

Forged Right Angle Beam Clamp (CRA2B) Installation Instructions

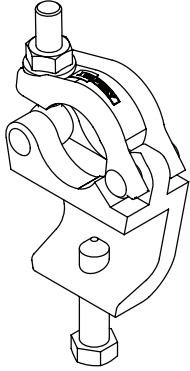


Figure 1 – CRA2B

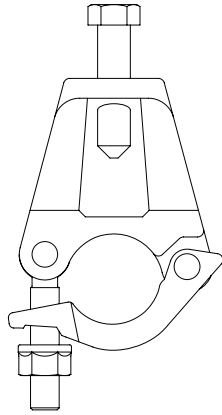


Figure 2 – CRA2B (Front View)

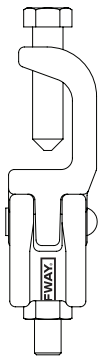


Figure 3 – Narrow Cap Style (Side View)

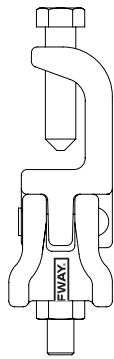


Figure 4 – Wide Cap Style (Side View)

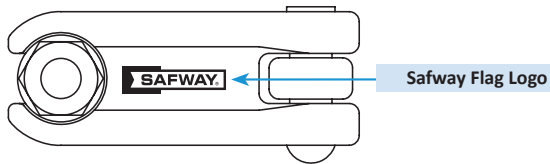


Figure 5 – Narrow Cap Style (Bottom View)

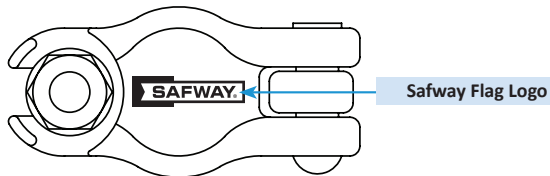


Figure 6 – Wide Cap Style (Bottom View)

⚠ WARNING

PLEASE READ AND FOLLOW THESE INSTRUCTIONS BEFORE INSTALLING, USING OR DISMANTLING THIS BEAM CLAMP. SERIOUS INJURY OR DEATH CAN RESULT FROM FAILURE TO FAMILIARIZE YOURSELF AND COMPLY WITH ALL APPLICABLE SAFETY REQUIREMENTS OF FEDERAL, STATE, PROVINCIAL AND LOCAL REGULATIONS.

INSTALLATION AND DISMANTLING MUST BE DONE UNDER SUPERVISION OF A COMPETENT PERSON EXPERIENCED IN SCAFFOLD ERECTION AND DISMANTLING. DO NOT USE IN ANY OTHER FASHION OR WITH ANY OTHER COMPONENTS WITHOUT CONSULTING SAFWAY.

DO NOT OVERLOAD. PLEASE SEE ALLOWABLE BEAM CLAMP CAPACITIES.

Clamp Identification

There are two styles of Forged Right Angle Beam Clamps (CRA2B): narrow and wide cap (Figs. 3 & 4). To identify a CRA2B, ensure the following characteristics are present:

1. The Safway flag logo is located on the cap. If the clamp does not have the logo on the cap, it is not a CRA2B and may not have the same Safway-recommended features or load capacities (Figs. 5 & 6).
2. The clamp body is made up of a single forged piece. It is not several components joined by welding.

Clamp Installation

CRA2B clamps must always be used in pairs on the same beam and only be used on steel beams. Both clamps must show the Safway flag logo on the cap. Clamps fit beam flanges up to 1½". Use 1.90" OD tube only (Fig. 7).

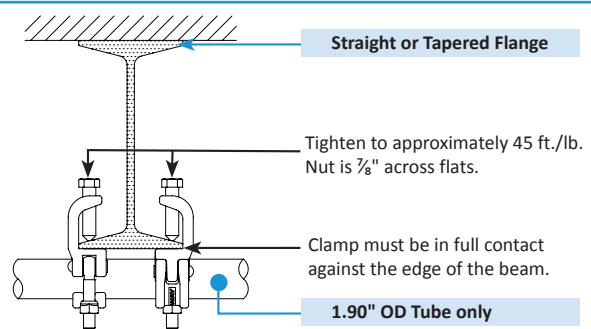


Figure 7 – Clamp Details

Load Ratings

Load ratings are based on the capacity of the CRA2B clamp and the provided Safway scaffold tube. All loads shown include a safety factor of 4. The user must determine the load capacity of the I-Beam and support structure to verify the rated load of the complete scaffold. Contact Safway Engineering for other situations.

All bolts on the CRA2B must be tightened to approximately 45 ft./lb. Be sure all beams are level/plumb (see "Force Angle to Beam" if not level/plumb). Beams have a minimum flange thickness of 1/4" and a minimum flange width of 4".

Force on Tube Perpendicular to Beam

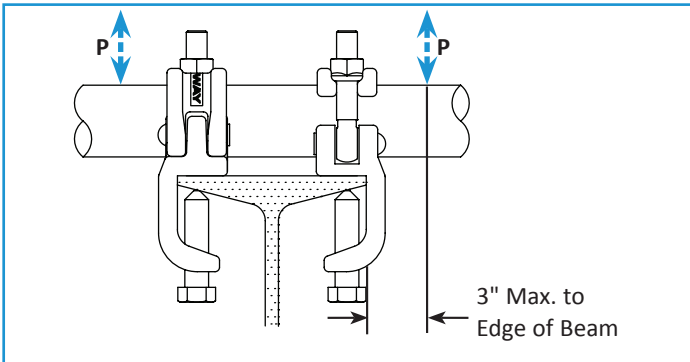


Figure 8 – Perpendicular Force on Tube - 2 Sides, Top
(P = 1,125 lbs. each side)

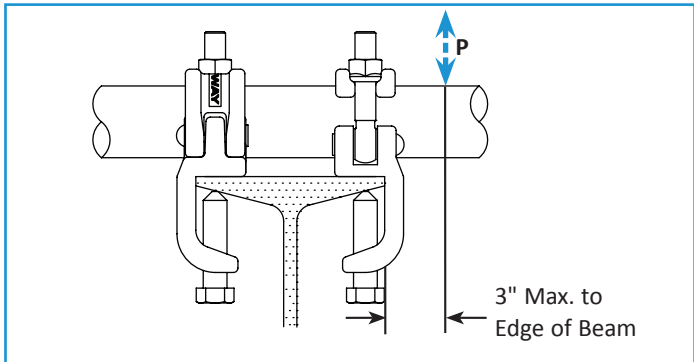


Figure 9 – Perpendicular Force on Tube - 1 Side, Top
(P = 1,125 lbs.)

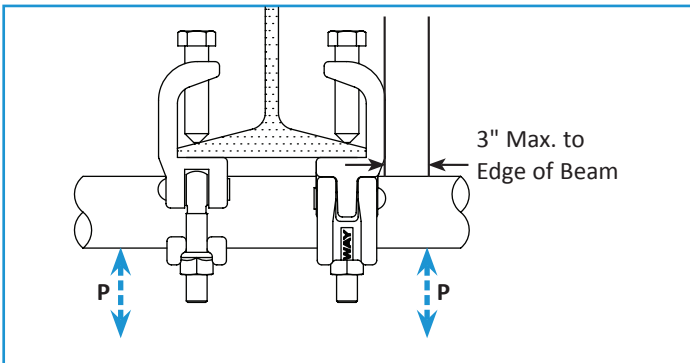


Figure 10 – Perpendicular Force on Tube - 2 Sides, Bottom
(P = 1,125 lbs. each side)

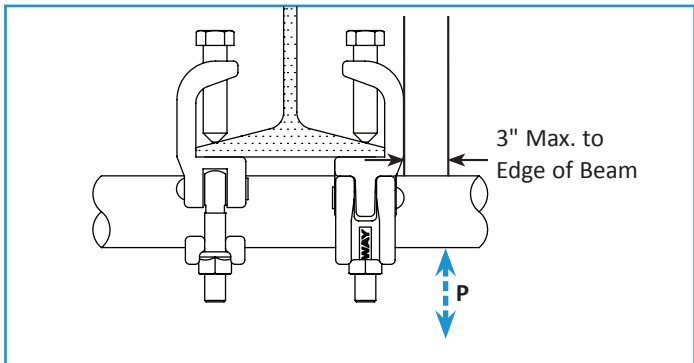


Figure 11 – Perpendicular Force on Tube - 1 Side, Bottom
(P = 1,125 lbs.)

Axial & Parallel Tube Force

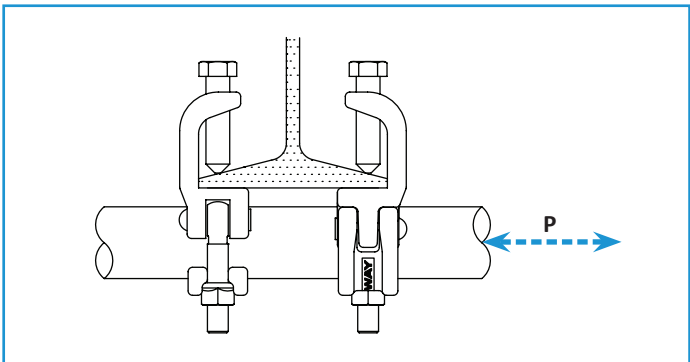


Figure 12 – Axial Force on Tube
(P = 800 lbs./pair - maximum allowable pull/push axial force)

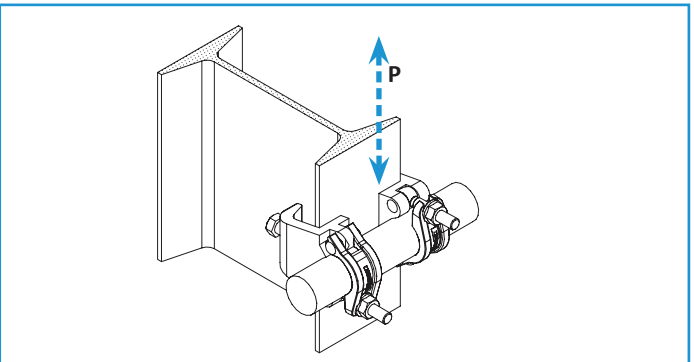


Figure 13 – Force on Tube Parallel to Beam
(P = 500 lbs./pair - force along I-Beam)

Force at an Angle to Beam

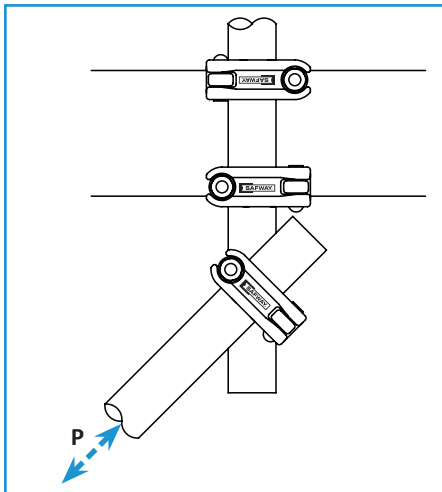


Figure 14 – Configuration 1
(P = 250 lbs. - maximum allowable pull/push axial force on tube)

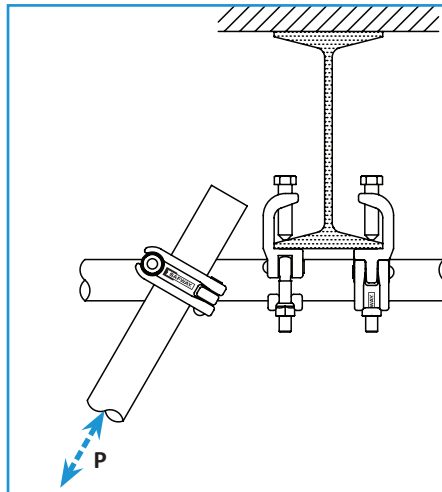


Figure 15 – Configuration 2
(P = 300 lbs. - maximum allowable pull/push axial force on tube)

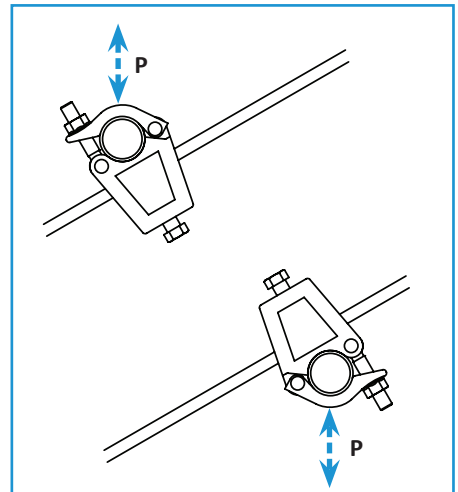


Figure 16 – Configuration 3
(P = 500 lbs. - maximum allowable pull/push force on tube)

Installation on Suspended Scaffold Applications

For suspended scaffold applications, you **must** have one ringset or check clamp above the CRA19 suspension clamp. CRA19 suspension clamps supporting the suspended scaffold tube **must** be tight against the side of the beam clamps.

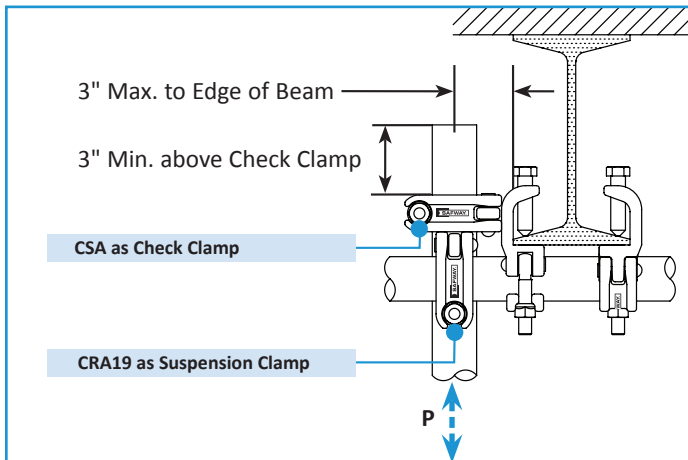


Figure 17 – Suspended Tube & Clamp Scaffold
(P = 1,125 lbs.)

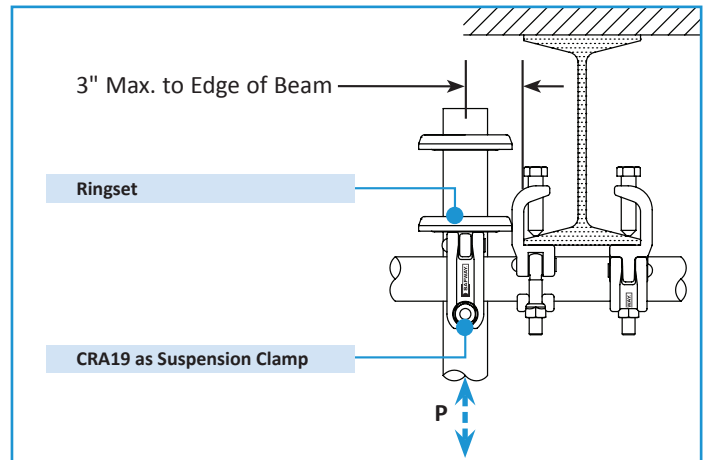


Figure 18 – Suspended Systems™ Scaffold
(P = 1,125 lbs.)

Improper Use

The examples of improper use shown are not all-inclusive. If you are in doubt as to the proper usage of the CRA2B, contact Safway.

1. Do **not** attach a tube to a beam using only one beam clamp (Fig. 17).
2. Do **not** attach a tube to multiple beams using only one beam clamp at each connection (Fig. 18).
3. Do **not** attach a tube to multiple beams using only one beam clamp at each connection, unless specifically designed by a qualified engineer (Fig. 19).

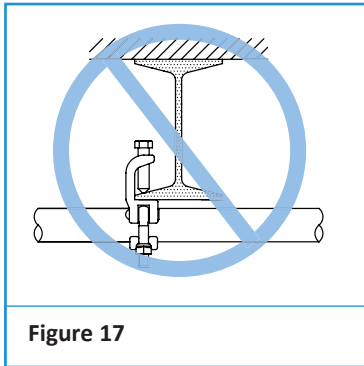


Figure 17

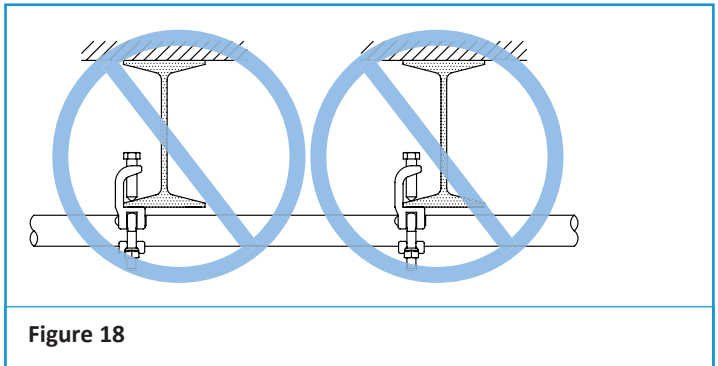


Figure 18

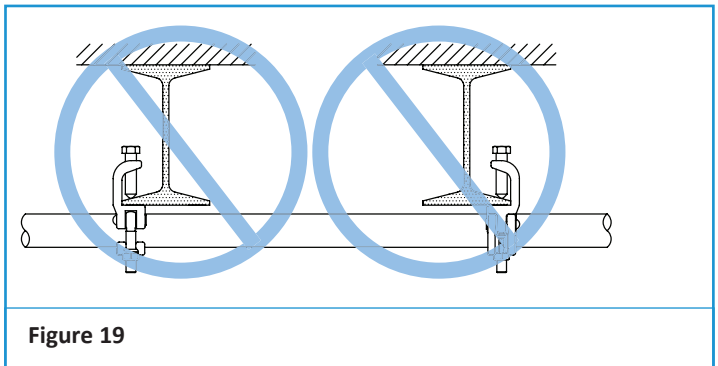


Figure 19

All drawings on this sheet are for illustrative purposes only. This sheet is intended for general information purposes only. Because of the many variables which affect the performance of the product line, some of the information in this brochure may not apply. For specific applications, contact Safway.

NOTE: All scaffolds shall be erected, modified and dismantled only under the supervision of a Competent Person. Erection, use, maintenance and disassembly must conform to current manufacturer's instructions as well as all federal, state, provincial and local regulations. Copies of complete Safety Guidelines for these and other products are available from safway.com/safety without charge.

Safway Services, LLC
 Corporate Headquarters
 N19 W24200 Riverwood Drive
 Waukesha, WI 53188
 Toll free: (800) 558-4772
 Telephone: (262) 523-6500

For a list of branch locations in the United States and Canada, visit our website at www.safway.com

©2010 Safway Services, LLC. All rights reserved.

ORN 471 Rev. C 8/10