

Title Statistical Process Control		Book Identification SQRM		Number Control SQR 8.0
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1.0 Statistical Process Control

- 1.1 KAC may require statistical process control (SPC) be implemented by a supplier. This requirement shall be flowed down, via the Vendor Instruction listed on the KAC Purchase Order (PO). The Vendor Instructions shall identify the key characteristic governing specification and data recording information.
- 1.1.1 The requirements of this document shall be in addition to other purchase order requirements.
- 1.1.2 Approval of a supplier's SPC program does not alleviate the supplier of any basic quality system requirements, or engineering/specification standards.
- 1.1.3 When a key characteristic is flowed to the supplier, the supplier is obligated to achieve a minimum Cpk of 1.33, unless otherwise specified by contract.
- 1.2 All suppliers must submit their statistical quality assurance program for approval prior to use. Approval will be based on an evaluation of:
- a. The qualification of personnel responsible for application and administration of statistical quality assurance;
 - b. Written procedures covering classification of characteristics, application of sampling techniques, data recording, and audit control of the system; and
 - c. The comparability of the proposed quality level and control techniques to the complexity of product and its quality and reliability requirements.
- 1.2.1 When SPC is not a condition of the PO, a supplier may identify process controls to reduce variability. Kaman believes that defect prevention, rather than detection improves customer relations, at the same time saving inspection costs, and reducing scrap/rework.
- 1.3 The supplier is required to report their implementation status when a key characteristic has been flowed down. The type of information and frequency to be reported will be identified by SPC Engineering.
- 1.4 The supplier may be required to provide copies of data control charts and process capability charts.
- 1.5 Special causes of variation must be noted on the control charts and investigated by the supplier.
- 1.6 The supplier must exhibit a method to study and improve processes and products to identify causes of variation. (Gage R & R, proper chart selection, etc.)

- 1.7 Key characteristics must be in statistical control. A minimum of 20 points that represent the production process is required before control limits can be established. A key will be considered in statistical control if the plotted points do not fall outside the control limits.
- 1.8 Process capability must only be determined after a process is in statistical control.

APPROVAL:

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