

Commanding a Higher Standard [™]

THE PHOENIX FORGE GROUP

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PRODUCT SPECIFICATION BULLETIN **CERTIFICATE of COMPLIANCE**

PIPE PLUGS and BUSHINGS – HIGH PRESSURE

We hereby certify that the high pressure pipe plugs and bushings, manufactured by Capitol Manufacturing and Phoenix Forging Company fully conform to the latest editions of ASTM/ASME A105/SA105, A182/SA182, Grades F304/F3044L or F316/F316L, and ASME B16.11. Forged steel plugs and bushings are not identified by Class designation but may be used through and including Class 6000 pressure ratings. MSS SP-114 Class 1000 plugs and bushings are marked Class 1M. Class 1M forged plugs and bushings may be used for ratings up through and including Class 1000.

ASME B16.11 specifies that the marking of plugs and bushings is not required. However, Capitol Manufacturing provides marking on ASTM A105 1/2" and larger hex plugs and bushings that are made from hot forgings as a standard. Markings are also provided on ASTM A105 1/2" through 2" hex and square head plugs that are made from forgings as a standard. Camco Fittings marks the CAMCO logo. material grade (F304/L or F316/L) and heat code of all ASTM A182 ASME B16.11 pipe plugs and bushings

These products are acceptable for use in sour service applications conforming to the applicable metallurgical and hardness requirements of requirements of NACE MR0175, NACE MR0103, and ISO 15156 and do not exceed a Rockwell hardness of C-22 or a Brinnell hardness of 187 HBW maximum. These products conform to the applicable requirements of CSA-B51, ASME B31.1, B31.3, B31.8, and ASME Section VIII, Division 1 Boiler and Pressure Vessel Codes.

ASTM/ASME A105/SA105 hex and square head plugs and bushings that are made from bar stock are not individually marked conforming to the requirements of ASME B16.11. Plugs and bushings smaller than 1" that are not marked as a standard but may be marked as a special, upon customer request. To ensure traceability, Phoenix*Capitol*Camco marks the label of all boxes of plugs and bushings with size, logo, and heat code information.

These products are produced in accordance with the Capitol Manufacturing ISO 9001:2008 Certified Quality System Program. These products are inspected by independent quality control personnel conforming to the requirements of EN 10204 Section 3.1. These products were not exposed to mercury or any other metal alloy that is liquid at ambient temperatures during processing or while in our possession. We certify that these products manufactured and inspected in the United States of America.

These products do not include heavy metals (lead, mercury, cadmium, and hexavalent chromium) and brominated flame retardants (polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE) and fully comply with the European Directive EU 2011/65/EC RoHS requirements. We further certify that these products fully conform to the low lead Safe Drinking Water Act of 2014 and NSF 61 requirements containing less than 0.25% lead.

Bulletin: B-13.01 Rev. 8 Date: 01/01/16 Approved: Guy Cuccio Title: Technical Services Mgr.









