



Four cutting technologies


LASER
PLASMA
WATER
OXYGEN




Opal Waterjet
Combo




Opal Waterjet




Onyx




Sapphire




Chrome




Jantar




Ruby HD



Ruby ECO



Ruby MAX

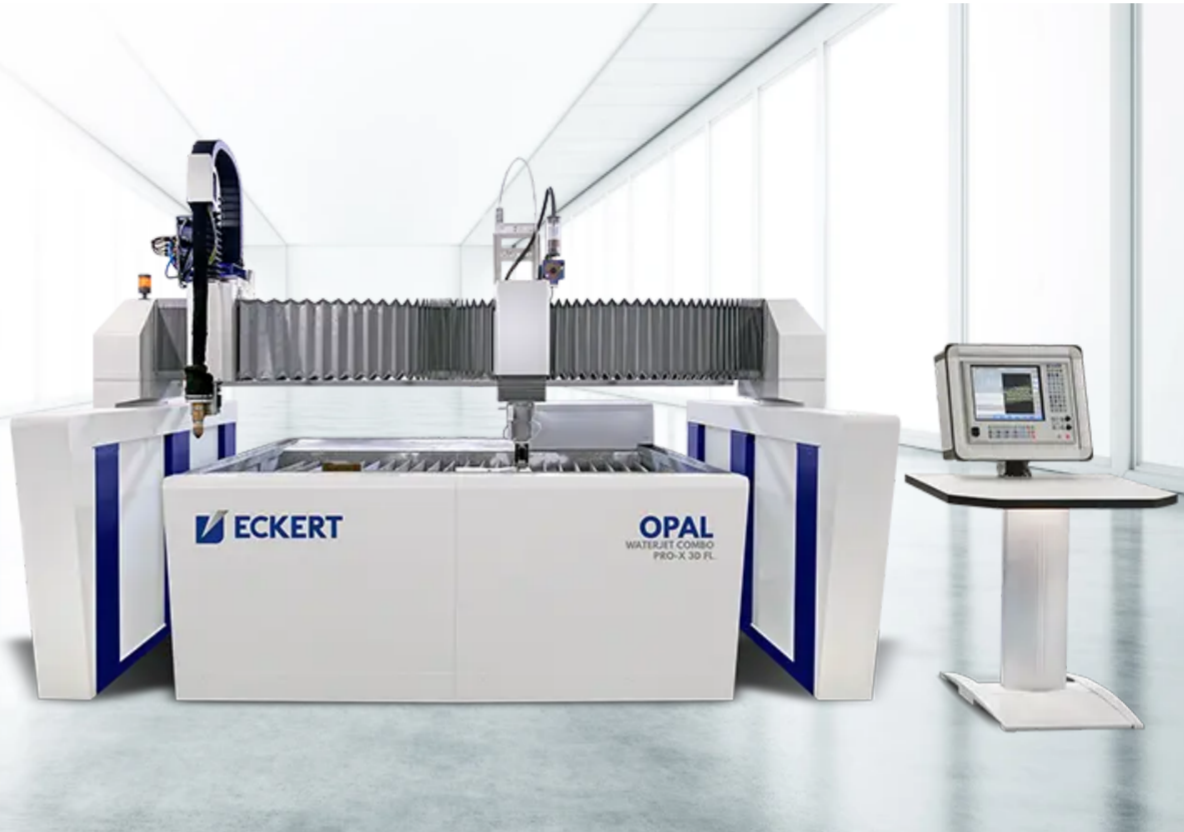


Diamond Fiber
Laser 2

OPAL WATERJET COMBO

Innovation, accuracy and cost efficiency. Patented combination of waterjet and plasma.

WATER PLASMA



Technology [Technical data](#) [Additional equipment](#) [Gallery](#)

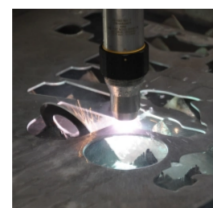
Characteristics

Patented Opal Waterjet Combo is able to combine the advantages of quick [plasma cutting](#) with precision of [water jet](#).

CNC water & plasma cutting in practice. How does Autokomplet II cor



Synergistic effect of combining two different technologies allows the cutting machine to exploit both assets. The cutting machine offers versatility and flexibility for a wide range of users form small to big companies.



Plasma cutting

The plasma is sufficiently hot to melt the metal being cut and moves sufficiently fast to blow molten metal away from the cut. This technology can be used to cut all metals, because they are electrically conductive.



3D water cutting

Water cutting is separating the material with a jet of water is the most accurate method for cutting and chamfering almost any kind of material. Water cutting provides the highest quality of edges and lack of heat affected zone.



Parameters of single element cutting

Water cutting

Water cutting time	4 minutes 2 seconds
Water cutting speed	253 mm/min
Water consumption	15 dm ³

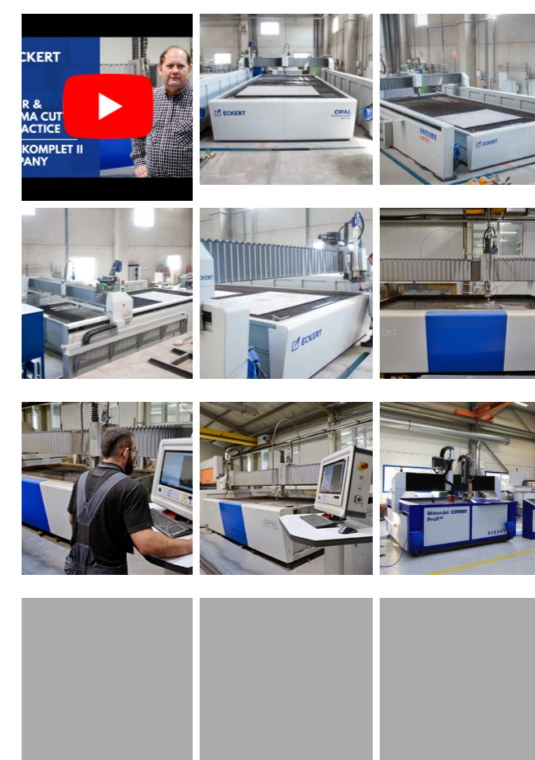
Do you want to know more?

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CONFIGURATIONS

- Water softening system
- Abrasive cutting
- Dynamic water level
- Scratch conveyor
- Plasma marking
- ESR System
- Pro-X 3D Cutting Head

GALLERY



Water cutting

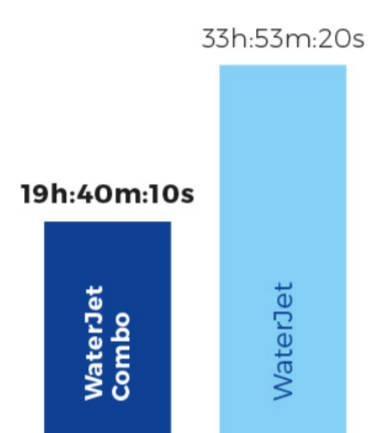
Abrasive consumption	1,7 kg
Equipment	Nozzle 0,35 mm Tube 1,02 mm Accustream DiaLine Head UHDE HPS4037 Pump
Total cutting time	4 minutes 2 seconds

Combo cutting (plasma + water)

Water cutting time	2 minutes 3 seconds
Water cutting speed	253 mm/min
Water consumption	9 dm3
Abrasive consumption	1,0 kg
Equipment	Nozzle 0,35 mm Tube 1,02 mm Accustream DiaLine Head UHDE HPS4037 Pump
Plasma cutting time	18 seconds
Plasma cutting speed	2020 mm/min
Power	100A
Gas	N2/H2O
Plasma source	Victor UltraCut 200XT
Total cutting time	2 minutes 21 seconds

500 elements nesting. Aluminum 8 mm. Sheet 3000x1500 mm

500 DETAILS CUTTING TIME



500 DETAILS CUTTING COST



Main Features

- innovative, patent protected technology of integrating waterjet and plasma allows automatic cutting utilizing both of them
- fully automated cutting process with two different cutting technologies
- the reduction of production costs even by 70% with comparison to standard waterjet machines
- universal cutting tool for every material
- possibility of installing Pro-X 3D head
- ability to apply any required technology during edge cutting of a single element
- robust construction and reliability

Technology



Construction

Opal Waterjet has gantry construction. The machine is made from steel closed profiles which ensure great stability. Rail elements were protected against harmful influence of water with protective bellows or covered by aluminium parts. Relatively low weight of the gantry and specially grounded racks furnishes our Opal Waterjet with excellent dynamics and high precision motors boosts accurate positioning.



ECS872 Control Panel

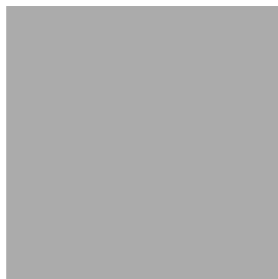
The most modern i-Vision Controller is the high quality industry machine has Corning® Gorilla® Glass's touchscreen. Efficient parts and the strong construction ensures reliability Onyx working. Many functions of own software and simple controller's interface let to use all of machine's possibilities. Standalone controller delivers the unique comfort and safety of machines operator. It make also possible to watching the cutting process and controller's using at the same moment.



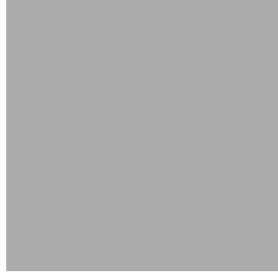
Water Table

Opal Waterjet cutting machine is equipped with the robust water table with double grid system. Steel, fully tinned (as option) construction insures durability and corrosion resistance. The detached table construction ensures maximum stability and smooth running operations.

Pro-X 3D Cutting Head



5-axis Pro-X 3D head provides a very high level of efficiency and insures the achievement of maximum 3-dimensional precision. The maximum cutting angle +/- 60o and automatic angle compensation ensure great precision and practically zero angle on the cutting edge. Perfect tool to minimize post processing.



HD 3000 Support

Support HD3000 enables full utilisation of the state of the art plasma torches. Application of the ball screw gear and high torque servomotor is the unique drive and support leading in Z axes resolution, which allows for more dynamic and increased accuracy in the torch control. This guarantees the perfect distance between the cutting head and the material for maximum cutting quality. Support HD3000 is equipped with sensors: anti-collision, electrical/mechanical touch and height sensor. This allows using technologies such as: Contour Cut®, Contour Cut Speed®, Diameter Pro® and True Hole®.

Worth reading

Cutting technology set
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Opal Waterjet
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CNC Opal Waterjet debuts at
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Plasma cutting
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- Maintenance program

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- Water cutting
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