

REQUEST FOR A WAIVER FROM THE AMERICAN IRON AND STEEL REQUIREMENT

This request for a waiver from the American Iron and Steel requirement is completed by a PENNVEST funding recipient when there is a need to use a foreign-made iron/steel component and the component is not expected to be placed on the De Minimus list.

PENNVEST Funding Recipient	Amity Township		
PENNVEST Project:	WWTP Expansion Project		
ME Number:	75403		
Recipient/Engineer Contact			
Name:			
Telephone:			
Email:			

Waiver requested on the basis

- of: Public Interest (complete sections A and B below)
- Availability (complete sections A and C below)
- Cost (complete sections A and D below)

Waivers may be requested using more than one basis.

PLEASE SUBMIT WAIVER REQUEST TO:

Completed requests can be either mailed or emailed to: Richard Wright Division of Municipal Facilities P. O. Box 8774 Harrisburg, PA 17105-8774

NOTE:

This waiver submission may include references to proprietary items and brand name products. These references have been retained in order to provide context for the waiver submission. EPA does not evaluate a waiver based on a proprietary item but reviews the performance-based specifications for the project/products. As such, any references to brand or proprietary items are reviewed on an "or equal" basis by EPA.

Items and pages may have been intentionally redacted or excluded by the EPA. Contact <u>CWSRFWaiver@epa.gov</u> for more information if necessary.

Email: riwright@pa.gov Phone: 717.772.4059

A. General

Describe the unit process which contains the proposed foreign-made iron/steel component:

Ductile iron backup flanges are not made domestically. This was an approved waiver for a different project under EPA AIS Waiver No. 01-DWA-0008.

Additional materials attached. (

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Describe the foreign-made iron/steel component:
150# IPS DUCTILE IRON BACK UP FLANGES
Additional materials attached. (

Proposed foreign-m Name:	ade manufacturer:	L		
Address:				

B. Public Interest (N/A 🖂)

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	Why is the use of the product in the public interest? For example, is the use of a foreign-made iron/steel component necessary because of compatibility with existing components in the water or wastewater system, or
	other reason?
	Additional materials attached. (

C. Availability $(N/A \square)$

Describe requirements in the project plans,	specifications	or permits	which	describe	the	required	quantity	and
quality of the product:								

Ductile iron back up flanges are required for construction of the positive blower process piping under specification section 110325. This specification section is attached.

Excerpts from plans, specifications and/or permits must be attached.

Year: 2025

When is the product needed for installation: Month: February

Describe the efforts to use domestic suppliers: <u>Trusted vendors were contacted</u>. Upon the trusted vendors notifying the contractor that these were not able to be sourced domestically, Entech conducted research regarding previously approved project waivers.

Additional materials attached. (\Box)

Provide information from potential domestic suppliers:				
Name Of Domestic Supplier			Delivery Date	
Contacted	Supplier Contact Person/Email	Availability	(Month/Year)	
Additional materials attached. (🖾)				

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D. Cost $(N/A \boxtimes)$

Cost of project with domestic components: \$_____

Cost of project with foreign-made components:
\$_____

Will the use of domestic components increase the project cost by more than 25%?

🗌 Yes	🗌 No
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If no, cost is not a valid basis.

If yes, attach a detailed cost comparison of the domestic and foreign-made options.

SECTION 110325 - POSITIVE DISPLACEMENT BLOWER PIPING, VALVES AND APPURTENANCES

PART 1 - GENERAL

1.1 SUMMARY

- A. Provide all labor, materials, and equipment to furnish piping, valves, accessories and associated appurtenances as specified herein and shown on the Drawings.
- B. This Specification covers the general requirements for the design, fabrication, and testing of thin wall stainless-steel butt-welded piping system associated with the distribution system of all positive displacement blowers.
- C. Section includes, but is not limited to, the following:
 - 1. Blower piping.
 - 2. Valves.
 - 3. Testing.

1.2 RELATED DOCUMENTS

- A. Drawings and General Provisions of the Contract, including General and Supplemental Conditions.
- B. The equipment and material specified within this specification are directly related to the below-listed specification sections.
 - 1. Section 110060 Process Hangers and Supports.
 - 2. Section 110310 Aerobic Digester Air Diffusers and Cover System.
 - 3. Section 110315 Fine Bubble Air Diffusers.
 - 4. Section 110320 Positive Displacement Blowers.
 - 5. Section 110940 Aluminum Digester Cover System.
 - 6. Section 110970 Gages and Accessories.

1.3 REQUIREMENTS

- A. The piping system shall be constructed in complete accordance with the latest edition and revision of all applicable codes and regulations including ASME, ANSI, AWWA, AWS and ASTM.
- B. Fabricator of large diameter piping system shall be ISO 9001 Certified employing ASME qualified welders.

1.4 SUBMITTALS

- A. Provide custom shop drawings, product data, operation instructions, inspection reports, and manuals in accordance with Division 1, Section 010300 Submittals.
- B. Submit pressure/leak test reports in accordance with this Section, certifying that the system was successfully pressure/leak tested as defined in this Section.

1.5 CUSTOM SHOP DRAWINGS

- A. Provide custom shop drawings, prepared with assistance from the pipe manufacturer providing isometric, plans, sections, details, and spool fabrication assemblies for above ground flanged piping and piping in concrete vaults utilizing Release 2019 at a minimum scale of 3/8 inch = 1'-0" for plan views and 3/4 inch = 1'-0" for details.
- B. Provide standard shop drawings, prepared with assistance from the pipe manufacturer providing plans, sections, and details.
- C. Indicate details pertaining to joint installation, spool tags, support location, pipe lengths, field cut pipe and installation of specialties.

PART 2 - PRODUCTS

2.1 PIPING MATERIALS

- A. Piping 2- 1/2"inch and above: Schedule 10 Type 304L extra low carbon (0.3% max.) stainless steel in accordance with ASTM A-778/774 with butt weld ends. Fittings shall be matching grade and ends. Fittings per ASTM A-403 include, but not limited to: Custom extra long radius, long radius, tees, laterals, reducers, stub ends, metal to metal connectors, flanges, caps, ring faces and ductile back-up flanges.
- B. Piping 2" and below: Schedule 40 Type 304L stainless steel in accordance with ASTM A-312/403 with threaded ends. Fittings shall be matching grade and ends. Fittings per ASTM A-403 include, but not limited to: elbows, tees, laterals, reducers, metal to metal connectors, flanges, caps and dielectric unions.

2.2 BUTTERFLY VALVES

- A. Class 150 wafer type butterfly valve per AWWA C-504 with epoxy fusion coated ductile iron body, lug body, stainless steel disc and stem, resilient field replaceable seat, rated for bubble tight shut-off and locking lever actuator for manual valves size 6-inches and below.
- B. Manufacturers:
 - 1. _____.

2.

2.3 BALL VALVES

A. Valves shall be Type 316 stainless steel union type body and wetted parts with full port ball and level handle rated for a WOG pressure of 1000 PSI at 200 deg F.

2.4 FLANGED PIPE SUPPORTS

- A. Hot dipped galvanized steel per ASTM A36 fully welded assembly including pipe attachment with threaded adjustment and drilled base plate with couplings to suit field installed extension pipe.
- B. Manufacturers:



- 2.5 WALL SLEEVES AND MECHANICAL SEALS
 - A. New Structures: Hot dipped galvanized steel sleeve with water stop and anchor collar.
 - B. Existing Structure: Smooth core drilled holes to accommodate mechanical seals.
 - C. Mechanical Seals: Interlocking synthetic rubber links shaped to fill annular space between pipe and sleeve or structure opening in accordance with ASTM D2000.
 - D. Manufacturers:



PART 3 - EXECUTION

- 3.1 PREPARATION
 - A. Provide smooth core drilled opening in existing structure. Coordinate locations to ensure true to line, grade and at correct elevation and locations.

3.2 INSTALLATION

A. Ream ends of pipes and tubes and remove burrs. Bevel plain ends of steel pipe.

- B. Threaded Joints: Thread pipe with tapered pipe threads according to ASME B1.20.1. Cut threads full and clean using sharp dies. Ream threaded pipe ends to remove burrs and restore full ID.
- C. Apply appropriate tape or thread compound to external pipe threads unless dry seal threading is specified.
- D. Welded Joints: Construct joints according to AWS D10.12 using qualified processes and welding operators.
- E. Flanged Joints: Select appropriate gasket material, size, type, and thickness for service application. Install gasket concentrically positioned. Use suitable lubricants on bolt threads.
- F. Entire piping system shall be mechanically restrained and supported in accordance with Specification Section 110060 Process Hangers and Supports.

3.3 FIELD QUALITY CONTROL

- A. Leave joints, including welds, uninsulated and exposed for examination during test.
- B. Provide temporary restraints for expansion joints that cannot sustain reactions due to test pressure.
- C. If temporary restraints are impractical, isolate expansion joints from testing.
- D. Flush system with clean water.
- E. Isolate equipment from piping. If a valve is used to isolate equipment, its closure shall be capable of sealing against test pressure without damage to valve. Install blinds in flanged joints to isolate equipment.

3.4 TESTING

- A. Pressure test after the line has been installed and anchored.
- B. Pressure and leak test at one hundred and fifty percent (150%) normal working pressure at the highest point along the test section as determined by the Engineer in the presence of the Engineer or Owner's representative Test pressure shall not vary by more than ± 5 psi for the duration of the test.
- C. Contractor shall provide compressor apparatus and temporary pipe fittings, blind flanges/caps, and mechanical restraints necessary for testing. Apply pressure with compressor, providing backflow devices, valves, gauges, and associated appurtenances connected to the main.
- D. Inspect fittings, joints, and valves during testing. Any defective components shall be removed and replaced by the Contractor.

- E. Before applying the specified pressure test, all air shall be expelled from the pipe.
- F. While the test pressure is being maintained, all exposed pipes, fittings, valves, and joints shall be inspected for leaks. The test pressure shall be maintained for a period of not less than two (2) hours if joints are exposed and four (4) hours when joints are covered or less if deemed appropriate by the Engineer.
- G. Test to zero (0) leakage.
- H. Tests shall be repeated until results are in conformance with specified requirements.
- I. Submit test reports.

END OF SECTION 110325