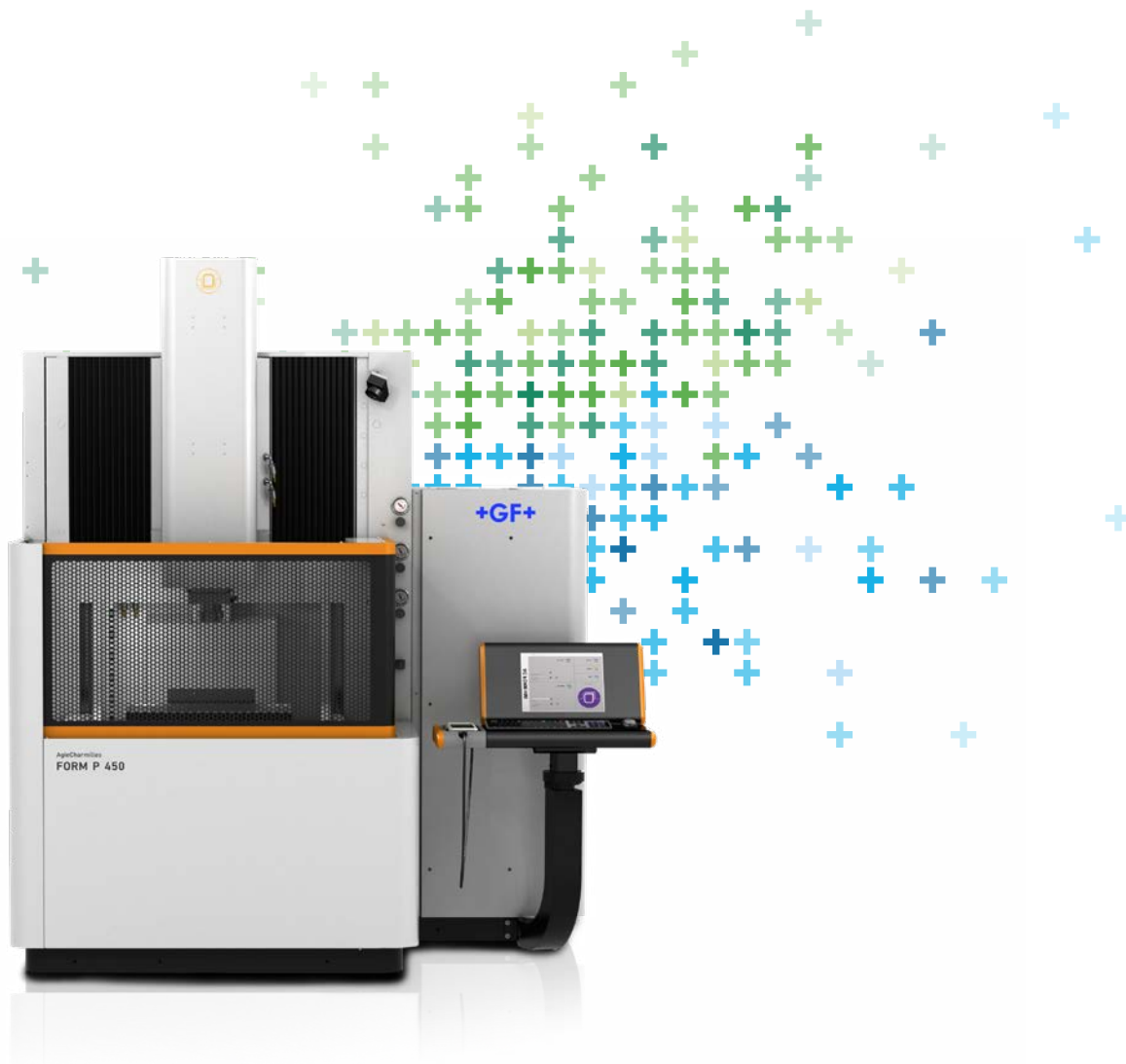


AgieCharmilles

# FORM P 450

## Meet your highest requirements

- Rigid mechanical design and intelligent spark generators for simple operation and high accuracy
- Excellent surface quality and low electrode wear



FORM P 450

# Upgraded HMI 2.0

Our expert HMI (Human-Machine Interface) provides a comprehensive process. With more than 60 years of research and development in Switzerland, our technology enables you to easily master practical machining skills, troubleshoot with one click and quickly become an EDM expert.

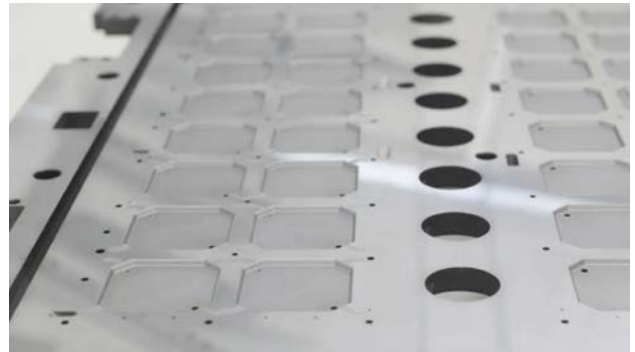
## Standard 80 A digital generator

Process a variety of material: copper, graphite, copper tungsten, brass, steel, carbide, aluminum, titanium, alloy nickel, ampcoloy, conductive ceramics.



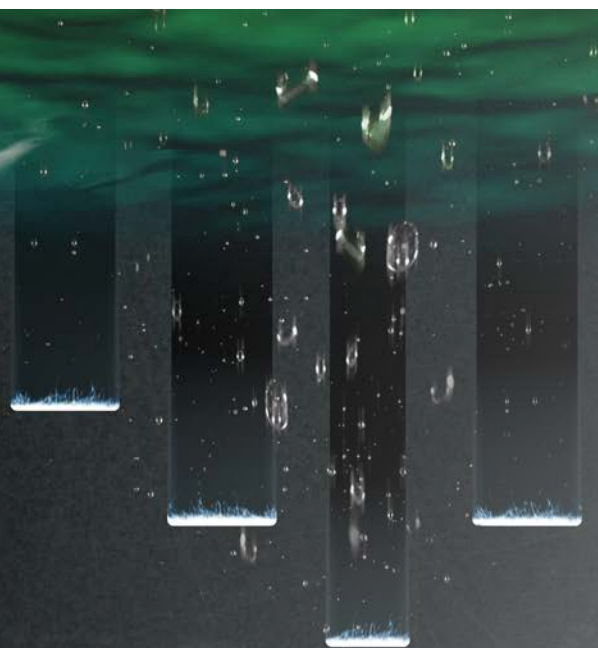
## High level of surface quality

Capitalizing on years of professional knowledge and rich practical experience, the FORM P 450 can perfectly tackle large EDM surfaces and accurately meet your preset VDI and RA requirements.



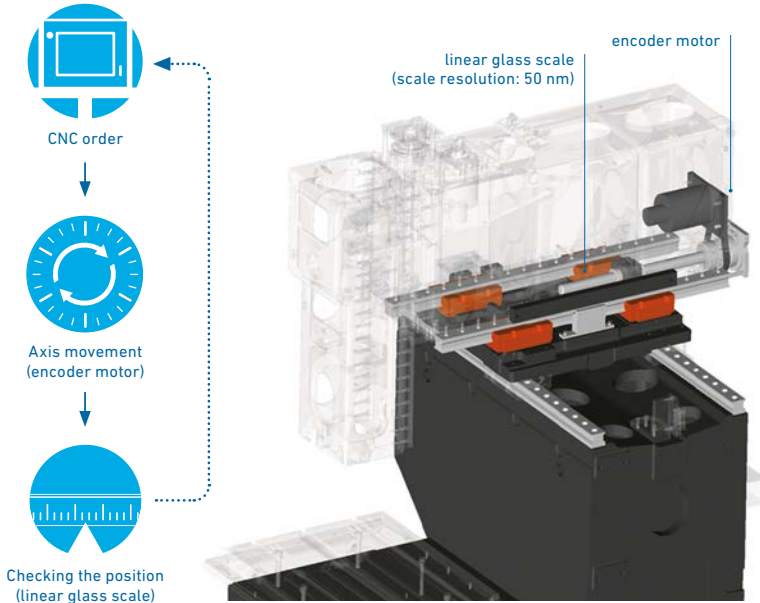
## iGap

The iGap feature enables better spark control with higher amperage, allowing to machine up to 34% faster with deeper material removal. Die-sink electrodes wear out slower and in a more regular way, reducing electrode wear by up to 62%.



### Guarantee of accuracy

The standard XYZ axis full closed-loop glass scale effectively eliminates errors caused by reverse clearance, thermal expansion or ball screw wear, providing stable processing conditions and continuously maintaining extreme accuracy.



### Manpower saving scheme

From simple 8-position RTC to advanced automation units, implement unattended automatic processing, ensure smooth operation of the machine and achieve production efficiency while saving costs.

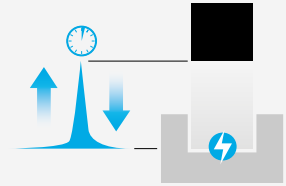


### Technical specifications

### FORM P 450

Travel X, Y, Z	mm (in)	450 x 300 x 350 (17.7 x 11.8 x 13.8)
Maximum part dimensions *	mm (in)	820 x 540 x 320 (32.2 x 21.3 x 12.6)
Maximum part weight	kg (lbs)	800 (1764)
Maximum electrode weight	kg (lbs)	50 (110)
Maximum current	A	80/140**
Minimum surface roughness (Ra)	µm Ra	0.08
Z axis speed	m/min (ft/min)	15 (49.2)
Dielectric unit capacity	l (gal)	600 (158.5)

\* Length x depth x height \*\* Option



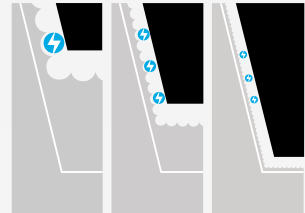
### High Velocity Pulsation (HVP)

- Efficient cavity cleaning by rapid retraction
- Effective flushing conditions
- Optimum erosion results



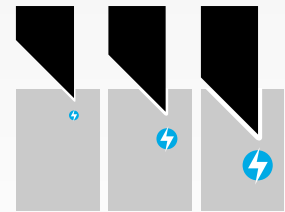
### Predict Learning System (PLS)

- Orbital movements are recorded and analyzed
- Deviation is optimized one step after the other
- Cavities are made quickly and accurately



### Advanced spark generator

- Higher removal rate thanks to ISPG
- Optimize each spark generated by the generator
- Reduce electrode wear



### Controlled process

- Adaptive Current Control (ACC)
- Adaptive Current Optimization (ACO)
- Increase productivity with algorithms

## At a glance

We enable our customers to run their businesses efficiently and effectively by offering innovative Milling, EDM, Laser, Additive Manufacturing, Spindle, Tooling and Automation solutions. A comprehensive package of services completes our proposition.

[www.gfms.com](http://www.gfms.com)



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