Lead-Free* Bronze Check Valves

Silicon Performance Bronze™ Alloy • Horizontal Swing • Regrinding Type • Y-Pattern • Renewable Seat and Disc • Conforms to MSS SP-139 • NSF/ANSI-61-8 Commercial Hot 180°F (includes Annex F and G) and NSF/ANSI-372

NSF/ANSI 61
NSF/ANSI 372

Dezincification Resistant

5 year 125% warranty

Size Range: 1/2" - 2"
Pressure Rating: 200 PSI Non-Shock Cold Working Pressure
Maximum Pressure / Temperature: 100 PSI at 300° F

Lead-Free* marking:
Double oval in body casting

T-413-Y-LF
Threaded

S-413-Y-LF
Solder

MATERIAL LIST

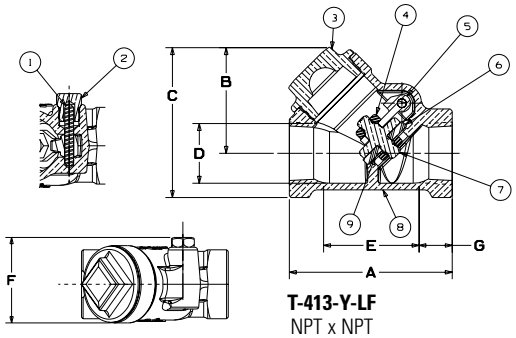
	PART	SPECIFICATION
1.	Hinge Pin	316SS or 304SS
2.	Hinge Pin Plug	Silicon Bronze ASTM B283 Alloy C69300
3.	Bonnet	Silicon Bronze ASTM B584 Alloy C87850
4.	Nut (2)	316SS or 304SS
5.	Disc Hanger	Silicon Bronze ASTM B584 Alloy C87850 or MPIF SS-316NI-25
6.	Seat Disc	PTFE
*7.	Seat Disc Washer	304SS or 316SS
8.	Disc Holder	Silicon Bronze ASTM B283 Alloy C69300
9.	Body	Silicon Bronze ASTM B584 Alloy C87850

***Sizes ¾", 1", 1¼", 1½" and 2" only.**

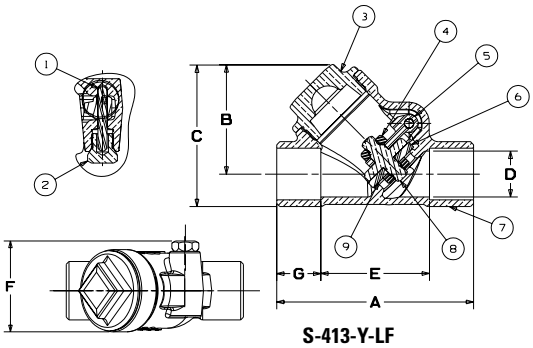
DIMENSIONS—WEIGHTS—QUANTITIES

SIZE		A		B		C		D		E		F		G		T-413-LF		Master
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	Ctn Qty.
¼	8	2.21	56	1.49	38	2.02	51	0.67	17	1.57	40	1.401	27	0.26	7	0.51	0.23	50
3/8	10	2.21	56	1.49	38	2.02	51	0.67	17	1.40	36	1.401	27	0.35	9	0.48	0.22	50
½	15	2.44	62	1.66	42	2.31	59	0.81	21	1.61	41	1.401	33	0.42	11	0.55	0.25	50
¾	20	2.9	74	1.88	48	2.67	68	1.04	26	2.06	52	1.702	40	0.42	11	0.90	0.41	50
1	25	3.56	90	2.27	58	3.29	84	1.26	32	2.44	62	1.953	52	0.55	14	1.46	0.66	30
1-¼	32	4.18	106	2.73	69	3.93	100	1.59	40	3.00	76	2.179	60	0.59	15	2.17	0.99	20
1-½	40	4.48	114	3.08	78	4.44	113	1.86	47	3.39	86	2.430	70	0.57	13	2.95	1.34	10
2	50	5.29	134	3.84	98	5.48	139	2.29	58	3.74	95	3.067	83	0.76	19	4.79	2.17	10

SIZE		A		B		C		D		E		F		G		S-413-LF		Master
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	Ctn Qty.
½	15	2.52	64	1.540	42	1.940	49	0.54	14	1.52	39	1.416	20	0.50	13	0.55	0.25	50
¾	20	3.34	85	1.861	48	2.410	61	0.78	20	1.84	47	1.717	28	0.75	19	0.88	0.40	50
1	25	4.06	103	2.206	29	2.880	73	1.02	26	2.25	57	1.947	34	0.91	23	1.48	0.67	30
1-¼	32	4.69	119	2.737	38	3.520	89	1.26	32	2.75	70	2.178	40	0.97	25	2.22	1.01	20
1-½	40	5.28	134	3.030	44	3.950	100	1.51	38	3.09	78	2.429	47	1.09	28	3.00	1.36	10
2	50	6.44	164	3.640	98	4.863	123	1.98	50	3.74	95	3.073	62	1.34	34	4.87	2.21	10



T-413-Y-LF
NPT x NPT



S-413-Y-LF
C x C

Press end valve also available (PC413-Y-LF)
See NIBCO® Press System® catalog

NIBCO check valves may be installed in both horizontal and vertical lines with upward flow or in any intermediate position. They will operate satisfactorily in a declining plane (no more than 15°). Install check valves as far from pump discharge or line direction change as possible and at a minimum length of 5 times the pipe diameter.

Do not use for Reciprocating Air Compressor Service.

*Weighted average lead content ≤ 0.25%

Bill,

See attached spec sheets. NIBCO is our best alternative for meeting the valve spec. Milwaukee Lead Free valves do not meet NSF61; & the Jomar & Kitz are both imported forged brass options (spec calls for Bronze). Another issue is that these ball valves are only available in sizes ½" thru 2". We would recommend using a NIBCO LD2000 Butterfly valve for you 2-1/2" & larger applications.

Please forward as necessary & let me know if any issues getting approval.

Thanks,

Chuck

Chuck Sutton
Branch Manager
Office: 636-300-5300

WM TAO & ASSOCIATES
CONSULTING ENGINEERS

Shop Drawing Submittal Review

Transmitted To: Cannon Design

Date: November 15, 2016

Attention: **stl-cac@cannondesign.com**

Contact Person / WTA Field Inspector: Patrick Garner

Project Name: Webster University-**ISB**

Reviewed by: Mike Whitworth (WES)

Project No. WT 14127.01
WES 607

[ ] UPS [ ] Courier [X] **Email**

Copies	No.	Description
1 PDF	220523P01	(Submittal No.'s:)
		(Cannon #22 0523.14-002) - (Paric #15051-0312) – (WES #607)
		➢ **Valves for Domestic Water Product Data**
		• 220523.12 Ball Valves for Plumbing Piping
		• 220523.14 Check Valves for Plumbing Piping

*Remarks: See Submittal Review from Webb Enginnering.

c: **Kelvin Patel**
Kpatel@cannondesign.com

[X] ***Reviewed**

[X] ***No Exceptions Taken**

[ ]

[ ] *Make Corrections As Noted, No Resubmittal Required

Corrections or comments made on shop drawings during this review do not relieve contractor from compliance with requirements of drawings and specifications. This check is only for review of general conformance with the design concept of project and general compliance with information given in contract documents. Contractor is responsible for: confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordinating his work with that of all other trades; and performing his work in a safe and satisfactory manner.

WEBB ENGINEERING SERVICES INC.

1400 S. 3rd Street, Suite 201
St. Louis, Missouri 63104
Phone: (314) 588-0600
Fax: (314) 588-0604

Letter of Transmittal

To: wtashop@wmtao.com

From: Mike Whitworth

Date: November 13, 2016

Re: Webster University ISB

WES No: 607

☐ For your Files ☐ For Review ☐ Please Comment ☐ Please Reply

Item No.	Description	No. of Copies	Date
1	Shop Drawing Review – 220523.12 Ball Valves for Plumbing Piping 220523.14 Check Valves for Plumbing Piping	1	11-13-2016

•Signature: Mike Whitworth

1400 S. 3rd Street, Suite 201 • St. Louis, Missouri 63104 • 314.588.0600 • *fax* 314.588.0604

WEBB ENGINEERING SERVICES INC.

www.webb-engineering.com

The review of this submittal is limited to the general conformance with the designated design concept and intent of this project and with the general compliance of the information provided in the contract documents. All comments, remarks and notations made on the submittal(s) as a result of this review do not relieve the contractor from full compliance with requirements of the contract documents. Approval for a specific item shall not include approval of an assembly of which the item is not a component. The contractor is solely responsible for rough-in and installation confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordination of this work with that of other trades on this project; and in a safe and satisfactory manner. All work shall be installed in full compliance with the manufacturer's recommendation, Federal, State and Local rules and regulation and the Authority Having Jurisdiction (AHJ) and applicable adopted codes and standards.

PROJECT NAME: Webster University ISB

LOCATION: St. Louis Missouri

CLIENT PROJ. No.: N/A

WES PROJ. No.: 607

SPEC SECTION: 220523.12 Ball Valves 22 0523.14 Check Valves

SUBMITTAL ITEM:: See Below -

CONTRACTOR: Deluca Plumbing, LLC.
CTR. SUBMITTAL # 22 0523.14-002
SUBMITTAL DATE: August 29, 2016
DATE RECEIVED: November 10, 2016
RECEIVED VIA: E-Mail
RECEIVED FROM: WTA
DATE RETURNED: NOVEMBER 13, 2016
RETURNED VIA: E-MAIL
RETRURNED TO: WTASHOP@WMTAO.COM

STATUS KEY:

NO EXCEPTION TAKEN
MAKE CORRECTIONS NOTED, NO RESUBMITTAL:
AMEND AND RESUBMIT
REJECTED, SEE REMARKS:
REVIEWED ONLY

NEC	MCN	AAR	REJ	REV	ITEM	REMARKS
X					Domestic Valves 2.5 inch and Larger NIBCO Butterfly; LD-2000 / WD-2000	
X					Domestic Valves 2" and Smaller NIBCO LF Bronze Ball Valves ; T-585-66-LF, S-585-66-lf	
X					Lift Check Valve NIBCO LF Bronze Ring; S-480-Y-LF	
X					Swing Check Valve NIBCO LF Bronze Check Valve; S-413-Y-LF	

REVIEWED BY: Michael R. Whitworth DATE: November 13, 2016

THESE COMMENTS ARE TO BE ATTACHED TO ALL COPIES OF THE SHOP DRAWING REFERENCED ABOVE.

CANNONDESIGN

SUBMITTAL IDENTIFICATION SHEET

To be completed by Contractor/CM

WEBSTER UNIVERSITY ISB
PROJECT NAME

8274 BIG BEND BLVD
ADDRESS

NUMBER

WEBSTER UNIVERSITY
OWNER

CANNON DESIGN
ARCHITECT / ENGINEER

Joe Voypick
SUBMITTED BY

220523.14-002
CONTRACTOR / CM SUBMITTAL NO.

CANNON DESIGN SUBMITTAL NO.

DRAWING / DETAIL REFERENCE

220523
SPECIFICATION SECTION / PARAGRAPH

Deluca Plumbing
MANUFACTURER / SUPPLIER

ITEM / PRODUCT ID

REQUIRED DATE

PRIORITY

◯ CRITICAL

ITEM BEING SUBMITTED (check only one)

- ◯ Shop Drawings
- ◯ Samples (_____ copies)
- ◯ LEED Submittal
- ◯ Certification / Qualifications
- ◯ Record Documents
- ◉ Product Data
- ◯ Coordination Drawing
- ◯ Calculations
- ◯ Schedules
- ◯ O&M Manuals
- ◯ Other _____

ITEM BEING SUBMITTED FOR (check only one)

◉ Action ◯ Information Only ◯ Record

REMARKS OR DEVIATIONS

CONTRACTOR / CM CERTIFICATION
(SUBMITTALS NOT CERTIFIED WILL BE RETURNED WITHOUT REVIEW)

PARIC

PARIC CORPORATION
SUBMITTAL STAMP

THIS SHOP DRAWING HAS BEEN REVIEWED BY PARIC CORPORATION

Subcontractor remains responsible for dimensions, quantities, coordination with other trades and compliance with contract documents.

By:
Devin D. Gates

Joe Voypick
REVIEWED BY

11/9/16
DATE

To be completed by Reviewer

22 0523.14-002
CANNON DESIGN SUBMITTAL NUMBER

11/10/16
RECEIVED DATE

- ◯ A. No Exceptions Taken
  No further review of submittal is required.
- ◯ B. Make Corrections Noted
  Incorporate corrections in work; resubmission is not required.
- ◯ C. Revise and Resubmit
  Revise as noted, and resubmit for review.
- ◯ D. Rejected
  Submittal is not in compliance with Contract Documents; provide new submittal.
- ◯ E. For Record / Information Only
  Submittal was reviewed for Record / Information purposes only.
- ◯ F. Not Required for Review
  Submittal is not required by Contract Documents and has not been reviewed.

Review is for conformance with the design concept of this project and for general compliance with contract documents. Contractor is responsible for quantities, dimensions and compliance with contract documents and for information that pertains to fabrication processes, construction techniques and coordination of this work with all trades which will be affected thereby. This review is null and void if submittal deviates from contract documents and does not indicate or note deviations.

A/E COMMENTS ◯ See attached sheet(s) for additional comments

REVIEWED BY

DATE

77 Westport Plaza
Suite 250
St. Louis, MO 63146

TRANSMITTAL

No. 15051-0312

Paric Corporation

PROJECT: 15051-Webster University Interdisciplinary Science Building

DATE: 11/09/2016

TO: Cannon Design
1100 Clark Ave
St Louis MO 63102

RE: Valves for Domestic Water Product Data

ATTN: Kelvin Patel

JOB: 15051

WE ARE SENDING:	SUBMITTED FOR:	ACTION TAKEN:
☐ Shop Drawings	☑ Approval	☐ Approved as Submitted
☐ Letter	☐ Your Use	☐ Approved as Noted
☐ Prints	☐ As Requested	☐ Returned After Loan
☐ Change Order	☐ Review and Comment	☐ Resubmit
☐ Plans		☐ Submit
☐ Samples	**SENT VIA:**	☐ Returned
☐ Specifications	☐ Attached	☐ Returned for Corrections
☑ Other: Product Data	☐ Separate Cover Via:	☐ Due Date:

Item	*Package*	*Code*	*Rev.*	*Copies*	*Date*	*Description*	*Status*
Submittal		220523.14-002	1		11/09/2016	Valves for Domestic Water Product Data	Submitted

NOTES:

CC:

Signed: _____

Devin Gates

Shop Drawing Submittal

Project Name: WEBSTER ISB

Specification # **220523-01**

Specification Description: Valves for Domestic Water

Date: 08-29-16

General Contractor / Construction Manager: PARIC

ARCHITECT: KWA

ENGINEER: William Tao / Webb

Contractor: DeLuca Plumbing, L.L.C.
8465 Delport Drive
St. Louis, MO 63114

Supplier: Ferguson

Manufacturer: Various

Reviewed & Approved by: DeLuca Plumbing 08-29-16

Action: Forward to GC/CM for Review & Approval