

HECKMANN BUILDING PRODUCTS INC.

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#216 WIRE-TYPE COLUMN ANCHORS

SIZE: Anchors are 3" (76.2mm), 5" (127mm), 7" (177.8mm), and 9" (228.6mm) long from the inside of the flange loop to the masonry bend. The loop has a 1/2" (12.7mm) opening and a 2-1/2" (63.5mm) grip on the flange. The masonry bend is 2" (50.8mm). Available in 1/4" (6.35mm) diameter and 3/16" (4.763mm) diameter Mill Galvanized wires conforming to ASTM A82 were tested.

APPLICATION: Used to tie masonry walls to steel columns with the column flanges parallel to the wall. Installed in pairs 24" (609.6mm) o.c. on each side of the column.

TEST CONDITIONS: A 3/8" (9.525mm) x 6" (152.4mm) x 6" (152.4mm) steel flat stock was fabricated to simulate a WF Steel Beam. Anchors were tested in pairs by placing them onto the flat stock so that both wires were lying in the same vertical plane. The 2" (50.8mm) masonry bends were clamped and attached to a load cell. The test was to determine failure at the loop that hooks onto the beam. The samples were tested to failure at a crosshead speed of 0.5"/minute (12.7mm/minute).

TEST RESULTS:	1/4" DIAMETER		3/16" DIAMETER	
	NO. ANCHORS TESTED	AVERAGE PULLOUT	NO. ANCHORS TESTED	AVERAGE PULLOUT
	4	1,542 lbs	5	816 lbs

1/4" (6.35mm) Diameter:

Anchor 1: 1 lb - 400 lbs.: Chart recorder load line was relatively linear as the sample began to slightly straighten at the 90o angle and the top half of the 180o bend.

400 lbs - 1,100 lbs.: Continued straightening at the angles, but the slope of the load line decreased, indicating a lesser resistance to bending.

1,100 lbs max.: Continued straightening of bends, very slight straightening of lower 180o bend approaching maximum. At failure the wires bent outward at jaw line and slipped out from beneath the flat stock. Maximum load 1,640 lbs.

Anchor 2: Same failure as #1. Maximum load 1,520 lbs.

Anchor 3: Same failure as #1. Maximum load 1,500 lbs.

Anchor 4: Same failure as #1. Maximum load 1,506 lbs.

#216 WIRE-TYPE COLUMN ANCHORS (continued)

3/16" (4.7625mm) diameter:

Anchor 1: Same failure as 1/4" except the recorded loads were lower. Maximum load 824 lbs.

Anchor 2: Same failure as #1. Maximum load 854 lbs.

Anchor 3: Same failure as #1. Maximum load 808 lbs.

Anchor 4: Same failure as #1. Maximum load 808 lbs.

Anchor 5: Same failure as #1. Maximum load 786 lbs.

