



OSHPD  
OPM  
Approved

NO  
KNOWN  
EQUAL  
Patents Pend.

City Of  
Los Angeles  
COLA  
Approved

Single Hanger & Trapeze Hanger  
— STEEL BEAM CLAMPS —



IBC, CBC, City Of Los Angeles, OSHPD, NFPA-13,  
ASCE, ANSI/MSS SP-58 AND ANSI/FM 1950-2016  
CODES AND STANDARDS COMPLIANT



The ULTIMATE Strut & Single Hanger Beam Clamps

- *VISUAL INSPECTION COMPLIANT*
- *WORKS ON FIRE PROOFED BEAMS*
- *GRAVITY & SEISMIC USAGE TESTED*
- *50% OR MORE LABOR SAVINGS*
- *IDEAL FOR STRUT CEILING GRIDS*







## FIRE PROOFED BEAMS



*IDEAL FOR FIRE PROOFED BEAMS*





Neither NUSIG nor Badger Industries is responsible for engineering or detailing the use of NUSIG, Badger Industries and/or others products and components for a specific project and/or application. All such engineering is to be performed by an engineer, retained by others, who is licensed to perform the necessary engineering, and who is insured to provide “Responsible Engineer” engineering services. All design submittals specifying NUSIG / Badger Industries products and components must be sealed and signed by the Responsible Engineer, and submitted for review and approval to the project S.E.O.R. (Structural Engineer of Record).

Read all notices and instructions prior to design and usage. Laboratory testing (even that recognized by building codes and standards) is not necessarily indicative of actual project specific application usage conditions. The NUSIG / Badger Industries components shall not be used for fall protection and/or lifting device usage conditions. The usage, design, engineering, installation and inspection of NUSIG / Badger Industries components (both seismic and non-seismic) shall take into account the capacity limits of the weakest components and conditions within the overall assembly, including but not limited to the building structure, threaded rod compression with or without rod stiffeners, prying and eccentricity interactions, etc. Such shall be the responsibility of non NUSIG / Badger Industries others.

NUSIG / Badger Industries documents are subject to change without notice or responsibility. NUSIG / Badger Industries products, components and documents are for interior use. It is the responsibility of the user to qualify that they are using the most current NUSIG / Badger Industries documents.

#### LIMITATION OF LIABILITY

To the fullest extent permissible by law, NUSIG, Badger Industries, and their respective owners, officers, directors, employees, agents and representatives (collective, the “Parties”) excludes all liability except liability that is directly attributable to the willful negligence of the Parties. Should the Parties be held liable, under any theory, the aggregate liability of all of them is limited to the total purchase price of the Parties products that caused the injury or loss. In addition to the foregoing, THE PARTIES ARE IN NO EVENT LIABLE FOR ANY LOSS OF BUSINESS OR PROFITS, LOSS OF USE, LOSS OF OPPORTUNITIES, DOWNTIME OR DELAY, LABOR, REPAIR OR MATERIAL COST OR ANY OTHER SIMILAR OR DISSIMILAR, INCIDENTAL OR CONSEQUENTIAL LOSS OR DAMAGE INCURRED BY BUYER. By purchasing the Parties’ products, you agree to this limitation of liability on your behalf, and on behalf of the person or organization purchasing the products.

#### WARRANTY

NUSIG and/or Badger Industries products are warranted to be free from defects in material and workmanship at the time of shipment. NO OTHER WARRANTY, WHETHER EXPRESS OR IMPLIED (INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE), SHALL EXIST IN CONNECTION WITH THE SALE OR USE OF ANY NUSIG AND/OR BADGER INDUSTRIES PRODUCTS. Products claimed to be defective or nonconforming must be identified in writing and returned (within 30 calendar days) to NUSIG / Badger Industries for inspection. Notice of a warranty claim within this 30 day period is a condition precedent to this Warranty. In no event shall NUSIG / Badger Industries be responsible if the products have been improperly stored, improperly used, abused or misused. NUSIG / Badger Industries will, at its option, either repair or replace defective or nonconforming products for which it is responsible or return the purchase price to the BUYER. THE FOREGOING STATES BUYER’S EXCLUSIVE REMEDY FOR ANY BREACH OF THE NUSIG AND/OR BADGER INDUSTRIES WARRANTY AND FOR ANY CLAIM, WHETHER SOUNDING IN CONTRACT, TORT OR NEGLIGENCE, FOR LOSS OR INJURY CAUSED BY THE SALE OR USE OF ANY NUSIG AND/OR BADGER INDUSTRIES PRODUCT(S).

#### WARNING

The improper use, misuse and/or misapplication of these documents and/or NUSIG / Badger Industries products may cause product malfunction, property damage, bodily injury and death.





Factory Mutual. ANSI/FM 1950-2016 testing meets the requirements of FM 1950-2010 and FM 1950-2013. Seismic (LRFD) tension and compression profiles were determined using the data provided by Factory Mutual. Listed (LRFD) seismic capacities can be converted to (ASD) capacities by dividing by (1.4). Seismic capacities listed within these details only take into consideration the identified beam clamp and/or strut member. Capacities for all other items, including but not limited to, steel beams and joist, threaded rods, pipe / conduit clamps, etc., are not taken into consideration. Following controls and parameters were used to develop listed seismic tension and compression capacities.

- a.) ANSI/FM 1950-2016.
- b.) Maximum strut deflection at applied load = 1 inch.
- c.) Maximum strut (LRFD) design capacity based on 70% of minimum material yield stress.
- d.) Section properties per detail identified strut manufacture literature.

Gravity tension capacities were determined through testing performed on a calibrated universal tensile machine at Anvil International's Research & Development facility in North Kingstown, RI. Test data was analyzed in accordance with ANSI/MSS SP-58. Gravity tension capacities listed within these details only take into consideration the identified beam clamp and/or strut member. Threaded rod tension capacities are based on ANSI/MSS SP-58, Table 3. Capacities for all other items, including but not limited to, steel beams and joist, pipe / conduit clamps, etc., are not taken into consideration. Following controls and parameters were used to develop listed MSS SP-58 gravity tension capacities.

- e.) Tested capacities by the derived safety factors listed within ANSI/MSS SP-58.  
Maximum capacities not to exceed 67% of the yield load.
- f.) Maximum strut design capacity based on 12,900 psi allowable material stress within ANSI/MSS SP-58, referenced by ASME B31.1.
- g.) Section properties per detail identified strut manufacture literature.

Allowable stresses were derived from ANSI/MSS SP-58 and ASME B31.1 and apply a minimum 3.5 times safety factor to the design. The Metal Framing Manufactures Association's (MFMA) 25,000 psi allowable stress applies a minimum 1.8 times safety factor and exceeds 75% of the material's minimum yield. MFMA's allowable design stress does not meet the design requirements of ANSI/MSS SP-58 and therefore was not used to determine listed gravity tension capacities.

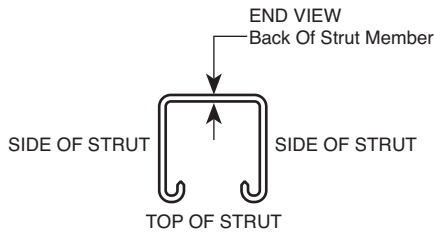
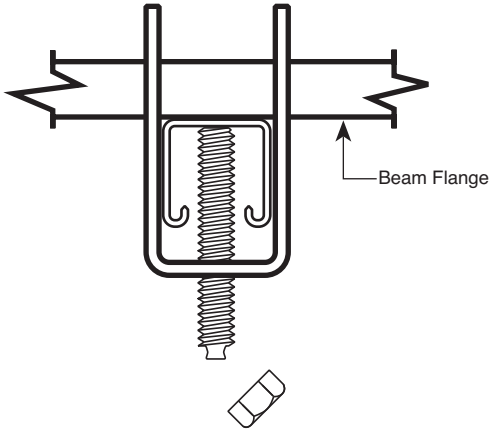
For compliance with NFPA-13 (Safety Factor = 5 plus 250 lbs.) gravity hanger building attached component design requirement, see page NFPA-13 Compliance SBC158 Beam Clamps this manual.

## ANVIL PRODUCTS

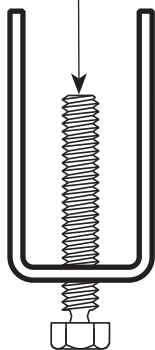
Additional information on Anvil products, including warranties can be found at [www.anvilintl.com](http://www.anvilintl.com)



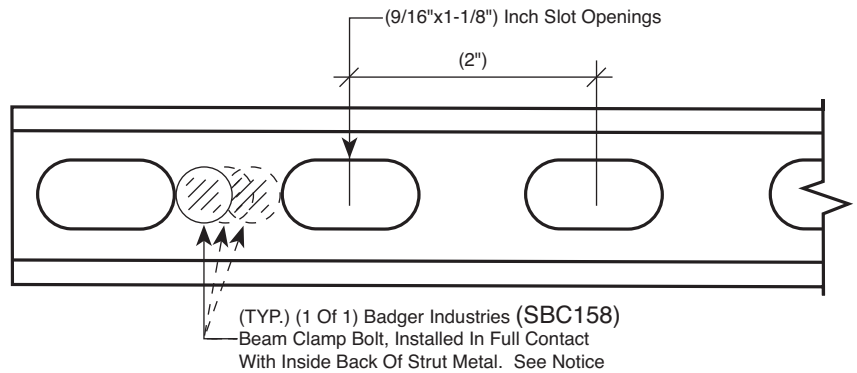
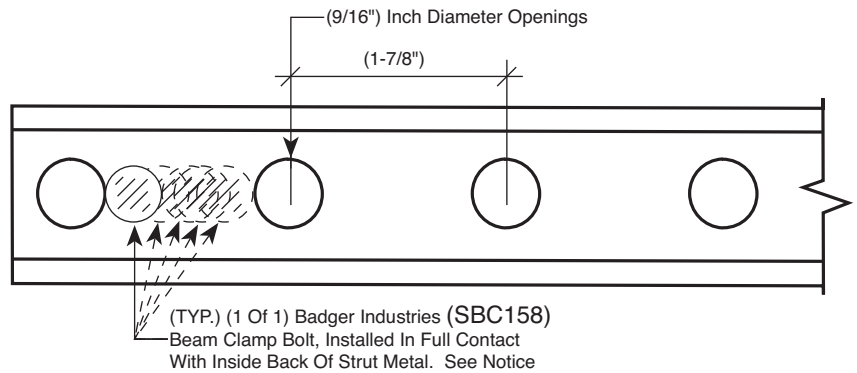
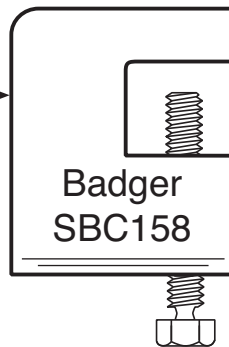
# SBC158 GENERAL NOTES



Badger Industries  
(SBC158)  
Beam Clamp Bolt,  
(TYP.)



(TYP.)  
Badger Industries  
(SBC158)  
Patent Pending  
Beam Clamp



## Notice:

Beam Clamp Bolt Shall Be In Full Contact With Inside Back Of Strut Metal. Bolt Shall Not Overhang Or Pass Through Holes, Slots Or Openings In The Back Of The Strut Member. Outside Back Of Strut Shall Be In Full Contact With Underside Of Beam Flange Steel.

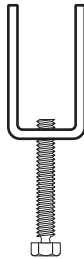
Solid Back Strut Without Holes Or Slots Is Not Referenced Within This Notice, As The Placement Of The Clamp Bolt Between The Openings Is Not Relevant.

Strut Options Have Been Identified Within Badger Installation Details.



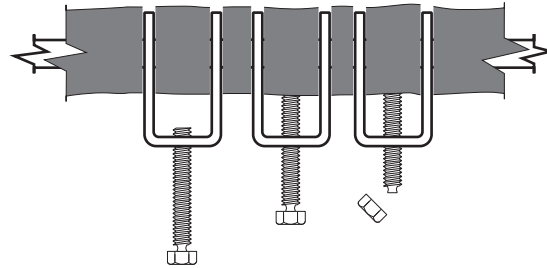
# SBC158 GENERAL NOTES

Notch Fire Proofing With Saw Blade To Expose Steel For Placement Of Beam Clamp Legs.



Prior To Installation Lower Beam Clamp Bolt To Clear Fire Proofing On Bottom Side Of Flange.

Press Or Hammer Tap Beam Clamp Tight To Edge And Top Of Beam Flange Steel. Tighten Torque-Off Bolt Allowing It To Burrow Through Bottom Of Flange Fire Proofing And Become Tight Against Beam Flange Steel. Continue Tightening Until Torque-Off Head Of Bolt Breaks Away. Inspect To Confirm Beam Clamp Is Tight And Secure To Beam Flange Steel.



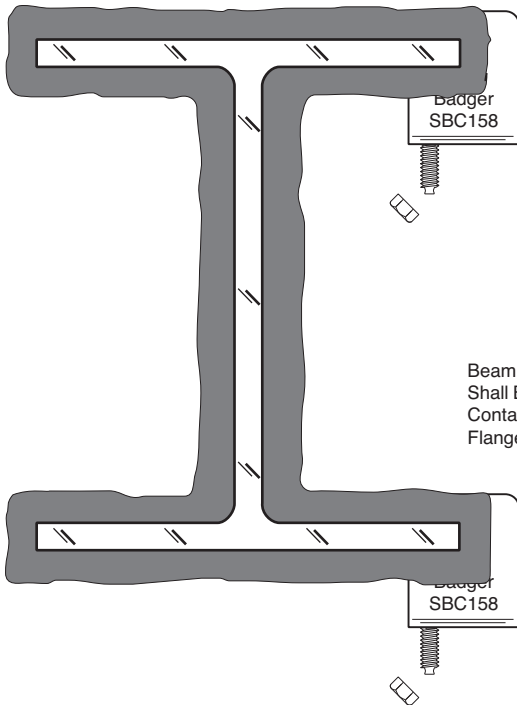
## Notice:

Attachment Usable For Both Upper And Lower Beam Flange Installations. This Attachment May Or May Not Require Patching Of The Fire Proofing. Consult With Project Structural Engineer Of Record And Authority Having Jurisdiction Prior To Notching Fire Proofing.

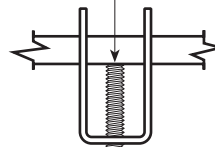
Use Depicted Badger Industries (SBC158) Beam Clamp For Flange Thickness (0.1875") Inch, To A Maximum Thickness Of (1.260") Inch.

Use Badger Industries (SBC158L-C) Beam Clamp For Flange Thickness (1.300") Inch, To A Maximum Thickness Of (3.00") Inch.

For Beam Flange Thickness (2.1250") To (3.00") Inch Use Badger Industries Beam Clamp (SBC158L) Or Beam Clamp (SBC158L-C).

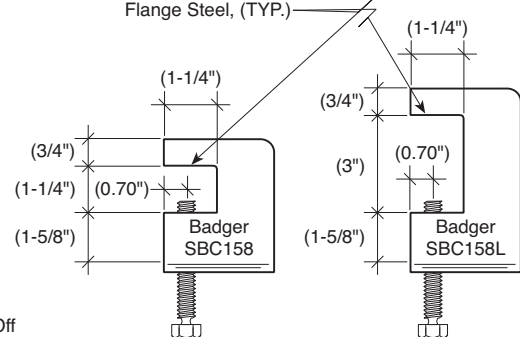


Beam Clamp Bolt Shall Be In Full Contact With Beam Flange Steel, (TYP.)



Torque-Off Badger Industries Beam Clamp Bolt Head, (TYP.)

Beam Clamp Upper Legs Shall Be In Full Contact With Beam Flange Steel, (TYP.)



END





# NFPA-13 COMPLIANCE SBC158 BEAM CLAMPS

- (1.) Both the City Of Los Angeles (COLA) approvals and California Office of Statewide Health Planning and Development (OSHPD) approvals are applicable for us with fire protection piping systems using approved capacity checked against design demand. Design check per Item 2., not required.
- (2.) Per 2016 NFPA-13 Chapter 9, Paragraph 9.1.1.2, Badger SBC158 Series Beam Clamps can be certified by a registered professional engineer for use with other jurisdictional fire protection piping systems.

NFPA-13 vertical support hanger usage references below are based on pipe full of water weight, (times 5, plus 250 pounds). Ultimate test capacities listed for the Badger SBC158 Series Beam Clamps were derived from ANSI E488 tension vertical support testing performed by an independent laboratory having accreditation to the ISO Accreditation Standard 17025. Testing was under the responsible charge of an independent licensed engineer.

Sch 40 steel piping SBC158 Series Beam Clamp hanger usage per 2016 NFPA-13 Chapter 9, Paragraph 9.1.1.2:

Nom. Pipe Size:	Water-Filled Wt. Per Foot:	Max. Spacing:	NFPA-13 Load:	Ult. Test Capacity:	SBC158 Series Beam Clamp Part:
3/4"	1.30 lbs.	12 ft.	328 lbs.	7,745 lbs.	SBC158, SBC158-C, SBC158L and SBC158L-C compliant for for pipe sizes 10" and smaller.
1"	2.06 lbs.	12 ft.	374 lbs.	7,745 lbs.	
1-1/4"	2.92 lbs.	12 ft.	426 lbs.	7,745 lbs.	
1-1/2"	3.60 lbs.	15 ft.	520 lbs.	7,745 lbs.	
2"	5.11 lbs.	15 ft.	634 lbs.	7,745 lbs.	
2-1/2"	7.87 lbs.	15 ft.	841 lbs.	7,745 lbs.	
3"	10.79 lbs.	15 ft.	1,060 lbs.	7,745 lbs.	
3-1/2"	13.40 lbs.	15 ft.	1,255 lbs.	7,745 lbs.	
4"	16.32 lbs.	15 ft.	1,474 lbs.	7,745 lbs.	
5"	23.30 lbs.	15 ft.	1,998 lbs.	7,745 lbs.	
6"	31.51 lbs.	15 ft.	2,614 lbs.	7,745 lbs.	
8"	51.00 lbs.	15 ft.	4,075 lbs.	7,745 lbs.	SBC158L and SBC158L-C
10"	75.00 lbs.	15 ft.	5,875 lbs.	7,745 lbs.	
12"	103.00 lbs.	15 ft.	7,975 lbs.	9,743 lbs.	

Note: Above listed Badger SBC158 Series Beam Clamp parts are applicable for piping schedules with less than Sch. 40 wall thickness.



~ BADGER INDUSTRIES ~  
Detail (SVC51-EF)

BADGER INDUSTRIES Seismic Hardware Part Number	Vertical Support Rod Size	ANSI / MSS SP-58 Maximum Allowable Tension GRAVITY	ANSI / FM 1950-2016 Maximum SEISMIC F <sub>PT</sub> / F <sub>PC</sub> (LRFD)
<b>SBC158</b>	3/8"	<b>730 lbs.</b>	<b>2,040 lbs.</b>
<b>SBC158</b>	1/2"	<b>1,350 lbs.</b>	
<b>SBC158</b>	5/8"	<b>2,160 lbs.</b>	

Compliant Per 2016 NFPA-13, Paragraph 9.1.1.2 For Single Hanger Piping 10" And Smaller

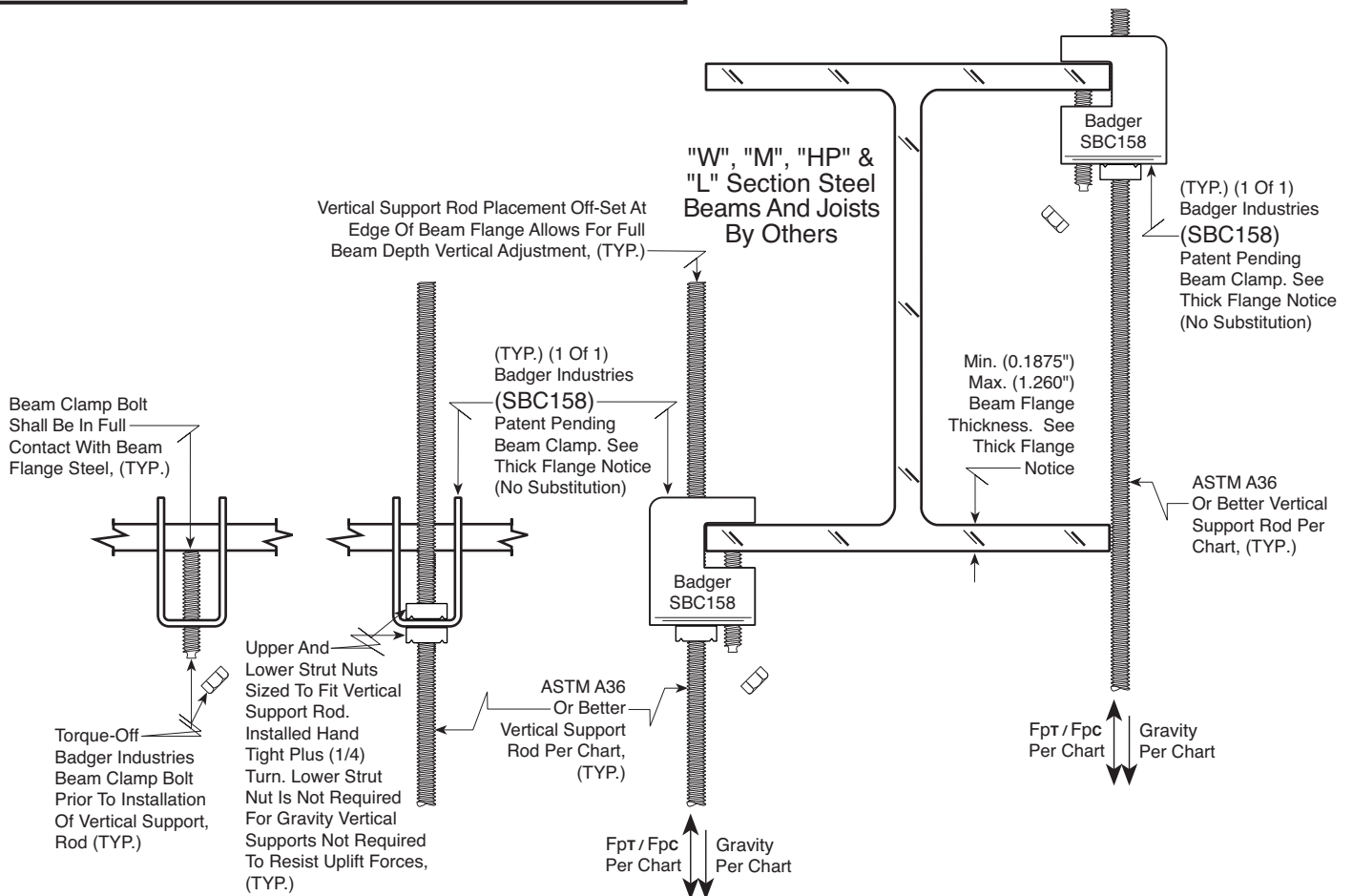
Notice:

Listed Capacities Based On Testing And Engineered Analysis. Testing Was Performed (Without) Restraining Strap. Beam Clamp Was Not Tested For Use On Beams With "S" Section Shapes. Weaker Components / Conditions Within Overall Design And Application Including, But Not Limited To The Building Structure Capacity Shall Control.

Install Beam Clamp Throat Steel-To-Steel Tight To Flange Of Beam. Tighten Beam Clamp Bolt Until Tight Against Beam Flange And Torque-Off Head Of Bolt Breaks Away.

Thick Flange Notice:

Use Badger Industries (SBC158L-C) Beam Clamp For Flange Thickness (1.300") Inch, To A Maximum Thickness Of (3.00") Inch.



SVC51-EF

~ BADGER INDUSTRIES ~  
Seismic Vertical Connection - Single Beam Clamp Attachment

(Elev. View) - (Not To Scale) - (Read General Notes Prior To Use)



~ BADGER INDUSTRIES ~  
Detail (SVC51L-EF)

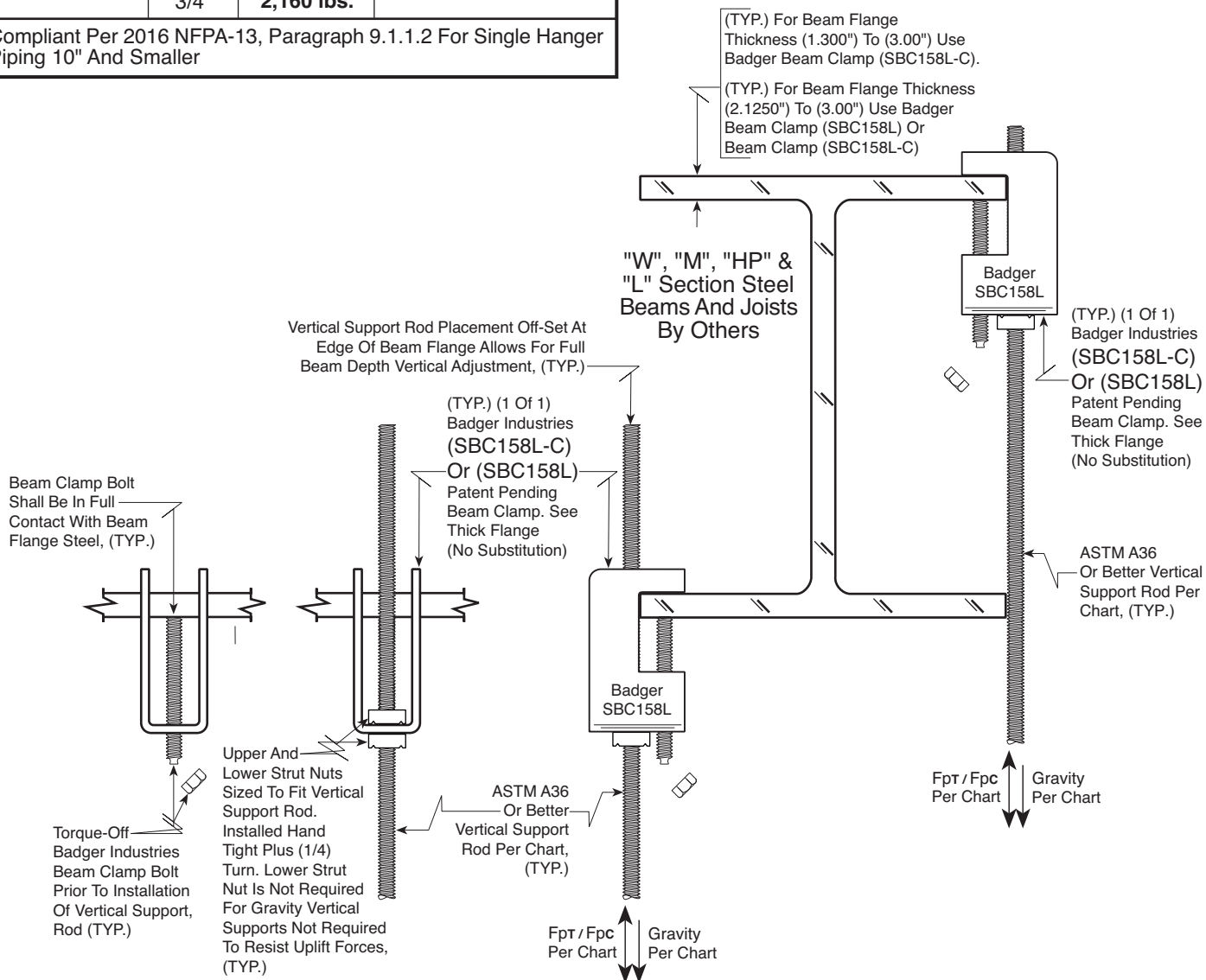
BADGER INDUSTRIES Seismic Hardware Part Number	Vertical Support Rod Size	ANSI / MSS SP-58 Maximum Allowable Tension GRAVITY	ANSI / FM 1950-2016 Maximum SEISMIC F <sub>PT</sub> / F <sub>PC</sub> (LRFD)
<b>SBC158L Or SBC158L-C</b> See Flange Thickness Notes	3/8"	<b>730 lbs.</b>	<b>2,040 lbs.</b>
	1/2"	<b>1,350 lbs.</b>	
	5/8"	<b>2,160 lbs.</b>	
	3/4"	<b>2,160 lbs.</b>	

Compliant Per 2016 NFPA-13, Paragraph 9.1.1.2 For Single Hanger Piping 10" And Smaller

**Notice:**

Listed Capacities Based On Testing And Engineered Analysis. Testing Was Performed (Without) Restraining Strap. Beam Clamp Was Not Tested For Use On Beams With "S" Section Shapes. Weaker Components / Conditions Within Overall Design And Application Including, But Not Limited To The Building Structure Capacity Shall Control.

Install Beam Clamp Throat Steel-To-Steel Tight To Flange Of Beam. Tighten Beam Clamp Bolt Until Tight Against Beam Flange And Torque-Off Head Of Bolt Breaks Away.



SVC51L-EF

~ BADGER INDUSTRIES ~  
Seismic Vertical Connection - Single Beam Clamp Attachment

(Elev. View) - (Not To Scale) - (Read General Notes Prior To Use)





0820 Edition

# SVC51-C2

~ BADGER INDUSTRIES ~ Detail (SVC51-C2)		Cantilever End Load		
BADGER INDUSTRIES Seismic Hardware Part Number	[X] Maximum	ANSI / MSS SP-58 Maximum Allowable Tension GRAVITY	ANSI / FM 1950-2016 Maximum SEISMIC	
			F <sub>PT</sub> (LRFD)	F <sub>PC</sub> (LRFD)
SBC158	4"	316 lbs.	583 lbs.	503 lbs.
SBC158	5"	271 lbs.	499 lbs.	386 lbs.
SBC158	6"	237 lbs.	437 lbs.	313 lbs.
SBC158	7"	211 lbs.	388 lbs.	263 lbs.
SBC158	8"	190 lbs.	350 lbs.	227 lbs.
SBC158	9"	172 lbs.	317 lbs.	176 lbs.
SBC158	12"	135 lbs.	199 lbs.	94 lbs.
SBC158	15"	111 lbs.	134 lbs.	59 lbs.
SBC158	18"	95 lbs.	96 lbs.	40 lbs.
SBC158	21"	82 lbs.	72 lbs.	29 lbs.
SBC158	24"	73 lbs.	56 lbs.	22 lbs.

## Notice:

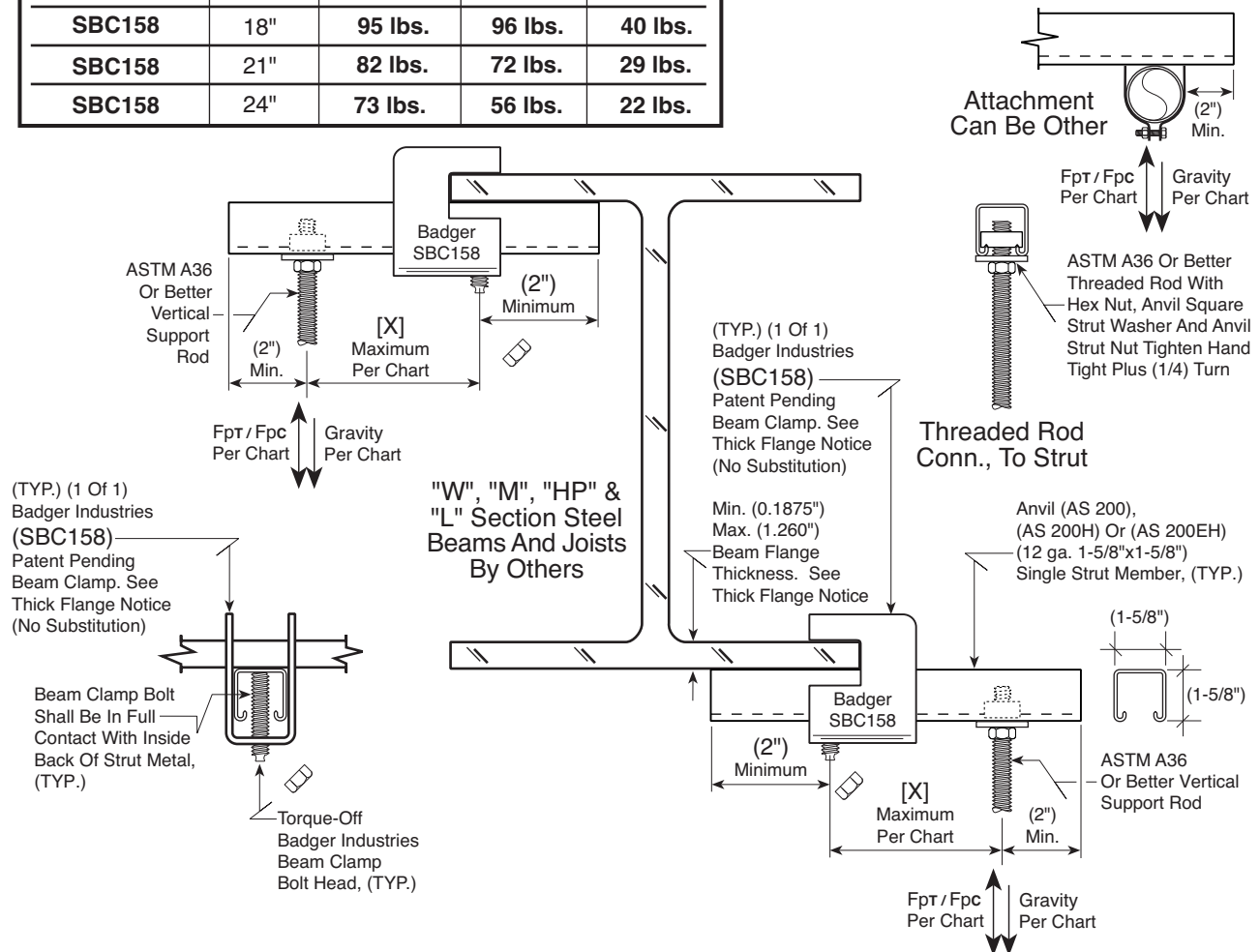
Listed Capacities Based On Testing And Engineered Analysis. Testing Was Performed (Without) Restraining Strap. Beam Clamp Was Not Tested For Use On Beams With "S" Section Shapes. Weaker Components / Conditions Within Overall Design And Application Including, But Not Limited To The Building Structure Capacity Shall Control.

Install Beam Clamp Throat Steel-To-Steel Tight To Flange Of Beam. Tighten Each Beam Clamp Bolt Until Strut Is Tight Against Beam Flange And Torque-Off Head Of Bolt Breaks Away. Use Of An Alternate Strut Shall Be Engineered By Others.

Multiple Loads Can Be Placed Across Span [X], Provided The Accumulated Loads Do Not Exceed Applicable Listing Within Chart.

## Thick Flange Notice:

Use Badger Industries (SBC158L-C) Beam Clamp For Flange Thickness (1.300") Inch, To A Maximum Thickness Of (3.00") Inch.



SVC51-C2

## ~ BADGER INDUSTRIES ~ Seismic Vertical Connection - Single Beam Clamp Attachment

(Elev. View) - (Not To Scale) - (Read General Notes Prior To Use)



# SVC51L-C2

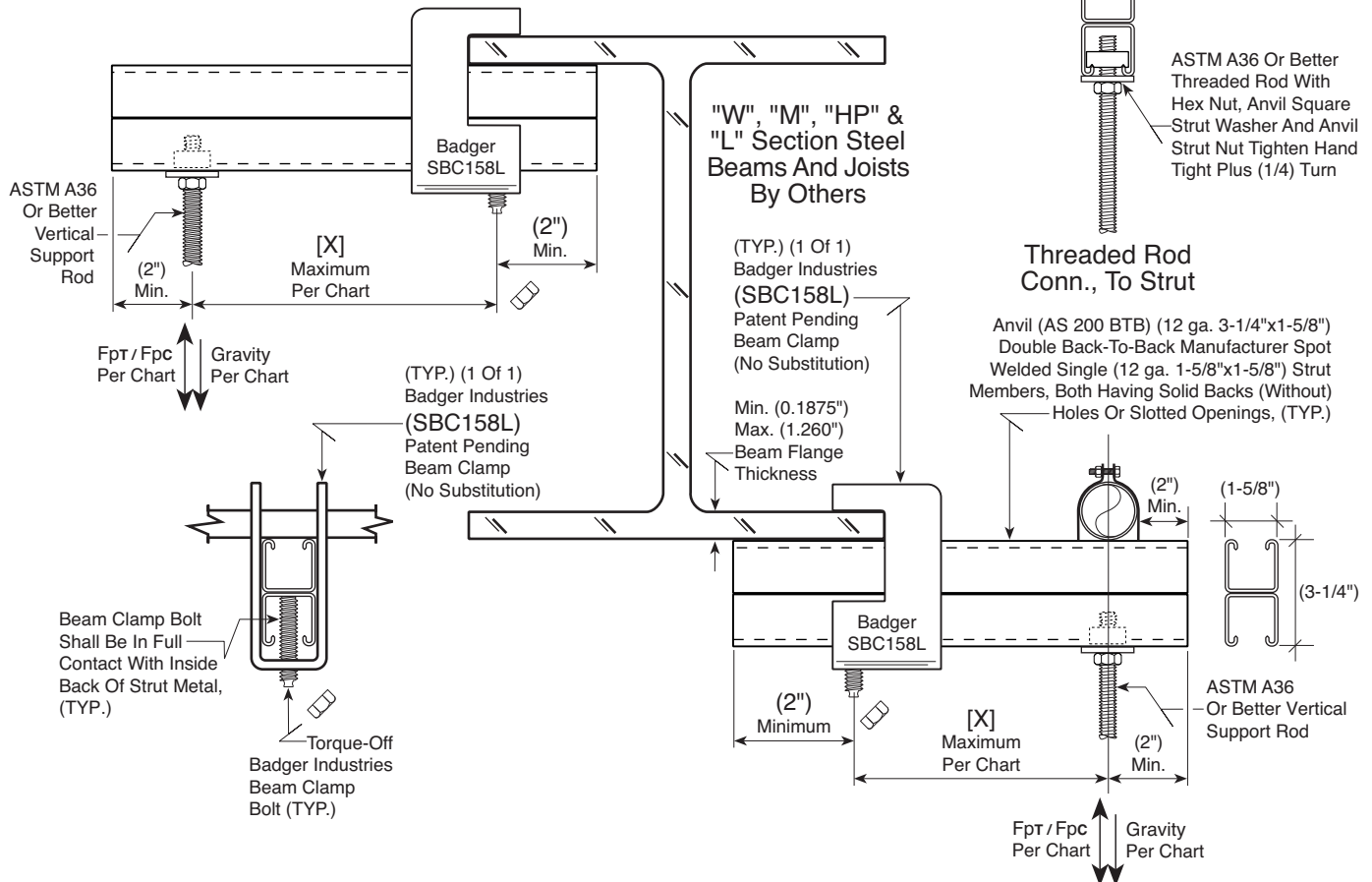
~ BADGER INDUSTRIES ~ Detail (SVC51L-C2)		Cantilever End Load		
BADGER INDUSTRIES Seismic Hardware Part Number	[X] Maximum	ANSI/MSS SP-58 Maximum Allowable Tension GRAVITY	ANSI / FM 1950-2016 Maximum SEISMIC	
			F <sub>PT</sub> (LRFD)	F <sub>PC</sub> (LRFD)
<b>SBC158L</b>	4"	<b>350 lbs.</b>	<b>982 lbs.</b>	<b>624 lbs.</b>
<b>SBC158L</b>	5"	<b>300 lbs.</b>	<b>841 lbs.</b>	<b>479 lbs.</b>
<b>SBC158L</b>	6"	<b>262 lbs.</b>	<b>736 lbs.</b>	<b>388 lbs.</b>
<b>SBC158L</b>	7"	<b>233 lbs.</b>	<b>654 lbs.</b>	<b>326 lbs.</b>
<b>SBC158L</b>	8"	<b>210 lbs.</b>	<b>588 lbs.</b>	<b>282 lbs.</b>
<b>SBC158L</b>	9"	<b>190 lbs.</b>	<b>535 lbs.</b>	<b>247 lbs.</b>
<b>SBC158L</b>	12"	<b>150 lbs.</b>	<b>420 lbs.</b>	<b>141 lbs.</b>
<b>SBC158L</b>	15"	<b>123 lbs.</b>	<b>346 lbs.</b>	<b>88 lbs.</b>
<b>SBC158L</b>	18"	<b>105 lbs.</b>	<b>294 lbs.</b>	<b>60 lbs.</b>
<b>SBC158L</b>	21"	<b>91 lbs.</b>	<b>256 lbs.</b>	<b>43 lbs.</b>
<b>SBC158L</b>	24"	<b>80 lbs.</b>	<b>226 lbs.</b>	<b>33 lbs.</b>

## Notice:

Listed Capacities Based On Testing And Engineered Analysis. Testing Was Performed (Without) Restraining Strap. Beam Clamp Was Not Tested For Use On Beams With "S" Section Shapes. Weaker Components / Conditions Within Overall Design And Application Including, But Not Limited To The Building Structure Capacity Shall Control.

Install Beam Clamp Throat Steel-To-Steel Tight To Flange Of Beam. Tighten Each Beam Clamp Bolt Until Strut Is Tight Against Beam Flange And Torque-Off Head Of Bolt Breaks Away. Use Of An Alternate Strut Shall Be Engineered By Others.

Multiple Loads Can Be Placed Across Span [X], Provided The Accumulated Loads Do Not Exceed Applicable Listing Within Chart.



**SBC51L-C2**

~ BADGER INDUSTRIES ~  
Seismic Vertical Connection - Single Beam Clamp Attachment

(Elev. View) - (Not To Scale) - (Read General Notes Prior To Use)



~ BADGER INDUSTRIES ~ Detail (SVC51-Ca)		Cantilever End Load	
BADGER INDUSTRIES Seismic Hardware Part Number	[X] Maximum	ANSI / MSS SP-58 Maximum Allowable Tension GRAVITY	ANSI / FM 1950-2016 Maximum SEISMIC F <sub>PT</sub> / F <sub>PC</sub> (LRFD)
<b>SBC158</b>	4"	<b>201 lbs.</b>	<b>503 lbs.</b>
<b>SBC158</b>	5"	<b>154 lbs.</b>	<b>386 lbs.</b>
<b>SBC158</b>	6"	<b>125 lbs.</b>	<b>313 lbs.</b>
<b>SBC158</b>	7"	<b>105 lbs.</b>	<b>263 lbs.</b>
<b>SBC158</b>	8"	<b>91 lbs.</b>	<b>227 lbs.</b>
<b>SBC158</b>	9"	<b>80 lbs.</b>	<b>176 lbs.</b>
<b>SBC158</b>	12"	<b>58 lbs.</b>	<b>94 lbs.</b>
<b>SBC158</b>	15"	<b>46 lbs.</b>	<b>59 lbs.</b>
<b>SBC158</b>	18"	<b>38 lbs.</b>	<b>40 lbs.</b>
<b>SBC158</b>	21"	<b>32 lbs.</b>	<b>29 lbs.</b>
<b>SBC158</b>	24"	<b>28 lbs.</b>	<b>22 lbs.</b>

### Notice:

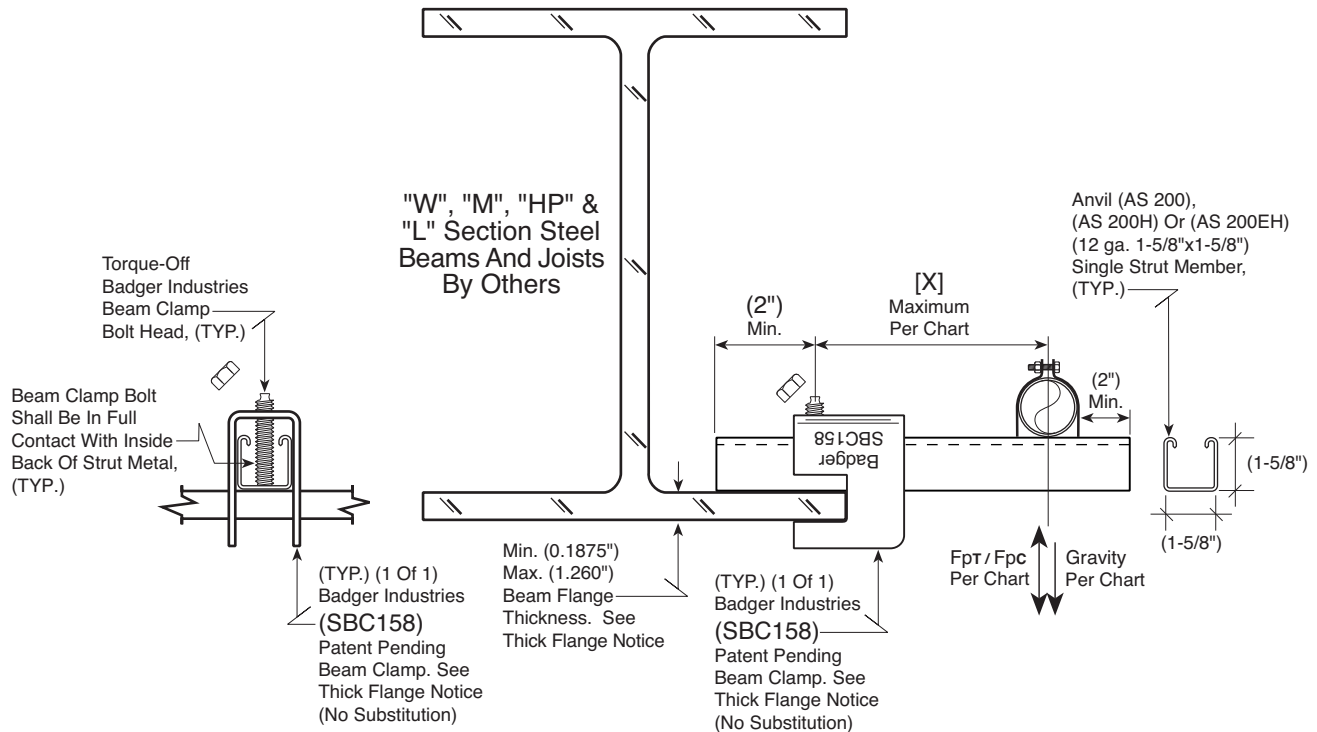
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Install Beam Clamp Throat Steel-To-Steel Tight To Flange Of Beam. Tighten Beam Clamp Bolt Until Strut Is Tight Against Underside Of Beam Flange And Torque-Off Head Of Bolt Breaks Away. Use Of An Alternate Strut Shall Be Engineered By Others.

Multiple Loads Can Be Placed Across Span [X], Provided The Accumulated Loads Do Not Exceed Applicable Listing Within Chart.

### Thick Flange Notice:

Use Badger Industries (SBC158L-C) Beam Clamp For Flange Thickness (1.300") Inch, To A Maximum Thickness Of (3.00") Inch.



SVC51-Ca

~ BADGER INDUSTRIES ~  
Seismic Vertical Connection - Single Beam Clamp Attachment

(Elev. View) - (Not To Scale) - (Read General Notes Prior To Use)





0820 Edition

# SVC51L-Ca

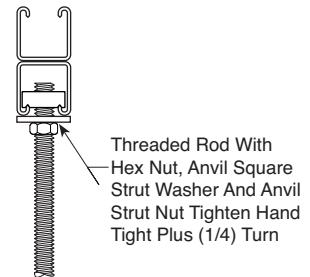
~ BADGER INDUSTRIES ~ Detail (SVC51L-Ca)		Cantilever End Load	
BADGER INDUSTRIES Seismic Hardware Part Number	[X] Maximum	ANSI/MSS SP-58 Maximum Allowable Tension GRAVITY	ANSI / FM 1950-2016 Maximum SEISMIC F <sub>PT</sub> / F <sub>PC</sub> (LRFD)
SBC158L	4"	222 lbs.	624 lbs.
SBC158L	5"	170 lbs.	479 lbs.
SBC158L	6"	138 lbs.	388 lbs.
SBC158L	7"	116 lbs.	326 lbs.
SBC158L	8"	100 lbs.	282 lbs.
SBC158L	9"	88 lbs.	247 lbs.
SBC158L	12"	65 lbs.	141 lbs.
SBC158L	15"	51 lbs.	88 lbs.
SBC158L	18"	42 lbs.	60 lbs.
SBC158L	21"	36 lbs.	43 lbs.
SBC158L	24"	31 lbs.	33 lbs.

## Notice:

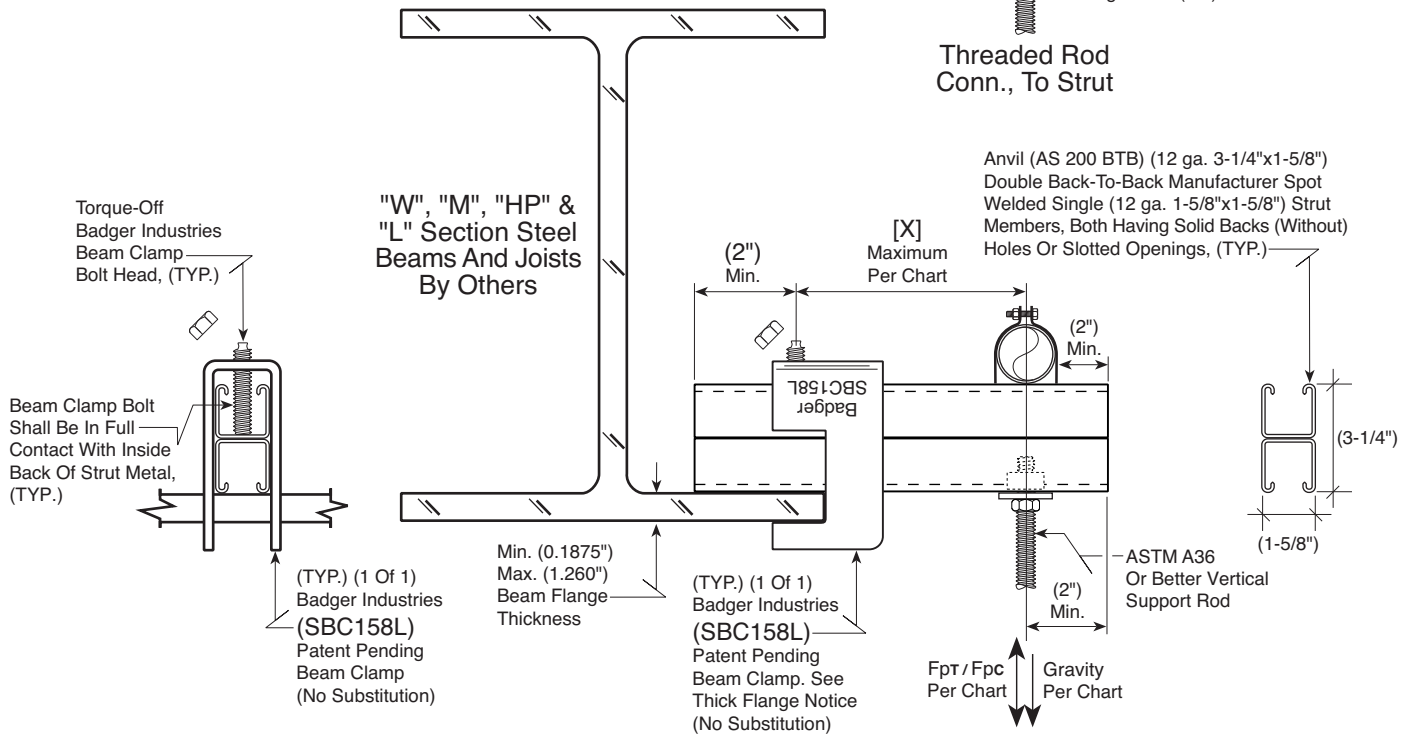
Listed Capacities Based On Testing And Engineered Analysis. Testing Was Performed (Without) Restraining Strap. Beam Clamp Was Not Tested For Use On Beams With "S" Section Shapes. Weaker Components / Conditions Within Overall Design And Application Including, But Not Limited To The Building Structure Capacity Shall Control.

Install Beam Clamp Throat Steel-To-Steel Tight To Flange Of Beam. Tighten Beam Clamp Bolt Until Strut Is Tight Against Underside Of Beam Flange And Torque-Off Head Of Bolt Breaks Away. Use Of An Alternate Strut Shall Be Engineered By Others.

Multiple Loads Can Be Placed Across Span [X], Provided The Accumulated Loads Do Not Exceed Applicable Listing Within Chart.



Threaded Rod Conn., To Strut



SVC51L-Ca

## ~ BADGER INDUSTRIES ~ Seismic Vertical Connection - Single Beam Clamp Attachment

(Elev. View) - (Not To Scale) - (Read General Notes Prior To Use)



~ BADGER INDUSTRIES ~ Detail (SVC51-Cb)		Cantilever End Load	
BADGER INDUSTRIES Seismic Hardware Part Number	[X] Maximum	ANSI / MSS SP-58 Maximum Allowable Tension GRAVITY	ANSI / FM 1950-2016 Maximum SEISMIC F <sub>PT</sub> / F <sub>PC</sub> (LRFD)
<b>SBC158</b>	2"	<b>246 lbs.</b>	<b>615 lbs.</b>
<b>SBC158</b>	3"	<b>179 lbs.</b>	<b>448 lbs.</b>
<b>SBC158</b>	4"	<b>141 lbs.</b>	<b>353 lbs.</b>
<b>SBC158</b>	5"	<b>116 lbs.</b>	<b>291 lbs.</b>
<b>SBC158</b>	6"	<b>99 lbs.</b>	<b>247 lbs.</b>
<b>SBC158</b>	7"	<b>86 lbs.</b>	<b>205 lbs.</b>
<b>SBC158</b>	8"	<b>76 lbs.</b>	<b>161 lbs.</b>
<b>SBC158</b>	9"	<b>68 lbs.</b>	<b>129 lbs.</b>
<b>SBC158</b>	10"	<b>62 lbs.</b>	<b>106 lbs.</b>
<b>SBC158</b>	11"	<b>56 lbs.</b>	<b>88 lbs.</b>
<b>SBC158</b>	12"	<b>52 lbs.</b>	<b>75 lbs.</b>

#### Notice:

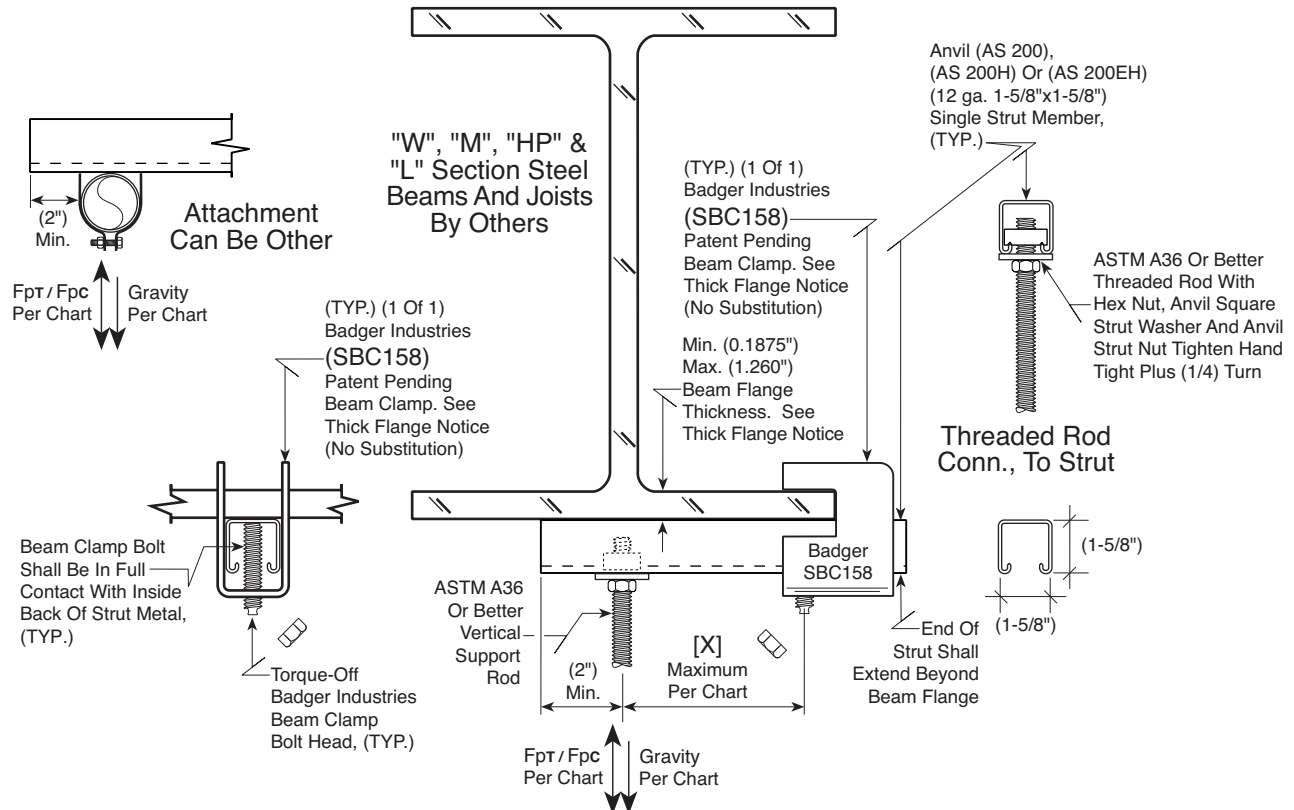
Listed Capacities Based On Testing And Engineered Analysis. Testing Was Performed (Without) Restraining Strap. Beam Clamp Was Not Tested For Use On Beams With "S" Section Shapes. Weaker Components / Conditions Within Overall Design And Application Including, But Not Limited To The Building Structure Capacity Shall Control.

Install Beam Clamp Throat Steel-To-Steel Tight To Flange Of Beam. Tighten Beam Clamp Bolt Until Strut Is Tight Against Underside Of Beam Flange And Torque-Off Head Of Bolt Breaks Away. Use Of An Alternate Strut Shall Be Engineered By Others.

Multiple Loads Can Be Placed Across Span [X], Provided The Accumulated Loads Do Not Exceed Applicable Listing Within Chart.

#### Thick Flange Notice:

Use Badger Industries (SBC158L-C) Beam Clamp For Flange Thickness (1.300") Inch, To A Maximum Thickness Of (3.00") Inch.



**SVC51-Cb**

~ BADGER INDUSTRIES ~  
**Seismic Vertical Connection - Single Beam Clamp Attachment**

(Elev. View) - (Not To Scale) - (Read General Notes Prior To Use)



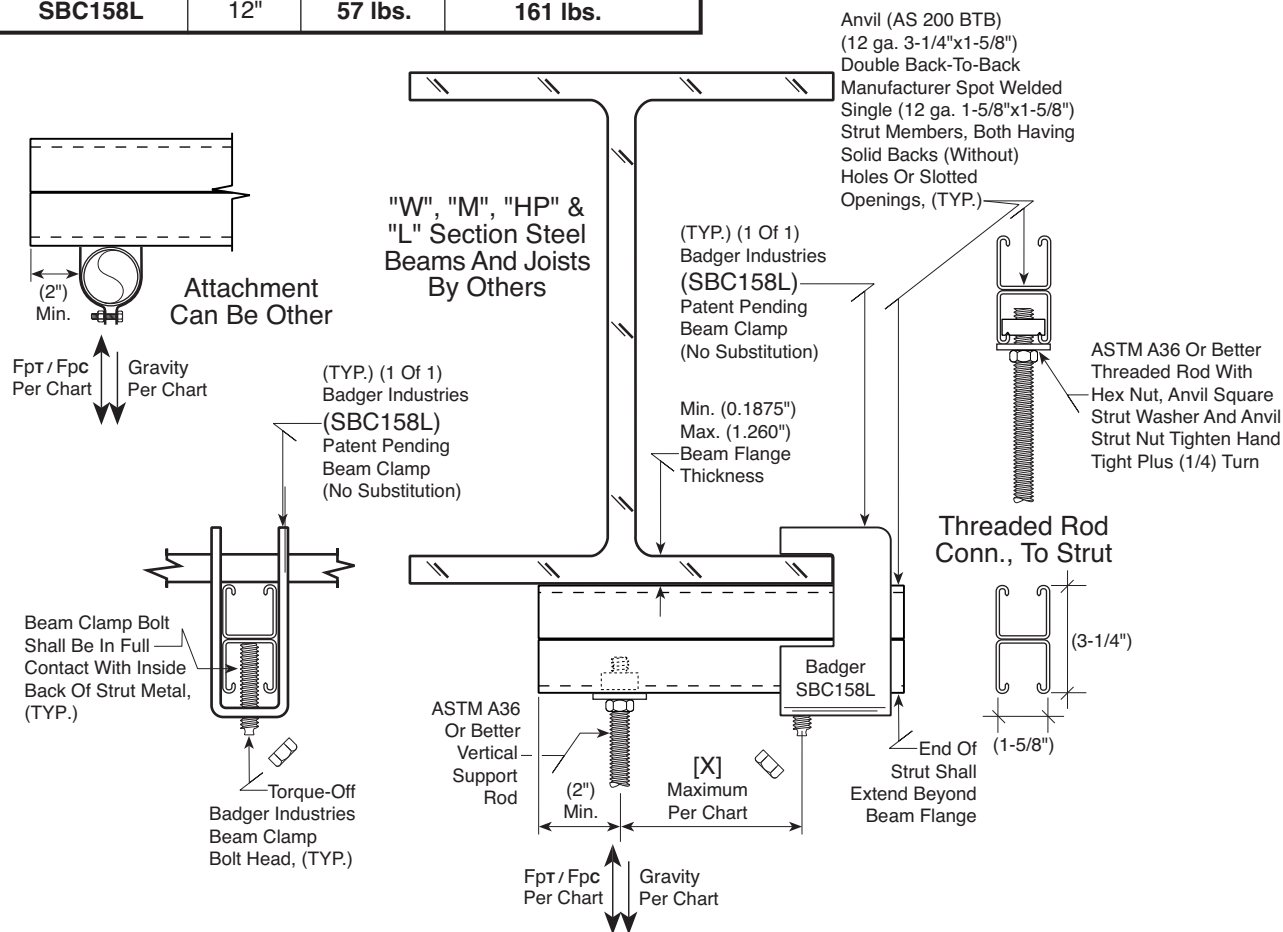
~ BADGER INDUSTRIES ~ Detail (SVC51L-Cb)		Cantilever End Load	
BADGER INDUSTRIES Seismic Hardware Part Number	[X] Maximum	ANSI/MSS SP-58 Maximum Allowable Tension GRAVITY	ANSI / FM 1950-2016 Maximum SEISMIC FpT / Fpc (LRFD)
SBC158L	2"	272 lbs.	763 lbs.
SBC158L	3"	198 lbs.	557 lbs.
SBC158L	4"	156 lbs.	438 lbs.
SBC158L	5"	128 lbs.	361 lbs.
SBC158L	6"	109 lbs.	307 lbs.
SBC158L	7"	95 lbs.	267 lbs.
SBC158L	8"	84 lbs.	236 lbs.
SBC158L	9"	75 lbs.	212 lbs.
SBC158L	10"	68 lbs.	192 lbs.
SBC158L	11"	62 lbs.	175 lbs.
SBC158L	12"	57 lbs.	161 lbs.

### Notice:

Listed Capacities Based On Testing And Engineered Analysis. Testing Was Performed (Without) Restraining Strap. Beam Clamp Was Not Tested For Use On Beams With "S" Section Shapes. Weaker Components / Conditions Within Overall Design And Application Including, But Not Limited To The Building Structure Capacity Shall Control.

Install Beam Clamp Throat Steel-To-Steel Tight To Flange Of Beam. Tighten Beam Clamp Bolt Until Strut Is Tight Against Underside Of Beam Flange And Torque-Off Head Of Bolt Breaks Away. Use Of An Alternate Strut Shall Be Engineered By Others.

Multiple Loads Can Be Placed Across Span [X], Provided The Accumulated Loads Do Not Exceed Applicable Listing Within Chart.







0820 Edition

~ BADGER INDUSTRIES ~ Detail (SVC52)		ANSI / MSS SP-58 Maximum Allowable Tension GRAVITY	ANSI / FM 1950-2016 Maximum SEISMIC F <sub>pt</sub> / F <sub>pc</sub> (LRFD)
BADGER INDUSTRIES Seismic Hardware Part Number	Maximum Beam Flange Width		
<b>SBC158</b>	6"	<b>1,900 lbs.</b>	<b>1,934 lbs.</b>
<b>SBC158</b>	12"	<b>1,780 lbs.</b>	
<b>SBC158</b>	18"	<b>1,135 lbs.</b>	
Compliant Per 2016 NFPA-13, Paragraph 9.1.1.2 For Single Hanger Piping 6" And Smaller			

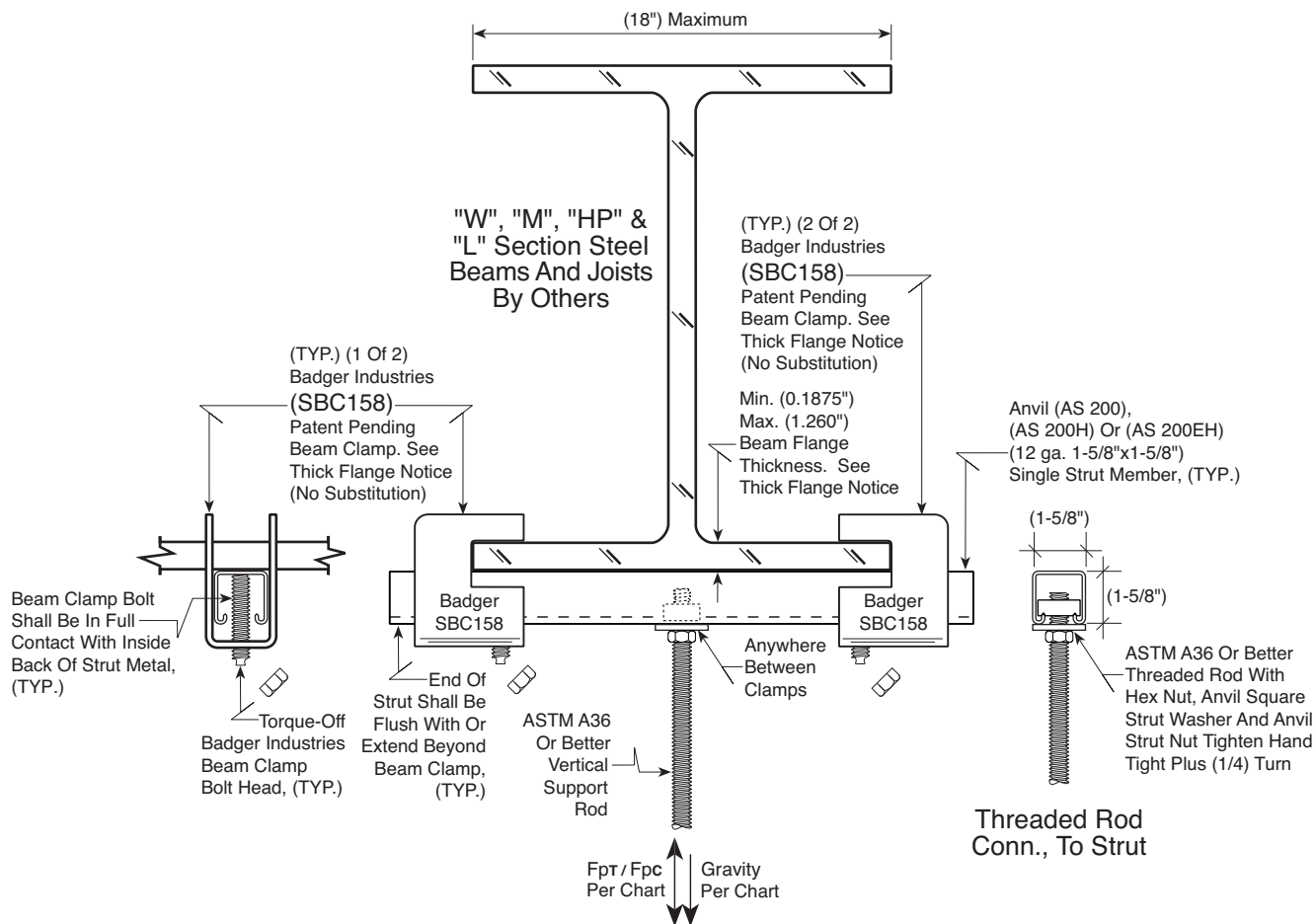
Notice:

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Install Each Beam Clamp Throat Steel-To-Steel Tight To Flange Of Beam. Tighten Each Beam Clamp Bolt Until Strut Is Tight Against Beam Flange And Torque-Off Head Of Bolt Breaks Away. Use Of An Alternate Strut Shall Be Engineered By Others.

Thick Flange Notice:

Use Badger Industries (SBC158L-C) Beam Clamp  
For Flange Thickness (1.300") Inch, To A Maximum  
Thickness Of (3.00") Inch.



SVC52

~ BADGER INDUSTRIES ~  
Seismic Vertical Connection - Double Beam Clamp Attachment

(Elev. View) - (Not To Scale) - (Read General Notes Prior To Use)



~ BADGER INDUSTRIES ~  
Detail (SVC52L)

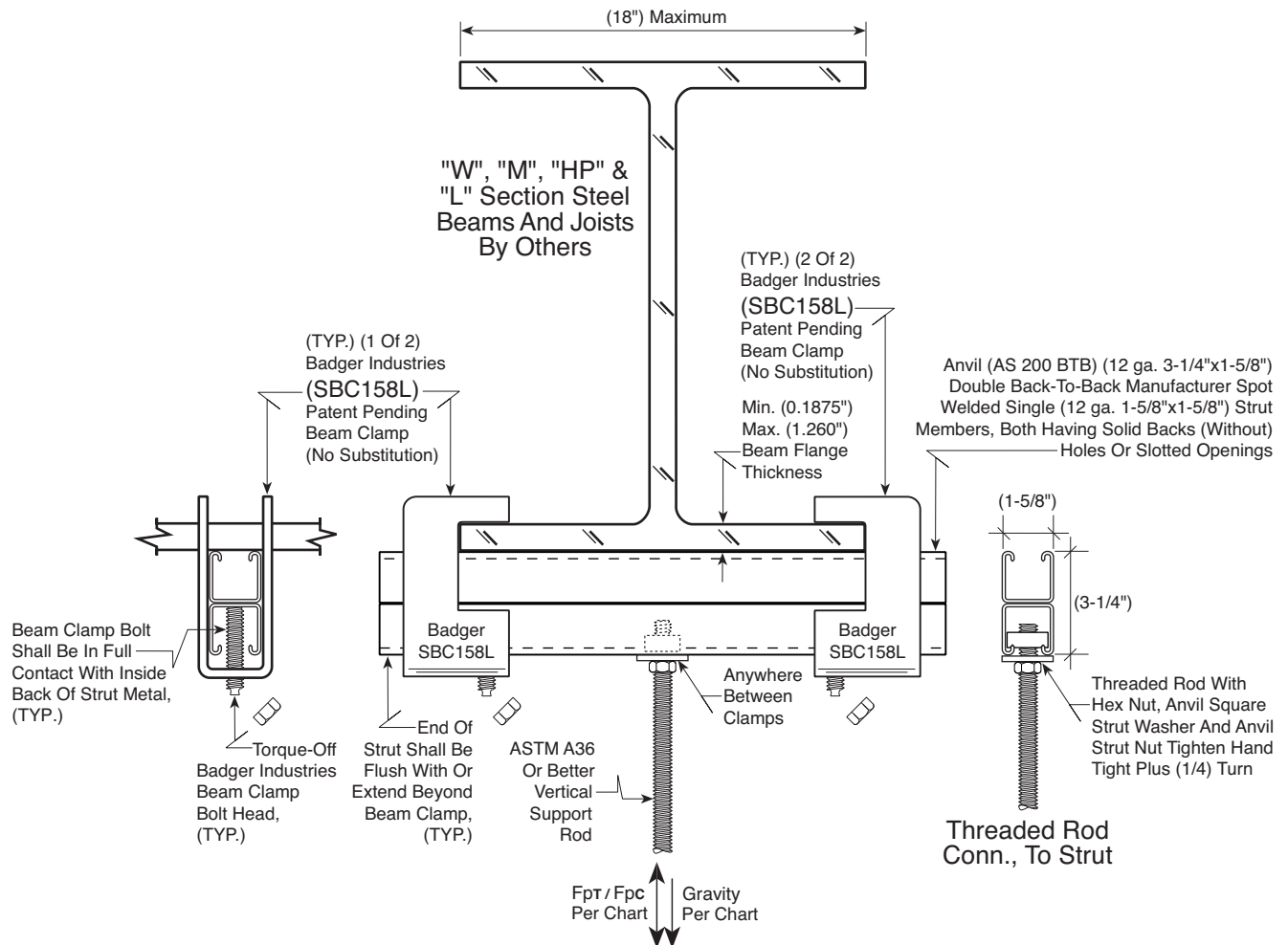
BADGER INDUSTRIES Seismic Hardware Part Number	Maximum Beam Flange Width	ANSI/MSS SP-58 Maximum Allowable Tension GRAVITY	ANSI / FM 1950-2016 Maximum SEISMIC $F_pT / F_pC$ (LRFD)
<b>SBC158L</b>	18"	<b>2,100 lbs.</b>	<b>2,152 lbs.</b>

Compliant Per 2016 NFPA-13, Paragraph 9.1.1.2 For Single Hanger Piping 10" And Smaller

Notice:

Listed Capacities Based On Testing And Engineered Analysis. Testing Was Performed (Without) Restraining Strap. Beam Clamp Was Not Tested For Use On Beams With "S" Section Shapes. Weaker Components / Conditions Within Overall Design And Application Including, But Not Limited To The Building Structure Capacity Shall Control.

Install Each Beam Clamp Throat Steel-To-Steel Tight To Flange Of Beam. Tighten Each Beam Clamp Bolt Until Strut Is Tight Against Beam Flange And Torque-Off Head Of Bolt Breaks Away. Use Of An Alternate Strut Shall Be Engineered By Others.



SVC52L

~ BADGER INDUSTRIES ~  
Seismic Vertical Connection - Double Beam Clamp Attachment

(Elev. View) - (Not To Scale) - (Read General Notes Prior To Use)



~ BADGER INDUSTRIES ~ Detail (SVC52a)		ANSI / MSS SP-58 Maximum Allowable Tension GRAVITY	ANSI / FM 1950-2016 Maximum SEISMIC F <sub>PT</sub> / F <sub>PC</sub> (LRFD)
BADGER INDUSTRIES Seismic Hardware Part Number	Maximum Beam Flange Width		
SBC158	6"	1,900 lbs.	1,934 lbs.
SBC158	12"	1,780 lbs.	
SBC158	18"	1,135 lbs.	
Compliant Per 2016 NFPA-13, Paragraph 9.1.1.2 For Single Hanger Piping 6" And Smaller			

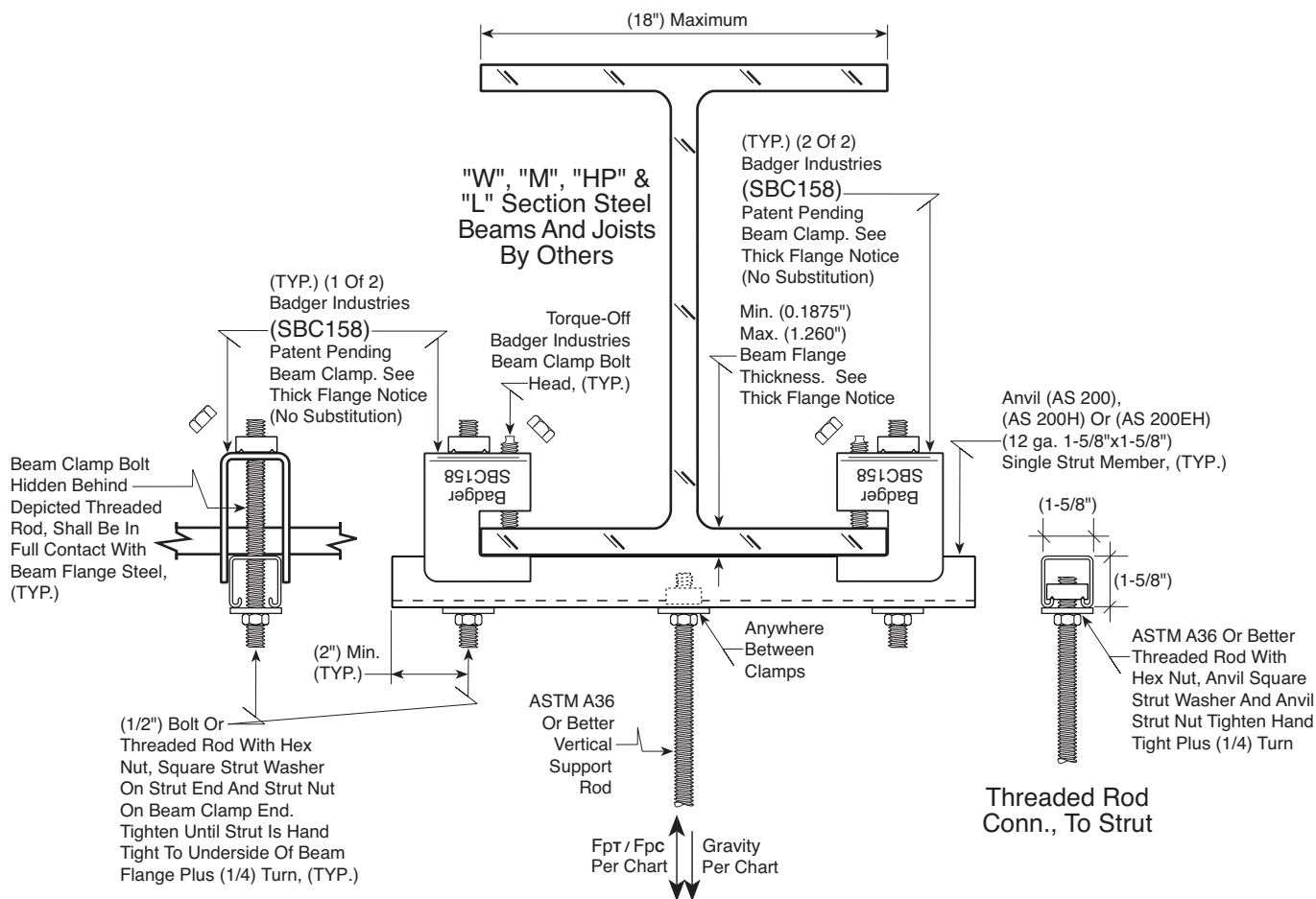
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Install Each Beam Clamp Throat Steel-To-Steel Tight To Flange Of Beam. Tighten Beam Clamp Bolt Until Tight Against Beam Flange And Torque-Off Head Of Bolt Breaks Away. Use Of An Alternate Strut Shall Be Engineered By Others.

### Thick Flange Notice:

Use Badger Industries (SBC158L-C) Beam Clamp For Flange Thickness (1.300") Inch, To A Maximum Thickness Of (3.00") Inch.



SVC52a

~ BADGER INDUSTRIES ~  
Seismic Vertical Connection - Double Beam Clamp Attachment

(Elev. View) - (Not To Scale) - (Read General Notes Prior To Use)





~ BADGER INDUSTRIES ~  
Detail (SVC52a-DS)

BADGER  
INDUSTRIES  
Seismic Hardware  
Part Number

Maximum  
Beam Flange  
Width

ANSI/MSS  
SP-58  
Maximum  
Allowable  
Tension  
GRAVITY

ANSI / FM 1950-2016  
Maximum  
SEISMIC  
FpT / FpC (LRFD)

**SBC158**

18"

**1,900 lbs.**

**1,934 lbs.**

Compliant Per 2016 NFPA-13, Paragraph 9.1.1.2 For Single Hanger Piping 10" And Smaller

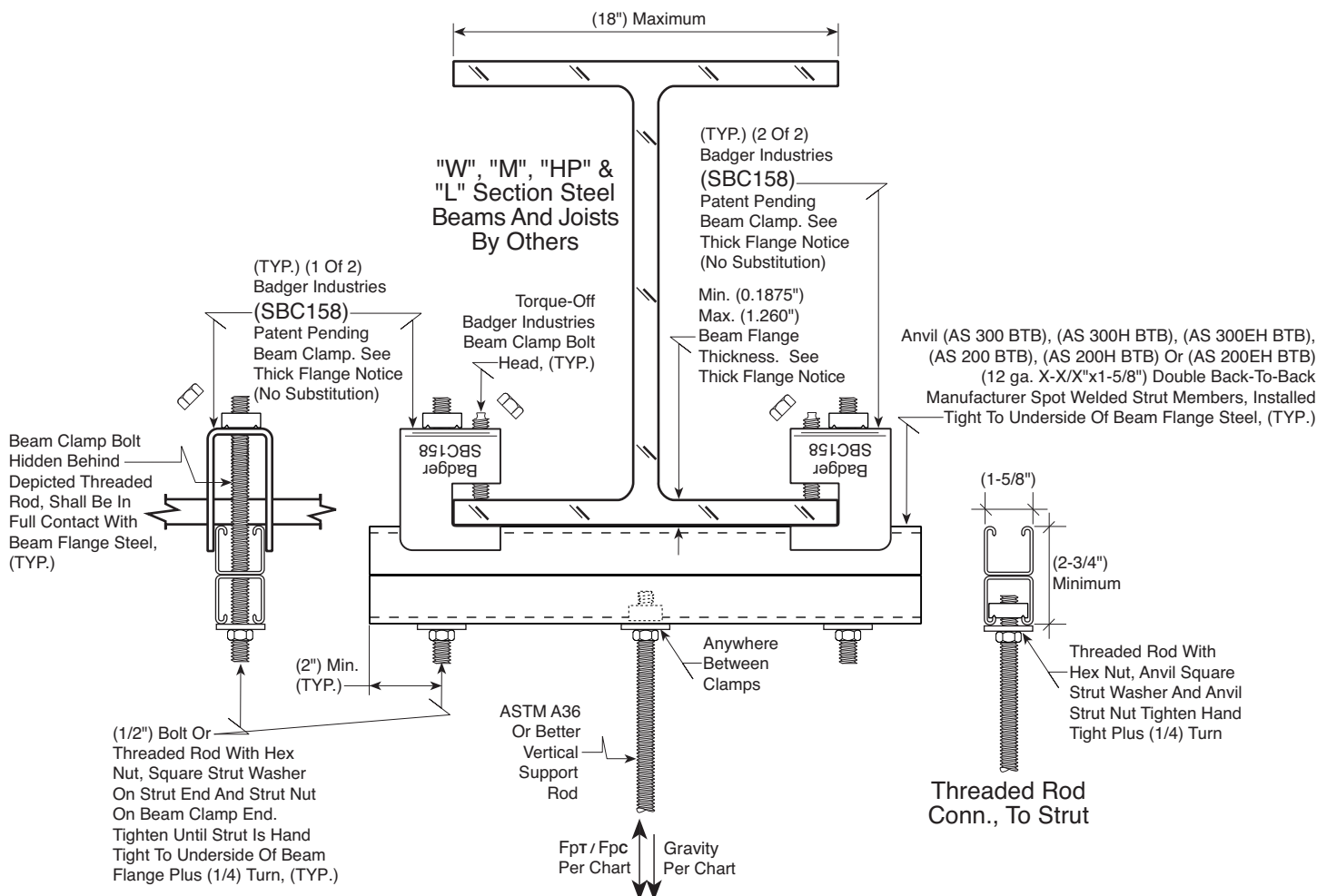
**Notice:**

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Install Each Beam Clamp Throat Steel-To-Steel Tight To Flange Of Beam. Tighten Beam Clamp Bolt Until Tight Against Beam Flange And Torque-Off Head Of Bolt Breaks Away. Use Of An Alternate Strut Shall Be Engineered By Others.

**Thick Flange Notice:**

Use Badger Industries (SBC158L-C) Beam Clamp For Flange Thickness (1.300") Inch, To A Maximum Thickness Of (3.00") Inch.



~ BADGER INDUSTRIES ~

### Seismic Vertical Connection - Double Beam Clamp Attachment

SVC52a-DS

(Elev. View) - (Not To Scale) - (Read General Notes Prior To Use)



~ BADGER INDUSTRIES ~ Detail (SVC52-FS)		ANSI/MSS SP-58		ANSI / FM 1950-2016	
BADGER INDUSTRIES Seismic Hardware Part Number	[X] Maximum	Uniform Load Maximum Allowable Tension GRAVITY	Concentrated Center Load Maximum Allowable Tension GRAVITY	Uniform Load Maximum SEISMIC FpT / FpC (LRFD)	Concentrated Center Load Maximum SEISMIC FpT / FpC (LRFD)
SBC158	1'- 0"	1,572 lbs.	785 lbs.	2,817 lbs.	1,407 lbs.
SBC158	2'- 0"	783 lbs.	390 lbs.	1,405 lbs.	701 lbs.
SBC158	3'- 0"	519 lbs.	257 lbs.	934 lbs.	464 lbs.
SBC158	4'- 0"	386 lbs.	189 lbs.	697 lbs.	345 lbs.
SBC158	5'- 0"	306 lbs.	148 lbs.	555 lbs.	273 lbs.
SBC158	6'- 0"	252 lbs.	120 lbs.	459 lbs.	224 lbs.
SBC158	7'- 0"	212 lbs.	100 lbs.	390 lbs.	189 lbs.
SBC158	8'- 0"	183 lbs.	84 lbs.	338 lbs.	162 lbs.
SBC158	9'- 0"	159 lbs.	72 lbs.	297 lbs.	141 lbs.
SBC158	10'- 0"	140 lbs.	61 lbs.	235 lbs.	123 lbs.

### Notice:

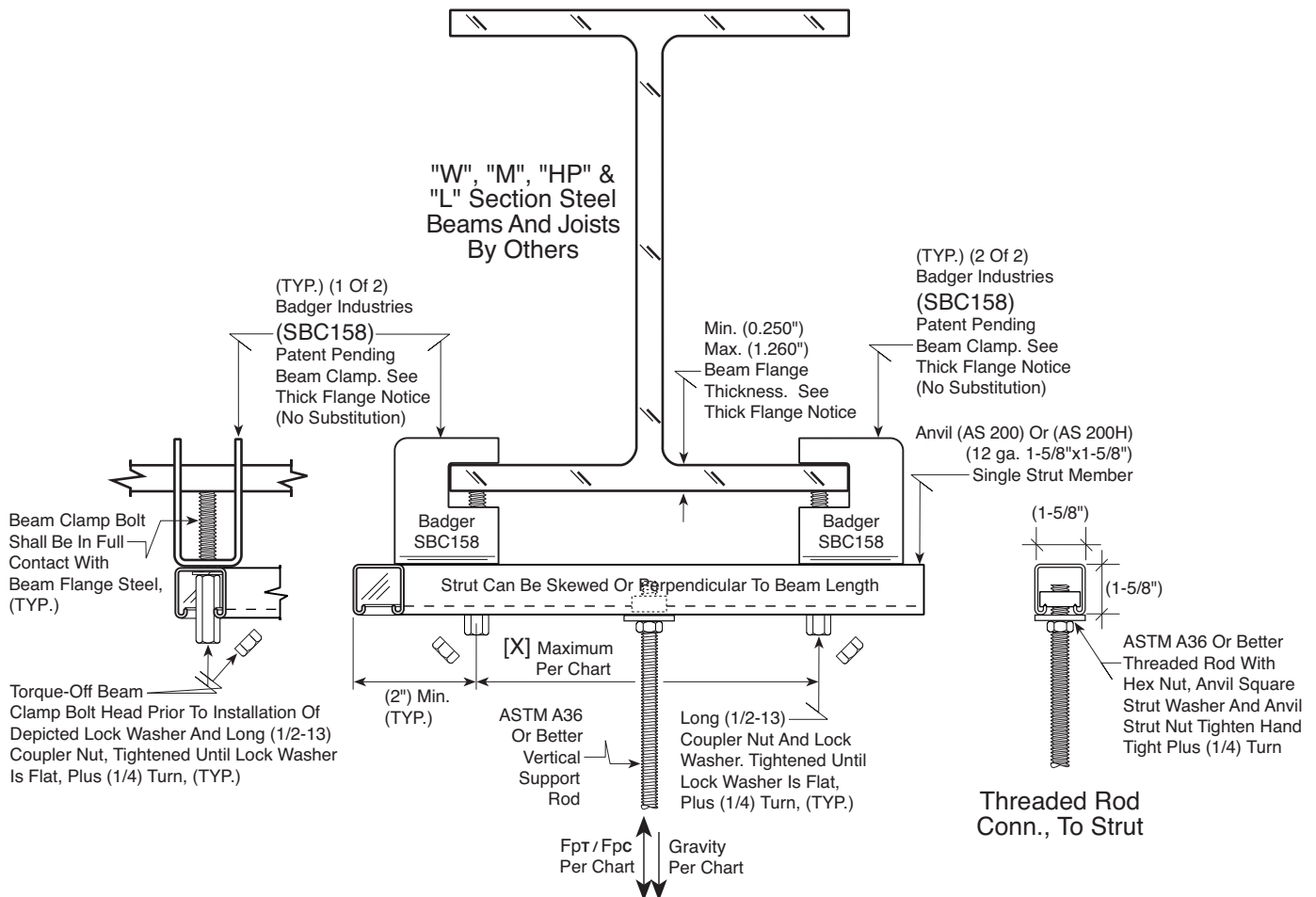
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Install Each Beam Clamp Throat Steel-To-Steel Tight To Flange Of Beam. Tighten Beam Clamp Bolt Until Tight Against Beam Flange And Torque-Off Head Of Bolt Breaks Away. Use Of An Alternate Strut Shall Be Engineered By Others.

(Non-Uniform) Load Or Loads Can Be Placed Across Span [X], Provided The Accumulated Loads Do Not Exceed Applicable Center Concentrated Load Listing Within Chart.

### Thick Flange Notice:

Use Badger Industries (SBC158L-C) Beam Clamp For Flange Thickness (1.300") Inch, To A Maximum Thickness Of (3.00") Inch.





~ BADGER INDUSTRIES ~ Detail (SVC52-C6)		Cantilever End Load	
BADGER INDUSTRIES Seismic Hardware Part Number	[X] Maximum	ANSI/MSS SP-58 Maximum Allowable Tension GRAVITY	ANSI / FM 1950-2016 Maximum SEISMIC F <sub>PT</sub> / F <sub>PC</sub> (LRFD)
SBC158	6"	392 lbs.	703 lbs.
SBC158	9"	261 lbs.	468 lbs.
SBC158	12"	195 lbs.	350 lbs.
SBC158	15"	155 lbs.	279 lbs.
SBC158	18"	128 lbs.	232 lbs.
SBC158	21"	109 lbs.	198 lbs.
SBC158	24"	94 lbs.	172 lbs.
SBC158	27"	83 lbs.	152 lbs.
SBC158	30"	74 lbs.	136 lbs.

### Notice:

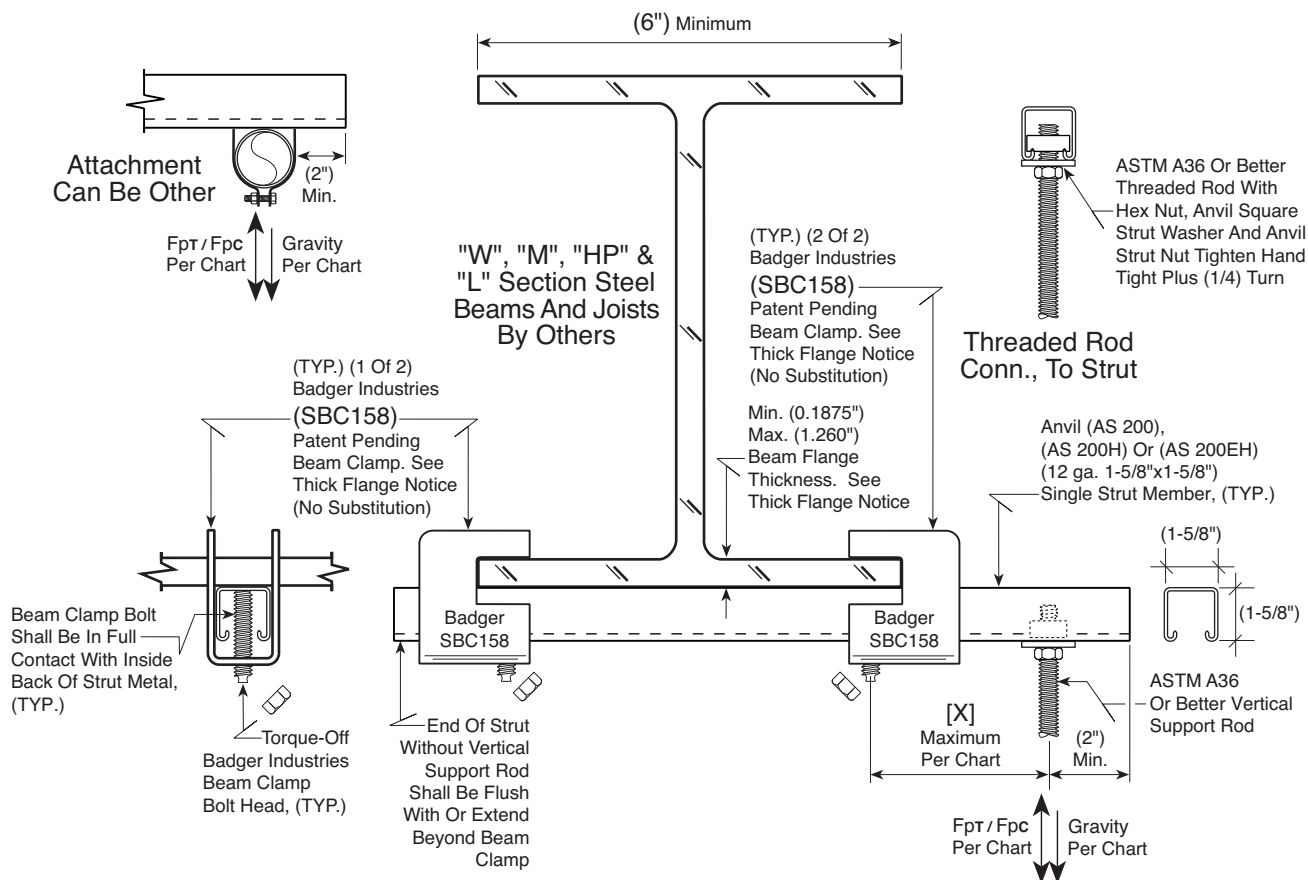
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Install Each Beam Clamp Throat Steel-To-Steel Tight To Flange Of Beam. Tighten Each Beam Clamp Bolt Until Strut Is Tight Against Beam Flange And Torque-Off Head Of Bolt Breaks Away. Use Of An Alternate Strut Shall Be Engineered By Others.

Multiple Loads Can Be Placed Across Span [X], Provided The Accumulated Loads Do Not Exceed Applicable Listing Within Chart.

### Thick Flange Notice:

Use Badger Industries (SBC158L-C) Beam Clamp For Flange Thickness (1.300") Inch, To A Maximum Thickness Of (3.00") Inch.



SVC52-C6

~ BADGER INDUSTRIES ~  
Seismic Vertical Connection - Double Beam Clamp Attachment

(Elev. View) - (Not To Scale) - (Read General Notes Prior To Use)



# SVC52L-C6

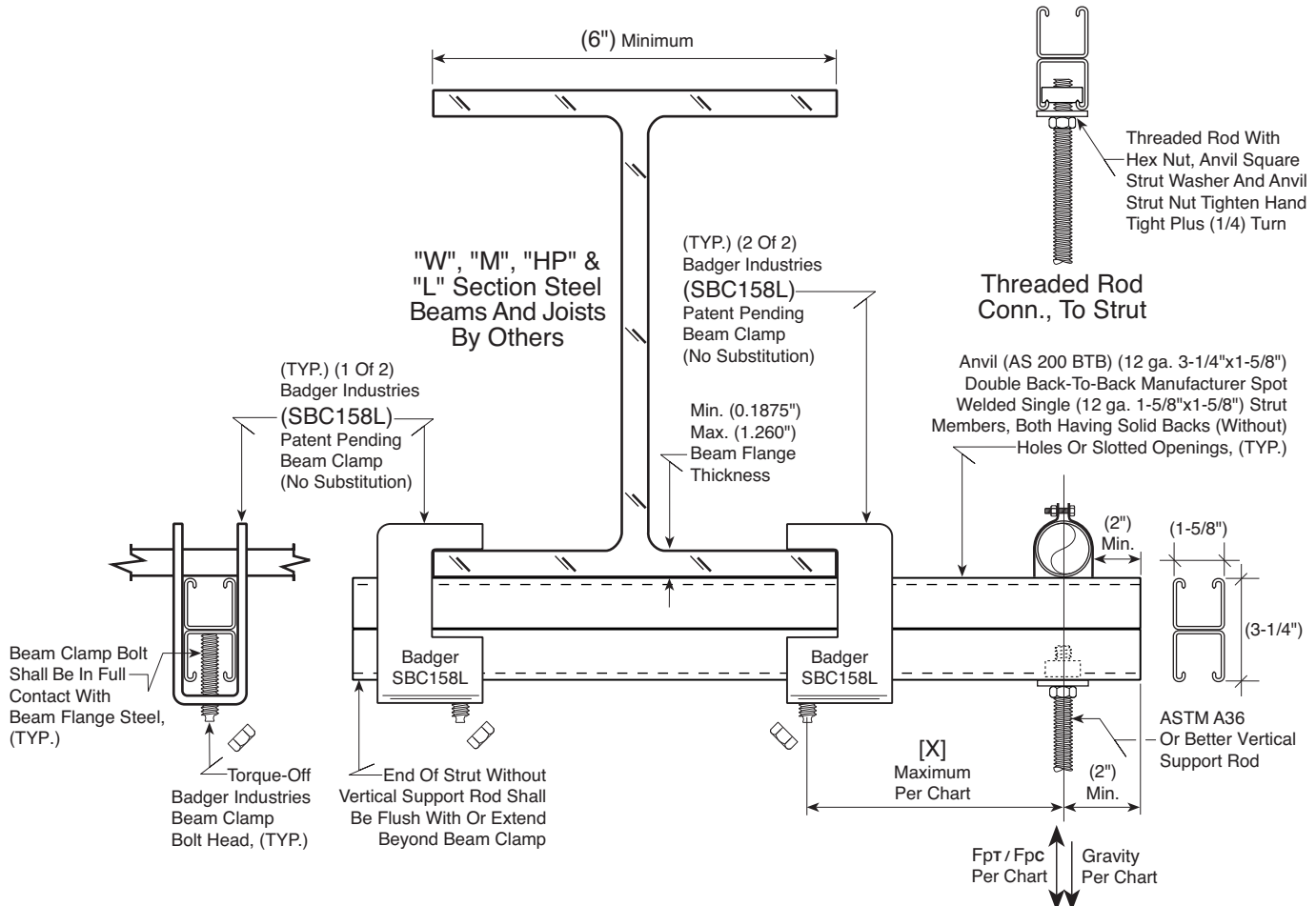
~ BADGER INDUSTRIES ~ Detail (SVC52L-C6)		Cantilever End Load	
BADGER INDUSTRIES Seismic Hardware Part Number	[X] Maximum	ANSI/MSS SP-58 Maximum Allowable Tension GRAVITY	ANSI / FM 1950-2016 Maximum SEISMIC FpT / Fpc (LRFD)
<b>SBC158L</b>	6"	<b>492 lbs.</b>	<b>1,545 lbs.</b>
<b>SBC158L</b>	9"	<b>389 lbs.</b>	<b>1,221 lbs.</b>
<b>SBC158L</b>	12"	<b>321 lbs.</b>	<b>1,009 lbs.</b>
<b>SBC158L</b>	15"	<b>274 lbs.</b>	<b>860 lbs.</b>
<b>SBC158L</b>	18"	<b>238 lbs.</b>	<b>742 lbs.</b>
<b>SBC158L</b>	21"	<b>211 lbs.</b>	<b>634 lbs.</b>
<b>SBC158L</b>	24"	<b>189 lbs.</b>	<b>553 lbs.</b>
<b>SBC158L</b>	27"	<b>172 lbs.</b>	<b>490 lbs.</b>
<b>SBC158L</b>	30"	<b>157 lbs.</b>	<b>439 lbs.</b>

## Notice:

Listed Capacities Based On Testing And Engineered Analysis. Testing Was Performed (Without) Restraining Strap. Beam Clamp Was Not Tested For Use On Beams With "S" Section Shapes. Weaker Components / Conditions Within Overall Design And Application Including, But Not Limited To The Building Structure Capacity Shall Control.

Install Each Beam Clamp Throat Steel-To-Steel Tight To Flange Of Beam. Tighten Each Beam Clamp Bolt Until Strut Is Tight Against Beam Flange And Torque-Off Head Of Bolt Breaks Away. Use Of An Alternate Strut Shall Be Engineered By Others.

Multiple Loads Can Be Placed Across Span [X], Provided The Accumulated Loads Do Not Exceed Applicable Listing Within Chart.



SVC52L-C6

~ BADGER INDUSTRIES ~  
Seismic Vertical Connection - Double Beam Clamp Attachment

(Elev. View) - (Not To Scale) - (Read General Notes Prior To Use)





~ BADGER INDUSTRIES ~ Detail (SVC52-EF1)		ANSI/MSS SP-58		ANSI / FM 1950-2016	
BADGER INDUSTRIES Seismic Hardware Part Number	[X] Maximum	Uniform Load Maximum Allowable Tension GRAVITY	Concentrated Center Load Maximum Allowable Tension GRAVITY	Uniform Load Maximum SEISMIC F <sub>pT</sub> / F <sub>pC</sub> (LRFD)	Concentrated Center Load Maximum SEISMIC F <sub>pT</sub> / F <sub>pC</sub> (LRFD)
SBC158	1'- 0"	1,572 lbs.	785 lbs.	2,817 lbs.	1,407 lbs.
SBC158	2'- 0"	783 lbs.	390 lbs.	1,405 lbs.	701 lbs.
SBC158	3'- 0"	519 lbs.	257 lbs.	934 lbs.	464 lbs.
SBC158	4'- 0"	386 lbs.	189 lbs.	697 lbs.	345 lbs.
SBC158	5'- 0"	306 lbs.	148 lbs.	555 lbs.	273 lbs.
SBC158	6'- 0"	252 lbs.	120 lbs.	459 lbs.	224 lbs.
SBC158	7'- 0"	212 lbs.	100 lbs.	390 lbs.	189 lbs.
SBC158	8'- 0"	183 lbs.	84 lbs.	338 lbs.	162 lbs.
SBC158	9'- 0"	159 lbs.	72 lbs.	297 lbs.	141 lbs.
SBC158	10'- 0"	140 lbs.	61 lbs.	235 lbs.	123 lbs.
SBC158	11'- 0"	124 lbs.	52 lbs.	178 lbs.	109 lbs.
SBC158	12'- 0"	110 lbs.	45 lbs.	137 lbs.	86 lbs.

**Notice:**

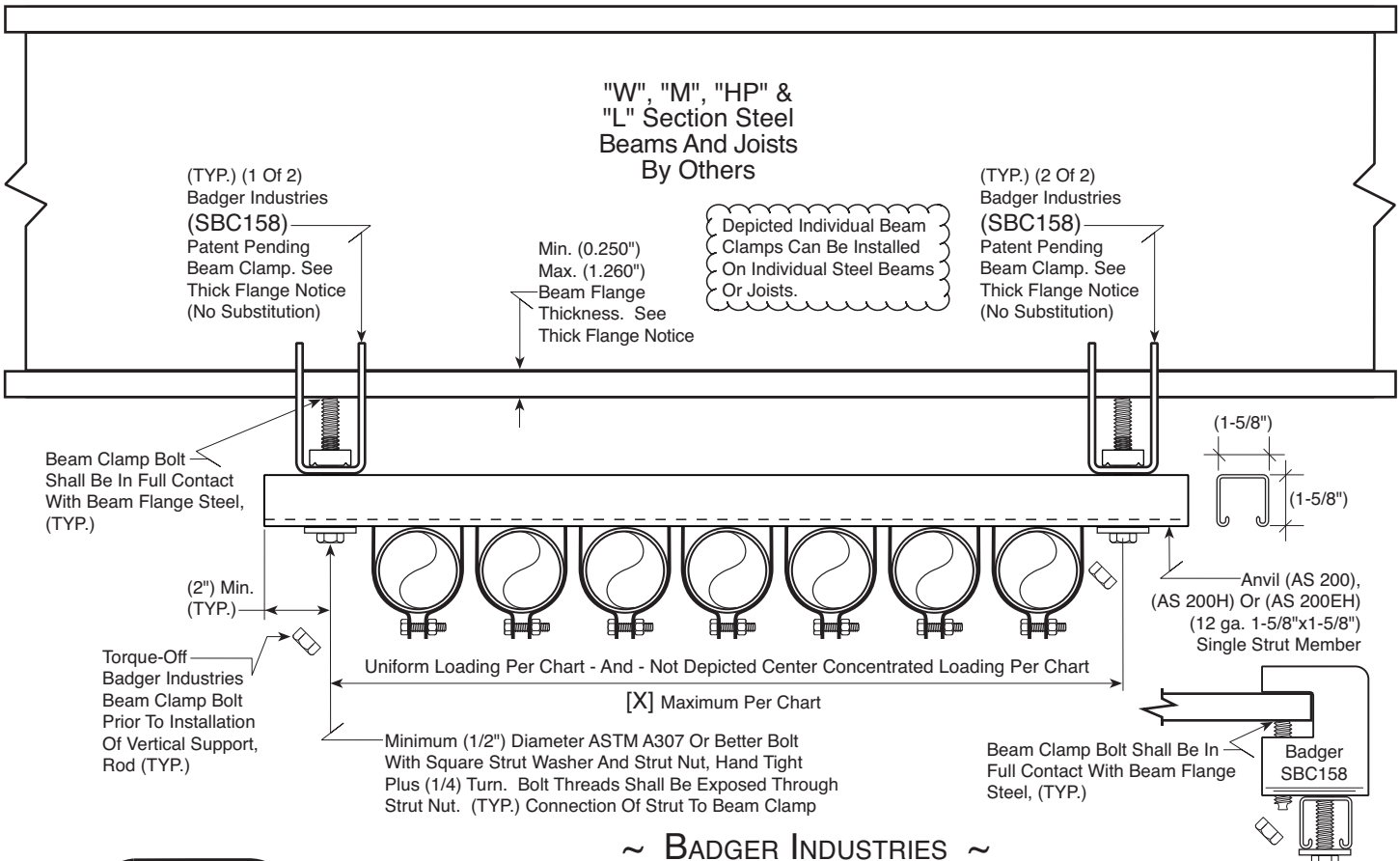
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Install Each Beam Clamp Throat Steel-To-Steel Tight To Flange Of Beam. Tighten Beam Clamp Bolt Until Tight Against Beam Flange And Torque-Off Head Of Bolt Breaks Away. Use Of An Alternate Strut Shall Be Engineered By Others.

(Non-Uniform) Load Or Loads Can Be Placed Across Span [X], Provided The Accumulated Loads Do Not Exceed Applicable Center Concentrated Load Listing Within Chart.

**Thick Flange Notice:**

Use Badger Industries (SBC158L-C) Beam Clamp For Flange Thickness (1.300") Inch, To A Maximum Thickness Of (3.00") Inch.



SVC52-EF1

~ BADGER INDUSTRIES ~  
**Seismic Vertical Connection - Double Beam Clamp Attachment**

(Elev. View) - (Not To Scale) - (Read General Notes Prior To Use)



~ BADGER INDUSTRIES ~ Detail (SVC52-EF2)		ANSI/MSS SP-58		ANSI / FM 1950-2016	
BADGER INDUSTRIES Seismic Hardware Part Number	[X] Maximum	Uniform Load Maximum Allowable Tension GRAVITY	Concentrated Center Load Maximum Allowable Tension GRAVITY	Uniform Load Maximum SEISMIC FpT / Fpc (LRFD)	Concentrated Center Load Maximum SEISMIC FpT / Fpc (LRFD)
SBC158	1'- 0"	2,994 lbs.	1,496 lbs.	4,083 lbs.	2,681 lbs.
SBC158	2'- 0"	1,493 lbs.	744 lbs.	2,678 lbs.	1,337 lbs.
SBC158	3'- 0"	992 lbs.	492 lbs.	1,782 lbs.	887 lbs.
SBC158	4'- 0"	740 lbs.	365 lbs.	1,332 lbs.	661 lbs.
SBC158	5'- 0"	588 lbs.	288 lbs.	1,062 lbs.	525 lbs.
SBC158	6'- 0"	486 lbs.	236 lbs.	881 lbs.	433 lbs.
SBC158	7'- 0"	412 lbs.	198 lbs.	751 lbs.	367 lbs.
SBC158	8'- 0"	356 lbs.	169 lbs.	652 lbs.	317 lbs.
SBC158	9'- 0"	312 lbs.	146 lbs.	576 lbs.	278 lbs.
SBC158	10'- 0"	277 lbs.	127 lbs.	514 lbs.	245 lbs.
SBC158	11'- 0"	247 lbs.	111 lbs.	463 lbs.	219 lbs.
SBC158	12'- 0"	222 lbs.	98 lbs.	373 lbs.	196 lbs.

#### Notice:

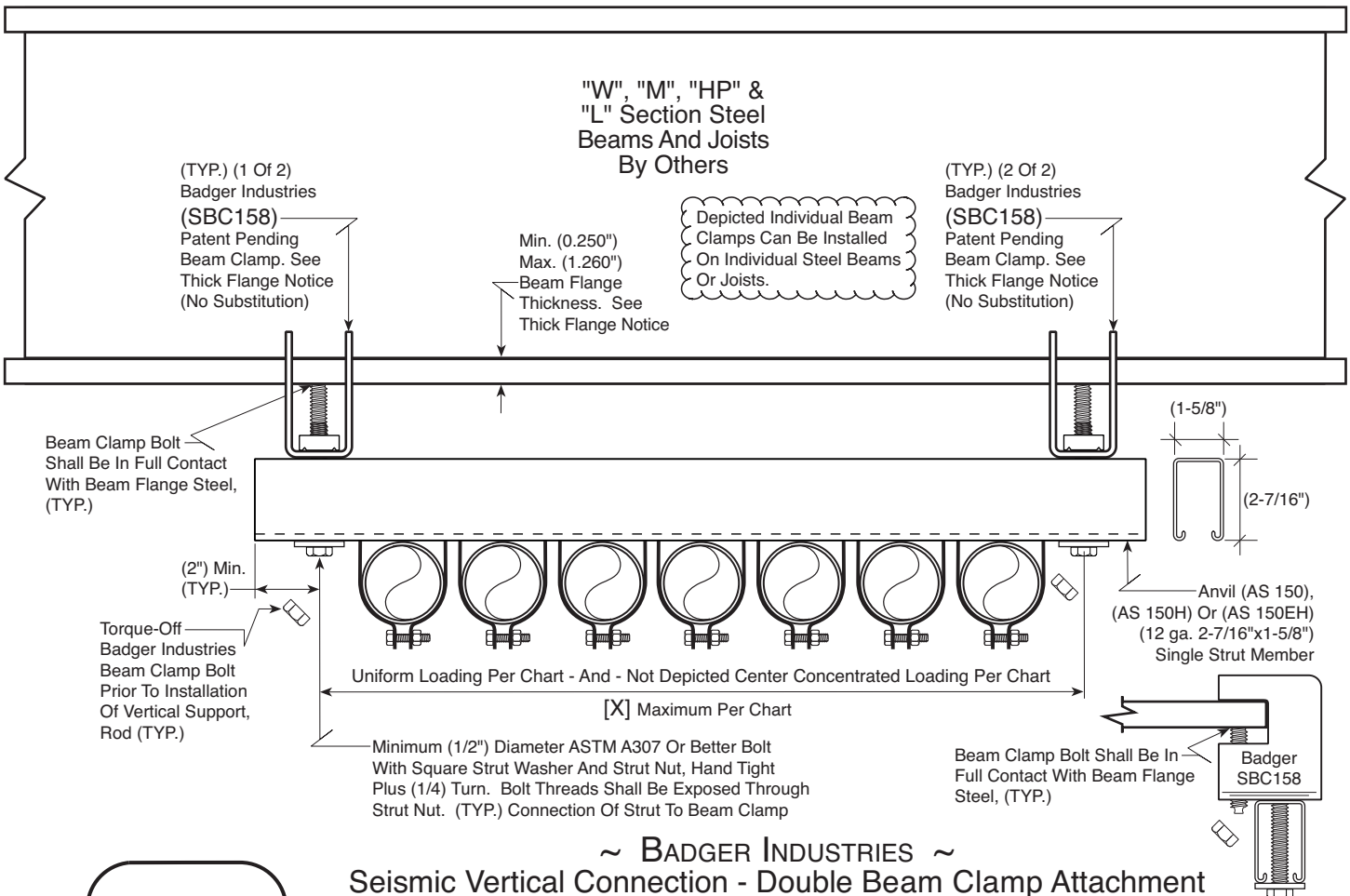
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Install Each Beam Clamp Throat Steel-To-Steel Tight To Flange Of Beam. Tighten Beam Clamp Bolt Until Tight Against Beam Flange And Torque-Off Head Of Bolt Breaks Away. Use Of An Alternate Strut Shall Be Engineered By Others.

(Non-Uniform) Load Or Loads Can Be Placed Across Span [X], Provided The Accumulated Loads Do Not Exceed Applicable Center Concentrated Load Listing Within Chart.

#### Thick Flange Notice:

Use Badger Industries (SBC158L-C) Beam Clamp For Flange Thickness (1.300") Inch, To A Maximum Thickness Of (3.00") Inch.



SVC52-EF2

(Elev. View) - (Not To Scale) - (Read General Notes Prior To Use)



~ BADGER INDUSTRIES ~ Detail (SVC52-EF3)		ANSI/MSS SP-58		ANSI / FM 1950-2016	
BADGER INDUSTRIES Seismic Hardware Part Number	[X] Maximum	Uniform Load Maximum Allowable Tension GRAVITY	Concentrated Center Load Maximum Allowable Tension GRAVITY	Uniform Load Maximum SEISMIC F <sub>pT</sub> / F <sub>pC</sub> (LRFD)	Concentrated Center Load Maximum SEISMIC F <sub>pT</sub> / F <sub>pC</sub> (LRFD)
SBC158	1'- 0"	4,320 lbs.	2,392 lbs.	4,083 lbs.	4,083 lbs.
SBC158	2'- 0"	2,389 lbs.	1,193 lbs.	4,083 lbs.	2,139 lbs.
SBC158	3'- 0"	1,588 lbs.	790 lbs.	2,851 lbs.	1,421 lbs.
SBC158	4'- 0"	1,186 lbs.	587 lbs.	2,133 lbs.	1,061 lbs.
SBC158	5'- 0"	944 lbs.	465 lbs.	1,701 lbs.	844 lbs.
SBC158	6'- 0"	781 lbs.	382 lbs.	1,413 lbs.	698 lbs.
SBC158	7'- 0"	665 lbs.	322 lbs.	1,206 lbs.	593 lbs.
SBC158	8'- 0"	576 lbs.	277 lbs.	1,050 lbs.	514 lbs.
SBC158	9'- 0"	507 lbs.	241 lbs.	928 lbs.	451 lbs.
SBC158	10'- 0"	451 lbs.	211 lbs.	830 lbs.	401 lbs.
SBC158	11'- 0"	405 lbs.	187 lbs.	749 lbs.	359 lbs.
SBC158	12'- 0"	366 lbs.	166 lbs.	681 lbs.	324 lbs.

### Notice:

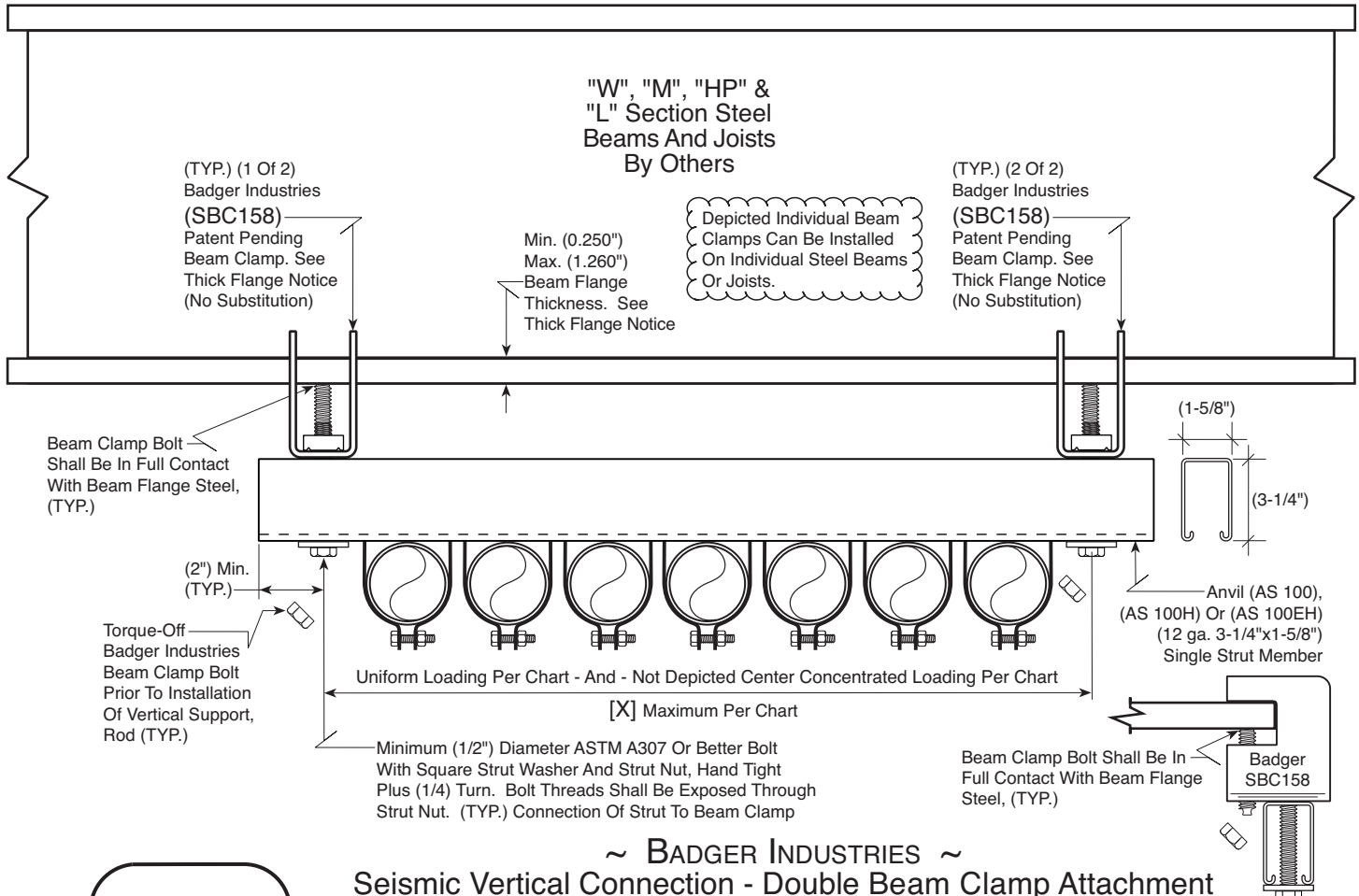
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Install Each Beam Clamp Throat Steel-To-Steel Tight To Flange Of Beam. Tighten Beam Clamp Bolt Until Tight Against Beam Flange And Torque-Off Head Of Bolt Breaks Away. Use Of An Alternate Strut Shall Be Engineered By Others.

(Non-Uniform) Load Or Loads Can Be Placed Across Span [X]. Provided The Accumulated Loads Do Not Exceed Applicable Center Concentrated Load Listing Within Chart.

### Thick Flange Notice:

Use Badger Industries (SBC158L-C) Beam Clamp For Flange Thickness (1.300") Inch, To A Maximum Thickness Of (3.00") Inch.



SVC52-EF3

~ BADGER INDUSTRIES ~  
Seismic Vertical Connection - Double Beam Clamp Attachment

(Elev. View) - (Not To Scale) - (Read General Notes Prior To Use)



~ BADGER INDUSTRIES ~ Detail (SVC52-EF1T)		ANSI/MSS SP-58		ANSI / FM 1950-2016	
BADGER INDUSTRIES Seismic Hardware Part Number	[X] Maximum	Uniform Load Maximum Allowable Tension GRAVITY	Concentrated Center Load Maximum Allowable Tension GRAVITY	Uniform Load Maximum SEISMIC F <sub>PT</sub> / F <sub>PC</sub> (LRFD)	Concentrated Center Load Maximum SEISMIC F <sub>PT</sub> / F <sub>PC</sub> (LRFD)
SBC158	1'- 0"	1,572 lbs.	785 lbs.	2,817 lbs.	1,407 lbs.
SBC158	2'- 0"	783 lbs.	390 lbs.	1,405 lbs.	701 lbs.
SBC158	3'- 0"	519 lbs.	257 lbs.	934 lbs.	464 lbs.
SBC158	4'- 0"	386 lbs.	189 lbs.	697 lbs.	345 lbs.
SBC158	5'- 0"	306 lbs.	148 lbs.	555 lbs.	273 lbs.
SBC158	6'- 0"	252 lbs.	120 lbs.	459 lbs.	224 lbs.
SBC158	7'- 0"	212 lbs.	100 lbs.	390 lbs.	189 lbs.
SBC158	8'- 0"	183 lbs.	84 lbs.	338 lbs.	162 lbs.
SBC158	9'- 0"	159 lbs.	72 lbs.	297 lbs.	141 lbs.
SBC158	10'- 0"	140 lbs.	61 lbs.	235 lbs.	123 lbs.
SBC158	11'- 0"	124 lbs.	52 lbs.	178 lbs.	109 lbs.
SBC158	12'- 0"	110 lbs.	45 lbs.	137 lbs.	86 lbs.

### Notice:

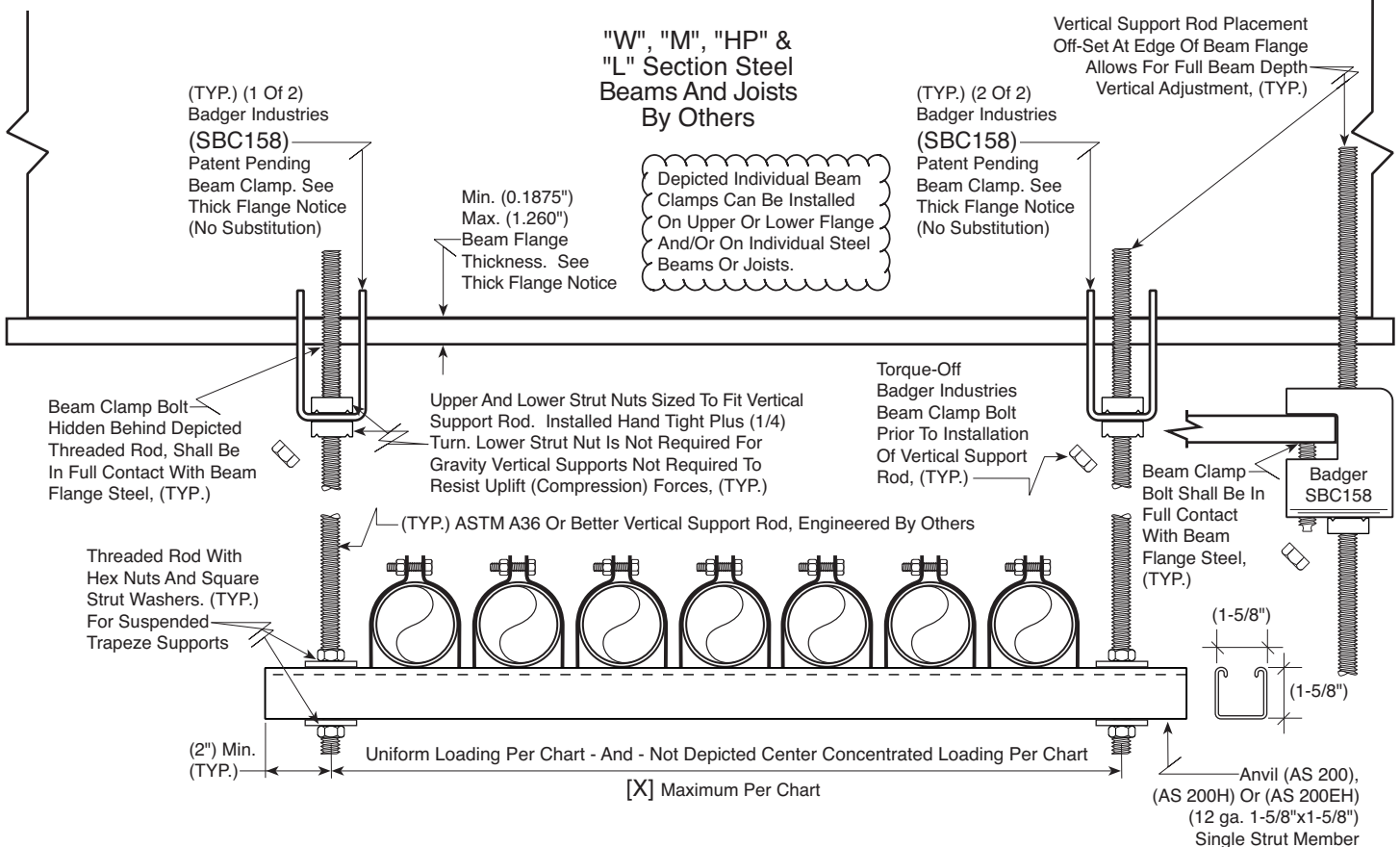
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### Thick Flange Notice:

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SVC52-EF1T

~ BADGER INDUSTRIES ~  
Seismic Vertical Connection - Double Beam Clamp Attachment

(Elev. View) - (Not To Scale) - (Read General Notes Prior To Use)





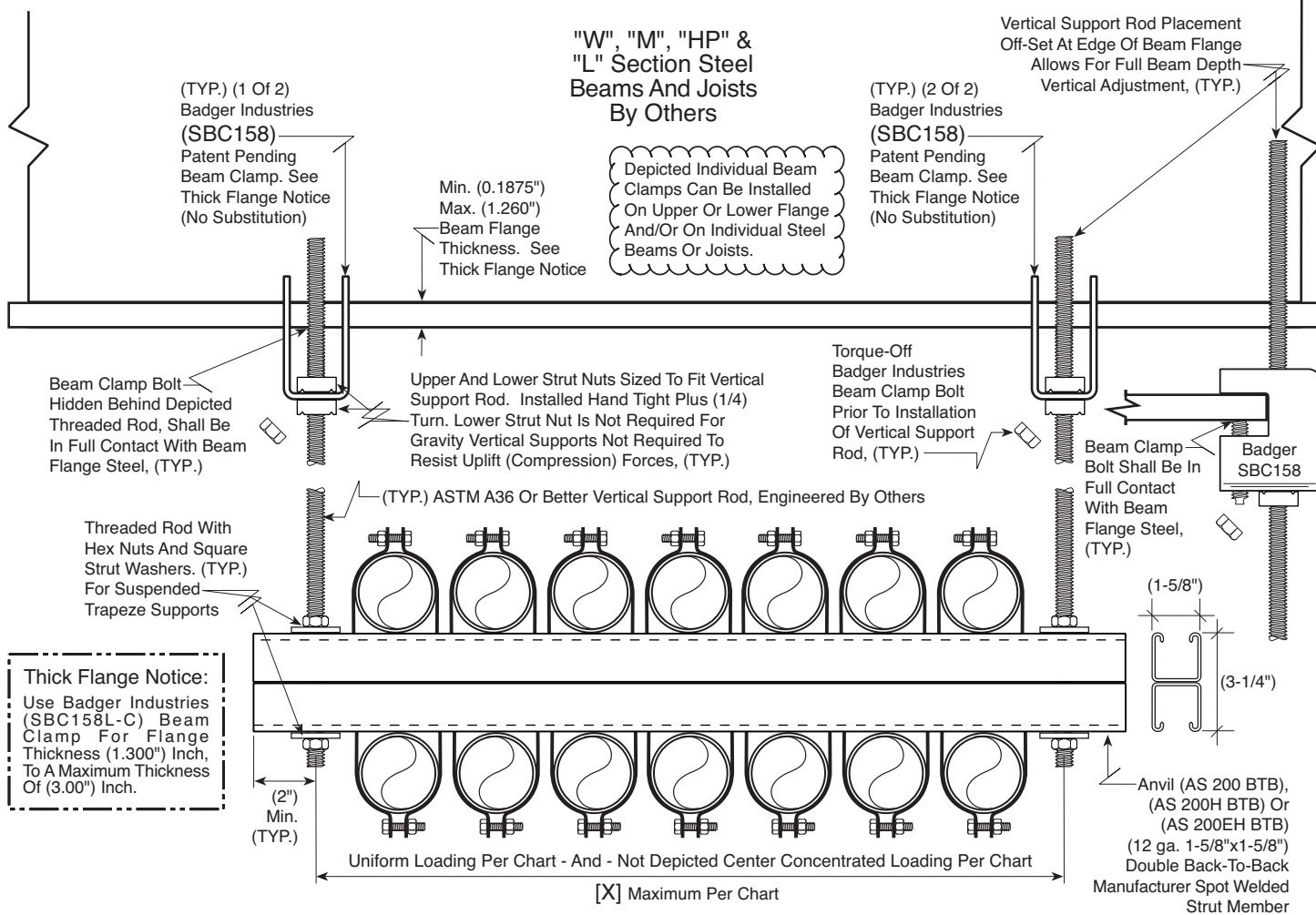
~ BADGER INDUSTRIES ~ Detail (SVC52-EF4T)		ANSI/MSS SP-58		ANSI / FM 1950-2016	
BADGER INDUSTRIES Seismic Hardware Part Number	[X] Maximum	Uniform Load Maximum Allowable Tension GRAVITY	Concentrated Center Load Maximum Allowable Tension GRAVITY	Uniform Load Maximum SEISMIC F <sub>PT</sub> / F <sub>PC</sub> (LRFD)	Concentrated Center Load Maximum SEISMIC F <sub>PT</sub> / F <sub>PC</sub> (LRFD)
SBC158	3'- 0"	1,460 lbs.	725 lbs.	2,623 lbs.	1,306 lbs.
SBC158	4'- 0"	1,089 lbs.	537 lbs.	1,961 lbs.	973 lbs.
SBC158	5'- 0"	865 lbs.	424 lbs.	1,563 lbs.	773 lbs.
SBC158	6'- 0"	714 lbs.	347 lbs.	1,296 lbs.	637 lbs.
SBC158	7'- 0"	606 lbs.	291 lbs.	1,104 lbs.	540 lbs.
SBC158	8'- 0"	524 lbs.	248 lbs.	960 lbs.	466 lbs.
SBC158	9'- 0"	459 lbs.	214 lbs.	847 lbs.	408 lbs.
SBC158	10'- 0"	407 lbs.	186 lbs.	755 lbs.	360 lbs.
SBC158	11'- 0"	363 lbs.	162 lbs.	680 lbs.	321 lbs.
SBC158	12'- 0"	326 lbs.	142 lbs.	617 lbs.	288 lbs.

### Notice:

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SVC52-EF4T

~ BADGER INDUSTRIES ~  
Seismic Vertical Connection - Double Beam Clamp Attachment

(Elev. View) - (Not To Scale) - (Read General Notes Prior To Use)



~ BADGER INDUSTRIES ~ Detail (SVC52-LF)		ANSI/MSS SP-58		ANSI / FM 1950-2016	
BADGER INDUSTRIES Seismic Hardware Part Number	[X] Maximum	Uniform Load Maximum Allowable Tension GRAVITY	Concentrated Center Load Maximum Allowable Tension GRAVITY	Uniform Load Maximum SEISMIC F <sub>PT</sub> / F <sub>PC</sub> (LRFD)	Concentrated Center Load Maximum SEISMIC F <sub>PT</sub> / F <sub>PC</sub> (LRFD)
SBC158	5'- 0"	463 lbs.	306 lbs.	837 lbs.	555 lbs.
SBC158	6'- 0"	383 lbs.	252 lbs.	694 lbs.	459 lbs.
SBC158	7'- 0"	325 lbs.	212 lbs.	592 lbs.	390 lbs.
SBC158	8'- 0"	281 lbs.	183 lbs.	514 lbs.	338 lbs.
SBC158	9'- 0"	246 lbs.	159 lbs.	454 lbs.	297 lbs.
SBC158	10'- 0"	219 lbs.	140 lbs.	405 lbs.	264 lbs.
SBC158	11'- 0"	195 lbs.	124 lbs.	365 lbs.	237 lbs.
SBC158	12'- 0"	176 lbs.	110 lbs.	331 lbs.	214 lbs.

### Notice:

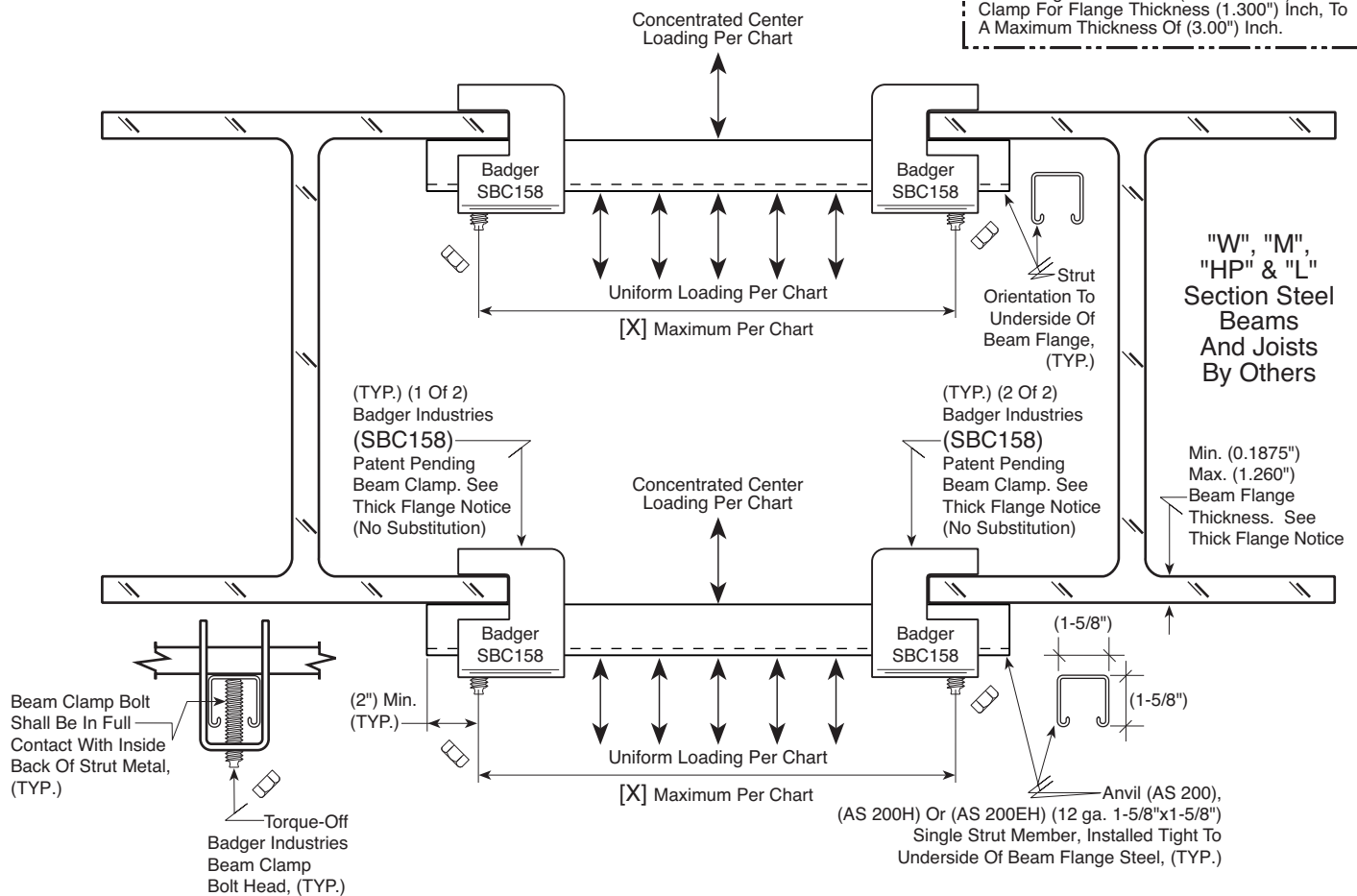
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(Non-Uniform) Load Or Loads Can Be Placed Across Span [X], Provided The Accumulated Loads Do Not Exceed Applicable Center Concentrated Load Listing Within Chart.

### Thick Flange Notice:

Use Badger Industries (SBC158L-C) Beam Clamp For Flange Thickness (1.300") Inch, To A Maximum Thickness Of (3.00") Inch.



SVC52-LF

~ BADGER INDUSTRIES ~  
Seismic Vertical Connection - Double Beam Clamp Attachment

(Elev. View) - (Not To Scale) - (Read General Notes Prior To Use)



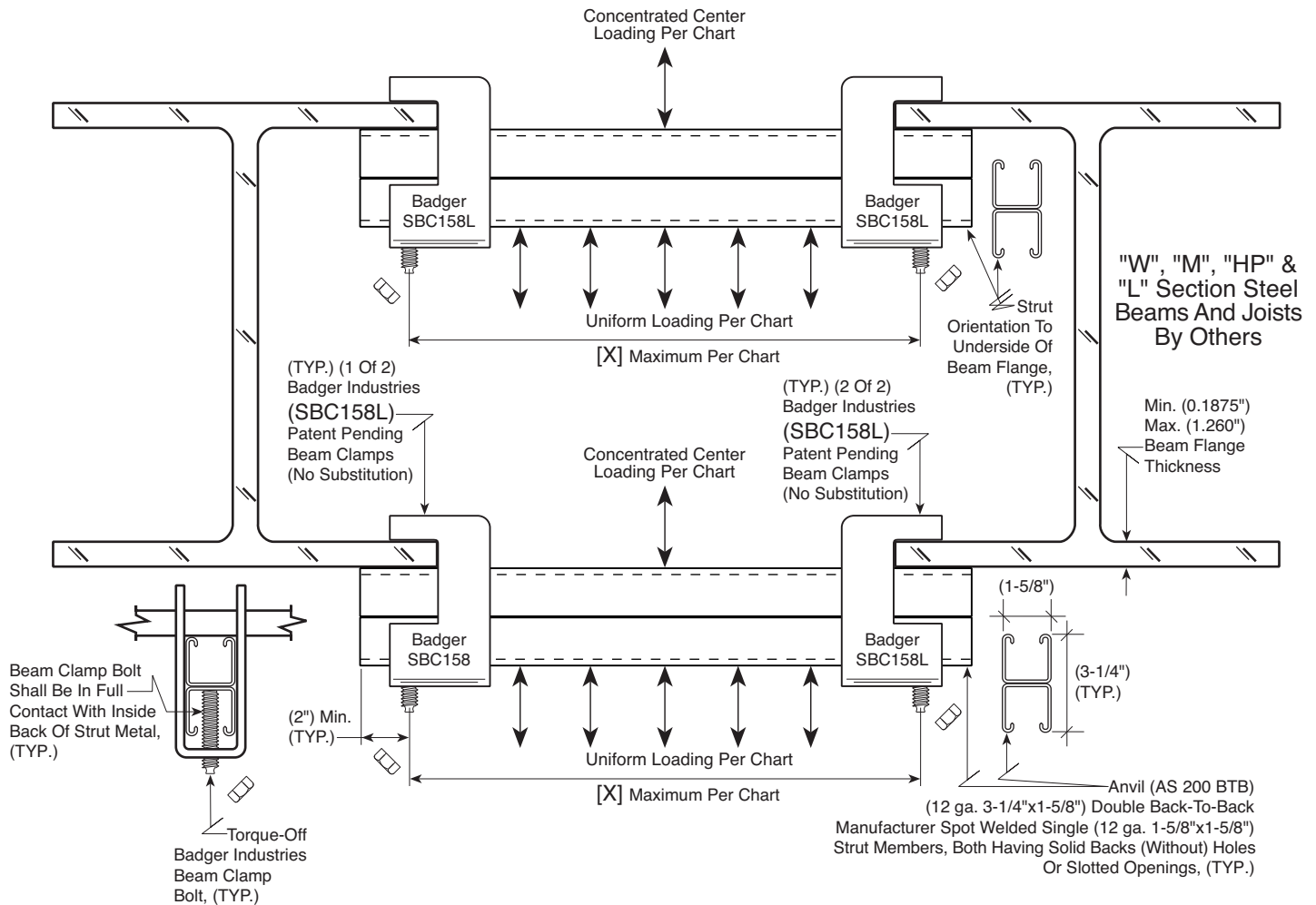
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BADGER INDUSTRIES Seismic Hardware Part Number	[X] Maximum	Uniform Load Maximum Allowable Tension GRAVITY	Concentrated Center Load Maximum Allowable Tension GRAVITY	Uniform Load Maximum SEISMIC F <sub>PT</sub> / F <sub>PC</sub> (LRFD)	Concentrated Center Load Maximum SEISMIC F <sub>PT</sub> / F <sub>PC</sub> (LRFD)
SBC158L	5'- 0"	1,306 lbs.	865 lbs.	2,152 lbs.	1,563 lbs.
SBC158L	6'- 0"	1,082 lbs.	714 lbs.	1,954 lbs.	1,296 lbs.
SBC158L	7'- 0"	921 lbs.	606 lbs.	1,669 lbs.	1,104 lbs.
SBC158L	8'- 0"	799 lbs.	524 lbs.	1,454 lbs.	960 lbs.
SBC158L	9'- 0"	704 lbs.	459 lbs.	1,286 lbs.	847 lbs.
SBC158L	10'- 0"	627 lbs.	407 lbs.	1,150 lbs.	755 lbs.
SBC158L	11'- 0"	564 lbs.	363 lbs.	1,039 lbs.	680 lbs.
SBC158L	12'- 0"	510 lbs.	326 lbs.	946 lbs.	617 lbs.

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SVC52L-LF

~ BADGER INDUSTRIES ~  
Seismic Vertical Connection - Double Beam Clamp Attachment

(Elev. View) - (Not To Scale) - (Read General Notes Prior To Use)



~ BADGER INDUSTRIES ~ Detail (SVC52-LFa)		ANSI/MSS SP-58		ANSI / FM 1950-2016	
BADGER INDUSTRIES Seismic Hardware Part Number	[X] Maximum	Uniform Load Maximum Allowable Tension GRAVITY	Concentrated Center Load Maximum Allowable Tension GRAVITY	Uniform Load Maximum SEISMIC FpT / FpC (LRFD)	Concentrated Center Load Maximum SEISMIC FpT / FpC (LRFD)
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SBC158	7'- 0"	325 lbs.	212 lbs.	592 lbs.	390 lbs.
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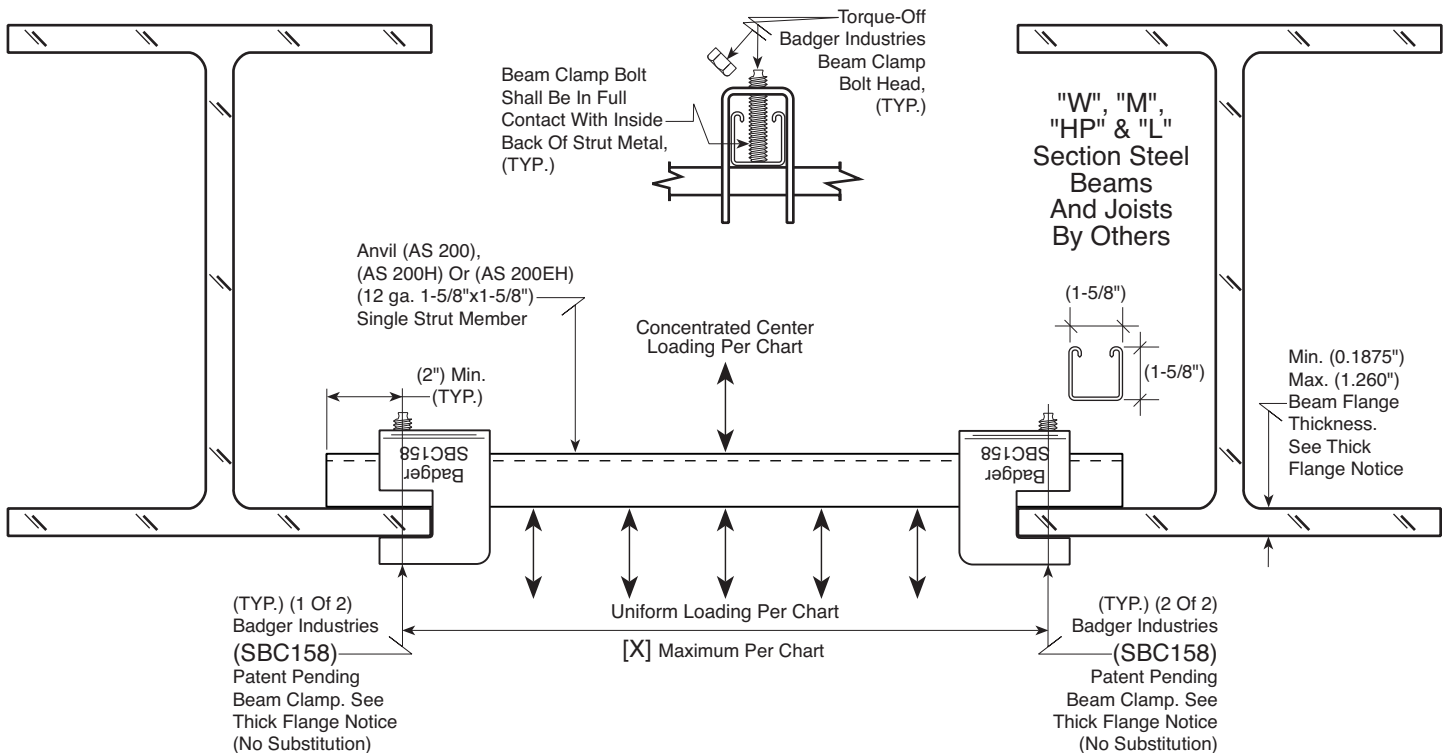
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#### Thick Flange Notice:

Use Badger Industries (SBC158L-C) Beam Clamp For Flange Thickness (1.300") Inch, To A Maximum Thickness Of (3.00") Inch.



SVC52-LFa

## ~ BADGER INDUSTRIES ~ Seismic Vertical Connection - Double Beam Clamp Attachment

(Elev. View) - (Not To Scale) - (Read General Notes Prior To Use)





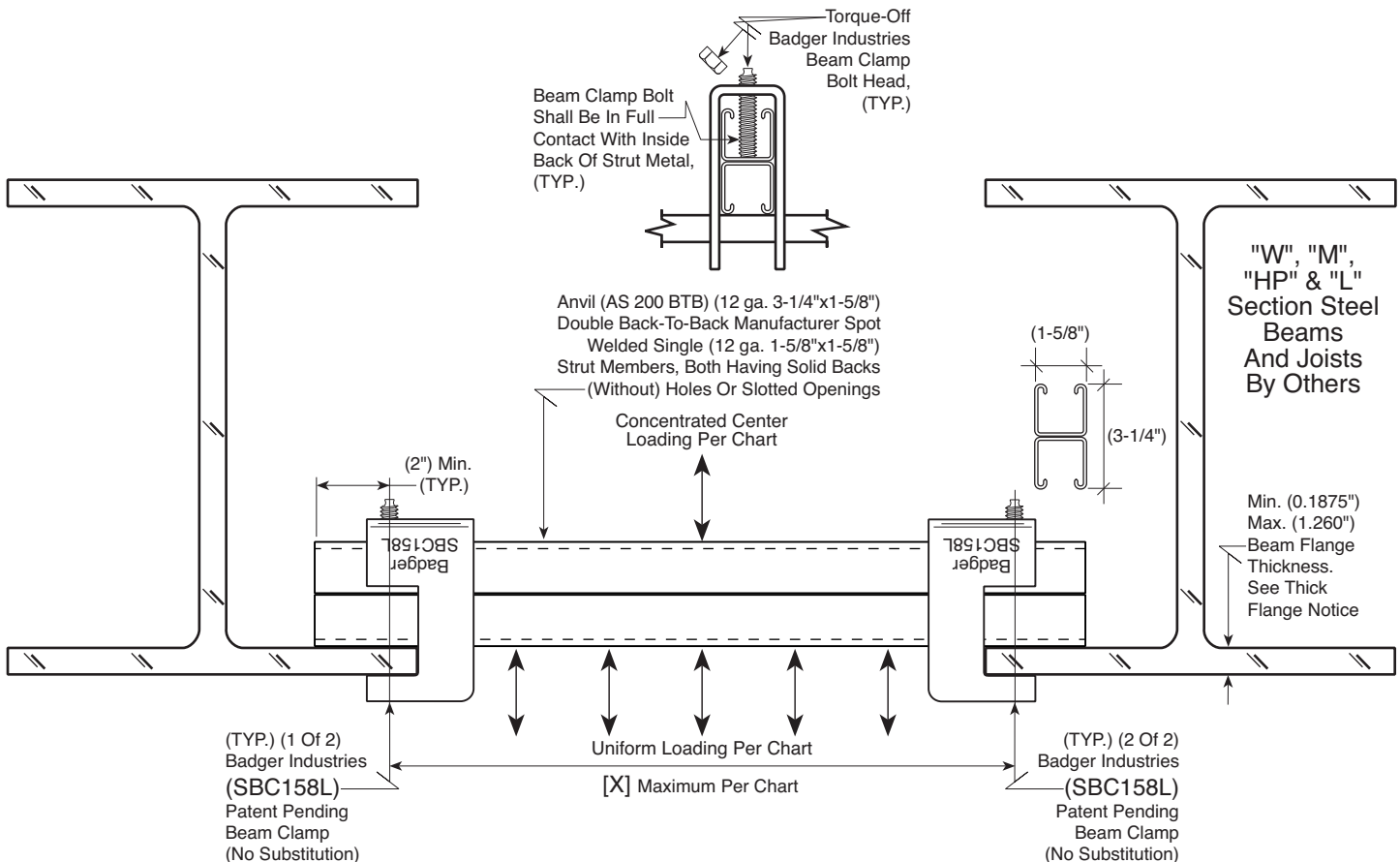
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SVC52L-LFa

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**Seismic Vertical Connection - Double Beam Clamp Attachment**

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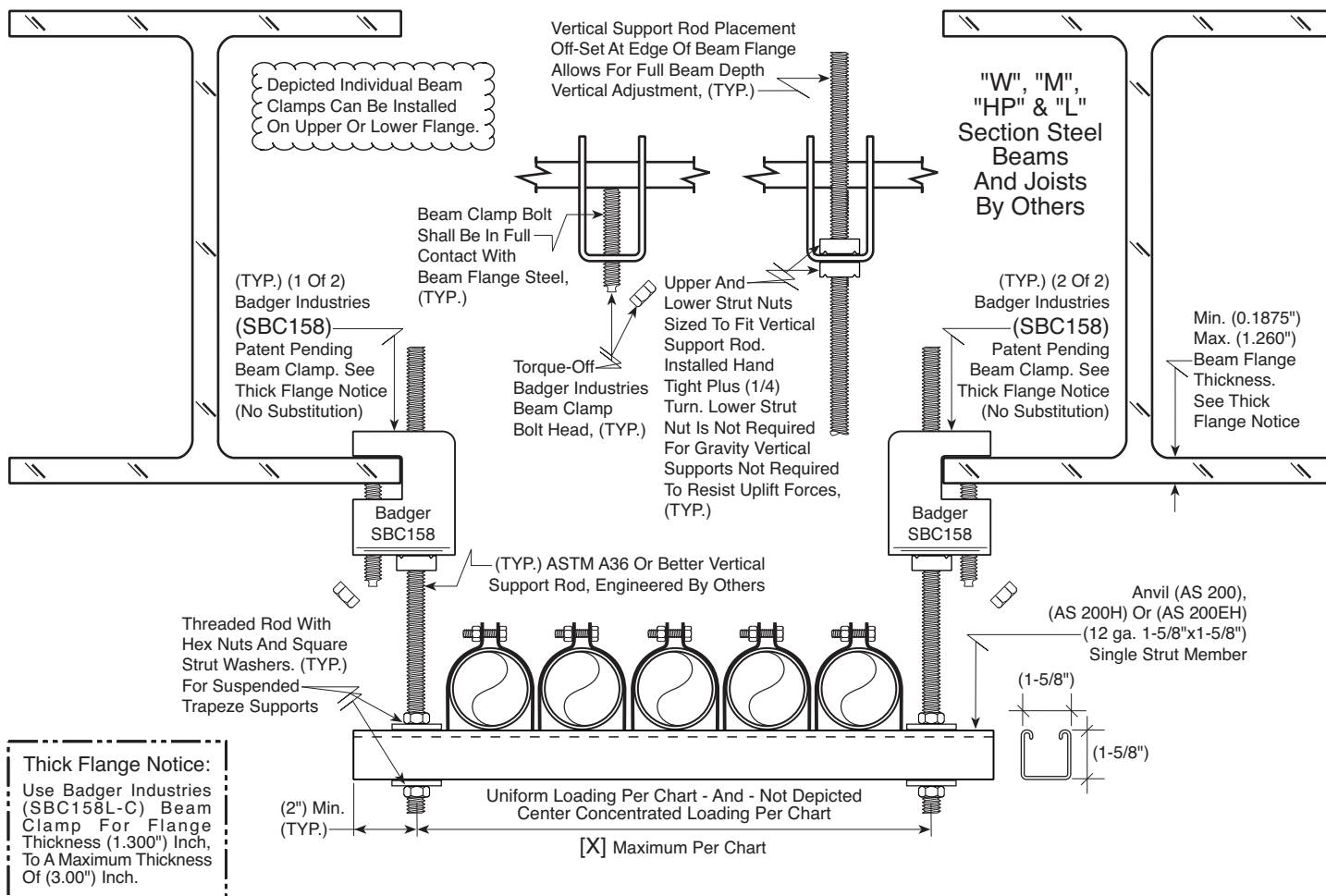
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SVC52-LF1T

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Seismic Vertical Connection - Double Beam Clamp Attachment

(Elev. View) - (Not To Scale) - (Read General Notes Prior To Use)



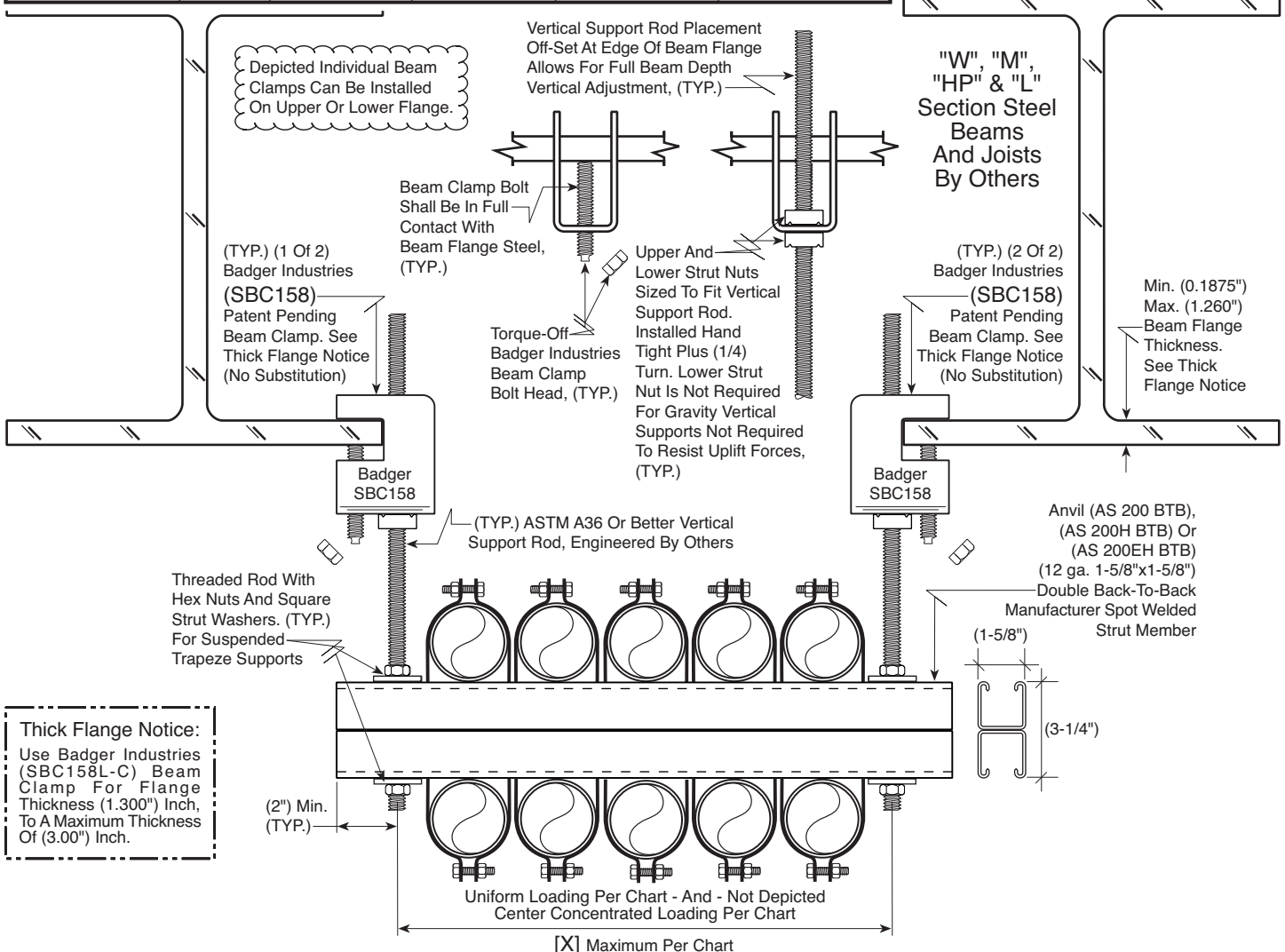
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~ BADGER INDUSTRIES ~

Detail (SBC-51)

ANSI / FM 1950-2016

BADGER INDUSTRIES  
Steel Beam Clamp  
Part # [SBC158-C]

Brace Angle  
From Vertical  
30° to 75°  
Maximum  
Horz. Fp (LRFD)

Maximum Horizontal  
Capacity (LRFD)

435 lbs.

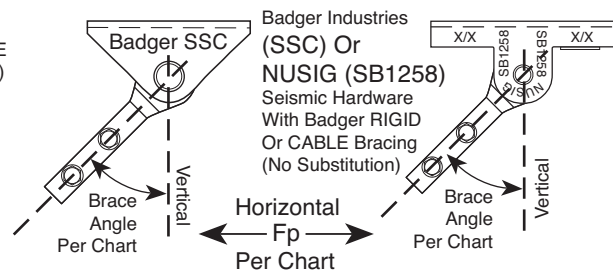
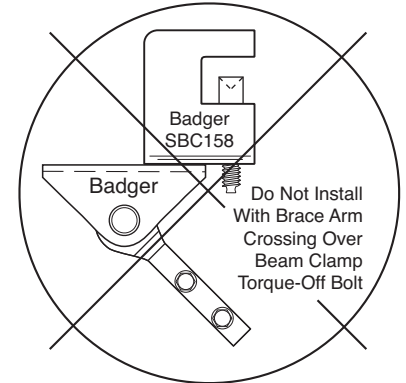
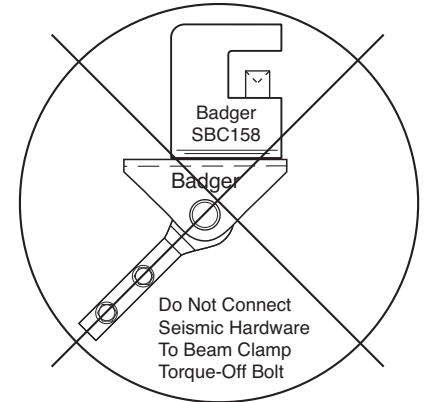
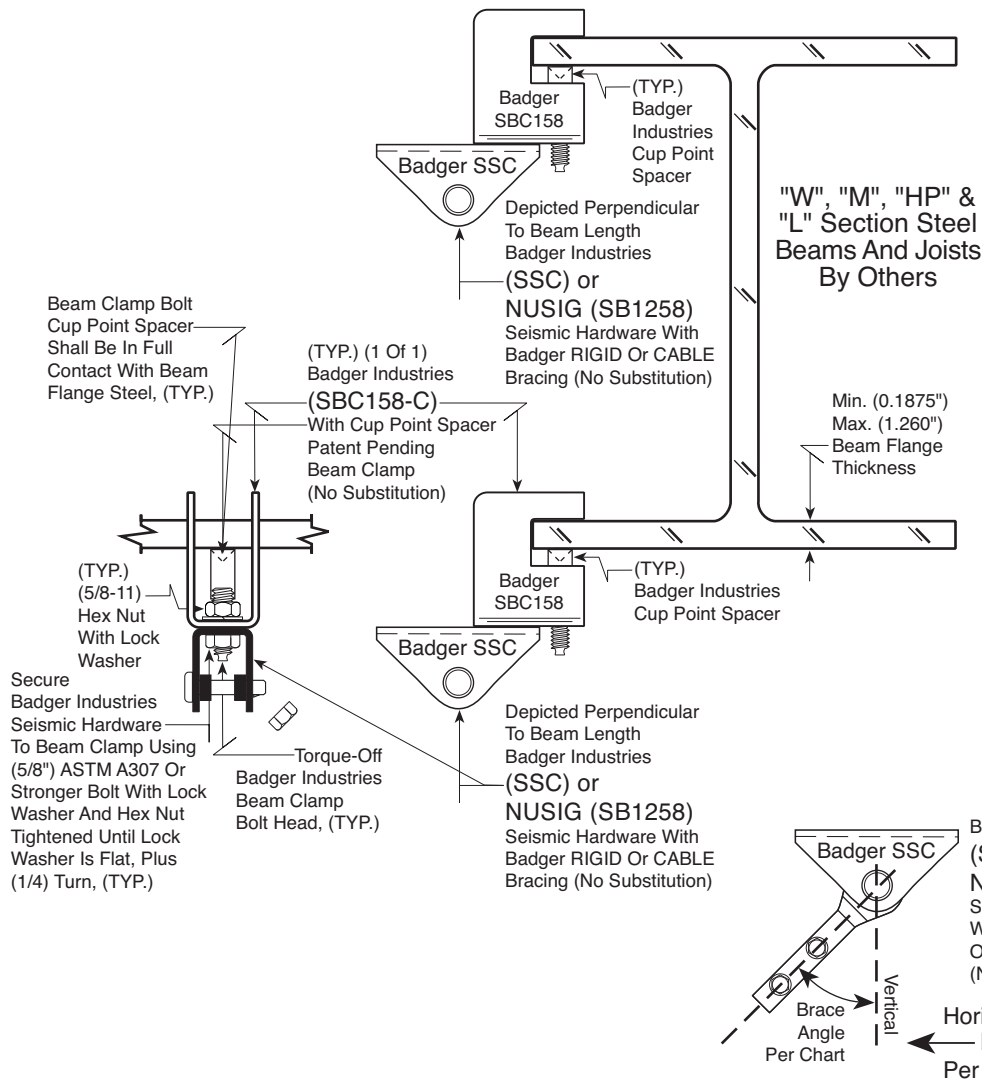
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Install Beam Clamp Throat Steel-To-Steel Tight To Flange Of Beam. Tighten Beam Clamp Bolt Until Cup Point End Of Spacer Is Tight Against Beam Flange And Torque-Off Head Of Bolt Breaks Away.

-C Or C Which Indicates Cup Point Spacer Required To Be Installed At Threaded End Of Torque-Off Beam Clamp Bolt, May Or May Not Be Stamped Into Beam Clamp.

Depicted Perpendicular Seismic Assembly Can Be Rotated About Their Depicted Bolted Conn. To Various Orientations (+ / -) 90° Degrees.



~ BADGER INDUSTRIES ~

Seismic Brace Connection - Single Beam Clamp Attachment

SBC-51

(Elev. View) - (Not To Scale) - (Read General Notes Prior To Use)





0820 Edition

~ BADGER INDUSTRIES ~

### Detail (SBC-51J)

ANSI / FM 1950-2016

**BADGER INDUSTRIES**  
**Steel Beam Clamp**  
**Part # [SBC158-C]**

Brace Angle  
From Vertical  
30° to 75°  
Maximum  
Horz. Fp (LRFD)

Maximum Horizontal Capacity (LRFD)

435 lbs.

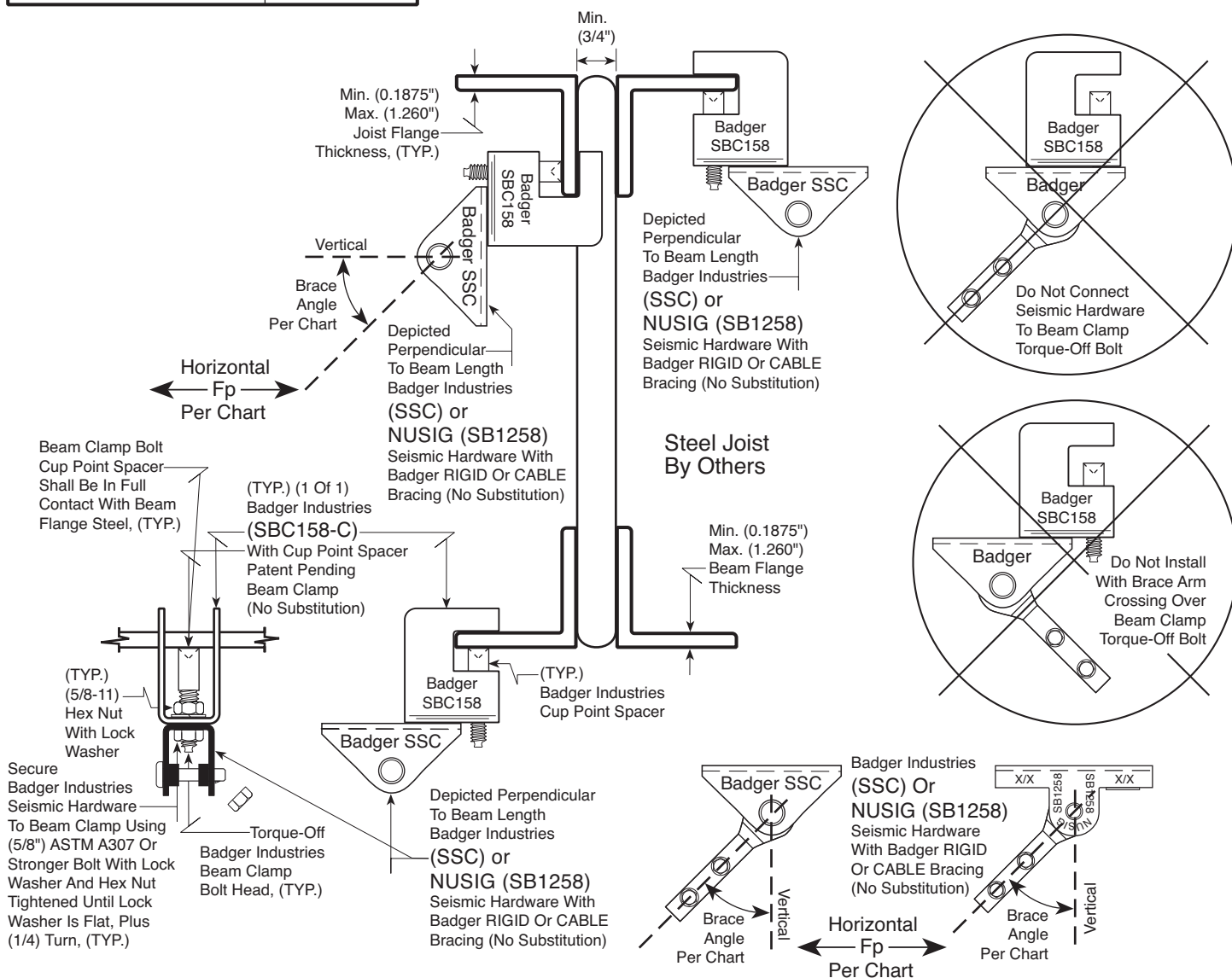
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-C Or C Which Indicates Cup Point Spacer Required To Be Installed At Threaded End Of Torque-Off Beam Clamp Bolt, May Or May Not Be Stamped Into Beam Clamp.

Depicted Perpendicular Seismic Assembly Can Be Rotated About Their Depicted Bolted Conn. To Various Orientations (+ / -) 90° Degrees.



~ BADGER INDUSTRIES ~

## Seismic Brace Connection - Single Beam Clamp Attachment

SBC-51J

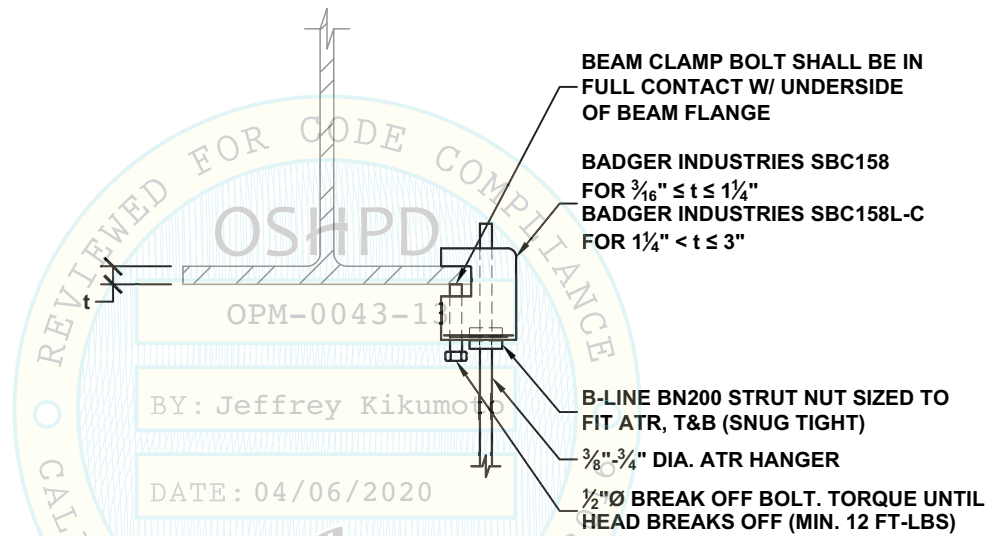
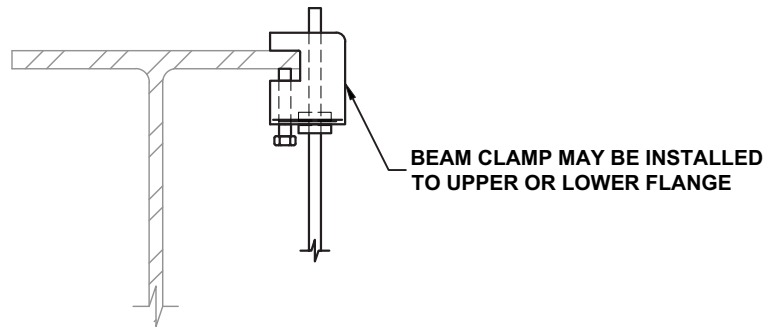
(Elev. View) - (Not To Scale) - (Read General Notes Prior To Use)



The following pages are copies  
of OSHPD OPM and  
City Of Los Angeles COLA  
approvals for the

BADGER INDUSTRIES  
SBC158 SERIES  
SEEL BEAM CLAMPS

# ATR HANGER ATTACHMENT TO STEEL BEAM WITH (1) BADGER INDUSTRIES SBC158 SERIES STEEL BEAM CLAMP



GRAVITY ONLY		GRAVITY & SEISMIC		ATR HANGER DIA. INCH
HANGER CONNECTION TYPE	ALLOWABLE VERTICAL LOAD LBS	HANGER CONNECTION TYPE	ALLOWABLE VERTICAL LOAD LBS	
38A TO 38H	730	38A TO 38M	1940	3/8
50A TO 50J	970	50A TO 50M	1940	1/2
63A TO 63J	970	63A TO 63M	1940	5/8
75A TO 75J	970	75A TO 75M	1940	3/4

- <sup>1</sup> SEE DETAIL M0.00 FOR SECTION NOTES
- <sup>2</sup> ATTACHMENT TO STEEL BEAM SHALL NOT BE PLACED WITHIN THE PROTECTED ZONE AS DEFINED IN AISC 341.
- <sup>3</sup> WHEN USED FOR "GRAVITY & SEISMIC" LOADING, THE GRAVITY DEMAND SHALL NOT EXCEED THE "GRAVITY ONLY" ALLOWABLE LOAD.
- <sup>4</sup> BEAM CLAMPS SHALL NOT BE USED ON SHAPES WITH SLOPED FLANGES.



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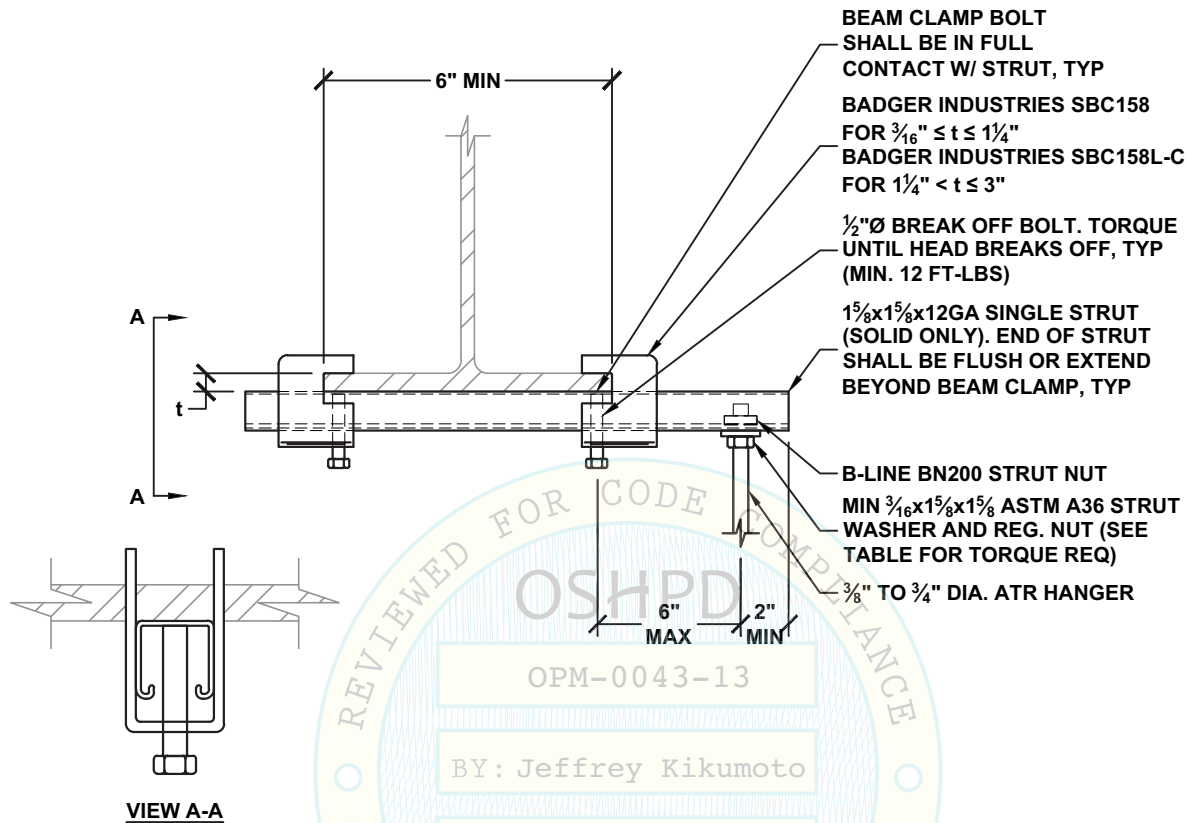
1601 E. Miraloma Ave. Placentia, CA 92870  
TEL (714) 630 - 0701, [www.masonwest.com](http://www.masonwest.com)

Jiefu "Jeff" Zhang, SE  
California SE No. S5270

PAGE

**M3.15**

# ATR HANGER ATTACHMENT TO STEEL BEAM WITH (2) BADGER INDUSTRIES SBC158 SERIES STEEL BEAM CLAMPS



FASTENER WITH STRUT NUT	
DIA. INCH	TORQUE REQ'D FT-LBS
$\frac{3}{8}$	19
$\frac{1}{2} - \frac{3}{4}$	50

GRAVITY ONLY		GRAVITY & SEISMIC		ATR HANGER DIA. INCH
HANGER CONNECTION TYPE	ALLOWABLE VERTICAL LOAD LBS	HANGER CONNECTION TYPE	ALLOWABLE VERTICAL LOAD LBS	
38A TO 38G	680	38A TO 38L	1350	$\frac{3}{8}$
50A TO 50G	680	50A TO 50L	1350	$\frac{1}{2}$
63A TO 63G	680	63A TO 63L	1350	$\frac{5}{8}$
75A TO 75G	680	75A TO 75L	1350	$\frac{3}{4}$

- <sup>1</sup> SEE DETAIL M0.00 FOR SECTION NOTES
- <sup>2</sup> ATTACHMENT TO STEEL BEAM SHALL NOT BE PLACED WITHIN THE PROTECTED ZONE AS DEFINED IN AISC 341.
- <sup>3</sup> WHEN USED FOR "GRAVITY & SEISMIC" LOADING, THE GRAVITY DEMAND SHALL NOT EXCEED THE "GRAVITY ONLY" ALLOWABLE LOAD.
- <sup>4</sup> BEAM CLAMPS SHALL NOT BE USED ON SHAPES WITH SLOPED FLANGES.



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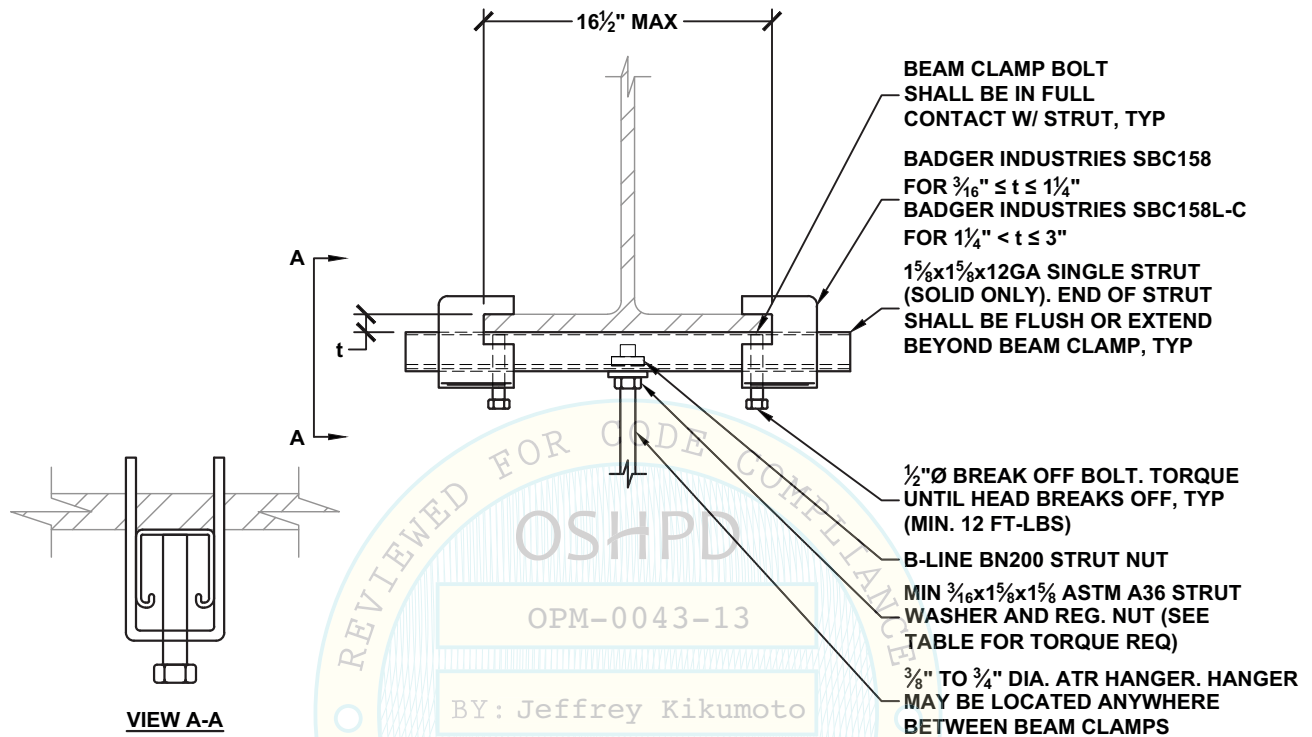
Jiefu "Jeff" Zhang, SE  
California SE No. S5270

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**M3.16**



# ATR HANGER ATTACHMENT TO STEEL BEAM WITH (2) BADGER INDUSTRIES SBC158 SERIES STEEL BEAM CLAMPS



FASTENER WITH STRUT NUT	
DIA. INCH	TORQUE REQ'D FT-LBS
3/8	19
1/2 - 3/4	50

GRAVITY ONLY		GRAVITY & SEISMIC		ATR HANGER DIA. INCH
HANGER CONNECTION TYPE	ALLOWABLE VERTICAL LOAD LBS	HANGER CONNECTION TYPE	ALLOWABLE VERTICAL LOAD LBS	
38A TO 38H	730	38A TO 38M	1840	3/8
50A TO 50J	920	50A TO 50M	1840	1/2
63A TO 63J	920	63A TO 63M	1840	5/8
75A TO 75J	920	75A TO 75M	1840	3/4

- 1 SEE DETAIL M0.00 FOR SECTION NOTES
- 2 ATTACHMENT TO STEEL BEAM SHALL NOT BE PLACED WITHIN THE PROTECTED ZONE AS DEFINED IN AISC 341.
- 3 WHEN USED FOR "GRAVITY & SEISMIC" LOADING, THE GRAVITY DEMAND SHALL NOT EXCEED THE "GRAVITY ONLY" ALLOWABLE LOAD.
- 4 BEAM CLAMPS SHALL NOT BE USED ON SHAPES WITH SLOPED FLANGES.



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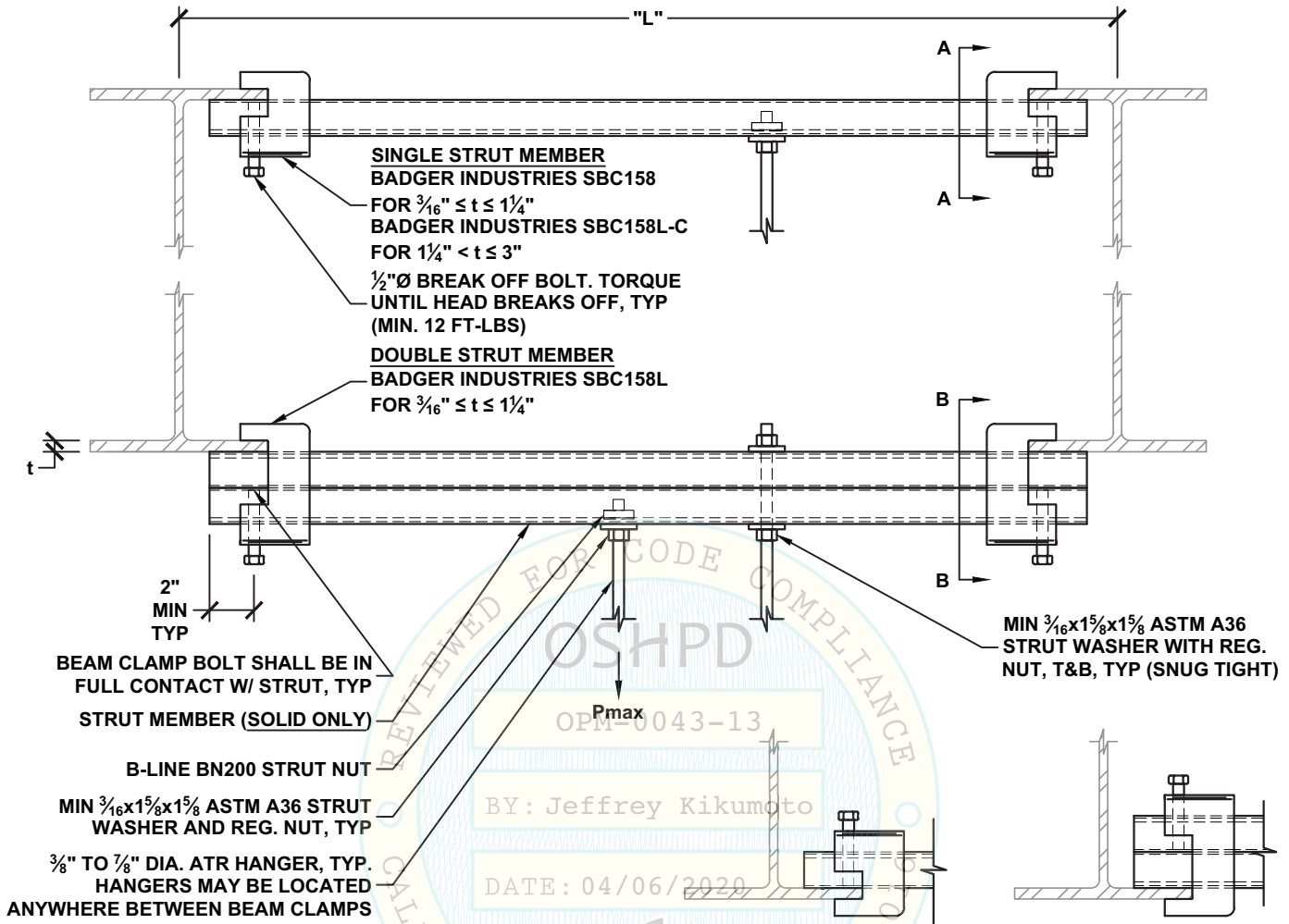
*Jeffrey Zhang*

Jiefu "Jeff" Zhang, SE  
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PAGE

**M3.14.1**

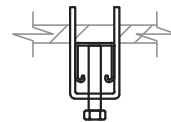
# SUPPLEMENTAL STEEL DETAIL WITH (2) BADGER INDUSTRIES SBC158 SERIES STEEL BEAM CLAMPS



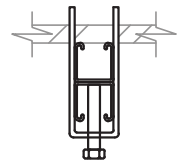
## ALTERNATE ATTACHMENT OPTIONS

SUPPLEMENTAL STEEL MEMBER	MAX BEAM LENGTH "L" FT	ALLOWABLE VERTICAL LOAD $P_{max}$ LBS
$1\frac{5}{8}" \times 1\frac{5}{8}" \times 12$ GA SINGLE CHANNEL STRUT	4	350
	6	200
	8	110
	10	70
$1\frac{5}{8}" \times 1\frac{5}{8}" \times 12$ GA DOUBLE CHANNEL STRUT	4	1010
	6	620
	8	500
	10	360

FASTENER WITH STRUT NUT	
DIA. INCH	TORQUE REQ'D FT-LBS
$\frac{3}{8}$	19
$\frac{1}{2} - \frac{3}{4}$	50



VIEW A-A



VIEW B-B

### NOTES:

- ATTACHMENT TO STEEL BEAM SHALL NOT BE PLACED WITHIN THE PROTECTED ZONE AS DEFINED IN AISC 341.
- MULTIPLE HANGER RODS MAY BE ATTACHED TO STRUT MEMBER PROVIDED THE MAX ALLOWABLE LOAD ( $P_{max}$ ) IS NOT EXCEEDED.



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PAGE

**P1.12**

# BADGER INDUSTRIES - Part SBC158

Patent Pending

## NOTES:

Capacity of beam clamp based on testing considering tension only without retaining strap.

Allowable Load  
with  
Factor Of Safety = 3.0

Threaded Rod Sizes	Maximum Load
3/8", 1/2" & 5/8"	2,581 lbs.

(LRFD) Load  
with  
Factor Of Safety = 2.0

Threaded Rod Sizes	Maximum Load
3/8", 1/2" & 5/8"	3,872 lbs.

For beam flange thickness greater than (1.260") see details for Part Number (SBC158L-C) and (SBC158L)

"W", "M", "HP" & "L" Section Steel Beams And Joists By Others

Min. 0.1875"  
Max. 1.260"

Upper Strut Nut Sized To Fit Vertical Threaded Rod, (TYP.) By Others

Vertical Threaded Rod, (TYP.) By Others

Torque-Off Badger Industries Beam Clamp Bolt, (TYP.)

Max. Load Per Chart

Max. Load Per Chart

Max. Load Per Chart



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# BADGER INDUSTRIES - Part SBC158

Patent Pending

## NOTES:

Capacity of beam clamp based on seismic testing considering both tension and compression without retaining strap.

Allowable Load  
with  
Factor Of Safety = 3.0

Threaded Rod Sizes	Maximum Load
3/8", 1/2" & 5/8"	971 lbs.

(LRFD) Load  
with  
Factor Of Safety = 2.0

Threaded Rod Sizes	Maximum Load
3/8", 1/2" & 5/8"	1,457 lbs.

For beam flange thickness greater than (1.260") see details for Part Number (SBC158L-C) and (SBC158L)

"W", "M", "HP" & "L" Section Steel Beams And Joists By Others

Min. 0.1875"  
Max. 1.260"

Upper Strut Nut Sized To Fit Vertical Threaded Rod, (TYP.) By Others

Lower Strut Nut Installed Tight To Beam Clamp, (TYP.) By Others

Vertical Threaded Rod, (TYP.) By Others

Torque-Off Badger Industries Beam Clamp Bolt, (TYP.)

Seismic

Max. Load Per Chart

Max. Load Per Chart

Max. Load Per Chart



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# BADGER INDUSTRIES - Part SBC158

Patent Pending

## NOTES:

Capacity of beam clamp with depicted cantilevered strut member based on testing considering tension only without retaining strap. Can be installed on lower or upper flange. (CMN) considered.

**Allowable Load with Factor Of Safety = 3.0**

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	304 lbs.

**(LRFD) Load with Factor Of Safety = 2.0**

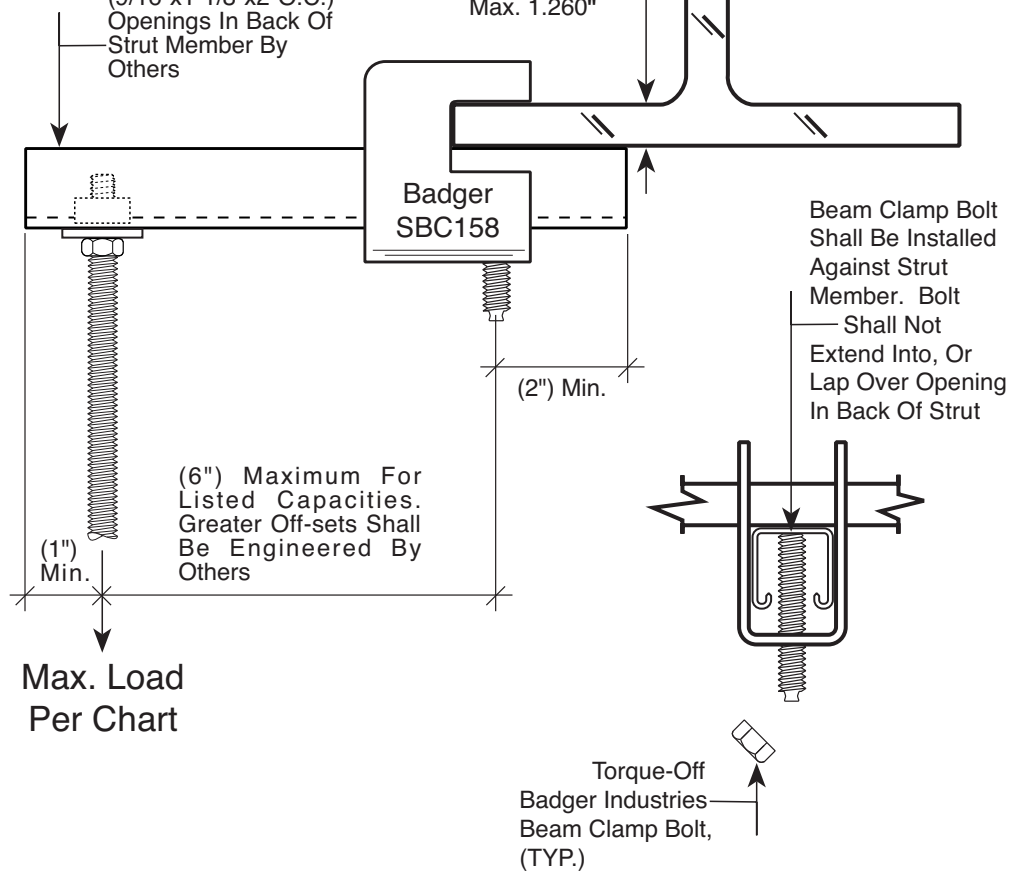
Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	364 lbs.

For beam flange thickness greater than (1.260") see details for Part Number (SBC158L-C) and (SBC158L)

12 Ga. (1-5/8"x1-5/8")  
With Maximum  
(9/16"x1-1/8"x2" O.C.)  
Openings In Back Of  
Strut Member By  
Others

"W", "M", "HP" &  
"L" Section Steel  
Beams And Joists  
By Others

Min. 0.1875"  
Max. 1.260"



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# BADGER INDUSTRIES - Part SBC158

Patent Pending

## NOTES:

Capacity of beam clamp with depicted cantilevered strut member based on seismic testing considering both tension and compression without retaining strap. Can be installed on lower or upper flange. (CMN) considered.

Allowable Load  
with  
Factor Of Safety = 3.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	149 lbs.

(LRFD) Load  
with  
Factor Of Safety = 2.0

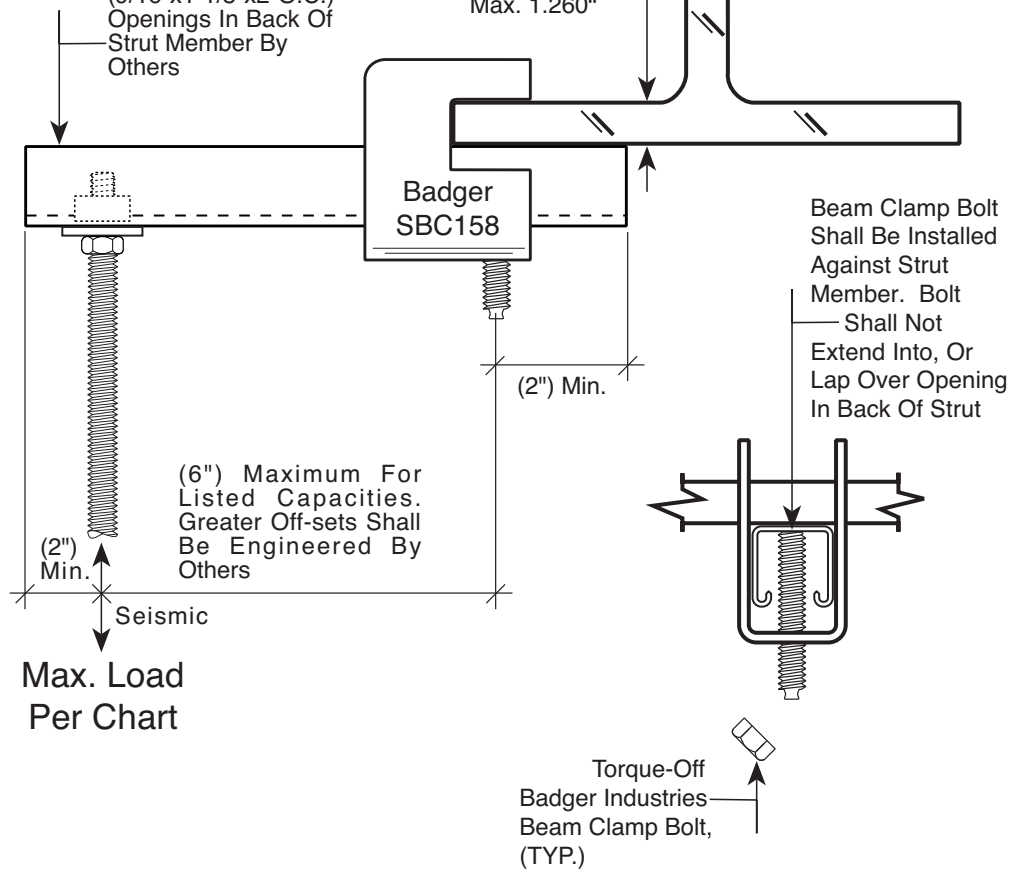
Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	224 lbs.

For beam flange thickness greater than (1.260") see details for Part Number (SBC158L-C) and (SBC158L)

12 Ga. (1-5/8"x1-5/8")  
With Maximum  
(9/16"x1-1/8"x2" O.C.)  
Openings In Back Of  
Strut Member By  
Others

"W", "M", "HP" &  
"L" Section Steel  
Beams And Joists  
By Others

Min. 0.1875"  
Max. 1.260"



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# BADGER INDUSTRIES - Part SBC158

Patent Pending

## NOTES:

Capacity of beam clamps assembled in pairs with depicted cantilevered strut member based on seismic testing considering both tension and compression only without retaining strap(s).

For beam flange thickness greater than (1.260") see details for Part Number (SBC158L-C) and (SBC158L)

"W", "M", "HP" & "L" Section Steel Beams And Joists By Others

Allowable Load with  
Factor Of Safety = 3.0

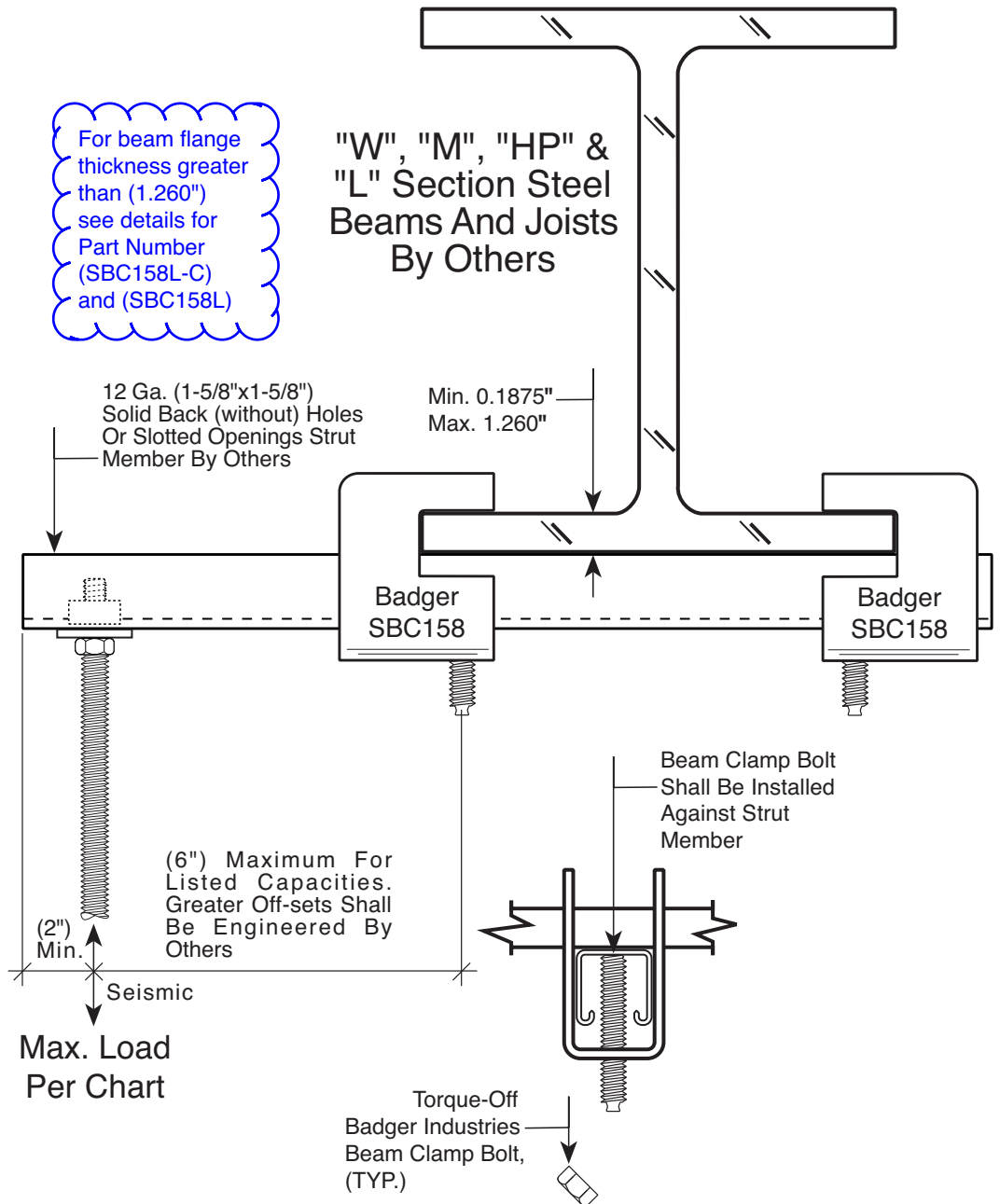
Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	677 lbs.

(LRFD) Load with  
Factor Of Safety = 2.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	1,015 lbs.

12 Ga. (1-5/8"x1-5/8") Solid Back (without) Holes Or Slotted Openings Strut Member By Others

Min. 0.1875"  
Max. 1.260"



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# BADGER INDUSTRIES - Part SBC158

Patent Pending

## NOTES:

Capacity of beam clamps assembled in pairs with depicted strut member based on testing considering tension only without retaining strap(s).

Double beam clamps with strut span member can be used to span from two separate beams and/or joist.

Reduce listed capacities to comply with design capacity limits, including but not limited to, strut member span length, load placement(s), etc.

**Allowable Load with  
Factor Of Safety = 3.0**

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	2,479 lbs.

**(LRFD) Load with  
Factor Of Safety = 2.0**

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	3,719 lbs.

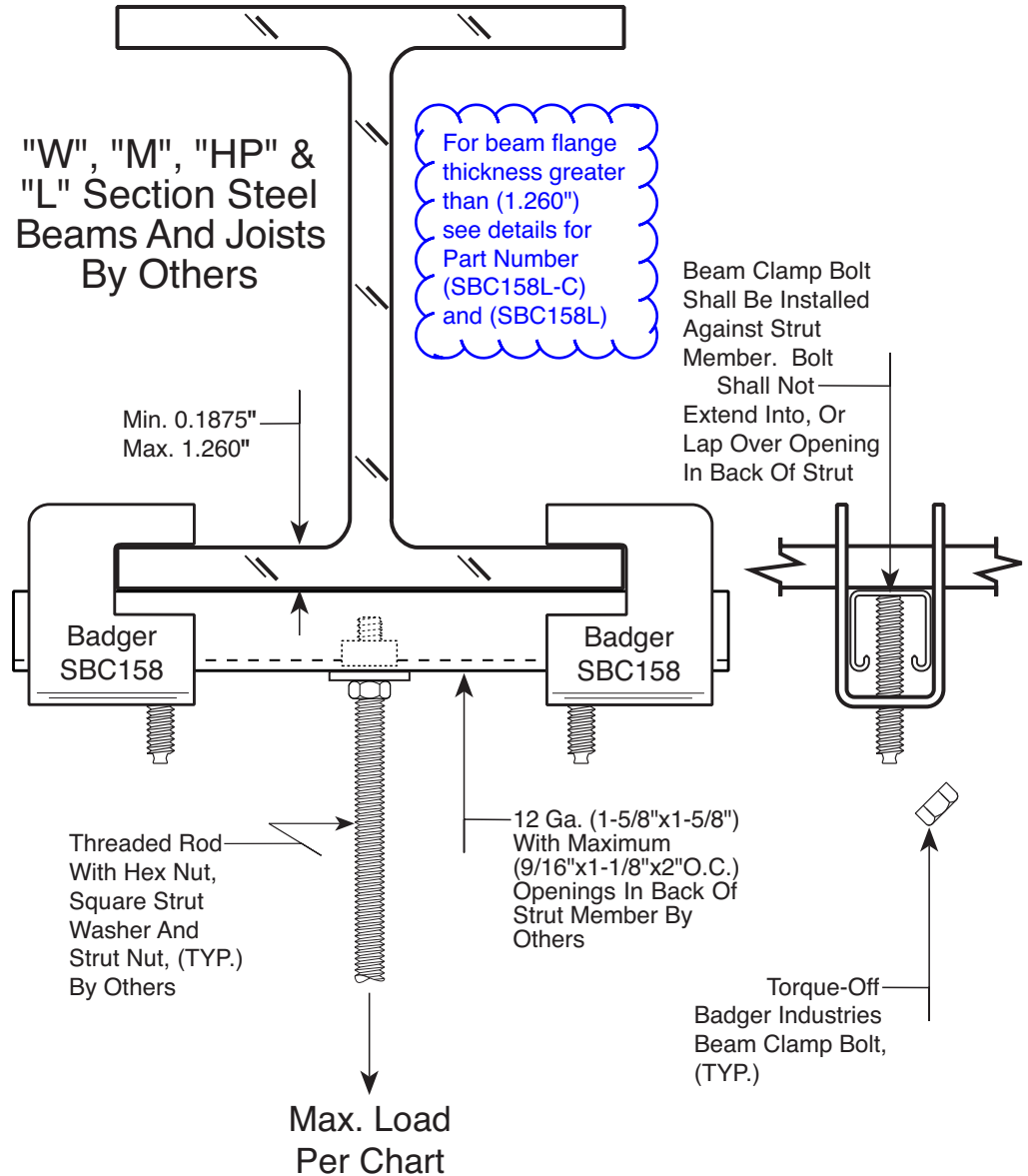


"W", "M", "HP" &  
"L" Section Steel  
Beams And Joists  
By Others

Min. 0.1875"  
Max. 1.260"

For beam flange  
thickness greater  
than (1.260")  
see details for  
Part Number  
(SBC158L-C)  
and (SBC158L)

Beam Clamp Bolt  
Shall Be Installed  
Against Strut  
Member. Bolt  
Shall Not  
Extend Into, Or  
Lap Over Opening  
In Back Of Strut



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# BADGER INDUSTRIES - Part SBC158

Patent Pending

## NOTES:

Capacity of beam clamps assembled in pairs with depicted strut member based on seismic testing considering both tension and compression without retaining strap(s).

Double beam clamps with strut span member can be used to span from two separate beams and/or joist.

Reduce listed capacities to comply with design capacity limits, including but not limited to, strut member span length, load placement(s), etc.

**Allowable Load with  
Factor Of Safety = 3.0**

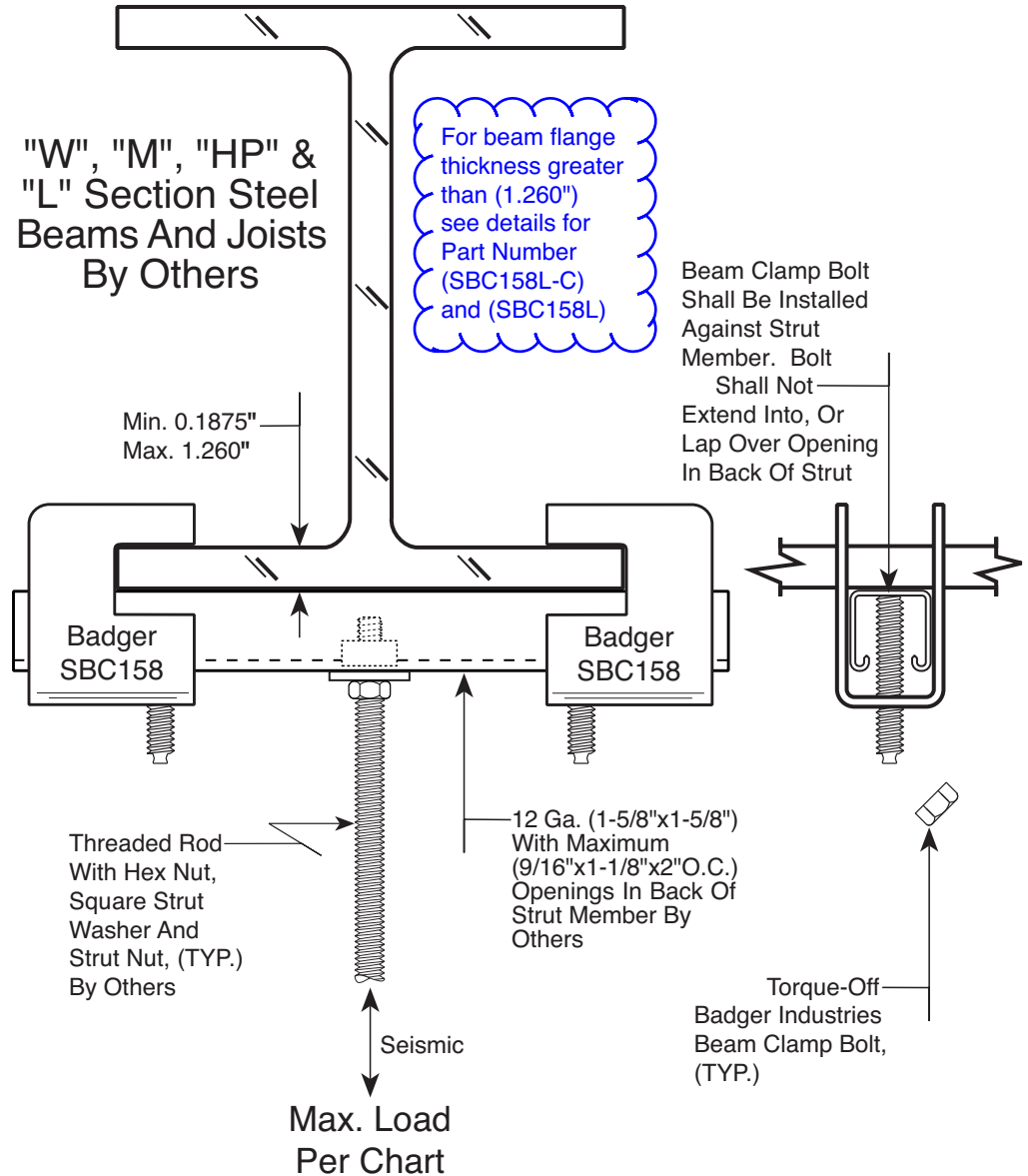
Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	920 lbs.

**(LRFD) Load with  
Factor Of Safety = 2.0**

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	1,381 lbs.



**"W", "M", "HP" &  
"L" Section Steel  
Beams And Joists  
By Others**



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# BADGER INDUSTRIES - Part SBC158L-C

Patent Pending

## NOTES:

Capacity of beam clamp based on testing considering tension only without retaining strap.

Allowable Load  
with  
Factor Of Safety = 3.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	3,247 lbs.

(LRFD) Load  
with  
Factor Of Safety = 2.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	4,871 lbs.

"W", "M", "HP" &  
"L" Section Steel  
Beams And Joists  
By Others

Min. 1.261"  
Max. 2.124"

Badger  
SBC158L

(TYP.) Badger Industries  
Cup Point Spacer Factory  
Installed Onto Badger Part  
SBC158L. Order As Part  
Number (SBC158L-C)

Torque-Off  
Badger Industries  
Beam Clamp Bolt,  
(TYP.)

Max. Load  
Per Chart

Upper  
Strut Nut Sized  
To Fit Vertical  
Threaded Rod,  
(TYP.) By Others

Vertical  
Threaded Rod,  
(TYP.) By Others

Max. Load  
Per Chart

Max. Load  
Per Chart



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# BADGER INDUSTRIES - Part SBC158L-C

Patent Pending

## NOTES:

Capacity of beam clamp based on seismic testing considering both tension and compression without retaining strap.

Allowable Load  
with  
Factor Of Safety = 3.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	971 lbs.

(LRFD) Load  
with  
Factor Of Safety = 2.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	1,457 lbs.

"W", "M", "HP" &  
"L" Section Steel  
Beams And Joists  
By Others

Min. 1.261"  
Max. 2.124"

Badger  
SBC158L

(TYP.) Badger Industries  
Cup Point Spacer Factory  
Installed Onto Badger Part  
SBC158L. Order As Part  
Number (SBC158L-C)

Seismic

Max. Load  
Per Chart

Badger  
SBC158L

Torque-Off  
Badger Industries  
Beam Clamp Bolt,  
(TYP.)

Seismic

Max. Load  
Per Chart

Upper  
Strut Nut Sized  
To Fit Vertical  
Threaded Rod,  
(TYP.) By Others

Lower  
Strut Nut  
Installed Tight  
To Beam  
Clamp, (TYP.)  
By Others

Vertical  
Threaded Rod,  
(TYP.) By Others

Seismic

Max. Load  
Per Chart



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# BADGER INDUSTRIES - Part SBC158L-C

Patent Pending

## NOTES:

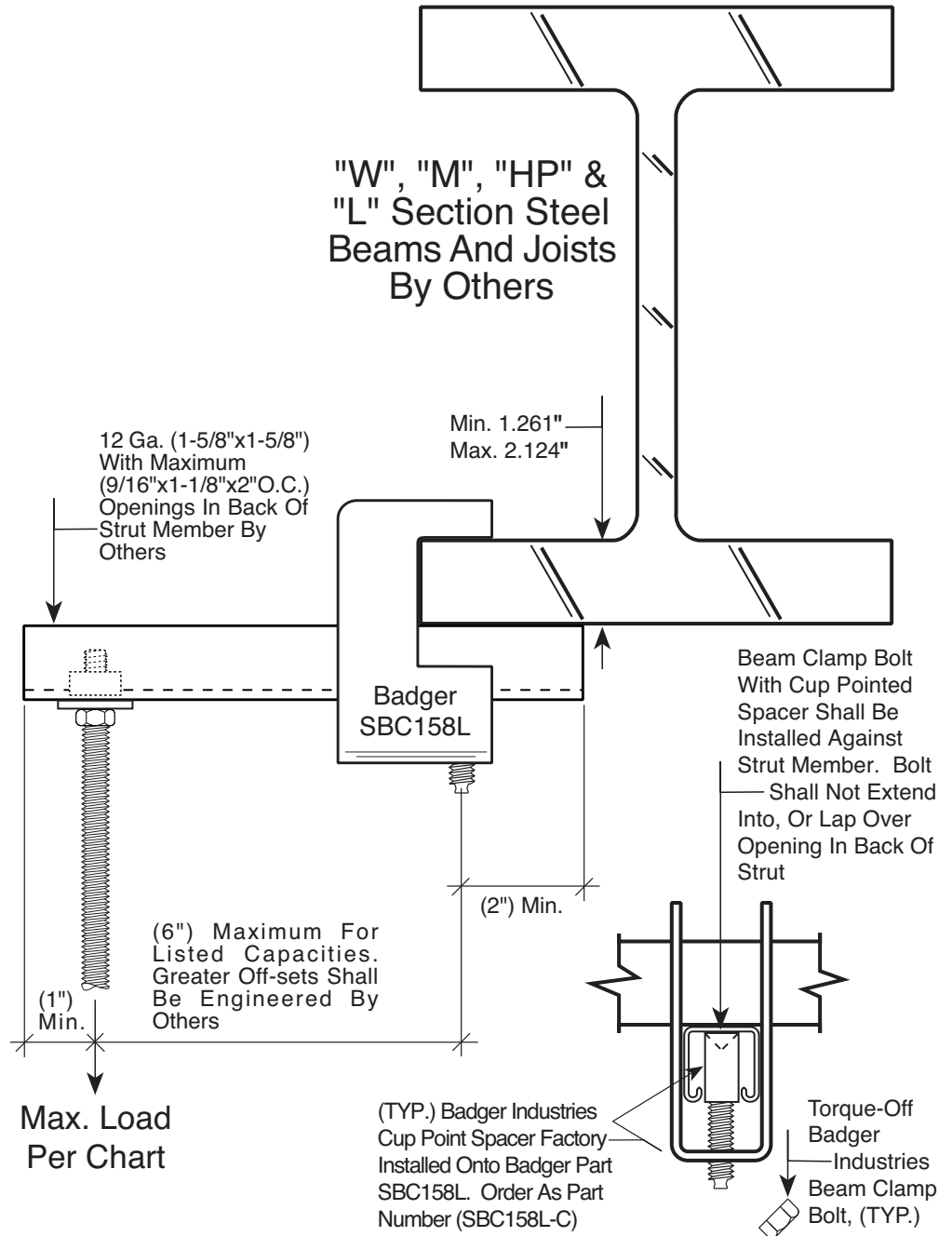
Capacity of beam clamp with depicted cantilevered strut member based on testing considering tension only without retaining strap. Can be installed on lower or upper flange. (CMN) considered.

Allowable Load  
with  
Factor Of Safety = 3.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	304 lbs.

(LRFD) Load  
with  
Factor Of Safety = 2.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	364 lbs.



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# BADGER INDUSTRIES - Part SBC158L-C

Patent Pending

## NOTES:

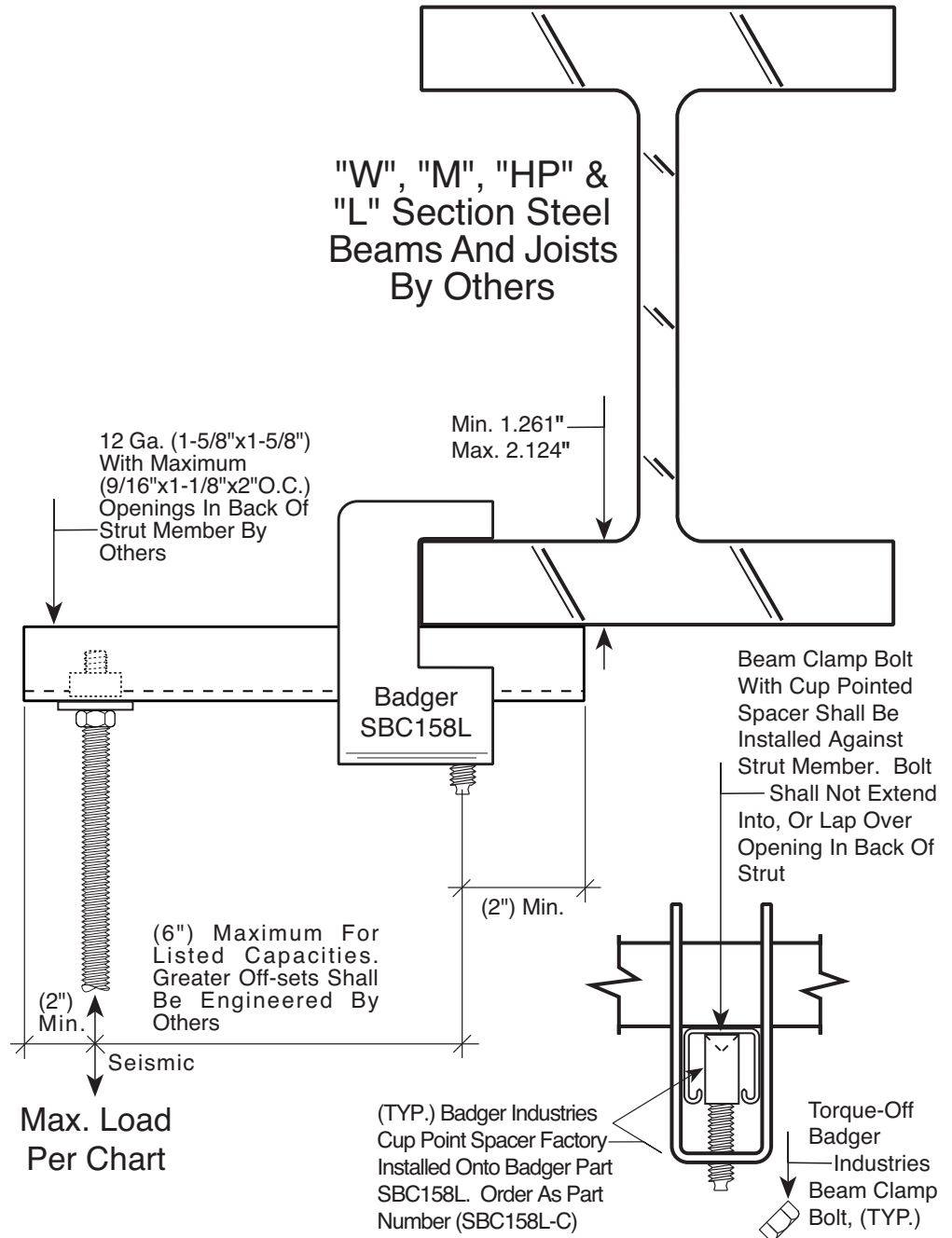
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Allowable Load  
with  
Factor Of Safety = 3.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	149 lbs.

(LRFD) Load  
with  
Factor Of Safety = 2.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	224 lbs.



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# BADGER INDUSTRIES - Part SBC158L-C

Patent Pending

## NOTES:

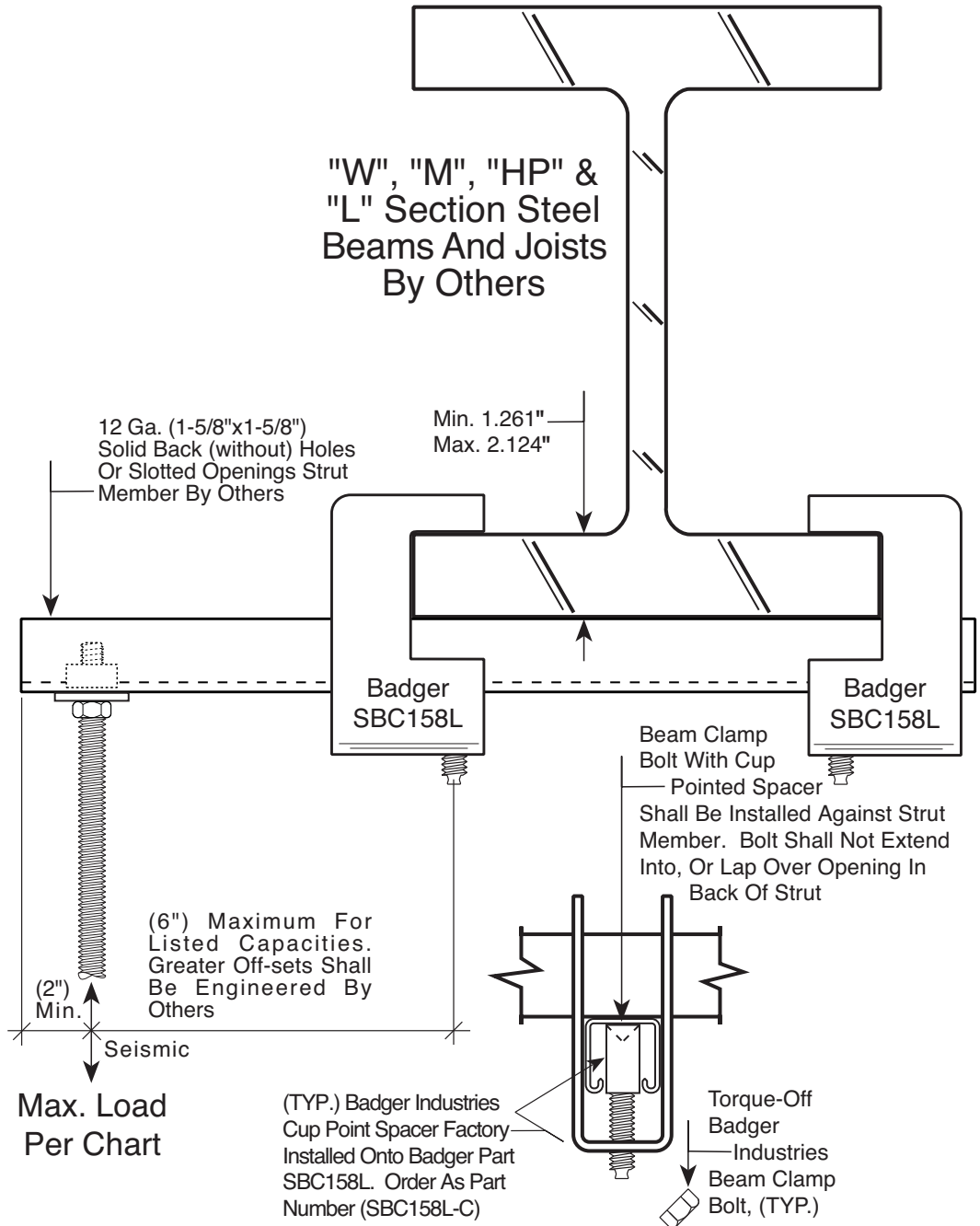
Capacity of beam clamps assembled in pairs with depicted cantilevered strut member based on seismic testing considering both tension and compression only without retaining strap(s).

Allowable Load  
with  
Factor Of Safety = 3.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	677 lbs.

(LRFD) Load  
with  
Factor Of Safety = 2.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	1,015 lbs.



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# BADGER INDUSTRIES - Part SBC158L-C

Patent Pending

## NOTES:

Capacity of beam clamps assembled in pairs with depicted strut member based on testing considering tension only without retaining strap(s).

Double beam clamps with strut span member can be used to span from two separate beams and/or joist.

Reduce listed capacities to comply with design capacity limits, including but not limited to, strut member span length, load placement(s), etc.

### Allowable Load with Factor Of Safety = 3.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	2,479 lbs.

### (LRFD) Load with Factor Of Safety = 2.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	3,719 lbs.

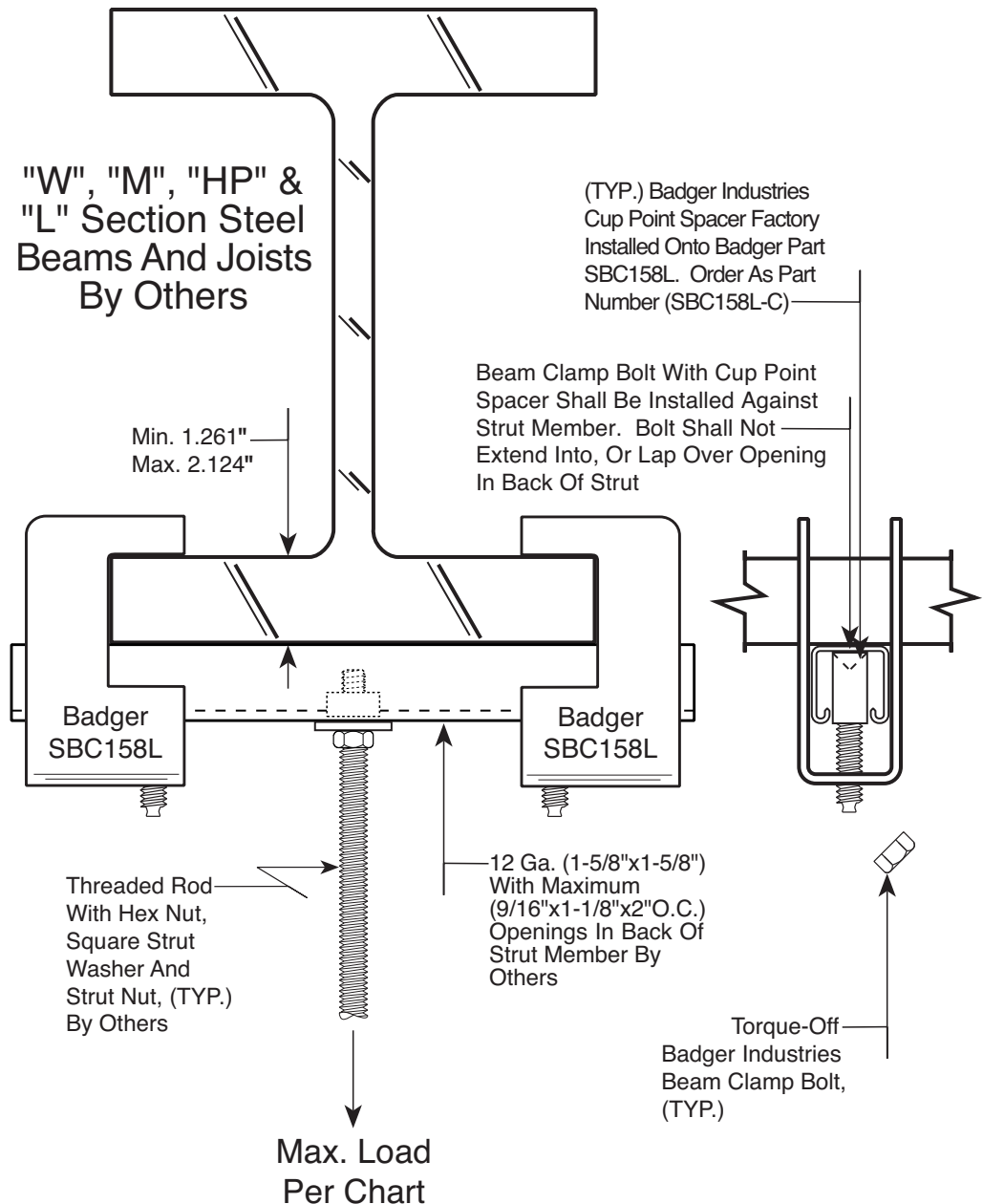


"W", "M", "HP" &  
"L" Section Steel  
Beams And Joists  
By Others

Min. 1.261"  
Max. 2.124"

(TYP.) Badger Industries  
Cup Point Spacer Factory  
Installed Onto Badger Part  
SBC158L. Order As Part  
Number (SBC158L-C)

Beam Clamp Bolt With Cup Point  
Spacer Shall Be Installed Against  
Strut Member. Bolt Shall Not  
Extend Into, Or Lap Over Opening  
In Back Of Strut



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# BADGER INDUSTRIES - Part SBC158L-C

Patent Pending

## NOTES:

Capacity of beam clamps assembled in pairs with depicted strut member based on seismic testing considering both tension and compression without retaining strap(s).

Double beam clamps with strut span member can be used to span from two separate beams and/or joist.

Reduce listed capacities to comply with design capacity limits, including but not limited to, strut member span length, load placement(s), etc.

### Allowable Load with Factor Of Safety = 3.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	920 lbs.

### (LRFD) Load with Factor Of Safety = 2.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	1,381 lbs.

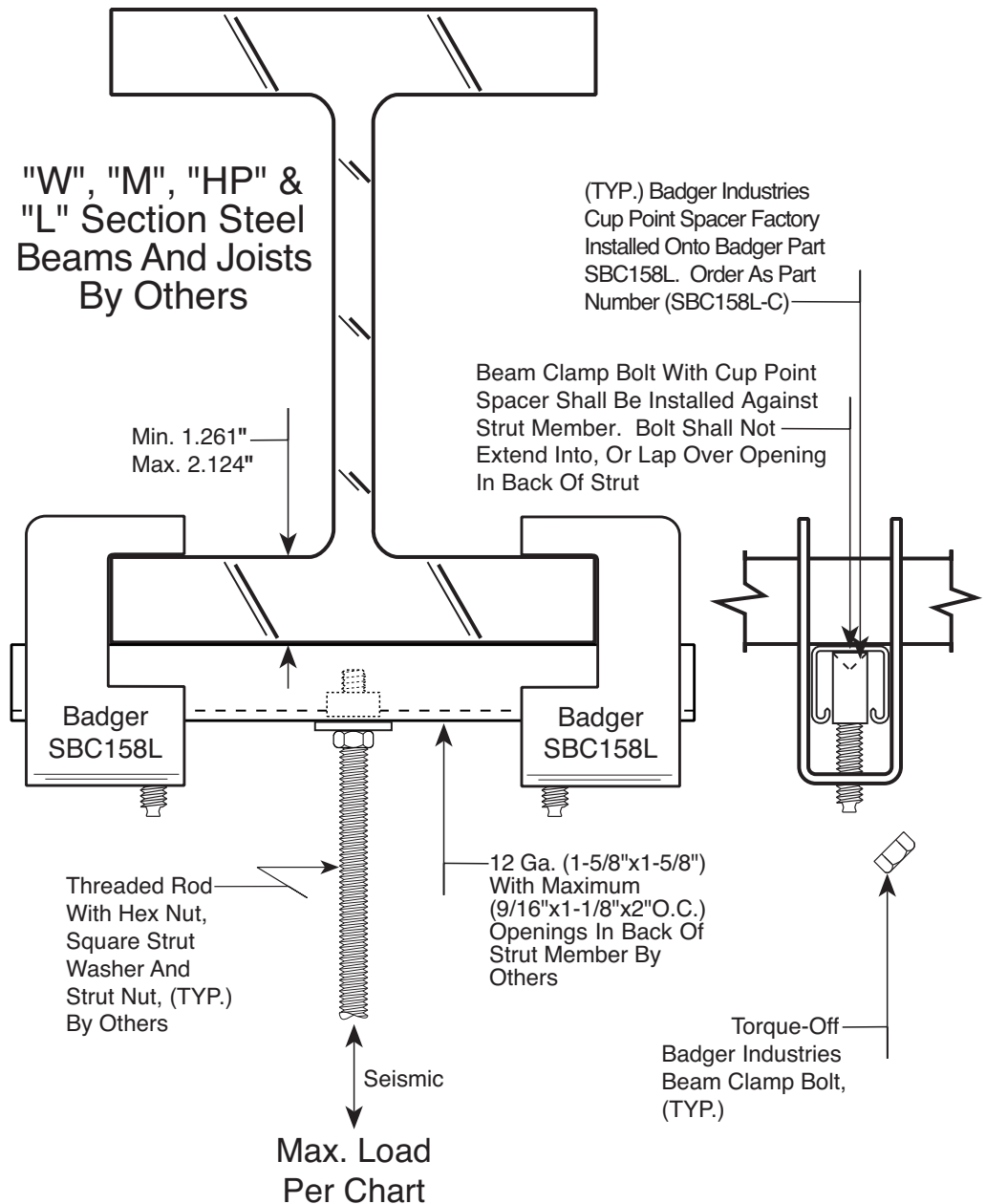


"W", "M", "HP" &  
"L" Section Steel  
Beams And Joists  
By Others

Min. 1.261"  
Max. 2.124"

(TYP.) Badger Industries  
Cup Point Spacer Factory  
Installed Onto Badger Part  
SBC158L. Order As Part  
Number (SBC158L-C)

Beam Clamp Bolt With Cup Point  
Spacer Shall Be Installed Against  
Strut Member. Bolt Shall Not  
Extend Into, Or Lap Over Opening  
In Back Of Strut



Contact: Brad Lawhorn (714) 929-8668



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# BADGER INDUSTRIES - Part SBC158L

Patent Pending

## NOTES:

Capacity of beam clamp based on testing considering tension only without retaining strap.

Allowable Load  
with  
Factor Of Safety = 3.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	3,247 lbs.

(LRFD) Load  
with  
Factor Of Safety = 2.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	4,871 lbs.

For beam flange  
thickness less  
than (2.125")  
see details for  
Part Number  
(SBC158L-C)  
and (SBC158)

"W", "M", "HP" &  
"L" Section Steel  
Beams And Joists  
By Others

Min. 2.125"  
Max. 3.00"

Badger  
SBC158L

Badger  
SBC158L

Max. Load  
Per Chart

Upper  
Strut Nut Sized  
To Fit Vertical  
Threaded Rod,  
(TYP.) By Others

Vertical  
Threaded Rod,  
(TYP.) By Others

Torque-Off  
Badger Industries  
Beam Clamp Bolt,  
(TYP.)

Max. Load  
Per Chart

Max. Load  
Per Chart



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# BADGER INDUSTRIES - Part SBC158L

Patent Pending

## NOTES:

Capacity of beam clamp based on seismic testing considering both tension and compression without retaining strap.

Allowable Load  
with  
Factor Of Safety = 3.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	971 lbs.

(LRFD) Load  
with  
Factor Of Safety = 2.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	1,457 lbs.

For beam flange  
thickness less  
than (2.125")  
see details for  
Part Number  
(SBC158L-C)  
and (SBC158)

"W", "M", "HP" &  
"L" Section Steel  
Beams And Joists  
By Others

Min. 2.125"  
Max. 3.00"

Badger  
SBC158L

Badger  
SBC158L

Seismic  
Max. Load  
Per Chart

Upper  
Strut Nut Sized  
To Fit Vertical  
Threaded Rod,  
(TYP.) By Others

Lower  
Strut Nut  
Installed Tight  
To Beam  
Clamp, (TYP.)  
By Others

Vertical  
Threaded Rod,  
(TYP.) By Others

Torque-Off  
Badger Industries  
Beam Clamp Bolt,  
(TYP.)

Max. Load  
Per Chart

Max. Load  
Per Chart



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# BADGER INDUSTRIES - Part SBC158L

Patent Pending

## NOTES:

Capacity of beam clamp with depicted cantilevered strut member based on testing considering tension only without retaining strap. Can be installed on lower or upper flange. (CMN) considered.

Allowable Load  
with  
Factor Of Safety = 3.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	304 lbs.

(LRFD) Load  
with  
Factor Of Safety = 2.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	364 lbs.

For beam flange  
thickness less  
than (2.125")  
see details for  
Part Number  
(SBC158L-C)  
and (SBC158)

12 Ga. (1-5/8"x1-5/8")  
With Maximum  
(9/16"x1-1/8"x2" O.C.)  
Openings In Back Of  
Strut Member By  
Others

"W", "M", "HP" &  
"L" Section Steel  
Beams And Joists  
By Others

Min. 2.125"  
Max. 3.00"

Badger  
SBC158L

Beam Clamp Bolt  
Shall Be Installed  
Against Strut  
Member. Bolt  
Shall Not  
Extend Into, Or  
Lap Over Opening  
In Back Of Strut

(2") Min.

(6") Maximum For  
Listed Capacities.  
Greater Off-sets Shall  
Be Engineered By  
Others

(1")  
Min.

Max. Load  
Per Chart

Torque-Off  
Badger Industries  
Beam Clamp Bolt,  
(TYP.)



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# BADGER INDUSTRIES - Part SBC158L

Patent Pending

## NOTES:

Capacity of beam clamp with depicted cantilevered strut member based on seismic testing considering both tension and compression without retaining strap. Can be installed on lower or upper flange. (CMN) considered.

Allowable Load  
with  
Factor Of Safety = 3.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	149 lbs.

(LRFD) Load  
with  
Factor Of Safety = 2.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	224 lbs.

For beam flange  
thickness less  
than (2.125")  
see details for  
Part Number  
(SBC158L-C)  
and (SBC158)

12 Ga. (1-5/8"x1-5/8")  
With Maximum  
(9/16"x1-1/8"x2" O.C.)  
Openings In Back Of  
Strut Member By  
Others

"W", "M", "HP" &  
"L" Section Steel  
Beams And Joists  
By Others

Min. 2.125"  
Max. 3.00"

Badger  
SBC158L

Beam Clamp Bolt  
Shall Be Installed  
Against Strut  
Member. Bolt  
Shall Not  
Extend Into, Or  
Lap Over Opening  
In Back Of Strut

(6") Maximum For  
Listed Capacities.  
Greater Off-sets Shall  
Be Engineered By  
Others

(2")  
Min.

Seismic

Max. Load  
Per Chart

(2") Min.

Torque-Off  
Badger Industries  
Beam Clamp Bolt,  
(TYP.)



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# BADGER INDUSTRIES - Part SBC158L

Patent Pending

## NOTES:

Capacity of beam clamps assembled in pairs with depicted cantilevered strut member based on seismic testing considering both tension and compression only without retaining strap(s).

Allowable Load  
with  
Factor Of Safety = 3.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	677 lbs.

(LRFD) Load  
with  
Factor Of Safety = 2.0

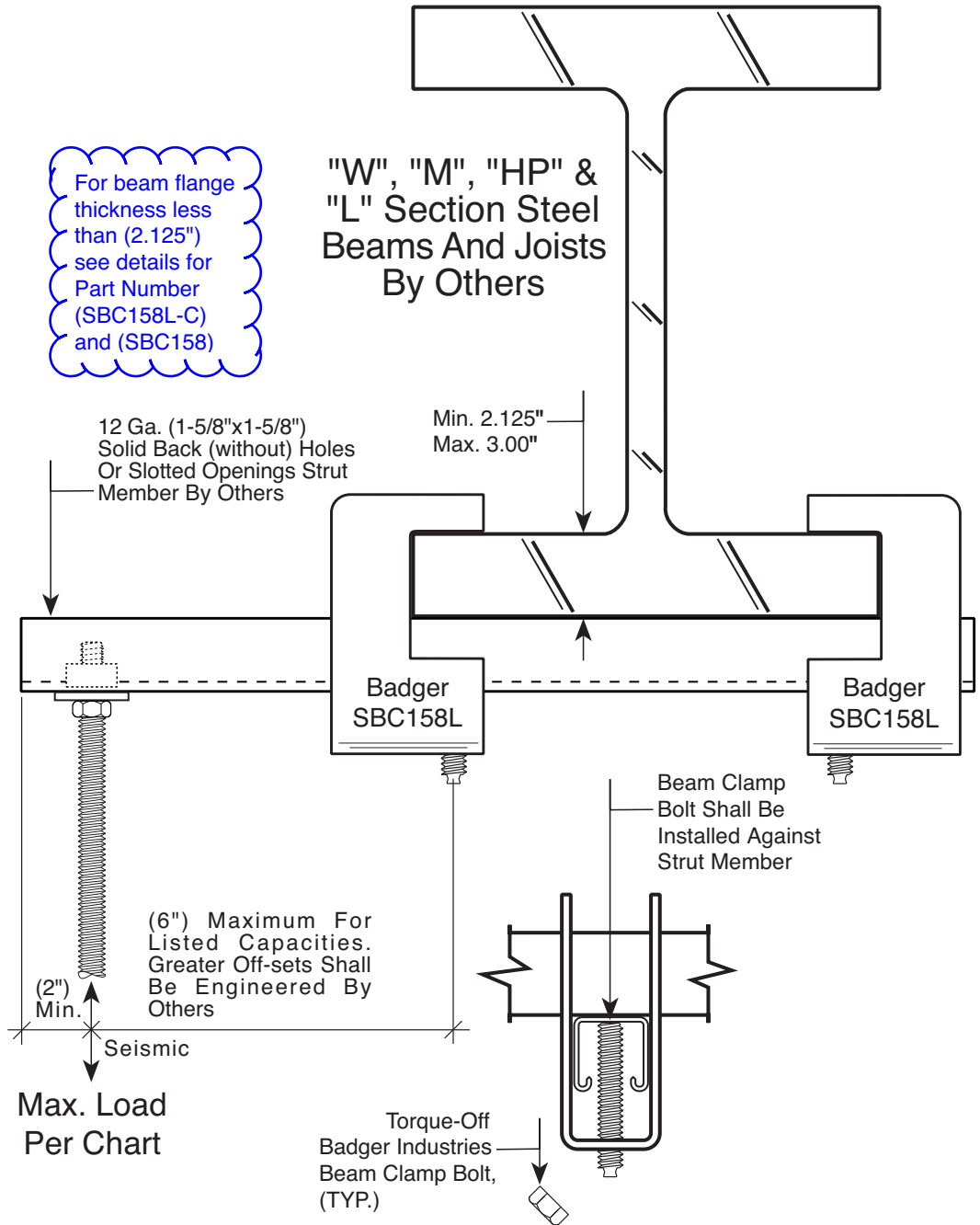
Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	1,015 lbs.

For beam flange thickness less than (2.125") see details for Part Number (SBC158L-C) and (SBC158)

"W", "M", "HP" & "L" Section Steel Beams And Joists By Others

Min. 2.125"  
Max. 3.00"

12 Ga. (1-5/8"x1-5/8") Solid Back (without) Holes Or Slotted Openings Strut Member By Others



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# BADGER INDUSTRIES - Part SBC158L

Patent Pending

## NOTES:

Capacity of beam clamps assembled in pairs with depicted strut member based on testing considering tension only without retaining strap(s).

Double beam clamps with strut span member can be used to span from two separate beams and/or joist.

Reduce listed capacities to comply with design capacity limits, including but not limited to, strut member span length, load placement(s), etc.

Allowable Load  
with  
Factor Of Safety = 3.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	2,479 lbs.

(LRFD) Load  
with  
Factor Of Safety = 2.0

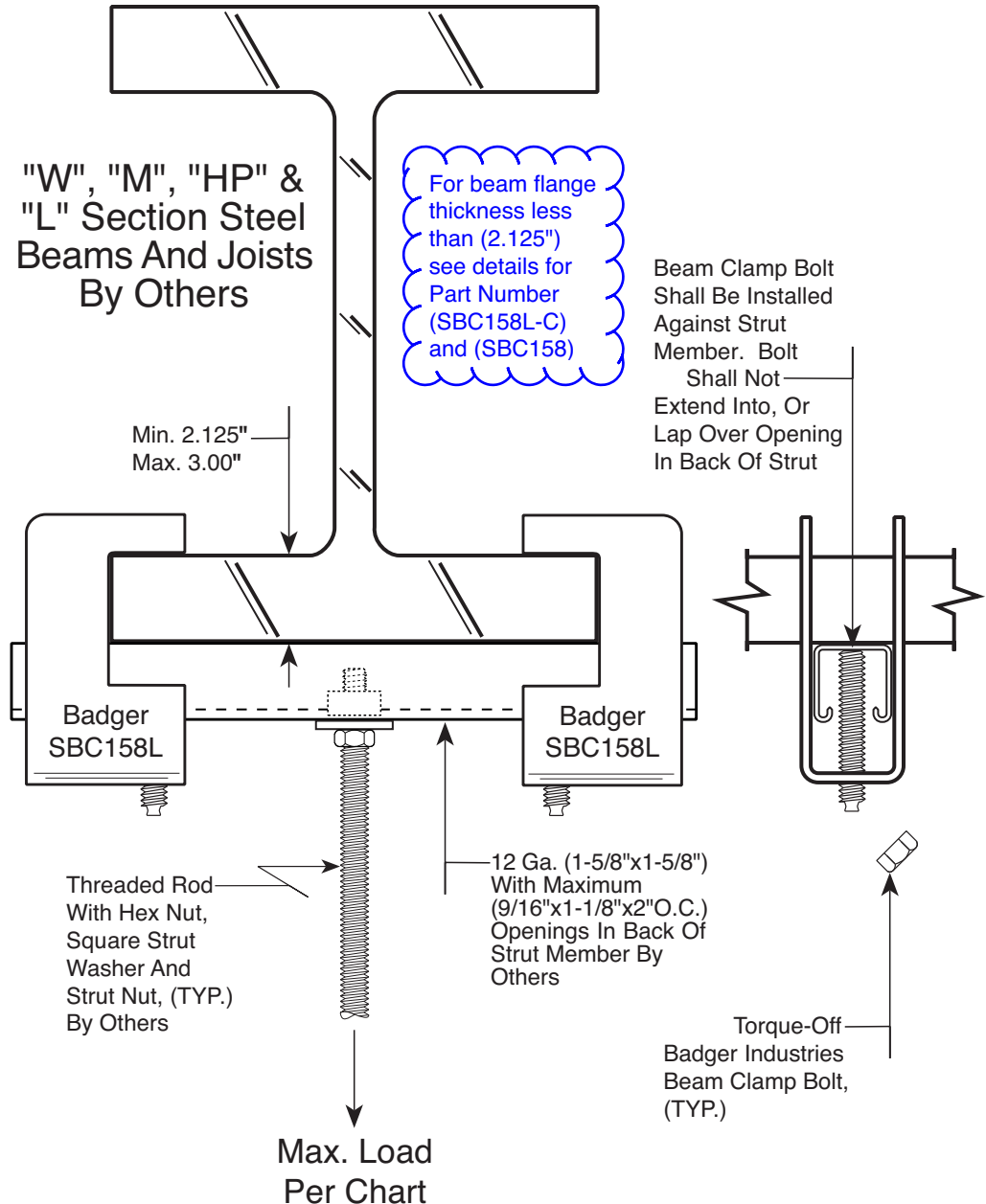
Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	3,719 lbs.

"W", "M", "HP" &  
"L" Section Steel  
Beams And Joists  
By Others

Min. 2.125"  
Max. 3.00"

For beam flange  
thickness less  
than (2.125")  
see details for  
Part Number  
(SBC158L-C)  
and (SBC158)

Beam Clamp Bolt  
Shall Be Installed  
Against Strut  
Member. Bolt  
Shall Not  
Extend Into, Or  
Lap Over Opening  
In Back Of Strut



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# BADGER INDUSTRIES - Part SBC158L

Patent Pending

## NOTES:

Capacity of beam clamps assembled in pairs with depicted strut member based on seismic testing considering both tension and compression without retaining strap(s).

Double beam clamps with strut span member can be used to span from two separate beams and/or joist.

Reduce listed capacities to comply with design capacity limits, including but not limited to, strut member span length, load placement(s), etc.

Allowable Load  
with  
Factor Of Safety = 3.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	920 lbs.

(LRFD) Load  
with  
Factor Of Safety = 2.0

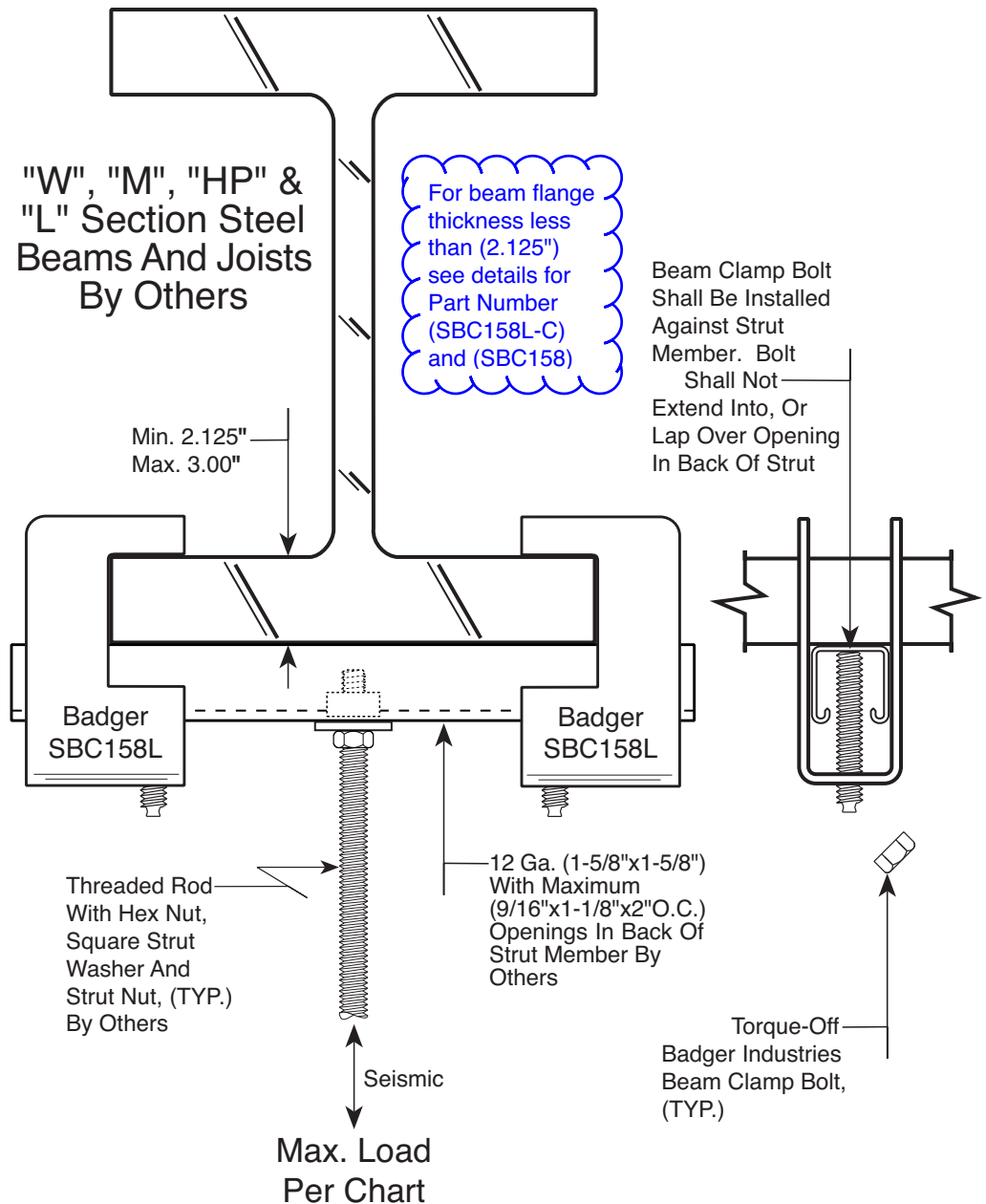
Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	1,381 lbs.

"W", "M", "HP" &  
"L" Section Steel  
Beams And Joists  
By Others

Min. 2.125"  
Max. 3.00"

For beam flange  
thickness less  
than (2.125")  
see details for  
Part Number  
(SBC158L-C)  
and (SBC158)

Beam Clamp Bolt  
Shall Be Installed  
Against Strut  
Member. Bolt  
Shall Not  
Extend Into, Or  
Lap Over Opening  
In Back Of Strut



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# BADGER INDUSTRIES - Part SBC158L

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## NOTES:

Capacity of beam clamps assembled in pairs with depicted strut member based on testing considering tension only without retaining strap(s).

Double beam clamps with strut span member can be used to span from two separate beams and/or joist.

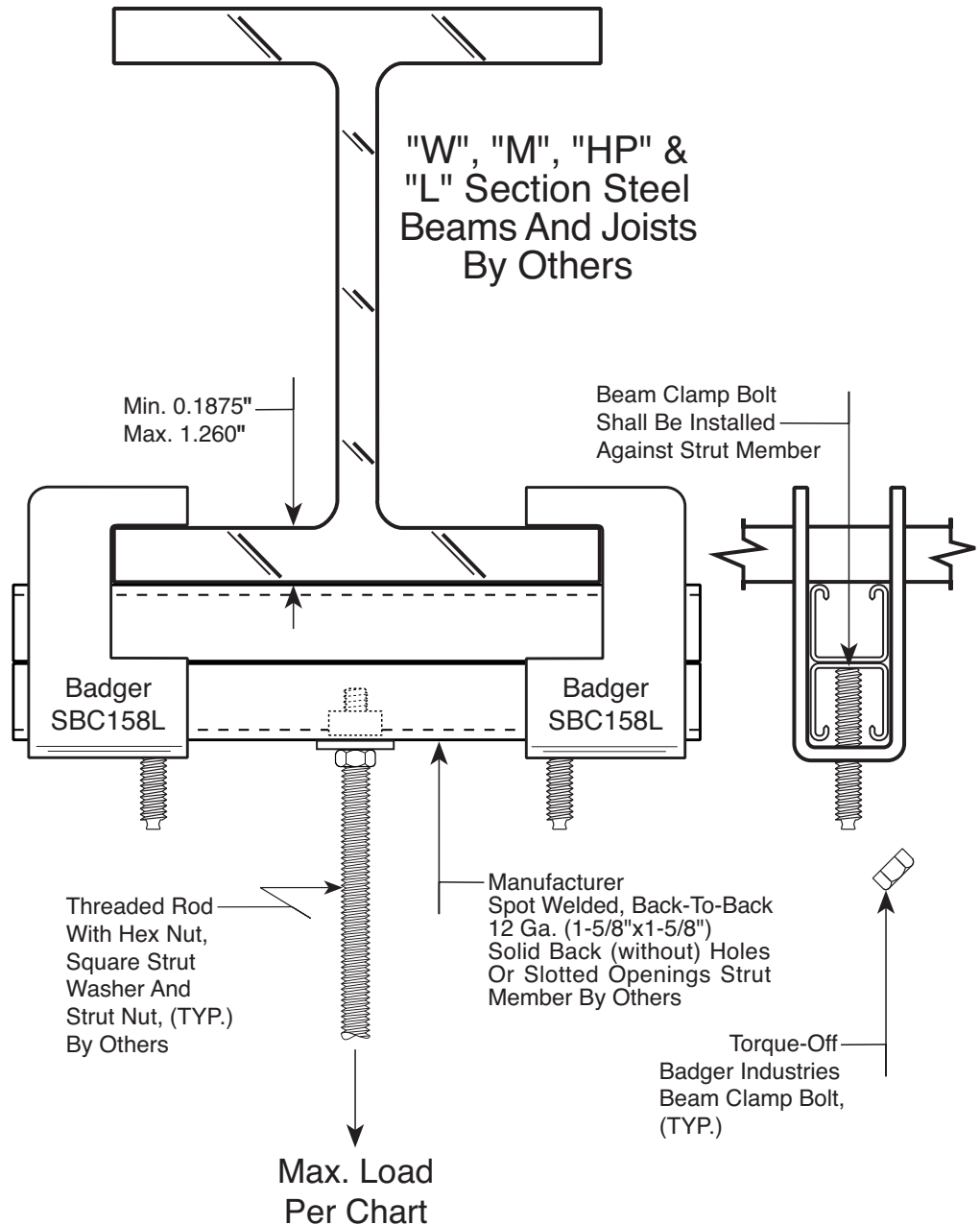
Reduce listed capacities to comply with design capacity limits, including but not limited to, strut member span length, load placement(s), etc.

Allowable Load  
with  
Factor Of Safety = 3.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	3,264 lbs.

(LRFD) Load  
with  
Factor Of Safety = 2.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	4,896 lbs.



Max. Load  
Per Chart



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# BADGER INDUSTRIES - Part SBC158L

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## NOTES:

Capacity of beam clamps assembled in pairs with depicted strut member based on seismic testing considering both tension and compression without retaining strap(s).

Double beam clamps with strut span member can be used to span from two separate beams and/or joist.

Reduce listed capacities to comply with design capacity limits, including but not limited to, strut member span length, load placement(s), etc.

Allowable Load  
with  
Factor Of Safety = 3.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	1,024 lbs.

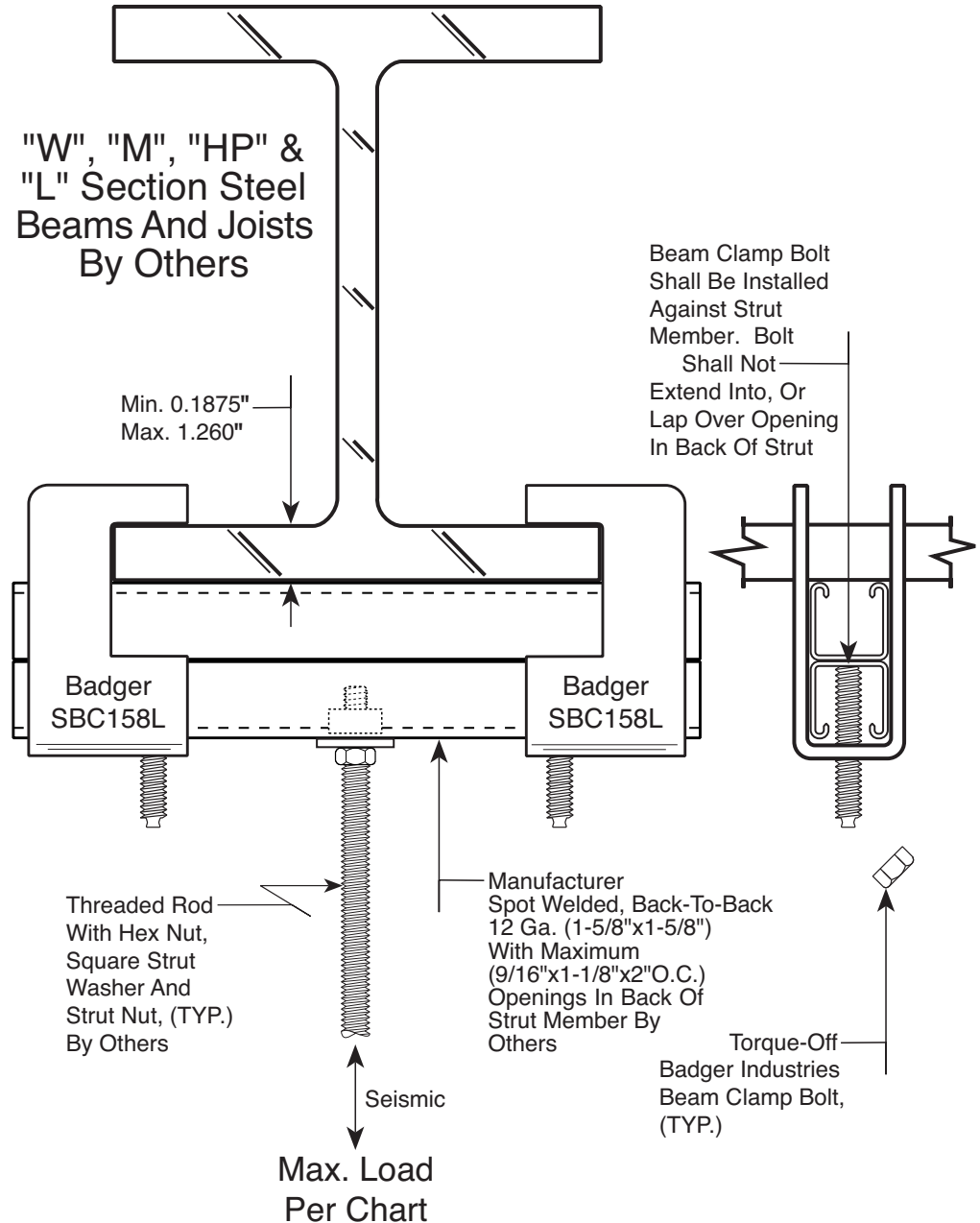
(LRFD) Load  
with  
Factor Of Safety = 2.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	1,537 lbs.



"W", "M", "HP" &  
"L" Section Steel  
Beams And Joists  
By Others

Min. 0.1875"  
Max. 1.260"



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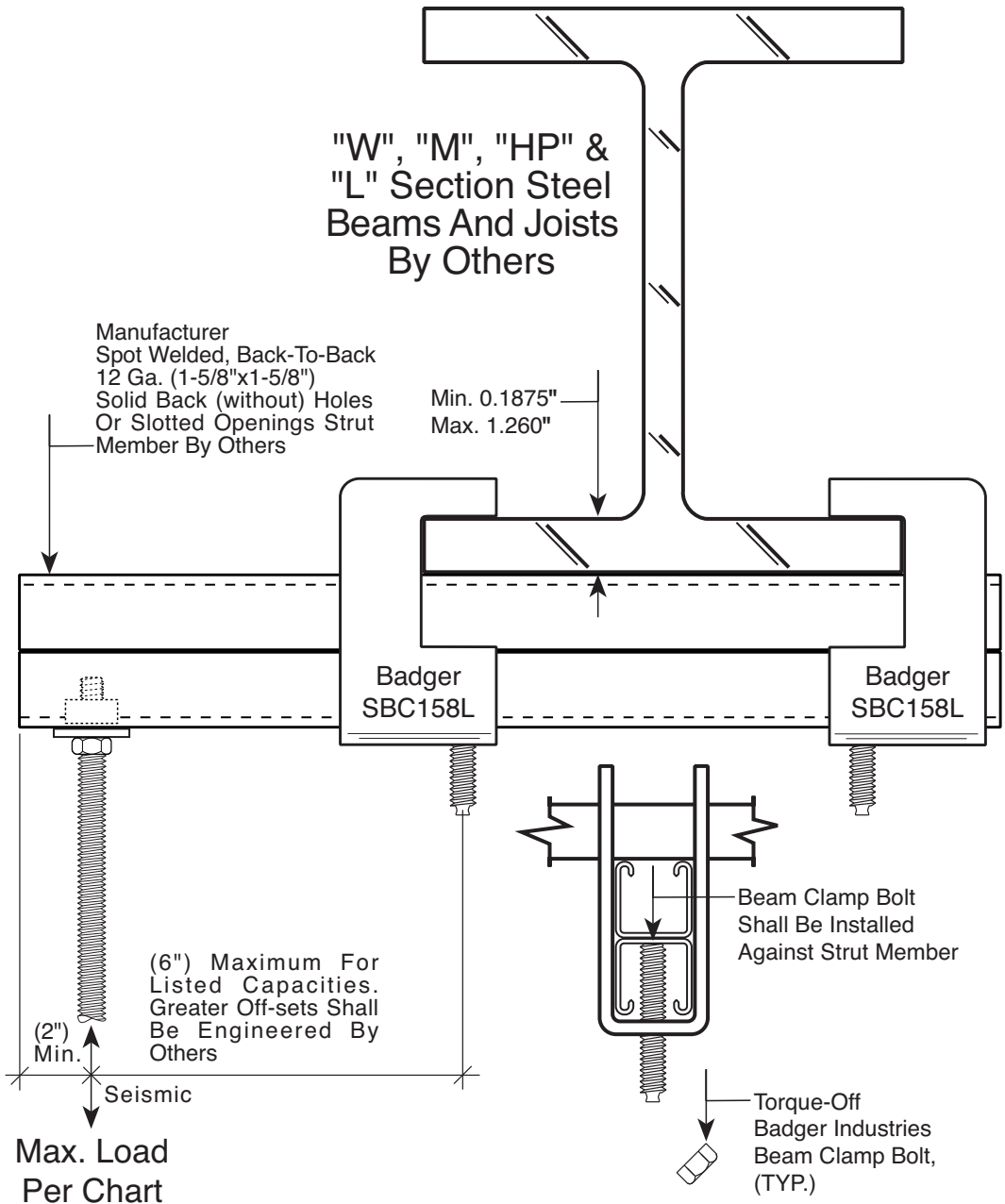
NOTES:  
Capacity of beam clamps assembled in pairs with depicted cantilevered strut member based on seismic testing considering both tension and compression only without retaining strap(s).

Allowable Load  
with  
Factor Of Safety = 3.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	736 lbs.

(LRFD) Load  
with  
Factor Of Safety = 2.0

Threaded Rod Sizes	Maximum Load
3/8" thru 3/4"	1,104 lbs.



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# BADGER INDUSTRIES - Part SBC158-C

Patent Pending

## NOTES:

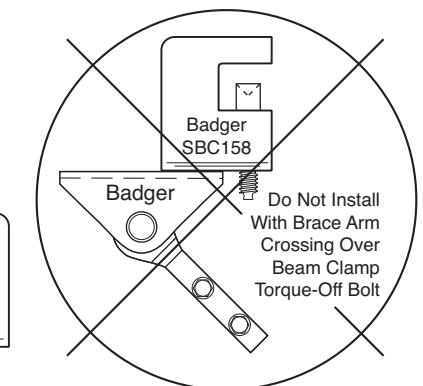
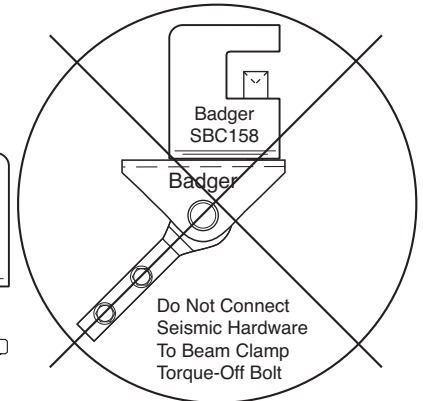
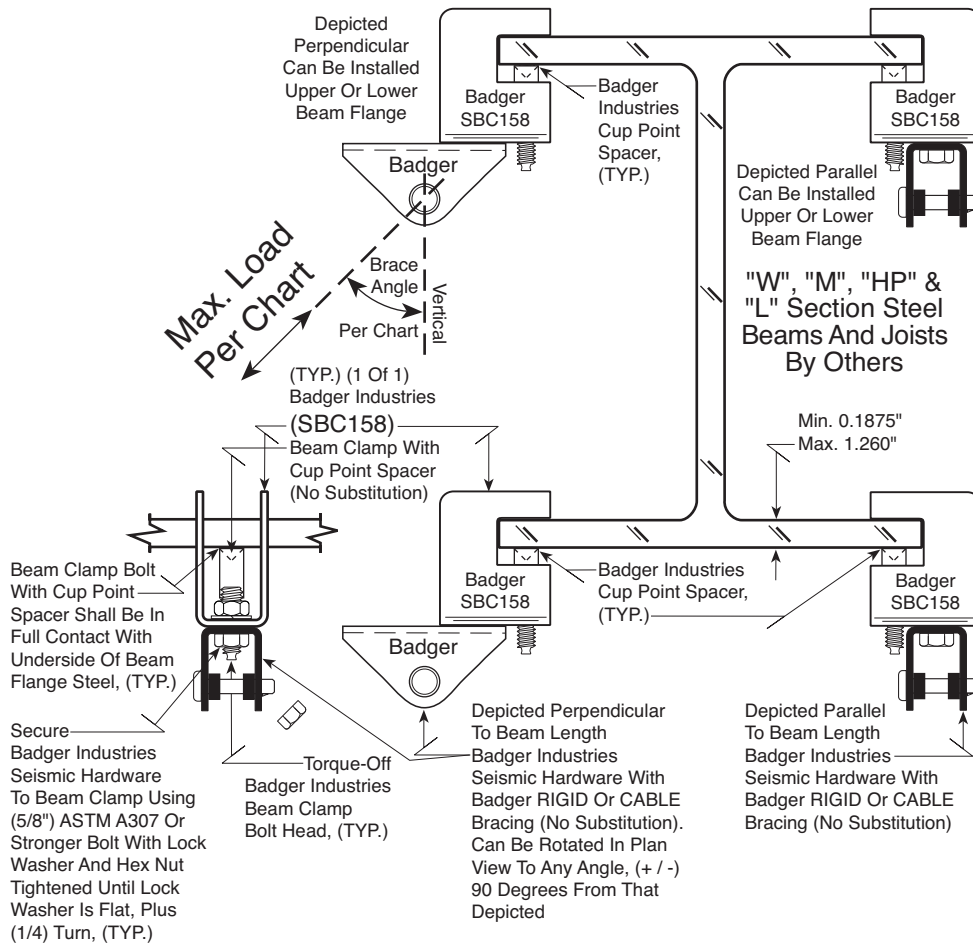
Capacity based on seismic testing considering both tension and compression without a beam clamp retaining strap.

To convert listed angle capacity to horizontal capacity multiply listed capacity by (sin) of the angle.

Allowable Load with Factor Of Safety = 3.0		
Brace Angle	30° to 60°	61° to 75°
Maximum Load	<b>320 lbs.</b>	<b>214 lbs.</b>

(LRFD) Load with Factor Of Safety = 2.0		
Brace Angle	30° to 60°	61° to 75°
Maximum Load	<b>480 lbs.</b>	<b>321 lbs.</b>

When ordering add a [-C] to Badger Beam Clamp Part Number (SBC158) to get beam clamp pre-assembled with required Cup Point Spacer. Thus order as Part Number (SBC158-C).



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# BADGER INDUSTRIES - Part SBC158-C

Patent Pending

## NOTES:

Capacity based on seismic testing considering both tension and compression without retaining strap.

To convert listed angle capacity to horizontal capacity multiply listed capacity by (sin) of the angle. If seismic hardware connection to strut member is not centered between beam clamps the listed capacities shall be engineered to qualify capacity reduction due to uneven loading of beam clamps.

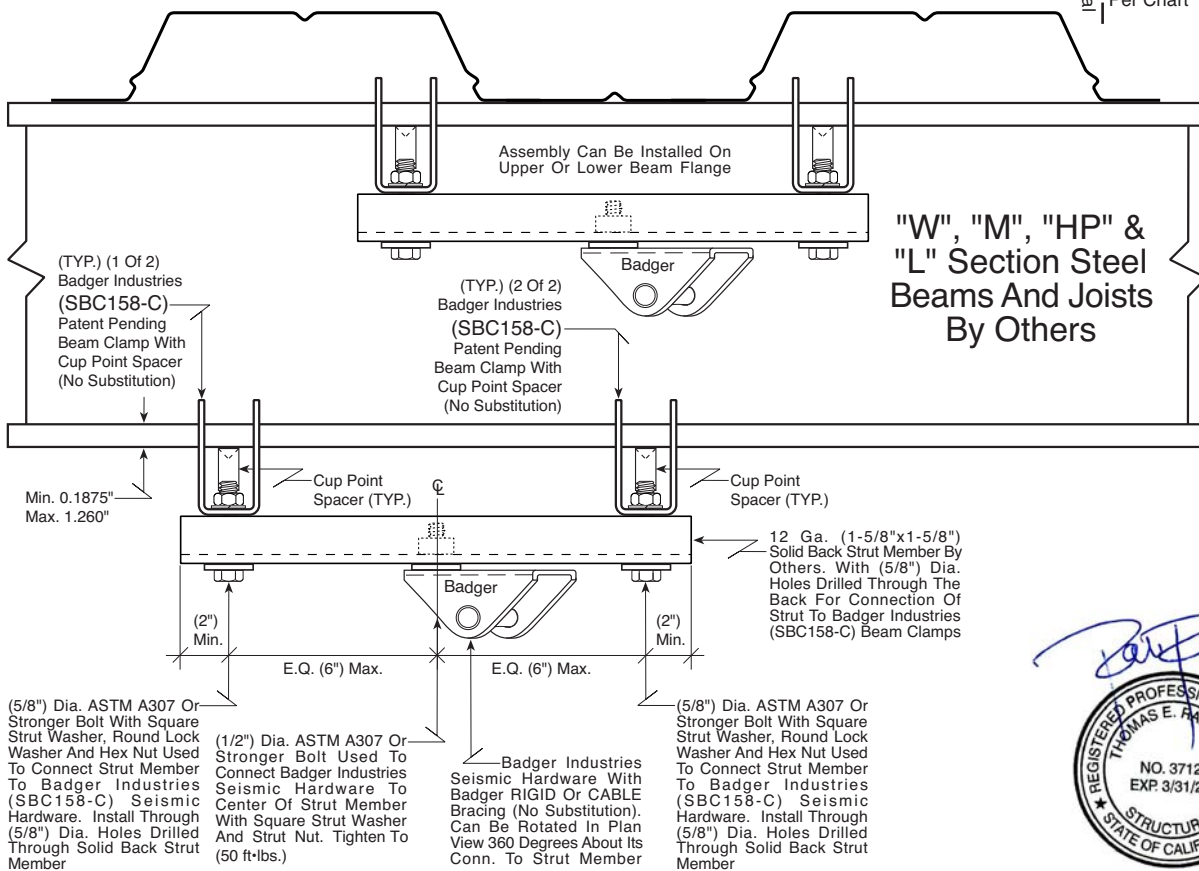
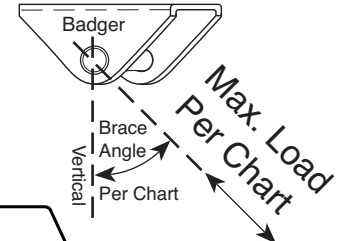
When ordering add a [-C] to Badger Beam Clamp Part Number (SBC158) to get beam clamp pre-assembled with required Cup Point Spacer. Thus order as Part Number (SBC158-C).

### Allowable Load with Factor Of Safety = 3.0

Brace Angle	30° to 60°	61° to 75°
Maximum Load	<b>638 lbs.</b>	<b>426 lbs.</b>

### (LRFD) Load with Factor Of Safety = 2.0

Brace Angle	30° to 60°	61° to 75°
Maximum Load	<b>956 lbs.</b>	<b>640 lbs.</b>



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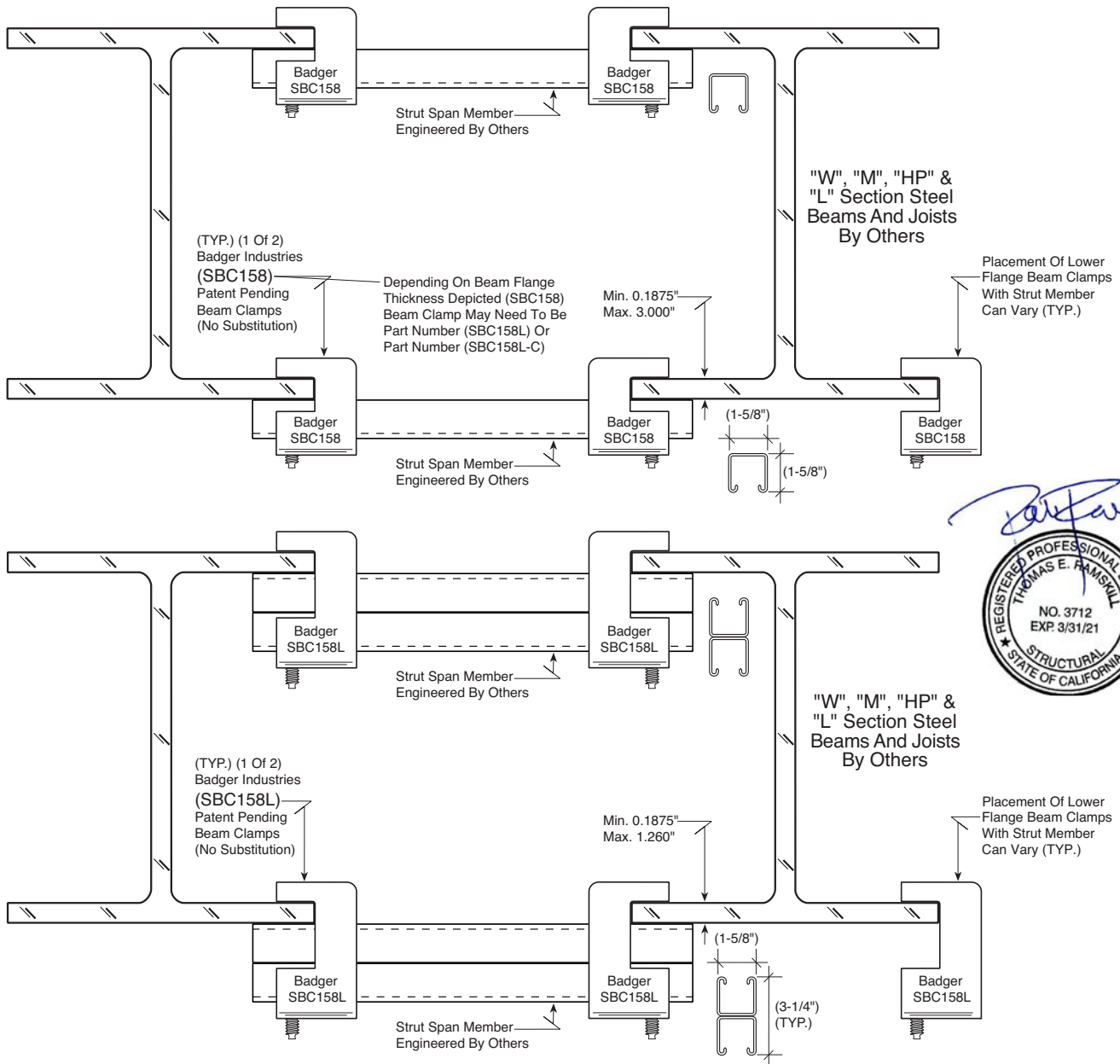
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# BADGER INDUSTRIES - (BBN)

## Beam to Beam Notice



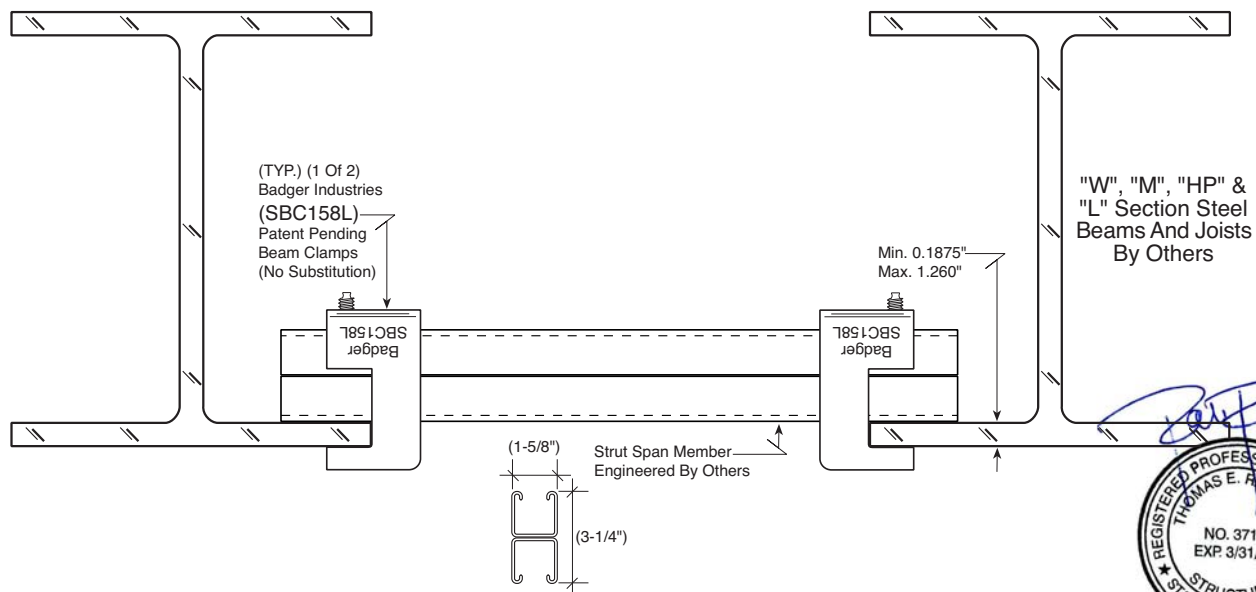
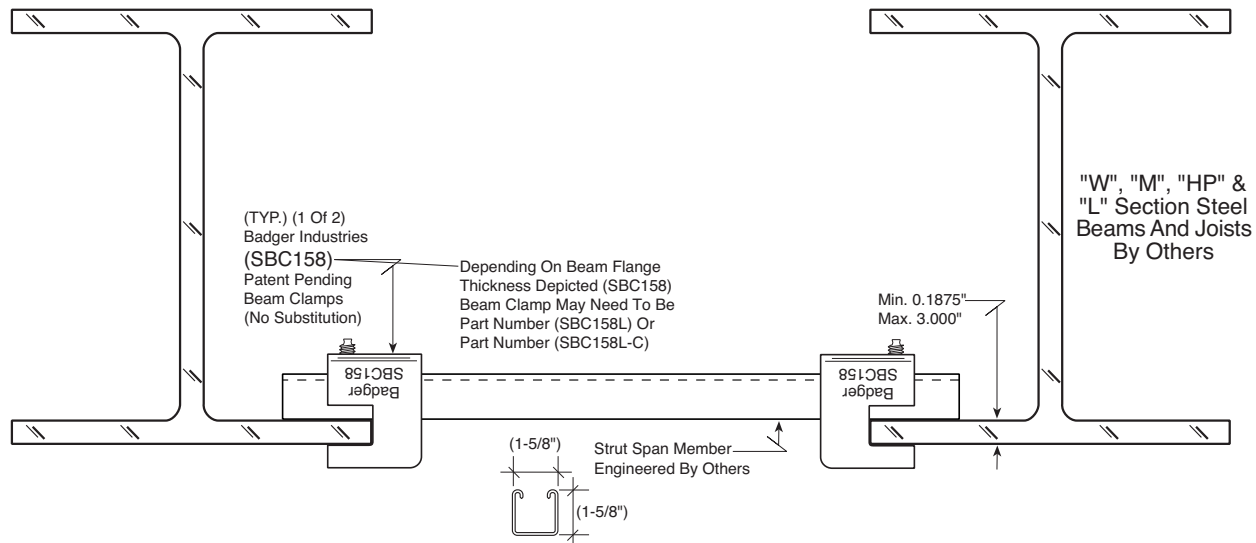
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# BADGER INDUSTRIES - (BBN)

## Beam to Beam Notice



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