

DWA Worldwide

International DWA Activities



Clear concepts. Clean environment.

Shaping the future with DWA.

The German Association for Water, Wastewater and Waste is the technical-scientific professional association which brings together the specialists and managers of the water and waste management sector from municipalities, universities, engineering offices, government agencies and companies under one roof. DWA formulates technical standards, contributes to standardization work, supports research, promotes training and further training, and advises politics, science and the economy. DWA was established in 1948. It is nationally and internationally active.

International activities of DWA

- Exchange of experts in the International Forum
- International delegations from abroad/cooperation workshops
- Seminars in English for participants from abroad
- DWA committees and working groups
- Young Scientists' and Professionals' Programme for the promotion of the young international engineering talent
- International skills competitions
- Worldwide specialist advice with the build-up of national water associations
- Engagement in international associations and institutions
- Translations of the DWA Set of Rules and Standards
- Support of international fairs





Contributions of the DWA to the Agenda 2030

In its mission statement, the DWA pledges itself to responsibility for clean water, intact soil and pure air, so as to maintain a healthy environment for future generations. Its members, be they universities, engineering offices, companies or personal DWA members, are committed to this mission statement and work to achieve sustainability.

Universities research and develop new technologies and assessment approaches which are adapted to the context. Engineering offices plan and advise state institutions, councils and municipalities around the world. Companies supply components, systems and know-how. The intensive professional exchange, the DWA set of rules, the training offers and the national and international association network are fundamental building blocks for achieving the UN's water goal (SDG 6). And not just at home - their work also radiates far beyond Germany.

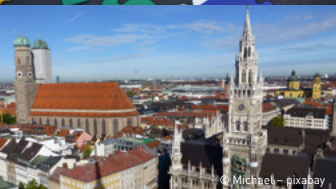


Visit DWA at the international IFAT editions!

DWA participates in IFAT trade fairs worldwide with a diverse program. Firstly, expert lectures within the Technical Scientific Conference. Secondly, Products in Practice (PiP) sessions, which provide a perfect mix of theoretical knowledge and on-site live demonstrations by different companies. Furthermore,



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IFAT Africa

IFAT Africa takes place every two years in Johannesburg.

dwa.de/ifat-africa

IFAT Munich

IFAT Munich takes place every two years in Munich.

dwa.de/ifat-en

IFAT Eurasia

IFAT Eurasia takes place every two years in Istanbul.

dwa.de/ifat-eurasia



in order to support the international engineers of tomorrow, DWA implemented the UNIVERSITY CHALLENGES and WATER SKILLS. Lastly, DWA helps represent the German water sector on behalf of the Federal Ministry for Economic Affairs and Energy at the German Pavilion.

IE expo China

IE expo China takes place every year in Shanghai.

dwa.de/ie-expo



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IFAT Munich is the World's Leading Trade Fair for Water, Sewage, Waste and Raw Materials Management



© Alex Fetting

IFAT India

IFAT India takes place every year in Mumbai.

dwa.de/ifat-india



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To find out more about international DWA-activities and offers,
please go to: en.dwa.de
or reach out to international@dwa.de



WATER SKILLS

The established concept of the DWA competition of professions, which takes place at IFAT Munich since 2010, was expanded and now takes place with a new name on an international level. With the launch of the competition at IFAT India in 2017 and its new name "WATER SKILLS", DWA began to bring its competitions to international platforms, thus promoting the profession of the specialist in water technology worldwide.

It is important to promote the trade „wastewater technology expert“, in order to win and inspire young and clever potential staff.

The day-to-day activities of sewage experts are not very familiar to the general public. Safety and health protection are of high importance and DWA strongly supports the strict follow-up of safety and health procedures.

Since 2010, the WATER SKILLS GERMANY, the competition for trainees of the vocational training Sewage Engineering Technician takes place.



Further information: dwa.de/water-skills-en

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WORLDSKILLS – SKILL “WATER TECHNOLOGY”

Improving the World with the Power of Skills

WorldSkills showcase the value of skills and increases the recognition of skilled professionals worldwide. The competition is held every other year and is the biggest vocational education and skills excellence event in the world, reflecting the global industry.

The competitors represent the best of their peers and are selected from skill competitions in WorldSkills member countries and regions. They are all under the age of 23 years (with small exceptions). They demonstrate technical abilities, both individually and collectively, to execute specific tasks for which they study and/or perform in their workplace. During the skill Water Technology, the daily work of a sewage engineering technician and water supply engineering technician is being demonstrated.

Each competitor has its own “water office”, in which the following tasks need to be completed:

- process control work and documentation
- sampling and lab work
- workshop and outdoor work

DWA is member of WorldSkills Germany and official skills mentor for the Skill #55 Water Technology.

Supported by: DWA · FESTO · ADIRO · Hach · WATER SKILLS GERMANY



Further information: dwa.de/worldskills-en

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UNIVERSITY CHALLENGE

It is important to support the international engineers of tomorrow. Qualified youngsters should be connected with experts and decision-makers of relevant companies.

To help support this, DWA offers the UNIVERSITY CHALLENGES. During the competition, young talents have the chance to compete against students from other universities and apply their skills. The challenges take place globally at various IFAT trade fairs.

It was first executed in 2015 in Shanghai (China) and Mumbai (India), shortly followed by Munich (Germany) in 2016. In 2017, the first UNIVERSITY CHALLENGE took place in IFAT Eurasia and Africa. Since that time students teams from all over the world compete every 2 years for the WORLD UNIVERSITY CHALLENGE at IFAT Munich. Patron is the German Academic Exchange Service (DAAD).

The winning teams will be invited to this event with the support of the Wilo Foundation.



Further information: dwa.de/university-challenge
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THE GERMAN WATER SECTOR – LEARN FROM EXPERIENCE

The German water sector is very progressive and its current state of research and learnings can well be adapted to the water industry worldwide. In order to help experts to get a full understanding of its setup, with all its complexity in structure, laws, facts and figures, stakeholders, as well as the administrative setup, DWA implemented the seminar "Introduction to the German Water Sector - Learn from Experience", which takes place twice per year. Next to the overall information on the German water sector, the seminar in summer focusses on river basin management, whereas the winter seminar deals with water supply and wastewater management in particular. The presentation language is English.



Further information: dwa.de/gws

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DIGITAL LEARNING

Brainyoo

■ Pumps and pumping stations

Self-learning material with nearly 200 questions and answers on pumps and pumping stations, the maintenance of pumps, as well as health and safety in pumping stations

■ Fit in Wastewater Technology?

Self-learning material with more than 400 questions dealing with municipal sewerage, private sewerage, sewerage systems, wastewater treatment plants, biological wastewater treatment, mechanical wastewater treatment, sludge treatment, small sewage works and water bodies

dwa.de/dwalearning-apps

E-Learning

Self-learning is an important addition to the DWA educational offers. Therefore, check out the 6 training modules à 30 hours on the work platform UNITRACC. All classes provide self-regulated learning with tutorial support for a period of four weeks time.

dwa.de/e-learning-en

Learning Laboratory

In the DWA Learning Lab, we keep the necessary technology on hand to introduce our members and other interested parties to the possibilities of digital education in water management. In addition, they will learn about application examples of virtual and augmented reality in education and training.

dwa.de/laboratory

Further information:

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DWA PUBLICATIONS

Set of Rules

DWA experts formulate new findings as well as proven technical procedures in standards and guidelines and thus make an important contribution to the protection of the environment and material goods. They transform legal requirements into practical recommendations for action. Since 1956, more than 16,000 pages of knowledge were written down.

More information on: <https://en.dwa.de/en/dwa-set-of-rules.html>

Journals, software, books

The journals *KA – Korrespondenz Abwasser* and *KW – Korrespondenz Wasserwirtschaft*, software for the application of technical rules, specialist books, summary reports, dictionaries and brochures provide target-group-specific information and support engineers, operating staff and municipalities in their everyday work.

KA International Special Edition

Every two years DWA publishes a International Special Edition of *KA Korrespondenz Abwasser, Abfall*.

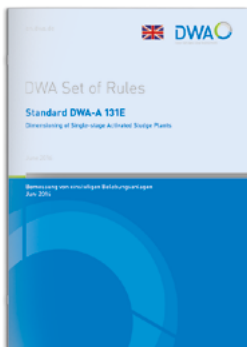
You can download it for free, please visit: dwa.de/journals



Standard DWA-A 131 E

Dimensioning of Single-stage Activated Sludge Plants

Using the dimensioning values recommended in this Standard, the minimum requirements for municipal wastewater with single-stage activated sludge plants can be met or bettered at national level. In contrast to earlier editions, in which the dimensioning procedure for nitrifying and denitrifying activated sludge plants was based on the measured BOD5 load, the design is now based exclusively on the COD load. Standard DWA-A 131 deals not only with the description of the process, the design procedure and the design bases, but also with the calculation of the mass of the sludge and the design of the secondary treatment and sludge activation. In addition, planning and operational aspects are dealt with and the possibility of simulation, e.g. scenario comparisons or the consideration and quantification of the effect of further automation functions and operational management concepts, are explained. The Standard is aimed at operators of wastewater treatment plants, planning engineers and approving authorities.



June 2016 (translation May 2022), 40 pages, A4,
ISBN Print: 978-3-96862-236-1
ISBN E-Book: 978-3-96862-237-8

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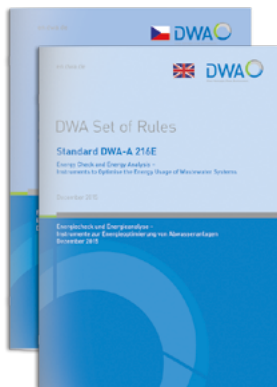


Standard DWA-A 216

Energy Check and Energy Analysis - Instruments to Optimise the Energy Usage of Wastewater Systems

Wastewater treatment is one of the largest energy consumers in a municipality. The results of energy analysis conducted show great potential for increasing energy efficiency of wastewater systems. In view of the complex process sequences in wastewater disposal, a systematic approach and extensive expertise is necessary with regard to the energy optimisation of wastewater systems. There is no standard nationwide methodology to evaluate the energy efficiency of wastewater systems to date.

This Standard introduces the energy check and energy analysis as instruments for energy optimisation of wastewater systems and formulates requirements for their execution. The scope of application covers wastewater treatment plants and wastewater collecting.



**December 2015 (translation June 2022), 66 pages, A4,
ISBN E-Book: 978-3-96862-524-9
(only available as E-Book)**

Available in English and Czech

For further information **or to place an order, please visit**
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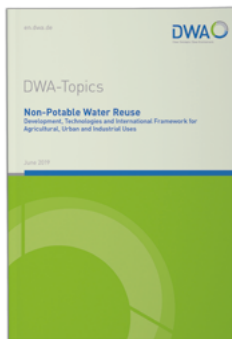


DWA Topics

Non-Potable Water Reuse – Development, Technologies and International Framework for Agricultural, Urban and Industrial Uses

The report provides an overview regarding relevant regulations and guidelines of water reuse, continues to describe the various aspects of risk management involved in water reuse, and also highlights the various technologies that are applied for water reuse. It does not provide numerical recommendations, which must be derived from site and country specific conditions and assessments.

The report is structured into ten chapters, covering the relevance of water reuse, regulations and compliance, development of water reuse projects, health risk management, socio-cultural aspects and public perception, ecological and agricultural aspects, energy requirements, economics, as well as an assessment matrix regarding various treatment processes. An additional compilation of case studies provides valuable experiences from full-scale water reuse projects in the Middle East, Africa, China, Central and South America, and Europe.



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ISBN E-Book: 978-3-88721-835-5**

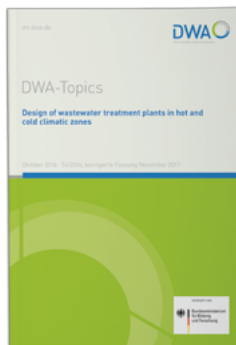
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DWA Topics

Design of wastewater treatment plants in hot and cold climates

The design of wastewater treatment plants under deviating wastewater and climatic conditions in other countries requires an internationally applicable approach. Target regions of this topic are hot and cold climates, frequently comprising developing, emerging and transition economies. Apart from the extension and adaptation of the design specifications to the special conditions in an international context, the design algorithms in this topic were all converted for the treatment target of carbon reduction to the chemical oxygen uptake (COD) which, among others, allows the balancing of sludge formation. Additionally, practicable model computations were compiled for all processes.



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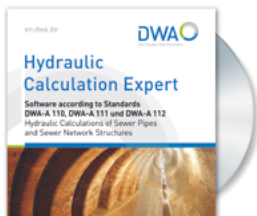
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Software

Hydraulics Expert – Hydraulic Calculation of Sewer Pipes and Sewer Network Structures to DWA-A 110, DWA-A 111, DWA-A 112

The consequent application of the dimensioning principles laid down in the German standards DWA-A 110, -A 111 and -A 112, aid the production of operationally suitable systems and, with this, the minimisation of subsequent costs. In this regard the DWA software Hydraulics Expert is your best professional assistance.



Your benefits at a glance:

- rule-compliant results
- technically up-to-date (Windows 7)
- safety by automatic field checks
- secure and efficient calculation
- detailed reports

Version Professional

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Software

Activated Sludge Expert with Aeration - Software based on Standard DWA-A 131

Activated Sludge Expert is a program for the design and recalculation of single-stage activated sludge plants in accordance with the German Standard DWA-A 131 "Dimensioning of Single-Stage Activated Sludge Plants". In contrast to earlier editions, in which the dimensioning procedure for nitrifying and denitrifying activated sludge plants was based on the measured BOD5 load, the design is now based exclusively on the COD load.

The extended version of the software also includes the calculation of diffused aeration in accordance with the Guideline DWA-M 229.



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QR-CODE WASTEWATER TECHNOLOGY

Up-to-date training and information at the wastewater treatment plant

The "QR-Code Wastewater technology" is your entry into the world of digital information about a wastewater treatment plant. The smartphone is increasingly used by young and old alike and finds its way into daily business. So why not retrieve important information about your own workplace? Why not give trainees the opportunity to learn independently? Use this product as a living encyclopaedia of knowledge at your wastewater treatment plant.

More information on:
<https://en.dwa.de/en/qr-code-wastewater-technology.html>

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Modular Wastewater Training System

International Edition

For teachers, trainers and students as well as operational staff:

63 magnetic picture cards to quickly and easily reconstruct all important stages of wastewater treatment. Train and test your knowledge with this comprehensive training system and get access to the DWA product platform which contains further information such as video tutorials, 360° videos for exercises with VR glasses and the list of heading terms in further languages.

Your training system includes

- 63 Magnetic picture cards
- 1 Workbook "Fit in Wastewater Technology?"
- 2 Flashcard sets
- 5 Whiteboard markers
- Permanent marker
- Transport case
- User Manual



More information on:
<https://en.dwa.de/en/modular-wastewater-training-system.html>

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