

MEPNN Supplier Scouting Opportunity Synopsis

Section 1: General Information

Scouting Number	2024-392
Item to be Scouted	BABA - Hydronic Devices
Days to be scouted	24
Response Due By	01/04/2025
Description	United States manufacturers of BABAA-compliant Compliant Hydronic Products (Suction Diffuser, Valves, Strainers, Flex Connectors) for use in an addition and remodel of an existing Hospital located in Iowa.
Notify Requester Immediately	No
State item to be used in	Iowa

Section 2: Technical Information

Type of supplier being sought	Other
Details	Manufacturer/Distributor
Reason	BABA
Describe the manufacturing processes (elaborate to provide as much detail as possible)	Domestic components in each of the BABAA compliant manufactured products must exceed 55% of the total component cost and be assembled in the United States.
Provide dimensions / size / tolerances / performance specifications for the item	See attached construction project technical specification.
List required materials needed to make the product, including materials of product components	See attached construction project technical specification.
Are there applicable certification requirements?	Yes
Details	Build America, Buy America Act (BABAA) compliant Must be able to submit BABAA manufactured product self-certification manufactured product letter for each product that details a compliant product.
Are there applicable regulations?	Yes
Details	See attached construction project technical specification.
Are there any other standards, requirements, etc.?	No
NAICS 1	
NAICS 2	
Additional Technical Comments	See attached construction project technical specification. Manufacturers shall specialize and have experience in the manufacturing of the designated components.

Section 4: Business Information

Estimated potential business volume	Description	Quantity
	Suction Diffuser	2
	1" Manual Balance	1
	4" Manual Balance Valve	3
	3/4" Manual Balance Valve	1
	1" Auto Balance Valve	1
	3/4" Auto Balance Valve	1
	Check Valve	5
	Y Strainer	3
Flex Connectors	10	
Estimated target price / unit cost information (if unavailable explain)	TBD - Negotiated after BABA compliance confirmed	
When is it needed by?	Q2- 2025	
Describe packaging requirements	No requirements - Arrive undamaged	
Where will this item be shipped?	Iowa	

Additional Comments

Is there other information you would like to include?	<p>Provide written documentation in response to the Supplier Scouting request of being a current Build America Buy America Act compliant hydronic product equipment manufacturer with experience manufacturing the system components meeting the product performance requirements.</p> <p>Information on BABAA compliance requirements can be found at Made in America Office link https://www.madeinamerica.gov/.</p> <p>Agency - USDA - Submitted through CBS Contact - Joe Edmondson</p>
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SECTION 232133
HYDRONIC SPECIALTIES (ADDENDUM #3)

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Strainers
- B. Pump suction fittings
- C. Calibrated balance valves
- D. Automatic flow control valves
- E. In-Line Air/Dirt Separators
- F. Pump Suction Fittings (Suction Diffuser)
- G. Expansion tanks
- H. Venturi flow meters
- I. Venturi balance station
- J. Relief valves
- K. Bypass filter feeder

1.02 RELATED SECTIONS

- A. Specification Section 232113 - Hydronic Piping
- B. Specification Section 23 2123 - Hydronic Pumps
- C. Specification Section 232500 - HVAC Water Treatment

1.03 REFERENCES

- A. ASME - Boilers and Pressure Vessel Codes, SEC 8-D-Rules for Construction of Pressure Vessels.

1.04 SUBMITTALS

- A. Product Data: Provide product data for manufactured products and assemblies required for this project. Include component sizes, rough-in requirements, service sizes, and finishes. Include product description, model and dimensions.
- B. Submit inspection certificates for pressure vessels from authority having jurisdiction.
- C. Manufacturer's Installation Instructions: Indicate hanging and support methods, joining procedures.

1.05 PROJECT RECORD DOCUMENTS

- A. Record actual locations of flow controls.

1.06 OPERATION AND MAINTENANCE DATA

- A. Maintenance Data: Include installation instructions, assembly views, lubrication instructions and replacement parts list.

1.07 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing the products specified in this section with minimum three years experience.

1.08 DELIVERY, STORAGE AND HANDLING

- A. Deliver, store, protect and handle products to the site.
- B. Accept valves on site in shipping containers with labeling in place. Inspect for damage.
- C. Provide temporary protective coating on cast iron and steel valves.
- D. Provide temporary end caps and closures on piping and fittings. Maintain in place until installation.

- E. Protect piping systems from entry of foreign materials by temporary covers, completing sections of the work, and isolating parts of completed system.

1.09 MAINTENANCE SERVICE

- A. Furnish service and maintenance of glycol system for one year from date of substantial completion.

PART 2 PRODUCTS

2.01 Y STRAINERS

- A. Size 2" and Under:
 - 1. Manufacturers:
 - a. MetraFlex #TS
 - b. Mueller Steam Specialty
 - c. Watts
 - d. Yarway
 - e. American Wheatley
 - f. Griswold Controls
 - g. Engineer approved equal.
 - 2. Screwed brass or iron body for 175 psig working pressure, "Y" pattern with 1/32 inch stainless steel perforated screen.
- B. Provide drain valve with hose connection and cap on all strainers.

2.02 PUMP SUCTION FITTINGS (SUCTION DIFFUSER)

- A. Manufacturers:
 - 1. Armstrong Pumps, Inc.
 - 2. B & G
 - 3. Patterson
 - 4. Taco
 - 5. Victaulic
 - 6. Engineer approved equal.
- B. Fitting: Angle pattern, cast-iron body, threaded for two inches and smaller, flanged or grooved for 2-1/2 inches and larger, rated for 175 psig working pressure with inlet vanes, cylinder strainer with 3/16 inch diameter openings, disposable fine mesh strainer to fit over cylinder strainer and permanent magnet located in flow stream and removable for cleaning.
- C. Accessories: Adjustable foot supports, blow down tapping in bottom, gauge tapping in side.
- D. In lieu of individual specified components, a pre-manufactured packaged assembly may be submitted. The assembly shall contain all the components assembled in the order as shown on the drawings and details.

2.03 CALIBRATED BALANCE VALVES

- A. Manufacturers:
 - 1. Armstrong Pumps, Inc.
 - 2. Bell & Gossett Circuit Setter Plus
 - 3. Flow Design
 - 4. Griswold Pro
 - 5. HCI
 - 6. Hydronic Specialties
 - 7. Taco
 - 8. Tour & Anderson
 - 9. Engineer approved equal.
- B. Orifice principal by-pass circuit with direct reading gauge, piping connections for 125 psig working pressure with shut off valves and drain and vent connections.

- C. Cast iron, wafer type, orifice insert flow meter for 250 psig working pressure with read-out valves equipped with integral check valves with gasket caps.
- D. Calibrated, plug type balance valve with precision machined orifice, readout valves equipped with integral check valves and gasket caps, calibrated nameplate and indicating pointer.
- E. Portable meter consisting of case containing [one, 3% accuracy pressure gauge with 0 feet to 60 feet pressure range] [two, 3% accuracy pressure gauges with 0 inches to 135 inches and 0 feet to 60 feet pressure ranges] for 500 psig maximum working pressure, color coded hoses for low and high pressure connections, and connectors suitable for connection to read-out valves.

2.04 AUTOMATIC FLOW CONTROL VALVES (AUTO FLOW)

- A. Manufacturers:
 - 1. Bell & Gossett
 - 2. Danfoss
 - 3. FDI
 - 4. General Treatment Products
 - 5. Griswold
 - 6. HCI
 - 7. Pro Hydronic Specialties
 - 8. Engineer approved equal.
- B. Valves shall be factory set and shall automatically limit the rate of flow to required capacity within +/- 5% accuracy over an operating pressure differential of at least fourteen times the minimum required for control. Operating differential is not to exceed 3 psig.
- C. The control mechanism of the valve shall consist of a self-contained, open chamber cartridge assembly with unobstructed flow passages that eliminate accumulation of particles and debris. The cartridge shall be removable in one piece and all internal working parts shall be type #300 passivated stainless steel. The unit shall utilize the available differential pressure across the valve to actuate the control mechanism and shall be capable of self-cleaning the variable inlet ports over the full control range.
- D. Cast iron valve bodies shall be provided with inlet and outlet tapings and shall be marked to show direction of flow. Valve bodies shall be rated for use at not less than 150% of system designed operating pressures. Each valve shall be furnished with a kit consisting of 1/4" x 2" minimum size nipples, quick disconnect valves (located outside of insulation) and fittings suitable for use with measuring instruments specified.
- E. Provide submittal indicating certified performance data for the flow control valve, based on independent lab tests, supervised, and witnessed by a registered professional engineer. Provide documents showing actual pressure drop of units at scheduled gpm, including pressure drop through cartridge. Size for 3 psig maximum pressure drop at design flow rate.
- F. Provide a metal identification tag with chain for each installed valve. The tag to be marked with zone identification, valve model number, and rated flow in GPM.
- G. Flow control valves shall be warranted for a period of five years from date of substantial completion. The contractor shall furnish and install replacement cartridges with proper pressure range as required be test and balance agency to reach design flow.
- H. Integral isolation valve is not allowed. Provide separate isolation valve meeting requirements specified in Specification Section 23 21 13 Hydronic Piping.
- I. Flow Measuring Instructions:
 - 1. Flow measuring instructions to verify flow rates shall be furnished.
 - 2. Correct flow shall be verified by establishing that the operating pressure differential across the valve tapings is within the range indicated on the submittal data sheet for that model number.

2.05 IN-LINE AIR/DIRT SEPARATORS

- A. Manufacturers:

1. Armstrong
 2. American Wheatley
 3. Bell & Gossett
 4. Caleffi
 5. Grundfos
 6. Spirotherm
 7. Taco
 8. Thrush
 9. Engineer Approved Equal
- B. Description: In-line air dirt separator with a coalescing media. Tangential separators are not acceptable.
- C. Construction:
1. Material: Painted Carbon Steel, ASME Section VIII stamped
 2. Working Pressure: 125 psi
 3. Connections: Threaded or flanged
- D. Coalescing Media: Stainless steel rings, stainless steel mesh or wound copper tubing
- E. Vent: Brass or Cast-Iron automatic vent assembly with stainless steel trim located at the top of the unit.
- F. Skim Valve: Brass valve shall remove floating impurities and allow for faster system fills.
- G. Blow Down Valve: Brass valve with threaded connection
- H. Performance per 3rd party testing:
1. Air Separation: 100% free air, 100% of entrained air, 98% of dissolved air.
 2. Dirt Separation: 100% removal of 90-micron debris after 100 passes. 80% removal of micron debris after 100 passes.
- I. Flow and Pressure Drop: See schedule

2.06 PUMP SUCTION FITTINGS (SUCTION DIFFUSER)

- A. Manufacturers:
1. Armstrong Pumps, Inc.
 2. B & G
 3. Patterson
 4. Taco
 5. Victaulic
 6. Grundfos
 7. Engineer approved equal.
- B. Fitting: Angle pattern, cast-iron body, threaded for two inches and smaller, flanged or grooved for 2-1/2 inches and larger, rated for 175 psig working pressure with inlet vanes, cylinder strainer with 3/16 inch diameter openings, disposable fine mesh strainer to fit over cylinder strainer and permanent magnet located in flow stream and removable for cleaning.
- C. Accessories: Adjustable foot supports, blow down tapping in bottom, gauge tapping in side.
- D. In lieu of individual specified components, a pre-manufactured packaged assembly may be submitted. The assembly shall contain all the components assembled in the order as shown on the drawings and details.

2.07 EXPANSION TANKS (BLADDER TYPE)

- A. Manufacturers:
- B. Amtrol
 - C. Armstrong Pumps
 - D. Bell & Gossett
 - E. Patterson Pump

- F. Taco
- G. Thrush
- H. Wessels
- I. American Wheatley
- J. Engineer approved equal.
- K. ASME rated pre-charged bladder-type pressure vessel. Designed and Constructed per ASME Section VIII, Division 1.
- L. Vessel: Steel construction with tank stand and lifting rings.
- M. Bladder: Replaceable, heavy duty, seamless, butyl rubber.
- N. Accessories: Pressure gauge and Schrader valve fitting, tank drain; pre-charge to 12 psig.
- O. Performance: As shown on the drawings, 125 PSI working pressure, 240F° max operating temperature.
- P. Installation: Tank pressure must be field adjusted to match system fill pressure.

2.08 VENTURI FLOW METERS

- A. Manufacturers:
 - 1. B & G
 - 2. Flow design
 - 3. Gerand
 - 4. Griswold
 - 5. HCI Terminator
 - 6. Pro Hydronic Specialties
 - 7. Tour & Anderson
 - 8. Engineer approved equal.
- B. Design:
 - 1. Devices shall have an accuracy of 3% F.S.
 - 2. The gauge reading (flow signal) shall be at least two feet at the design flow with the valve in the wide-open position.
 - 3. The permanent pressure loss shall not exceed 3 feet at the design GPM.
- C. Construction: All devices shall have a brass Venturi section when used in open systems. A carbon steel Venturi section is permitted in a closed system.
- D. Minimum Ratings:
 - 1. Devices with sweat or NPT connections 1/2" - 2": 400 PSIG at 250°F.
 - 2. Devices with flanged connections 2" - 14": 240 PSIG at 250°F.

2.09 VENTURI BALANCE STATION

- A. Manufacturers:
 - 1. B & G
 - 2. Flow design
 - 3. Gerand
 - 4. Griswold
 - 5. HCI Terminator
 - 6. Pro Hydronic Specialties
 - 7. Tour & Anderson
 - 8. Engineer approved equal.
- B. Design:
 - 1. Devices shall have an accuracy of 3% F.S.
 - 2. The gauge reading (flow signal) shall be at least two feet at the design flow with the valve in the wide-open position.

3. The valves are to have differential readout ports fitted with check valve and protective cap, and are to have a memory stop to allow complete shut-off and return to set position without losing the set-point.
 4. The permanent pressure loss shall not exceed 3 feet at the design GPM in the wide-open position.
- C. Construction:
1. All devices shall have a brass Venturi section when used in open systems. A carbon steel Venturi section is permitted in a closed system. Provide a throttling valve with a memory stop on the downstream side of the Venturi.
 2. The ball valve (sizes 1/2" - 2") shall have a brass or bronze body, blowout-proof stem, virgin Teflon seats, brass stem, stem seals and a steel handle.
 3. All butterfly valves 2" to 14", shall be cast iron full-lug type, with EPDM seat, 416SS stem, bronze sleeve bearing and bronze disk.
 4. All valves 1/2" to 2" shall be factory leak tested at 100 psi air under water.
- D. Minimum Ratings:
1. Devices with sweat or NPT connections 1/2" - 2": 400 PSIG at 250°F.
 2. Devices with flanged connections 2" - 14": 240 PSIG at 250°F.

2.10 RELIEF VALVES

- A. Manufacturers:
1. Apollo
 2. Armstrong Pumps, Inc.
 3. Bell & Gossett
 4. Taco
 5. Watts
 6. Engineer approved equal.
- B. Bronze body, Teflon seat, stainless steel stem and springs, automatic, direct pressure actuated, capacities ASME certified and labeled.

2.11 BYPASS FILTER FEEDER

- A. Manufacturers:
1. Shelco
 2. Quantrol
 3. Watts ##PWHS Jumbo Series (PWHSJUM40)
 4. J.L. Wingert
 5. Engineer approved equal.
- B. Body: 304 Stainless Steel with polymer coating.
- C. Filter: Watts #FMPIC-40-HT or equal. Disposable standard cartridge filter compatible with DOE filters, 5 micron. Provide four extra filter cartridges.
- D. Gaskets and Seals: EPDM
- E. Performance: Flow as shown on drawings, 125 psi max operating pressure, 250 F° max operating temperature.
- F. Connections: 2" NPT for inlet/outlet. 1/2" NPT for drain. Pipe to floor drain.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install specialties in accordance with manufacturer's instructions.
- B. Where large air quantities can accumulate, provide enlarged air collection standpipes.
- C. Provide manual air vents at system high points and as indicated.
- D. Provide vent tubing to nearest drain for automatic air vents in ceiling spaces or other concealed locations.
- E. Air separator and expansion tank shall be installed on the suction side of the system pumps. Expansion tank shall be connected into the system piping in close proximity to air separator and system fill line.
- F. Provide valved drain and hose connection on all strainer blow down connections.
- G. Provide pump suction fitting on suction side of base mounted centrifugal pumps where indicated.
- H. Remove pump suction filters and any other temporary strainers one week after system cleaning is finished.
- I. Support pump fittings with floor mounted pipe and flange supports.

END OF SECTION 232133

List of Required Hydronic Products

Product ID	Manufacturer	Customer Description	Quantity
SD4040-125	Grundfos	Suction Diffuser	2
1" Manual Balance Valve	HCI	1" Manual Balance Valve	1
4" Manual Balance Valve	HCI	4" Manual Balance Valve	3
3/4" Manual Balance Valve	HCI	3/4" Manual Balance Valve	1
1" Auto Balance Valve	HCI	1" Auto Balance Valve	1
3/4" Auto Balance Valve	HCI	3/4" Auto Balance Valve	1
F-571	Jomar	Check Valve	5
YS-FF	HCI	Y Strainer	3
TCHS-FLG	TCH	Flex Connectors	10