

# ROTEX Thermal Stores

a member of **DAIKIN** group

# ROTEX



## Water in Bestform.

The ROTEX **High-Performance thermal store** offers maximum domestic water hygiene and highest service water convenience.



**“When the hot water storage tank had to be replaced, I was amazed how much deposit had collected in the old unit. Our installer obviously became aware of this and recommended us the ROTEX Sanicube. Reliable hygiene thanks to the unique technology immediately convinced me. I can now enjoy every drop again.”**

**Sabine Hiller and family, homeowners**

# Water of the highest quality. With the ROTEX thermal store.

## The first thing we need for foodstuffs is clean water.

Hot and fresh water is indispensable for every household. Whether for showering, bathing, cooking or hand washing. Having hot water available in the desired volume and at the desired temperature is a significant constituent of our modern life. The fact that this water is also hygienic is, of course, a prerequisite. Conventional hot water heaters often fail to meet these requirements today. We have therefore placed special emphasis on water hygiene!

## Unadulterated enjoyment – every day.

The ROTEX thermal store was conceived in accordance with the latest thermal technology and water hygiene requirements. Its structure is fundamentally different from normal large volume hot water storage tanks. As a result of its design concept it delivers hygienically perfect hot water at any time.

## Clear separation – clear advantage.

The ROTEX thermal store is a combination of hot water storage tank and instantaneous water heater. This means that the actual heat is not stored in the domestic water itself, but

in the storage tank water which is clearly separated from it. The optimum tank layering ensures that a supply of hot water is always available.

**The drinking water** is contained in a high-performance heat exchanger made of durable stainless steel (INO<sub>x</sub>). Your drinking water remains perfectly hygienic.

**The storage tank water** is added at commissioning and serves only for thermal storage. It is not exchanged and consumed. The inner and outer walls are impact-resistant polypropylene, the space in-between is filled with highly heat insulating foam. This results in very good heat insulation values and minimum surface losses.

## Variable in use.\*

The heating of the storage tank water, and thus the charging of the storage tank, can take place using various different heat sources:

- With heating water: Boilers, heat pumps or remote heat generate the heat that is introduced via the stainless steel heat exchanger.
- With solar energy: E. g. via the ROTEX Solaris system.
- With an electric immersion heater: The hot water (domestic) is heated by an electric immersion heater made of stainless steel which is immersed in the storage tank water.



## The anti-legionella storage tank.

*The structure of the ROTEX thermal store ensures optimum water hygiene since the water to be heated is carried in a pipe system. Deposits of sludge, rust, sediments and even the generation of dangerous legionella bacteria which can arise in large volume tanks are not possible. The tank temperature of the ROTEX thermal store can be reduced from 60 °C to 50 °C, according to DIN 1988-200.\*\**

\* The right tank model to suit your requirements can be seen in the selection matrix on page 7.

\*\* The amended DIN 1988-200 permits reduction of the tank temperature from 60 °C to 50 °C in central hot water storage tanks with increased water exchange rates (in Germany).



**Unique hygiene and comfort. The thermal store principle.**

*The ROTEX thermal store is a combination of hot water storage tank and instantaneous water heater. The domestic water to be heated is conveyed and heated through a separate high-performance heat exchanger made of stainless steel. Water that is charged first is also the first to be removed (first-in first-out principle). The outstanding water-hygiene advantages have been confirmed by an extensive test undertaken by the Hygiene Institute at the University of Tübingen.*

# Maximum hygiene convenience. Economical, flexible and safe.

## More than just a drop on a hot stone.

**Energy saving:** The improved storage tank and cover insulation made from PU rigid foam reduces the heat losses to an absolute minimum. This protects the environment and your wallet.

**Low scaling:** On commissioning, the storage tank is filled with tap water which is not exchanged during operation. Thus, only the lime contained in this water can be deposited; all the heat exchanger pipes remain free of limescale, as does the electric immersion heater, which is available as an option. On the inner surface of the heat exchanger pipes, the high flow speed when the water is removed releases smaller scale deposits.

**Long-life and safe:** The materials used (plastic and stainless steel) ensure the ROTEX thermal store has a particularly long life and will provide you with hygienic hot water for decades.

## It's better to trust experience.

ROTEX has been making thermal storage tanks for optimum water hygiene for 25 years. The design of the storage tanks has been continuously optimized to ensure that the heated domestic water only stays in the storage tank. This means that neither deposits nor bacteria can arise.

## Your advantages with the ROTEX Sanicube/HybridCube.

### Highest level of efficiency

- Efficient energy saving thanks to full thermal insulation made from PU rigid foam

### Hygiene

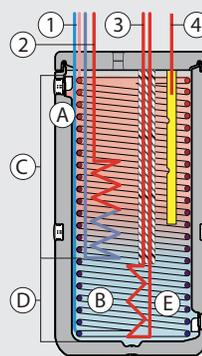
- Highest level of hygiene by the separation of the storage tank water from the domestic water
- No deposits, no legionella generation

### As if it were made-to-measure for you

- Low scaling
- Long-life and safe as a result of the used materials plastic and stainless steel
- Sophisticated innovative technology, with 25 years' experience
- Compact design, low weight, minimum space requirement and simple installation
- Modular system: Interconnection of several storage tanks possible for high-volume hot water demand
- Connection to the most varied of heat generators and heat sources. This saves costs and is highly flexible

## Water and sun. Optimum combination.

The pronounced temperature stratification makes the Sanicube Solaris ideal as a solar storage tank in combination with the ROTEX Solaris system.



## ROTEX Sanicube Solaris SCS 538/16/0-DB

- A Storage tank
- B Unpressurised storage tank water
- C Hot water zone
- D Solar zone
- E Heating support zone
- 1 Potable water
- 2 Storage tank charging
- 3 Heating support
- 4 Solaris connection

# The clean solution for every requirement.

## Also for large-volume hot water demand.

The ROTEX thermal store can be adapted flexibly to your individual hot water requirements. For this application several thermal stores are connected together in a modular fashion so that even output distribution is achieved and output capacities can be created of virtually any size.

**ROTEX Sanicube Solaris:** In combination with the ROTEX Solaris solar system, the free-of-charge power of the sun is exploited in a highly-effective manner for hot water genera-

tion and heating support. This combination convinces by its highest level of energy efficiency thanks to low heat losses, perfect water hygiene and unlimited hot water convenience.

**ROTEX HybridCube:** We have developed the HybridCube specially for combination with a ROTEX air-to-water pump HPSU. It is the heart of the ROTEX heat pump system, stores the heat obtained then transfers it to the heating system at the required time.

ROTEX HybridCube



ROTEX thermal stores		HYC 343/19/0-P	HYC 544/19/0-P	HYC 544/32/0-P	HYC 343/19/0-DB
Total storage capacity	Liters	300	500	500	300
Empty weight	kg	64	92	98	59
Total filled weight	kg	364	592	598	359
Dimensions (W x D x H)	mm	595 x 615 x 1646	790 x 790 x 1658	790 x 790 x 1658	595 x 615 x 1646
Potable water capacity	Liters	27.9	29	29	27.9
Hygienic hot water generation on the instantaneous heater principle		•	•	•	•
<b>Heat generation combination</b>					
<b>Boiler combination</b>					
ROTEX A1 Oil condensing		•	•	•	•
ROTEX GW – Wallmounted gas condensing boiler		•	•	•	•
Existing boiler		•	•	•	•
<b>Heat pump combination</b>					
ROTEX HPSU Low-Temperature Bi-Bloc up to 8 kW		•	•		•
ROTEX HPSU Low-Temperature Bi-Bloc up to 16 kW				•	
ROTEX HPSU <sup>hitemp</sup>		•	•	•	•
HPU hybrid		•	•	•	•
<b>Solar combination</b>					
Drain-back combination					•
Pressurized solar combination*		•	•	•	
<b>Solar heating support<sup>1)</sup></b>					
<b>Bivalency solution</b> (combination with additional heat generator or swimming pool)					

More thermal store versions can be found in the current pricelist.

\* If a pressurised solar combination or a bivalency solution is to be combined with a heat pump, we can use the ROTEX compact heat pump HPSU compact Biv Variant.

<sup>1)</sup> Heating support not in combination with HPU hybrid.



**Example of an installation.**

ROTEX Sanicube Solaris in combination with a ROTEX Solar System for hot water generation and heating support, and the ROTEX A1 oil condensing boiler.

**ROTEX Sanicube Solaris**



HYC 544/19/0-DB	HYC 544/32/0-DB	SCS 328/14/0-P	SCS 538/16/0-P	SCS 538/16/16-P	SCS 538/16/0-DB	SCS 538/16/16-DB
500	500	300	500	500	500	500
87	93	57	93	99	88	94
587	593	357	593	599	588	594
790 x 790 x 1658	790 x 790 x 1658	595 x 615 x 1646	790 x 790 x 1658			
27.9	27.9	19	24.5	24.5	24.5	24.5
•	•	•	•	•	•	•
•	•	•	•	•	•	•
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# ROTEX

### **What makes ROTEX different?**

We offer individual solutions for optimum living and working that are straightforward, intelligent, and futureproof.

ROTEX is a manufacturer and supplier of complete innovative and environmentally responsible heating systems – building on decades of experience. Since 1973, ROTEX has stood for innovation and know-how in the field of heat generation, storage and distribution. In the development of products for our high grade and perfectly matched components we focus on user benefits.

The ROTEX product range extends from air-to-water heat pumps, condensing boilers for oil and gas, solar thermal systems and thermal stores, not forgetting underfloor heating, heating oil tanks and rainwater tanks, right up to a comprehensive installation system for all sanitary and heating equipment. Innovative systems that facilitate the optimum use of conventional and alternative fuel types in both modernisation and new build projects. ROTEX products stand for unique cost efficiency with maximum environmental compatibility and the highest levels of flexibility.

ROTEX Heating Systems GmbH is a wholly owned subsidiary of Daikin Europe NV, making it a member of the DAIKIN Group, the world's leading manufacturer and supplier of products for heating, ventilation and climate control. Our combined competence generates optimum product solutions to meet the highest user aspirations.

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