

MODEL	OPAL WATERJET COMBO
Drives	Servo AC
Cutting width	1500 - 6000 mm
Basic working length	1000 - 12000 mm
Cutting thickness - Waterjet 2D	0,5 - 250 mm
Cutting thickness - Waterjet 3D	0,5 - 150 mm
Cutting thickness - Plasma	Depends on the offered plasma source
Positioning speed	25000 mm/min
Safety standard	EN 13850

**ADDITIONAL EQUIPMENT**

- PRO-X 3D head
- Positioner for tube and profile cutting
- Safety packages
- Dynamic water level
- Punch marking
- Plasma marking
- Water table
- Abrasive cutting
- Scratch conveyor
- Water softening system
- Light grid for water tank
- Bath cleaning and filtering system

The manufacturer reserves the right to make changes and/or improvements without notice.

WATER  
PLASMA



World  
fastest  
waterjet!

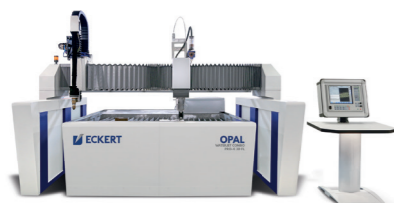
**SOFTWARE**



And many more...

# OPAL WATERJET COMBO

Innovation, accuracy and cost efficiency  
Unique combination of waterjet and plasma



Pawicka 4c, 59-220 Legnica, Poland  
tel: +48 (76) 856 09 28  
eckert@eckert.com.pl

[www.eckert.com.pl](http://www.eckert.com.pl)

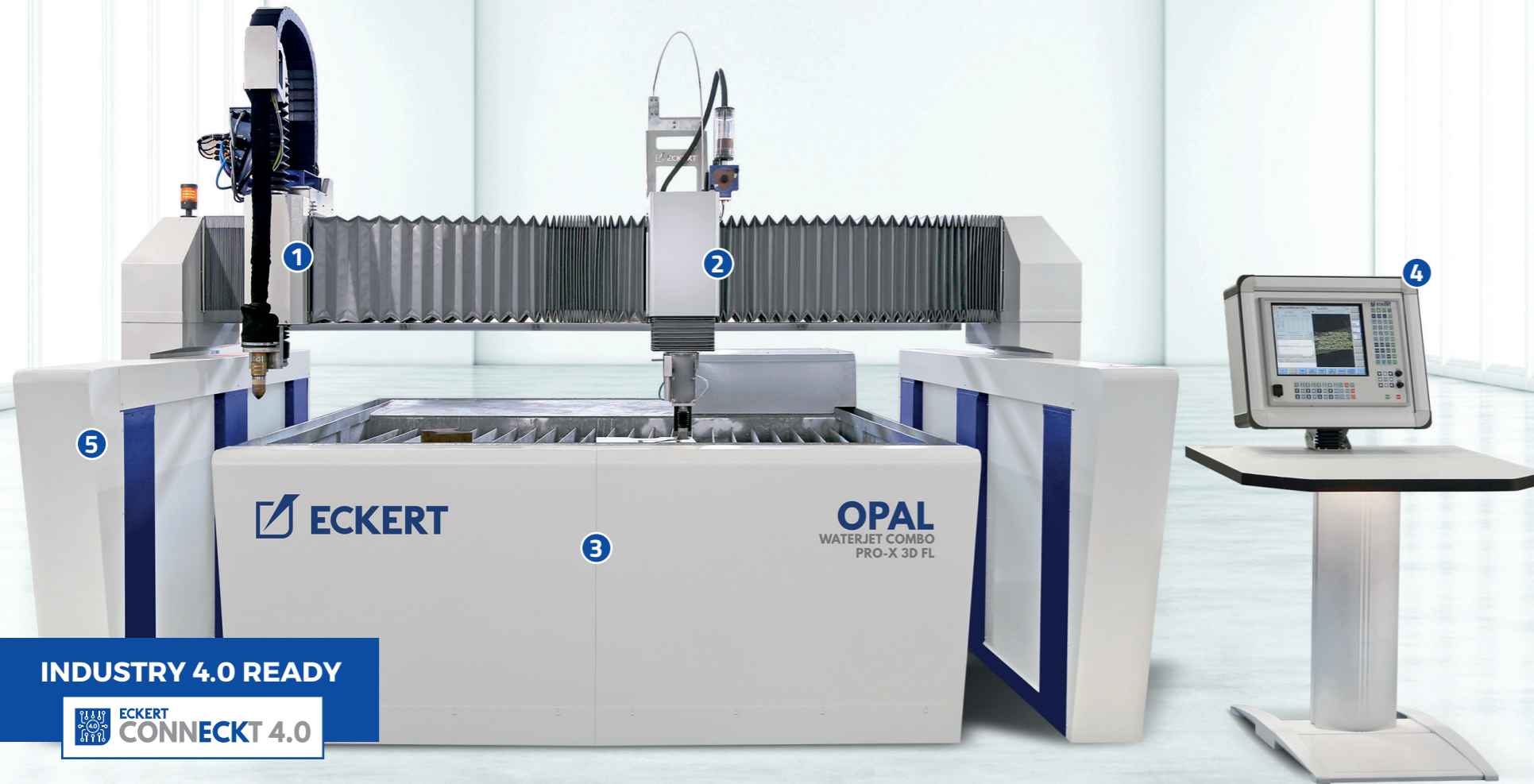
Mitglied im...  
Member of...



**INDUSTRY  
BUSINESS  
NETWORK 4.0**

WATER  
PLASMA

# OPAL WATERJET COMBO

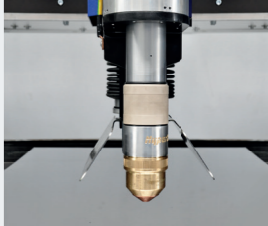


INDUSTRY 4.0 READY



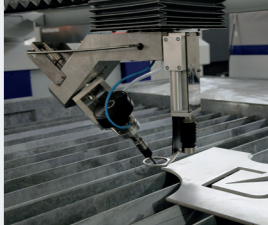
**1 HD3000 HEAD**

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. HD3000 head 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™.



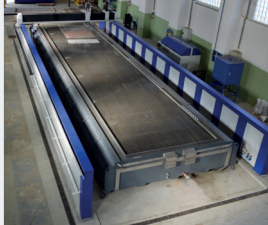
**2 PRO-X 3D HEAD**

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 +/- 60 and automatic angle compensation ensure great precision and practically zero angle on the cutting edge. Perfect tool to minimize post processing.




**3 WATER TABLE**

Opal Waterjet cutting machine is equipped with the robust water table with double grid system. Steel and corrosion-resistant construction insures durability. The detached table construction ensures maximum stability and smooth running operations.



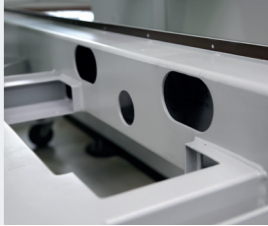
**4 CNC CONTROLLER**

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.



**5 CONSTRUCTION**

Opal Waterjet Combo has gantry construction. The machine is made from steel closed profiles which ensure great stability. Rail elements where 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 Combo with excellent dynamics and high precision motors boosts accurate positioning.



## CHARACTERISTICS

Patented Opal Waterjet Combo is able to combine the advantages of quick plasma cutting with precision of water jet. 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.

## 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-X3D head
- ▶ Ability to apply any required technology during edge cutting of a single element
- ▶ Robust construction and reliability

## STANDARD PLASMA SOURCES / HIGH PRESSURE PUMPS

<b>Kjellberg FINSTERWALDE</b>	Max piercing	Max from the edge
SmartFocus 300	40 mm	80 mm
SmartFocus 400	50 mm	100 mm
HiFocus 161i Neo	30 mm	50 mm
HiFocus 280i Neo	35 mm	70 mm
HiFocus 360i Neo	40 mm	80 mm
HiFocus 440i Neo	50 mm	120 mm
HiFocus 600i Neo	80 mm	160 mm
Q1500	30 mm	60 mm
Q3000	40 mm	80 mm
Q4500	50 mm	120 mm

<b>HYPERTHERM</b>	Max piercing	Max from the edge
Powermax 45	12 mm	25 mm
Powermax 65 SYNC	16 mm	32 mm
Powermax 85 SYNC	20 mm	38 mm
Powermax 105 SYNC	22 mm	50 mm
Powermax 125	25 mm	57 mm
MaxPRO 200	32 mm	75 mm
XPR 170	40 mm*	60 mm
XPR 300	50 mm*	80 mm

\*Not applicable to Core console

<b>BFT</b>	Power [kW]	Max. flow [l/min]	Pressure [bar]
VECTRON 40.22	22	3,5	4000
ECOTRON 40.22	22	2,3	4000
ECOTRON 40.30	30	3,4	4000
ECOTRON 40.37	37	3,8	4000
ECOTRON 40.45+	45	4,3	4000
SERVOTRON 40.37	37	3,8	4000
SERVOTRON 40.45+	45	4,6	4000

<b>KMT WATERJET</b>	Power [kW]	Max. flow [l/min]	Pressure [bar]
TL-1 30	22	3,1	3800
NEO 40	29	3,8	4136
SL-VI 100S	37	4,3	380
SL-VI 30 PLUS	22	2,6	4136
SL-VI 50 STD	37	4,3	3800
SL-VI 125 PRO-III	93,2	6,0	6200