

DB CARGO FACTS & FIGURES

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From Mülheim to Mukran: Pipe transport for Nord Stream 2

A million-tonne, billion-euro job

- > German pipe manufacturer Europipe is responsible for producing 45 percent of the approximately 200,000 large-diameter steel pipes needed for the Nord Stream 2 Pipeline.
- > This means that a total of **90,000 pipes** will have to be delivered from Europipe's production plant in Mülheim/Ruhr, Germany, to the coating facility in the port of Mukran, on the German island of Rügen, where these pipes will be coated in the Mukran coating plant. Depending on production progress some pipes may be transhipped to Wasco's second coating plant in Kotka, Finland, to receive concrete weight coating.
- > Each of these pipes is approximately **12 metres long**, has a **diameter of 1.2 metres** and **weighs 12 tonnes on average**.
- > **Approximately 0.85 tonnes** of high-value goods need to arrive at the German coating facility in perfect condition and at the lowest possible environmental cost.

Trains that go the distance

- > In Germany, DB Schenker Rail's Cargo division is responsible for transporting the pipes from Mülheim to Mukran.
- > Each train is made up of **37 wagons** with a loading length of about **12.6 metres** and a loading width of **2.9 metres** apiece.
- > A single wagon carries four pipes, which means **148 pipes** can be delivered to Mukran in a single train trip.
- > Every train thereby carries almost **1,800 tonnes** of pipes – the equivalent of about 17 blue whales – and is approximately **580 metres** long, or roughly five-and-a-half football pitches.
- > The trains cover a distance of **695 kilometres** from the pipe mill to the coating plant, at an average speed of **60 kilometres per hour** – although they can travel as fast as 100 kilometres per hour on certain stretches.
- > A one-way trip takes about **11.5 hours** in total, with two mandatory stops along the way for conductor shift changes.
- > The pipes need to be handled very carefully, and the safety of all workers involved must be guaranteed, so the loading process takes about **6 hours** on average. Unloading in Mukran takes place in two eight-hour shifts.
- > Two train trips are completed every single day – that's a delivery rate of over **2,000 pipes per week**.
- > To deliver the total order of 90,000 pipes from Europipe, **more than 600 trains** will have to make the journey to Mukran before the end of 2018.

Low-carbon transport for high-value cargo

- > By choosing to transport its pipes to the concrete weight coating plants by rail rather than by truck, Nord Stream 2 has opted for the **most fuel-efficient and environmentally friendly mode of transportation**.
- > DB Cargo's rail transport emits **81 percent less carbon dioxide** than lorries would to deliver the same number of pipes by road.
- > This way, transporting the pipes all the way from the pipe mill to the coating plant generates **only 0.01 tonnes of CO2** emissions per product ton: That is less than the amount emitted by driving an average car for just 25 minutes.