

Installation Procedure

Last Updated: February 16, 2023

Wabo[®]QuakeWall

High Performance Siesmic Wall Panel

The following installation procedure is very important and must be fully understood prior to beginning any work. To ensure proper installation and performance of expansion joint system the following actions must be completed by the installing contractor. Failure to do so will affect product warranty.

- 1) Carefully read and understand installation procedure. Contact WBA's Technical Service Department at (800) 677-4922 for product assistance.
- 2) Inspect all shipments and materials for missing or damaged components and hardware. Contact Customer Service at (800) 677-4922 with WBA's order number and invoice for prompt assistance.
- 3) Inspect substrate or adjacent construction for acceptance before beginning work. Report unacceptable construction to the project manager for scheduled repair work.
- 4) Review WBA shop drawings for project specific detailed information if Engineering services were purchased at time of order.

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Health & Safety

During the installation of any Watson Bowman Acme product, appropriate personal protective items should be worn at all times, including but not limited to the following:

- Proper work clothing
- Safety glasses
- Safety boots
- Gloves
- Hard hat



Local rules and regulations regarding safe work environments and health should be followed.

Product Components

The following components are required for the installation of this product:

- QuakeWall 5 piece system provided by WBA
 - Hinge Side Component
 - Ramp Side Component
 - Structural Frame
 - Leveling Angle
 - Pan
- Anchors (not included, installer to select best anchors as per application)

Recommended Equipment

This product requires the following additional equipment for an easy and successful installation:



Crane/other equipment for lifting and positioning heavy wall panels



Electric screwdriver for installing wall anchors



Prybar to open wall panel if necessary
(be sure to avoid scratching or
damaging metal)



Plastic shims of various thickness

Pre-Installation Notes

- The joint interface must be clean, sound, and durable.
- If attaching to steel surfaces, inspect the steel to ensure it is in good condition. If pack rust or heavy oxidation is present, it must be removed. If steel loss is too great as determined by the Engineer of Record, the steel substrate will need to be removed and replaced.
- Concrete blockouts must be square and level, as per dimensions on drawing.
- Wabo®QuakeWall frame assemblies are made from lightweight aluminum. However, the panel infill (supplied by other) weight can be substantial.
- Wabo®QuakeWall is supplied in five major component pieces to be assembled and installed on sight. Please ask WBA representative for options to ship in one unit.
- Structure members must be capable of supporting Wabo®QuakeWall panels as detailed in the contract drawings. The hinge-side joint-to-structure connections support the weight and seismic forces of the panel, care should be taken to ensure that Wabo®QuakeWall is anchored to a structurally sound support member.
- Review all product literature prior to forming a Wabo®QuakeWall handling, placement and trimming plan. Installers should review overall length requirements of the application prior to creating the trimming plan (see **Note** below). It is important to be familiar with Wabo®QuakeWall components and handling procedures prior to installing.
- Please refer to WBA drawings for mounting anchors, spacing and edge distance instructions (this may vary due to substrate conditions).
- Please cross-reference all installation dimensions with WBA product literature before installing.
- **NOTE:** Establish Trimming Plan: it is critical to layout the QWE system(s) as per site conditions to implement a trimming plan of for proper fit of each QWE system. If trimming the QWE Pans is required, a maximum of 6" can be trimmed from the top of pan and bottom of pan to avoid cutting into Structural Frame on backside of Pan. Mounting Extrusions (Hinge side extrusion and Ramp side extrusion) are to be field trimmed to the same length as Pan.

Installation

STEP 1 - Prior to Install

- Install fire barrier system and/or waterproof membrane, if required, prior to positioning the Wabo®QuakeWall components

STEP 2 - Install Wabo®QuakeWall Components

- Field trim QWE Pan, Hinge side extrusion and Ramp side extrusion per trimming plan (See **Note** in Pre-Installation section).
- Install Hinge Side component: Position hinge extrusion against adjacent construction. (See Figure 1). Level in both directions and shim as necessary. Attach Hinge extrusion on the face side at every open hole (screws provided by installer).
- Install Ramp side component: Position Ramp extrusion against adjacent construction. (See Figure 2). Level in both direction and offset across to Hinge side and shim as necessary. Attach ramp extrusion on the face side at every open hole. Next attach ramp extrusion on the throat side at every open hole. (screws provided by installer).
- Then confirm level alignment and check for out of plane alignment;
- Install Structural Frame: (See Figure 3) Position frame perpendicular to Hinge extrusion, align pilot holes and level across to ramp extrusion. Connect Frame to Hinge side with hinge bolts (2 bolts per hinge) (hardware supplied by WBA);
- Confirm plane alignment across structural frame;
- Install level angles between hinges, tight to bottom of structural frame. (hardware supplied by installer);
- Install Pan onto structural Frame with screws at every open hold. (hardware supplied by installer) Bolt wheel assembly to pans. (hardware supplied by WBA);
- Confirm components are level and square.

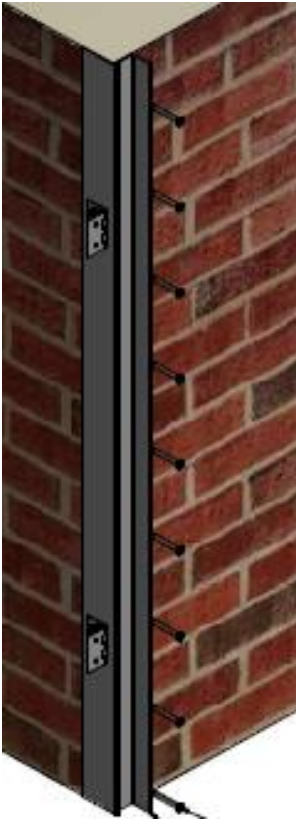


FIGURE 1



FIGURE 2



FIGURE 3

STEP 3 - Setting Wabo®QuakeWall System Tension

- Pull out 6' cable through single hole and secure cable to front of pan with vise grips (see Figure 4).
- Cut ~3' of cable off; Remove 1" PVC jacket from end of cable.
- Wrap bare end of cable around thimble tightly, crimp end to cable. (See Figure 5)
- Then position bolt through thimble. (See Figure 6)
- Set appropriate depth to fit in pan key way.
- Finish by positioning in pan key way and releasing the vise grip (See Figure 7)
- Confirm level and square

STEP 4 - Install Next Section of Wabo®QuakeWall System

- Follow Steps 2 through 3
- Install next section flush and inline
- Confirm level and square



FIGURE 4

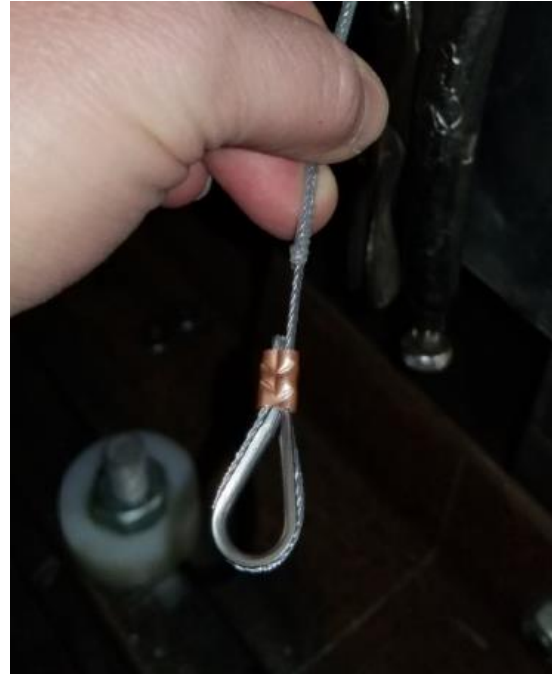


FIGURE 5

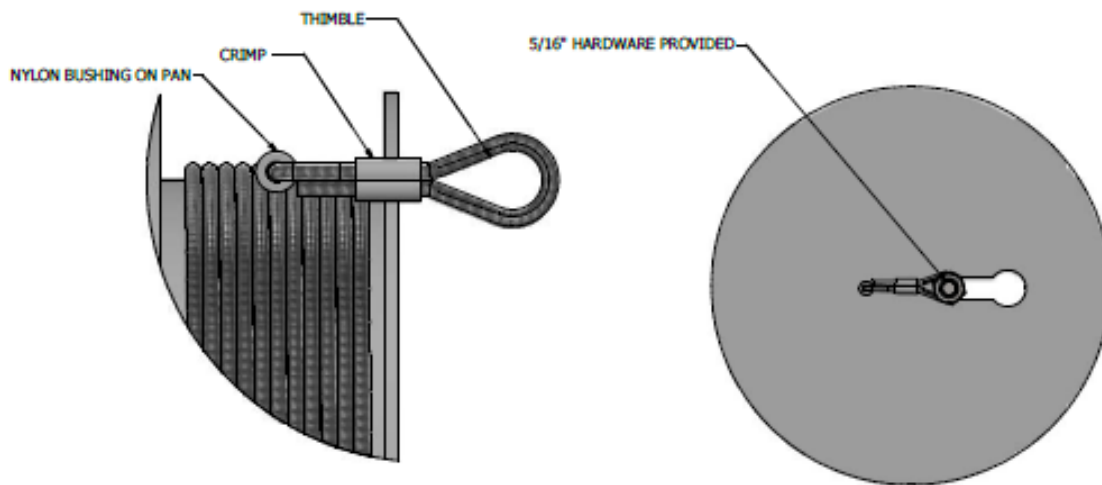


FIGURE 6



FIGURE 7

Post-Installation Notes

Install Infill

- Wabo®QuakeWall structure is now ready for infill (supplied by other) to be installed.

Field Service Assistance

- Throughout our history, a key focus has been providing best-in-class products and services to our customers. As a result, Watson Bowman Acme offers Field Service Assistance. Please contact us to discuss rates and schedules with our Field Service representatives to address any unknown field conditions, project specific recommendations or proper installation procedures of our products.

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