

# UNISIGN EXPERIENCE @WORK



## Truck industry Case study



### Application

Machining front axle beams for trucks and agricultural vehicles

### Material

Steel

### Customer

Rába Axle Ltd.

### Machine type

UNIVERS  
UNITWIN6000

### Benefits

- High reliability and stability
- Meets the highest precision requirements
- User-friendly and easy to operate
- Excellent after sales service
- Designed by the world leader in front axle machining

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## Front axle beams exclusively machined on UNITWIN6000

### About our customer

With over one hundred years of experience, Rába Automotive Holding Plc. is one of the largest companies in Hungary serving the automotive industry, employing more than 1700 people. The company has three strategic business units which produce front axles for commercial vehicles, agricultural machinery, and earthmovers, as well as automotive components and specialty vehicles. Rába Axle Ltd. designs and produces front axles and axle components and has seven Unisign machining centres in its factory.

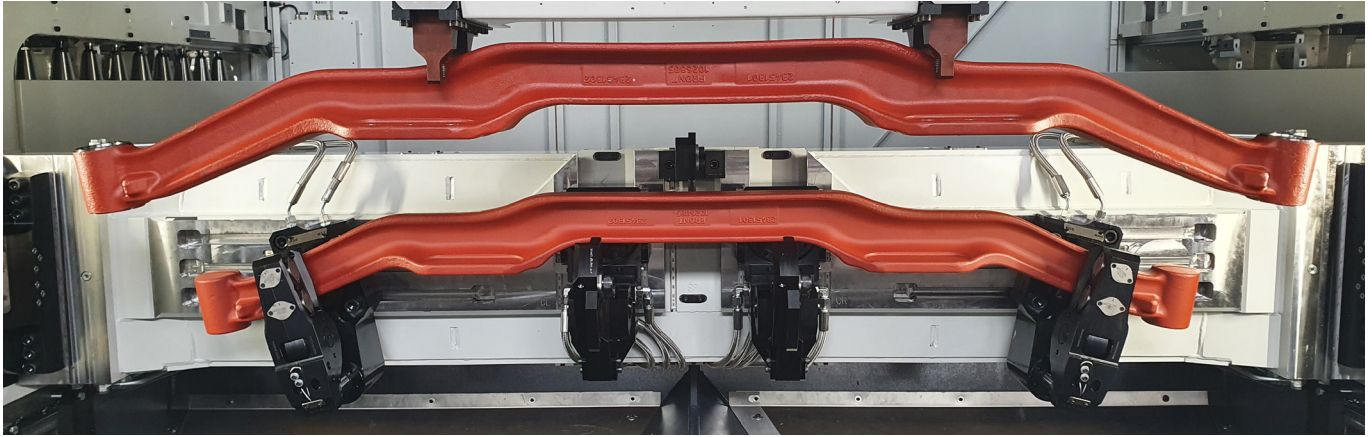
“Our main market is OEM truck manufacturers located all over the world”, says Tibor Csehi (Manager of CAPEX Programs and Maintenance). “Each year we produce

120.000 to 150.000 front axle beams for well-known manufacturers such as Scania, MAN and Volvo. The axle beams are all processed on Unisign machines. These are the key machines in our machining shop. In 2020 we installed our first UNITWIN6000 machine. It’s interesting to note that all our previous Unisign machines are still in daily use, including the first UNIVERS6 machine we bought in 2003. Nothing beats these machines when it comes to reliability and stability.”

### After sales and maintenance

Tibor Csehi: “Every 6 months a Unisign service engineer visits to carry out regular maintenance on our machining centres. At the same time, the service engineer makes suggestions and gives us information





about how to improve the reliability of the machines even further. Unisign really is a close partner to us and thinks along with us. We can fully rely on their experience and know-how. By the way, one of their service engineers also speaks Hungarian. It's really helpful to us that Unisign sends an engineer who can talk to us in our own language. It makes the connection much closer and it feels like he's one of us."

### Precision is key

In recent years, truck and car manufacturers requirements for front axle beams have become much stricter, Tibor Csehi explains. "Nowadays it's all about precision. The requirements are much closer to the accuracy needed in the aerospace industry. Machining really has to be precise with very tight tolerances. To improve safety and reduce costs as well as noise levels, our clients need lighter front axle beams which require much more precise machining.

Thanks to the Unisign machines, we can fulfil these requirements perfectly."

### Total machining solution

Tibor Csehi: "We were always very satisfied with the UNIVERS6 machines and we didn't want to take any risks by buying a different type when Unisign introduced and proposed the UNITWIN6000 for our extension. But now, after using the UNITWIN6000 for some time, we can say that the UNITWIN6000 even excels the UNIVERS6. What we particularly like about all the Unisign machines is that we don't need much time to train our people to operate them properly. The machining centres are very user-friendly. Programming is very simple because it's based on parameter settings. A big step forward compared to traditional CNC programming. For us, the most important aspect is that the machining time with a UNITWIN6000 is less than half of that on the older UNIVERS6

models thanks to the double spindle concept and other improvements.

If there is a problem or we urgently need some spare parts, it's very easy to get in touch with Unisign and explain the issue. Once we have communicated our request, we always get the right solution quickly. That's why they call it a total machining solution: with Unisign you get much more than just a machine."

### Local support

Unisign is well established in Hungary and has excellent local support provided by our representative partner Rother Metal Ltd.

### General specifications UNITWIN6000

#### Work area

X-axis, longitudinal travel: 4200 mm  
Y-axis, cross travel: 600 mm  
Z-axis, spindle stroke: 500 mm

#### Gear box driven spindle (2x)

Power: 51 kW  
Speed: 6000 rpm  
Torque: 1000 Nm  
B-axis tilting:  $\pm 15^\circ$

#### Tooling

Tool holder: HSK-100A / SK 50  
Number of tool pockets: 2 x 39  
Tool change time: 10 sec.

#### Axis drive and feed system

Rapid traverse: up to 40.000 mm/min  
Feed rate: up to 40.000 mm/min

