

New side boom cranes place the pipeline into the trenches. As well as open trench methods, trenchless construction techniques such as microtunnelling and direct pipe are also being used.



Extending France’s pipeline grid: the Haute de France II

Working in the ‘bread basket’ of France, the Haute de France II pipeline project is currently under construction, extending France’s gas transmission network and presenting new challenges to pipeline construction experts and calling for new pipelaying techniques.

GRTgaz has contracted Max Streicher GmbH & Co. to complete the second section of 51.7 km of 48 inch DN 1,200 gas pipeline between Corbie and Cuvilly in the Picardy region near Amiens, France.

GRTgaz is building Haute de France II as a parallel pipeline to the existing Haute de France I. HDF II starts in Dunkirk, near the Belgian border, and runs south. Streicher is working in a generally flat, loose and stony area, and the pipeline has to cross many other lines in the area. A total length of 370 m is being laid using microtunnelling techniques. Many streets and existing lines have to be crossed using closed methods of laying.

In the area around the Somme river, a new trenchless construction method is to be used. The 1,170 m stretch will be crossed using the direct pipe method. Direct pipe is a combination of two established laying techniques, horizontal directional drilling (HDD) and microtunnelling.



Max Streicher GmbH & Co. is laying 51.7 km of 48 inch, DN 1200 gas pipeline on behalf of GRTgaz as part of the Haute de France II project.

Laying the HDF II

Many different types of pipelayers and sidebooms are being used on the HDF II project, including Caterpillar 954, Komatsu 355 and Liebherr 64, with weights ranging from 55 to 65 t.

“This equipment was selected based on the available and very detailed geological

investigation, including the existence of stable soils and little water,” says Streicher Project Manager Anne Pieter Dijk.

Anne Pieter Dijk sees the pipelayers and sidebooms industry developing in the future.

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**HAUTE DE FRANCE II
BY NUMBERS:**

1 direct pipe with
a length of **1,170 m**

Total length of
pipelines: **51.750 m**
of **48 inch** wall
thicknesses, varying
between **16.2 mm**
and **28.2 mm** in the
corn belt of France

Steel quality:
L485MB (X70)

Around 230 Streicher employees are working on site.

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“I can see a need to reduce downtime required to disassemble and assemble the equipment when changing location on the jobsite, and to reduce the overall weight of the machines minimising the specific soil pressure.”

Construction and agriculture

The particular ecological requirements for completing this work affect the entire construction process. The area that Haute de France II runs through is known as the ‘bread basket’ of France, and the focus of the process is to protect arable land and ensure sustainable soil quality.

In bad weather and when a certain level of soil moisture is reached, construction work is halted so that the soil is not negatively affected. To ensure that the work is as efficient as possible, construction methods are decided on in agreement with the Chamber of Agriculture.

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CRC double welding power

Work on the Haute de France II project is carried out using the CRC-Evans welding method. This involves welding the root weld from the inside with four torches simultaneously. Automatic welding machines with double-burner systems are used for the filler layers, as they allow welding from two places at a distance of 100 mm simultaneously. This allows for higher deposition rates than with other methods, and a significantly higher production rate.

The current top performance rate in Streicher’s work is more than 40 welded joints per day.

At the construction site, approximately 3,200 joints will be welded, and three valve stations and one receiving station will be completed. Since March 2013, approximately 230 Streicher employees have been working north of Paris on site on the project. At the time of writing, the first pressure tests were scheduled for October, with the gas pipeline to be ready for use in March 2014. ☺