
3. Bidder has examined copies of all the Bid Documents and the following addenda:

No. 1 Dated 05/19/23 No. _____ Dated _____

No. 2 Dated 05/23/23 No. _____ Dated _____

4. Bidder has carefully examined the site and locality where the work is to be performed and the legal requirements (federal, state and local laws, ordinances, rules and regulations) and conditions affecting cost, degree of difficulty, progress or performance of the work and has made such independent investigations as Bidder deems necessary.
5. Bidder has reviewed and understands the Project Schedule provided in the Bid Documents and commits to perform and complete the Scope of Work of this Bid Proposal within the durations indicated and shall meet all milestone dates detailed therein. Bidder understands that time is of the essence and any delays in completion of any portion of the Work may result in damages.

6. This Bid is genuine and (a) not made in the interest or on behalf of any undisclosed person, firm, or corporation (b) is not submitted in the conformity with any agreement or rules of any group, association, organization, or corporation (c) Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid (d) Bidder has not solicited or induced any person, firm or corporation to refrain from bidding (e) Bidder has not sought by collusion to obtain for himself any advantage over any other Bidder or over Owner.
7. This Bid Proposal will remain open for acceptance by the Construction Manager for a period of one hundred and eighty (180) days after the date submitted. The price is to be valid for the duration of the Project Schedule after execution of a Purchase Order or Subcontract Agreement.
8. The total base bid includes all labor, material, equipment, taxes, overhead, profit and all other costs required to complete the scope of this Bid Package as outlined in the Bid Documents.
9. The bid pricing shall be broken out as follows. Regarding the bid pricing, the total bid price will be dependent on whether the alternates are accepted by City of Port St. Lucie. City of Port St. Lucie has the sole discretion to accept any, all, or none of the work items for this scope of work based on the bid pricing received.

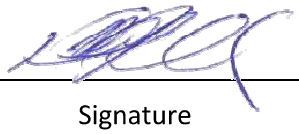
Item No.	Brief Description of Item	QTY	UM	Unit Price	Total Price
1.	Long-Lead Electrical Gear Package	1	LS	$3,413,000.00	$3,413,000.00
2.	Indemnification	1	LS	$ 100.00	$ 100.00
				Total Bid:	$3,413,100.00

(TOTAL BID AMOUNT WRITTEN IN WORDS)

SCHEDULED LEAD TIMES FOR DELIVERABLES

Item No.	Brief Description of Item	Calendar Days to Complete
1.	Submittal Package MBs, SWBD, MCCs, VFDs, ATSs, MTSs	8 to 12 Weeks
2.	Delivery of “MB-1” and “MB-2”	64 Weeks
3.	Delivery of “SWBD-1001” and “SWBD-1002”	61 Weeks
4.	Delivery of “MCC-3001” and “MCC-3002”	59 Weeks
5.	Delivery of “ATS-1” and “ATS-2”	62 Weeks
6.	Delivery of “MTS-1000”, “MTS-2000”, “MTS-3000”, and ”MTS-9000”	34 Weeks
7.	Delivery of “MCC-1001”, “MCC-1002”, “MCC-1003”, “MCC-2003”, “MCC-9001”, and “MCC-9002”	44 Weeks
8.	Delivery of “MCC-2001” w/ VFD, “MCC-2002” w/ VFD	59 Weeks

The undersigned hereby certifies that Bidder has carefully reviewed the Bid Documents and with full knowledge and understanding of the requirements of the Bid Documents and that this Bid Proposal meets all specifications, terms, and conditions contained in the Bid Documents, in its entirety.

	David Loveland, Vice President	5/24/2023
Signature	Print Name / Title	Date

Bid Evaluation Sheet

Trade Description: Turbocompressors
Project Name: Westport WWTF Nutrient Reduction Improvements
Owner: City of Port St. Lucie
Bid Date: Friday, May 26, 2023

Scope Item Description		HydraService (Sulzer) John Scott 321-266-1079 SOLE SOURCED		N/A		N/A		N/A
Base Bid								
Turbocompressors - Blower Package		$ 852,255.00						
Indemnification		$ 100.00						
Alternates								
N/A								
Bid Document Requirements								
Bid Form		Included						
Clarifications / Exceptions		Included in Proposal						
Acknowledged Addenda		Yes						
Additional Notes								
Submittal Package		3-5 Weeks						
Delivery of (3) Turbocompressors		28-32 Weeks						
SUBTOTAL:		$ 852,355						
Bond:		N/A						
Other Adjustments:		None						
Total Adjusted Scope:		**$ 852,355**						
Recommendation: HydraService		**$ 852,355**						

Recommend award to HydraService (Sulzer) as the lowest responsive bidder.

BID FORM

Project: Westport WWTF Nutrient Reduction Improvements

Bid Package: **Turbo Compressors - Blowers**

To: Daniel Mesquita – Project Manager
Wharton-Smith, Inc.
dmesquita@whartonsmith.com

Bidder Information:

Company: Hydra Service (S) Inc.

Contact Name: John Scott / Keaton Heller Title: District Sales Mgr. / General Mgr. FL

Address: 250 Springview Commerce Drive, Debary, FL 32713

Phone Number: 321-266-1079 / 407-330-3456 Email: jscott@hydraservice.net / kheller@hydraservice.net

Bid Proposal Documentation Checklist (check all that apply):

- [x] Bid Form
- [ ] Sanctions and Litigation
- [ ] Licenses
- [ ] Proof of Bonding Capability
- [ ] Value Engineering Proposal
- [ ] List of Subcontractors
- [x] Certificate of Insurance
- [x] Clarifications

Bidder's Acknowledgements:

1. The undersigned Bidder agrees if this bid is accepted, to enter into a Purchase Order or Subcontract Agreement with the Construction Manager per the Agreement terms included in the Bid Documents.
2. Bidder accepts all the terms and conditions of the Bid Documents.
3. Bidder has examined copies of all the Bid Documents and the following addenda:

No. 1 Dated 5/19/2023 No. 2 Dated 5/23/2023

No. _____ Dated _____ No. _____ Dated _____

4. Bidder has carefully examined the site and locality where the work is to be performed and the legal requirements (federal, state and local laws, ordinances, rules and regulations) and conditions affecting cost, degree of difficulty, progress or performance of the work and has made such independent investigations as Bidder deems necessary.
5. Bidder has reviewed and understands the Project Schedule provided in the Bid Documents and commits to perform and complete the Scope of Work of this Bid Proposal within the durations indicated and shall meet all milestone dates detailed therein. Bidder understands that time is of the essence and any delays in completion of any portion of the Work may result in damages.

6. This Bid is genuine and (a) not made in the interest or on behalf of any undisclosed person, firm, or corporation (b) is not submitted in the conformity with any agreement or rules of any group, association, organization, or corporation (c) Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid (d) Bidder has not solicited or induced any person, firm or corporation to refrain from bidding (e) Bidder has not sought by collusion to obtain for himself any advantage over any other Bidder or over Owner.
7. This Bid Proposal will remain open for acceptance by the Construction Manager for a period of one hundred and eighty (180) days after the date submitted. The price is to be valid for the duration of the Project Schedule after execution of a Purchase Order or Subcontract Agreement.
8. The total base bid includes all labor, material, equipment, taxes, overhead, profit and all other costs required to complete the scope of this Bid Package as outlined in the Bid Documents.
9. The bid pricing shall be broken out as follows. Regarding the bid pricing, the total bid price will be dependent on whether the alternates are accepted by City of Port St. Lucie. City of Port St. Lucie has the sole discretion to accept any, all, or none of the work items for this scope of work based on the bid pricing received.

Item No.	Brief Description of Item	QTY	UM	Unit Price	Total Price
1.	Turbo compressor – Blower Package	1	LS	$ 852,255.00	$ 852,255.00
2.	Indemnification	1	LS	$ 100.00	$ 100.00
				Total Bid:	$ 852,355.00

Eight Hundred Fifty Two Thousand Three Hundred and Fifty Five Dollars and Zero Cents

(TOTAL BID AMOUNT WRITTEN IN WORDS)

SCHEDULED LEAD TIMES FOR DELIVERABLES

Item No.	Brief Description of Item	Calendar Days to Complete
1.	Submittal Package for Turbo compressors	21-35 days
2.	Delivery of (3) Turbo compressors (after approval and release.)	196-224 days

The undersigned hereby certifies that Bidder has carefully reviewed the Bid Documents and with full knowledge and understanding of the requirements of the Bid Documents and that this Bid Proposal meets all specifications, terms, and conditions contained in the Bid Documents, in its entirety.

Keaton Heller — Keaton Heller - General Mgr — 5/24/23

Signature | Print Name / Title | Date

TECHNICAL INFORMATION

Sulzer TURBOCOMPRESSOR HST

City of Port St. Lucie, Westport WWTF
Nutrient Reduction Improvements
Port St. Lucie, FL

Sulzer Pumps Solutions, Inc.
108 Leigus Road, Suite 1180
Wallingford, CT 06492 USA
Tel: 1-203-238-2700

1 DESIGN DATA

1.1 Application

Municipal Wastewater Treatment Plant

1.2 Site Conditions

- Gas to be handled[1] - air
- Altitude - 24 ft
- Atmospheric pressure - 14.68 psia
- Inlet pressure losses - 0.04 psi
- Inlet pressure - 14.64 psia (into blower package)
- Ambient temp. range - 14°F to 100°F
- Process air inlet temp. range - 14°F to 100°F
- Relative humidity range - 50 to 90% non-Condensing

1.3 Operating Conditions and Assumptions

- Discharge pressure - 8.70 psig
- Total Air flow required[2]
  Design - 3,300 SCFM per Blower

1.4 Power Supply

- 480 V / 3 Ph / 60 Hz

Note:
1 - See Technical Specification Sheet for air quality.
2 - Air @ 68°F, RH 36%, 14.7 psi a

Sulzer Pumps Solutions, Inc.
108 Leigus Road, Suite 1180
Wallingford, CT 06492 USA
Tel: 1-203-238-2700

2 Technical Solution

2.1 Selection

In order to meet the specified current conditions for the Aeration Blowers, Sulzer offers a complete compressor system consisting of Three (3) Model HST 20-4500-1-U200-48 Turbocompressor, each with a motor rated for 200 Input HP, in a Three (3) operating plus Zero (0) standby configuration plus accessories.

See the graph in the appendix for compressor performance data.

A Master Control Unit will control the above compressor system to ensure operation within the best efficiency range.

2.2 Overview

The Sulzer Turbocompressor HST is a completely factory tested unit delivered ready to install blower that provides air to your process in a highly efficient manner. It is a single stage radial centrifugal compressor that delivers completely ***oil free air*** to the process and offers both individual and system ***power optimization*** under all duty conditions including inlet air temperature and differential pressure changes.

The turbocompressor has a simple design comprising a radial centrifugal impeller driven by a high-speed electric motor through a frequency inverter. **The *rotor is supported on oil free magnetic bearing system* levitates the shaft providing** non-contact, non-wear, frictionless performance. The inverter and magnetic bearing controller are housed in an ***integrated control cabinet*** that features a main power disconnect, local control keypad with stop, start, local, remote push buttons and display panel. An automatic blow off valve is also included in the assembly. A ***high efficiency acoustic enclosure*** surrounds the compressor/motor assembly area minimizing blower room noise. All of the above items **are *mounted on a common small footprint base plate*** (often 33% smaller than other blowers) that can be easily moved with a forklift.

These turbocompressors offer modern, ***state of the art technology, high efficiency*** encompassing features designed to providing both the installer and user with the maximum benefits available. They are a departure from the conventional type of compressor, many of which rely on basic designs and principles that have not changed for many years. The machines are manufactured in full compliance with all relevant EU Norms and Directives for Machinery, Low Voltage, and Electromagnetic Compatibility as well as all relevant UK Health & Safety legislation.

Sulzer Pumps Solutions, Inc.
108 Leigus Road, Suite 1180
Wallingford, CT 06492 USA
Tel: 1-203-238-2700

2.3 Features & Benefits

- The HST will ***operate in the best efficiency area down to 55% of the maximum flow***.
- Each HST is a totally integral, single stage, turbocompressor that needs ***no additional requirement for external inverter drives, soft starters, instrumentation or control panels.*** The additional cost of these items should be considered when comparing the capital cost of the HST with other compressors.
- Each HST has an internal frequency inverter, which allows the compressor to ***automatically match compressor performance exactly to the process demand***. The compressor even compensates for variations in ambient pressure and temperature conditions thereby constantly optimising energy consumption under all conditions.
- Each HST has a Cutler-Hammer (Vacon) NX series VFD with an interface keypad that controls and monitors the turbocompressors performance.
- Each HST is complete with its own ***high efficient acoustic enclosure*** that keeps the noise level below the value shown in the appendix without inlet or outlet silencers 3 feet from the compressor at the worst-case conditions described below.
    - The compressor is running at maximum pressure
    - The compressor is running at maximum speed

    In service the noise level will be reduced if the compressor is running at a more efficient point however the configuration of the compressor building and discharge pipe work arrangement etc. will also contribute to the overall site noise levels experienced. It is for this reason that we cannot at this stage make firm noise level guarantees under site conditions.

    It is possible to lower noise levels even further by wrapping and supporting all piping. Another way to reduce noise even more is by installing a special forced compressor ventilation however this last option is complicated and very expensive and should only be considered in the absence of any other alternative.
- The HST is designed to minimise the footprint required for installation. In some cases, the HST is ***one-third the size of comparable compressors or blowers*** thus allowing them to be housed in a much smaller building lowering construction costs.
- The HST provides a ***vibration and pulse free operation*** due to its revolutionary magnetic bearing design eliminates the need for extremely thick foundations or plinths ***reducing construction costs***. The machines are installed quickly and easily onto a 6-inch-thick concrete floor. ***Pulsation free air*** also assists the aeration process by allowing the production of a constant supply of fine bubbles instead of a mix of fine and coarser bubbles increasing the oxygen transfer in the process.
- The HST is ***light and is easy to move***. It can be transported on a conventional pallet truck or forklift. There is no need for overhead lifting cranes or gantries.

- The Sulzer Turbocompressor HST requires ***virtually no maintenance which reduces maintenance costs by as much as 85 to 90%***. It has only ***one moving part***, the rotor. The active magnetic bearing system ensures that there is ***no mechanical contact at any time with any parts eliminating wearing parts that will need to be replaced***. The internal frequency converter replaces gearboxes, which historically are a source of high maintenance costs. The frequency inverter also provides control of the output hence there are no complex guide vane mechanisms, which require periodic compressor shutdown for routine cleaning to keep other single stage compressors operating at peak efficiency. The elimination of oil and other fluids in the compressor system makes the Sulzer Turbocompressor HST a clean and simple compressor to maintain (process & cooling air filters need to be changed). The need for heating, cooling, circulating, filtering and disposal of the fluids needed for other compressor systems increases power usage and the associated routine maintenance costs are eliminated with the HST. In addition, fluid disposal costs are also eliminated. The only maintenance task needed to keep the HST compressor operating at peak efficiency throughout its lifetime is to change the cooling and process air filter elements when required. On average this is once every two to three years and takes less than 20 minutes.

- Because of its non-contacting operation, the HST has ***no wearing parts.*** Therefore, it is possible to ***maintain the "as manufactured" performance*** quoted throughout the life of the compressor without the expensive maintenance and rebuilds needed with other blowers. It is unlikely that our competitors can maintain this "as manufactured condition" of their compressors without continual, expensive and extensive maintenance. This will inevitably lead to a loss in performance efficiency and an increase in operating costs of our competitors' compressor.

- Each HST is a completely integrated compressor with Cutler-Hammer (Vacon) VFD speed control and keypad interface is included as standard that ***provides soft starting, power factor correction, self-diagnostic and continuous monitoring of its operation.***

- Each HST is supplied with an ***uninterruptible power supply*** (UPS) system that provides a secondary source of power for the magnetic bearings and magnetic bearing controller. This system is a back up to the power generation mode feature that is the first line of safety if a power outage occurs to assure that the turbocompressor will spin down without damaging the high-speed unit.

- Each Sulzer Turbocompressor HST is supplied with a modem for remote monitoring of the MBC.

2.4 Compressor Performance

The performance graph shows the typical compressor performance for each compressor being offered at the conditions stated on the Design Data Sheet.

We should stress that any comparison with alternative offers must be made using identical parameters and include all power demands such as oil circulators, oil heaters and acoustic enclosure ventilation fans etc.

Sulzer Pumps Solutions, Inc.
108 Leigus Road, Suite 1180
Wallingford, CT 06492 USA
Tel: 1-203-238-2700

3 Exclusions and Assumptions

3.1 Assumptions

- Reasonable access to the site and working area to enable continuous installation.
- Free access to facilities
- The compressors are to be installed in a compressor room constructed by others
- The compressor room floor will be flat and level to standard civil tolerances
- That the Sulzer Turbocompressor HST can be off loaded and placed directly into the compressor building by others
- Cable tray or ducts to each compressor for the communications cabling will be supplied and installed by others.
- Please note that the power grounding wire needs a minimum size per our Installation and Maintenance Instructions. Power Wiring needs to be sized per NEC and local codes.
- Please note that a Pressure Differential Switch needs to be installed on the Inlet Filters and wired back to the HST Blower Enclosure Control Terminal.

3.2 Exclusions

Each Sulzer Turbocompressor HST is offered with the following items excluded from the quoted price.

- Supply and installation of interconnecting communications cabling between each turbocompressor and the Plant Control System.
- Installation of compressor units, accessories and associated pipe work
- Supply and installation of electrical power and signal cables to each turbocompressor and the Master Control Unit.
- Provision of any further instrumentation other than that contained within each turbocompressor or the Master Control Unit or mentioned in our scope of supply.
- Pipe insulation as deemed necessary by the client to prevent contact with hot pipes.
- The accessories include the items as shown on the typical HST Integral Turbocompressor layout drawings in the appendix. The final design of the installation may necessitate the removal or addition of items as appropriate.

Sulzer Pumps Solutions, Inc.
108 Leigus Road, Suite 1180
Wallingford, CT 06492 USA
Tel: 1-203-238-2700

Clarifications / Exceptions Statement – 2022-Q022-R0

1) The *Build America and Buy America Act* (BABA) included in the *Infrastructure Investment and Jobs Act*, Pub. L. 117-58, §§ 70911 – 70917, requires, with exception, that funds made available for a Federal financial assistance program for infrastructure may not be obligated for a project unless all of the iron, steel, manufactured products, and construction materials used in the project are produced in the United States. Currently, Sulzer makes no general warranties as to it products' compliance with the BABA. Additional guidance continues to be issued by Federal agencies pertaining to the implementation of BABA. Upon request, Sulzer will consider specific requests for product certifications according to applicable project requirements and available guidance from the relevant agency. Sulzer supplies products that comply with many domestic preference rules. If any specific sourcing requirements are applicable to this project, Sulzer will be glad to review and respond in regard to its products' compliance with the particular contract requirements.

2) Sulzer has only reviewed, for the City of Port St. Lucie, Westport WWTP Nutrient Reduction Improvements, Section 43-11-37, Drawings PM 20, PM 21 & PM 22, and Addendum No. 1. No other specifications, documents, plans, or drawings were provided to Sulzer. Sulzer proposal is based on the above documents.

3) Sulzer shall, after receipt of P.O., provide the Submittal Package within 2 to 4 weeks. The current HST blower lead time is 28 to 30 weeks to the jobsite. Sulzer cannot guarantee that this delivery is accurate due to supply issues and shipping delays. However, this delivery is a good faith estimate to cover potential delays. Sulzer will provide their Extended 5 Year Warranty Certificate.

4) Section 43-11-37, Paragraph 1.03 – Sulzer's selection is based on a flow rate of 3,300 SCFM @ 8.70 psig, 24ft ASL (14.68 psia), 100F, 90% R.H., 480V/3/60 and 0.044 psi inlet losses.

5) Section 43-11-50, Paragraph 2.05 – Sulzer will provide for each blower an Integral Inlet Filter. Sulzer will provide their standard 12-inch outlet flexible joint, their standard 12-inch check valve and their standard 12-inch isolation discharge valve.

6) All gaskets, sealants, bolts, nuts, washers, and other fasteners used to connect the piping or HST accessories to the blower package or to each other shall be provided by others.

7) Sulzer has included start-up service to field commission the Three (3) Blowers and One (1) MCU for a maximum of Six (6) Days over Two (2) trips as described in our quotation. Any additional service days required will incur an additional charge by Sulzer. In addition, Sulzer can only be responsible for components supplied in their scope of supply to ensure a functioning system.

8) Sulzer will test their blower per ISO 5389 Test standard in Finland. Travel and lodging expenses for witness testing by non-Sulzer employees is not included within this scope of supply. Travel and lodging expenses shall be at the responsibility of others.

9) Power cable and grounding cable need to be sized per NEC and local codes.

Sulzer Pumps Solutions, Inc.
108 Leigus Road, Suite 1180
Wallingford, CT 06492 USA
Phone: 203-238-2700

SULZER ABS TURBOCOMPRESSOR HST

APPENDIX

Sulzer Pumps Solutions, Inc.
108 Leigus Road, Suite 1180
Wallingford, CT 06492 USA
Phone: 203-238-2700

HST™ 20 turbocompressor

A highly efficient and reliable single-stage centrifugal compressor for the provision of oil-free, low-pressure air.

Construction

High-speed electric motor
A vertically mounted high-frequency electric motor for variable speed operation. The motor is air-cooled by an integrated shaft mounted fan and the windings are protected by Pt100-sensors monitored by the local control system.

Air end
The impeller has been designed to optimize performance and is machined from a solid piece of high-strength aluminum alloy. The volute and other main components are made from cast aluminum. A non-contact seal between air-end and motor minimizes losses to maintain high efficiency.

Variable frequency drive
Flow control is provided by a built-in variable frequency drive which also accommodates variations in outlet pressure and ambient inlet conditions. The variable frequency drive's soft-start facility eliminates peak starting currents.

Active magnetic bearings
Two radial bearings and two axial bearings support the rotor. The magnetic bearing controller uses data provided by multiple sensors to continuously manage the position of the rotor.

Blow-off valve
The blow-off valve is mounted within the acoustic enclosure with further attenuation provided by an integrated silencer.

Acoustic enclosure
The enclosure provides protection for the electrical and mechanical components and provides efficient noise attenuation for the machine. The enclosure is constructed from zinc-plated steel. It is suitable for indoor use (IP33D / NEMA 2).

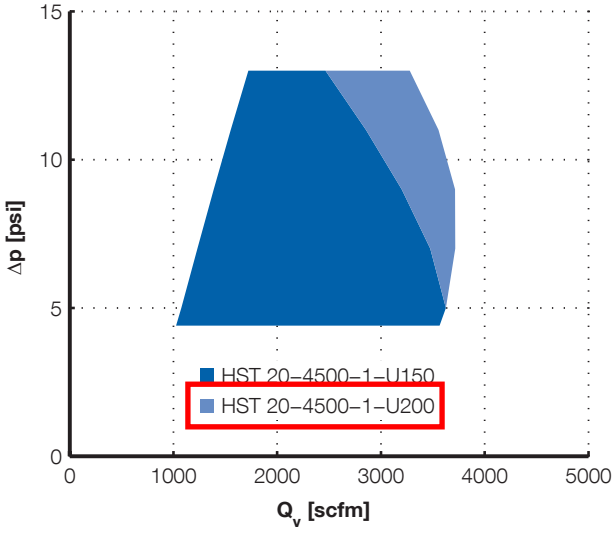
Integrated components
The inlet filters for process and cooling air, inlet silencer, discharge silencer, and motor cooling air silencer are all integrated into the main assembly.

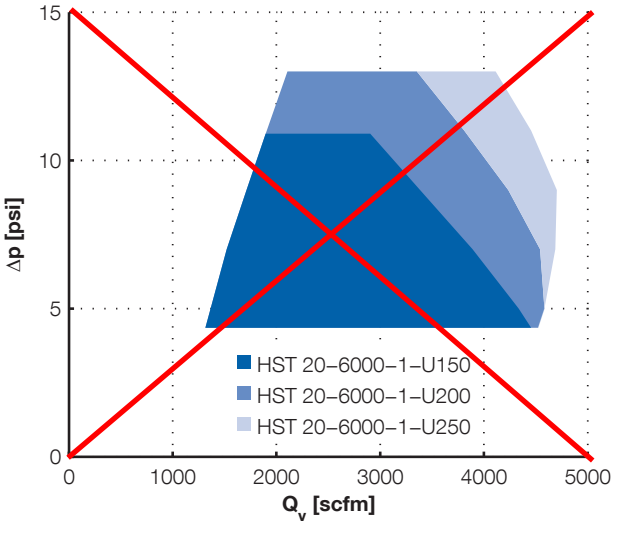
Compressor Control

Local control
The built-in local Human-Machine-Interface (HMI) provides control and monitoring for the safe and efficient operation of the machine. Flow may be controlled directly by the operator, or alternatively, the turbocompressor can follow a given reference value. The local HMI uses a color touch screen to provide access to the operator.

Connections
Analog and digital control and monitoring connections are built in. Fieldbus connections such as Profibus, Profinet, Modbus RTU, Modbus TCP, and EtherNet/IP are available as options.

Remote connections
A secure connection facilitating service and monitoring can be ordered as an option.





Options

Various options for handling special requirements regarding e.g., temperature, dusty environments and locations with high moisture can be selected.

Accessories

Required accessories for installation such as flexible joints, valves, silencers, and air filters are available from Sulzer.

Performance Testing

Compressor performance tests are performed on every machine manufactured and certificates issued to confirm compliance. The tests are carried out at the Sulzer factory test facility. Performance is guaranteed with a manufacturing tolerance of ± 2% and a measurement tolerance according to ISO 5389. Optionally tests can be performed according to ISO 5389 or ASME PTC 10. The test can be witnessed by the customer or a third party inspector.

Certification and Standards

The compressor is certified according to the relevant UL and CSA standards:

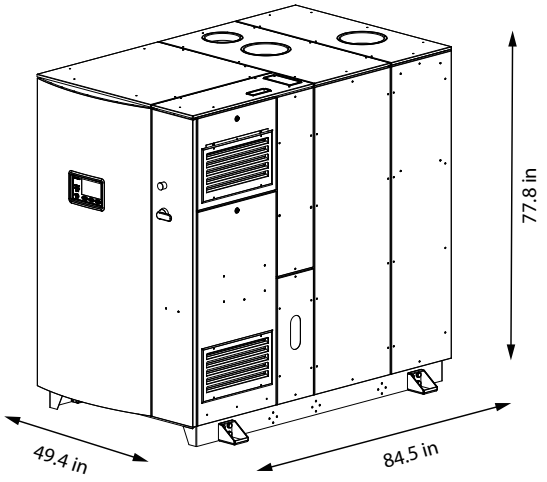
- UL 1450
- CSA C22.2 No. 68

The product is designed and manufactured in accordance with EN 61800-3 standard and intended for use in second environment locations, e.g., in industrial areas.

Installation Conditions [1]

Altitude	
Maximum altitude	8200 ft above sea level [2]
Air quality	
Permitted chemical vapors	IEC 60721-3-3 class 3C3
Ambient conditions	
Ambient temperature range	Min. 14 °F, max. +113 °F
Ambient relative humidity	< 95 %, non-condensing, non-corrosive, no dripping water
Inlet conditions	
Air temperature range for process air taken from the room	Min. 14 °F, max. +113 °F
Air temperature range for ducted process air inlet (option)	Min. -4 °F, max. +113 °F

[1] Sulzer may approve applications outside these criteria.
[2] 6560 ft above sea level for 580 V compressors.



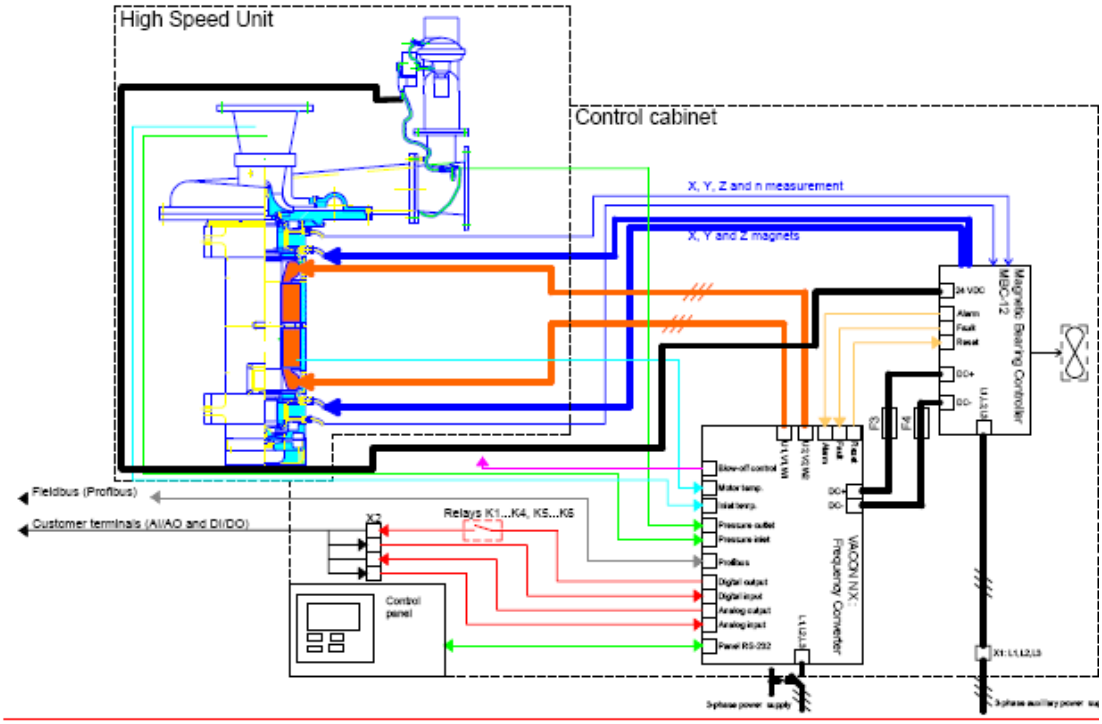
Compressor Data

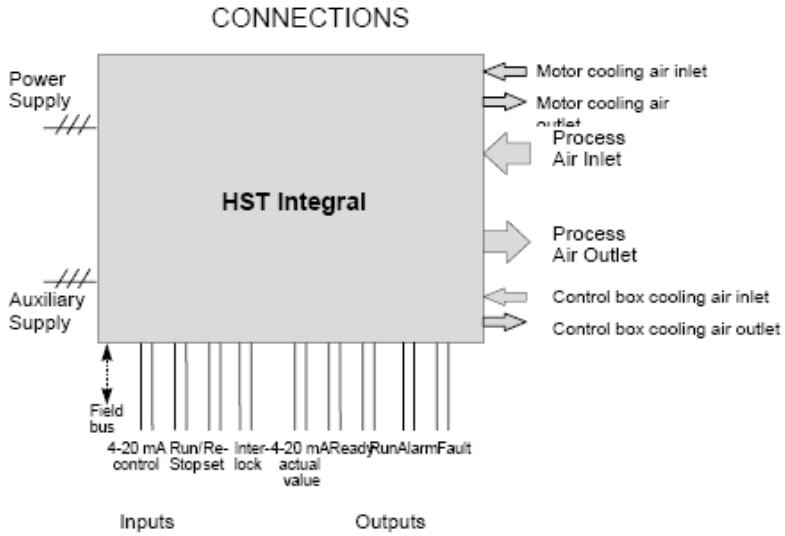
		HST 20-4500-1-U150	HST 20-4500-1-U200	HST 20-6000-1-U150	HST 20-6000-1-U200	HST 20-6000-1-U250
Air flow range [scfm]		1100-3600	1100-3700	1300-4400	1300-4500	1300-4700
Pressure rise [psi]		4.4-13.1	4.4-13.1	4.4-10.9	4.4-13.1	4.4-13.1
Noise level [dB]		61	62	60	62	62
Input power [hp]		150	200	150	200	250
Main supply voltage [V]		460-600	460-600	460-600	460-600	460-600
Input power frequency [Hz]		50/60	50/60	50/60	50/60	50/60
480 V	Max. input current [A] [3]	148	197	148	197	246
	Cable size [AWG or MCM]	2x(3x1+6)	2x(3x2/0+6)	2x(3x1+6)	2x(3x2/0+6)	2x(3x4/0+4)
	Fuse size [A]	160	200	160	200	250
580 V	Max. input current [A] [3]	122	163	122	163	204
	Cable size [AWG or MCM]	2x(3x2+6)	2x(3x1/0+6)	2x(3x2+6)	2x(3x1/0+6)	2x(3x3/0+4)
	Fuse size [A]	125	200	125	200	250
Weight [lb]		2900	2900	2900-3100	2900-3100	3100

[3] The maximum input current is calculated using the nominal voltage. The cable and fuse sizes are recommendations and based on the supply current and cables rated to 70 °C [158 °F].

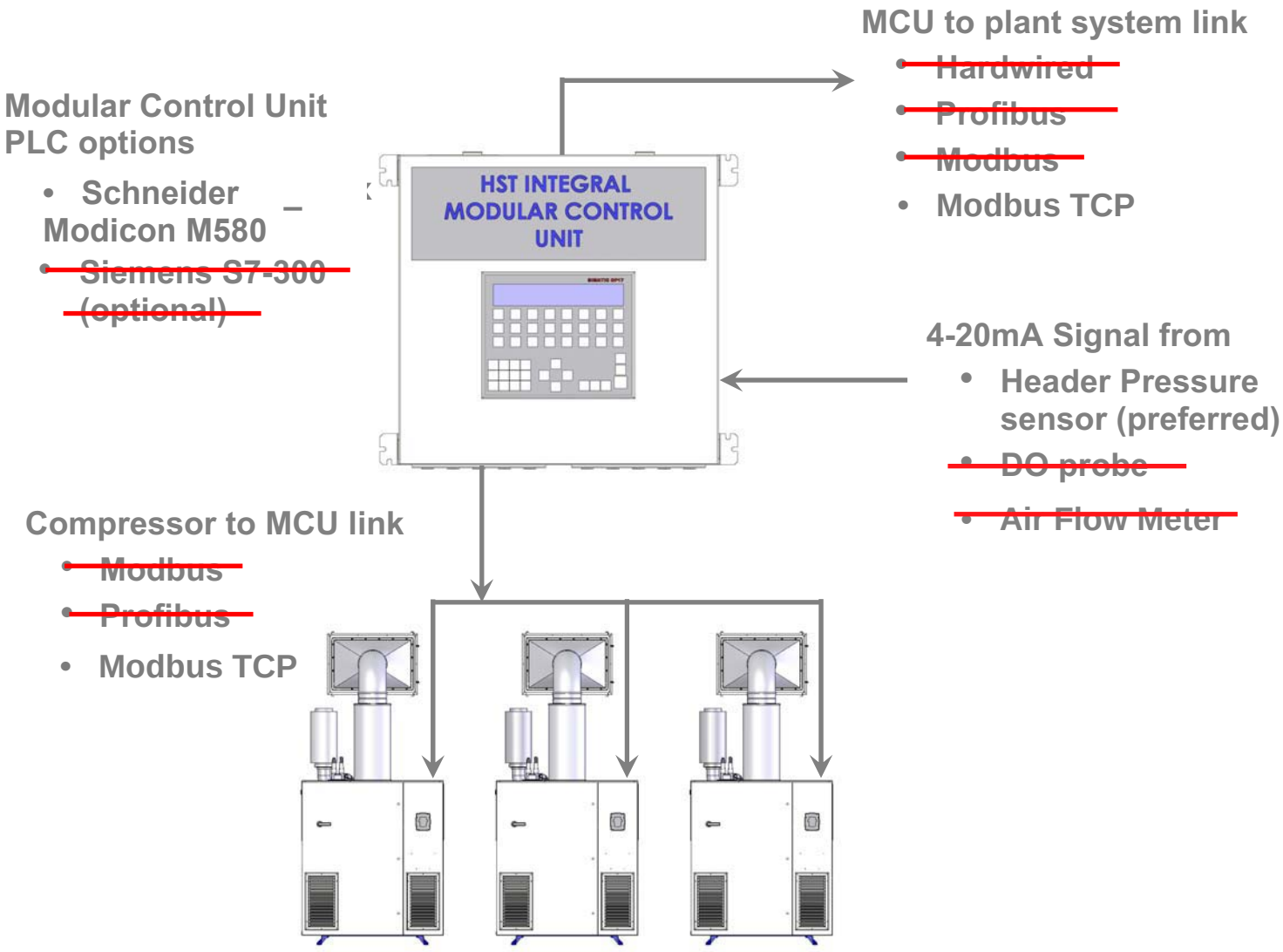
SULZER

Turbocompressor HST
Control Schematic

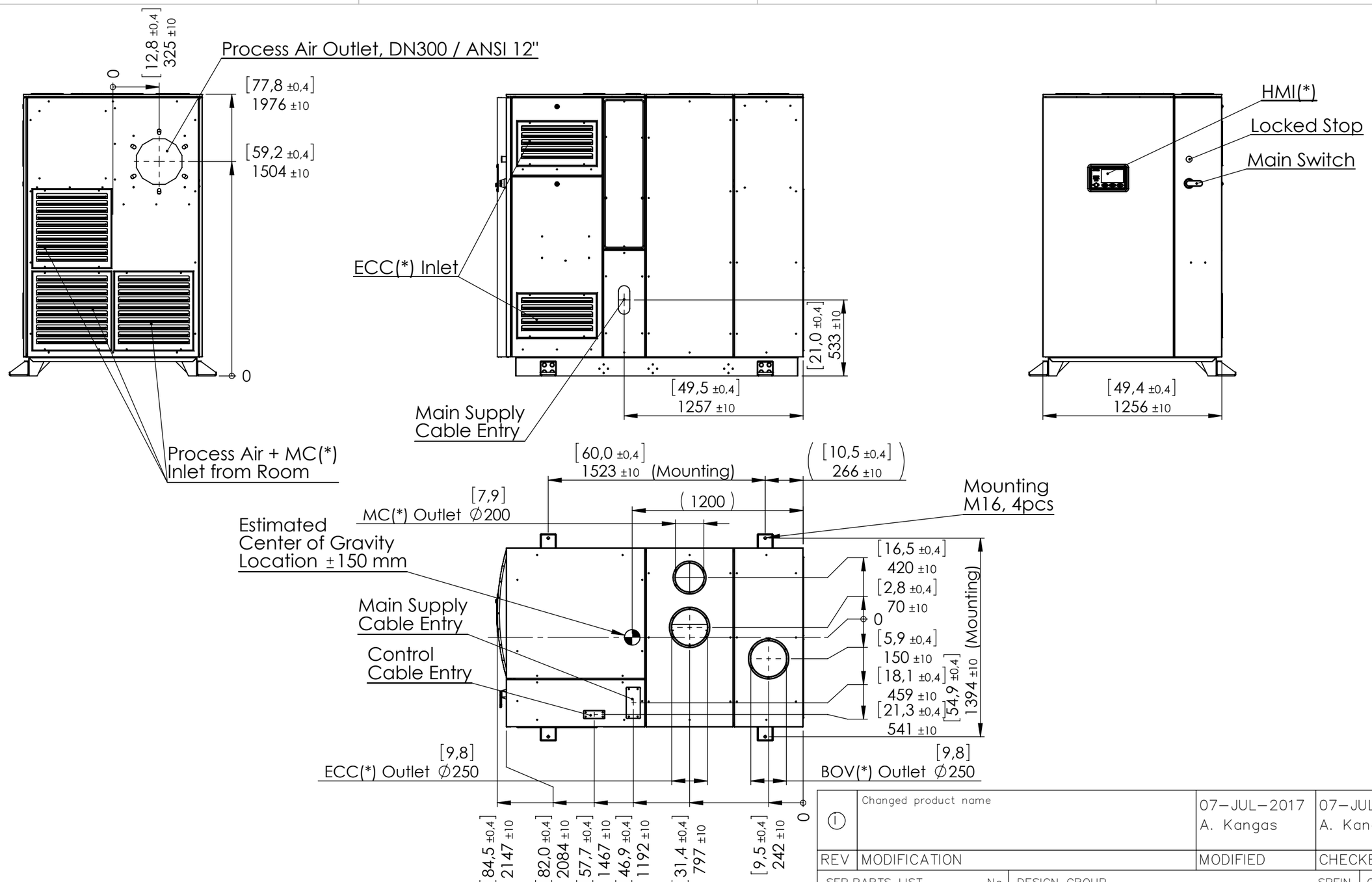




Turbocompressor HST
Modular Control Unit
Communication Options



Use with three or more turbocompressors



* ECC = Electric Cabinet Cooling Air
MC = Motor Cooling Air
BOV = Blow Off Valve Air
HMI = Human Machine Interface

REV	MODIFICATION	MODIFIED	CHECKED	APPROVED
①	Changed product name	07–JUL–2017 A. Kangas	07–JUL–2017 A. Kangas	07–JUL–2017 A. Kangas

SEP.PARTS LIST No	DESIGN GROUP SPFIN	CAD – DRAWING	
REPLACED BY –	SUBSTITUTE FOR –	ORIGINAL SCALE	1:28

HST
HST 20
–
–

DIMENSIONAL DRAWING
Turbocompressor HST™ 20
–
–

DRAWN: – WT Transfer
CHECKED: – –
APPROVED: – –

SULZER

PART – No. – | EN | HST103780 | 1/2

GENERAL TOLERANCES	FINISHING	MATERIAL	WEIGHT [kg]
–	–		~[2976 lb] 1350 kg

DO NOT SCALE – IF IN DOUBT ASK

SIMILAR DWG. –

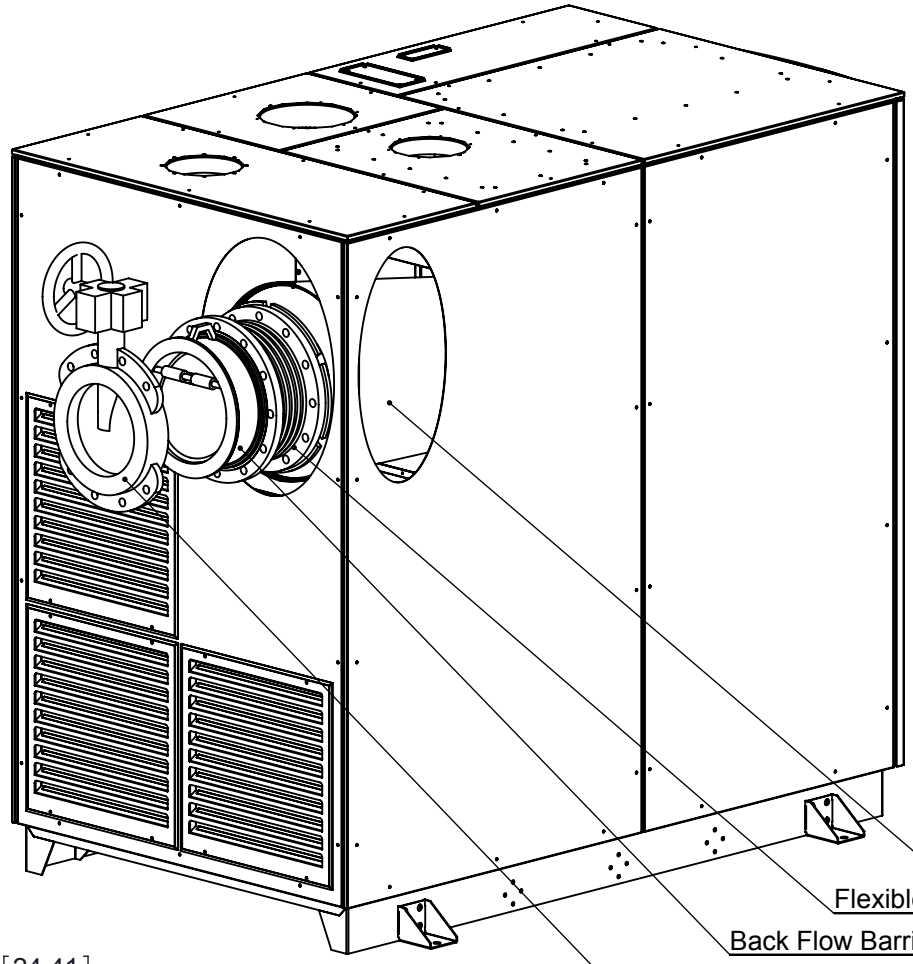
MACHINING REGULATIONS SEE DRAWING STANDARDS.

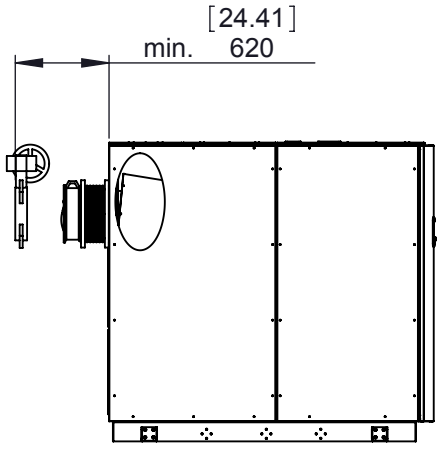
ABS turbocompressor HST 20

Integrated Filter

Layout Example

Code:	**103808**
Scale:	**1:20**
Revision:	**A**
Date:	**28.9.2012**
Drawn:	**A.Kangas**





Layout Example Only.
May not reflect final installation.

[in]
mm

ABS turbocompressor accessories are applicable for use with ABS turbocompressors.

SHEET 1 / 1

LAPPEENRANTA
UNIVERSITY OF TECHNOLOGY

November 3, 2004

HIGH SPEED COMPRESSOR TEST CODES

The high speed compressors developed by High Speed Tech Oy Ltd have been tested at Laboratory of Fluid Dynamics at Lappeenranta University of Technology and at HST Lappeenranta factory, where similar test loop facilities have been built.

There are no standard test codes applicable for integrated high speed compressors. Therefore, the test following test codes have been applied

- ISO 5389:1992 Turbocompressors
- VDI 2045:1993 Acceptance and Performance Tests on Turbo Compressors and Displacement Compressors
- ASME PTC 10 – 1974 / Reaffirmed 1986 Compressors and Exhausters

Main difference is the compact integration of the compressor and motor. As they can not be separated, the measurement of only the compressor shaft power is not possible and therefore unnecessary to follow within the various test codes.

The main quantities measured and investigated in the tests are:

- overall electric power
- pressure ratio of the compressor
- the capacity of the compressor

Power

The standards put a strong emphasis on the thermal equilibrium of the turbo compressor. The long measurement tests at LUT have shown that the overall power (which power is solely used in declaring the HST performance) reaches quickly a constant level, while the power balance between the motor and the drive (compressor) takes much longer time to be correctly measured (for example ASME PTC 10 requires minimum of 30 minutes between points).

The HST measurement routine allows a longer start time for the first measurement, but the following test points are reached within minutes. The measurement software informs the personnel as an adequate measurement point is achieved and a new valve position can be chosen.

Pressure ratio

The pressures are measured in the pressure measuring stations before and after the compressor. The locations of the four static taps, the distances of flow straightening and the method of the measurements are performed as defined in both PTC 10 and ISO 5389.

The capacity of the compressor

ISO 5389 states that the flow measurements are done according to ISO 5167, which acknowledges both the long radius and ISA 1932 nozzles. By comparison, the uncertainty coefficient of the ISA 1932 is lower than the long radius nozzle. The use of ISA 1932 at the inlet of the compressor enables us to make the flow measurements in almost constant conditions and improves further the reliability of the measurements.

The ASME PTC 10 includes only the long radius nozzle, but states that under bilateral agreements, the interested parties can agree upon the type of metering device suited for the conditions and the

choice shall be stated in the test report. As the chosen device is ISA 1932 mentioned in the international standard, it is our understanding that ISA 1932 also fulfils the requirements of PTC 10.

The flow is measured in the inlet conditions and the only leakage of the machine is through a multi knife radial labyrinth seal between the base of the impeller and compressor base. Due to relative small pressure difference, this leakage is less than 1% and very difficult to measure. The ISO 5389 states that in these circumstances appropriate corrections shall be agreed between the manufacturer and purchaser. PTC 10 states that the capacity is the net rate of flow compressed and delivered. The HST margin covers this difference in measurements.

In Lappeenranta, November 3, 2004

Jaakko Larjola
Professor

Jari Backman
Professor

Limited Product Warranty

Optional | 5 Year

HST™ Turbocompressor *

Sulzer Pumps Solutions Inc. (“Manufacturer”) warrants the above referenced Sulzer brand equipment ("Products"):

i) will be of the kind and quality as described in the contract, and
ii) will be free of material defects in workmanship and material, and
iii) will, to the extent required for its functioning, be free from defects in design. However, Manufacturer shall not be held responsible for (i) selection or choice of products for a general or specific use, including quantities or sizing of products; or (ii) the design of the Products (including the selection of the materials) if the design and/or the selection of the materials was not chosen or provided by Manufacturer.

The warranty shall begin upon the delivery of the Products and expire on the earliest of the below dates (“Warranty Period”):

i) sixty (60) months from date of installation of the Products; or
ii) sixty-six (66) months from the date the Manufacturer made the relevant Products available for delivery.

This warranty is contingent upon start-up of the Products on site by an authorized Manufacturer's representative, as verified by receipt of start-up reports completed and signed by an authorized Manufacturer's representative, as well as any other documentation required by Manufacturer to support the claim.

In the event that Manufacturer undertakes any repair or replacement of any Products or parts thereof in accordance with its obligations under this warranty, such repaired or replaced part shall be warranted in accordance with this warranty for a period of ninety (90) days from the date of completion thereof or until the end of the Warranty Period, whichever expires later. Such extended Warranty Period shall under no circumstances exceed a period of ninety (90) days after the end of the original Warranty Period.

If during the Warranty Period, any Products or parts thereof fail to meet the requirements set out in this warranty, the purchaser or end user shall immediately provide written notification to Manufacturer stating the reasons therefor. Upon receipt of prior written authorization from Manufacturer, Products shall be transported to Manufacturer's authorized service center, prepaid, at purchaser or end-user's cost. Manufacturer’s sole obligation shall be to repair, modify, or replace the affected product(s) or part(s) thereof at Manufacturer's sole option. Manufacturer shall be liable for Manufacturer’s own costs incurred as a result of such action only. In no event shall Manufacturer be responsible for the cost of providing access to the Products or parts thereof, or costs of disassembly, removal or reinstallation of any Products or parts thereof. Product(s) or part(s) thereof repaired or replaced under this warranty will be returned with freight prepaid. Products must be repaired by an authorized Manufacturer repair center for warranty coverage to be considered. Explosion-proof or other agency approved Products must be repaired at a Manufacturer's authorized service center in order to retain the agency's approval rating.

This warranty shall not apply and shall terminate immediately if the faults or defects referred to herein cannot be proved to be a result of Manufacturer’s failure under this warranty. Such exclusions from warranty shall include, but not be limited to, any Products or parts thereof which have been (i) subjected to misuse, misapplication, accident, alteration, neglect, failure to act in a timely manner to address alarms/warnings, or physical damage; (ii) stored outside and/or in a non-climate controlled environment, installed, operated, and/or maintained in a manner which is contrary to Manufacturer's written instructions as it pertains to installation, operation and maintenance of the Products, including but without limitation to being operated without being connected to monitoring devices supplied with specific products for protection; (iii) used in an application or for pumping liquids other than the use for which it is intended as specified in Manufacturer's product literature; (iv) damaged due to a defective power supply, improper electrical protection, faulty repair, ordinary wear and tear, corrosion, erosion or chemical attack, an act of God, an act of war or by an act of terrorism; (v) damaged resulting from the use of accessory equipment not sold by Manufacturer or not approved by Manufacturer for use in connection with Manufacturer's products; or (vi) repaired or altered without Manufacturer’s written consent.

This warranty does not cover costs for standard and/or scheduled maintenance that is performed, nor does it cover Manufacturer's parts that, by virtue of their operation, require replacement through normal wear (aka: Wear Parts), unless a defect in material or workmanship is determined by Manufacturer. Wear Parts are defined as air filters, batteries, VFD, and MBC cooling fans and/or any items deemed necessary to perform and meet the requirements of normal maintenance on all Manufacturer’s equipment.

All protection features (such as fuses, motor and VFD over temperature, over pressure, shaft position, etc.) incorporated in the Products must be properly connected to Manufacturer supplied or approved monitoring device(s) for warranty coverage. This warranty is valid only if alarm monitoring components, cables, and/or control components/panels supplied or authorized by Manufacturer are used. If protection feature(s) is(are) not connected, for any reason, it must be approved, in writing, by the Manufacturer, to validate the warranty coverage.

Manufacturer shall not be liable for any special, indirect, consequential, incidental, or punitive damages, or profit loss of any kind. Unless authorized in writing by Manufacturer, Manufacturer shall not be responsible for damages for delay or expenses for rented (replacement) equipment, pump removal, installation, contractors, or repairs.

This warranty shall extend only to the initial end user.

CORRECTION OF NONCONFORMITIES IN THE MANNER AND FOR THE PERIOD OF TIME PROVIDED WITHIN THIS WARRANTY SHALL CONSTITUTE FULFILLMENT OF ALL LIABILITIES OF MANUFACTURER TO PURCHASER WHETHER BASED ON CONTRACT, NEGLIGENCE, OR OTHERWISE, WITH RESPECT TO THE PRODUCTS AND PARTS THEREOF, INCLUDING ANY SERVICES PERFORMED. MANUFACTURER MAKES NO OTHER WARRANTY, GUARANTEE, OR REPRESENTATION IN RESPECT OF THE PRODUCTS AND PARTS THEREOF, INCLUDING ANY SERVICES PERFORMED OTHER THAN AS SPECIFIED IN THIS WARRANTY. ALL OTHER WARRANTIES, CONDITIONS, AND REPRESENTATIONS, EXPRESSED OR IMPLIED BY STATUE, COMMON LAW, OR OTHERWISE, IN RELATION TO THE SUPPLY OF THE PRODUCTS, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OR MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE EXCLUDED TO THE EXTENT PERMITTED BY LAW.

* This warranty is applicable to Products supplied by Sulzer Pump Solutions (US) Inc. or Sulzer Pumps Wastewater Canada, Inc. for installation in the U.S.A. or Canada, unless specifically indicated otherwise in writing by Manufacturer.

DS-Z07-012 REV: 3 DATE: 01/22 | © Sulzer | Specifications Subject to Change Without Notice

Bid Evaluation Sheet

Trade Description: Mechanical Bar Screens
Project Name: Westport WWTF Nutrient Reduction Improvements
Owner: City of Port St. Lucie
Bid Date: Friday, May 26, 2023

Scope Item Description		Parkson Corporation Joe Nagel 847-837-4952 SOLE SOURCED		N/A		N/A		N/A
Base Bid								
Mechanical Bar Screens Package		$ 582,053.25						
Submittals / Testing / Start-Up Services		$ 6,000.00						
Indemnification		$ 100.00						
Alternates								
N/A								
Bid Document Requirements								
Bid Form		Included						
Clarifications / Exceptions		Included in Proposal						
Acknowledged Addenda		Yes						
Additional Notes								
Submittal Package		42 Days						
Bar Screens Equipment Lead Time		140 Days						
Screw Wash Press Units Lead Time		140 Days						
SUBTOTAL:		$ 588,153						
Bond:		N/A						
Other Adjustments:		$ 1,552						
Total Adjusted Scope:		**$ 589,705**						
Recommendation: Parkson		**$ 589,705**						

Recommend award to Parkson as the lowest responsive bidder. Adjustment was made post bid to include costs for anchoring hardware to install the equipment.

Daniel Mesquita

From: Kevin Gabbert <kgabbert@parkson.com>
Sent: Friday, May 26, 2023 11:45 AM
To: Daniel Mesquita
Cc: Joe Nagel; Barry Gregoire; Colton Ware; Jeff Wiley; Josh Burns
Subject: RE: Port St. Lucie, FL - Westport

Daniel,

Thank you for the email.

Typically we exclude the materials for anchoring but we can provide an adder for the items listed below. We will also provide instructions, etc on anchoring requirements with our submittal. The adder to provide material to anchor two (2) screens and two (2) AWP's is $1,551.50 (including tax). If you prefer to supply the anchoring material we are ok with that as well. We will still provide the anchor requirements within our submittal.

Please let me know if you need anything else.

Regards,

Kevin Gabbert
Regional Sales Manager

Mobile: 913-249-0080
parkson.com

From: Daniel Mesquita <dmesquita@whartonsmith.com>
Sent: Friday, May 26, 2023 10:03 AM
To: Kevin Gabbert <kgabbert@parkson.com>
Cc: Joe Nagel <JNagel@parkson.com>; Barry Gregoire <bgregoire@mackcompany-fl.com>; Colton Ware <cware@parkson.com>; Jeff Wiley <jwiley@whartonsmith.com>; Josh Burns <jburns@whartonsmith.com>
Subject: RE: Port St. Lucie, FL - Westport

To clarify, all materials for the anchor, i.e. hardware, for anchoring including leveling nuts and washers, epoxy.

Daniel Mesquita | Project Manager – South FL Water/Wastewater
Wharton-Smith, Inc. | Construction Group of Choice | www.whartonsmith.com
Office: (561) 748-5956

BID FORM

Project: Westport WWTF Nutrient Reduction Improvements

Bid Package: **Mechanical Bar Screens**

To: Daniel Mesquita – Project Manager
Wharton-Smith, Inc.
dmesquita@whartonsmith.com

Bidder Information:

Company: Parkson Corporation

Contact Name: Joe Nagel Title: Municipal Sales

Address: 562 Bunker Court, Vernon Hills, IL 60061

Phone Number: 847-837-4952 email: JNagel@parkson.com

Bid Proposal Documentation Checklist (check all that apply):

- [X] Bid Form
- [ ] Sanctions and Litigation
- [ ] Licenses
- [ ] Proof of Bonding Capability
- [ ] Value Engineering Proposal
- [ ] List of Subcontractors
- [ ] Certificate of Insurance
- [X] Clarifications

Bidder's Acknowledgements:

1. The undersigned Bidder agrees if this bid is accepted, to enter into a Purchase Order or Subcontract Agreement with the Construction Manager per the Agreement terms included in the Bid Documents, *subject to final negotiations.*
2. Bidder accepts all the terms and conditions of the Bid Documents, *subject to final negotiations.*
3. Bidder has examined copies of all the Bid Documents and the following addenda:

No. 1	Dated May 19, 2023	No.	Dated
No. 2	Dated May 23, 2023	No.	Dated

4. Bidder has carefully examined the site and locality where the work is to be performed and the legal requirements (federal, state and local laws, ordinances, rules and regulations) and conditions affecting cost, degree of difficulty, progress or performance of the work and has made such independent investigations as Bidder deems necessary. *The Parkson equipment that is onsite will be replaced with the current bid equipment. Parkson has not been to the site recently.*
5. Bidder has reviewed and understands the Project Schedule provided in the Bid Documents and commits to perform and complete the Scope of Work of this Bid Proposal within the durations indicated and shall meet all milestone dates detailed therein. Bidder understands that time is of the essence and any delays in completion of any portion of the Work may result in damages. *No project schedule is included in the Bid Documents. Our project schedule timeline is included on page 2.*

6. This Bid is genuine and (a) not made in the interest or on behalf of any undisclosed person, firm, or corporation (b) is not submitted in the conformity with any agreement or rules of any group, association, organization, or corporation (c) Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid (d) Bidder has not solicited or induced any person, firm or corporation to refrain from bidding € Bidder has not sought by collusion to obtain for himself any advantage over any other Bidder or over Owner.
7. This Bid Proposal will remain open for acceptance by the Construction Manager for a period of one hundred and eighty (180) days after the date submitted. The price is to be valid for the duration of the Project Schedule after execution of a Purchase Order or Subcontract Agreement.
8. The total base bid includes all labor, material, equipment, taxes, overhead, profit and all other costs required to complete the scope of this Bid Package as outlined in the Bid Documents.
9. The bid pricing shall be broken out as follows. Regarding the bid pricing, the total bid price will be dependent on whether the alternates are accepted by City of Port St. Lucie. City of Port St. Lucie has the sole discretion to accept any, all, or none of the work items for this scope of work based on the bid pricing received.

See attached pricing breakdown:

Item No.	Brief Description of Item	QTY	UM	Unit Price	Total Price
1.	Mechanical Bar Screens Package	1	LS	$ 582,053.25	$ 582,053.25 *
2.	Submittals/Testing/Start-Up Services	1	LS	$ 6,000.00	$ 6,000.00
3.	Indemnification	1	LS	$ 100.00	$ 100.00
				Total Bid:	$588,153.25 *

* includes 7% sales tax

(TOTAL BID AMOUNT WRITTEN IN WORDS)

SCHEDULED LEAD TIMES FOR DELIVERABLES

Item No.	Brief Description of Item	Calendar Days to Complete
1.	Submittal Package	42
2.	Bar Screens Equipment Lead Time (Release to Delivery)	140 *
3.	Screw Wash Press Units Lead Time (Release to Delivery)	140 *

* after receipt by Parkson of approved submittal package

The undersigned hereby certifies that Bidder has carefully reviewed the Bid Documents and with full knowledge and understanding of the requirements of the Bid Documents and that this Bid Proposal meets all specifications, terms, and conditions contained in the Bid Documents, in its entirety.

Signature	Andrew Singer, Contracts Manager	May 24, 2023
Signature	Print Name / Title	Date

Quotation

NUMBER: B02011642

DATE: May 24, 2023

TO: Wharton-Smith, Inc.

REF.: Port St. Lucie, FL
Westport WWTF Nutrient Reduction Improvements
Early Package #01
Specification Section 46 21 11-
Mechanically Cleaned Bar Screens
And Screw Wash Press Units

Parkson Corporation is pleased to provide a quotation for the following equipment.

ITEM 1 EQUIPMENT

Two (2) Aqua Guard® Ultra Clean™ self-cleaning bar/filter screens model AGUC-MN-A

1.A <u>Equipment Description:</u>

1. Units shall be 3'-0" wide (W) and designed for installation in a channel 3'-0" wide x 6'-0" deep (H). Solids larger than 3 mm nominal screen opening shall be removed from the flow and conveyed to a discharge point approximately 4'-8" above the top of the channel. When installed, the screen shall be inclined 75° from the horizontal and have a total discharge height (H1) of 11'-0" (as measured from the base of the screen to the discharge point). There will be a 3.5" recess required in the bottom of the channel.
2. Units shall be capable of passing a peak flow of 11 MGD. The head loss across the screen at this flow will not exceed 9" assuming a downstream water level of 3.6'. The head loss calculation is based on assumption of a clean screen, clean water and **steady state flow.**
3. Materials of construction will be as follows:
   Frame: Type 316 stainless steel, 3/16" thick.
   Filter elements: High impact plastic.
   Side plates: High impact plastic.
   Shafts, chain links, guide rails, drive sprocket inserts: Type 316 stainless steel.
   Rollers: 400 series stainless steel (heat treated).
   Chain bushings: 400 series stainless steel (heat treated).
   Side seals: Neoprene rubber, with type 316 stainless steel backing plates.
4. Screen drive with a 3/4 HP, 230/460V, 3 ∅, 60 Hz explosion-proof motor.
5. Manifold lubrication system.
6. Screen washing system consisting of two (2) type 316 stainless steel spray bars with quick release spray nozzles and NEMA 7 brass body solenoid valve with a 1" NPT connection.
7. Brush assembly of hybrid construction, with a side mounted door to provide access for brush replacement.
8. Brush drive with a 3/4 HP, 230/460V, 3 ∅, 60 Hz explosion-proof motor.
9. Electrical overload device consisting of SSAC current monitors.
10. Front and rear covers fabricated of 14 gauge type 316 stainless steel, to enclose the portion of the screen above the channel.

11. Discharge chute fabricated of 14 gauge type 316 stainless steel, to direct screenings into the screenings wash press inlet chute.
12. E-stop pushbutton in a NEMA 7 enclosure.
13. Main control panels furnished in a NEMA 7 enclosure, housing controls for the screen and wash press units. To include motor starters, control transformer, main disconnect, programmable relay, float switch level sensor, and all other necessary switches, lights, and pushbuttons.
14. Spare parts per unit consisting of twenty (20) filter elements, ten (10) side plates, twenty (20) 3/4" diameter snap rings, ten (10) 63/64” diameter snap rings, one (1) rotating brush assembly and one (1) brush mounting flange assembly.
15. The Aqua Guard® screens shall be factory assembled and tested.

Two (2) Aqua Wash Press® units model AWP8-2

1.B <u>Equipment Description:</u>

1. The Aqua Wash Press® units will consist of a spiral, trough, support legs, wash zone, trough flush spray, press zone, drive system and controls.
2. The units will be designed to receive and wash screenings, then reduce the volume and water content by means of a pressing zone.
3. The press will have an inlet capacity of 35 cu.ft./hour, handling wet screenings with an approximate dry weight of not less than 8% solids.
4. The shafted spiral will be constructed of carbon steel, with an O.D. of 8” and having 0.63 inch thick flights. A brush will be bolted to the spiral in the inlet area to scour the perforated sheet.
5. The trough will be fabricated of type 316 stainless steel, having 0.12 inch diameter perforations, chamfered on the outside. It will receive free liquid from the washed solids and direct the flow to a 4 inch O.D. drain tube.
6. The inlet area, 11 inches wide by 27 inches in length, will receive incoming materials.
7. The wash zone will include a spray wash system to wash organic residue from the screenings.
8. The press will include a spray wash system to flush organic residue trapped in the trough.
9. The unit’s drive system will consist of a motor, gear reducer and carbon steel drive shaft. The motor will be 3 HP explosion-proof, 1800 RPM, 230/460 volt, 3 Phase, 60 Hz. The gear reducer is a shaft-mounted worm type gear reducer driven by a direct-coupled motor. The reducer will have a cast iron housing and output speed of 14 RPM and the drive shaft will be direct coupled to the spiral.
10. In addition to the drive motor, the following electrical devices will be furnished:
    a. Two (2) 120 volt, single phase, 60 Hz brass body solenoid valves housed in NEMA 7 enclosures.
    b. E-stop pushbutton in a NEMA 7 enclosure.
11. Inlet chute of 12 gauge type 316 stainless steel construction, to receive screenings from the Aqua Guard screen.
12. Discharge piping consisting of 14 gauge type 316 stainless steel, to direct screenings to an aluminum enclosure.
13. Spare parts per unit consisting of one (1) set of wear bars with fasteners and one (1) brush with clips and fasteners.

THE FOLLOWING NOTES/CLARIFICATIONS ARE APPLICABLE FOR THIS PROPOSAL:

1. **Any modifications to the existing pretreatment structure are not included as part of this offering, to be provided by other than Parkson.**
2. **Manual ball valves, pressure gauges, Y-strainers are not included by Parkson as part of this offering.**
3. **Anchor bolts are not included by Parkson as part of this offering.**
4. **Aluminum enclosures and screenings discharge hopper with chute extension are specifically excluded by Parkson, to be provided by the installing contractor.**
5. **Ultrasonic level sensors or controllers if required are not included by Parkson as part of this offering.**
6. **Sunshield for control panels to be provided by other than Parkson.**
7. **Control panels proposed include standard programmable relays for complete control of the system, as per the specification. No PLC, OIT, Ethernet is included as part of the control system.**

ITEM 2 SERVICES

2.A Drawings and Installation, Operation and Maintenance (IO&M) Manuals:

1. Approval drawings: 3 prints included
2. Certified drawings: 3 prints included
3. IO&M manuals: 3 included

2.B Start-Up Assistance:

Parkson will furnish a factory representative for a total of four (4) days during two (2) separate trips to the jobsite to assist in installation inspection, startup supervision, and operator training. Dates of service to be scheduled upon Purchaser's written request. To include all equipment listed above.

2.C Mechanical Warranty:

Per Section XVI of the Standard Conditions of Sale, with the period to be one (1) year from the date of owner's final acceptance of the equipment.

PURCHASE PRICE:

All of the above for ..... $SEE BID FORM.
F.O.B. jobsite, freight included.

VALIDITY:

Purchase Price is valid for one hundred eighty (180) days from quotation date, for shipment of equipment within the timetable stated below.

PAYMENT TERMS:

35% with order, 65% net 30 days after shipment.

Please refer to our Standard Conditions of Sale regarding additional details about price validity, escalation potential and materials availability.

TIMETABLE GUIDELINE:

Within ten (10) business days of receiving a written Purchase Order in Parkson's office, if necessary, Parkson will submit a written Request for Additional Information requesting items including, but not limited to, full-scale drawings, specification sections, amendments and other documents necessary for Parkson to begin work on this Project. No work can be done on this Project until all Additional Information is received by Parkson, thus beginning the Submittal Phase. If you do not receive such a Request for Additional Information within the stated ten (10) business days, then the Submittal Phase will begin on the eleventh (11th) business day following receipt of the written Purchase Order in Parkson's office. The Shipment Phase is thereafter contingent upon your final approval of all submitted Approval Drawings. Once said final approval is received in Parkson's offices, the Shipment Phase will begin.

Submittal Phase:	Approval drawings will be submitted six (6) weeks from receipt of all requested Additional Information if necessary, or if not necessary, from the eleventh (11th) business day following receipt of a written Purchase Order in Parkson's office.
Shipment Phase:	Twenty (20) weeks following receipt of final approval of all submitted Approval Drawings in Parkson's office.

If the Submittal Phase is waived, the Shipment Phase will begin on receipt of all requested Additional Information if necessary, or if not necessary, on the eleventh (11th) business day following receipt of a written Purchase Order in Parkson's offices.

Dates are subject to confirmation upon receipt of written Purchase Order.

TERMS AND CONDITIONS:

This Quotation is governed by and subject to Parkson's Standard Conditions of Sale, which are incorporated by reference and accessible at: *http://www.parkson.com/files/documents/Sales-conditions.pdf*. Parkson reserves the right to negotiate terms and conditions at the time of award.

BUYER/OWNER RESPONSIBILITY:

- Aluminum enclosure and screenings discharge hopper with chute extension.
- Removal of existing equipment.
- Anchor bolts.
- Manual bar screen.
- Stop gates.
- Seismic calculations.
- Concrete modifications.
- Local disconnects or junction boxes.
- Level sensor mounting pipe.
- Ultrasonic level sensors.
- Control panel supports or mounting.
- Control panel sunshield.
- Control panel spare parts.
- Spray wash water connection and piping.
- Drain connections and piping.
- Manual shutoff valves, gate valves, check valves, butterfly valves, ball valves.
- Y-strainers.
- Pressure gauges.

- Screenings dumpster.
- Lubricants.
- Shop or field painting.
- Unloading, uncrating, installation and installation supervision. Installation will, at minimum, require a forklift and possibly a crane/hoist.
- Readiness of the equipment before requesting start-up service. Non-readiness may incur additional charges.
- Electrical connection and interconnecting wiring (including any of the following: Solenoid valves, level sensor, motors, E-stops, main control panel); wiring and conduit from each unit-mounted electrical device to a terminal box or control panel.
- Interconnecting piping.
- Piping connections, platforms, ladders, gratings and railings unless stated otherwise.
- Determining the compatibility of equipment materials of construction and process conditions (air
- Any other auxiliary equipment or service not detailed above.

Please return one signed copy of this Quotation, or your Purchase Order, to Parkson Corporation at the address below. Refer to this Quotation, date, and related correspondence.

Issued By:

PARKSON CORPORATION
562 Bunker Court
Vernon Hills, IL 60061

Joseph G. Nagel

Name: Joseph G. Nagel
Title: Municipal Sales
Date: May 24, 2023

Accepted By: (Herein called the Buyer)

Name
Title:
Date:

Bid Evaluation Sheet

Trade Description:	**Grit Removal System**
Project Name:	**Westport WWTF Nutrient Reduction Improvements**
Owner:	**City of Port St. Lucie**
Bid Date:	**Friday, May 26, 2023**

Scope Item Description		Moss Kelley (Hydro International) Cameron Young 407-805-0063 SOLE SOURCED		N/A		N/A		N/A
Base Bid								
Grit Removal Equipment		$ 701,900.00						
Vortex Grit Pumps		$ 36,980.00						
Submittals / Testing / Start-Up Services		$ 43,700.00						
Indemnification		$ 100.00						
Alternates								
N/A								
Bid Document Requirements								
Bid Form		Included						
Clarifications / Exceptions		Included in Proposal						
Acknowledged Addenda		Yes						
Additional Notes								
Submittal Package		16 Weeks						
Grit Removal Equipment Lead Time		20 Weeks						
Vortex Grit Pumps Lead Time		20 Weeks						
Performance Testing Duration		60 Days						
SUBTOTAL:		$ 782,680						
Bond:		N/A						
Other Adjustments:		$ 77,044						
Total Adjusted Scope:		**$ 859,724**						
Recommendation: Moss Kelley		**$ 859,724**						

Recommend award to Moss Kelley (Hydro International) as the lowest responsive bidder. An adjustment of $77,044 was made during post bid evaluation and incorporates the following items:

- $20,800.00 to carry the payment terms as well as the start of the warranty to match the requirements of the Contract Documents.

- $56,244 was added for tax that was not included in their bid package.

Daniel Mesquita

From: Patrick Herrick <pherrick@hydro-int.com>
Sent: Tuesday, May 30, 2023 4:40 PM
To: Daniel Mesquita
Cc: Samuel Randall; Cameron Young; Lindsey Schweitzer; Raelynn Webb; Jeff Wiley; Josh Burns; Sean White
Subject: RE: Port St. Lucie, FL Westport WRF Bid Submission

Daniel,

No taxes are included in our pricing.

Regards,

Pat Herrick
Sales Director
Hydro International – Water & Wastewater Solutions
Direct Dial: (503) 679-0273 Email: pherrick@hydro-int.com

From: Daniel Mesquita <dmesquita@whartonsmith.com>
Sent: Tuesday, May 30, 2023 2:36 PM
To: Patrick Herrick <pherrick@hydro-int.com>
Cc: Samuel Randall <Srandall@hydro-int.com>; Cameron Young <cjy@mosskelley.com>; Lindsey Schweitzer <lschweitzer@hydro-int.com>; Raelynn Webb <rwebb@hydro-int.com>; Jeff Wiley <jwiley@whartonsmith.com>; Josh Burns <jburns@whartonsmith.com>; Sean White <swhite@whartonsmith.com>
Subject: RE: Port St. Lucie, FL Westport WRF Bid Submission

Pat,

One more clarification, I want to confirm if tax was included in the numbers you provided for this bid package. Please confirm.

Thanks,

Daniel Mesquita | Project Manager – South FL Water/Wastewater
Wharton-Smith, Inc. | Construction Group of Choice | www.whartonsmith.com
Office: (561) 748-5956
Cell: (321) 604-2490
Site Address:
22275 SW 272 ST Homestead, FL 33031

From: Patrick Herrick <pherrick@hydro-int.com>
Sent: Tuesday, May 30, 2023 3:04 PM
To: Daniel Mesquita <dmesquita@whartonsmith.com>

Cc: Samuel Randall <Srandall@hydro-int.com>; Cameron Young <cjy@mosskelley.com>; Lindsey Schweitzer <lschweitzer@hydro-int.com>; Raelynn Webb <rwebb@hydro-int.com>; Jeff Wiley <jwiley@whartonsmith.com>; Josh Burns <jburns@whartonsmith.com>; Sean White <swhite@whartonsmith.com>
Subject: RE: Port St. Lucie, FL Westport WRF Bid Submission

Ye, thank you Daniel.

Regards,

Pat Herrick
Sales Director
Hydro International – Water & Wastewater Solutions
Direct Dial: (503) 679-0273 Email: pherrick@hydro-int.com

From: Daniel Mesquita <dmesquita@whartonsmith.com>
Sent: Tuesday, May 30, 2023 1:44 PM
To: Patrick Herrick <pherrick@hydro-int.com>
Cc: Samuel Randall <Srandall@hydro-int.com>; Cameron Young <cjy@mosskelley.com>; Lindsey Schweitzer <lschweitzer@hydro-int.com>; Raelynn Webb <rwebb@hydro-int.com>; Jeff Wiley <jwiley@whartonsmith.com>; Josh Burns <jburns@whartonsmith.com>; Sean White <swhite@whartonsmith.com>
Subject: RE: Port St. Lucie, FL Westport WRF Bid Submission

Pat,

Also confirming what we spoke about that the $20,800.00 includes the payment terms of 95% and 5% retainage until Substantial Completion.

Thanks,

Daniel Mesquita | Project Manager – South FL Water/Wastewater
Wharton-Smith, Inc. | Construction Group of Choice | www.whartonsmith.com
Office: (561) 748-5956
Cell: (321) 604-2490
Site Address:
22275 SW 272 ST Homestead, FL 33031

From: Daniel Mesquita
Sent: Tuesday, May 30, 2023 12:40 PM
To: Patrick Herrick <pherrick@hydro-int.com>
Cc: Samuel Randall <Srandall@hydro-int.com>; Cameron Young <cjy@mosskelley.com>; Lindsey Schweitzer <lschweitzer@hydro-int.com>; Raelynn Webb <rwebb@hydro-int.com>; Jeff Wiley <jwiley@whartonsmith.com>; Josh Burns <jburns@whartonsmith.com>; Sean White <swhite@whartonsmith.com>
Subject: Re: Port St. Lucie, FL Westport WRF Bid Submission

Pat,

Thank you for the clarification. As mentioned, our intent is to procure the equipment as soon as we have a green light from the City, currently they plan to take this to the July Commission.

Daniel Mesquita | Project Manager – South FL Water/Wastewater
Wharton-Smith, Inc. | Construction Group of Choice | www.whartonsmith.com
Office: (561) 748-5956
Cell: (321) 604-2490
Site Address:
22275 SW 272 ST Homestead, FL 33031

Sent from my iPhone

On May 30, 2023, at 12:35 PM, Patrick Herrick <pherrick@hydro-int.com> wrote:

Hi Daniel,

It was good to speak with you today. I am able to confirm that we are flexible with regards to the timing of the substantial completion of the contract. Please include the $20,800 in the equipment price.

As discussed, we hold the PO timing and shipment date (no later than August 28, 2024) as the higher priority.

Let us know if you need anything else.

Regards,

Pat Herrick
Sales Director
Hydro International – Water & Wastewater Solutions
Direct Dial: (503) 679-0273 Email: pherrick@hydro-int.com
<image004.png>

<image005.jpg>

From: Samuel Randall <Srandall@hydro-int.com>
Sent: Friday, May 26, 2023 6:04 PM
To: Daniel Mesquita <dmesquita@whartonsmith.com>; Cameron Young <cjy@mosskelley.com>
Cc: Patrick Herrick <pherrick@hydro-int.com>; Lindsey Schweitzer <lschweitzer@hydro-int.com>; Raelynn Webb <rwebb@hydro-int.com>; Jeff Wiley <jwiley@whartonsmith.com>; Josh Burns <jburns@whartonsmith.com>; Sean White <swhite@whartonsmith.com>
Subject: RE: Port St. Lucie, FL Westport WRF Bid Submission

Daniel,

The additional cost for 1yr warranty from substantial completion *expected to commence 6/1/2026* is $20,800.

BID FORM

Project: Westport WWTF Nutrient Reduction Improvements

Bid Package: **Grit Removal System**

To: Daniel Mesquita – Project Manager
Wharton-Smith, Inc.
dmesquita@whartonsmith.com

Bidder Information:

Company: Hydro International Wastewater Solutions

Contact Name: Sam Randall Title: Applications Engineer

Address: 2925 NE Aloclek Drive, Ste 140
Hillsboro, OR 97124

Phone Number: 503-615-8130 Email: srandall@hydro-int.com

Bid Proposal Documentation Checklist (check all that apply):

- [x] Bid Form
- [ ] Sanctions and Litigation
- [ ] Licenses
- [ ] Proof of Bonding Capability
- [ ] Value Engineering Proposal
- [ ] List of Subcontractors
- [ ] Certificate of Insurance
- [ ] Clarifications

Bidder's Acknowledgements:

1. The undersigned Bidder agrees if this bid is accepted, to enter into a Purchase Order or Subcontract Agreement with the Construction Manager per the Agreement terms included in the Bid Documents.
2. Bidder accepts all the terms and conditions of the Bid Documents.
3. Bidder has examined copies of all the Bid Documents and the following addenda:

No. 1 Dated 5/19/2023 No. 2 Dated 5/23/23

No. _____ Dated _____ No. _____ Dated _____

4. Bidder has carefully examined the site and locality where the work is to be performed and the legal requirements (federal, state and local laws, ordinances, rules and regulations) and conditions affecting cost, degree of difficulty, progress or performance of the work and has made such independent investigations as Bidder deems necessary.
5. Bidder has reviewed and understands the Project Schedule provided in the Bid Documents and commits to perform and complete the Scope of Work of this Bid Proposal within the durations indicated and shall meet all milestone dates detailed therein. Bidder understands that time is of the essence and any delays in completion of any portion of the Work may result in damages.

6. This Bid is genuine and (a) not made in the interest or on behalf of any undisclosed person, firm, or corporation (b) is not submitted in the conformity with any agreement or rules of any group, association, organization, or corporation (c) Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid (d) Bidder has not solicited or induced any person, firm or corporation to refrain from bidding (e) Bidder has not sought by collusion to obtain for himself any advantage over any other Bidder or over Owner.
7. This Bid Proposal will remain open for acceptance by the Construction Manager for a period of one hundred and eighty (180) days after the date submitted. The price is to be valid for the duration of the Project Schedule after execution of a Purchase Order or Subcontract Agreement.
8. The total base bid includes all labor, material, equipment, taxes, overhead, profit and all other costs required to complete the scope of this Bid Package as outlined in the Bid Documents.
9. The bid pricing shall be broken out as follows. Regarding the bid pricing, the total bid price will be dependent on whether the alternates are accepted by City of Port St. Lucie. City of Port St. Lucie has the sole discretion to accept any, all, or none of the work items for this scope of work based on the bid pricing received.

Item No.	Brief Description of Item	QTY	UM	Unit Price	Total Price
1.	Grit Removal Equipment	1	LS	$	$ $701,900
2.	Vortex Grit Pumps	1	LS	$	$ $36,980
3.	Submittals/Testing/Start-Up Services	1	LS	$	$ $43,700
3.	Indemnification	1	LS	$ 100.00	$ 100.00
				Total Bid:	$ $782,680

(TOTAL BID AMOUNT WRITTEN IN WORDS)

SCHEDULED LEAD TIMES FOR DELIVERABLES

Item No.	Brief Description of Item	Calendar Days to Complete
1.	Submittal Package	112
2.	Grit Removal Equipment Lead Time (Release to Delivery)	140
3.	Vortex Grit Pumps Lead Time (Release to Delivery)	140
4.	Performance Testing Duration	60

The undersigned hereby certifies that Bidder has carefully reviewed the Bid Documents and with full knowledge and understanding of the requirements of the Bid Documents and that this Bid Proposal meets all specifications, terms, and conditions contained in the Bid Documents, in its entirety.

Signature | Print Name / Title | Date

May 25, 2023

To: Wharton-Smith, Inc.
750 Monroe Road
Sanford, FL 32771

RE: Grit Removal System - Spec Section 46 23 24
Westport WWTF
Port St. Lucie, FL
File #18_11_0370

Hydro International is pleased to present our quote for a HeadCell® Grit Removal, Classification, Washing, and Dewatering System. The system will meet the requirements described in Section 46 23 24 with comments noted below.

Comments

1. Hydro's requested Payment Terms are as follows and are prefaced on the following timeline:
   Receipt of a purchase order by November 22, 2023, release to fabrication by April 10, 2024, and shipment of the equipment prior to August 28, 2024.

Milestone	Incremental Payment	Cumulative Payment
Upon Fully Executed PO	10%	10%
Upon Approval of Shop Drawings	10%	20%
Upon Release to Fabrication	10%	30%
Upon Delivery of Equipment to Site	65%	95%
Upon Final Acceptance or 45 days following completion of equipment start up	5%	100%

2. Hydro assumes that our equipment does not need to comply with AI&S requirements per AI&S Guidance Document Question/Answer #22 stating electrical equipment with controls are not required to comply.
3. Velocity at the mouth of the HeadCell® unit at peak flow must be ≤3 ft/s.
4. Aeration of any kind upstream of the HeadCell® unit is strongly discouraged due to creating turbulence and entraining air and degrading the unit's performance.
5. All piping connected to Hydro equipment must be supported by other means than the Hydro equipment.
6. Discharge from Hydro's equipment shall be to the atmosphere. There shall be no backpressure created by downstream piping connected to Hydro's equipment.
7. The dumpster receiving the discharged grit shall have a drain.
8. Please see the exclusions detailed in the proposal below.

Equipment Summary

1. One (1) 12' 6 tray HeadCell® Grit Concentrator unit shall be supplied. The HeadCell® shall consist of a stack of nested trays fed by a 316SS inlet duct. The trays shall be fabricated from UV stabilized LDPE and shall be supported by a 304 SS frame integral to the unit. All flow passages shall be self-cleaning and free of sharp projections or fittings that may snag stringy or fibrous materials. The HeadCell® trays shall be constructed with a minimum ¼ inch material pans and sidewalls. The Tray Supports shall be fabricated to provide a means to independently support each tray and transfer the weight of each tray to the support structure frame. The HeadCell® will securely fit into a support structure frame containing the screened raw wastewater inlet connection, necessary hardware, and connections. The HeadCell® Grit Concentrator shall be equipped with a floatables spray system for directing floating materiel over the effluent weir and with a settled solids underflow connection for collection and removal of settled solids. The settled solids are pumped to the GritCleanse™ Grit Washing/Dewatering unit from the HeadCell® unit.

   The unit shall remove 95% of all grit (S.G. 2.65) 106 micron and larger at a peak flow of 11 mgd. The unit shall have 12 inches of headloss at the peak flow.

2. One (1) 84" Hydro GritCleanse™ Grit Washing and Dewatering Unit rated for up to 1.5 yd^3/hr shall be provided. The unit shall have one (1) 4" flanged inlet connection, one (1) 8" flanged outlet connection, and one (1) 4" flanged organics discharge connection. Flanges will conform to ANSI B16.1 bolt patterns. Each unit shall have two (2) - 3" threaded drain connections, and one (1) - 1" NPT connection for fluidizing water and one (1) – 1" NPT organics port flush connection. The Hydro GritCleanse™ shall be fabricated from 304 SS and exterior surfaces shall be acid washed. The support structure at the head end shall be an A-frame.

   The unit shall remove 95% of all grit (S.G. 2.65) 75 micron and larger at flow of 250-300 gpm and a solids concentration not to exceed 1.5% and produce a final output with less than 5% volatile solids and greater than 90% total solids at a flow rate of 250 gpm.

3. Two (2) Hayward Gordon TORUS XR3-8 horizontal mount recessed impeller grit pumps shall be supplied for distribution of the HeadCell® underflow to the GritCleanse™ unit. Each pump shall be designed for 250 gpm at 12 ft of TDH. Each pump shall have a Ni-hard (650 BHN) impeller, casing and wear plate, John Crane Type 1 single mechanical seal (SC faces). The motor shall be 7.5 hp, 1800 rpm, TEFC, 3 phase, 60 hertz, 460 volt. The pump uses a fixed speed V-belt and accommodates 0.5 to 2.0% solids concentrations.

4. One (1) free standing control panel shall be supplied. The control panel shall have a NEMA 4X, 316 stainless steel, painted white enclosure with AC, sunshield shroud, and shall be rated at three phase, 480 VAC with UPS battery backup. The panel shall be Allen-Bradley Micro850 PLC based with 6" PanelView Plus Series 7 OIT and contain ethernet connection, timers, switches, Schneider ATV320 variable frequency drives, and indicator lights to operate one (1) HeadCell Floatables Spray system, two (2) grit pumps with seal flush valves, and one (1) GritCleanse™ unit in either fully automated or manual mode.

Appurtenances Per Unit

HeadCell® Grit Concentrator

DESCRIPTION	QTY
Fluidizing Water Throttling Globe Valve 1" TaChen Globe Valve, Stainless Steel	1
Fluidizing Water Shut-off Valve 1" Apollo Ball Valve, Stainless Steel	1
Fluidizing Water Flow Meter 1" 8-40 Blue White Flow Meter, Acrylic	1
Floatables Spray System Supply Water Automation 1-1/2" JD Gould Solenoid Valve, Stainless Steel (NEMA 4X, 120VAC)	1
Floatables Spray System Supply Pressure Gauge Ashcroft Pressure Gauge, 0-100psi, w/ Diaphragm Seal	1
Floatables Spray System Supply Water Shut-off 1-1/2" Apollo Ball Valve, Stainless Steel	1
Floatables Spray System Supply Water Shut-off Wye Strainer	1
Anchor Bolts –Frames Hilti 316SS 3/8" x 5 1/8" HAS Anchor Rods for use with HIT HY 200 Anchor System	4
Anchor Bolts –Underflow Collectors Hilti 316SS 3/8" x 5 1/8" HAS Anchor Rods for use with HIT HY 200 Anchor System	4
Anchor Bolts – For Fastening Inlet Duct to Channel Hilti 3/8" HDI 3/8 SS Drop in anchors	set

Hydro GritCleanse™ Grit Washing and Dewatering Unit

DESCRIPTION	QTY
Pressure Sensor 1” VEGA, (NEMA 4X, 24VDC)	1
Auger Drive Motor 2 hp SEW 3 phase 460 VAC Motor, TENV	1
Auger Gear Reducer SEW Eurodrive Reducer (ratio=166.47:1)	1
Agitator Drive Motor 1.0 hp SEW 3 phase 460 VAC Motor, TENV	1
Agitator Gear Reducer SEW Eurodrive Reducer (ratio=170.85:1)	1
Organics Discharge 4” Milliken Plug Valve, Cast Iron, w/ Electric Actuator (NEMA 4X, 120VAC)	1
Fluidizing Water Shut-off 1” Apollo Ball Valve, Stainless Steel	2
Fluidizing Valve and Supply Water Shutoff 1” ASCO Solenoid valve, Stainless Steel (NEMA 4X, 120VAC)	1
Organics Flush Water Shut-off 1” Apollo Ball Valve, Stainless Steel	1
Organics Flush Valve and Supply Water Shutoff 1” JD Gould Solenoid valve, Stainless Steel (NEMA 4X, 120VAC)	1
Fluidizing Water Flow Meter 1” Lake Monitors ClearView, 1-30gpm Flow Meter, Polysulfone	1
Fluidizing Pipe Manifold Isolation 1/2” Apollo Ball Valve, Stainless Steel	4
Drain Valve 3” Apollo Ball Valve, Stainless Steel	1
Anchor Bolts – Classifier Frame Hilti 316SS 3/4” x 9 5/8” HAS Anchor Rods for use with HIT HY 200	16
Hilti HY 150 Refill Pack Anchor Adhesive Material for use with HAS Rods	1

Utility Requirements

Clarified NPW or Reuse Water:

The HeadCell® unit requires continuous 20 gpm @ 50 +/- 10 psig of clarified water for “fluidizing” to function properly and an additional intermittent 37 gpm @ 40 +/- 10 psig of clarified water for the floatables spray system for 1-5 minutes every hour.

The Hydro GritCleanse™ unit requires continuous 25 gpm @ 50 +/- 10 psig of clarified water to function properly and an additional intermittent 25 gpm @ 50 psig of clarified water for the organics port flush for 30 seconds every 60 minutes.

Spare Parts

The following spare parts will be supplied for the Control Panel per section 40 90 15-2.07:

- One (1) Power Supply
- 5% spare relays, each type
- 5% spare surge protection, each type
- Two (2) years of corrosion inhibitors
- Ten (10) fuses, each type

- Ten (10) bulbs, each type

The following spare parts will be supplied for each Grit Pump per section 46 24 58-2.04.A:

- Two (2) complete sets of gaskets and O-rings
- Two (2) mechanical seals
- Two (2) complete sets of shaft sleeves, keys, and accessories
- One (1) year supply of lubricant

Start-up

One (1) factory trained representative, two (2) trips, for start-up and instruction services as required totaling three (3) days.

Performance Test

Testing in accordance with specification Section 462324-3.02.

Exclusions

Any item(s) not specifically described above are excluded and are not to be supplied by Hydro International including but not limited to the following:

- Field assembly, erection, and installation
- Anchor Bolts
- Interconnecting piping and valving not expressly stated above
- Pipe connections and fittings not expressly stated above
- All pipe supports, hangers and braces
- Controls, switches, control panels and instrumentation of any kind not expressly stated above
- Wiring and conduit
- Grit pump associated piping, valving, gauges, sensors
- Field or touch-up paint, painting, blasting and touch-up of surface finish
- Spare parts not specifically stated above
- Unloading, hauling and storage charge
- Lubricating oil and greases
- Grit study and associated laboratory testing and sample collection and analysis
- All concrete and grouting work
- Insulation and heat tracing of any kind, including controls/powering
- Structural / Seismic analysis
- Bonds of any kind (Performance, Payment, Warranty, Efficacy and/or Supply Bond)
- Grit dumpsters
- Extended Discharge chutes (flexible or rigid)
- Access platforms, ladders, stairs, walkways, railing, hatches
- Equipment covers/grating

Insurance Limitations

- Commercial General Liability is limited to $1,000,000 each occurrence
- Automobile combined single limit of $1,000,000 each occurrence
- Worker’s Compensation is limited to $1,000,000 each accident
- Excess Liability $4,000,000 on each of the above

Warranty

Hydro International’s one (1) year warranty from substantial completion shall apply per the Terms and Conditions of Sale (estimated start date 12/31/2024).

Delivery

Please allow 14-16 weeks after receipt of purchase order for approval drawings. Shipment is typically a maximum of 18-20 weeks after receipt of "Approved" or "Approved As Noted, Resubmittal Not Required" submittal package. In current market conditions, these times may require adjustment. Price includes truck freight to jobsite but does not include any state or local

taxes if required. Timelines are based on typical workloads and with current market conditions they are taking longer. The grit removal system shall be delivered to site fully fabricated, subject to size, packaging and transportation constraints. The General Contractor must inspect equipment prior to unloading and notify Hydro International of any damage to equipment within 5 days to effect proper remedial action. Failure to notify Hydro International of damage to equipment prior to unloading will void all warranties pertaining to subject equipment.

Terms & Conditions

Hydro International payment terms are detailed in the attached terms and conditions. Price includes truck freight to jobsite and does not include any state or local taxes if required. The prices quoted are firm based on receipt of a purchase order by November 22, 2023, release to fabrication by April 10, 2024, and shipment of the equipment prior to August 28, 2024. For any delays in delivery which are beyond Hydro International's responsibility, a finance charge of 1.5% of the contract value per month will be due and payable to Hydro.

Purchase Order

Please make purchase orders to:
Hydro International
2925 NE Aloclek Drive, Suite 140
Hillsboro, OR 97124

Local Representative

Plant Representative:
Mr. Cameron Young
Moss-Kelley, Inc.
725 Primera Blvd, Suite 155
Lake Mary, FL 32746
Ph: (407) 913-7177
Fax: (407) 805-0062
cjy@mosskelley.com

If you have any questions or concerns, please do not hesitate to contact me.

Regards,

Hydro International

Sam Randall
Applications Engineer

Standard Terms and Conditions of Sale

1. **DEFINITIONS.** “Hydro” is Hydro International with an address of 2925 NE Aloclek Drive #140 in Hillsboro, Oregon. "Buyer" is the party purchasing the goods from Hydro.

2. **ENTIRE AGREEMENT**. Hydro’s agreement is based on these terms and conditions of sale. This document, together with any additional writings signed by Hydro, represents a final, complete, and exclusive statement of the agreement between the parties and may not be modified, supplemented, explained, or waived by parol evidence, Buyer’s purchase order, any course of dealing, Buyer’s payment or acceptance, or in any other way except in writing signed by Hydro through its authorized representative. These terms and conditions are intended to cover all activity of Hydro and Buyer hereunder, including sales and use of products, parts, and work, and all related matters (references to products include parts and references to work include construction and installation). Hydro’s obligations hereunder are expressly conditioned on Buyer’s assent to these terms and conditions. Hydro objects to any terms that are different from, or additional to, these terms and conditions. Any applicable detail drawings and specifications are hereby incorporated and made a part of these Terms and Conditions of Sale insofar as they apply to the material supplied hereunder.

3. **SPECIFICATIONS.** Products are supplied in accordance with information received by Hydro, or its duly authorized agent, from Buyer. Hydro shall have no responsibility for products created or sold based upon inaccurate and/or incomplete information supplied to it. Buyer shall ensure that Hydro receives all relevant information in time to enable it to supply the appropriate products.

4. **INSTALLATION AND APPLICATION OF PRODUCTS.** Products supplied hereunder shall be installed and used only in the application for which they were specifically designed. Buyer should not presume that any products supplied by Hydro may be utilized for any applications other than those specified; nor shall Hydro’s obligations, including, without limitation, any warranty obligations, survive Buyer’s transfer of products supplied hereunder to third parties unless the products are transferred with Hydro’s consent. In addition, Buyer shall not use any product supplied hereunder at any location other than at the location for which Hydro has previously received notice from Buyer. Any breach of any of the foregoing restrictions may amount to an infringement of the patent for the products in question and will in any event void all express or implied warranties relating to the products supplied hereunder.

5. **PURCHASE PRICE AND PAYMENT TERMS.** All prices are in U.S. dollars and all payments shall be made in U.S. dollars. Payment terms are as follows:

	Incremental Payment	Cumulative Payment
Upon Fully Executed PO	10%	10%
Upon Approval of Shop Drawings	10%	20%
Upon Release to Fabrication	10%	30%
Upon Delivery of Equipment to Site	65%	95%
Upon Final Acceptance or 45 days following completion of equipment start up	5%	100%

If payments are not made in conformance with the terms stated herein, any unpaid balance shall be subject to interest at a rate 1½% per month, but not to exceed the maximum amount permitted by law. If shipment is delayed by Buyer, the previously agreed date of readiness for shipment shall be deemed to be the date of shipment for payment purposes. If manufacture is delayed by Buyer, a payment shall be made based on purchase price and percentage of completion, with the balance payable in accordance with the terms as stated. If at any time in Hydro's judgment Buyer may be or may become unable or unwilling to meet the terms specified, Hydro may require satisfactory assurance or full or partial payment as a condition to commencing, or continuing manufacture, or in advance of shipment.

Until payment in full has been received by Hydro, this Standard Terms and Conditions of Sale shall constitute a security agreement and Buyer hereby grants Hydro a purchase money security interest in and to the products produced by Hydro hereunder, and any products or proceeds thereof. In particular:

a. Hydro will retain an express purchase money security interest in and to the products and all proceeds thereof.

b. Until full payment for the products is received by Hydro, Hydro reserves the right to retake possession of the products at any time and for this purpose Buyer authorizes Hydro or its duly authorized agent to enter upon land or premises where it believes the product may be.

c. Proceeds of any disposal of the products shall be held in trust for Hydro pursuant to the terms of the Maine Uniform Commercial Code.

d. Buyer grants Hydro a power of attorney for the purpose of filing a UCC-1 financing statement in the name of Buyer to evidence Hydro's security interest in the products.

6. **BACKCHARGES.** In the event that Buyer is required to make repairs, corrections or modifications to the goods supplied by Hydro, it shall only do so upon written approval from Hydro. Backcharges shall be limited to the costs directly associated in making the repairs, corrections or modifications to the goods supplied by Hydro. The costs of such backcharges shall be subject to approval by Hydro and shall be limited to: (1) directly related labor and material costs, (2) directly related equipment and tool rental at prevailing rates in the project location and (3) Buyer's overhead & supervision costs to make repairs, corrections or modifications to the goods supplied by Hydro. Buyer shall submit complete documentation to Hydro's satisfaction including but not limited to labor time sheets, material lists, and rental fees detailing the nature of the back charges. Backcharges shall be in the form of an adjustment to the contract price or reduction in retained payments and not a direct payment. No incidental or consequential backcharges shall be allowed.

7. **DELIVERY.** The goods are sold DDP (Incoterms 2010) jobsite, freight prepaid to Buyer at job site. Except as outlined in Paragraph 8 below, the risk of loss passes to Buyer after Hydro delivers the goods to the jobsite. Hydro reserves the right to select the method of shipment and carrier. Delivery dates are approximate only and are not a guarantee of delivery on a particular day. Hydro is not liable for failure or delays in deliveries of any cause whatsoever beyond the control of Hydro.

8. **TITLE & INSURANCE:** Title to the product(s) and risk of loss or damage shall pass to Buyer upon delivery to a carrier as outlined in Paragraph 7 above, or, in the event Buyer delays shipment, by the previously agreed date of readiness for shipment, except that a security interest in the product(s) or any replacement shall remain in Hydro's name, regardless of the mode of attachment to realty or other property, until the full price has been paid in cash. Buyer agrees to protect Hydro's interest by adequately insuring the product(s) against loss or damage from any external cause with Hydro named as insured or co-insured.

9. **ERECTION:** Unless otherwise stated in writing, the goods provided hereunder shall be assembled and erected by and at the expense of Buyer.

10. **CANCELLATION & BREACH:** Orders placed cannot be canceled, nor shipments of goods made up, or in process, be deferred beyond the original shipment dates specified, except with Hydro's written consent and upon terms which shall indemnify Hydro against all loss. In the event of cancellation or the substantial breach of Buyer's obligations, as by failing to make any of the payments when due, the parties agree that Hydro will suffer a serious and substantial damage that will be difficult, if not impossible, to measure, both as of the time of entering into this purchase agreement and as of the time of such cancellation or breach. Therefore, the parties agree that, upon such cancellation or breach, Buyer shall pay to Hydro the sums set forth herein below, which sums the parties do hereby agree shall constitute agreed and liquidated damages in such event:

    a. If cancellation or breach shall occur after the acceptance of the purchase order but prior to mailing of submittal documents by Hydro to Buyer, liquidated damages shall be 10% of the selling price.

    b. If cancellation or breach shall occur within thirty (30) days from the mailing of submittal documents by Hydro to Buyer, the liquidated damages shall be 20% of the selling price.

    c. If the cancellation or breach occurs after thirty (30) days from the mailing of submittal documents by Hydro to Buyer, but prior to notification that the order is ready for shipment, the liquidated damages shall be the total of 30% of the selling price plus the expenses incurred, cost of material, and reasonable value of the work expended to fill the order involved herein by Hydro's engineers and other employees, agents and representatives after the mailing of general arrangement drawings by Hydro to Buyer, said sums to be determined at the sole reasonable discretion of Hydro; provided, however, that the total liquidated damages under this provision shall not exceed the total selling price.

    d. If cancellation or breach shall occur after Hydro has notified Buyer that the order is ready for shipment, then the liquidated damages shall be the total selling price, less costs associated with startup or field testing.

11. **MATERIALS OF CONSTRUCTION, PAINTS AND COATINGS**: Buyer is responsible for determining the suitability of, and for giving final approval of, the materials of construction, paints, coatings, etc. to be used by Hydro.

12. **WARRANTY:** Any product that proves defective in material, workmanship or design within twelve (12) months after substantial completion (estimated start date 12/31/2024) will be, at the discretion of HYDRO, modified, repaired or replaced, or Buyer's payment for the products will be refunded. This shall be Buyer's sole remedy. HYDRO EXPRESSLY EXCLUDES AND DISCLAIMS ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHER WARRANTIES, EXPRESS OR IMPLIED.

    This warranty does not cover any defects or costs caused by: (1) normal wear and tear of equipment from designed operation. (2) modification, alteration, repair or service of the goods by anyone other than Hydro; (3) physical abuse to, or misuse of, the goods, or operation thereof in a manner contrary to Hydro's instructions; (4) any use of the goods other than that for which they were

intended; (5) chemicals or components which were not disclosed to Hydro; (6) storage contrary to Hydro's instructions; or (7) failure to maintain the goods in accordance with Hydro's instructions.

This warranty does not apply to component parts of the goods that were not both originally designed and manufactured by Hydro, including, but not limited to, valves and controls. These component parts do not carry any warranties by Hydro, and only carry the warranties, if any, of their manufacturers.

In order for Buyer to make a claim under this warranty, Buyer must promptly, and within the warranty period, notify Hydro in writing of any defect(s) in the goods covered by this warranty. If any defect(s) in the goods covered by this warranty are visible at the time of delivery, Buyer must notify Hydro of the defect(s) in writing within five working days. To make any claim under this warranty, Buyer must also fully comply with written authorization and return instructions from Hydro.

13. **FIELD SERVICE:** Startup/Field Service will only be scheduled upon written request. Buyer shall notify Hydro of schedule requirements at least ten (10) working days in advance, or additional charges may be added to cover late-scheduled travel costs. Additional costs will be limited to those arising out of late-scheduled costs. Should Buyer have outstanding balances due Hydro, no startup / field service will be scheduled until such payments are received by Hydro. Hydro will send documents to Buyer defining the service or startup requirements. Buyer assumes all responsibility for the readiness of the system when it requests startup service. Should Hydro's Field Service Engineer arrive at the jobsite and determine that the system cannot be started up within a reasonable time, Hydro shall have the option to bring the Field Service Engineer home and bill Buyer for time, travel and living expenses. Additional field service is available from Hydro at the prevailing per-diem rate at the time of the request for service plus all travel and living expenses, portal-to-portal. A purchase order or change order will be required prior to scheduling this additional service.

14. **LIMITATION OF HYDRO'S LIABILITY.** Hydro assumes no liability or responsibility for the misuse of its products by Buyer, Buyer's employees, agents or assigns, or other use inconsistent with the use appropriate to the performance specification requirements submitted to Hydro, and Buyer agrees to indemnify and hold harmless Hydro for any loss, costs, expense or liability that it may incur or be put to as a result of misuse or inconsistent use of the products. In addition, Hydro shall have no liability to Buyer for any consequential or incidental damages incurred by Buyer in connection with the contract documents or the products purchased by Buyer. Hydro shall not be liable for any loss which results from delay in delivery caused by any reason beyond its control, including, but not limited to, acts of God, casualty, civil disturbance, labor disputes, strikes, transportation or inability to obtain materials or services, any interruption of its facilities, or act of any governmental authority. The total liability of Hydro to Buyer in the form of liquidated damages for any loss, indemnity, damage or delay of any kind will not under any circumstances exceed 25% of the Contract Sum.

15. **DELAYS AND EXTENSIONS OF TIME**. In the event of any delay in delivery caused by any reason beyond Hydro's control, including, but not limited to, acts of God, casualty, civil disturbance, labor disputes, strikes, pandemics, transportation or inability to obtain materials or services, including related to supply chain disruptions, any interruption of its facilities, or act of any governmental authority, the time for delivery shall be automatically extended during the continuance of such conditions.

16. **INTELLECTUAL PROPERTY**. Hydro shall retain sole ownership of all of its intellectual property used or produced in connection with the Project, including but not limited to all drawings, specifications, software, written materials, manuals, marks, business methods, and all other property that is capable of protection by a patent, copyright or trademark (whether or not such protection has actually been sought). Buyer shall not use such intellectual property except for the purpose of confirming the quality of design and/or manufacturing of the products and services set forth in the Proposal. Buyer shall not photocopy, duplicate or in any way copy such intellectual property except for the Buyer's internal purposes only (but not for rendering services or selling products to third persons). Buyer shall not sell, license, assign or transfer the intellectual property protected by this paragraph to anyone. Buyer shall ensure that Owner is in possession of valid licenses for all third-party software (not provided by Hydro) used for the Project, and shall indemnify and hold harmless Hydro against all claims by licensors of such software. Hydro makes no warranty regarding the effect of such third-party software on the performance of the software to be developed by Hydro for the Project and Hydro shall be released from any warranties given to Buyer to the extent that such software causes or contributes to problems. Following acceptance and final payment to Hydro, Hydro will grant to the Owner a non-transferable, non-exclusive license to use the software for the Owner's internal purposes only in the form of the license agreement attached as Exhibit A.

17. **TAXES.** Prices stated herein do not include any tax, excise, duty or levy now or hereafter enacted or imposed, by any governmental authority on the manufacture, sale, delivery and/or use of any item delivered. An additional charge will be made therefore and paid by Buyer unless Hydro is furnished with a proper exemption certificate relieving Hydro of paying or collecting the tax, excise, duty or levy in question.

18. **INTERPRETATION OF CONTRACT.** This contract shall be construed according to the laws of the State of Maine.

19. **CHOICE OF FORUM**. Buyer and Hydro hereby consent and agree that the United States District Court for the District of Maine or the District Court or Superior Court located in the City of Portland, County of Cumberland, Maine will have exclusive jurisdiction over any legal action or proceeding arising out of or relating to the contract documents, and each party consents to the personal jurisdiction of such Courts for the purpose of any such action or proceeding. Buyer and Hydro further hereby consent and agree

that the exclusive venue for any legal action or proceeding arising out of or relating to the contract documents will be in the County of Cumberland, Maine. Each party hereby waives all rights it has or which may hereafter arise to contest such exclusive jurisdiction and venue.

20. **ATTORNEYS' FEES.** If any judicial or non-judicial proceeding is initiated for the purpose of enforcing a provision of this contract, the prevailing party shall be awarded reasonable attorneys' fees in addition to all other costs associated with the proceeding, whether or not the proceeding advances to judgment.

21. **SEVERABILITY.** If any provisions of this contract are held invalid by a court of competent jurisdiction, the remainder of this contract shall not be rendered invalid, and such invalid provisions shall be modified, in keeping with the letter and spirit of this contract, to the extent permitted by applicable law so as to be rendered valid.

22. **ANTI-BRIBERY.** Hydro International will not engage in any form of bribery or corruption. The offering, giving or receiving of bribes is contrary to Hydro International's values and can play no part in the way in which it carries out its business. Hydro requires you to support our approach and implement provisions consistent with our policy through your own organization and your supply chain. Please find a copy of our Anti-Bribery and Corruption Policy on our website at: https://hydro-int.com/sites/default/files/hydro-international-anti-bribery-and-corruption-policy-february-2022.pdf