



DEPARTMENT OF THE NAVY

PUGET SOUND NAVAL SHIPYARD
1400 FARRAGUT AVENUE
BREMERTON, WASHINGTON 98314-5001

IN REPLY REFER TO
9505
Ser 260LCM/007

MAR 15 2002

From: Commander, Puget Sound Naval Shipyard

Subj: APPROVAL OF SWAGELOK 1/4" THROUGH 1" OD, 3750 PSI CRES
MECHANICALLY ATTACHED FITTINGS (MAFs) SURFACE SHIPS ONLY

Ref: (a) NAVSHIPYD PUGET ltr Ser 260LCM/026 of 04 Jun 01
(b) Swagelok Company Test Report ASTM F 1387-93 Swagelok Tube Fitting Qualification Test Summary and Report of 20 Apr 00 with supplemental Swagelok Product Test Reports
(c) ASTM F1387-93, Standard Specification for the Performance of Mechanically Attached Fittings
(d) Southwest Research Institute Project No. 01.05334.01.001
(e) Military Standard MIL-STD-777 Schedule of Piping, Valves, Fittings and Associated Piping Components for Naval Surface Ships
(f) Swagelok Tube Fitters's Manual
(g) Swagelok Installation Training Manual
(h) Naval Ships' Technical Manual S9086-RK-STM-010/CH-505 Piping Systems

1. This letter supersedes reference (a). It updates the fire-hardened fitting requirements and extends fire-hardened fitting approval to Swagelok MAFs in sizes 1/4" OD through 1/2" OD (Advanced Design). Swagelok MAFs in sizes 5/8" OD through 1" OD (Traditional Design) were previously approved as fire-hardened fittings. It also updates the training requirements.

2. Based on references (b) and (c) and an additional specimen Fire Test completed on 19 February 2002 (reference (d)), the subject MAFs are hereby approved for use on United States Navy Surface Ships subject to the requirements herein. This approval does not apply to submarines, nuclear systems or machinery spaces on nuclear surface ships, or Level I applications at this time.

3. The sole NAVSEA approved manufacturer of the subject MAFs is Swagelok Company, Solon, Ohio, telephone number (440) 248-4600. These are grip-type MAFs and are designated as Type IV, Grade B (CRES), Class 8 (3750 psi) per reference (c) and have design temperature ratings of -65 to 1000 degrees Fahrenheit. They are approved for use in systems requiring fire-hardened fittings, as defined in Notice 4 of reference (e).

4. These MAFs are approved for use on 0.035" to 0.109" wall CRES tubing in sizes 1/4" OD through 1" OD per MIL-P-24691/3, MIL-T-8606, ASTM A213, ASTM A269, or equivalent.

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5. Use of the subject MAFs is contingent upon Navy approval of a training program based on reference (f) or (g). Navy contractors must submit a process control procedure to the Naval contracting activity for approval prior to installation. A Uniform Industrial Process Instruction (UIPI) will be issued. Meanwhile, NAVSEA approved manufacturer's instructions shall be used for installation.

6. The requirements of this letter will be incorporated into reference (h).

7. This letter is being issued by Puget Sound Naval Shipyard as the Life Cycle Manager for piping components. This Shipyard must be notified if any questions or problems arise regarding these MAFs.

8. The contents of this correspondence do not in any way change the terms of any understanding, solicitation or contract existing with the Government. Any change inferred will not be effective or binding upon the Government unless formalized by an appropriate contractual document executed by the cognizant contractual administrative contracting officer.

9. This Shipyard's technical point of contact is Mr. Steve Roemen, Code 260.5LCM, DSN 439-0447 or (360) 476-0447, Fax (360) 476-1438.



A. F. TUTTLE
By direction

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Swagelok Company