

 Rochester, New York 14625		Title:	Tooling Workmanship Requirements
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Revision No.:	0	** Document Is Uncontrolled When Printed ** Document Printed on July 30, 2018	
Issue Date:	30JUL2018		

1. Purpose

This document describes a set of requirements for parts purchased from a Supplier by Arnold Magnetic Technologies (AMT) where this document is specified as a requirement on the Purchase Order (PO).

2. Responsibility and Authority

The Purchasing Department and Design Engineers are responsible that all the applicable requirements are communicated to the suppliers and that the suppliers are in conformance with these requirements.

3. Scope

This document applies to all PO's where PQC 38 is identified from 7.4.1.3.1 Purchasing Quality Clauses.

4. General Requirements

A. Sharp edges

1. Sharp edges are not permissible unless otherwise stated on the prints. Prints call for a .005-.010 break edge in the title block. The purpose is to prevent injury to the operators who use the tools. Therefore it is a safety issue, and the safety of the operators is taken seriously.

B. Workmanship

1. Parts must be free of oil and debris unless otherwise state. This includes tapped holes.

C. Inspection balloons & data

1. Inspection balloons, as indicated by an oval outline, defined in the title block, must be 100% inspected and the data supplied to AMT.
2. All feature frame callouts must be 100% inspected and the data supplied to AMT.

D. Serial numbers

1. Prints that require a part number and a serial number to be laser or machine engraved will have a serial number will be supplied with the Purchase Order.

E. Change requests

1. AMT would like to work with our tooling vendors to meet the needs of both AMT and our vendors. Tooling designs are almost always under our design control, and therefore able to change to aid in manufacturing and inspection. Feedback is always welcome, and deviations can be made in some cases.
 - i. For example a vendor was commissioned to produce a design that called for a 3/8-16 tapped hole 2" deep. They were going to order a custom tap, but asked AMT if the callout could be changed to a .397" clearance hold for 1" and tapped the remaining 1". This was changed and an updated print sent to them the same day, saving lead time and cost.
2. Accepted changes must be confirmed in writing from AMT to the supplier.

F. Lead time warnings

1. If parts are going to be late, AMT must be notified. It may be that additional lead time does not affect production work, and the due date can be adjusted. If the lead time is critical, letting us know ahead of time aids AMT to plan around it. Parts coming in late is a problem that needs to be addressed and considered before future orders are placed. If parts are late without warning, the vendor will not be considered for future tooling.

G. Bill of Materials (BOM) items for assemblies

1. Hardware called out in AMT prints is often from McMaster-Carr (mcmaster.com). If not, or if there is an issue, AMT can suggest where the parts can be purchased.
2. Threaded rod is not called out beyond the BOM description on assembly prints. The material is 18-8 stainless steel (non-magnetic stainless steel) unless otherwise specified.
3. Parts not included in the BOM of each assembly are not part of the order. Often parts the tooling is used with are called out on the assembly print, but not included in the BOM. These are for reference only.



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5. Revision Log

<u>REV</u>	<u>DATE</u>	<u>SUBMITTED</u>	<u>APPROVAL (Process Owner)</u>	<u>APPROVAL (Quality)</u>	<u>DESCRIPTION</u>
0	30JUL2018	C. DILL	C. DILL	E. Bourne	Initial Release