



Cable seals for a sustainable society

REPORT FROM WASTEWATER TREATMENT PLANT IN DRESDEN, GERMANY

The wastewater treatment plant of Dresden-Kaditz is continuously growing and the Stadtentwässerung Dresden is maximizing its environmental efforts. The latest addition is the biological sewage sludge treatment which generates

biogas that can be used for energy purposes. As the facility requires protection against high ground water and aggressive gas, Roxtec cable entry seals are used to protect the equipment and make the green work durable.

The plant, which is in operation since 1910, treats 120 000 m³ of wastewater per day before returning it to the river Elbe. The owner, Stadtentwässerung Dresden, has invested in the sewage sludge treatment to reduce the masses by 30 percent and instead generate 20 000 m³ of biogas per day. The biogas is processed and used to produce power and heat for the continuous operation of the plant.



“With so many cables to seal, there is no alternative but Roxtec”

Wolfgang Gesang,
Electrical Engineer



⊕ Roxtec seals protect equipment in the basement from water and humidity.

The one and only solution

Design and engineering firm PROWA Ingenieure Dresden specified Roxtec sealing solutions for the expansion project. It was a natural choice, according to Wolfgang Gesang, responsible for the electrical engineering for the sewage sludge treatment. He is impressed by the simplicity of Roxtec and the seals' ability to cover many needs.

“The Roxtec product catalogue offers comprehensive information. It simplifies product selection and gives great support at the same time,” says Wolfgang Gesang, who

managed to ensure both water and gas tightness by choosing Roxtec for the approx. 2 000 cables to be sealed. Thus, the demands for the required quality of the cable penetrations were met.

Many cables per hole

Wolfgang Gesang could easily imagine where to use the various smart and flexible solutions from Roxtec. He decided to place

⊕ The Dresden-Kaditz wastewater treatment plant plays an important role for a sustainable development of the society.

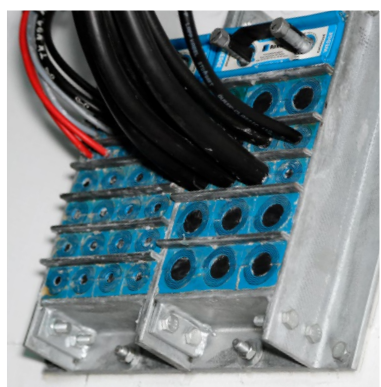




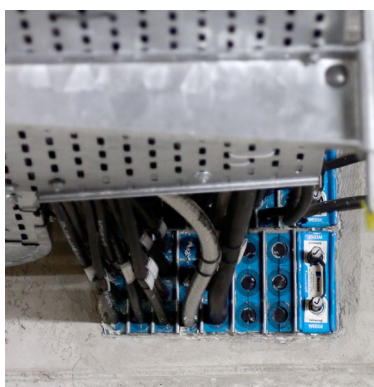
⊕ The plant has two 35 meter high sewage sludge digestion tanks. Each “egg” contains 10 500 m³ of sludge that is reduced by the use of bacteria. The process results in biogas for operating the plant and residual sludge, which has the consistency of moist potting soil after the subsequent dewatering.



⊕ The wastewater treatment plant complies with the requirements of the European Union. Its equipment is protected thanks to Roxtec certified sealing solutions.



⊕ Roxtec seals protect against corrosion and are openable to provide spare capacity.



⊕ All cable penetrations in the main energy supply system are sealed with Roxtec.

Roxtec seals in walls, floors and ceilings all over the plant as well as under the raised floor in the switching room.

“The best thing with the Roxtec system in comparison with other methods is that we can seal so many cables in each opening. We are also able to save a lot of time by routing the cables first and sealing them afterwards,” says Wolfgang Gesang.

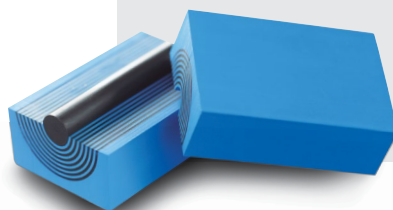
Ready for expansion

Roxtec provided support to designers, contractors and installers throughout the project.

The environmental efforts will continue, so Wolfgang Gesang decided to install openable Roxtec seals for future needs. The sealing modules are adaptable to fit cables of different sizes and have cores that can be replaced by cables. Some seals are even installed without any cables at all – just to provide spare capacity.

ROXTEC SEALING SYSTEM

Roxtec cable and pipe seals ensure safety, efficiency and operational reliability. They are adaptable to cables and pipes of different sizes thanks to Multidiameter™, a solution based on modules with removable layers.





Facts

Project type	Wastewater treatment plant expansion
Involved companies	Stadtentwässerung Dresden GmbH – owner PROWA Ingenieure Dresden GmbH – design Heitkamp Ingenieur and Kraftwerksbau GmbH – contractor Schwarzkopf Elektro GmbH – installations
Applications	Cable entry sealing in walls, floors and ceilings
Sealing requirements	Watertight, gas-tight, explosion protection
Roxtec products	Roxtec R, B, G, SKF and H sealing solutions, some of them in Ex versions, as well as special sleeves, adaptable sealing modules and compression units



Roxtec International AB
Box 540, 371 23 Karlskrona, SWEDEN
PHONE +46 455 36 67 00, FAX +46 455 820 12
EMAIL info@roxtec.com, www.roxtec.com