

MODEL	OPAL WATERJET COMBO
Drives	Servo AC
Cutting width	1500 - 6000 mm
Basic working length	1000 - 12000 mm
Waterjet cutting thickness	0,5 - 150 mm (250 mm – option)
Positioning speed	25000 mm/min
Positioning accuracy	±0,025 mm

ADDITIONAL EQUIPMENT

- PRO-X 3D head
- Dynamic water level
- Scratch conveyor
- Plasma marking
- Abrasive cutting
- Water softening system
- Punch marking
- ESR System

WATER
PLASMA



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



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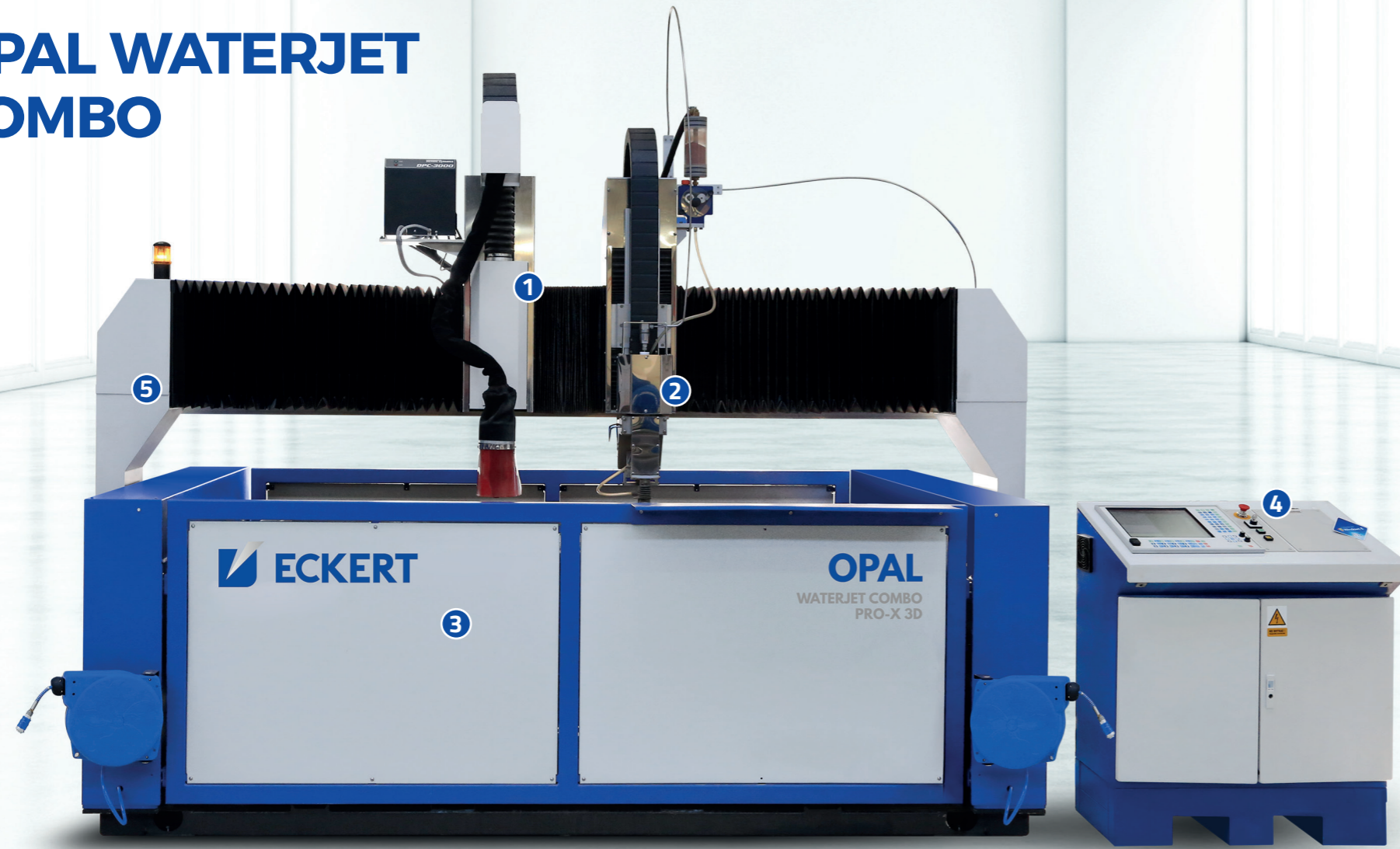
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OPAL WATERJET COMBO

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

WATER
PLASMA

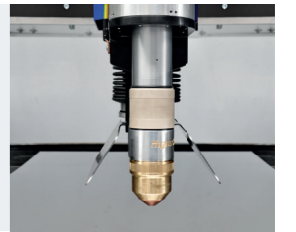
OPAL WATERJET COMBO



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

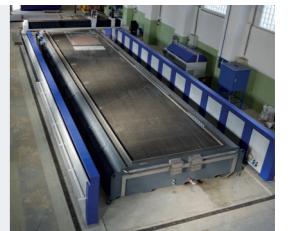
5-axis Pro-X 3D head provides a very high level of efficiency and insures the achievement of maximum 3-dimensional precision. The maximum cutting angle +/- 47 and automatic angle compensation ensure great precision and practically zero angle on the cutting edge. Perfect tool to minimize post processing.



3

WATER TABLE

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



*additional option

4

CNC CENTRE

ECS872 centre is a high quality industrial device, equipped with touch screen. Efficient components and construction resistant to extreme production conditions guarantee failure free operation. Unsurpassed functionality of proprietary software and intuitive drive interface enable full exploitation of the machine's capacity.



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 from 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

Kjellberg	Max piercing	Max from the edge
PA-S45W	20 mm	45 mm
HiFocus 80i	12 mm	25 mm
HiFocus 130	25 mm	40 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

Thermal Dynamics	Max piercing	Max from the edge
UltraCut 100	15 mm	20 mm
UltraCut 200	40 mm	65 mm
UltraCut 300	45 mm	75 mm



Pump model	HPS 4022	HPS 4037 HPD 4037	HPD 4055	HPD 4075	HPS 6045 HPD 6045	HPD 6090
Power [kW]	22	37	55	75	45	90
Max. flow [l/min]	2,3	3,8	5,7	7,6	2,8	5,4
Pressure [bar]	400-3800	400-3800	400-3800	400-3800	600-6000	600-6000
Oil tank capacity [l]	100	200	200	200	200	200
Length [mm]	2300	2300	2300	2650	2650	2650
Width [mm]	760	1050	1050	1200	1200	1200
Height [mm]	1410	1470	1470	1470	1470	1470

Given data depends on the material involved and its structure.
The ability to pierce depends on the material, thickness and also height sensor, and drive.

Presented machine is supplied with additional equipment.