

SOFTTOOL ENGINEERING

Certificate
DC-3
STPS

TRAINING PROGRAM · SHEET METAL ENGINEERING

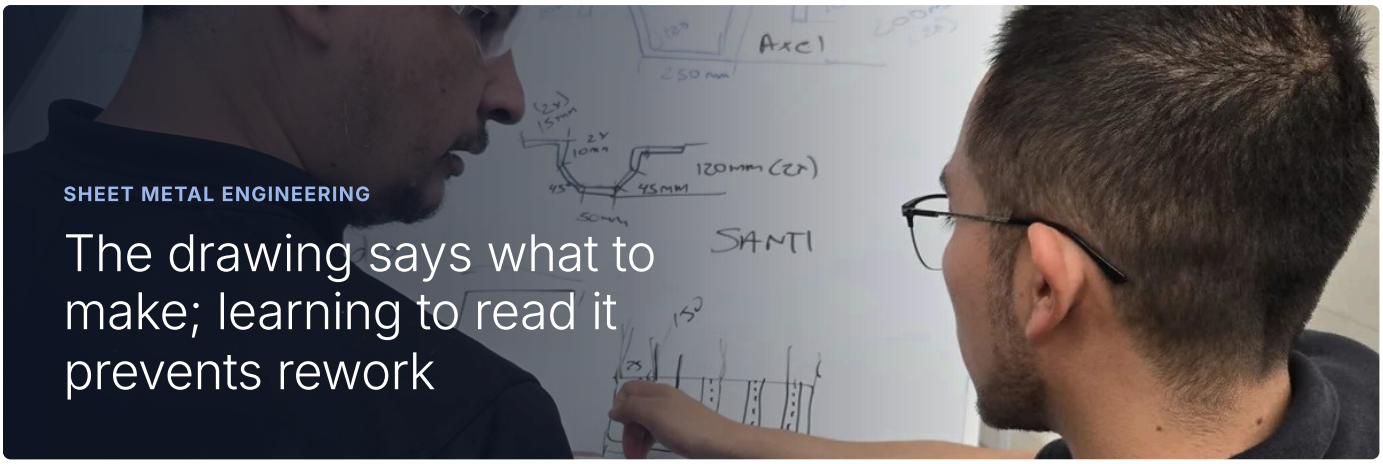
# Blueprint reading

## Views, units and geometric tolerances

Read a complete drawing with confidence: standards, views, title block and geometric tolerances.

| 7 | 33 | 16 h | DC-3 |
|---|---|---|---|
| modules | topics | duration | STPS certified |

Soft Tool Engineering softooling.com info@softooling.com




## OBJECTIVE

Train production and quality personnel to correctly read and interpret manufacturing drawings, including views, units, notes and geometric tolerances.

We work with real drawings from your plant and with measuring exercises on parts.

## ON COMPLETION, PARTICIPANTS WILL BE ABLE TO

- Know the ISO and ANSI drawing standards and basic symbols.
- Identify line types and their meaning.
- Convert between millimeters and inches without errors.
- Distinguish between the American and European projection systems.
- Read views, details, grid zones, notes and the title block.
- Interpret geometric tolerances: datum, true position and form.

## Course data sheet

DURATION
**16 h**

INTENDED FOR
**Operators, technicians, quality inspectors and new hires**

FORMAT
**On site, at your plant and with your machinery**

APPROACH
**Applied theory with exercises and real cases**

GROUP
**By role and level of experience**

EVALUATION
**Theoretical and practical, with results for each participant**

CERTIFICATE
**DC-3 certificate recognized by the STPS**

SYLLABUS

# Course content

7 modules and 33 topics. The order and depth of each module are adjusted to the machinery and the group's level.

**01** Technical drawing
**02** Line types
**03** Units
**04** Projection systems
**05** Views
**06** Parts of a drawing
**07** Geometric tolerances

## 01 Technical drawing

1.1 Drawing standards
1.2 ISO and ANSI
1.3 Sketch
1.4 Drawing
1.5 Symbols

## 02 Line types

2.1 Hidden line
2.2 Center line
2.3 Cutting plane line
2.4 Break line
2.5 Hatching lines

## 03 Units

3.1 Units
3.2 Conversions
3.3 Inches to millimeters
3.4 Millimeters to inches

## 04 Projection systems

4.1 American system
4.2 European system

## 05 Views

5.1 Top
5.2 Front
5.3 Right side
5.4 Isometric
5.5 Auxiliary views
5.6 Details

## 06 Parts of a drawing

6.1 Grid zones
6.2 Special notes
6.3 Title block

## 07 Geometric tolerances

7.1 Datum
7.2 Basic dimension
7.3 Bilateral tolerances
7.4 True position
7.5 Concentricity
7.6 Cylindricity
7.7 Symmetry
7.8 Circular runout

METHODOLOGY

# You learn by doing, not by watching slides

### 01
**Assessment**

We review your machinery, materials, parts and the group's level to adjust the program.

### 02
**Applied theory**

Fundamentals with examples from your own production.

### 03
**Hands-on practice**

Exercises on your equipment and with your parts, in small groups.

### 04
**Evaluation**

Theoretical and practical exam with results for each participant.

### 05
**Certificate and report**

DC-3 certificate and improvement recommendations for the area.




Training group receiving their certificates.




INSTRUCTORS

## People who started on the shop floor

More than 20 years in sheet metal fabrication: cutting, punching, bending and welding at manufacturing companies. The Soft Tool Engineering team also authored technical books on cost engineering and flat pattern development that are used as support material.

## Includes

- Program adjusted to your plant
- Course material for each participant
- Theoretical and practical evaluation
- DC-3 certificate (STPS)
- Results report and recommendations

SOFTTOOL ENGINEERING

TRAINING PROGRAM

# Bring this course to your plant

Send us your machinery, the materials you process and the number of participants. We'll propose the program, duration and dates.

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WEBSITE

**softooling.com**


OTHER COURSES

Sheet and tube laser cutting · Complete laser cutting process · Complete CNC punching process · CNC sheet metal bending processes · CNC Bending Application Engineer · Sheet metal flat pattern calculation · Expert programmer for cutting processes · Sheet metal process expert · Sheet metal cost engineering · Welding training · Fiber laser welding · Laser Welding Application Engineer


Content can be adjusted to the machinery and the group's level. Images for reference only.