



ENERGY<sup>3</sup>

***sinus***

The heat storage tank.  
Energy on demand.

***SINOI***  
A CNBM-COMPANY

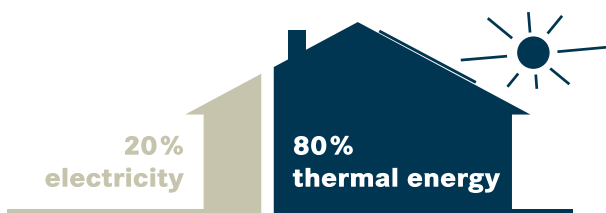
## **sinus**. The heat storage tank from SINOI.

### **Energy prices are rising**

### **Energy from the sun is free**

Collecting energy at a low or zero cost and using it on demand brings major advantages for hot water and central heating applicable to domestic use, as well as to commercial and industry installations. More than 50% of the entire power demand in Germany is needed for heating, with only 20% required for electricity. This increases to 85% of energy demand used for heating domestic properties.

Regardless of whether a home, apartment or commercial premises, self supply thermal energy reduces energy costs **significantly and permanently**.



Therefore a heat storage tank is the crucial element since it provides the link between power generation and usage. It has to be able to store energy over great periods of time and then deliver it on demand in the right quality and quantity.

### **What seems simple can become complex in reality**

- Investors are being offered packages by the industry: systems technology containing all the components of the production, storage and distribution of thermal energy. Package prices are lucrative, but what about the efficiency and sustainability?
- A heat storage tank requires sufficient space within the building. When carrying the tank into an existing property there is often a conflict between its size and space available in terms of entrances, corridors and stairs within the building. This can lead to tanks being specified that are insufficient to the demands required by the property or the need to link multiple smaller tanks which brings its own technical challenges.
- An incorrect set up or using the wrong components will lead to high energy loss. Whilst the original investment costs may be lower, the installation will result in higher servicing costs over the following years. **sinus** guarantees a life expectancy of over 30 years.

### **What are the crucial features of a heat storage tank? *sinus* ...**



... sufficient size.



... fits through doors.



... offers optimum space utilisation due to its cubical shape.



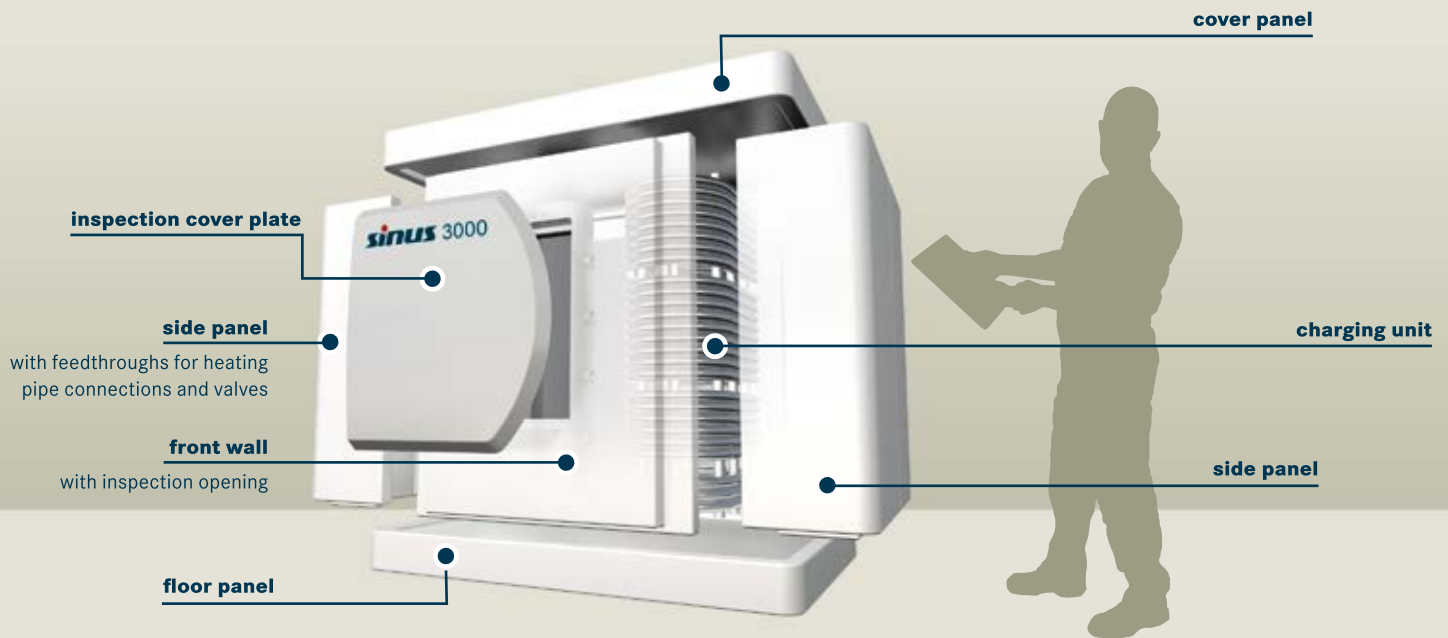
... highly efficient due to the use of composites.



... safely operates over long periods.

### **The solution: *sinus* from SINOI**

- **Large, yet still easy to handle**
- **Non-corrosive and robust construction**
- **Easy to use smart technology**
- **Long-term economies**



### The tank

- cubical, unpressurised storage tank
- components delivered as construction kit, on-site assembly
- optional inspection opening
- sandwich structure: two surface layers of composite with an insulation core that can be varied
- insulation: exchangeable insulation core dependent on usage (daily/weekly/long term storage) ensures equivalent to an A+ energy rating for the heat storage tank to be realized
- besides the usage of composite materials, only non-corrosive components are installed. When operated properly, the service life of the tank is guaranteed for at least 30 years.

### Charging unit

- customized heat exchanger system can be placed inside or outside the tank
- stratified solar charging module
- project-related dimensions and location
- upgrade possible

### Object of storage

- potable water, maximum temperature 95 °C

### Assembly

All the components are mounted within the tank, so that no additional space beyond the size of the tank is required. Following professional training an installer is then authorised to assemble these tanks.

### Standard sizes

<i>SINUS</i>	Volume [ca. m <sup>3</sup> ]	Length [m]	Width [m]	Height [m]
SINUS 2500	2.5	1.76	1.40	1.90
SINUS 3000	3.0	2.10	1.40	1.90
SINUS 4000	4.0	2.60	1.40	1.90
SINUS 5000	5.0	3.20	1.40	1.90

**SINOI GmbH**

Kohnsteinbrücke 10 • 99734 Nordhausen • Germany  
Fon: +49 (0) 3 63 31-9 03 00 • Fax: +49 (0) 3 63 31-9 03 40  
sinus@sinoi.de • www.sinoi.de

