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From: Richard McKenzie

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To: MDA US Systems Staff, MDA US Systems Manufacturing Suppliers

Subject: Internal (ID) Thread Depth Inspection Process

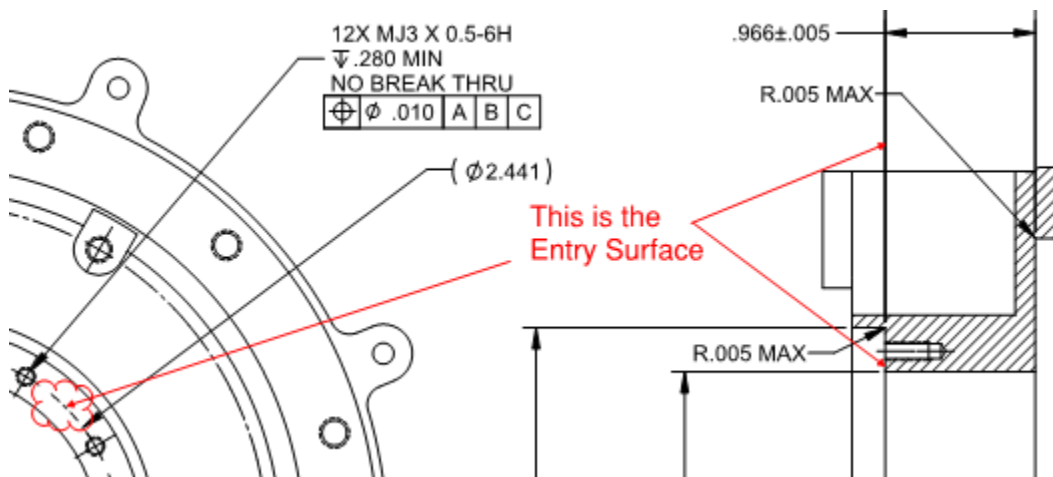
**Summary:**

To ensure MDA US Systems is verifying internal (ID) thread depth consistently with its internal and external manufacturing supplier base.

Thread depth, as it is shown on MDA US Systems drawings, shall be determined from the thread entry surface of the component. MDA has used various methods of stating internal thread depth requirements on its drawings – Full Thread Depth, Min Thread, Minimum Full Thread and Minimum Depth – each of these callouts shall be inspected per this technical memo using the single method described below.

In the event of a conflict between the drawing and this technical memo, an MDA US Systems representative shall be contacted to resolve.

Use the Figure below to establish Entry Surface –



## 1. Verification process

Using a caliper-type inspection tool, measure the overall length of a typical, non-modified, stainless steel, non-plated / non-coated McMaster-Carr type fastener. For example, if a .500 long 4-40 McMaster-Carr fastener were deemed sufficient to check the depth of an internal thread – using McMaster-Carr P/N 92196A110 would be a good candidate.

For depth acceptance, the selected fastener (per the criteria above) shall be considered the gauge.

Bottom the fastener into the thread using no more than reasonable finger-tight force. Mechanical assistance (such as a wench) is not permitted.

With the fastener engaged, measure the distance from the top of the fastener to the entry surface. Subtract this distance from the measured length of the fastener to determine the thread depth.

Example: If drawing states .25 min full thread, there shall be at least a .25 inch difference between the measured fastener length and the distance from the top of the engaged fastener to the entry surface. Thread may be longer/deeper as long as the drawing does not state otherwise.

**The measurement method shall be performed on all holes within a pattern.**

**This process is for validating ID thread depth only. Thread form shall be validated with appropriate thread form gauge.**

**This process does not cover STI style threads intended for Heli-Coil installation.**

The fasteners required to comply with this process should be inexpensive and readily available. MDA will not furnish.

Please direct questions regarding the above process to the manufacturing engineer supporting your manufacturing effort.

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