

GENERAL DYNAMICS

Ordnance and Tactical Systems

Weapons Systems Supplier Quality Requirements Site 21-Quality – Williston VT / Saco ME

Quality Clause	Revision	Phase In Date
Q72	1	10/05/2021

Q72–Key Process Characteristics (KPC) I

Requirements

Variation management in accordance with AS9103 shall be performed on key characteristics or processes. The AS9103 specification with applicable forms can be found at www.sae.org. AS9103 forms or equivalent shall be used to document the results for each part or assembly produced that influence variation, as well as the control techniques and measurement methods. Any dimensional documentation must be in the same unit of measurement as specified in the technical data package. Copies of the AS9103 report for each lot of product produced shall be submitted to the GD-OTS Supplier Quality Engineer (SQE) on a monthly basis.

Key product characteristic and processes (KPC) plan: The supplier and/or sub-tier supplier shall utilize key product characteristics to identify those part or assembly features/interfaces where variation from nominal has significant effect on fit, performance, or service life of the product. The supplier and/or sub-tier supplier shall execute a plan designed to minimize KPC variation from nominal. The supplier and/or sub-tier supplier shall produce a detailed description of the system design that includes identification of KPCs and identification of key production processes. The supplier and/or sub-tier supplier shall balance key product design requirements with production process capabilities, and identify key process parameters and verification methods. The supplier and/or sub-tier supplier shall implement SPC or other control measures to ensure KPCs meet a minimum Cpk of 1.33. The supplier and/or sub-tier supplier shall implement a documented control plan for the KPCs identified. The control plan shall describe how KPCs are to be controlled during the manufacturing process. The supplier and/or sub-tier supplier shall document action plans for improvement to processes not meeting the minimum capability requirements. This shall include process monitoring of KPCs or may consist of the monitoring of other appropriate characteristics.