



Shooting Range Acoustics Wall Install Procedure (Troy Board horizontal finish)

1. **J channel** is to be installed at a horizontal and level elevation of 6" above finished floor height. J channel is to be attached from rear wall to target line, refer to drawings for actual location. Attachment of J channel to wall is per detail provided, 3" leg side attaches to the concrete wall surface. Using a concrete drilling tool, with a ¼" concrete or masonry drill bit, drill depth is no deeper than 2". Drill locations are per punched J channels. Position channel metals over drilled hole locations, insert mushroom spike (fastener "C") and hammer into concrete. The J channel provides a 1" finished return over the Troy Board
2. **Furring Channel:** On the sidewalls and starting from left (or Rear wall) to right, lay out for the furring channel will run vertical. Spacing for furring channel starting from the left edge (or Rear wall) is 4" (100 mm) and then 2' (610 mm) on center. Furring channels are to be positioned 6" above already installed J channel. Attachment of furring channel to wall is per detail provided. Using a concrete drilling tool, with a 1/4" a concrete or masonry drill bit, drill depth is no deeper than 2". Drill locations are per punched J and Z channels. Position channel metals over drilled hole locations, insert mushroom spike (fastener "C") and hammer into concrete. The furring channels are attached to all walls to be covered with Troy Board.
3. **Troy Wool:** Attachment of 1½" Troy Wool to wall surface using a spray adhesive (3M-90 or equal). The spray adhesive is to hold the Troy Wool in place until the Troy Board material is attached. The 2' width of the Troy Wool should fit snug in the bays of the furring channel. Use a 10" serrated bread knife to cut the Troy Wool. Cover entire designated surface with Troy Wool.
4. **Troy Board:** Start layout of Troy Board perpendicular to furring channel. Start the first course with the end (2' width side) of Troy Board flush against wall and the top side of Troy Board MUST BE LEVEL. DO NOT RELY ON FLOOR TO BE LEVEL. All cuts will be on floor side, thus leaving factory side for second course to set upon. DO NOT INSTALL CUT SIDE UP. Using the supplied Troy Board fasteners, attach Troy Board to furring strips with a minimum of 8 fasteners (fastener "A") per Troy Board. Troy Board is a finish acoustic material. Make sure joints are tight. Troy Board is to be installed without edges damaged. Troy Board may be cut using a circular saw, hand saw, or reciprocating saw type. The Troy Board is manufactured with Portland cement; thereby dust will be created when using a circular saw.
5. **Troy Board :** The Troy Board material is 8'-6" long and WILL NOT fall on lay out of the furring strips. Therefore, attach two (2) additional furring strips, no longer than 8" ea, to wall surface located at end of Troy Board. These furring channels will keep the Troy Board flat and even from end to end. Spacing of furring channels at end of Troy Boards are to be at least 12" apart from each other, with 4" under the Troy Board just installed, and the other 4" is for the attachment of the next Troy Board.
6. **Troy Board triangle shape near baffles:** Continue installation of Troy Board material as per plans and details. In same manner cut in around angled baffles. The



piece should be of a triangle shape. This shape to be cut out of a Troy Board in one piece. The triangular shaped piece is to be attached to the furring strips with the smaller point located to the lowest baffle point and the larger portion of the triangular shape to finish flush and plum with the baffle or safety ceiling.

Baffle Install Procedure

(when furring is supplied by Troy Acoustics)

18 Gauge Z channel to be attached to overhead baffles via a 1" (25mm) weld every 2' (610 mm) using an electric welding machine with rods or continuous wire fed. (Note: typically 18 Gauge z channel or sleepers are provided by the baffle manufacturer. Many manufacturers invalidate their baffle warranty if there is any field welding by a third party

1. **Attach Troy Wool:** Attach 1.5" Troy Wool to underside of baffle using a spray adhesive (3M-90 or equal) to hold TROY Wool until TROY Board material is installed. Use a 10" serrated bread knife to cut the Troy Wool to fit snug in the bays of the furring channels.
2. **Troy Board:** Install layout of Troy Board perpendicular to furring channels with 2' (610 mm) width end flush against wall. A single board should be positioned on baffles from bottom to top with any excess to be cut off. Troy board should be attached using (fastener "B" with fender washer), 8 per board minimum as supplied.
3. **Use Carbide Saw or Hand Saw:** The Troy Board is a finished acoustic material which can be cut with carbide saw or hand saw. Make sure joints are tight.
4. **Use of respirator recommended:** Dust resulting from sawing is Portland cement and wood fibers. Masks or respirators should be used.

FASTENERS

Description	Where it is used
#14 X 3 " SELF-TAPPING HEX HEAD SCREW	FASTEN BOARD TO Z-BAR
#14 X 2" SELF-TAPPING HEX HEAD SCREW W/1-1/4" FENDER WASHER	CEILING APPLICATIONS
1/4" X 1-1/2" MUSHROOM HEAD SPIKE	FASTEN Z-BAR, J CHANNEL & CLIPS TO CONCRETE STRUCTURE



Troy Acoustics Corporation

ABBREVIATIONS

AB	ANCHOR BOLT
AFF	ABOVE FINISHED FLOOR
BLKG	BLOCKING
CMU	CONCRETE MASONRY UNIT
(E)	EXISTING
GA	GAUGE
(N)	NEW
NTS	NOT TO SCALE
OC	ON CENTER
SQ	SQUARE
STAGG	STAGGERED
TB	TROY BOARD™
TBD	TO BE DETERMINED
TW	TROY WOOL™
TYP	TYPICAL
W/	WITH

GENERAL NOTES

ALL CONDUITS, JUNCTION BOXES, ELECTRICAL BOXES AND PANELS ARE TO BE SURFACED MOUNTED TO THE TROY SYSTEM™. NO CUT OUTS FOR THESE TO BE PERFORMED. (U.O.N)

SCREWS USED TO FASTEN TROY BOARD™ ARE TO LIE FLUSH WITH THE PANEL.

PAINT INSTRUCTIONS: USE AN AIRLESS SPRAYER WITH ACRYLIC LATEX BASE PAINT (3-4 COATS MAX). DO NOT FILL IN VOIDS.

INSTALLATION OF PANELS SHOULD BEGIN WITH A 2'-0" X 8'-6" PANEL ON THE BOTTOM INSIDE CORNER OF WALL CONTINUING DOWN THE END OF RANGE.

2" THICK TROY BOARD™ USED FOR WALLS.

1" THICK TROY BOARD™ USED FOR BAFFLES AND CEILING UNLESS OTHERWISE NOTED.

Z-CHANNELS ON BAFFLES RUN LONGITUDINALLY (UP AND DOWN RANGE). TROY BOARD™ WILL RUN ACROSS (LEFT TO RIGHT).