

Oxygen for the Erft landscape



Oxygen enrichment plant near Thorr / Berheim-Kenten, Germany

Project fact file

- Flow rate, with a prepressure of 0.7 - 1.0 bar with 1.2 to 2.4 m³/s
- Period of use foreseeably at least 15 years
- Commissioning: Summer 2011
- In cooperation with:

AMG-**PESCH**



Oxygen for flora and fauna

In the summer of 2011, a new oxygen enrichment plant near Thorr/Bergheim-Kenten in the Rhein-Erft district of North-Rhine Westphalia started operation with two large, especially equipped needle valves made by ERHARD. The plant adds oxygen to water from the open-cast mining by means of a newly developed ventilation system. This is necessary as, due to its high temperature, the water pumped out of the deep does not have enough oxygen for nature along the Erft canal.

The new plant built pumps the hot water, at around 26 °C, from the deep; the resulting air suction causes oxygen to be added. The enriched water is then discharged into the Erft Canal.



The project brief for the oxygen enrichment plant in Bergheim-Kenten was defined as ensuring that the air intake was as high as possible over a large opening area. In order to successfully achieve this target set, a true to scale model was built in the ERHARD test laboratory (see photo, top right-hand side).

Full service from a single source: Consulting, production and commissioning

Due to the novelty of the plant, this project produced new challenges for ERHARD's engineers. Working closely with the plant operator, RWE Power AG and the sales partner AMG Pesch, extensive tests were performed in advance at ERHARD's location in Heidenheim. The objective of the test series was to achieve a water-air ratio of 5:1 to 8:1 - the smaller the ratio is the more air is input. The result of the tests showed that the required values could not only be achieved, but could also be exceeded.

In September 2011, the oxygen enrichment plant was built next to the Erft Canal on an area of almost 80 m². ERHARD technicians and engineers provided on site support for installation and acceptance of the plant. This enabled smooth and on-schedule commissioning with the required result to be ensured by ERHARD.

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PESCH



For us, service starts with a careful analysis and consulting discussion of our customers' needs. Plant and equipment engineering is typically a highly complex matter. Optimal handling

of processes and flow of fluids, gases and solids as well as the design to various international engineering standards requires highly specialised know-how.

Whether you want to refit or modernise existing plant and equipment or you're planning something of a kind "that's never existed before", our engineering, field sales and quality management experts will support your project from the beginning through to completion - on location, around the world.



The comprehensive ERHARD product range made it possible to provide all the valves from a single source.

Products:

- RKV needle valves (DN 600 and DN 800) with special venting device

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