

#### 3D laser tube cutting is the future

### The entire operation in a single work process

#### Big savings in the production process

Savings of up to 30% of the time usually spent on a number of manufacturing tasks are more the norm than the exception when 3D laser tube cutting is used compared to traditional manufacturing methods. For example, we manufacture HEA 240 beams in only three hours. At QuickTube, we are not afraid to assert that laser tube cutting is the future!

QuickTube is an experienced specialist in conventional laser tube cutting as well as in state-of-the-art 3D laser tube cutting. Over the years we have amassed unique knowledge of production optimisation involving laser tube cutting for the benefit of our customer's projects.

In one workflow using the latest 3D laser-cutting technology, we eliminate the need for a number of costly operations, such as drilling, sawing, milling, countersinking and punching. We manage all of this in one workflow and take steps to ensure an efficient production flow in the finishmachining – cutting many costs in the customer's own manufacturing process.

#### We've made delivering quality easy

When we deliver components for large frames and structures, we draw on years of experience of integrating userfriendliness and efficiency into the project. We engrave ID numbers on the individual parts, making assembly straightforward for our welders, for instance. Dovetail solutions ensure robust, efficient assembly of sheet and tube components, supported by engraved instructions if needed. It doesn't get easier than that!

Steel structures, profile machining or small components for filters? 3D laser tube cutting cuts costs in your own production process, whatever the workpiece dimensions.













#### Full traceability and documentation

QuickTube A/S delivers in accordance with EN1090-1 with associated traceability and documentation and is certified to ISO 9001:2015.

Our certified QA process guarantees that we have all our processes under control to ensure our customers that the work we deliver complies with applicable requirements for quality and traceability.



### We exceed previous dimensional requirements

#### with one of the biggest laser cutting systems in northern Europe

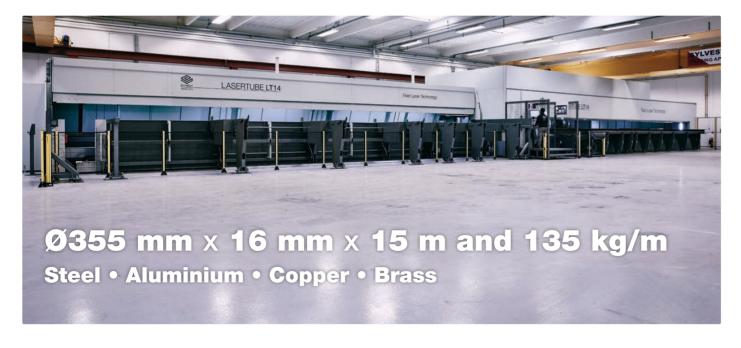
In 2017, QuickTube invested in one of the biggest 3D laser tube cutters in northern Europe: an Adige Lasertube LT14 Fiber. The investment paves the way for brand-new options by exceeding the previous dimensional limits in the area of 3D laser tube cutting.

With steel beams in lengths of up to 15 metres and advanced software for creative 3D cutting, we make it possible for architects and constructors in Denmark and northern Europe to use "local" suppliers for special building structures.

We can cut large workpieces for any project at our own factory and then transport them directly to the construction site or production facility, where the adapted workpieces are easily assembled according to stipulated requirements. This saves you valuable time having to adapt tubes and steel sections at a construction site or manufacturing facility.

Our new laser cutter is a fibre laser, which means that it can also cut copper and brass. With the array of machinery we now command at QuickTube, our possibilities are virtually infinite.





### **FACTS & DIMENSIONS**

Tube diameter: Ø10 to Ø355 Square tube: 260 x 260 mm Rectangular tube: 300 x 200 mm

Open profile: L profile: 30 x 30

- 200 x 3000 mm HEB: 14 - 260 mm IPE: 80 - 300 mm

UPE: 140 x 60 - 300 x 100 mm

Metal thickness: Up to 20 mm

Materials: Steel, aluminium, copper

and brass

Lengths: Tubes up to 15 metres

Max. weight: 135 kg per running metre

We deliver welding-prepared structural elements with cutouts and sharper edges according to customer instructions. We're ready for everything – profile machining, end cutting and bevelling, as well as the milling of every geometric shape, even oval holes!

### Four QuickTube highlights

#### Free hands for architects and contractors

When it comes to merging form and function in new structures, steel or aluminium are often the obvious choice of material. Whether this involves load-bearing structures, unique details, balconies or guard rails, we are ready with expert advice and the latest technology on the market. We provide brand-new options which exceed the previous possible dimensional limits in the area of laser tube cutting and creative structures. The possibilities are almost endless, and there's no need to compromise on project budgets – in fact, quite the contrary.

#### HEA 240 beams in only three hours



Four days' work reduced to just three hours when we cut HEA 240 beams on our big 3D fibre laser tube cutter. It can cut up workpieces up to Ø355 in aluminium, steel, copper or brass and can handle up to 135 kg per metre. Specifically, this optimises and greatly reduces costs in the customer's own production process, without compromising on quality.

In a specific case, eight HEA 240 beams were ordered for our manufacturing process. The traditional workflow would usually include measuring and marking off the workpiece, shortening it with a band saw, drafting a template for marking out holes and the drilling of these holes. In a traditional workflow, all these tasks would take six man-hours per six-metre workpiece, for instance. Our new laser cutter enables us to do all these tasks in only one workflow. And we spend only 30 minutes on the process. We finished all eight workpieces in the order in about three hours, whereas conventional suppliers would have spent about four days on the project.

All of this means that we can tell our customers with conviction that laser tube cutting is the future within the construction industry!

## Profile machining using 3D laser cutting

QuickTube is one of only suppliers in Denmark which can carry out profile machining using 3D laser cutting. We can machine angles, U-profiles, IPE and HEB beams, oval holes, joints, dovetail solutions and much more. In fact, we can work with angles of up to 150 x 150 x 16 mm.



Traditionally, profiles are machined on drilling and sawing equipment, a labour-intensive process with a high risk of fluctuations in dimensions and radius. With laser cutting you get uniquely accurate holes and cutouts every time, and a shorter production time.

#### Minimum welding time: Balcony attached within one hour

"Five to nine hours." This was how long a number of experienced balcony manufacturers estimated it would take to attach our balcony. The right answer was less than one hour! We cut our balconies on our laser tube cutter and design them to minimise welding time. The balcony is designed with holes prepared for galvanisation of inflow and outflow.





# Why use 3D laser tube cutting?

3D laser cutting results in unique consistency and accuracy, greatly reduces costs in internal production processes and provides an efficient production flow, all of which have a positive impact on your bottom line.

We use 3D and traditional laser cutting to machine materials such as steel, aluminium, brass and copper. Whether you need more precise countersinking, or entire assembly kits with framework structures in rectangular workpieces or tubing, laser cutting is the best choice. The cutting always results in visually appealing workpieces with precise corners and edges.

### Professional feedback and peace of mind throughout the process

Get on board with us from the initial ideas stage to ensure that our full range of experience and expertise in the field of laser tube cutting can provide an ideal solution. With us, you will encounter a highly proficient team who address a wide range of our customers' challenges relating to development, quality and service.



### Unique uniformity and precision

Laser cutting guarantees a 100% identical result every time. This minimises the risk of cutting errors and resultant assembly errors, facilitating post-processing and resulting in a more attractive end product that you can take pride in delivering to your customers. You always get precision corners and edges, making assembly of the machined workpieces a straightforward task. We are one of the few companies in Denmark with the facility to connect a catcher, ensuring that the machined tubes are entirely free of laser spatter, needing no further processing once they have left our production facility.

3D laser tube cutting opens up untold possibilities for innovative thinking and solutions that would not be possible using 2D laser cutting and the usual methods.



### Big savings in the production process

Sawing, milling, drilling, punching, engraving... 3D laser tube cutting instantly eliminates all these otherwise costly operations. The process saves an enormous amount of time because there is no need for multiple set-ups, and the process is reliable because the precision is unsurpassed. For example, we can engrave ID numbers or certificates and charge-numbers onto the workpieces when we have them in the machine, or create assembly diagrams for large structures. We can also deliver complete kits, packed and sorted in accordance with instructions and delivered with dovetail solutions or assembly engravings for rapid post-processing. It doesn't get easier than that!

We are keen to help all the way from concept to production. Our experienced designers are always able to assist with prototypes, designs or 3D/2D renderings of your own inventions.



### We manufacture round the clock

Laser tube cutting reduces throughput time and production costs by bringing together multiple operations in a single process.

However, that doesn't mean we spend the time we've saved resting on our laurels. It means that we are can offer our customers a highly efficient manufacturing flow and short production times.

We are still constantly amazed at the possibilities of laser cutting, and we rarely say no to a challenge.

You could almost say identifying new areas of applications has become something of a sport. Machining workpieces at angles of up to 45° with an accuracy of up to 0.1 mm and with minimal heat applied, the possibilities are virtually unimaginable.

### **Punching workshop**

Tolerances and finishes



Our punching department has facilities for shearing, punching and deburring workpieces of all sizes.

## QuickTube shows the way to future processing of steel and aluminium



QuickTube knows that 3D laser tube cutting is the way to work with steel and aluminium, going forward. 3D laser tube cutting achieves unique uniformity and precision to provide an efficient manufacturing flow in the finishing work – generating great savings in your own production process. Thanks to our recent investment in one of the largest laser cutters in northern

Europe, we are able to offer customers utterly unique options that transcend what used to be the bounds of dimensioning when it comes to 3D laser tube cutting.

The sooner you involve us in your project, the more your architects, clients and contractors will be able to benefit from our expertise and longstanding experience in this area. We

often identify savings and new ways to exploit the potential of laser tube cutting that others have yet to discover. And this is clearly reflected in the project economy.

Everyone is always welcome to drop in to see what our 3D laser tube cutter can do. There's always hot coffee in the pot. Prepare to be amazed at the quality as well as the price.

#### One World, One Supplier

QuickTube is part of the Skovsager Group, a family owned undertaking headquartered in Denmark. The group is made up of QuickTube A/S and NMF Industries. In addition to our headquarters in Odense, we have our own factories (with Danish management) in Iowa, USA, and in Ningbo, China. This ensures an ideal combination of quality, price and terms of delivery.

At the Skovsager Group, we emphasise combining our expertise to bring you all the benefits of our "one point of entry" philosophy. In other words, you get a single designated contact, supplier and business partner rolled into one, offering a world of opportunities.

The Skovsager Group is on a strong financial footing. This means we have always been a leader when it comes to investment in new technologies for the machining of steel and aluminium.

Our key task is to tailor an optimised production flow for your particular project, ensuring that quality, delivery and competitive prices combine to maximise the value for our customers' supply chain.

NMF Industries · Odense, Denmark
Sheet processing
Engineering
Prototypes
Mass production
Supply chain

QuickTube A/S · Odense, Denmark

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NMF LLC · Iowa, USA Sheet processing Supply Chain

3D laser tube cutting
2D laser tube cutting
Supply chain
Completed projects

Ningbo NMF · China

Sheet processing
Production of finished products
Production of semi-manufactured
goods for other NMF factories
Danish quality with Chinese benefits



### ISO 9001:2015 and **EN1090-1 – of course!**

At QuickTube, we always endeavour to deliver consistently high quality within the desired delivery time. Quality, documentation and traceability are part and parcel of being a supplier to even the most demanding industries.

We were very proud to be certified to ISO 9001 in May 2017. The certification is based on the latest ISO 9001:2015 edition, which focuses on management and risk assessment, and documents that QuickTube is managed in compliance with contemporary, internationally recognised standards.

We regard being certified to ISO 9001:2015 and EN1090-1 as an important seal of approval of our work. It is your guarantee that we have all our processes under control. This fully assures you that the work we deliver complies with relevant quality and traceability requirements.





