# Pipe Clamps



## B3140 - Standard Pipe Clamp (TOLCO Fig. 4)
## B3140F - Standard Pipe Clamp Felt Lined for Copper Tubing (TOLCO Fig. 4F)
## B3140C - Standard Pipe Clamp PVC Coated (TOLCO Fig. 4PVC)

Component of State of California OSHPD Approved Seismic Restraints System

**Size Range:** B3140/B3140C Size 1/2" (15mm) thru 30" (750mm) pipe. B3140F Size 1/2" (15mm) thru 2 1/2" (65mm) copper tubing

**Material:** Steel

**Function:** Recommended for the suspension of non-insulated pipe or insulated pipe with B3151 shields. (Use B3200 weldless eye nut, B3210 eye rod or B3211 welded eye rod.) B3140F and B3140C are designed to reduce noise and vibration and/or prevent electrolysis.

**Approvals:** Underwriters Laboratories Listed in the USA **(UL)**, Canada **(cUL)** 3/4" (20mm) - 12" (300mm), and approved by Factory Mutual Engineering **(FM)**, 3/4" (20mm) - 8" (200mm). Federal Specification WW-H-171E & A-A-1192A, Type 4, and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58, Type 4. Included in our Seismic Restraints Catalog approved by the State of California Office of Statewide Health Planning and Development **(OSHPD)**. For additional load, spacing and placement information relating to OSHPD projects, please refer to the Seismic Restraint Systems Guidelines.

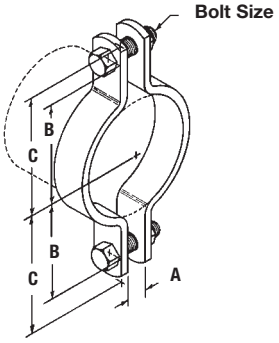
**Note:** For piping that requires sway bracing refer to Fig. 4A.

**Maximum Temperature:** — 750°F (399°C)

**Finish:** Plain. Contact B-Line for alternative finishes and materials.

**Order By:** Part number, pipe size and finish.

**Order Note:** When ordering B3140F allow for 3/16" (4.8mm) felt on each half of clamp.



B3140

B3140F

B3140C

Pipe Clamps

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

## B3140 - Standard Pipe Clamp (TOLCO Fig. 4)
## B3140F - Standard Pipe Clamp Felt Lined (TOLCO Fig. 4F)
## B3140C - Standard Pipe Clamp PVC Coated (TOLCO Fig. 4PVC) Cont.

| Part No. | Pipe Size in. | (mm) | A in. | (mm) | B in. | (mm) | C in. | (mm) | Bolt Size |
|---|---|---|---|---|---|---|---|---|---|
| B3140-1/2 | 1/2" | (15) | 3/8" | (9.5) | 31/32" | (24.6) | 1 17/32" | (38.9) | 5/16"-18 |
| B3140-3/4 | 3/4" | (20) | 9/16" | (14.3) | 1 3/32" | (27.8) | 1 21/32" | (42.0) | 5/16"-18 |
| B3140-1 | 1" | (25) | 9/16" | (14.3) | 1 5/16" | (33.3) | 1 7/8" | (47.6) | 5/16"-18 |
| B3140-1 1/4 | 1 1/4" | (32) | 17/32" | (13.5) | 1 7/16" | (36.5) | 2" | (50.8) | 5/16"-18 |
| B3140-1 1/2 | 1 1/2" | (40) | 19/32" | (15.1) | 1 21/32" | (42.0) | 2 7/32" | (56.4) | 5/16"-18 |
| B3140-2 | 2" | (50) | 9/16" | (14.3) | 2 1/8" | (54.0) | 2 3/4" | (69.8) | 1/2"-13 |
| B3140-2 1/2 | 2 1/2" | (65) | 5/8" | (15.9) | 2 21/32" | (67.5) | 3 9/32" | (83.3) | 1/2"-13 |
| B3140-3 | 3" | (75) | 5/8" | (15.9) | 2 15/16" | (74.6) | 3 9/16" | (90.5) | 1/2"-13 |
| B3140-3 1/2 | 3 1/2" | (90) | 5/8" | (15.9) | 3 5/32" | (80.1) | 3 25/32" | (96.0) | 1/2"-13 |
| B3140-4 | 4" | (100) | 3/4" | (19.0) | 3 9/16" | (90.5) | 4 5/16" | (109.5) | 5/8"-11 |
| B3140-5 | 5" | (125) | 3/4" | (19.0) | 4 1/8" | (104.8) | 4 7/8" | (123.8) | 5/8"-11 |
| B3140-6 | 6" | (150) | 7/8" | (22.2) | 4 15/16" | (125.4) | 5 13/16" | (147.6) | 3/4"-10 |
| B3140-8 | 8" | (200) | 1" | (25.4) | 6 1/16" | (154.0) | 6 15/16" | (176.2) | 3/4"-10 |
| B3140-10 | 10" | (250) | 1" | (25.4) | 7 3/8" | (187.3) | 8 11/16" | (220.7) | 7/8"-9 |
| B3140-12 | 12" | (300) | 1" | (25.4) | 8 7/16" | (214.3) | 9 3/4" | (247.6) | 7/8"-9 |
| B3140-14 | 14" | (350) | 1 1/8" | (28.6) | 9 1/4" | (234.9) | 10 5/8" | (269.9) | 7/8"-9 |
| B3140-16 | 16" | (400) | 1 1/8" | (28.6) | 10 1/4" | (260.3) | 11 5/8" | (295.3) | 7/8"-9 |
| B3140-18 | 18" | (450) | 1 1/4" | (31.7) | 11 7/8" | (301.6) | 13 1/4" | (336.5) | 1"-8 |
| B3140-20 | 20" | (500) | 1 3/8" | (34.9) | 12 3/4" | (323.8) | 14 1/8" | (358.8) | 1 1/8"-7 |
| B3140-24 | 24" | (600) | 1 5/8" | (41.3) | 15 1/4" | (387.3) | 16 7/8" | (428.6) | 1 1/4"-7 |
| B3140-30 | 30" | (750) | 2 1/4" | (57.1) | 18 5/8" | (473.1) | 21" | (533.4) | 1 1/2"-6 |

| Part No. | Pipe Size in. | (mm) | Max. Design Load 650°F (343°C) lbs. | (kN) | 750°F (399°C) lbs. | (kN) | Approx. Wt./100 lbs. | (kg) |
|---|---|---|---|---|---|---|---|---|
| B3140-1/2 | 1/2" | (15) | 500 | (2.22) | 390 | (1.73) | 30 | (13.6) |
| B3140-3/4 | 3/4" | (20) | 500 | (2.22) | 390 | (1.73) | 31 | (14.0) |
| B3140-1 | 1" | (25) | 500 | (2.22) | 390 | (1.73) | 33 | (14.5) |
| B3140-1 1/4 | 1 1/4" | (32) | 500 | (2.22) | 390 | (1.73) | 39 | (17.7) |
| B3140-1 1/2 | 1 1/2" | (40) | 800 | (3.56) | 620 | (2.76) | 41 | (18.6) |
| B3140-2 | 2" | (50) | 1040 | (4.62) | 810 | (3.60) | 118 | (53.5) |
| B3140-2 1/2 | 2 1/2" | (65) | 1040 | (4.62) | 810 | (3.60) | 130 | (58.9) |
| B3140-3 | 3" | (75) | 1040 | (4.62) | 810 | (3.60) | 150 | (68.0) |
| B3140-3 1/2 | 3 1/2" | (90) | 1040 | (4.62) | 810 | (3.60) | 158 | (71.6) |
| B3140-4 | 4" | (100) | 1040 | (4.62) | 810 | (3.60) | 239 | (108.4) |
| B3140-5 | 5" | (125) | 1040 | (4.62) | 810 | (3.60) | 272 | (123.4) |
| B3140-6 | 6" | (150) | 1615 | (7.18) | 1260 | (5.60) | 541 | (245.4) |
| B3140-8 | 8" | (200) | 1615 | (7.18) | 1260 | (5.60) | 642 | (291.2) |
| B3140-10 | 10" | (250) | 2490 | (11.07) | 1950 | (8.67) | 1366 | (619.6) |
| B3140-12 | 12" | (300) | 2490 | (11.07) | 1950 | (8.67) | 1543 | (699.9) |
| B3140-14 | 14" | (350) | 2490 | (11.07) | 1950 | (8.67) | 2077 | (942.1) |
| B3140-16 | 16" | (400) | 2490 | (11.07) | 1950 | (8.67) | 2289 | (1038.3) |
| B3140-18 | 18" | (450) | 3060 | (13.61) | 2390 | (10.63) | 3206 | (1454.2) |
| B3140-20 | 20" | (500) | 3060 | (13.61) | 2390 | (10.63) | 3616 | (1640.2) |
| B3140-24 | 24" | (600) | 3060 | (13.61) | 2390 | (10.63) | 5161 | (2341.0) |
| B3140-30 | 30" | (750) | 3500 | (15.57) | 2740 | (12.14) | 10460 | (4744.6) |

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

WM TAO & ASSOCIATES
CONSULTING ENGINEERS

# Shop Drawing Submittal Review

Transmitted To: Cannon Design

Date: December 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 | 210523F01 | (Submittal No.'s:) |
| | | (Cannon #210548-001) - (Paric #15051-0351) – (WES #607) |
| | | ➢ **Seismic Controls for Fire Protection Piping Product Data** |
| | | |
| | | |

## *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: December 11, 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 – (210548-001)<br>210548 Vibration and Seismic Controls for Fire Suppression Piping and Equipment | 1 | 12/11/16 |
| | | | |
| | | | |
| | | | |

•Signature: Mike Whitworth

WEBB ENGINEERING SERVICES INC.
www.webb-engineering.com

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

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 |
| SPECIFICATION SECTION: | 210548 Vibration and Seismic Controls for Fire-Suppression Piping and Equipment |
| SUBMITTAL ITEM: | See Below - |

| | |
|---|---|
| CONTRACTOR: | J.F. Ahern Co. |
| CTR. SUBMITTAL #: | 21 0523-002 |
| SUBMITTAL DATE: | November 29, 2016 |
| DATE RECEIVED: | December 07, 2016 |
| RECEIVED VIA: | E-Mail |
| RECEIVED FROM: | WTA |
| DATE RETURNED: | DECEMBER 11, 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 | | | | | Schedule 40 Pipe<br>Various Manufacturers | |
| X | | | | | Riser Clamp<br>PHD Manufacturing Inc.<br>Model – Fig. 550, 551, 553 | |
| X | | | | | Pipe Clamp<br>B-Line<br>Model – B3140 | |
| X | | | | | Sleeve Expansion Anchor<br>Powers Fasteners<br>Models – Lok-Bolt Hex Head and Rod Hanger | |
| X | | | | | Surge Restraint<br>Caddy<br>Model – SR6 | |
| X | | | | | Bar Joist Attachment<br>Caddy<br>Model - CSBBARJEG | |

WEBB ENGINEERING SERVICES INC.
1400 S. 3rd Street, Suite 201 • St. Louis, Missouri 63104 • 314.588.0600 • *fax* 314.588.0604
www.webb-engineering.com

| | | | | | | |
|---|---|---|---|---|---|---|
| X | | | | | Universal Structural Attachment Caddy Models – CSBUNIV050EG and CSBUNI075EG | |
| X | | | | | Easy Universal Sway Brace Caddy Model - CSBEZU0XXXEG – for pipe sizes 1" thru 6" | |
| X | | | | | Standard Universal Sway Brace Caddy Models – CSBSTU0800EG and CSBSTU1000EG | |
| X | | | | | Quick Grip Jr. Lateral Sway Brace Caddy Model – CSBQIKCL0XXXEG – for pipe sizes 1" THRU 2" | |
| X | | | | | Quick Grip Lateral Sway Brace Caddy Model – CSBQG0XXXEG – for pipe sizes 2.5" thru 8" | |

REVIEWED BY: Michael R. Whitworth DATE: December 11, 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

210548-001
CONTRACTOR / CM SUBMITTAL NO.

CANNON DESIGN SUBMITTAL NO.

DRAWING / DETAIL REFERENCE

210548
SPECIFICATION SECTION / PARAGRAPH

Ahern Fire Protection
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

11/30/16
DATE

**To be completed by Reviewer**

21 0548-001
CANNON DESIGN SUBMITTAL NUMBER

11/30/16
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. 15051-0351**

*Paric Corporation*

**PROJECT:** 15051-Webster University Interdisciplinary Science Building

**DATE:** 11/29/2016

**TO:** Cannon Design
1100 Clark Ave
St Louis MO 63102

Fax;
314-241-2203

**RE:** Seismic Controls for Fire Protection Piping 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 | | 210548-001 | 1 | | 11/29/2016 | Seismic Controls for Fire Protection Piping Product Data | Submitted |

**NOTES:**

**CC:**

**Signed:** _____

Devin Gates