

ECOLINE[™]



Low-cost ECM system for small to medium-sized production rates

The ECOLINE[™] series enables ECM batch production. It combines reliability with field-tested, proven technology at a lower price point for an incomparable cost-utilization ratio. The series is the perfect solution for those operations on a limited budget, but require a reliable process for batch production.

The deburring system contains all of the functions necessary for a reliable deburring and profiling process for precision metal components - i.e., all the technology you need, but no more than you need!

At the heart of this machine series, is a set of proven, standard components. With available options, the deburring system can be customized to meet individual requirements.

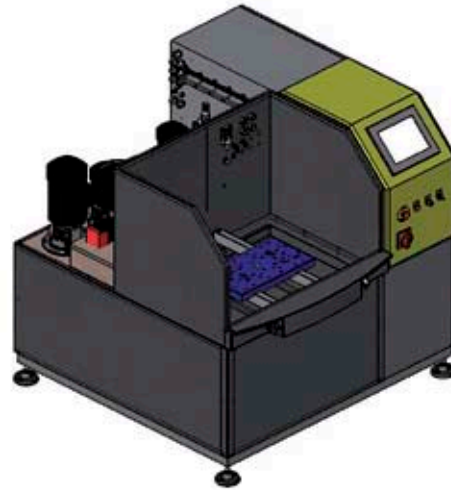
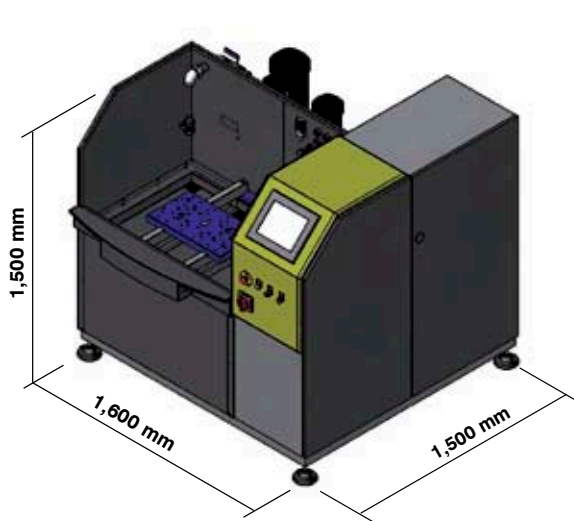


System Features at a Glance:

- **Central supply of electrolyte**
The system ensures a consistent delivery of electrolyte even if multiple fixtures are used.
- **Made-to-measure control system**
A touch screen with graphic user interface and plain-text display facilitates machine operation.
- **Fast setup and change of tooling**
Easily accessible utility connections and integrated machine base plate enables the rapid mounting of deburring fixtures.
- **Automatic pH value control**
Included in the basic module are automatic δ -pH value control and monitoring, as well as automatic temperature control of the electrolyte.
- **Automatic short-circuit check**
Before and during processing, the system prevents possible damage to the cathode due to large flag burrs or loose chips.
- **Continuously purified electrolyte**
To ensure that the electrolyte remains purified during the ECM process, a chamber filter press has been adapted specifically for the system and is included in the scope of the supply of the basic module.
- **Operating current monitoring**
The quality of the deburring is constantly monitored by automatic control of the operating current (min./max.).
- **Controlled production**
A state-of-the-art control system stores and monitors all major process data.

Technical Data ECOLINE Series

(Basic module, excluding the filter press and optional accessories)



Electrical Specifications

The machine is PLC controlled and provided with a touch screen. With this device, the operation mode can be easily changed from manual to automatic. An integral workpiece menu allows simple administration of the machining parameters.

Electrical

Voltage	400 V AC 3P / PE / 50 Hz
Max ECM deburring power	24 kW (400 A / 50 V) 12 kW (200 A / 50 V)
Infinitely variable ECM operating voltage	up to max. 50 V

Controls

Standard	Siemens S7
Visual	Siemens MP 370

Connection Requirements

Water

Port	R 1/2"
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Pneumatics

Port	3/8"
Pressure	6 bar

All machines in this series comply with the applicable EU Directives governing machine safety and bear the CE mark. They also comply with accident prevention regulations and the VDE and VDI regulations, as well as the requirements concerning electromagnetic compatibility.

Subject to technical changes serving to improve the system and in line with technological progress.



Machine Specifications

A chamber filter press, which continuously cleans the electrolyte, has been adapted for the system and is now included in the scope of supply of the basic module.

Dimensions base unit (W x D x H)	1,600 mm x 1,500 mm x 1,500 mm
Dimensions workspace (W x D)	1,100 mm x 800 mm
Capacity of electrolyte tank	approx. 700 l
Weight	approx. 800 kg

Security

- Short-circuit check
- Electrolyte module with integral acid-resistant tank

Accessories / Options

- Pulsed process current
- Floor pan to catch excess liquids
- Conductivity measurement
- Remote maintenance
- Dewatering basins