

## SPC Statistical Process Control and MSA Measurement System Analysis training

1. Introduction
2. Measures used in statistics:
  - arithmetic average
  - standard deviation
  - median
  - modal value
3. Histogram - structure and application
4. Process Qualification – Pp, Ppk, Cp, Cpk indicators
5. Process Control tactics:
  - X-R, X-S control charts applied for measurable values
  - attribute values
6. MSA introduction:
  - metrological parameters of measurement devices
  - measurement errors
7. MSA Standard requirements
8. Measurement system Analysis for:
  - measurable values
  - attribute values

### Participant will learn :

- When, where and under what conditions to use specific SPC and MSA tools
- MSA and SPC scope of standards
- What are the advantages for the company thanks to the use of statistical tools
- What conditions must be met in order to properly apply and use the SPC and MSA methods
- How to calculate statistical parameters

**Benefits for company:**

- MSA and SPC employees' awareness increasing
- how to properly qualify and analyze production processes
- the possibility of reducing measurements due to the proper use of statistical methods
- the possibility of better measurement process understanding and its impact on the production process analysis
- better understanding of customer requirements

**Intended audiences:**

- quality controllers
- measurement laboratories employees
- quality and process engineers
- persons responsible for the SPC and MSA implementation, maintenance and procedures improvement in the company,
- persons responsible for supervising measurement systems/processes
- quality managers

**Date of training session:**

Actual dates are available directly on webpage related to this training

**Price:**

- 400 Euro for participants

In case of 2 or more participants from the same plant offer 10% discount on the second and all other participants.

The invoice due date will be 30 days from the invoice issue date. The invoices for the services will be issued after the service delivery.

**Duration:**

- 1 day (8 hours)

**Price includes:**

- Training participation
- Training materials
- Certificate

Regarding the price list for in-house training, please contact the office.