



## **CNC** machine tools programming with HEIDENHAIN control Workshop CNC MACHINE OPERATOR

**Objective** mastering the skills of operating the control, setting the workpiece datum, preparing the tools and safety running the NC program

**Duration** 1 day x 8 hours

Contents First steps

switching on the machine

operation of the control interface

coordinate systems on machine tools

error messages and help system

Workpiece setup

• touch probe cycles in the manual modes of operation

• application of touch probe cycles on the machine without the touch probe

preset table: setting and datum management

Setting up tools

• tool table: tools parameters definition

pocket table: tools management in the magazine

tools measurement: tool probe cycles

Test run operating mode

graphic settings

activation of the tool table

• workpiece blank form in the working space

conditional functions: M1, skipping NC blocks

Program run operating mode

block scan function: start NC program at any desired block

program pause and continuation

conditional functions: M1, skipping NC blocks

program interruption

NC programs transfer

USB device

TNCremo software

Target group CNC milling machines operators

**Requirements** CNC fundamentals

Remarks • control type to choose: iTNC 530 or TNC 320/620/640

training is carried out on a machine tool

• each participant receives a certificate of participation