

**GASCADE**

# THE GAS COMPRESSOR STATION BUNDE

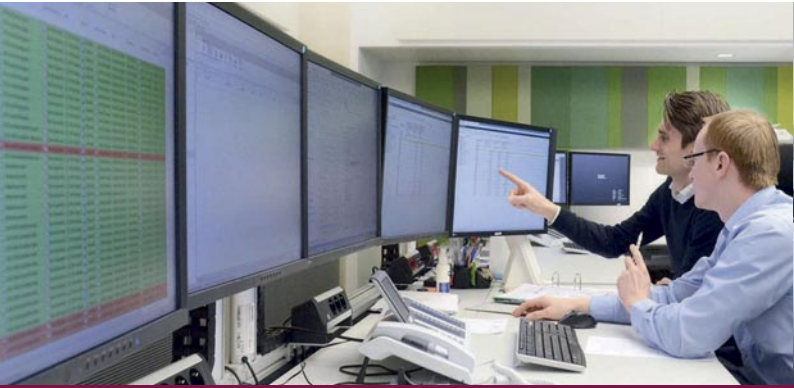


## NATURAL GAS FOR EUROPE



On the path to climate-neutral supply with renewable energies, in other words, solar, wind and water, gas plays an important supporting role in Europe, since it acts as a bridge, scoring points with its large reserves, low emissions and secure transport routes. And GASCADE guarantees the latter: We make sure that gas within Germany's borders reliably reaches its respective destinations. After all, while both industrial and private demand for gas is going up, the production volume within Europe is going down. That's why gas in our pipeline network moves from the major sources in Russia and Northwest Europe both to consumers in Germany and its neighboring countries of Belgium, France, the Netherlands, Poland and the Czech Republic, and on to Southeastern Europe.

## PRESSURIZING GAS



From the source to where it's used, natural gas travels many thousands of kilometers in pipelines measuring up to 1.4 meters in diameter. During this journey it loses pressure as the molecules rub against each other and the inside of the pipe.

To keep the density and hence the transport speed of the gas constant, it is compressed in natural gas compressors.

These are the core of the eleven GASCADE compressor stations that are spaced at around 250 kilometers apart in the pipeline network.

### **What happens in the compressor?**

Several impellers are securely arranged behind each other on a rotating, cylindrical shaft in a steel casing and rotate at a speed of up to 3,600 and 10,300 revolutions per minute. This spins the molecules of the inflowing gas outward, thus compressing them more densely together. The compressors are driven by gas or electric motors located in enclosures in compressor houses for the purpose of noise control. The gas' volume is reduced when it is compressed. That means more energy can be transported through the pipeline. The pipeline's capacity increases – and so does supply security for customers.

## BUNDE COMPRESSOR STATION



GASCADE compresses natural gas for North Germany right by the Wadden Sea in Lower Saxony, close to the city of Leer and the Dutch border. The station in Bunde is located on the 702-kilometer MIDAL pipeline (Central German Pipeline Link).

The gas is processed here as it heads north-west. Up to 1.2 million cubic meters of gas per hour can stream through the Bunde station. By comparison: The average European household uses around 2,700 cubic meters per year.

The GASCADE employees have already been ensuring the right density, a continuous flow, and secure operation in Bunde since October 1993. The station was expanded in October 2012 and now has a gas metering station and two electric motors. The maximum operating pressure is 90 bar. The site also includes a utility and an operations building, as well as a workshop and a warehouse. In addition to the entire station, the employees look after an around 80-kilometer-long pipeline section.

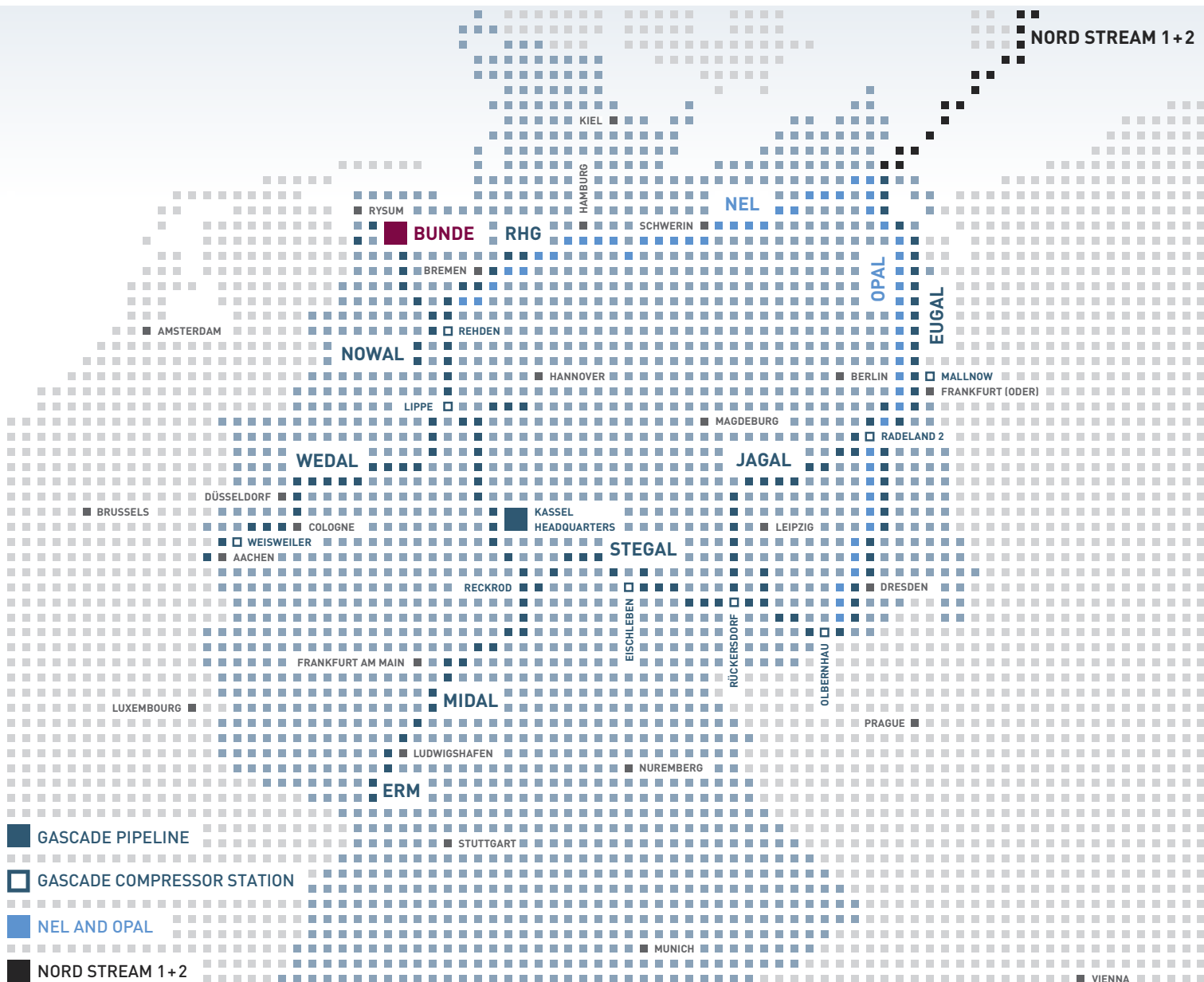
# TECHNICAL INFORMATION



- 1** Operations building and workshop
- 2** Compressor building
- 3** Quantity measurement building
- 4** Gas coolers

TECHNICAL DATA	
Compressor output	12.8 megawatts (2 x 6.4 MW)
Number of compressors	2
Type of drive	Electric motor
Max. operating pressure	90 bar
Capacity (m <sup>3</sup> /h at normal conditions)	1.2 million
Commissioned in	10/93, 10/12

# GASCADE'S PIPELINE NETWORK



# CONTACT

## GASCADE Gastransport GmbH

### Headquarters

Kölnische Straße 108-112

34119 Kassel, Germany

Phone +49 561 934 0

Fax +49 561 934 1208

### Bunde Compressor Station

Heerenweg

26831 Bunde, Germany

Phone +49 4953 9188 2501

[www.gascade.de](http://www.gascade.de)