AC Challenge V
At a glance

The models for high productivity and precision

Automation for high productivity
With a lowerable work tank, programmable bath level for workpiece heights up to 250 mm as well as a clearly defined interface, AC Challenge V2 and V3 are outstandingly suited for automation with AC Pal or another workpiece loading system.

Perfect shape accuracy over the whole workpiece height
With Wire Bending Control, the laterally process-induced wire deviation is determined and corrected by process adjustment so that the best accuracy and linearity are achieved on the whole contour, even at high cutting rates. WBC reliably achieves the precision and roughness targets input into the control system at every point of the cut contour – both in the case of cylindrical workpieces and on tapered and stepped ones.

Reduced non-productive time
Free selectable threading mode:
Highest speed (8 - 15 seconds), best reliability in critical conditions or a combination of both. Situation adaptable positioning mode. Any combination of these functions are possible.
Technical Data

**AC Challenge V2** | **AC Challenge V3**
---|---
Dimensions (L x W x H) mm/m | 2215 x 2215 x 2220 | 2800 x 2600 x 2220
Total weight (without dielectric) kg | 3600 | 4500
X, Y, Z axes travels mm/m | 350 x 250 x 256 | 500 x 256 x 256
U, V axes travels mm/m | ± 70 | ± 70
Taper angle/height degrees/mm | ± 30°/100 | ± 30°/100
Workpiece dimensions (L x W x H) mm/m | 750 x 550 x 256 | 1000 x 650 x 256
Max. workpiece weight (with/without bath) kg | 200/100 | 400/200
Volume of dielectric l US gal | 700 | 1000
Available wire diameters (Option) mm/m | 0.15 - 0.33 | 0.15 - 0.33
Best surface finish Ra with SF Module µm | 0.4 | 0.4

**AC Challenge V**

Agievision PC, The job management system in your office or at home. All the input and function pages are identical with the AC Challenge V.

Fast and reliable wire threading

The machine can be used to full capacity in reliable night and weekend operation. Agiejet threads reliably in all cases such as multiple clamping, of multiple openings in one workpiece or in the rare case of a wire break (even wires of 0.07 mm diameter). A prerequisite for real autonomous, automated EDM wire-cutting operation.

Full 3D automatic setup

Automatic three-dimensional workpiece location with Agiesetup 3D in the work area, using the EDM wire and a touch probe. The control system takes account of any possible offset in space and independently assigns the new reference values to the geometry program.

Designed for high level of autonomy

AgieCharmilles V machines have optimal autonomy available also as a prerequisite for automated sequences:

- 25-kg wire spools
- long service lives of the filter and desalinating system
- long working life of the power feeds and wire guides
- restart after a power failure
- results on the workpiece achievable with certainty and straight off thanks to mature technologies
- plannable maintenance and service intervals.
At a glance

Achieve more

We commit to a promise. That promise is “Achieve more.” It’s a commitment to create the right conditions for our customers to obtain competitive results. When our customers win, we win.

GF AgieCharmilles

We enable our customers to run their businesses efficiently and effectively by offering innovative Milling, EDM and Automation solutions. A comprehensive package of Customer Services completes our proposition.

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