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

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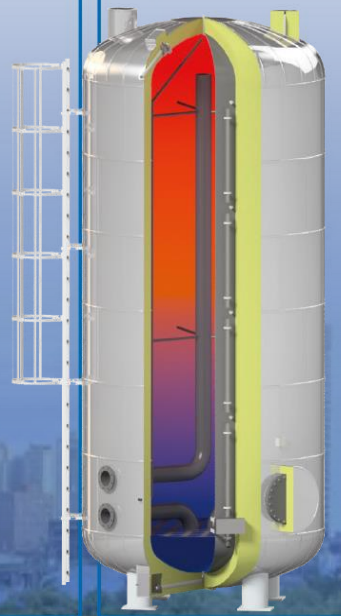
Our product range

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, GREYWATER UTILIZATION	STORAGE AND COLLECTION TANKS



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Greywater Recycling

THE GLOBAL GOALS
For Sustainable Development

6 CLEAN WATER AND SANITATION
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION

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.

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Greywater Recycling – Heat recovery

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

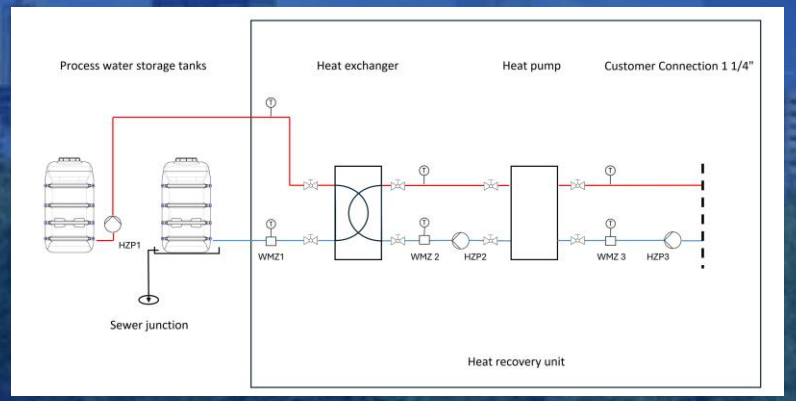
This process not only saves drinking water, but also reuses the heat already generated in an environmentally friendly way.

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.

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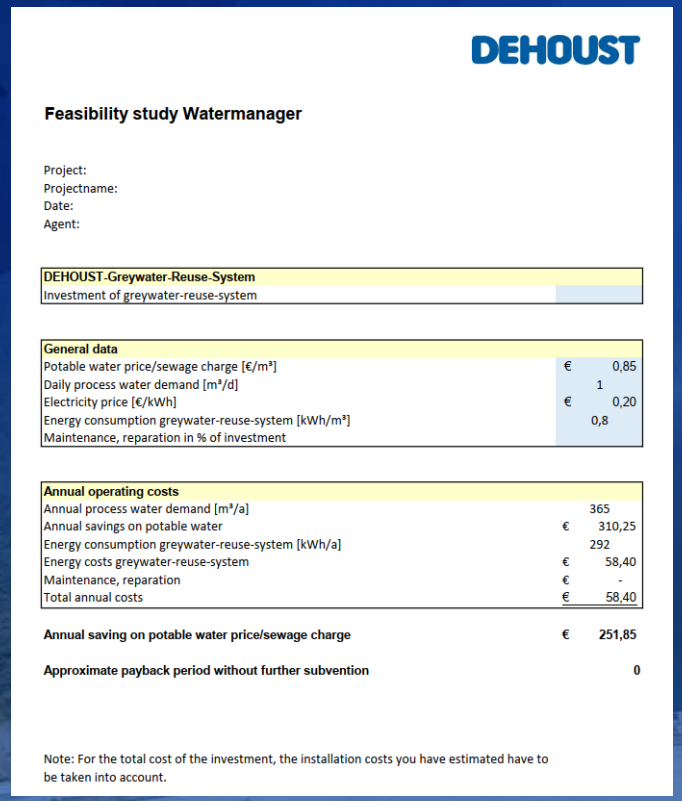
Engineering Services

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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Feasibility study Watermanager

Project:
Projectname:
Date:
Agent:

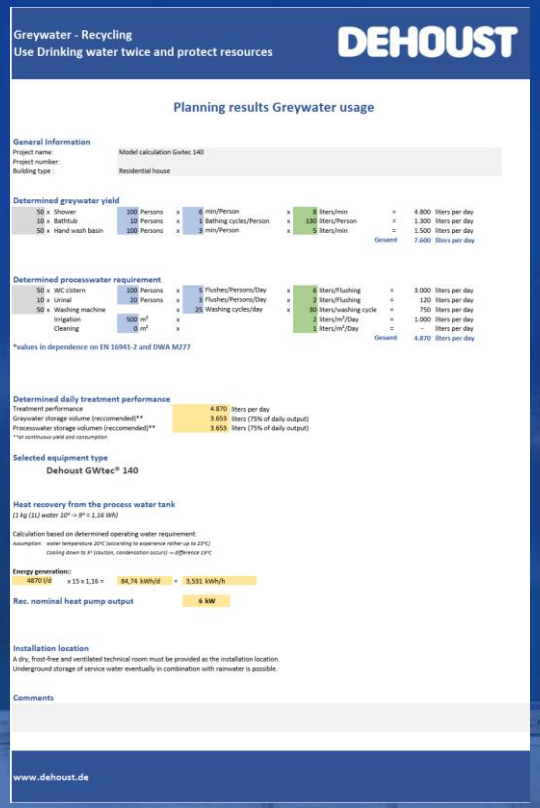
DEHOUST-Greywater-Reuse-System	
Investment of greywater-reuse-system	

General data		
Potable water price/sewage charge [€/m³]	€	0,85
Daily process water demand [m³/d]		1
Electricity price [€/kWh]	€	0,20
Energy consumption greywater-reuse-system [kWh/m³]		0,8
Maintenance, reparation in % of investment		

Annual operating costs		
Annual process water demand [m³/a]		365
Annual savings on potable water	€	310,25
Energy consumption greywater-reuse-system [kWh/a]		292
Energy costs greywater-reuse-system	€	58,40
Maintenance, reparation	€	-
Total annual costs	€	58,40

Annual saving on potable water price/sewage charge	**€**	**251,85**
Approximate payback period without further subvention		**0**

Note: For the total cost of the investment, the installation costs you have estimated have to be taken into account.



Greywater - Recycling
Use Drinking water twice and protect resources

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Planning results Greywater usage

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

Determined greywater yield

50 x Shower	100 Persons	x	6 min/Person	x	8 liters/min	=	4.800	liters per day
10 x Bathtub	10 Persons	x	1 Bathing cycles/Person	x	130 liters/Person	=	1.300	liters per day
50 x Hand wash basin	100 Persons	x	3 min/Person	x	5 liters/min	=	1.500	liters per day
						Gesamt	7.600	liters per day

Determined processwater requirement

50 x WC cistern	100 Persons	x	5 Flushes/Persons/Day	x	6 liters/Flushing	=	3.000	liters per day
10 x Urinal	20 Persons	x	3 Flushes/Persons/Day	x	2 liters/Flushing	=	120	liters per day
50 x Washing machine	-	x	25 Washing cycles/day	x	30 liters/washing cycle	=	750	liters per day
Irrigation	500 m²	x			2 liters/m²/Day	=	1.000	liters per day
Cleaning	0 m²	x			1 liters/m²/Day	=	-	liters per day
						Gesamt	4.870	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 (reccomended)**	3.653 liters (75% of daily output)
Processwater storage volumen (reccomended)**	3.653 liters (75% of daily output)

**1st continuous yield and consumption

Selected equipment type
Dehoust GWtec® 140

Heat recovery from the process water tank
(1 kg (1L) water 10° -> 9° = 1,16 Wh)

Calculation based on determined operating water requirement:
Assumption: water temperature 20°C (according to experience rather up to 23°C)
Cooling down to 8° (caution, condensation occurs) -> difference 13°C

Energy generation::
4870 l/d x 15 x 1,16 = 84,74 kWh/d = 3,531 kWh/h

Rec. nominal heat pump output 6 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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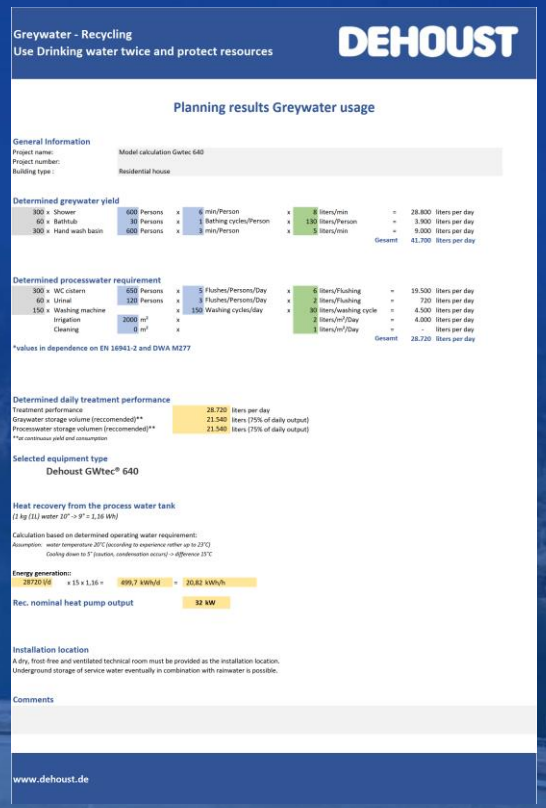

Greywater - Recycling
Use Drinking water twice and protect resources

DEHOUST

Planning results Greywater usage

General Information
Project name: Model calculation Gwtec 640
Project number:
Building type : Residential house

Determined greywater yield

300 x Shower	600 Persons	x	6 min/Person	x	8 liters/min	=	28.800	liters per day
60 x Bathtub	30 Persons	x	1 Bathing cycles/Person	x	130 liters/Person	=	3.900	liters per day
300 x Hand wash basin	600 Persons	x	3 min/Person	x	5 liters/min	=	9.000	liters per day
						Gesamt	41.700	liters per day

Determined processwater requirement

300 x WC cistern	650 Persons	x	5 Flushes/Persons/Day	x	6 liters/Flushing	=	19.500	liters per day
60 x Urinal	120 Persons	x	3 Flushes/Persons/Day	x	2 liters/Flushing	=	720	liters per day
150 x Washing machine	-	x	150 Washing cycles/day	x	30 liters/washing cycle	=	4.500	liters per day
Irrigation	2000 m²	x			2 liters/m²/Day	=	4.000	liters per day
Cleaning	0 m²	x			1 liters/m²/Day	=	-	liters per day
						Gesamt	28.720	liters per day

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

Determined daily treatment performance

Treatment performance	28.720 liters per day
Greywater storage volume (reccomended)**	21.540 liters (75% of daily output)
Processwater storage volumen (reccomended)**	21.540 liters (75% of daily output)

**1st continuous yield and consumption

Selected equipment type
Dehoust GWtec® 640

Heat recovery from the process water tank
(1 kg (1L) water 10° -> 9° = 1,16 Wh)

Calculation based on determined operating water requirement:
Assumption: water temperature 20°C (according to experience rather up to 23°C)
Cooling down to 5° (caution, condensation occurs) -> difference 15°C

Energy generation::
28720 l/d x 15 x 1,16 = 499,7 kWh/d = 20,82 kWh/h

Rec. nominal heat pump output 32 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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DEHOUST

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.

DEHOUST

….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