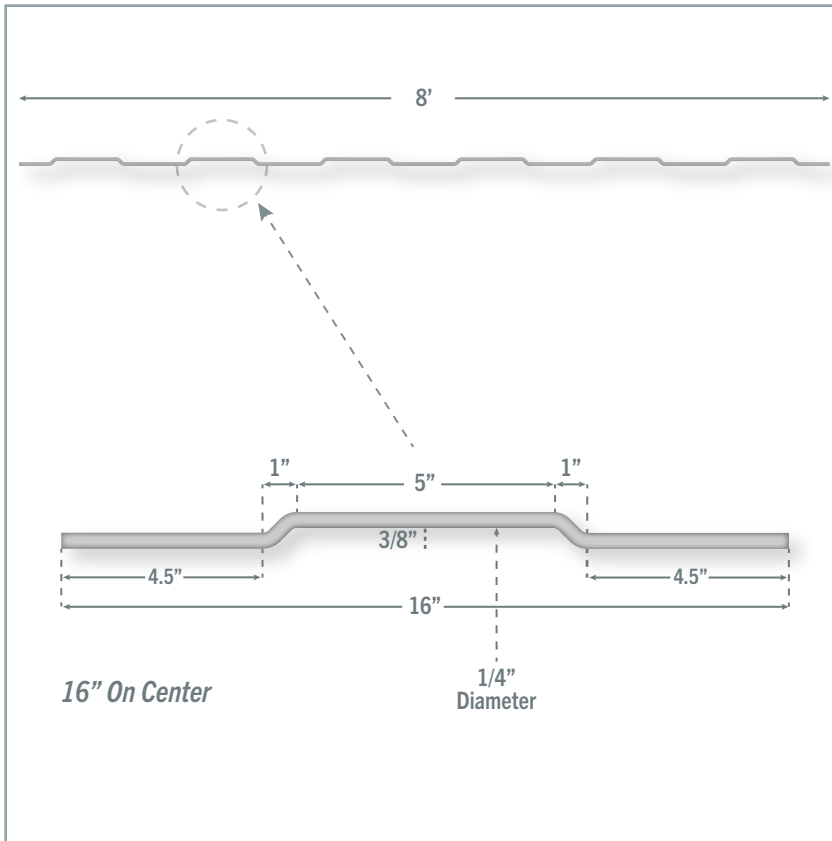


MASONRY ANCHORS

310-C CONTINUOUS ROD ANCHOR



TECHNICAL CERTIFICATION MATERIAL

#310 Plain Finish, 310-MG Mill Galvanized, 310-HDG Hot Dip Galvanized
ASTM A1064 / ASTM A1064M



Yield:
70,000 p.s.i. min.



Tensile Strength:
80,000 p.s.i.

#310-SS Stainless Steel Type 304 (ASTM A580)



Yield:
30,000 p.s.i. min.



Tensile Strength:
75,000 p.s.i.

GALVANIZING

#310-MG Mill Galvanized: ASTM A641/A641M (0.1 oz/ft²)

#310-HDG Hot Dip Galvanized: ASTM A153 (1.5 oz/ft²)

MORE INFORMATION

DESCRIPTION

The #310-C Continuous Rod Anchor is used to anchor masonry to structural steel members. When welded, it provides six sections of uplift, each 5" long and 16" on center, that allow for movement between the masonry and steel components.



1/4" Diameter



Overall Dimensions:
Length 8'



Offset:
5" of vertical
adjustment

Material Options:



- Plain Steel
- Mill Galvanized
- Hot Dip Galvanized (After Fabrication)
- Stainless Steel



25 pieces per bundle



Compatible Inserts:

- Triangle Ties
- Block Masonry Tie



TEST REPORT

November 15, 2019

Mr. Matt Obeid
Steel Supply
109 Kean Street
West Babylon, NY 11704

NHML File No: 37227
PO # SO-43381
Phone: 631-920-6792
mobeid@thesteelsupplyco.com

Overview:

Samples Received: (3) Wire Samples (2 tested)

Analysis Requested: Determination of Mechanical Properties per ASTM E8

Sample Disposition: Discard 30 days from date of report

Analysis Results:

	0.2% Yield (ksi)	Tensile (ksi)
Sample 1	89.5	91.3
Sample 2	91.5	93.0
ASTM A1064	65 min.	75 min

Please feel free to contact us if you would also require a chemical analysis of the samples.

Prepared by:

A handwritten signature in dark ink, appearing to read "Timothy M. Kenney", written over a light blue horizontal line.

Timothy M. Kenney
Director of Laboratory Services



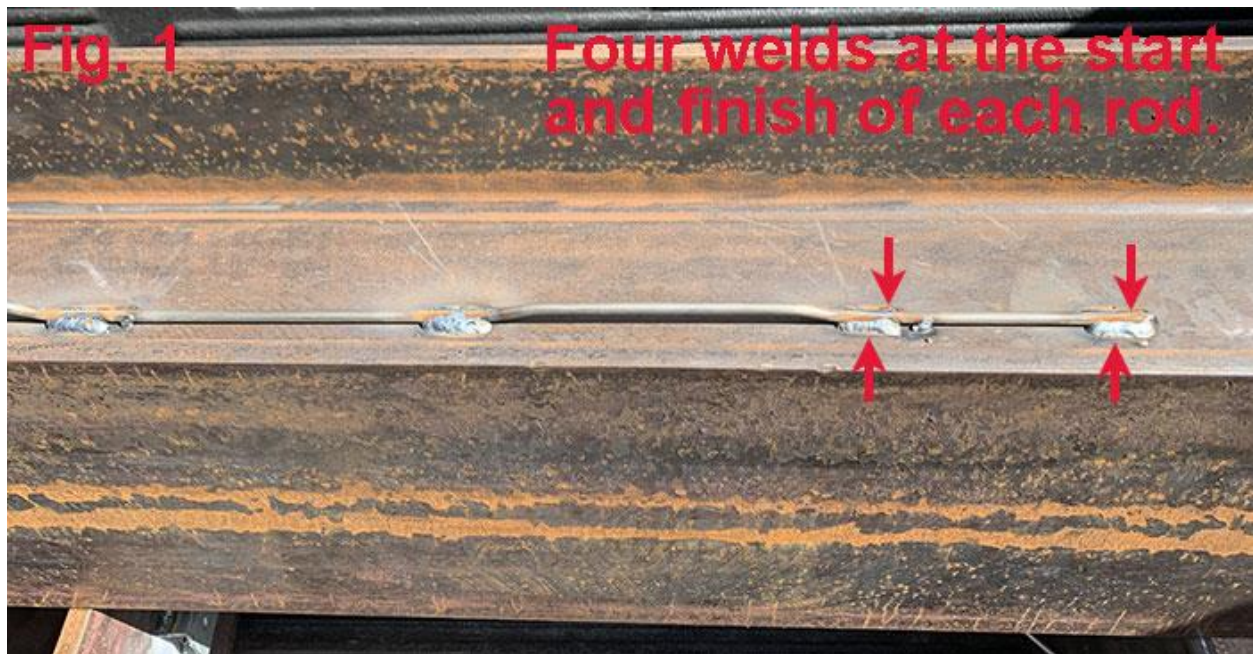
310-C Continuous Rod Anchor

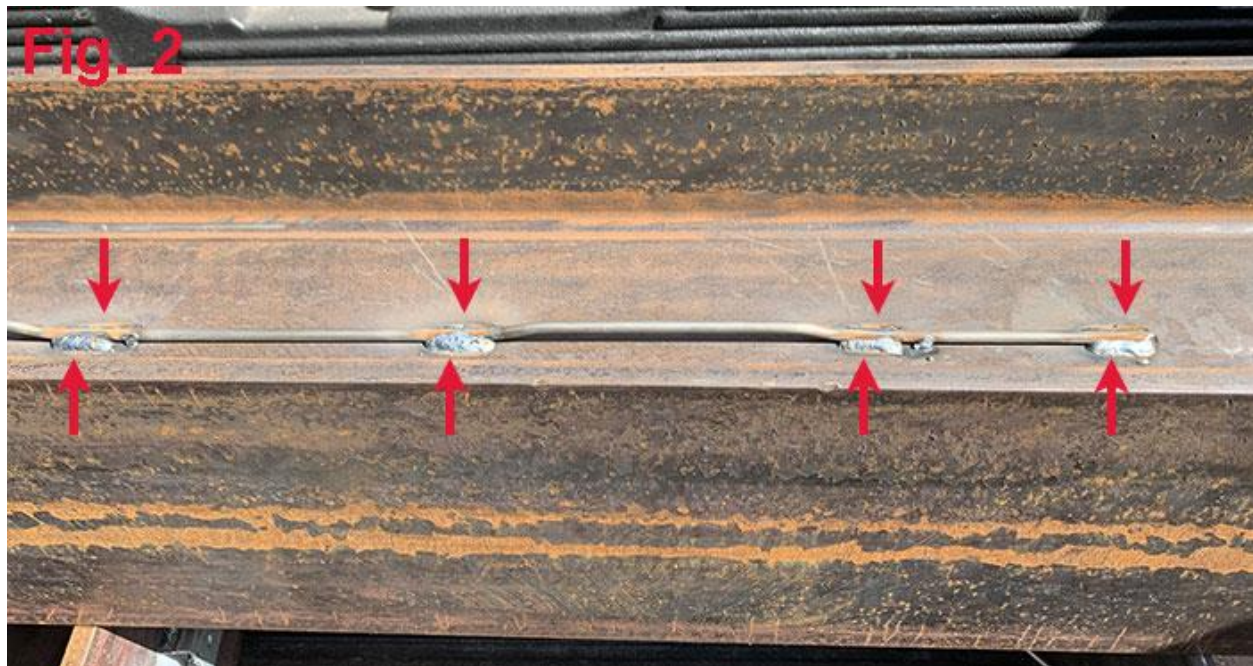
Pull Testing

Tensile and yield strength test results are shown on the previous page. Beyond this pull tests were performed to simulate the working condition of the Masonry Anchor.

#310-C Continuous Rod Anchor is recommended to be welded with 4 welds on the beginning and ending weldment sections, (figure 1) and then 4 locations per 16" section. (figure 2)

Note: In all cases instructions for welding shown on the shop drawings should be followed.





The test was established only to view the result of unusually high force pulling away from the I-Beam. For this reason, the wire insert was adapted to greatly increase its strength. In actual service the typical wire insert would deform before the rod anchor.

Pressure was applied gradually at a 90° angle as shown in figure 3. Pressure increased until the Rod Anchor separated apart as shown in figure 4. Figure 5 shows the actual point of fracture.

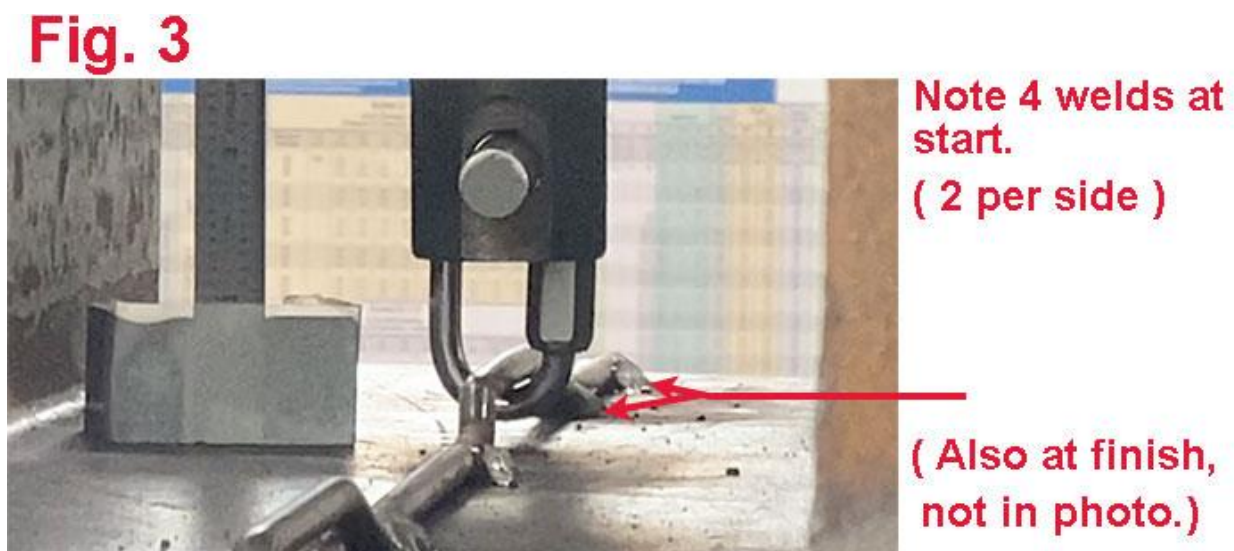
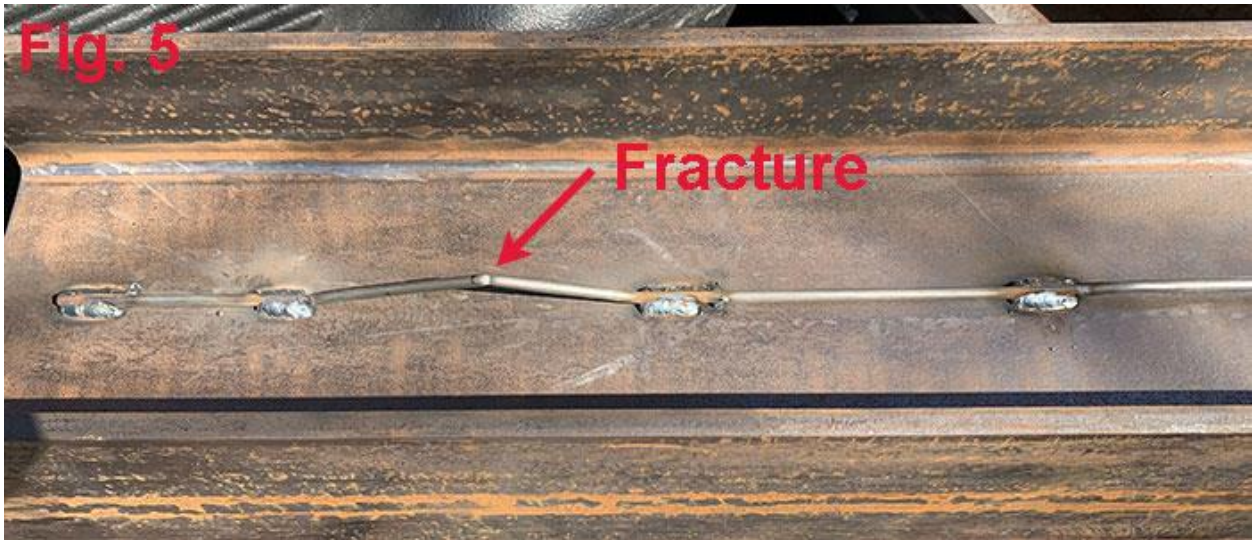


Fig. 4



Rod has snapped. Note corresponding drop in graph, Fig. 6.



The graph below shows the corresponding pressure as it increased.

Note the Peak Load shown on both.

4 Weld Peak Load = 1,882 lbf.

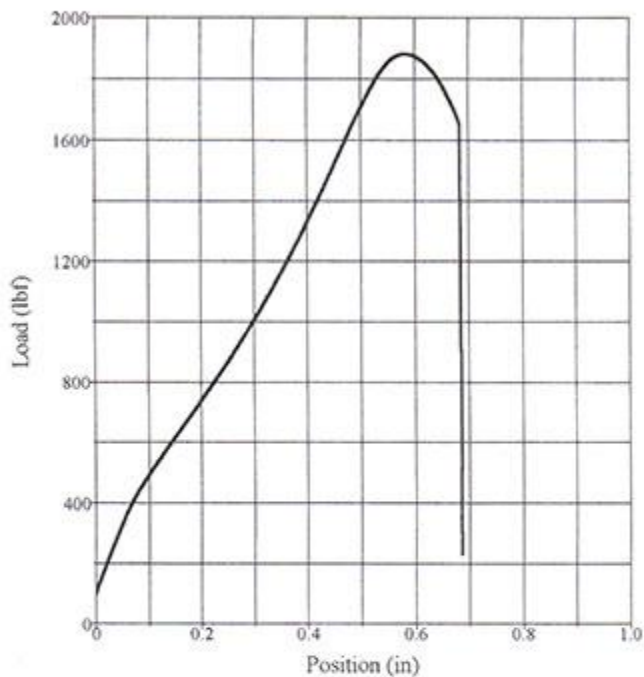
In effect it can be concluded in this test there was roughly 5% strength increase vs. the #310 Rod Anchor. (9" length)

Note the load was applied direct at 90° and this remained consistent with no other movement taking place. In true field conditions there would most likely be force exerted vertically or horizontally that may affect these results.

Additional information and Video Clips of these tests can be found on our website;

<https://www.thesteelsupplyco.com/rod-anchor>

Fig. 6



Test Results

Diameter: 0.2500 in
Area: 0.0491 in²
Tensile Strength: 38330 psi
Peak Load: 1882 lbf

Test Summary

Counter: 60558
Elapsed Time: 00:01:50
Job Number: A50471
Specimen Identification: #310 Rod Anchor Continuous
Sample: 4 Weld
Procedure Name: Tensile Strength Only_Round
Start Date: 03/17/2020
Start Time: 1:00:56 PM
End Date: 03/17/2020
End Time: 1:02:46 PM
Workstation: Long Island
Tested By: NICHOLAS