



Zero Defect Soldering

Scope:

It is not sufficient to use just good design, good components and other hardware to realize a reliable electronic product. The basic system reliability depends grossly on the reliable functioning of soldered joints. Desirable practice is to make the joints 'RIGHT THE FIRST TIME' through an adequate process control. The approach is to totally avoid the defect right at the beginning than to attempt to repair them at later stages. This involves correct choices of Components, substrates, cleaning solvents and other materials, selection of optimum soldering process, proper cleaning methods, use of right assembly tools, proper handling of components, solderability, assessment of workmanship standards as per standards, analysis of defects and improvement through continuous feedback. All these have to be dealt systematically through well-defined process control.

Objectives:

After attending this course the participant with the requisite knowledge and skill to establish or improve the total process so as to remove or minimize defects through adequate process control, through aspects mentioned above.

Target Participants:

Production/QA personnel concerned with electronic product manufacturing/ evaluation.

Duration: 3 days

Course Structure:

The course curriculum will meet the requirements of Process Control as per ISO 9000 and workmanship quality as per relevant standards. Pre lunch session will be spent on theoretical lectures on the various aspects of Zero Defect Soldering followed by hands on training and video films screening.



Course Contents:

Basic concepts of soldering	Materials control
Parts handling and preparation	Solderability of Components and PCBs
Tools and accessories	PCB manufacturing & QA aspects
Hand soldering techniques	Mass soldering techniques
Introduction to Surface Mount Technology	Requirement of Process control

Methodology

- **Course delivery :** STQC courses are normally delivered in English. However, depending upon the need the course are also delivered in Hindi or regional languages as desired. The STQC- courses are class room type and conducted at STQC Centres.
- **Faculties:** The faculties / trainers for this course are well qualified and experienced Scientists from STQC and have domain specific expertise.
- **Course Material:** The delegates will receive a course book prepared by STQC during the commencement of course. In addition, for hands on practice set of tools and kits will also be demonstrated / provided as appropriate / applicable.

Benefits

Upon qualification of this course, participants will be able to perform more professionally.

Further Information

For venue and dates of open advertised courses, please visit STQC website and contact course coordinator STQC Directorate, New Delhi.

Onsite course and /or tailor made courses can also be offered on specific request.