

DEHOUST

**Heat.
Energy·Water.**

STORAGE & UTILIZATION

**Storing liquids
Protect drinking water
Save energy**

Andreas Bichler
CEO Dehoust GmbH
May 2025



Who we are

Over 65 years of experience and expertise in tank and plant construction

- Established in 1958 with the core focus on tank (steel and plastic) and pressure vessel manufacturing
- Family-owned Mid size SME with ~170 employees
- For more then 25 years focused on decentralized water management systems (rainwater harvesting, grey water recycling and industrial water systems)
- 3 Production sites in Germany (Leimen, Heidenau and Nienburg)
- 1 Service Station in Germany (Eitorf)
- Service Partners and Distributors in 16 countries around the globe



Our product range

Our product areas

DOUBLE-WALLED
FUEL OIL TANKS
AND DE-A-01

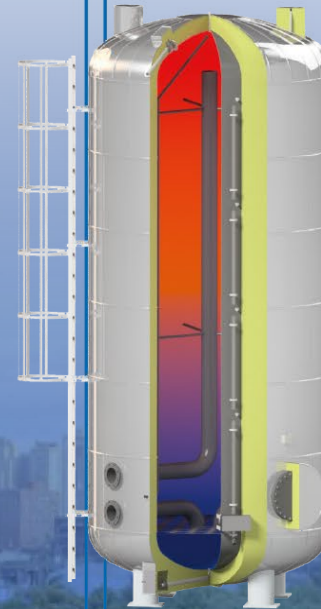
PLASTIC TANKS
FOR WATER,
ADBLUE®,
CONCRETE
ADMIXTURES, ETC.

BUFFER TANKS
FOR HEAT AND
COLD STORAGE

STEEL STORAGE
TANKS AND
PRESSURE
VESSELS

SEPARATION
STATIONS,
RAIN WATER
UTILIZATION,
GREY WATER
UTILIZATION

STORAGE AND
COLLECTION
TANKS



Storage Tanks

- From 570 to 4,000 liters, plastic storage tanks offer the ideal solution for almost every application.
- Process water, splash water in swimming pools, industrial wastewater, fire fighting water, cooling water, rainwater and gray water, Ad Blue, lubricating oils and hydraulic oil and concrete admixtures are just a few examples.
- The tanks are quickly and easily connected to tank batteries with the lower connection line. HD-PE is food-safe and chemical-resistant.
- Used HD-PE material is physiologically harmless and the tanks comply with regulations for the usage in potable water, agricultural and industrial areas.



Greywater Recycling



Greywater is wastewater from the bathtub, shower, washbasin, washing machine and sometimes from the kitchen, which is used as hygienically pure process water after treatment with our biological/mechanical processes.

The recycled water (Service water) is used for toilet flushing, washing machines, irrigation, car wash and floor cleaning.

Greywater recycling offers a wide range of applications: from single-family houses to apartment buildings, from hotels and dormitories to sports facilities, fitness centers, laundries and car wash stations.

The reuse of greywater reduces drinking water consumption and subsequent wastewater charges by up to 60%. This dual use of drinking water conserves valuable water reserves and reduces wastewater pollution.

With over 25 years of experience in the treatment and processing of greywater, Dehoust can call itself one of the pioneers in the industry. Our customers benefit from the most efficient technology currently available on the market.



**Recycle Greywater
for a Greener Future**

Greywater Recycling – Heat recovery



Another important benefit of greywater treatment is heat-recovery from process water.

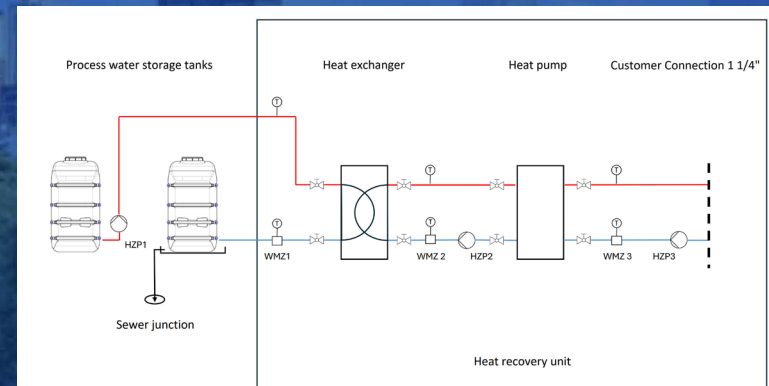
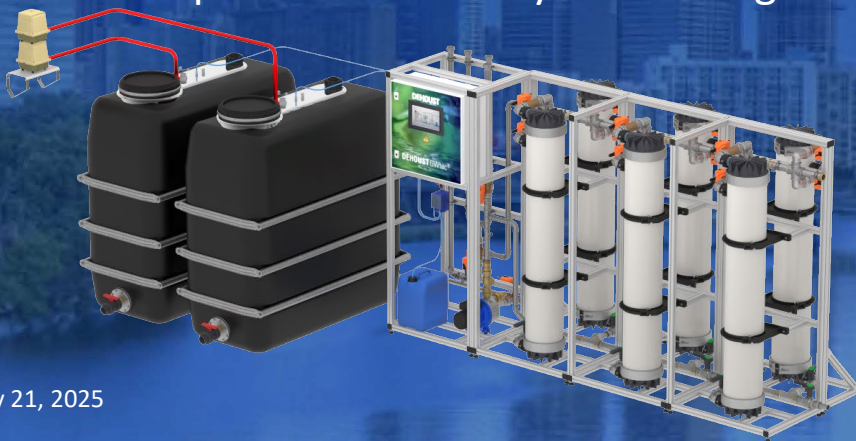
This process not only saves drinking water, but also reuses the heat already generated in an environmentally friendly way.

After the treatment process, the heat contained in greywater is extracted from the process water using a highly efficient heat recovery pump and fed into the hot water circuit of the building supply.

Savings on energy costs up to 40% are possible!

GWtec® WRG advantages

- Can be used with DEHOUST GWtec® and GWtec® WBS greywater treatment systems
- Energy-efficient technology
- Fully automatic operation and real-time access to all parameters thanks to integration in the GWtec® control system
- Evaluation and provision of relevant operating data
- Modular system concept for individual system configuration depending on project requirements



Digital Services

DEHOUST CONNECT

... means for us that you are in permanent contact with your system and can view the operating status from anywhere.

Benefit from the full scope of services of your Dehoust system. All data communication is optimally protected against unauthorized access and only runs via the company's own DehoustCONNECT server.

- Live monitoring and maintenance as if you were standing in front of the system
- View and change operating parameters to optimize performance
- The history of the system is permanently recorded
- Automatic software updates
- Immediate information in the event of possible faults through alarm messages by email and/or SMS
- Remote diagnosis by our customer service team in the event of problems
- Support during commissioning by customer service with the set parameters

This service is free of charge for you and always keeps you up to date.


Clarity and clarity: interactive visualizations that allow you to identify trends, patterns and anomalies at a glance.



Engineering Services

DEHOUST engineers support customers and planners to design the layout of the Greywater systems to ensure proper fit and to avoid any kind of difficulties during installation, commissioning and operation.

Design programs, energy-, layout-, heat recovery- & ROI calculations and as well supporting documents are available.

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<h2>Feasibility study Watermanager</h2>																							
<p>Project:</p> <p>Projectname:</p> <p>Date:</p> <p>Agent:</p>																							
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Annual saving on potable water price/sewage charge	€	251,85																					
Approximate payback period without further subvention		0																					
<p>Note: For the total cost of the investment, the installation costs you have estimated have to be taken into account.</p>																							

Greywater - Recycling
Use Drinking water twice and protect resources

DEHOUST

Planning results Greywater usage

General Information

Project name:	Model calculation Gwtec 140
Project number:	
Building type:	Residential house

Determined Greywater yield

50 × Shower	100 Persons	×	6 min/Person	×	8 liters/min	=	4.800 liters per day
10 × Bathroom	10 Persons	×	1 Bathing cycles/Person	×	150 liters/Person	=	1.500 liters per day
50 × Hand wash basin	100 Persons	×	3 min/Person	×	5 liters/min	=	1.500 liters per day
					Gesamt	=	7.800 liters per day

Determined wastewater requirement

50 × WC cistern	100 Persons	×	5 Flushes/Person/Day	×	6 liters/Flushing	=	3.000 liters per day
10 × Urinal	10 Persons	×	1 Flushes/Person/Day	×	7 liters/Flushing	=	120 liters per day
50 × Washing machine	100 Persons	×	25 Washing cycles/Day	×	30 liters/Washing cycle	=	7500 liters per day
Irrigation	200 m ²	×		×	5 liters/m ² /Day	=	1.000 liters per day
Cleaning	6 m ²	×		×	3 liters/m ² /Day	=	18 liters per day
					Gesamt	=	6.870 liters per day

*Values in dependence on EN 16941-2 and DWA M277

Determined daily treatment performance

Treatment performance	4.870 liters per day
Greywater storage volume (recommended)**	3.653 liters (75% of daily output)
Preprocessor storage volume (recommended)**	3.653 liters (75% of daily output)

**per continuous yield and consumption

Selected equipment type

Dehoust GWtec® 140

Heat recovery from the process water tank

(1 kg (1l) water 20° → 3° = 1,16 kWh)

Calculation based on determined operating water requirement:

Input: water recirculation 30% (usually in summer water at 14°)
 Output: water recirculation 30% (usually in summer water at 14°)
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 Output: water recirculation 30% (usually in summer water at 14°)

Energy generation:

4870 kWh	× 15 × 1,16 =	84,74 kWh/h	=	3,552 kWh/h
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Rec. nominal heat pump output

6 kW

Installation location

A dry, frost-free and well-ventilated room must be provided as the installation location.
 Underground storage of service water eventually in combination with rainwater is possible.

Comments

www.dehoust.de

Greywater - Recycling
Use Drinking water twice and protect resources

DEHOUST

Planning results Greywater usage

General Information

Project name:	Model calculation Greytec 660
Project number:	
Building type:	Residential house

Determined greywater yield

300 x Shower	600 Persons	x	6 min/Person	x	6 liters/min	=	26.800 liters per day
60 x Bathub	300 Persons	x	1 Bathing cycles/Person	x	130 liters/Person	=	1.900 liters per day
300 x Hand wash basin	600 Persons	x	3 min/Person	x	5 liters/min	=	1.500 liters per day
Gesamt							43.700 liters per day

Determined processwater requirement

300 x WC-cistern	600 Persons	x	5 Flushes/Person/Day	x	6 liters/flushing	=	15.500 liters per day
60 x Urinal	120 Persons	x	3 flushes/Person/Day	x	2 liters/flushing	=	720 liters per day
150 x Washing machine	300	x	150 Washing cycle/Day	x	30 liters/washing cycle	=	4.500 liters per day
Irrigation	2000 m ²	x		x	2 liters/m ² /Day	=	4.000 liters per day
Cleaning	0 m ²	x		x	1 liters/m ² /Day	=	-
Gesamt							26.720 liters per day

*values in dependence on EN 16941-2 and DWA M277

Determined daily treatment performance

Treatment performance	26.720	liters per day
Greywater storage volume (recommended)**	21.540	liters (75% of daily output)
Processwater storage volumes (recommended)**	21.540	liters (75% of daily output)

** see continuous start and consumption

Selected equipment type

Dehoust GWtec® 640

Heat recovery from the process water tank

(1 kg (31,2 water 33°) → 9° = 1,36 kWh)

Calculation based on determined operating water requirement:

Assumption: water temperature 20°C (according to experience rather up to 20°C)
(Daily losses in 2° gradient, condensation ignored) = difference 12°C

Energy generation:

28732 kJd x 13 x 1,16 = 409,7 kWh/d = 20,52 kWh/h

Rec. nominal heat pump output

17 kW

Installation location

A dry, frost-free and ventilated technical room must be provided as the installation location. Underground storage of service water eventually in combination with rainwater is possible.

Comments

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Greywater treatment with heat recovery



Whitepaper

DEHOUST
ENERGY. HEAT. WATER.

Our Partner Network

To ensure providing reliable and quick service for our customers, DEHOUST has build up a service and distributing network in actual 16 countries around the globe with continues expansion

The focus of the Dehoust partner network is the promotion of in-country value. We train our partners' employees in Germany and locally and further support them with ongoing training.

Cooperation with local schools, universities, testing laboratories and authorities is also an important concern for our company.

Dehoust provides opportunities for internships in Germany.

....and much more to come....

One thing can already be revealed at this point - developments at Dehoust are in full swing and in the coming months the range of systems in decentralized water management will be expanded to become a full-service provider.

Further areas of application:

- Black-water
- Brackish-water
- Fresh-water
- Salt-water

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Thank you for your attention!

Andreas Bichler
CEO Dehoust GmbH

