



Waterjet cutting with maximum precision





Maximum quality from the smallest component

Kimtech develops and builds reliable and cutting-edge facilities for abrasive waterjet cutting. We are the market leader in Sweden, and offer you specialist knowledge, solutions and professional service of the highest precision. Our team of experienced engineers master the technology and systems down to the smallest detail. We also have service partners in various parts of the country, so as to be able to provide fast service on site. Our chief goal is 100% satisfied customers.

Kimtech has delivered over 300 waterjet cutting machines since commencement of production over 40 years ago. We always want to be at hand for all our customers, who operate within a host of industries. We also have the confidence to deliver to extremely sensitive operations such as nuclear power plants, the Swedish Armed Forces and the Swedish Prison and Probation Service – applying extremely stringent requirements as regards safety and availability.

At our manufacturing unit in Järfälla we keep a complete stock of spare parts, so as to quickly resolve service issues and minimise production downtime. Satisfied customers who come back to us are the best acknowledgement of our quality.

Abrasive waterjet cutting technology – precise and careful

Abrasive waterjet cutting is now a well-established processing technique, and an excellent complement to both laser and plasma cutting. A great advantage is that the method is cold, and thus does not cause

internal tension, molten edges or hardening of the material being worked. Cutting with water and sand, i.e. pure natural materials, also creates a good working environment free from pollution in the form of the gases that can arise using other methods.

Many people are also discovering more areas of uses than they first planned for, as they can cut basically all materials without changing the tool setting. The investment in the equipment, which is already far lower than for other methods, can thus pay off even sooner than expected.

Standard machines and customisations

Kimtech's philosophy is to always deliver machines that meet the customer's requirements and wishes. We have three standard machines that cover most areas of application, and we also build special fully customised machines. Our machines' feed is powered by both ball-screw operation and linear motors, thereby providing precise positioning and a vibration-free process.



QUALITY

We design, develop and build waterjet cutting machines of the highest quality in accordance with the customer's requirements.



KNOWLEDGE

Our team of skilled engineers have extensive experience and great expertise in waterjet cutting.



SERVICING

We always respond when you call, and will quickly be on site for servicing, with the aim of minimizing machine downtime.

XY Small

Kimtech's smallest standard water-cutting machine model is adapted for sheets measuring 3 x 1.5 metres.

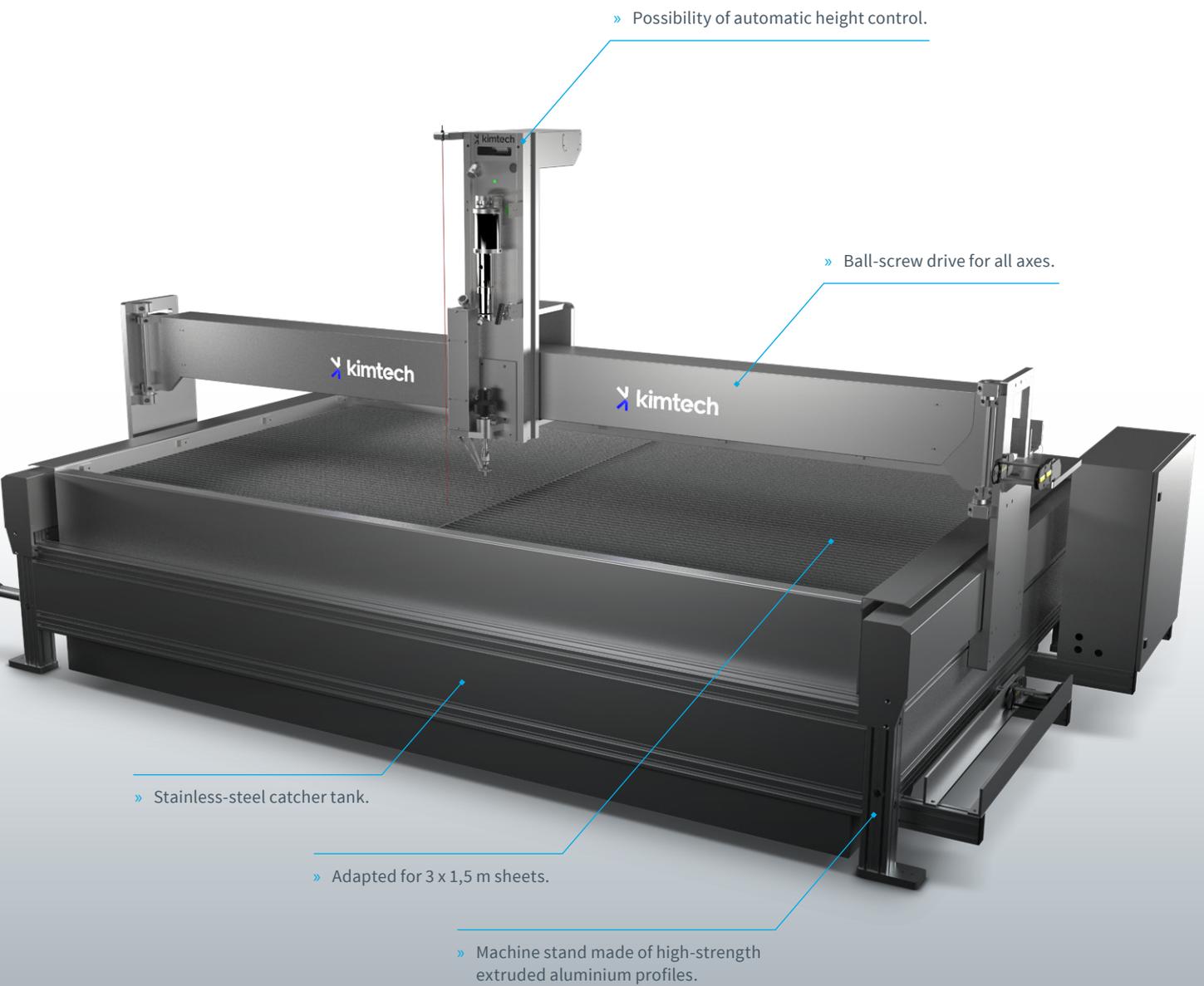
TECHNICAL SPECIFICATIONS

Stand	Strong profile system designed in-house
Cutting table/Tank	Stainless steel
Hoods	Stainless steel
Drive system	Ball-screw drive for all axes X, Y and Z
Control system	Beckhoff
Screen size	21.5" Multi Touch with graphic presentation
Number of cutting heads	1 pc
Pressure class	4000 bar
Machine sizes	From 0.5 x 0.5 m to 3.1 x 2 m
Cutting technique	PWJ and AWJ
Remote control	Yes
Z-stroke	250 mm as standard
Permissible load on cutting table	1200–3000 kg/m ²
Positioning accuracy	± 0.050 mm/m
Repetition accuracy	± 0.025 mm

» Ergonomic control panel.

» The control system is specially adapted for water cutting.





» Possibility of automatic height control.

» Ball-screw drive for all axes.

» Stainless-steel catcher tank.

» Adapted for 3 x 1,5 m sheets.

» Machine stand made of high-strength extruded aluminium profiles.

XY Mediu

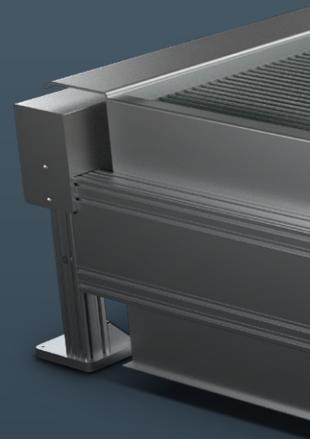
Our medium-size standard waterjet cutting machine comes with a cutting head, and features the possibility of a tilter, i.e. a 5-axis cutting head.

TECHNICAL SPECIFICATIONS

Stand	Strong profile system designed in-house
Cutting table/Tank	Stainless steel
Hoods	Stainless steel
Drive system	Ball-screw drive for all axes X, Y and Z
Control system	Beckhoff
Screen size	21.5" Multi Touch with graphic presentation
Number of cutting heads	1 pc
Pressure class	4000 bar and 6000 bar
Machine sizes	From 2 x 3 m to 3.1 x 6 m
Cutting technique	PWJ and AWJ
Remote control	Yes
Z-stroke	250 mm as standard
Permissible load on cutting table	1200–3000 kg/m ²
Positioning accuracy	± 0.050 mm/m
Repetition accuracy	± 0.025 mm

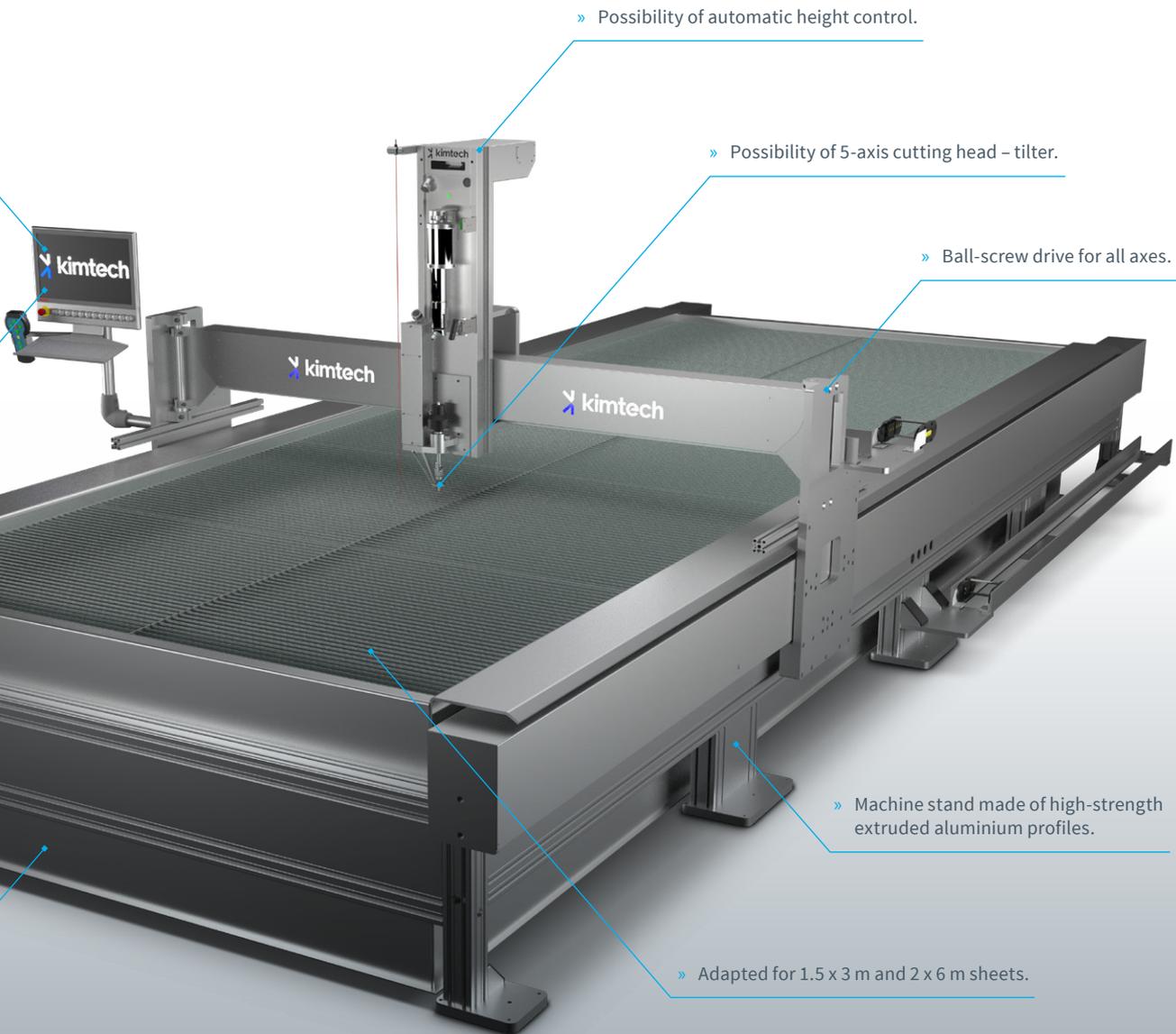
» Ergonomic control panel.

» The control system is specially adapted for water cutting.



» Stainless-steel catcher tank.

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XY Large

Our biggest standard machine accommodates up to four jets as well as 5-axis cutting, and is equipped with a linear motor drive for all axes.

TECHNICAL SPECIFICATIONS

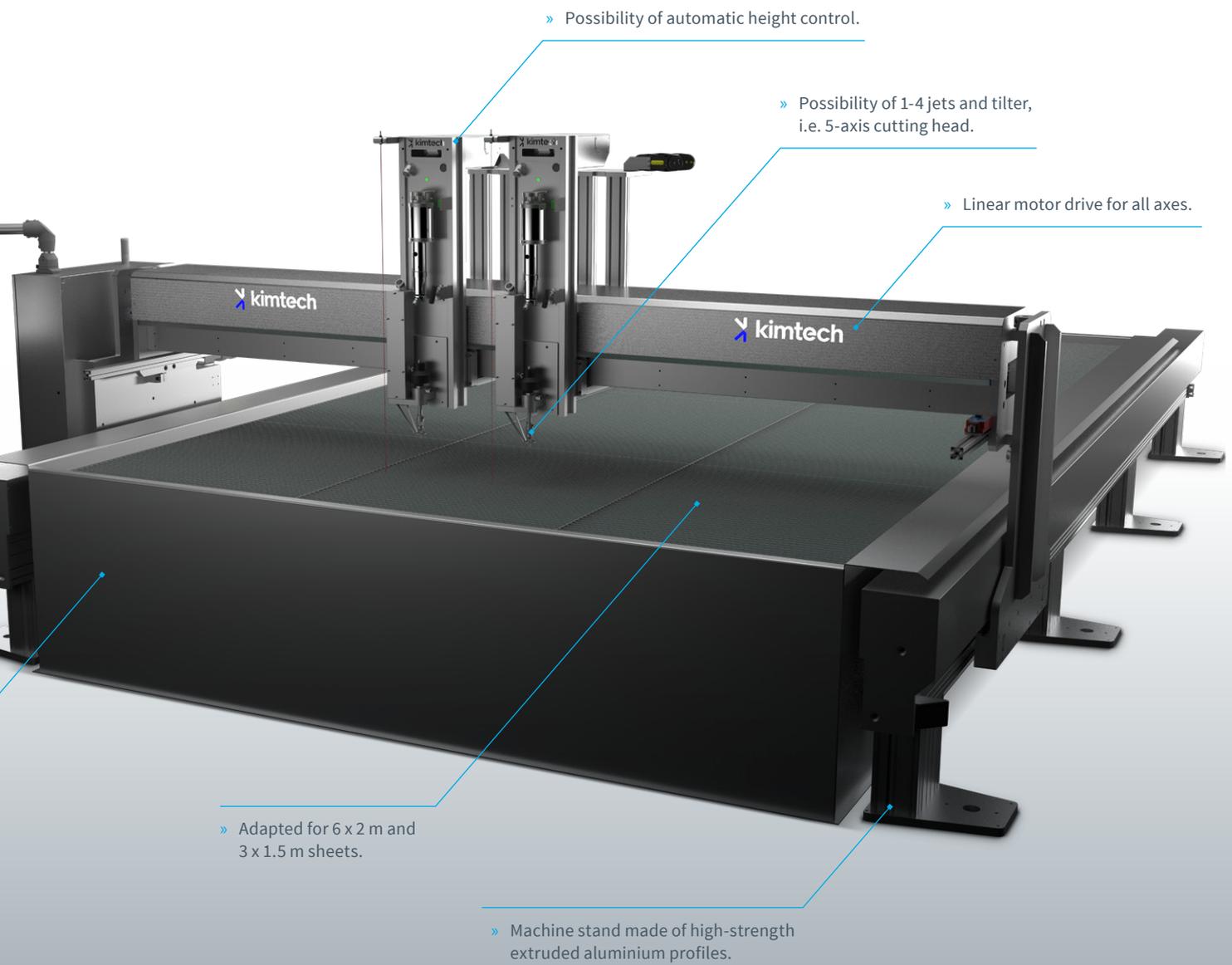
Stand	Strong profile system designed in-house
Cutting table/Tank	Stainless steel
Hoods	Stainless steel
Drive system	Linear motor drive for X and Y axes
Control system	Beckhoff
Screen size	21.5" Multi Touch with graphic presentation
Number of cutting heads	1-4 x dedicated control of each cutting head
Pressure class	4000 bar and 6000 bar
Machine sizes	From 2 x 6 m to 5 x 30 m
Cutting technique	PWJ and AWJ
Remote control	Yes
Z-stroke	250 mm as standard
Permissible load on cutting table	1200–3000 kg/m ²
Positioning accuracy	± 0.050 mm/m
Repetition accuracy	± 0.025 mm

- » Ergonomic control panel that comes with a crossbar for smoother monitoring by the operator.



- » The control system is specially adapted for water cutting.

- » Stainless-steel catcher tank.



» Possibility of automatic height control.

» Possibility of 1-4 jets and tilter, i.e. 5-axis cutting head.

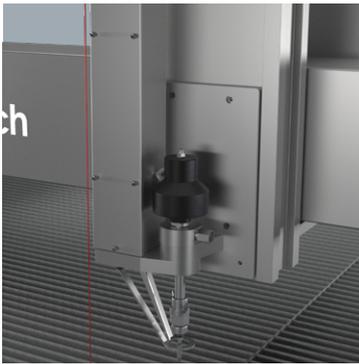
» Linear motor drive for all axes.

» Adapted for 6 x 2 m and 3 x 1.5 m sheets.

» Machine stand made of high-strength extruded aluminium profiles.

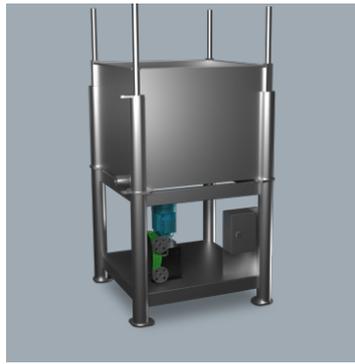
Accessories

This is a selection of Kimtech's accessories, which we use for specific customisations. Contact us for more special solutions.



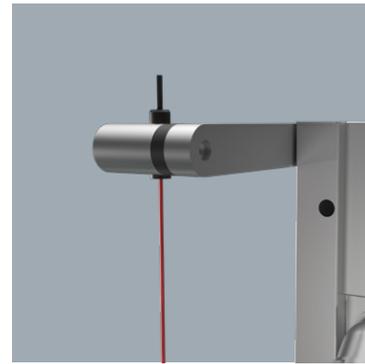
Height sensor

To keep the nozzle at a constant level our height sensor is used – a device that has been developed for both intermittent and continuous measurement and also offers collision control.



Sludge handling

The pumping system pumps out cutting sludge from the tank. The sludge is pumped to a tank with a big bag, which is then easily lifted out, to facilitate despatch to landfill.



Laser Pointer

The Laser Pointer is used to make it easier to select a zero point on the material being worked.



Camera

A camera directly connected to the CAD/CAM software Igems helps the operator efficiently get sheets/residual sheets into the software. Sheet metal placed in the cutting machine is visible in the software, and the operator can directly position the components in the camera image.



Sand feed

The automatic sand feeder offers a continuous sand feed without a stopping for filling. The process is monitored in the HMI.



Tilter

The tilter is our 5-axis cutting head adapted for both phase cutting and angular compensation. Tilter features an integrated height control for optimum cutting results.

High-pressure pumps – the heart of the plant

The waterjet cutting machine's high-pressure pump acts as the vital heart of the plant. The cutting capacity in the form of processing speed and the number of nozzles that can be in simultaneous operation depends on the size of the pump – which is available in models ranging from 22 to 75 kW.

Operating for prolonged periods at a pressure of 4,100-6,000 bar requires the highest product quality – something that the Flow brand has demonstrated through its long use on the Swedish market. Kimtech

has thus chosen to collaborate with Flow, and we use their world-leading high-pressure pumps in our cutting-machine plants.



» The pump has intelligent controls and built-in monitoring. An additional control panel facilitates maintenance and diagnostics.

» Built-in safety automatically lowers the system's water pressure to 0 bar within one second of the pump being switched off.



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