

# Waterjet Technology

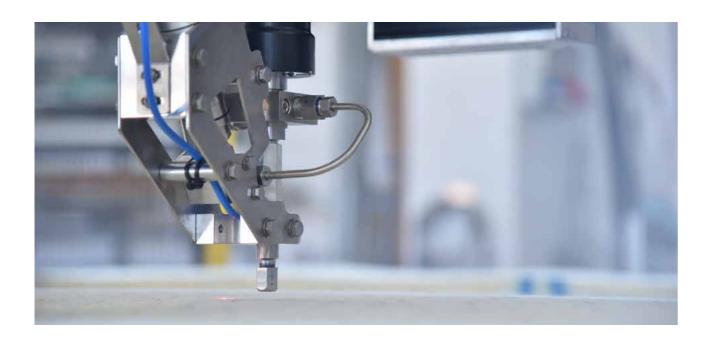
Waterjets from SolarEdge Automation Machines series are precise, clean, and perfectly adaptable to every need. "Superior cutting knowledge" is our tagline because the waterjet's exclusive ability to cut any material, together with a ten-year know-how, renders this series one of the most versatile lines of machinery currently available.

SolarEdge Automation Machines 's waterjet units are even available with conveyor belts, in order to allow the processing operations to be carried out in a continuous and automated manner. Thanks to their durable belts in steel mesh and their loading and unloading zones, the conveyor series is ideal for those in search of high production efficiency with minimal downtime. In fact, the material can be loaded onto the machine using dedicated belts, which perform the operation during the cutting of the previously loaded material, thus resulting in production continuity, with a high yield at the end of work shift.

For more than a decade we have been developing specialized machines to cut glass, stone, foams, plastic, metals, wood and other materials.

Discover all the SolarEdge Automation Machines' series and find the right product for your needs. Ours success story is the best guarantee that we can offer our customers. We provide the knowhow, you provide the material to be cut: the power of water will do the rest.

Ready to write your own success story?



# **Applications**

Pure water or hydro-abrasive waterjet cutting? Tell us what you want to cut and we'll tell you how to do it.

Pure waterjet cutting is used to cut soft materials like polystyrene, paper, plastic, rugs, foods, foam and many others. Our pure water machines are designed specifically for this purpose, and are not re-adapted: this is why they are the best choice.

If you're dealing with harder materials, such as ceramics, glass, or metals, an abrasive sand can be mixed with the water in order to generate sufficient cutting power.

Discover some of the materials that can be cut with our waterjet:







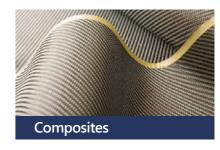












## K-800

K-800 series waterjets are compact and easy to install. Based on the material to be cut, these machines are available in either a pure water and/or hydro-abrasive version. These waterjet are extremely versatile and can be quickly and easily switched from one cutting system to the other.

The open worktop simplifies the material loading and unloading operations, and it's extremely easy to switch from the steel grille worktop for hydro-abrasive cutting operations to the honeycomb plastic worktop for pure water cutting operations.

All SolarEdge Automation Machines waterjet are equipped with a dynamic workpiece zero point, which is extremely useful when resuming a processing activity on a previously positioned slab, or when obtaining a workpiece from scrap material.



## **Features**

Competitive prices, reduced dimensions, pure water and/or hydro-abrasive cutting: the waterjets of the K-800 series are extremely versatile.

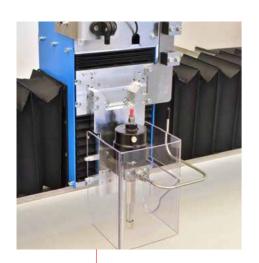
## Why the K-800?

- Reduced dimensions
- Easy to use
- Plug&Play: easy to install
- Pure water and water + abrasive cutting
- / Cutting heads (single or multiple) for 2D cutting
- ✓ High precision (± 0.1 mm, repeatability on axes movements ± 0.1 mm)
- Compact mono-block structure
- / Minimize waste and optimize the processing times

Machine model	K-800-1010	K-800-1509	K-800-2015
Axes number	3 axes		
Usable cutting areas (mm)	1000 (W) x 1000 (L)	1500 (W) x 900 (L)	2000 (W) x 1500 (L)
Technology	Pure water o hydroabrasive cutting technology		
Max material tickness	130 mm		

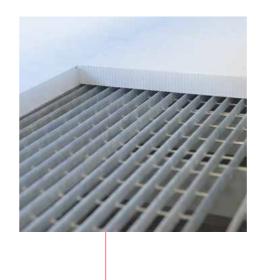


## **/** Tools and Accessories



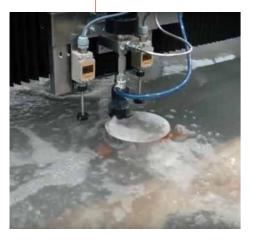
#### **Cutting heads**

The waterjets of K-800 series can install a 2D cutting head, both for pure and hydro-abrasive cutting). Z-axes stroke is variable, and allows for a range of movement of 130 mm.



### Removable worktop

The plastic honeycomb worktop for pure water cutting reduces the amount of residual moisture on the material and prevents any smaller pieces from falling into the basin below. The worktop can be easily removed in order to allow the grille below to be used for processes requiring hydroabrasive cutting.



#### **Water Level Control**

The water level control (WLC) allows for the management of the water level in the basin underneath the work area. Once the material has been positioned, the water level rises until it is submerged. The underwater cutting process provides for clean and precise work, with no splashing. Once the cutting operations have been completed, the water level is lowered again to allow the cut pieces to be extracted. WLC technology is only available on machines that cut with abrasive.



## **Sturdy structure**

The compact and easy to install structure makes the machine suitable for even the most intense and demanding processing operations.

#### **Transmissions**

The transmissions with re-circulating ball screw mechanism ensure an excellent processing speed (25 m/min) and a high degree of precision (repeatability on axes movements 0.1 mm).

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## **Software**

#### Easy Works Xtreme CAD/CAM

Easy Works Xtreme calculates the most efficent cutting sequence, and saves the optimal parameters for each job, taking the most suitable tool, the optimal acceleration, and the maximum speed into account.

This feature makes easy to repeat same jobs, whitout recording production parameters. In fact, the operator can simply select the saved configuration from the menu, and the machine will set the parameters automatically

#### **Automatic Nesting**

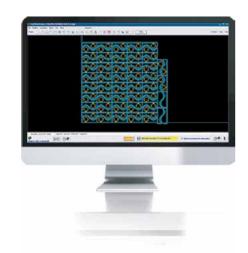
Automatic Nesting allows to calculate complex shapes managing the placement of the figures, thus obtaining the greatest number of pieces from the available material.

The nesting function fits the shapes together like a puzzle and minimizes waste. The nesting function also optimizes the production cycle in terms of speed and material use capable of quickly and automatically performing extremely complex calculations that would take much longer for an experienced programmer.

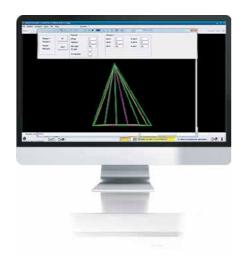
#### Macro

The macro software packages allow the operator to program extremely complex cutting jobs by simply entering a limited number of key parameters.

The machine translates the values entered for each parameter into a cutting file, and the operator can start the processing by simply pressing a button. The macros simplify the production cycle considerably and save a lot of time, as they allow even unskilled operators to work with technologically advanced machinery. The macro packages are often custom made, based on the customer's production requirements.







## **Optionals and Accessories**

Each of our solutions can be customized to your needs.









dimensions



systems



tanks







# Intensifyng Systems

## Hypertherm pumps

We have chosen Hypertherm intensifier pumps for our waterjet units.

Featuring integrated Advanced Intensifier Technology (AIT), Hypertherm's Echion™ waterjet pumps are the world's most durable and affordable waterjet pumps.

The Hypertherm products are designed to offer reliability, durability, and uncompromising safety, all at the lowest cost of ownership.

The pumps are available with power ranging from 15 HP to 150 HP







Pure water and abrasive cutting Up to 6 pure water cutting heads or 2 abrasive head (or with hydro-abrasive technology)

Echion 15	Echion 30	
Pure water cutting	Pure water and abrasive	
Up to 3 cutting heads	cutting	
(pure water)	Up to 6 pure water cutting	
	heads or one abrasive	
	head	

# Tailor Made Solutions

In addition to the customization of the machines, SolarEdge Automation Machines can provide tailor-made accessories in order to optimize customers' production performances.

Specifically, SolarEdge Automation Machines offers various solutions for spare parts and accessories such as water treatment plants, water cooling systems and abrasive loading and unloading systems.



