

# **Cutting with SolidCutter**

#### **Seminar:**

Expert training SolidCutter with MC8610 controller

## **Target group:**

Laser specialist

### **Objectives:**

Learn the interfaces and how to handle, program, troubleshoot and perform preventive maintenance for the SolidCutter when installed on a robot.

Able to find errors in the process and on the head / motor controller (MC) or on the interface between MC and robot.

Handling of optical components including the exchange of optical modules and how to properly work inside a Flowbox using adequate cleaning tools and liquids.

#### **Duration:**

2 days

#### **Number of participants:**

max. 4 participants

#### **Seminar content:**

### **Basics cutting and system overview**

- 1. Basics laser cutting (theoretical)
  - a. Laser + robot safety overview
  - b. Basics laser
  - c. Basics laser cutting
  - d. Overview cutting heads
  - e. Basics cutting process
  - f. Capacitive distance measurement



## 2. SolidCutter system (theoretical)

- a. Components
- b. System overview
- c. System variants (Focal length, different bus types)
- d. Z-axis
- e. Motor controller

### 3. Connection, interfaces machine-robot-MC8610-SolidCutter

- a. Connections socket
- b. Connections head
- c. Pin / bus interface
- d. User interface

### 4. Installation (theoretical and practical)

- a. Connect the MC8610 controller
- b. Peripheral connections
- c. Internal setup of the MC8610 cabinet

## 5. Manual controller (theoretical)

- a. Basic functions
- b. Parameter settings
- c. Lasermatic®-Z function

#### 6. Software, menus and instructions (theoretical)

- a. Program descriptions
- b. Software interface (HBG)

### 7. Structure of the robot program

- a. Checking communication, test PLC-Robot-MC-interface
- b. Monitored signals for crash sensor, tip touch, etc.

#### 8. Fault diagnostics (practical part)

- a. Error messages on MC8610
- b. Cable and mechanical components

### 9. SolidCutter maintenance (theoretical and practical part)

- a. Setting of focal position in X, Y and Z
- b. Changing the protection glass
- c. Maintenance Z-axis
- d. Handling optics (in general)



## 10. SolidCutter: optical training

- a. Handling optics (in general)
- b. Working in a Flowbox
- c. Change of lens packages and readjustment

#### **End of seminar**

After successful completion of the course, a certificate is issued

### Questions

For further information or questions please contact Mr Iannotta at:

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