

Water Technology at WorldSkills Lyon 2024

Train for green skills on the Environmental Discovery System EDS

FESTO



Water is life and a vital resource for survival on our planet. Therefore, wastewater treatment is of utmost importance. Water and wastewater technicians require in-depth technical knowledge of water treatment systems and processes, analytical skills for monitoring and assessing water quality, as well as problem-solving abilities.

Festo is leading in automation and process technology as well as in technical education. Festo Didactic developed the Environmental Discovery System (EDS) to qualify young experts in water management. The holistic training system also covers electrical engineering and chemical processes and prepares learners for the environmental challenges.

Festo and Worldskills are strong Partners since three Decades
Trendsetting learning solutions of Festo have become a standard

Made in Germany ●●●●

Research and development of Festo automation technology and technical education solutions has its origin in Germany. Being a 100% family-owned company with its headquarters near Stuttgart, Germany, Festo maintains 61 subsidiaries and is represented in 178 countries around the world. This global market know-how enables Festo to react on trends and be the first one to present high-quality, state-of-the-art learning solutions for TVET. WorldSkills relies on the proven Festo quality and selected Festo as Global Industry Partner for good reasons 30 years ago.

„Festo has been cooperating with WorldSkills for already more than 30 years to develop the skills of young people. The WorldSkills competitions underline the importance of technical vocational education and training in times of skilled workers shortage.”

**Automation
Components
Systems
Solutions**

**The power of
innovation for
productivity and
employability**

**Education
Learning solutions**
Courseware
Learning Systems
Digital Learning
Lifelong Learning

A player in industry and government

Festo proudly looks back on almost 100 years of successful business and has become a prestigious leader in automation technology and technical education. Due to its genius, Festo is active member of the Industry 4.0 Research Advisory Board of the Federal Government's Plattform Industry 4.0. In this strategic body, Festo contributes to researching ways to improve industrial manufacturing. Festo Didactic, the education division, pays particular attention to qualification solutions for networked and ecologically sustainable production.

SUSTAINABLE DEVELOPMENT GOALS



Dr. Oliver Niese,
Member of the Management Board,
Festo Didactic SE



Learn more
about the
commitment
of Festo



WorldSkills Kazan 2019

At the 2019 event, the skill Water Technology entered the competition for the first time as an official skill. Festo Didactic, an early adopter of Water Technology education and training, let the charge for its implementation.



Presented by
SAMSUNG

WorldSkills Competition 2022 Special Edition

Three years later, 7 young talents competed at the Special Edition in Stuttgart, Germany. Water Technology plays an important role by fostering green skills.

WorldSkills Lyon 2024

The skill Water Technology has become an indispensable discipline in the recent years. Just as environmental challenges are growing, Festo embraces sustainable solutions such as water purification and energy management. The young participants will be demonstrating their professional excellence on state-of-the-art competition equipment made by Festo Didactic.



Experience the exciting
atmosphere of the
WorldSkills Competition
2022 Special Edition



Water Technology needs Qualified Professionals

Investing in education is a contribution to sustainability

Due to climate change, drought periods, and floods, it is evident that professionals in the field of water management are in higher demand than ever before.

Clean Water for a Sustainable Future
In nature, access to clean water taken directly from nature is not guaranteed. Returning wastewater to nature safely requires an upstream purification process. This is where sophisticated process engineering and analysis is needed.

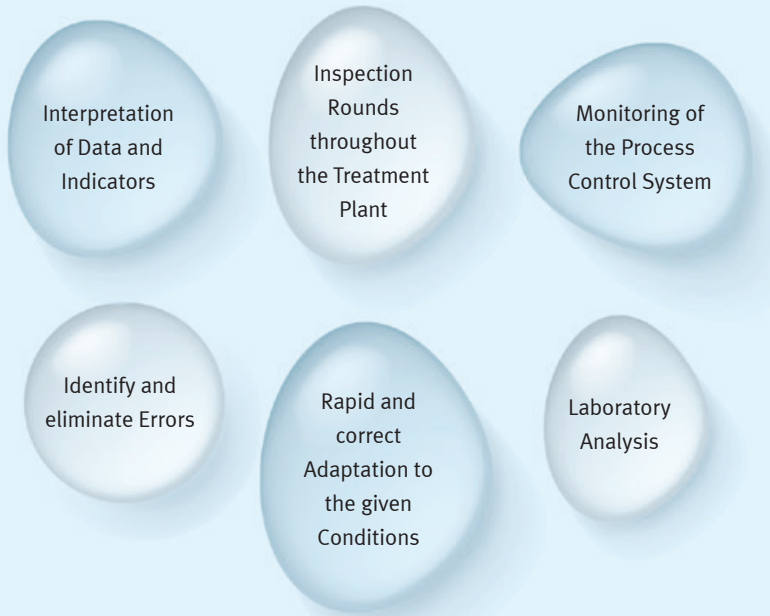
Festo takes responsibility for protecting the environment. That is why technical education and training play an important role in our efforts to contribute to a sustainable future.

Water and wastewater technicians require not only technical expertise but also strong business administration knowledge. These diverse skills are essential for ensuring efficient and sustainable operations. The Environmental Discovery System EDS is a learning and research platform teaching the relevant competences.

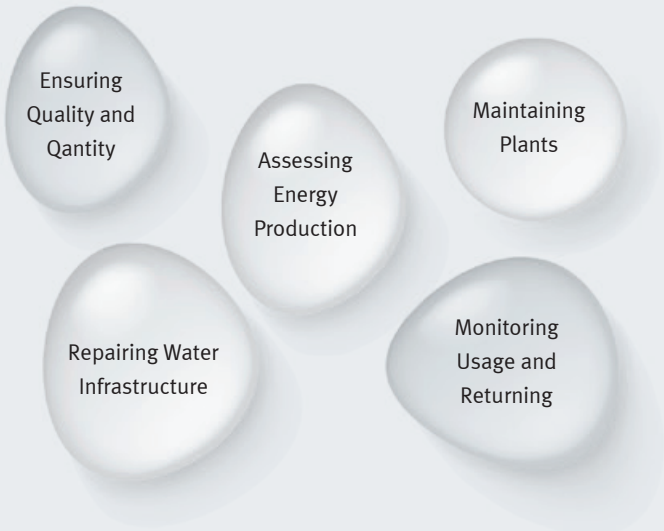


Download the WorldSkills Lyon 2024 brochure ‘Skill 55 Water Technology’

Tasks in a Water Treatment Plant



Competencies of Water Technicians



Learn more about the skill # 55 Water Technology at WorldSkills Lyon 2024

Official WorldSkills Competition Equipment: The Environmental Discovery System EDS

From the component to the model plant. Modular set-up ensures easy learning

The EDS Water Management system with its industry-related components is the result of years of development. It is aligned with WorldSkills standards and represents the ideal learning solution to preparing candidates for the real world challenges of Skill #55 Water Technology and beyond - for real-world industry requirements. An open hardware architecture gives the learners the freedom to create their own design and process. This feature optimizes long-term use of the training system to prepare countless well-qualified young people.

Wastewater Purification Station



One of eight stations of the Environmental Discovery System EDS. At this station, young professionals learn how to deal with water purification and the corresponding processes. Learning fields include these tasks:

- Controlling, regulating and monitoring physical variables such as levels, flows and pressure
- Technical/physical functions of sensors and actuators as well as wiring, adjustment and parameterization
- Analyzing controlled systems, parameterizing and optimizing regulators
- System operation, maintenance, troubleshooting and repair
- Plant engineering
- Optimization and energy monitoring
- Electronic data processing



For the commercial offer and more details on the EDS WorldSkills equipment, please scan the QR code

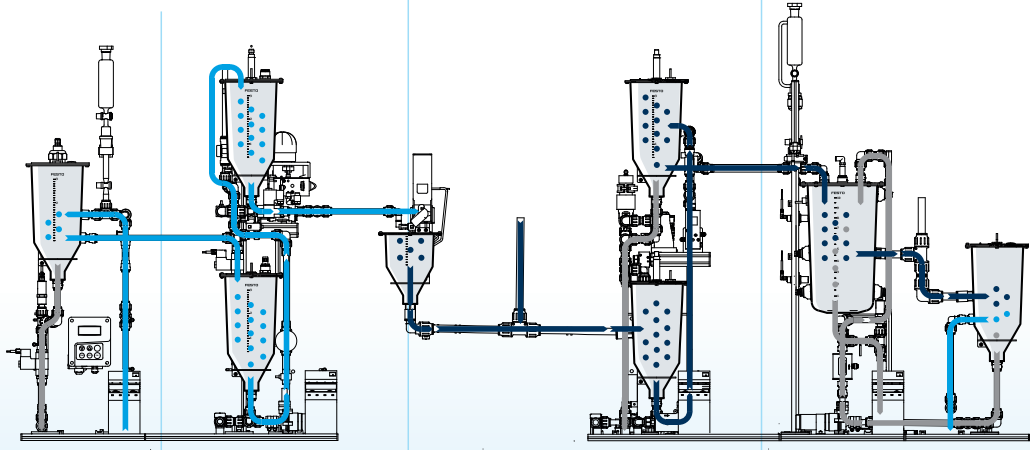
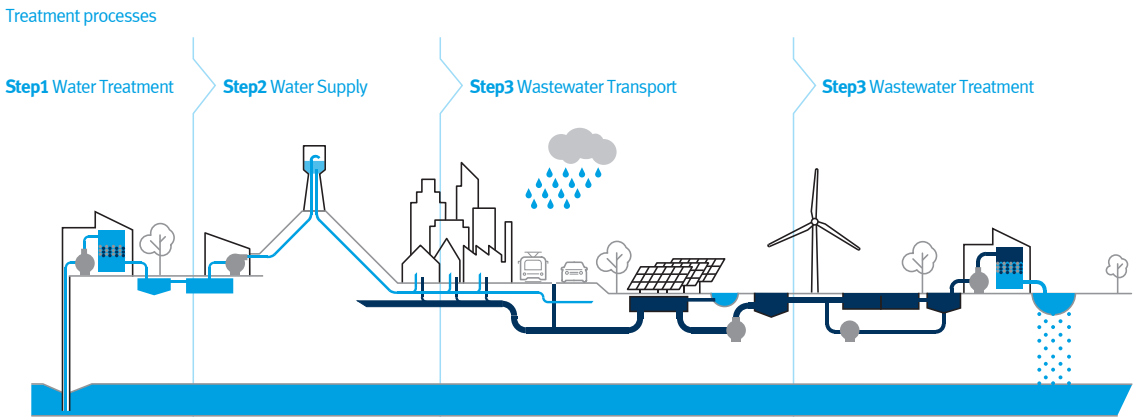


Learn more on our online portal
Festo Learning Experience



Discover the Water Circuit

From function to process understanding - large-scale technology made tangible on a laboratory scale



Water Pump Station



The Water Pump Station is the heartbeat of every process plant. The station offers a screw-drive pump, a pneumatically driven gate valve and a butterfly valve, similar to large scale process plants.

For training purposes in maintenance, work safety, and energy efficiency in water technology and process automation. Its design is based on real water management systems, i.e. pump systems below the water basins.

EduKit PA



EduKit PA - unpack and go: An experimental kit that teaches step by step how to reconstruct plants and automate engineering processes.

The modular EduKit PA offers a simple and safe introduction to process and control engineering. It is mobile and practical in use. The importance of closed-loop control is steadily increasing in all areas, as it can save energy and natural resources. On the way to efficient production, individual steps and processes are planned and verified.

Technical Qualification and Innovation for Water Technology

Skilled professionals are key for environmental protection



Picture source: Festo

Master skills in Water Technology

Governments and local authorities are in charge of providing clean water to people and industry. To meet this goal, the technical qualifications of young people are vital for building a sustainable future.

Festo cares about the environment and assumes corporate educational responsibility. Qualifying the next generation is our passion. The small-scale model plant EDS was especially designed for vocational training in water management.

“Due to environmental pollution, clean water is no longer accessible to the global population without the use of technology. Education is key for a sustainable future”



Liu Qishan,
Skill Competition Manager
Water Technology at WorldSkills



For more information on the WorldSkills Lyon 2024 Water Technology learning solution, please contact your local Festo sales office or our HQ.

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