Storage tanks and pressure vessels made of steel

The plants in Nienburg and Heidenau specialize in steel container construction – but the two sites have different focuses

Cylindrical storage tanks made of steel in accordance with EN12285 are a central part of our manufacturing program. Tanks for underground and above-ground storage of liquids that are hazardous to water have been continuously developed and improved. General building inspectorate approvals from German Institute for Construction Technology DIBt extend and simplify the possible uses of steel tanks.

Buffer tanks are becoming increasingly important in the energy transition. We manufacture these pressure vessels in a range of designs, each with factory-made thermal insulation. Operating pressures can be selected on a specific project basis and are configured as standard for 3 bar, 6 bar and 10 bar.

We project and design customer-specific storage vessels and pressure vessels in close coordination with our partners and complement them with heaters, measurement and control technology as well as a number of other accessories.

We manufacture in accordance with national and international norms and quality standards. Our plants, for example, are certified in accordance with the regulations for pressure equipment AD-2000 Merkblatt HP0 and recognized as a welding manufacturer in accordance with the guidelines of DIN EN ISO 3834-2. We were also certified in accordance with the regulations of DIN EN 1090-2 for steel structures. We use only TÜV-certified welders in all standard procedures.

Our products:

- **Buffer tanks for heat and cold storage**
- **Storage tanks**
- **Rainwater storage tanks**
- **Fire water tanks**

Heat.
Energy. Water.

STORAGE & UTILIZATION

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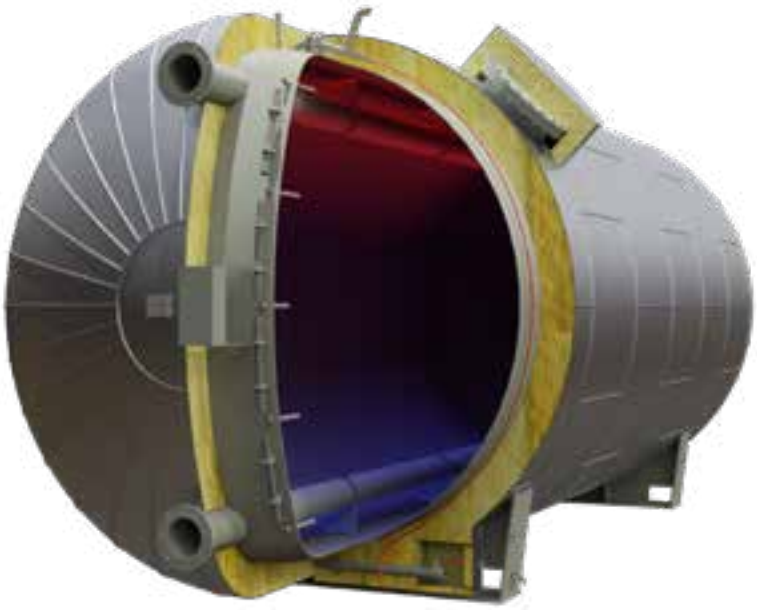
Buffer tanks for heat and cold storage

Buffer storage for heating and cooling is a key element of the energy transition. Renewable energies and waste heat from industry, biomass and CHP plants are not always there when they are needed as heat. Large-volume buffer storage helps bridge these periods.

Dehoust buffer tanks

- Correspond to Article 4 (3) of the Pressure Equipment Directive 2014/68/EU
- Are designed in accordance with AD 2000
- Proof of stability and verifiable structural analysis in accordance with AD 2000 for submission to the approval authorities upon request
- Earthquake and wind loads are taken into consideration in the offer
- Acceptance by a certified plant inspector



Horizontal storage tank with distribution pipes and factory-installed insulation

... so the buffer tank can maintain its shape

Factory-installed vacuum breakers prevent improper negative pressure in the accumulator and reduce the installation work on site.

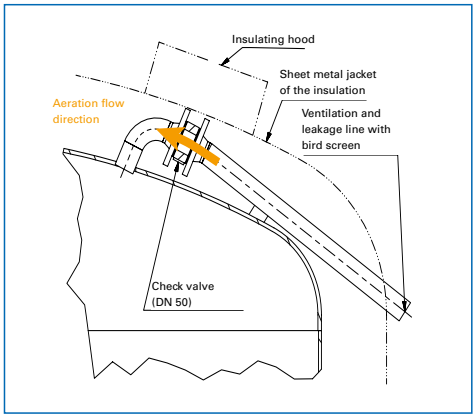
... the coating makes the difference

Individually designed curved pipes or distribution pipes create the basis for optimal coating in all types of storage tanks.

... Control is better

We deliver temperature measurement technology adapted to the plant, from sensors to transmitters factory-installed. For easy integration into the building technology system, ending in a terminal box that is mounted ready for connection.

In addition to our standard, consisting of Pt100 cable sensors in 3-wire circuit, we also offer individual solutions depending on customer requirements.



... from 2 m³ up to 200 m³

... so that no energy is lost

Our high-quality thermal insulation with very low heat loss and, in the case of the cold accumulator, the diffusion-tight cold insulation ensure the energy is kept in the accumulator.

Our standard range at a glance

- Above-ground heat storage tanks from 10 m³ to 152 m³
- Vertical above-ground heat buffer tanks 2 m³ to 10 m³
- Horizontal above-ground buffer storage tanks up to 150 m³
- Underground buffer tanks 2 m³ to 100 m³
- Vertical cold storage from 2 m³ to 152 m³

Heating buffer tanks

Vertical above-ground heating buffer tank, 2,000 to 10,000 liters, operating pressure 4 bar

without insulation					Insulation 100 mm	
Article no.	Nominal capacity liters	Diameter mm	Height approx. mm	Weight kg	Article no.	Weight kg
176905	2,050	1,200	2,250	440	170904	40
176910	2,600	1,200	2,750	500	170909	45
176915	3,150	1,200	3,250	565	170914	50
176920	3,700	1,200	3,750	620	170919	60
176925	4,250	1,200	4,250	685	170924	65
176930	4,800	1,200	4,750	745	170929	70
176960	5,150	1,400	3,850	795	170959	70
176965	5,950	1,400	4,350	865	170964	75
176970	6,700	1,400	4,850	935	170969	85
176975	7,450	1,400	5,350	1,005	170974	90
176980	8,200	1,400	5,850	1,075	170979	100
176985	8,950	1,400	6,350	1,150	170984	105
176990	9,750	1,400	6,850	1,225	170989	115

The tanks are equipped as standard with 6 connections for flow and return.
The insulation consists of 100 mm polyester fleece, plastic laminated.

Above-ground heat storage tanks operating pressure 6 bar

without insulation					Insulation 200 mm	
Article no.	Nominal capacity liters	Diameter mm	Height approx. mm	Weight kg	Article no.	Weight kg
176020	10,000	1,600	6,490	1,750	170020	550
176065	11,000	2,000	4,630	1,900	170065	500
176085	17,000	2,000	6,630	2,450	170085	700
176165	22,000	2,500	5,790	3,250	170165	800
176175	32,000	2,500	7,790	4,000	170175	1,050
176195	42,000	2,500	9,790	4,800	170195	1,300
176215	52,000	2,500	11,790	5,600	170215	1,550
176240	44,000	2,900	7,920	5,100	170240	1,300
176245	51,000	2,900	8,920	5,500	170245	1,450
176250	57,000	2,900	9,920	5,950	170250	1,600
176260	70,000	2,900	11,920	7,000	170260	1,900
176270	84,000	2,900	13,940	8,200	170270	2,200
176280	96,000	2,900	15,940	9,350	170280	2,500
176385	102,000	3,200	14,040	11,400	170385	2,450
176395	118,000	3,200	16,040	12,700	170395	2,800
176460	123,000	3,500	14,130	12,650	170460	2,700
176475	152,000	3,500	17,130	15,100	170475	3,250

Heating buffer tanks for various operating pressures and diameters, thicker insulation and color changes of the aluminum outer shell, as well as the number of hydraulic connections and sensor sleeves are all available upon request.

Buffer storage tanks for local and district heating networks, industrial and commercial applications – a key component of the energy transition for operating pressures up to 10 bar

The use of biomass, CHP plants and many industrial plants generate heat as a waste product. Usually also with high temperatures, so that storing this energy in large-volume storage tanks is possible without any problems.

We manufacture these storage tanks in modular systems for indoor and outdoor installation. With factory-installed insulation, the operator gets an energy storage system that meets all legal and technical requirements. A broad range of color-coated plain sheets also makes it easy to match the architectural environment.

Heat storage tanks for indoor and outdoor installation

Heating buffer tanks

Horizontal buffer tanks

Temperature layering for horizontal storage tanks is of course more problematic to achieve due to the limited height.

The distribution pipes we have calculated and used for injection and extraction have proven in many projects that layering and thus optimum operation is also possible here.

The factory-installed thermal insulation keeps the energy in the tank.

Buffer storage tank in horizontal design for above-ground installation

Horizontal above-ground heat storage tanks operating pressure 6 bar

		without insulation			Insulation 200 mm	
Article no.	Nominal capacity liters	Diameter mm	Length approx. mm	Weight kg	Article no.	Weight kg
117005	10,000	1,600	5,700	1,900	170020	550
117017	17,000	2,000	5,870	2,550	170085	700
117035	32,000	2,500	7,070	4,300	170175	1,050
117055	52,000	2,500	11,070	6,000	170215	1,550
117065	44,000	2,900	7,220	5,300	170240	1,250
117085	57,000	2,900	9,220	6,200	170250	1,600
117115	83,000	2,900	13,220	8,250	170269	2,200
117125	97,000	2,900	15,220	9,200	170285	2,500
117135	102,000	3,200	13,360	11,550	170385	2,450
117165	152,000	3,500	16,480	15,300	170475	3,250

Please inquire about heating buffer tanks for various operating pressures and diameters, thicker insulation and color changes of the aluminum outer shell, as well as the number of hydraulic connections and sensor sleeves.

Buffer storage tank in horizontal design for underground installation – vertial and horizontal

Horizontal underground heat storage tanks operating pressure 6 bar

Including insulation 200 mm				
Article no.	Nominal capacity liters	Diameter mm	Length approx. mm	Weight kg
112017	10,000	2,400	4,000	2,650
112037	20,000	2,400	7,300	4,400
112047	30,000	2,400	10,600	6,050
112057	40,000	2,900	9,100	6,400
112067	50,000	2,900	11,100	7,650
112077	60,000	3,300	10,100	9,400
112087	80,000	3,300	13,200	11,950
112097	100,000	3,300	16,200	14,400

Vertical underground heat storage tanks operating pressure 3 bar

Including insulation 200 mm				
Article no.	Nominal capacity liters	Diameter mm	Length approx. mm	Weight kg
112206	2,050	1,700	2,500	650
112212	3,100	1,700	3,300	850
112222	6,300	2,200	3,500	1,250
112232	9,800	2,700	3,400	1,600
112242	14,200	3,200	3,500	2,500

Horizontal underground heat storage tanks

With a GRP outer shell and PUR foam insulation, heat storage tanks are optimally insulated against heat loss and moisture. The result is highly efficient heat storage tanks up to over 100,000 liters in volume, which can absorb excess heat and thus store the energy efficiently. **Double insulation, maximum efficiency!**.