

ENGINEERING PRACTICE STUDY

TITLE: Development of new specification to
support Metallic Gasket Technology.

18 March 2024

STUDY PROJECT (SEE ATTACHMENT 1)

FINAL REPORT

Study Conducted By DLA Land and Maritime

Project Number: 5999-2024-006

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ATTACH 1

I. OBJECTIVES: This engineering practice study is being conducted to determine the feasibility of creating specification(s) to provide a product offering of a Metallic Gasket. A Metallic Gasket provides a superior performance compared to traditional silicone materials used. Historically, the materials used for gaskets were primarily a metalloid. However, sole use of the current material limits the gasket to the capabilities of raw material used. Shifting the material composition to metals such as carbon steel, Monel, Inconel, or brass would allow an increase in sealing performance, temperature range, pressure range, thermal cycling, and corrosion resistance. Thus, allowing the application to be used in systems subject to harsher environmental and chemical factors.

II. BACKGROUND: Currently, FSC 5999, does not offer a Metallic Gasket. A Metallic Gasket provides an increased barrier providing a stronger seal against extreme temperatures, higher pressure, corrosive chemicals, and thermal cycling. The improved barrier would address end items used in extreme temperatures and liquid submersion. To ensure safety of the Warfighter, use of a Metallic Gasket would be invaluable to prevent damage that may result in a complete system failure.

III. RESULTS: The provided replies were reviewed, and a DoD position was determined.

IV. CONCLUSIONS: The review concludes there is no interest to procure, or manufacture, a metallic gasket.

V. RECOMMENDATIONS: Despite the lack of interest to manufacture or procure a metallic gasket, the absence of commodity is noted. Based on the reply there will not be a document created to support metallic gaskets. However, there will be an ongoing inquiry to solicit a manufacturer.