

UNISIGN EXPERIENCE

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General Machining

Case study



Application

Machining of large size precision components

Material

Steel, stainless steel, heat-resistant alloys, titanium

Customer

Peekstok Machining & Construction, Netherlands

Machine type

UNICOM6000 (2007, second-hand)

Benefits

- Versatile milling and turning capabilities in a single setup
- High user-friendliness and ergonomic design
- Quick workpiece changeover via pallet changer
- Technical support and geometry measurements by Unisign

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Second-hand UNICOM6000 made operational again through technical support and cooperation with partners

About our customer

Peekstok Machining & Construction specialises in large-scale machining and heavy metalworking. Based in Hendrik Ido Ambacht, they process a wide range of materials, from unalloyed steel to stainless steel and superalloys.

‘Our focus is on single pieces and small series,’ explains project manager Wouter van der End. This means series of 5 to 10 pieces. Examples include propeller shafts, pump parts, bearing housings, sealing rings and other precision components for the maritime and petrochemical industries, among others.

From plan B to smart move

When Peekstok hired two experienced CNC turners but only could accommodate one internally, new plans for the future were forged. Wouter: “At first, we thought about expanding with a simple lathe with

external automation. Until Pim van Dijk, who maintains our machines, pointed out a second-hand UNICOM6000 that was stored in a warehouse in Germany.” Pim, owner of Van Dijk Elektromechanica and well acquainted with Unisign CNC machines, assisted Peekstok with the purchase. Pim: “That UNICOM had been out of use for several years. We assessed it visually and calculated the worst-case scenario. When director Johan Peekstok decided to take the risk, everything fell into place: I led the purchase negotiations and, together with a team of freelancers and Unisign engineers, brought the machine back to life.”

Collaboration from day one

Although the UNICOM dates from 2007, it has been completely upgraded, says Pim. “We now have what is essentially a fairly new machine. We upgraded the operating





system e.g. Unisign played an important role in performing the geometry measurements and starting up the machine. It's great when you can rely on the expertise of the machine manufacturer. It's not easy to set up a second-hand machine like this on your own."

Wouter adds: "During the process installation time increased because we ran into a few setbacks. We then decided to replace a lot of parts, such as cabling, hydraulic hoses and bearings. It actually turned into a small retrofit project."



Solid foundation

The machine was given its own place in Peekstok's production hall, including a completely new foundation. Wouter: "The soil conditions here are weak, so we had to drive 21 piles to stabilise the ground. We also had to lower the floor. This was necessary because we were about 20 cm short of being able to operate under the existing overhead crane. That's why we installed the machine 20 cm lower."

Machining in a single setup

Peekstok is still in the optimisation phase, but the advantages of the UNICOM6000 are already noticeable. Wouter: "Previously, we had to machine complex workpieces on multiple lathes and milling machines. Now we can do that in a single set-up on the UNICOM6000. This saves us time and reduces the risk of errors."

Wouter is also positive about the ease of use of the UNICOM: "Everything is at the right height, so you can reach everything easily. Ergonomically, this machine is much better than any other machine I have worked on."

The machine is programmed externally via CAD-CAM. Wouter: "This allows us to prepare 80% of the programme remotely. Thanks to the 3D model, you can see and simulate exactly what will happen on the machine. That saves time and increases safety."

Short lines of communication

Everyone is enthusiastic about the collaboration between Peekstok, Van Dijk Elektromechanica and Unisign. "In case of any technical questions, I can contact Unisign directly," says Wouter. "And Pim is here regularly, so the lines of communication are short." Pim: "I know Unisign well and know what their CNC machines can do. Together, we have ensured that this UNICOM now runs perfectly. This project shows that a second-hand Unisign machine can last for years again with the right guidance."

Wouter concludes: "When you embark on a project like this, it's important to be realistic. You will encounter surprises, broken parts that need replacing, for instance. What matters most is good cooperation, and that's definitely what we've had here."