

Waterjet system accessories



iCUTwater



UHDE



BHDT



KMT

Flexible solutions thanks to various pump types

We offer our customers the possibility of finding solutions especially tailored to their needs. This also applies to selecting the right pump for waterjet systems. Choose from a wide range of models, from economical pumps with an output of 7.5 kW to extremely high capacity pumps with an output of up to 93 kW and **6200 bar**. We currently work with three renowned pump manufacturers. UHDE - places the highest demands on material and processing. BHDT - delivers not only impressive outputs but also saves up to 15 % energy through modern drive concepts. Or KMT, who are able to generate **6200 bar** with their Waterjet PRO ultra high pressure range. However, we are particularly proud of our own pumps. We presently offer two extremely compact and economical pumps with outputs of 7.5 kW and 22 kW - of course, they are **made in Germany**.



Equipment options for waterjet systems

We offer various equipment options from renowned suppliers, such as the proven abrasive equipment from Allfi or KMT. We offer solutions from Metallbau Müller for abrasive desludging options. From simple designs to complex systems, these also enable the water level to be regulated infinitely.

An optical positioning laser, which enables perfect positioning parallel to the cutting head, is also popular. Of course, we are also happy to supply you with individual accessories that we have produced ourselves.

iCUTwater 5-axis head

imes-icore GmbH has two aligned cutting head systems available for various 5-axis waterjet processing tasks. Both systems carry out movement around the TCP (tool centre point) and therefore save a large amount of space.

The 10° 5-axis head was developed in order to minimise effects that are detrimental to the cutting results in the cutting angle at very high cutting speeds, as can arise with very high pressures of up to 6200 bar. The effect of this is that the cutting edge no longer runs vertically to the material surface. In order to achieve a quality cut at these high speeds regardless of this, the necessary movements of the cutting head must be implemented highly dynamically, without corrections in X, Y and Z. Through the unique design principle, it is possible to cut endless numbers of "spirals" without a return movement being required. The imes-icore in-house developed movement mechanism is particularly space-efficient by limiting the working angle to a maximum of $\pm 10^\circ$, and can therefore be retrofitted to existing machines. The 45° 5-axis head is available with a true 45° cutting device. This enables 2.5D or 3D cuts to be carried out on panel material. The swivel movement is also carried out around the TCP. During the entire cutting procedure, a tailored height sensing system ensures a constant distance between the water outlet and the workpiece surface. This system also enables the user to correct the cutting angle.



iCUTwater tube cutting device

Pipe processing with an abrasive waterjet requires a number of features, in order to guarantee an industrial production process. imes-icore GmbH therefore offers its own auxiliary module for your flat material waterjet systems, which enables tube processing without damaging the inside of the tube and without using the customary sacrificial material.

This patented process works quietly and splash-free beneath the water level and requires no costly and vulnerable fourth axis. The pipe is moved purely mechanically without an additional drive. The specialised controller only

reads in processed 3D drawings for this. However, the operator without CAD experience can also prepare pipe processing in just a few seconds with macro support. Because the tube cutting device is an additional module, the waterjet system can change between tube and flat material processing with just a few manual adjustments.



Find out more about the accessory and upgrade options for our CNC waterjet systems at www.imes-icore.de

Even more flexible with the iCUTwater tube cutting device!