



# Product Evaluation Report

**PER-07021**

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Initial Listing  
September, 2007

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58640 State Road 15  
Goshen, Indiana 46528

574-533-0337  
[www.p-e-i.com](http://www.p-e-i.com)

Listed Product  
**SurePin® Pneumatic Fastener**  
Listed For  
**Aerosmith Fastening Systems**

5621 Dividend Road  
Indianapolis, IN 46241

*Progressive Engineering Inc.* is an accredited Testing Laboratory and Third Party Quality Control Agency. This **Product Evaluation Report** represents a product that Pei has a follow-up service agreement with. This **Product Evaluation Report** in no way implies warranty for this product or relieves **Aerosmith Fastening Systems** of their liabilities for this product. Pei is accredited to ISO Standard 17020 and 17025. This **PER** is an official document if it is within one year of the initial or renewal date.

## Product Manufacturing

The SurePin® Fasteners are manufactured by independent companies. Any company manufacturing product for Aerosmith, that is intended to be listed by this PER, has an agreement in place and has been previously inspected and approved by Pei.

## Listing Details

**SurePin® Fasteners** are pneumatically driven steel pins used to attach cement fiberboard siding direct to concrete block. The smooth portion of the shank must be embedded into the concrete at least 3/4" - 1" for good depth penetration into the concrete.

## Product Description

The **SurePin® Fasteners** are manufactured from AISI 1060 steel, heat treated to a Rockwell C hardness between 52 - 55 for the core and a R45N surface hardness between 39 - 50 for the surface, have a minimum tensile strength of 65,000 psi. The pins are electro-zinc plated with a chromate rinse or are mechanically zinc plated or use a nickel alloy electro-plate.

The pins are manufactured with a nominal finished shank diameter of .145" and a nominal head dia. of .300". The SurePin® is designed with a smooth shank and a ballistic point. The pins are identified by the Aerosmith logo head stamp as shown on page 2 of this PER. The pins are collated for powered gun application.

## Tested to

**ASTM E488-96 Section 5.2** Standard Test Method for Strength of Anchors in Concrete and Masonry Elements.

## Code Compliance

<b>1997 Uniform Building Code</b>	<b>2006 International Residential Code</b>	<b>2009 International Building Code</b>
<b>2003 International Residential Code</b>	<b>2006 International Building Code</b>	
<b>2003 International Building Code</b>	<b>2009 International Residential Code</b>	

## 2009 IBC

Section 1401.10 - Fibercement Siding to meet ASTM C1186, Type A (min. 1/4" thick per table 1405.2)

Section 1405.16 - Fiber cement siding to be installed per approved manufacturer's instructions.

Section 1405.17 - Fastening to be zinc coated or other approved corrosion resistance fasteners per Table 2304.9.1 (for wood construction) or manufacturer's instructions.

## 2009 IRC

R606 - R609 - Masonry Walls -

R703 - Exterior wall covering

R703.4 - Wall covering attachment per Table R703.4 for attachment to wood framing or with **approved** corrosion resistant fasteners.

R703.10 - Fiber cement siding - install per approved manufacturers instructions.

**Note:** Designers, Engineers, and installers shall install the fasteners at a spacing that meets the wind pressure requirements of the applicable code.

**Code Compliance cont.**

The SurePin® Fasteners are limited to use in resisting negative wind forces in this PER.

Fire Rated assemblies are outside of the scope of this PER.

**Approved Pins**

5193Z      5323Z      5633Z  
5383Z      5573Z

**Product Documentation**

SurePin® Fastening Guidelines for Cement Fiber Board dated August,2006

A Quality Control Manual from each Approved Manufacturer

An agreement between PER owner (Aerosmith) & each Approved Manufacturer

A follow-up Listing & Inspection agreement between *Pei* and **Aerosmith Fastening Systems**

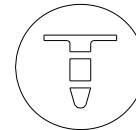
A Intertek ETL SEMKO test report No. 3117855-001 - ASTM E488-96 with SurePin® Fasteners attaching Hardie Siding in concrete block, dated 3/30/07.

ICC-ES Legacy Report ER-5667 - Reissued December 1, 2002

**Product Labeling**

Each Box of fasteners shipped, that are covered by this PER, must have a label attached with at least the following information:

1. Aerosmith Fastening Systems name, address or website.
2. Fastener designation
3. This PER number & Pei's logo
4. The catalog number
5. A lot number & Mfg. Plant Identification/Traceability
6. A Trademark head stamp by Aerosmith as shown



.300" Dia. Head

**ASTM E488-96, Section 5.2 Performance Testing on the following SurePin® Fasteners**

Product: **Aerosmith 5323HP - 1-1/4" Smooth Galvanized Pin**  
**Max HN-120A Pneumatic Nailer**

**Ultimate Withdrawal Values**

Minimum Penetration: **3/4" - 1"**

Ultimate Load (embedded into concrete block at web center): **1165.51 lbf**  
Design Load (embedded into concrete block at web center) with 2.5 safety factor: **466.20 lbf**

Product: **Aerosmith 5503HP - 1-1/4" Smooth Galvanized Pin**

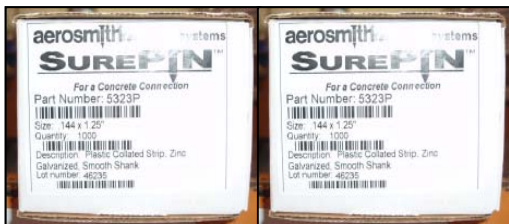
Minimum Penetration: **1-1/8" to 1-3/16"**

Ultimate Load (embedded into concrete block at web center): **1168.83 lbf**  
Design Load (embedded into concrete block at web center) with 2.5 safety factor: **467.53 lbf**

**SurePin® plastic collated form**



Boxes of 5323P as Shipped



**SurePin® in collated form**



Label for 5323 HP

