

## 1.0 Statistical Process Control

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Xmultiple uses Statistical Process Controls (SPC) as part of our quality control with our ISO9001/2008 procedures and processes. The SPC is implemented with control charts for control processes. Below are Xmultiple process control procedures for our manufacturing.

- **Control of Processes By Monitoring Changes in the Process:**  
Years of experience in manufacturing and assembling have provided us with extensive databases to compare a current process with a process we have performed for many years. Xmultiple monitors changes in processes in control charts showing environment, labor and workmanship in the control charts.
- **Random Data**  
The control charts are compiled with random data samples from group and sub-groups of product lines we manufacturer. The samples are taken at various stages of the products manufacturing.
- **Inspection Method**  
Xmultiple uses inspections to perform the random samplings to collect data for analysis. Inspection is performed by supervisors for all products we manufacturer. We only take large sample sizes once to establish a control limit. After that we add 1 sample of how ever many observations we choose, typically 2-5, to the grid and calculate the mean and range. So for most samplings we will take 15 samples using 3 observations.
- **Plotting Charts**  
Xmultiple quality control charts are prepared by plotting the data for random sampling per formed by inspections. The charts are prepared with data points on each chart. Care is taken to make sure sampling bias does not occur. All charts have a range and the range is important to show if the process is shifting or changing over time. In our production lines we collect data regarding when material is being pulled from stock as well as environment issues such as temperature and humidity.