



## **AEROSMITH FASTENING SYSTEMS – April, 2018**

### **TECHNICAL BULLETIN #111**

# **Installation of James Hardie Brand Plank Siding over Cold Formed Steel Framing sheathed with EPS foam insulation panels using Aerosmith Brand Fasteners** (rev.-04/2011, 03/2018)

Aerosmith Fastening Systems have been used on number of projects where James Hardie Plank siding was applied over Cold Formed Steel Framed (CFSF) walls sheathed with foam insulation panels. Often Aerosmith Brand VersaPin® fasteners are specified as they are designed for use in 14 gauge (68mils) to 20 gauge 'structural' (33mils) thicknesses of steel and provide superior holding power in cold formed steel.

Page 14 of the 2012 James Hardie Best Practices Manual is attached/enclosed and describes general installation requirements for their siding products when applied over foam sheathed walls. (See page next of this tech bulletin)

Where foam insulation panels are equal to one inch or less thick with a minimum compressive strength of 15 PSI James Hardie Plank siding products can be fastened using a properly featured and sized (length, head diameter, shank diameter, point, knurl, and plating) Aerosmith Brand VersaPin® fastener. Choice of pin dimensions should consider all factors specific to your given project including but not limited to: "face or blind" fastener installation; CFSF thickness; foam panel thickness; corrosion resistance and building code requirements for the project. \*ALWAYS check with your design professional responsible for the specific project.

Contact Aerosmith Fastening Systems at 1-800-532-8183 for more information.

Contact James Hardie Siding Products at [www.jameshardie.com](http://www.jameshardie.com) for their latest information.

## General Installation Requirements (continued)

### FRAMING AND SHEATHING

Refer to the appendix for more information on rigid foam insulation.

James Hardie® siding and trim products can be installed over braced wood or steel studs spaced at a maximum of 24 in. on center or directly to 7/16-in. thick OSB or equivalent sheathing. These products can also be installed over solid-foam insulation board up to 1-in. thick.

Irregularities and unevenness in framing, sheathing, foam and other wall assembly components, including under driven nails, can telegraph through to the finished siding and trim. These irregularities should be corrected before the siding is installed.

When installing James Hardie siding and trim products over

steel studs James Hardie requires a minimum 20 gauge and recommends a maximum of 16 gauge. Steel framing that is outside of this range may be too flimsy to provide adequate holding power or too heavy for some fastening systems.

When using pins to attach siding products to steel, it is important to hold the material tight to the steel framing when driving the pin as the pin will not pull the material tight to the framing the same as a nail into wood will. Once the pin has been driven into the steel stud it is also important to not set or hit the nail a second time with a hammer. When driven into steel, the ballistic-shaped point uniformly pierces the steel instead of drilling it out or tearing the steel. The displaced steel rebounds around the pin to create a strong compressive force on the shank of the pin. When the pin is hit with a hammer it disrupts the compressive and frictional forces holding the pin and significantly reduces the overall holding capacity of the pin. If the pin does not set properly during the first attempt, the pin should be removed and replaced with a second pin.

When using a screw to attach James Hardie products to steel, a screw with a self tapping point should be used. A self tapping screw functions by having a cutting edge which drills away the material, making a tiny hole for the screw to go into. Some self tapping screws may be wing tipped which are intended to bore out the fiber cement (creating a pilot hole), and will break off as the screw goes into the steel. Either type of screw is acceptable for use.

Refer to the correct code compliance reports when selecting a fastener for steel applications and choose the corresponding tools from the tool section of this guide.

