

# PECM Precision Electrochemical Machining



## PECM 1200/2000

### Your efficient solution for Precise Electrochemical Machining in low- and high-volume serial production.

Meeting the challenge of market demand for increased performance and efficiency requires innovative machining and methods that open up new dimensions of metal machining.

Precise Electrochemical Machining (PECM) is characterized by a number of properties that help customers achieve increased productivity with reduced tool wear and high repeatability having the benefits of competitive cost per part production.

### FEATURES and BENEFITS

- + Precision**
  - Perfect alignment of mechanical rigidity, cathode oscillation, DC pulse, and electrolyte quality ensure consistent results ( $\pm 5 \mu\text{m}$ ) at highest repeatability.
  - Temperature compensation system.
- + Productivity**
  - Ability to machine multiple parts per cycle to achieve more attractive cost per part.
  - Roughing, finishing, and polishing in one cycle – part free from burr.
  - Feed rate of cathode up to 2mm per minute (dependent on application).
  - Automation ready – easy to integrate into production lines.
- + Quality**

Real time process monitoring of relevant parameters for controlled production.
- + Environmental friendly**

Built-in features provide protection against spillage, corrosion, and vapors.
- + Experience**

Years of experience in supplying PECM solutions for serial production in different markets.

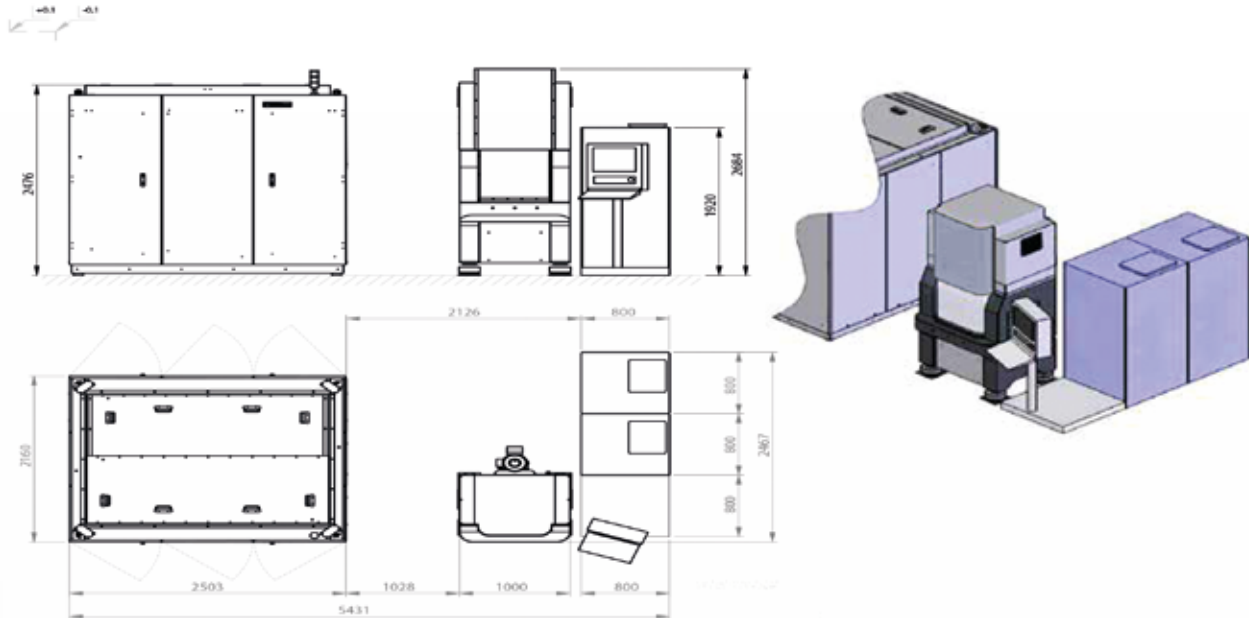




EXTRUDE  
HONE®

## TECHNICAL INFORMATION

### PECM 1200/2000



#### MACHINE CONFIGURATION

PECM Center consists of AQUA – MECHANIC – CONTROL – POWER UNIT.

Granite machine frame for superior inherent rigidity.

Table size (W x D) = 450mm x 450mm

Feed axis Z with integrated oscillation unit driven via digital controlled stepping motor with ball screw, spindle nut preloaded, and free of play.

Automatic front door and pressure controlled venting unit.

User-friendly software with real-time process monitoring as well as long term process graph for superior quality control.

Highly advanced short circuit control for increased tool life.

Microfiltration unit integrated into AQUA for highest electrolyte purity.

Control and regulation of all relevant parameters automatically done by the machine.

Modular power generators (1.200A or 2.000A).

#### AVAILABLE OPTIONS

Chrome reduction unit with sensor.

Modular power extension (1200A/2000A steps) up to 8000A/9600A.

Bipolar pulsing.

Non-vibration electrode mode.

Oscillator stroke : 0,2mm/90 Hz or 0,4mm/50 Hz max.

Backpressure unit for electrolyte.

Pre- and post-conditioning units.

Automation interface and automation.

Fault remote system.

Chamber filter press.

Chiller.

#### TECHNICAL DATA

##### Electrical Connection:

3 P~ N PE 400 V AC 50 Hz ( +6%/-10% )

NOTE: Specifications and availability are subject to change without notice.