CUSTOMER REFERENCE HEAVY-DUTY TRANSPORTERS WITH OMIKRON QUADRO







CASTORS STRONG ENOUGH TO HOLD 63,000 KILOS? NO PROBLEM

A weight of 63,000 kilograms is roughly equivalent to that of 18 small trucks. This is also the weight that AVT Europe, a Belgian customer of TENTE that specialises in heavy good transportation needs to carry. The company was looking for castors for its new models and asked us if we could deliver a solution capable of bearing the weight. "Will do," we said.

THE STARTING POINT

AVT Europe NV makes driverless heavy-load transporters for the movement of heavy goods such as aircraft parts or railway carriages. The transporters resemble massive mobile platforms and are fitted with intelligent electronics. They are operated by remote control and can carry loads of up to 100 tonnes.

COMPACT BUILD, HIGH WORKING LOAD

The weight of the load being transported is distributed evenly across all the castors with the aid of air cushions. The heavy goods transporters have load-bearing castors and drive wheels. The load-bearing castors are always in use and take on the main load. The drive wheels, by contrast, are designed to be lowered to the ground automatically, as and when needed, and they also help to set the transporters in motion.

For AVT, it is important that all the castors have a comparatively small diameter, yet can still withstand heavy loads of up to 12 tonnes while in motion and 20 tonnes while stationary. Supreme quality and excellent durability are also key factors because the transporters are supplied to various companies, including big names like Daimler, Airbus and the nuclear research institute, CERN. These companies need to provide a reliable transport

services for extremely high-quality goods. The discerning customers of AVT expect a lifetime of 20 years and a warranty of 2 years. Our job was to supply castors which meet the many different requirements in the project brief.

OUR SMART MOBILITY SOLUTION

Our Omikron quadro special-purpose castors were used particularly for of the exceptional framework conditions. The outstanding feature of these products is their custom-built design. The castors have two wheels to the left and two wheels to the right of the centre. This allows them a greater load-carrying capacity and a lower point load resulting in a better distribution of the applied load.

They can also be steered very easily when carrying heavy loads because the counter-rotation of the wheels around the common centre point significantly reduces the rolling and pivoting resistance in comparison to a single-wheel castor. This differential effect leads the Omikron quadro unrivalled manoeuvrability with its 400 mm wheels. The drive wheels were built for a strategic purpose and were made to the specification of our close consultation with the AVT staff.





Another advantage is that all the running surfaces are polyurethane, which is good for handling characteristics and easy on the floor. Needless to say, we also approached the job within its wider context and provided AVT with a smart solution where all the components combine to form a perfect whole.

EXCELLENT DURABILITY AND RAPID ADAPTATION TO MARKET NEEDS

The AVT heavy-duty transporters are capable of carrying goods with a gross weight of 63 tonnes. The sophisticated design of the castors provides supreme durability and an impressive improvement in rolling resistance. AVT therefore needs less powerful drive systems for its transporters and also saves energy. Our staff in Belgium works closely with AVT, for example, adopting a hands-on approach and providing the supplier of heavy-duty transporters with advice, including the progression of future custom developments. We are extremely flexible and can therefore respond to the growth of the company. No doubt this is another reason why AVT is planning to use TENTE castors in its future projects.

There is something else the company can rely on 100 percent: us.



"What convinced us was the durability of the special-purpose castors — and the know-how of our business partners at TENTE."

Maarten Van Looveren General Manager at AVT Europe







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