



FAYETTEVILLE PUBLIC WORKS COMMISSION

PROCUREMENT DEPARTMENT

<https://www.faypwc.com/bids/>

Bid Addendum

PWC Number: PWC2324019

Bid Title : Water Main Replacement from Robeson Street to Winslow

Bid Opening Date and Time: Thursday, December 14, 2023 at 4:00 P.M. ET.

Addendum Number: I

Addendum Date: November 30, 2023

Procurement Advisor: *Victoria McAllister, Procurement Manager*
procurement@faypwc.com

1. Acknowledgement of this addendum must be done on the Bid Summary page listed within the bid package.

2. Following are questions received about the solicitation and the SME's answers to the questions.
 - Q1. Do the air valves for the water lines need to meet and be NSF Certified? I cannot find an NSF Listing for the ARI D-020 nor the Crispin UX20 and I believe the NCDENR/DEQ requires NSF "source to tap" for potable water systems.**
 - A1.** As per the NC Rules Governing Public Water Systems found in Title 15A Subchapter 18C Section .0406a of the of the North Carolina Administrative Code (DEQ-Public Water Supply Section):
 - o Water Pipe Materials for potable water systems need to meet AWWA standards Section C standards **or be** certified as meeting the specifications of ANSI/NSF Standard 61 Drinking Water System Components.

For example, Crispin X Series brochure attached on page 2 states: *Crispin Valves are tested to the latest ANSI/AWWA C512 standards. Crispin also provided a copy of the attached letter stating the following: The NSF/ANSI Standard verifies that stainless steels are highly resistant to leaching of contaminants into potable water. These are in addition to types 304, 304L, 316 and 316L, which had previously been accepted under NSF/ANSI Standard 61. Note: On February 9, 2006-NSF International announced that its NSF/ANSI Standard 61 allowed additional types of stainless steel as acceptable materials for use in the manufacturing of drinking water equipment.*

- Q2. Can Vent-Tech model WTR be approved for this project?**
- A2.** Vent-Tech model WTR is not currently approved for this project.





THE CRISPIN X SERIES

KISS INLINE BACKFLUSHING GOODBYE

- Sizes 2"-6" Available • Ideal for Chemical, Desalinization, Sewage & other severe applications

An X Series installation @
the Silverbell Copper Mine,
Marana, Arizona



CRISPIN VALVE

SINCE 1905

 600 FOWLER AVENUE,
BERWICK, PA 18603

 (800) 247-8258
TEL. (570) 752-4524
FAX (570) 752-4962

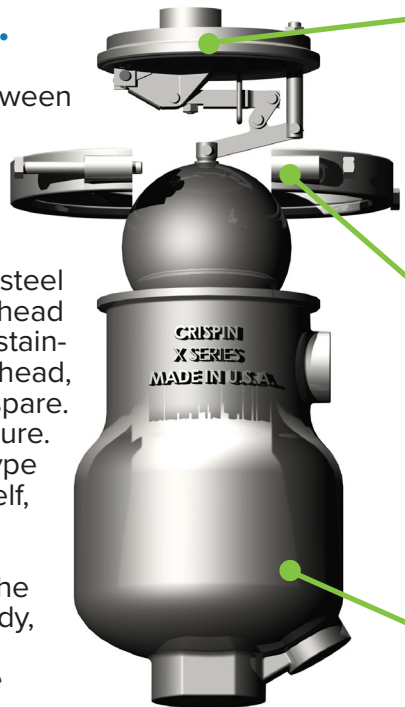
 WWW.CRISPINVALVE.COM
INFO@CRISPINVALVE.COM

CRISPIN'S EXCLUSIVE X SERIES

No Downtime. No Hassles.

With the X Series, all that stands between you and a clean valve is a wrench, two bolts and a clamp. Available in Air & Vacuum, Pressure Air Release, and Combination assemblies, the valves feature our exclusive Head Exchange System, with its head-fixed stainless steel internals. To clean, simply loosen the head assembly, which is sealed in place by a stainless steel clamp. Pull out the original head, weighing less than 10lbs, and pop in a spare. Clean the original internals at your leisure. Each of the heads are color-coded by type so they're easily identifiable on the shelf, and during head exchange.

Each X Series head assembly fits the same heavy-duty 316 stainless steel body, while a smooth investment cast surface inside helps eliminate buildup, because debris has nothing to cling to.



Our proprietary X Series Head Exchange system features all stainless, head-fixed internals that are replaceable in-line & on-site.

A stainless steel clamp holds the head assembly and valve body together. A wrench easily loosens the clamp so that the head can be switched out, and cleaned off site in a safer and more sanitary environment.

A heavy duty, all stainless valve body stands up to the toughest industrial applications

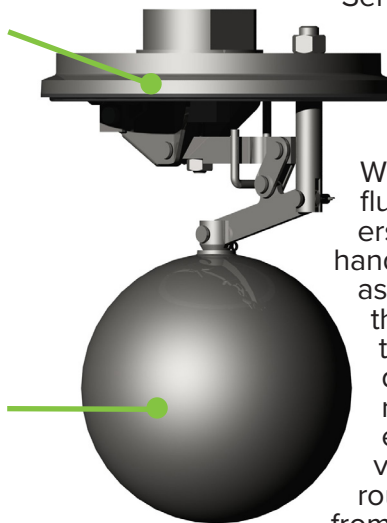


Our proprietary X Series Head Exchange system comes in three color-coded configurations: red for Air & Vacuum (AX), green for Pressure Air Release (PX), and blue for Universal Combination Valves (UX). The packaging for each is also color-coded for convenient storage.

All stainless construction makes the X Series impervious to rust, and all Crispin Valves are tested to the latest ANSI/AWWA C512 standards.

The Head Exchange System

All 316 stainless steel construction makes the X Series impervious to rust. Instead of using a bolted, flanged connection, the design features a stainless steel circular clamp to secure the valve head to the body for the industry's tightest seal.



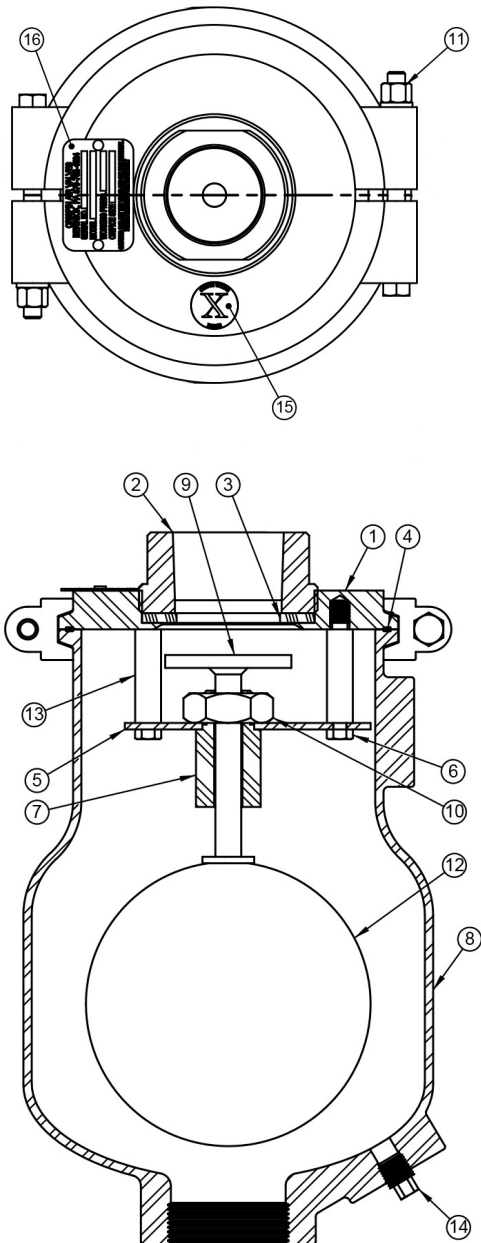
While X Series valves do not require back-flushing, it is recommended that customers have a spare valve head assembly on hand to "swap out" in the field. The head assembly removed from the valve can then be cleaned and put into stock for the next head rotation. Depending on the demands of each specific system, we recommend that head assemblies be exchanged every 6 to 12 months, with valve seats also replaced during this routine maintenance. Parts are available from our representatives and distributors.

Compliant with American Iron & Steel Act, Buy America/American Acts & Build America Buy America Act Requirements

AX SERIES: SIZES 2-6" AVAILABLE



Air & Vacuum Assembly for Water & Wastewater Applications



PARTS LIST

ITEM	DESCRIPTION	MATERIAL	QTY
1	FLANGE	316 Stainless Steel	1
2	TOP	316 Stainless Steel	1
3	SEAT	Buna-N Rubber	1
4	FLANGE O-RING	Buna-N Rubber	1
5	STAND	316 Stainless Steel	1
6	STAND BOLTS	316 Stainless Steel	3
7	ROD GUIDE	Nylatron	1
8	BODY	316 Stainless Steel	1
9	VALVE	316 Stainless Steel	1
10	JAM NUT	316 Stainless Steel	1
11	CLAMP ASSEMBLY	316 Stainless Steel	1
12	FLOAT	316 Stainless Steel	1
13	STAND ROD	316 Stainless Steel	3
14	PLUG	316 Stainless Steel	1
15	RED ID DOT	Aluminum	1
16	BLUE TAG	Aluminum	1

SIZING AND SPECIFICATIONS

MODEL	SIZE"	INLET"	OUTLET"	H"	W"	WTlb
AX20	2	2 NPT	1 NPT	13.50	8.38	26
AX21	2	2 CL150	1 NPT	16.50	8.38	31
AX20-2	2	2 NPT	2 NPT	13.75	8.38	27
AX21-2	2	2 CL150	2 NPT	16.50	8.38	31
AX30	3	3 NPT	3 NPT	21.13	13.25	88
AX31	3	3 CL150	3 NPT	21.63	13.25	95
AX40	4	4 NPT	4 NPT	22.13	13.25	94
AX41	4	4 CL150	4 NPT	22.75	13.25	110
AX61	6	6 CL150	6 NPT	26.88	13.25	132

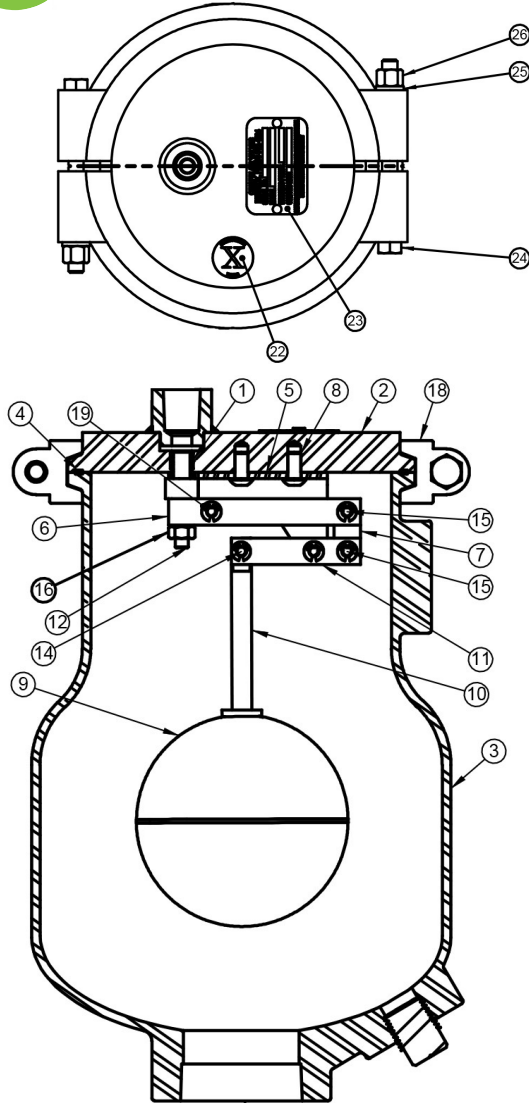
Standard Working Pressure: 20-200psi

Compliant with American Iron & Steel Act, Buy America/American Acts & Build America Buy America Act Requirements

PX SERIES: SIZES 2-4" AVAILABLE



Pressure Air Release Assembly for Water & Wastewater Applications



PARTS LIST			
ITEM	DESCRIPTION	MATERIAL	QTY
1	VALVE SEAT	316 Stainless Steel	1
2	FLANGE	316 Stainless Steel	1
3	BODY	316 Stainless Steel	1
4	FLANGE O-RING	Buna-N Rubber	1
5	FULCRUM ASSEMBLY	316 Stainless Steel	1
6	PLUNGER LEVER	316 Stainless Steel	1
7	LINK	316 Stainless Steel	2
8	CAP SCREW	316 Stainless Steel	2
9	FLOAT	316 Stainless Steel	1
10	FLOAT ROD	316 Stainless Steel	1
11	FLOAT LEVER	316 Stainless Steel	1
12	PLUNGER	Buna N/316 SS	1
14	BEARING PIN	316 Stainless Steel	1
15	BEARING PIN	316 Stainless Steel	2
16	PLUNGER NUT	316 Stainless Steel	1
18	CLAMP HALF	316 Stainless Steel	2
19	RETAINING RING	PH15-7 MO SS	5
20	PLUG	316 Stainless Steel	1
21	STREET ELBOW	316 Stainless Steel	1
22	GREEN ID DOT	ALUMINUM	1
23	TAG	ALUMINUM	1
24	HEX BOLT	316 Stainless Steel	2
25	LOCKWASHER	316 Stainless Steel	2
26	HEX NUT	316 Stainless Steel	2

SIZING AND SPECIFICATIONS						
MODEL	SIZE"	INLET"	OUTLET"	H"	W"	WTlb
PX20	2	2 NPT	3/8 NPT	13.50	8.38	26
PX21	2	2 CL150	3/8 NPT	16.25	8.38	30
PX20-2	2	2 NPT	1/2 NPT	13.13	11.00	40
PX21-2	2	2 CL150	1/2 NPT	15.13	11.00	44
PX30	3	3 NPT	1 NPT	20.38	13.25	72
PX31	3	3 CL150	1 NPT	20.88	13.25	96
PX40	4	4 NPT	1 NPT	20.38	13.25	74
PX41	4	4 CL150	1 NPT	20.88	13.25	103

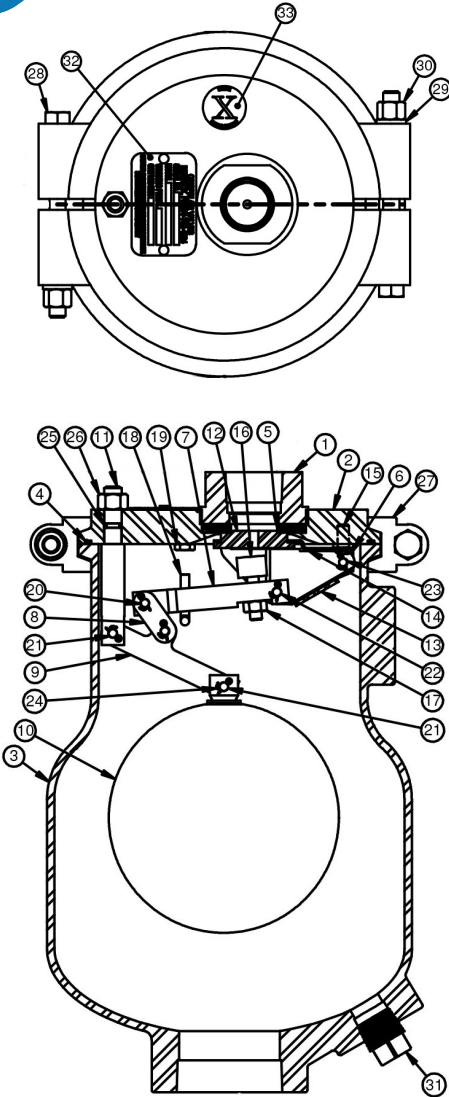
ORIFICE DATA		
MODEL	ORIFICE DIAMETER	STAN. OPERATING PRESSURE
PX20	3/16"	20-200psi
PX20-2	3/16"	20-200psi
PX31	3/8"	20-150psi
PX41	3/8"	20-150psi

Compliant with American Iron & Steel Act, Buy America/American Acts & Build America Buy America Act Requirements

UX SERIES: SIZES 1-6" AVAILABLE



Universal Combination Assembly for Water & Wastewater Applications



PARTS LIST			
ITEM	DESCRIPTION	MATERIAL	QTY
1	TOP	316 Stainless Steel	1
2	COVER FLANGE	316 Stainless Steel	1
3	BODY	ASTM A351 GR CF8M	1
4	FLANGE O-RING	Buna-N Rubber	1
5	SEAT	Buna-N Rubber	1
6	LEVER FULCRUM	316 Stainless Steel	2
7	VALVE LEVER	316 Stainless Steel	1
8	LINK	316 Stainless Steel	2
9	BALL LEVER	316 Stainless Steel	1
10	FLOAT	316 Stainless Steel	1
11	BALL FULCRUM	316 Stainless Steel	1
12	PRESSURE SEAT	316 Stainless Steel	1
13	PRES. FULCRUM	316 Stainless Steel	1
14	SEAT CAGE	316 Stainless Steel	1
15	FULCRUM SCREW	316 Stainless Steel	2
16	VALVE PLUNGER	Buna-N/316 SS	1
17	PLUNGER NUT	316 Stainless Steel	1
18	LIMIT STOP	316 Stainless Steel	1
19	LIMIT STOP NUT	316 Stainless Steel	1
20	BEARING PIN	316 Stainless Steel	2
21	BEARING PIN	316 Stainless Steel	2
22	BEARING PIN	316 Stainless Steel	1
23	BEARING PIN	316 Stainless Steel	1
24	COTTER PIN	316 Stainless Steel	6
25	FULCRUM O-RING	Buna-N Rubber	1
26	FULCRUM NUT	316 Stainless Steel	1
27	CLAMP HALF	ASTM A351 GR CF8M	2
28	CLAMP BOLT	316 Stainless Steel	2
29	LOCKWASHER	316 Stainless Steel	2
30	CLAMP NUT	316 Stainless Steel	2
31	PLUG	316 Stainless Steel	1
32	TAG	316 Stainless Steel	1
33	BLUE DOT	Aluminum	1

ORIFICE DATA		
MODEL	ORIFICE DIAMETER	STAND. OPERATING PRESSURE
UX20	3/16"	20-200psi
UX20-2	3/16"	20-200psi
UX31	5/32"	20-150psi
UX41	5/32"	20-150psi
UX61	5/32"	20-150psi

SIZING AND SPECIFICATIONS						
MODEL	SIZE"	INLET"	OUTLET"	H"	W"	WTlb
UX20	2	2 NPT	1 NPT	13.50	8.38	30
UX21	2	2 CL150	1 NPT	16.50	8.38	32
UX20-2	2	2 NPT	2 NPT	13.63	11.00	35
UX21-2	2	2 CL150	2 NPT	16.63	11.00	40
UX30	3	3 NPT	3 NPT	21.13	13.25	95
UX31	3	3 CL50	3 NPT	21.63	13.25	102
UX40	4	4 NPT	4 NPT	22.13	13.25	105
UX41	4	4 CL150	4 NPT	22.75	13.25	115
UX61	6	6 CL150	6 NPT	26.88	13.25	143

Compliant with American Iron & Steel Act, Buy America/American Acts & Build America Buy America Act Requirements



PROJECT SPOTLIGHT



Grand Forks Regional Water Treatment Plant

The Grand Forks Regional Water Treatment Plant in Grand Forks, North Dakota is one of the most technologically advanced facilities of its kind. At 216,000 sq ft, the \$134 million high-capacity hybrid plant uses both a conventional and a membrane system for drinking water treatment, and processes 20 million gallons of water per day, a significant upgrade to the city's water treatment processes and daily volume capacity.

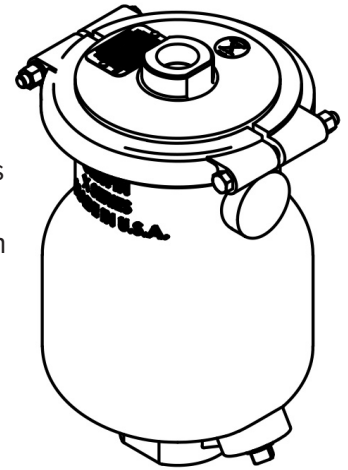
Crispin worked directly with lead contractor Ulliman Schutte Construction to supply X Series valves to Grand Forks. Some were made with "super duplex" bodies because of in-line pressure, while others needed surge check valves on the inlet of the air valves in order to protect against line surges.

—Image provided by the City of Grand Forks

AX SERIES SPECIFICATION

X Series Air Release Valve

1. Air and Vacuum valves shall be designed to release large volumes of air at system high points as the pipeline is being filled. Air and Vacuum valves shall also be designed to permit large volumes of air to enter the pipeline during pipeline drainage to protect against vacuum damage.



2. The valve shall have an interchangeable "drop-in-head" assembly for easy cleaning. Valves requiring ON-SITE backwashing are not acceptable.
3. The valve body and interchangeable "drop-in-head" assembly shall be cast or fabricated 316 stainless steel and shall incorporate a "sanitary" clamp to attach the head assembly to the body at the outlet. Valves that use "conventional" bolting to attach the cover flange to the body are not acceptable. The flange clamp must be located at the outlet of the body for ease of cleaning and maintenance. Other clamping locations are not acceptable.
4. All non-sealing internal metal components shall be 316 stainless steel. Plastic, nylon or fiberglass components will not be acceptable.
5. The valve shall be Crispin "AX Series," or approved equal. It must be A.I.S.* Compliant.

PX SERIES SPECIFICATION

X Series Pressure Air Release Valve

1. Pressure Air Release valves shall be designed to release accumulations of air at high points within a pipeline.
2. The valve shall have an interchangeable “drop-in-head” assembly for easy cleaning. Valves requiring on-site backwashing are not acceptable.
3. The valve body and interchangeable “drop-in-head” assembly shall be cast or fabricated 316 stainless steel, and shall incorporate a “sanitary” clamp to attach the head assembly to the body at the outlet. Valves that use “conventional” bolting to attach the cover flange to the body are not acceptable. The flange clamp must be located at the outlet of the body for ease of cleaning and maintenance. Other clamping locations are not acceptable.
4. All non-sealing internal metal components shall be 316 stainless steel. Plastic, nylon or fiberglass components will not be acceptable.
5. The valve shall incorporate an Air Release orifice of either 3/16” or 3/8” for use at 200psi. This orifice will be located in the outlet of the valve, and shall be drilled in a 316 stainless steel orifice plate that seals against a Buna-N rubber seal. Valves with seals that flex or “roll” will not be acceptable.
6. The valve shall be Crispin “PX Series,” or approved equal. It must be A.I.S.* Compliant.



UX SERIES SPECIFICATION

X Series Combination Valve

1. Combination Air valves shall be heavy-duty A.I.S.* compliant “Universal” style single body units incorporating the functions of an air and vacuum valve with an air release valve in a single housing.
2. Combination Air valves shall release accumulations of air at high points within a pipeline by exhausting large volumes of air as the pipeline is being filled, and then by releasing accumulated pockets of air while the pipeline is in operation and under pressure. Combination air valves shall also be designed to permit large volumes of air to enter the pipeline during pipeline drainage.
3. The air release valves shall be specifically designed to operate with liquids carrying solid particles such as sewage and effluent.
4. The valve body internal metal components shall be cast or fabricated 316 stainless steel. The internal float shall be of 316 stainless steel. No plastic or fiberglass components will be acceptable.
5. The valve shall incorporate an air release orifice of 3/16” or 5/32” for use at 20-200 psi. This orifice shall be located on the outlet of the valve, and shall be drilled in a 316 stainless steel orifice plate that seals against a Buna-N rubber seat.
6. The inlet and outlet size must be nominal, having NPT or ANSI Class 150# flanged inlets.
7. The valve shall be Crispin “UX Series,” or approved equal. It must be A.I.S.* Compliant.

* A.I.S.: American Iron & Steel Act

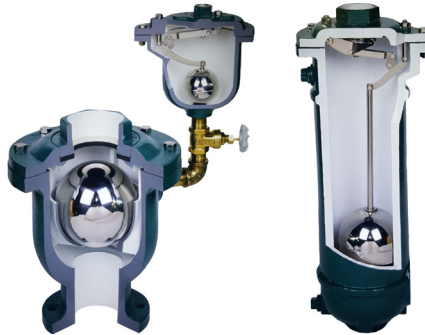
PRINTED IN THE USA

ALSO AVAILABLE FROM CRISPIN VALVE:



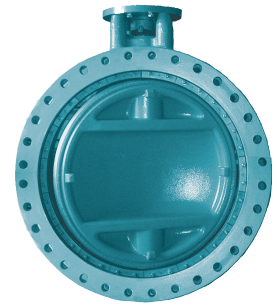
PLUG VALVES

Full Port: 14"-48"
Round Port: 2 1/2"-12"
Rectangular Port: 14"-48"



AIR VALVES

Potable Water Valves: 1/2"-24"
Sewer Valves: 2"-10"



BUTTERFLY VALVES

Resilient Seat: 3"-20"
Mechanical Seat: 24"-168"
Epoxy Retained Seat: 24"-72"



LR GATE VALVES

Double Disc: 3"-108"
Resilient Wedge: 3"-24"



CHECK VALVES

Rubber Flapper: 2"-48"
Swing Check: 2"-48"
Tilting Disc: 3"-72"

CRISPIN VALVE



600 FOWLER AVENUE,
BERWICK, PA 18603



(800) 247-8258
TEL. (570) 752-4524
FAX (570) 752-4962



WWW.CRISPINVALVE.COM
INFO@CRISPINVALVE.COM



September 22, 2022

Crispin Valve
600 Fowler Ave.
Berwick, PA 18603

Re: NSF61 on Stainless Steel Air Valves

To Whom It May Concern,

The NSF/ANSI Standard verifies that stainless steels are highly resistant to leaching of contaminants into potable water. These are in addition to types 304, 304L, 316 and 316L, which had previously been accepted under NSF/ANSI Standard 61.

Furthermore, the elastomers used for both, the PX43 and P43 valve assembly models are have been approved for use in our standard cast iron bodied valve assemblies that are listed on our NSF61 approval listing (see attached).

Please contact us if you have any questions.

Best regards,

Gene Ostrowski
Sales Engineer
Crispin Valve

SERVING THE WATERWORKS INDUSTRY SINCE
1905

600 FOWLER
AVENUE,
BERWICK, PA 18603

TEL. (570) 752-4524
 FAX (570) 752-4962

WWW.CRISPINVALVE.COM
INFO@CRISPINVALVE.COM



Certified Product Listing

For:

Drinking Water System Components - Health Effects

Company:

Crispin Valve
600 Fowler Avenue
P.O.Box 427
Berwick, PA 18603, United States

Plant Location:

Berwick, PA, USA

Standards:

NSF/ANSI/CAN 61 - 2018
NSF/ANSI 372 - 2016

Certificate:

Issued Date: 10/14/2019

Material/Product:

Air Release Valve

Contact Temperature:

23 ± 2°C

Models:

AL10
AL101
AL102
AL121
AL122
AL141
AL142
AL161
AL162
AL181
AL182
AL20
AL201
AL202
AL241
AL242
AL30
AL31
AL32
AL40
AL41
AL42
AL5
AL61
AL62
AL81



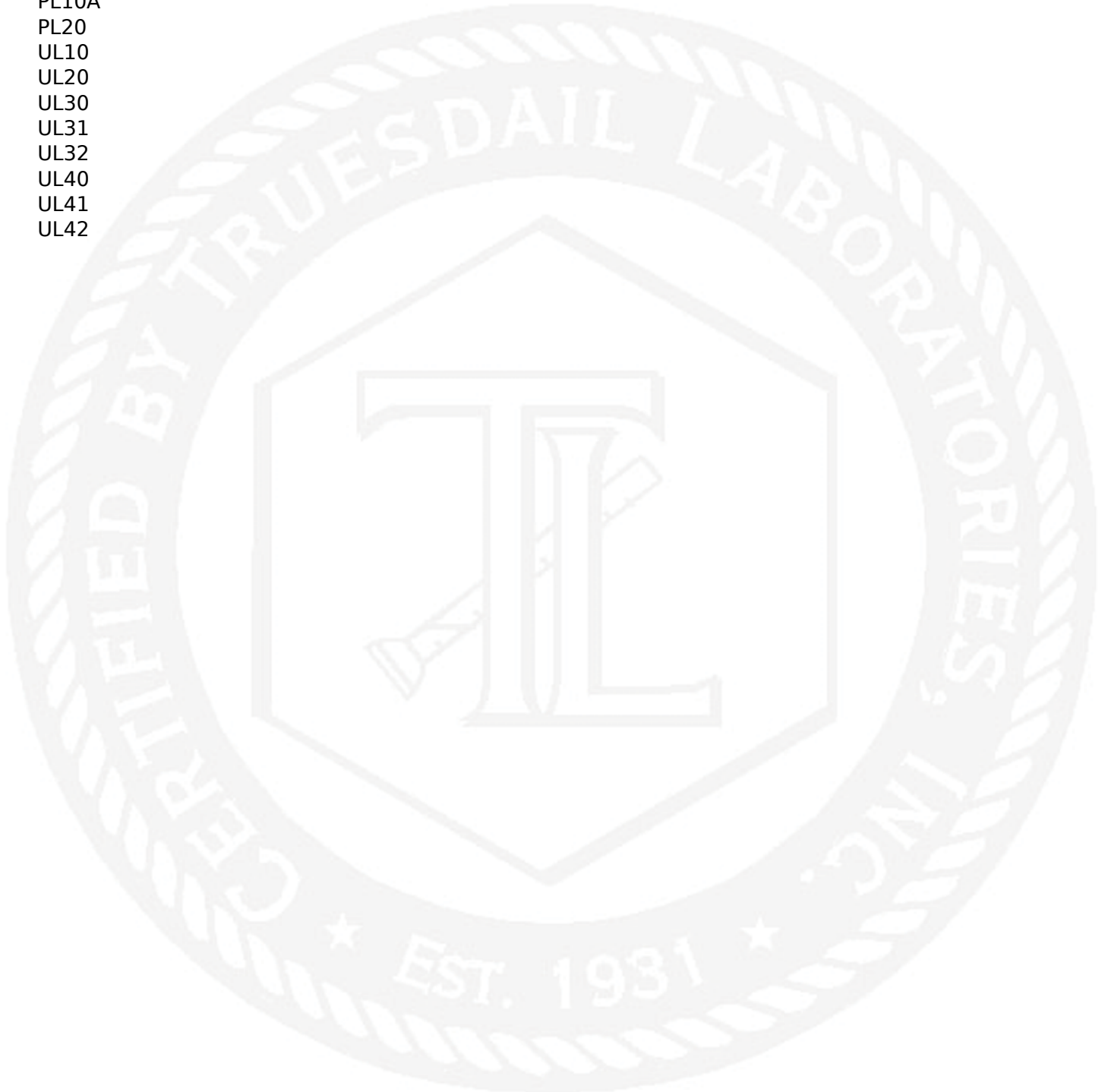
Product certified to NSF/ANSI 372 conforms to the requirements for "Lead Free" plumbing products as defined by California, Vermont, Maryland and Louisiana state laws and by section 1417 of the US SDWA.



TRUESDAIL LABORATORIES, INC.

3337 MICHELSON DRIVE, SUITE CN 750, IRVINE, CA 92612

AL82
M10
M3
M5
M8
PL10
PL10A
PL20
UL10
UL20
UL30
UL31
UL32
UL40
UL41
UL42



Product certified to NSF/ANSI 372 conforms to the requirements for "Lead Free" plumbing products as defined by California, Vermont, Maryland and Louisiana state laws and by section 1417 of the US SDWA.