# **Production - CAM**

During production working devices or main-parts are created based on the production – documentation.

#### The production at the Procontrol involves the following areas:

- Mounting and testing printed circuit boards using surface mounted (SMT) or through hole (THT) technology, through integrated quality-management system >>>
- Manufacturing mechanical parts for electronic devices using CAD-CNC technology
- Manufacturing housings and special shaped pieces using metal-shaping and low pressure plastic molding technologies
- Manufacturing prototypes, small quantity housings and mechanical parts, using 3D printer and ABS technology
- Mounting and testing electronic devices, instruments and industrial automation systems
- Manufacturing access control systems, automated gates and stainless steel guidance mechanism

### The organizations of the production according to the volume are the following:

- Prototype production
- Custom production
- Serial production

# The production projects can be classified as following, depending on ordering:

- Internal research (R) and developement (D) project
- R + D projects for tender
- R + D projects for customer
- Custom production based on order
- Custom production for stock
- Serial production for stock
- Serial production based on order.

# Our company undertake external customer order, providing the following:

- Stencil production in 24 hours, based on customer provided Gerber files >>>
- SMD mounting at maximum 45000chip/hours rate
- Ready-to-go device production
- Precision mechanics, mechatronics device production
- Prototype and small series production of ABS housings in 48 hours, using 3D printer, based on customer provided files













The production is based in its full chain on CAM (Computer Aided Manufacturing) technology.

The production controlling engineering workstations are interconnected in a modern, integrated network, where the CAM production tools are also connected:

- Prototyping tools: PCB creator, solder screen printer, SMT pick and place mounter, furnace, CNC, bender
- High capacity SMT production line (45000chip/hours rate): solder screen printer, pick and place machine, tunel-furnace, AOI, selective solder, rework station.
- ABS technology 3D printer
- CNC laser cutter with modulated fiber laser source and 2550 x 1660 mm coordinate table
- CNC micro-cutter for precizion stencil production.
- 5 axis CNC milling machine
- CNC metalworking lathe
- CNC metal-bending machine
- CNC coilwinding machine
- CNC micro miller

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Beside the alredy listed ones, many type of welding-, burnisher-, drilling-, cutting-, pressing and other type of machines helps the production work.

The quality management of production takes place in a carefully controlled ISO 9001 system, which up-to-date actuality is guaranteed by systematic audits and certifications.











Production related questions and requests are welcomed on the **CAM@procontrol.hu** email address.

Related services: Stencil production >>> CAD design >>> K+F >>>

