

Product Technical Answers

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Penn Machine Forged Round, Square, Hexagon Plugs, Hexagon Bushings and Flush Bushings in all material grades covered per ASME B16.11

Penn Machine manufactures forged Round, Square, Hexagon Plugs, Hexagon Bushings and Flush Bushings in all material grades covered per ASME B16.11 which may be used for ratings up through Class 6000 as stated in ASME B16.11. Both Plugs and Bushings per ASME B16.11 are not required to have a marking on them.

All Penn Machine products are heat code traceable and MTRs may be provided on each heat code lot product. SA/A105 Round, Square, Hexagon Plugs and Hexagon Bushings from 1/8 through 2 NPS Penn Machine are carton quantity packaged and package labeled. All Round Head Plugs, Square Head Plug, Hexagon Plug and Hexagon Bushings for 2-1/2 NPS or larger will also have a minimum of Grade, Penn or “P”, and Heat Lot Code for SA/A105 material.

All Stainless Steel and Alloy products of any type Plug or Bushing will be marked with a minimum of Grade, Penn or “P”, and Heat Lot Code where size of product permits. For products physically or legibly impossible to mark, products will be supplied in a labeled package indicating all traceable information on the package label.

Flush Bushings are marked where physically or legibly possible depending on size reduction of the specified product. All products may have a Penn Machine Material Test Report retrieved from our website and may be marked per customer request, please consult with your Penn Machine representative at 1-800-PENN-USA.

Fully Killed Steel Product from Penn Machine

All Penn Machine SA/A105, SA/A106, SA/182, SA/A234, SA/A312, SA/A333, SA/A335, SA/A403 and SA/A420 pipe fitting products are manufactured with steel which is fully killed steel from the steel making process.

Penn Machine Silicone Free Contamination of Forged Steel Fittings

Penn Machine's products do not contain Silicone. Our products are manufactured without Silicone base products and/or our products do not come into contact with Silicone during manufacturing or storage of this product.

Hot Dip Galvanized (ASTM-A153) or Electrodeposited Galvanized (ASTM-B633) Carbon Steel Fitting Products Compliance and Product Warning

Penn Machine manufactures pressure fittings in SA/A105, SA/A106, SA/234, SA/333, SA/A350 and SA/420 which are galvanized with Zinc and conform to the specifications of ASTM-B633 and ASTM-A153 respectively. The melting point of elemental Zinc is approximately 780 Degrees F [415 C]. Therefore, application of Zinc Coated piping products should be limited to temperatures less than 390 Dergees F [210 C]. Use of Galvanized coated piping products at temperatures above approximately one-half the melting

point (Fahrenheit or Celsius) of the galvanized coating is not recommended unless consideration is given to the potential for liquid and solid metal embrittlement, or both.

Lead Free Galvanized Products from Penn Machine

Penn Machine Galvanized products are Hot Dip Galvanized per ASTM-A153 or Electroplated Deposited Galvanized per ASTM-B633. These products are supplied to our users as lead free meaning containing less than 8 % lead as stated in the "Safe Water Drinking Act of 1998". These products are classified as in line piping to the water system and are not required to meet NSF Standard 61 Section 9 under the Safe Water Drinking Act of 1998.

ST-1 Steel Origin Certification: Prime Contractor Certification

Section A. - 7 Steel Product Certified: **Pressure Pipe Steel Fittings**

Section A.9 Name & Address of Supplier: **Pennsylvania Machine Works, LLC**
201 Bethel Avenue
Aston, PA. 19014 U.S.A.

Section B.10: Check Box Off

Section B.10 (b.) (3): Check Box Off labeled "Other". Explain: **USA**

The following form completion guidelines are for an "ST-1 Steel Origin Certification: Prime Contractor" (Rev. 6/1/99). Pennsylvania Machine Works authorizes the prime contractor to use the above information when completing this form for our product line of "Pressure Pipe Steel Fittings".

James B. Friant

Manager

Pennsylvania Machine Works, LLC

Tax ID # 231988630

Nickel and Stainless Steel Alloys are processed as Low Melting Point Contamination Free

All Penn Machine Nickel and Stainless Steel Alloys are processed as Low Melting Point Contamination Free Products as defined as materials not coming in contact with or being processed with low melting materials such as antimony, arsenic, bismuth, cadmium, lead, tin, phosphorous, sulfur or zinc in excess of 250 ppm. Low melting point elements as stated are detrimental for cracking the metal at elevated temperatures. Penn Machine assures that we process our Nickel and Stainless Steel Alloys to be contamination free of such elements in our processing and manufacturing of supplied piping products.

Nickel and Stainless Steel Alloys are processed as Chloride and Halogen Contamination Free

All Penn Machine Nickel and Stainless Steel Alloys are processed as Chloride and Halogen Contamination Free Products as defined as materials not coming in contact with or being processed with leachable chlorides and/or halogens in manufacturing, cleaning or packaging of our piping products in nickel and stainless steel alloys. Chlorides and Halogens are detrimental to Stainless Steel and Nickel Alloys and may result in pitting or premature corrosion of these types of metals if contaminated. We take every precaution to process your nickel and stainless steel alloys products free from this contamination.

Mercury Free Piping Products from Penn Machine

Penn Machine supplies a "Mercury Free Product" defined that our products are processed through manufacturing, testing and packaging with no direct contact with mercury or any of its compounds nor with any device employing a single boundary of containment.

No Weld Repaired Piping Products

Penn Machine supplies “No Weld Repaired” Piping products. Our products are not repaired by welding nor do we supply material which has been previously weld repaired prior to our manufacturing of that product in our facilities.