



# ECO+ Electrochemical Machining



## ECO+

### Modular Entry Level ECM machine

With the new modular ECM entry level machine concept EXTRUDE HONE offers high flexibility they need to get exactly the machine equipment they need to run their ECM applications.

One modular system, seven different packages help you to configure exactly the machine which fits your requirements.

Standardized packages cut delivery time down while offering high modularity. This means you don't have to pay for equipment you don't require whilst maintaining high quality of your ECMed parts.

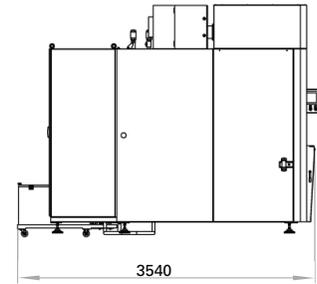
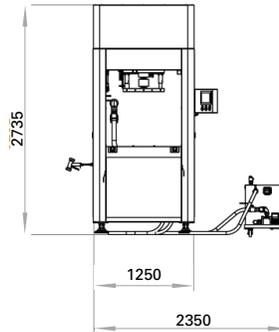
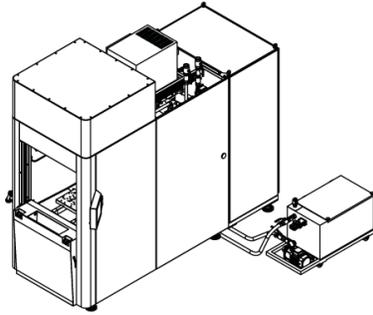


### FEATURES and BENEFITS

- + **Extrude Hone's newest generator technology**  
Profit of our state-of-the-art generator technology which allows you using modern pulse patterns to improve parts quality.
- + **Highest flexibility**  
Modular concept offering up to 500 A generator power, idT process control, full automatic process fluid control, and more.
- + **Process control**  
State-of-the-art control system stores and monitors all major process data.
- + **Minimized operating costs**  
Short circuit control before and monitoring during the process reduces tool wear and reduces parts damage.
- + **Make it easy**  
With our pre-defined configuration packages you can easily configure the machine as it fits best to your requirements - without paying for unnecessary features.



### MACHINE SPECIFICATIONS



Machine layout and appearance is subject to change without further notice.

#### ELECTRICAL CONNECTION

Supply voltage	400 V AC/3 Ph/N/50 Hz
Generator type	RLI; aut. short circuit control; DC & Pulse mode
Min. process power	Connected load 25 kVA / sec. current 250 A / voltage 60 V
Max. process power	Connected load 40 kVA / sec. current 500 A / voltage 60 V

#### ELECTROLYTE & FILTRATION

Electrolyte	NaNO <sub>3</sub>
Electrolyte tank	Tank made of PE V = 750 l (198 gal)
Basic Filtration System	2 filter cartridges Filter surface area 29 m <sup>2</sup> (312 ft <sup>2</sup> )
Chamber Filter Press ECO	15 filter plates Filter surface area 5 m <sup>2</sup> (53.8 ft <sup>2</sup> )
Chamber Filter Press	19 filter plates Filter surface area 6.3 m <sup>2</sup> (67.5 ft <sup>2</sup> )

#### PNEUMATICS

Min. input pressure	6 bar (87 psi) at < 5 m <sup>3</sup> /h (177ft <sup>3</sup> /h)
Connection	3/8" thread
Minimum pressure monitoring; maintenance unit	

#### TRANSPORTATION

Machine weight	from 1300 kg to 1900 kg
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#### OPERATOR SAFETY

Safety Options	Lifting Door, Light Curtain, 2-Hand Start
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#### CONTROLS

Programmable Logic Controller (PLC)	Siemens S7-1500
Operator interface	Simatec HMI TPI 700 Comfort Panel 7"

#### PACKAGES

- Productivity Package
- Comfort Package
- Power Package
- Media Control Package
- Rinsing Trench

#### OPTIONS

- Automation interface
- Cr (VI) Unit
- Catch tray for machine & filtration
- Rinsing / preserving reservoir for post-treatment
- Country-specific customization

All systems comply with the applicable EU Machinery Directive governing machine safety and bear the CE mark. They also comply with accident prevention and the VDE and VDI regulations, as well as the requirements concerning electromagnetic compatibility regulations.

