Statistical Process Control (SPC)

**Requirements**
The Seller is required to validate the quality of their product, whether produced at the Seller’s facility, or at a subcontracted facility. Application of SPC techniques shall be defined for characteristics identified as a Key Characteristic in the fabrication drawing, SOW, or otherwise identified for SPC in purchase order documents. The drawing symbol for a key characteristic is ◊. The Seller shall provide written justification for all such characteristics where SPC is determined to be inappropriate.

A plan for the implementation of SPC shall be submitted by the Seller for review and approval by the Buyer prior to the initiation of production. Where First Article is contractually required, the SPC plan shall be submitted to and approved by the Buyer prior to First Article inspection. The SPC plan shall detail the process capability studies to be performed, the SPC methods to be applied and a time-phased schedule for total implementation.

The SPC plan shall also identify the:
- operations where SPC will be implemented
- sample size and frequency of measurements
- criteria to be used for modifying the sample size and frequency
- Quality Assurance procedures to be used to validate the accuracy, adequacy, and interpretation of the data
- training program and qualification of personnel in SPC techniques
- criteria to be used for determining an out of control condition
- responsibility for performing measurements and corrective actions
- corrective action procedures to be used and actions to be taken upon statistical signal or detection of an out of tolerance item.
When SPC has been implemented and the processes have demonstrated a state of statistical control and the item(s) conform to final acceptance specifications, the Seller may request that sampling in accordance with the specification be reduced for acceptance purposes on those controlled characteristics. Upon approval by the Buyer, acceptance shall then be based upon the reduced sampling, the control charts, and the approved SPC plan. The Seller must notify the Buyer of subsequent changes affecting the SPC plan. Periodic on-site evaluation of the SPC plan/procedures may be conducted at the discretion of the Buyer.

SPC control charts/performance data shall be validated by an authorized Seller’s representative, by either an inspection stamp or signature. Data shall include: lot numbers, date codes, contract numbers, part numbers, revision level, part name, contactor’s name, etc. The Seller is required to maintain all documentation on file as specified by the contract.