

PROCESS CAPABILITY (SPC) — Section 4

Process Capability studies are only required on Special Characteristics as identified in the approved Control Plan for each part number (or part family).

Special Characteristics are defined as - SC, CC, M, K, or those designated by Customer

Capability Requirement may be reduced or deleted if sustained capability is demonstrated by the Supplier, after mutual agreement between Powers and Sons and the Supplier. This will be documented by Control Plan revision as necessary.

Data does not need to be submitted unless requested.

Variable Measurements

Sample size requirement is 125 parts for either Ppk or Cpk.

Ppk (Long-term capability measurement) is required for each significant characteristic.

- The 125 parts are run consecutively and may be measured/recorded in any order.

Cpk (Short-term capability measurement) may be submitted with the following conditions:

- **Histogram** must be submitted and **all data points must be in specification**
- The 125 parts are typically taken from a population of 250 parts:
 - measure 5, skip 5, measure 5, skip 5, etc.
 - If data is not normal, then a matching curve (Pearson, Log-normal, etc. may be used).

Ppk or **Cpk** must measure **1.67 or greater**.

The data must be run without changes to the process (no additional setups, no lot changes, no Operator changes, etc.).

Attribute Measurements

Sample size requirement - 125 consecutive parts

All parts must be document as being Good or OK.