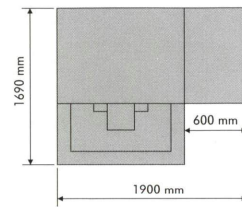
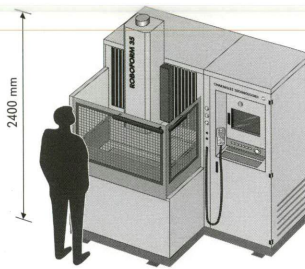


## Technical specifications

### ROBOFORM 35



#### Machine

Architecture		Compact machine, with fixed table
Dimensions of the « equipment (width x depth x height) »	mm	1900 x 1690 x 2400
Total weight of the equipment (without dielectric)	kg	2800

#### X, Y and Z axes

X, Y, Z travel	mm	350 x 250 x 300
System for measurement of movements		Linear glass scales
X, Y, Z measurement resolution	µm	0.5

#### Work area

Type of tank		Drop tank
Dimensions of tank (width x depth x height)	mm	800 x 550 x 370
Programmable dielectric level min./max.	mm	100/330
Dimensions of table (width x depth)	mm	500 x 400
Dimensions of grooves (number)	mm	12 (3)

#### Electrode and workpiece

Max. electrode weight	kg	50
Max. workpiece weight	kg	500
Max. workpiece dimensions (width x depth x height)	mm	780 x 400 x 300 or 590 x 530 x 300
Min./max. distance between chuck and table	mm	150/450

#### Dielectric system

Type of filters		4 built-in paper cartridges
Volume of reservoir	l	450

#### Generator

Type		ISOPULSE
Standard machining current	A	64
Pilot-Expert 3		Optimization and automatic supervision of machining parameters
Power Control Expert		Machining current, self-adapting according to the electrode geometry
Micro-Machining		Mastery of electrode wear in applications of small dimensions
SPAC		System of protection against short circuits

#### Numerical control

Screen		CRT 14" colour
Remote control		Standard
Disk drive		3.5" DOS
Axes controlled		X, Y, Z and C simultaneously
Program-Expert		Automatic program generation and adjustment of the generator on the NC

Autorestart / Polishing Ra 0.1 µm (CH0) / Contouring / M functions / Machine autodiagnostic / DNC1 and DNC3 communication interface / Servocontrolled thermostabilization ±1°		Standard
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#### Electrical supply

Three-phase input voltage	V	400
Mains network frequency	Hz	50 or 60

#### Modules

C axis	kg · cm <sup>2</sup> degree	Max. inertia of electrode: 2000 Measurement resolution: 0.001
Spindle chucks		Erowa ITS and ITS / Compact combi 3R Macro and Macro / Junior combi Mecatool GPS70 Hirschmann H8.11.7
4-position linear tool changer (Standard tooling)	mm	Ø 75 max.
8/16-position rotary tool changer (Standard tooling)	mm	18 x l Ø 150 x length. 250 max.
	mm	116 x l Ø 75 x length. 250 max.
32-position rotary tool changer (Standard tooling)	mm	Ø 36 x length. 150 max.
Multicavity flushing		6 outputs
BA (Basic Automation) robot adaptation kit		Safety system



## CHARMILLES TECHNOLOGIES



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**AGIE CHARMILLES Group**  
**GEORG FISCHER +GF+ Manufacturing Technology**

## ROBOFORM 35



## A concentration of know-how

## CHARMILLES TECHNOLOGIES





## ROBOFORM 35 Instant profitability

- An innovative generator as regards machining performance, equipped with the following exclusive features:
  - Pilot-Expert
  - Power Control Expert
  - Micro-Machining
  - SPAC

- An ideal programming partner: Program-Expert

- Very small floor space required

- Intuitive numerical control

- Accuracy with the Charmilles Technologies label

Equipped with the latest innovations in machining technology and automation, the Roboform 35 enables you to carry out both the simplest and most complex jobs with unequalled ease and efficiency.

### The machine

#### Accuracy

- The Roboform 35 is equipped with optical measurement scales for permanent accuracy.
- Measurement and display of the actual X, Y, Z position of the electrode down to the nearest half micron.
- No need for periodical calibration of the machine.

#### Compact

- Only occupies 2.4 m<sup>2</sup>.
- Installed in one day, it is a source of profit for many years.
- Easy access to the work area, thanks to the drop tank.

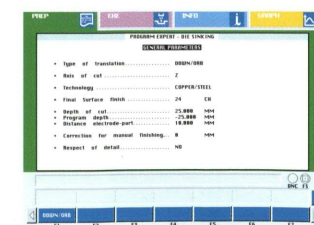
#### Rugged

- Developed on a unique fixed table concept, the Roboform 35 can accept weights of up to 500 kg.

### The numerical control

#### PROGRAM-EXPERT, An efficient partner

- Draws up machining programs from roughing to finishing.
- Selects the technology best adapted to your applications.
- Allows dialogue in the terms of the operator.
- Optimizes machining according to the quality of your electrodes.

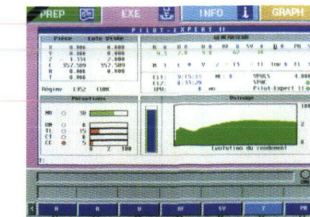


Program-Expert is simple and fast to use and ensures optimum exploitation of the machine's performances.



### Designed with users and for users

- Control of all necessary functions without overabundance.
- Automatic measuring of workpiece, electrode centring and alignment.
- Electrodes measured along the X, Y, Z and C axes and offsets taken into account.
- Complete range of machining cycles for the most demanding tasks.

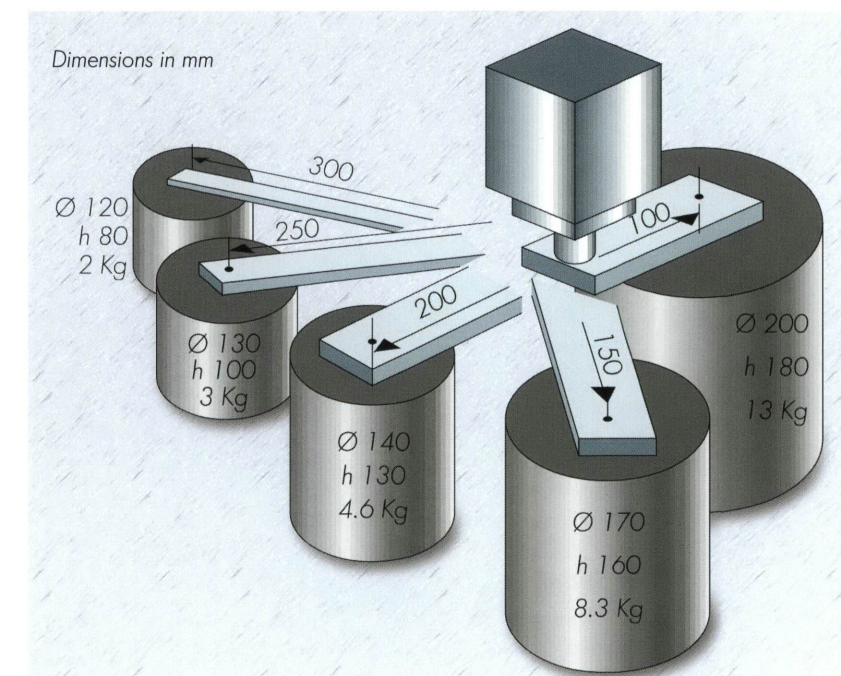


Display of clear and precise information for a very easy to use CNC.

### The modules

#### Flexible installation thanks to the modular design

- A rugged C axis allows delicate work to be performed without any risk.
- Depending on your applications, it is possible to choose electrode changers holding 4 to 32 electrodes.
- There is a BA (Basic Automation) version providing easy connection with a robot.



High inertia and ultra-precise positioning of the C axis.

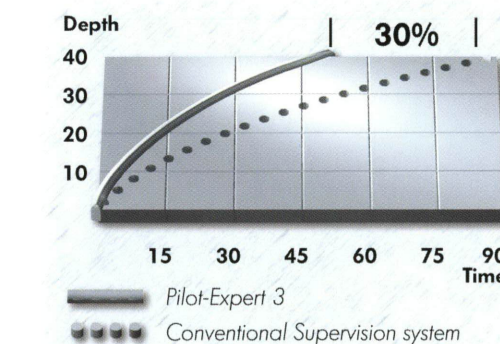
## Unprecedented machining quality

Thanks to the incorporation of its latest technological developments, Charmilles Technologies brings you new opportunities in EDM.

### The technology

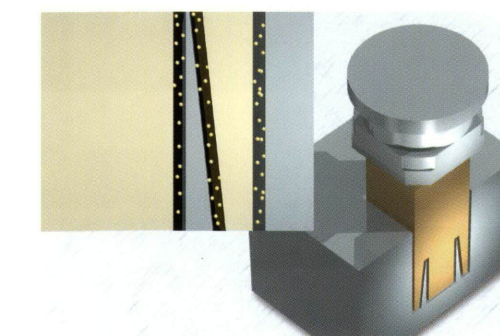
#### PILOT-EXPERT 3, Infallible supervision day and night

During machining, the supervision of Pilot-Expert allows autonomous operation of the machine and ensures perfect reproducibility of machining jobs.



#### SPAC, System of protection against short circuits

The machining stabilizer par excellence, SPAC increases output considerably by eliminating short circuits.

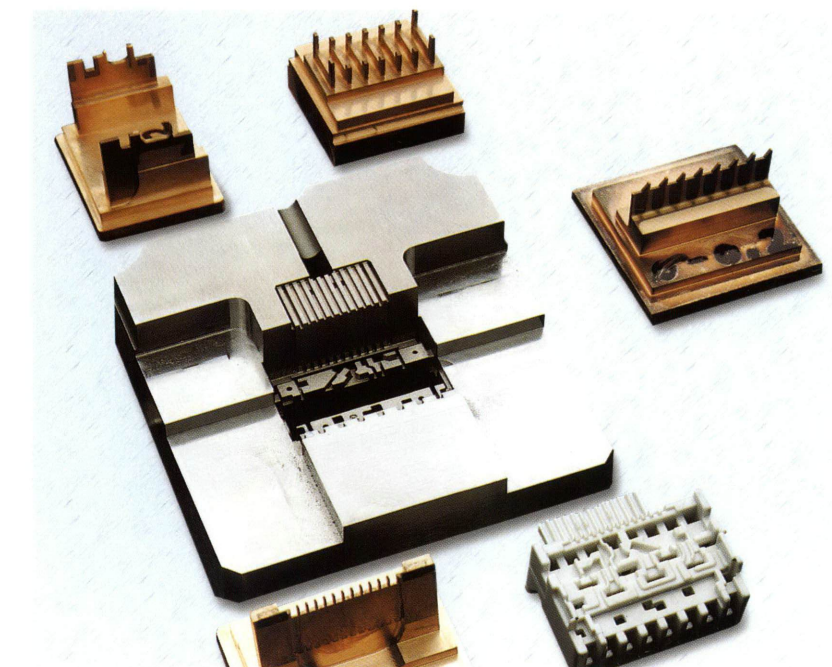


#### POWER CONTROL EXPERT, Perfection in the machining of difficult shapes

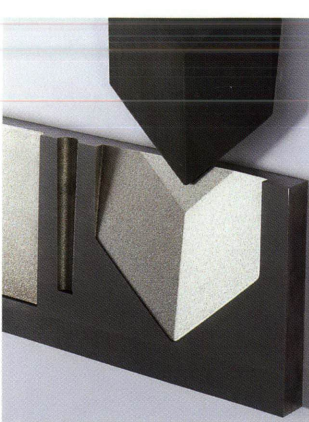
For electrodes of free-form geometry, Power Control Expert continuously determines the ideal machining current according to the active surface of the electrode.

#### MICRO-MACHINING, Mastery of the geo- metry for the machining of small dimensions

Micro-Machining combines fineness of detail with efficiency. A unique system, the Micro-Machining sparking circuit is your partner in the fields of connectors and micro-mechanics.



The sum of these innovations in EDM technology ensures unparalleled quality and puts the Roboform 35 in the forefront of EDM die sinking.



PCE  
The continuous self-adapting of the machining current guarantees respect of the electrode geometry and saves considerable time in plunge cut machining.

Details and precision:  
Micro-Machining.