



# MOBILE MINI-TERMINALS

storing, and dispensing viscous  
and solidifying liquids



Since 2014, ErichHahn has been designing and supplying equipment for the production, storage, and transportation of viscous and solidifying liquids. The cumulative knowledge and experience allow us to be a provider of advanced industrial solutions on both regional and global levels. We deliver pumping equipment to road bitumen producers, including terminals for storage and transportation of viscous and solidifying liquids, mobile and stationary modular plants and units designed in accordance with individual customer requirements.

ErichHahn mobile mini-terminal for viscous and solidifying liquids is a set of equipment designed for product receiving, metering, storing in a liquid state, and dispensing to consumers. ErichHahn carries out the entire workflow including design, production and construction of standard and customized mini-terminals.

The facility can be used as process equipment in various climatic conditions. Areas of application include oil refining, petrochemical, chemical, food, and road construction industries.

ErichHahn's mission is to apply our technology and engineering expertise to improve our customers' production processes. We strive to be a driving force behind our customers' process improvements, business development and production culture, following the principles of innovation, customer focus, reliability, safety and competence.



# ErichHahn MMT

## MOBILE MINI TERMINAL

### Application Area

ErichHahn MMT mobile mini-terminal is a ready-to-use facility that includes necessary equipment for receiving, metering, and storing viscous and solidifying liquids while maintaining their physical and chemical properties. Mobile terminals have a small footprint; they are quickly deployed and are easily transported by road. Terminal is a perfect engineering solution for arranging the technological process of preparing bitumen for use at asphalt-concrete mixing plants. This set of equipment is also used in oil refining, chemical, road construction, food, and other industries.

### Scope of Delivery

- Mobile active heating tanks
- Pipe connections and shut-off valves
- Automatic truck unloader

### Optional Equipment

- Block-modular boiler house working on diesel, gas, or fuel oil
- Heavy oil pumping and distribution unit for the product dispensing
- Prefabricated metal or reinforced concrete base for the mounting and installation of the bitumen mini-terminal

### Services

- Customer-specific design
- Installation and commissioning
- Training of the customer's staff
- Production of tank lining and truck unloading points using the customer's corporate colors
- Expansion of the tank farm as the customer's production needs grow



200 metric tons



400 metric tons



600 metric tons

## Mobile active heating tank



Tanks are designed for loading and storage of viscous and solidifying liquids while maintaining physical and chemical properties of the product. We supply vertical tanks with a small footprint that allows our customers to save site space and store large volumes of product. The storage facilities are equipped with all the necessary systems and, at the request of the customer, can be additionally fitted with agitators, an electric heating system or a block-modular boiler house that provides heating and circulation of the heat transfer fluid in autonomous oil system.

## Heavy oil pumping unit



A gear-based pumping unit provides dosing and transportation of heavy oil to storage tanks through a piping system. Durable plant design ensures trouble-free operation and reduced maintenance costs. The pumps are controlled automatically. The current operating mode of the unit is displayed on the stationary operator's panel in the operator's room at the automatic unloading point.

## Automatic truck unloader



Provides safe unloading of trucks in automatic mode. The control cabinet of the unloading point allows remote control of the heavy oil volume in tanks and ensures stable quality of the product during storage and unloading.

## Mini-terminal control system



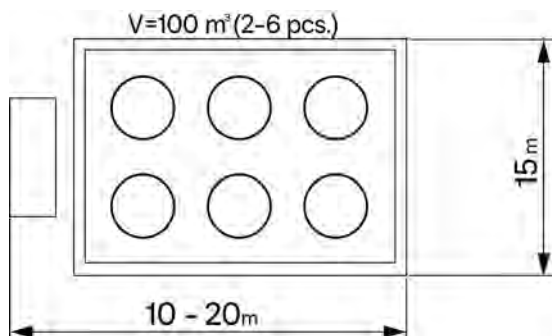
The system is designed for local operational control and monitoring of technological processes at the terminal. In automatic mode, the system receives, stores and dispenses the product without the need of the operator's constant presence near the control cabinet. All the necessary information about the functioning of the terminal is displayed on the operator's panel. The mini-terminal management system is integrated into the enterprise management system.

## Specifications

- Storage capacity: from 200 m<sup>3</sup>
- Heating system: based on thermal oil
- Max. process temperature: 180°C
- Number of sections at the unloading point: 2 or more sections.
- Overall dimensions:
  - 100 m<sup>3</sup> tank:  
Diameter (3.4 m) x Height (17 m)
  - Unloading point:  
Length (6 m) x Width (2.4 m) x Height (2.6 m)
- Storage capacity 200 – 600 m<sup>3</sup>,  
Footprint 150 – 300 m<sup>2</sup>

## Why choose ErichHahn MMT

- Mobile mini-terminal is a perfect solution for mobile asphalt plants and polymer-bitumen binder production facilities
- Easy operation and minimal maintenance of the terminal
- Combined tank heating system based on thermal oil and heating elements
- Automatic unloading point for safe reception and metering of viscous and solidifying liquids from trucks
- High mobility, easy transportation by road
- Scalable architecture allows you to build a tank farm depending on the needs of an enterprise



## Tank Specification



## Key Specifications

Model	MMT-200	MMT-400	MMT-600
Application	viscous and solidifying liquids		
Climate conditions	temperate climate		
Ambient temperature [°C]	-40 to +40		
Max. process temperature [°C]	180		
Tank capacity [m <sup>3</sup> ]	200	400	600
Height [mm]	16410	16410	16410
Weight [kg]	36000	66000	96000
Terminal area [m <sup>2</sup> ]	150	225	300
<b>Tank equipment</b>			
Tank loading type	top		
Tank discharge type	bottom		
Sampler	provided		
Ventilation pipe	provided		
Bimetallic thermometer	provided		
Overfill protection device	provided		
Vertical agitator	option		
Electric heating system. Flush heaters	option		
<b>Instrumentation</b>			
Level meter	provided		
Maximum level alarm	provided		
Temperature transducer (for heavy oil)	provided		
Gate valve with electrical actuator, DN [mm]	option (150)		
<b>Automatic truck unloader</b>			
	ErichHahn ATU-2		
Number of control cabinets	2		
<b>Pumping unit</b>			
	ErichHahn HPDU-90-3		
Number of control cabinets	3		
<b>Tank insulation</b>			
Wall insulation thickness [mm]	200		
Roof insulation thickness [mm] Sheathing material	200		
Материал обшивки	polymer coated steel sheet		
<b>Tank heating system</b>			
Oil heaters	provided		
Heat transfer fluid	thermal oil		
Oil pipeline connection [mm]	50		
Maximum oil temperature at 0.6 MPa, [°C]	200		

Note: \*Specifications are subject to change without notice.



# APPLICATION OF ERICHHAHN SOLUTIONS

Industry	Process	Fluid
Oil refining	Pumping, storage and transportation of high-viscous fluids	Bitumen
		Vacuum distillate
		Tar
		Half-tar
		Half-tar
Building and road construction	Production of construction materials, pumping, and storage of raw materials	Asphalt concrete and bitumen-mineral mixtures
		Silicate adhesive (liquid glass)
		Plastisol
		Liquid pitch
		Pyrolysis fuel
Energy	Heating. Circulation of heat transfer fluid	Thermal oil
Pulp and paper	Pumping and storage of raw materials	Starch glue
		Phenol-formaldehyde resin
		Sodium sulfide solution
Chemistry	Production of paints and varnishes, plastics, adhesives, synthetic dyes, synthetic rubber, detergents, and cosmetics. Pumping and storage	Phenol-formaldehyde resin
		Acrylic dispersion
		Furan acid
		PVA glue
		Sodium lauryl ether sulfate
		Paints and varnishes
		Polyol
		Silicone
		Soap stock
		Oleum
		Petrolatum
		Pyrolysis fuel
Petrochemicals	Manufacturing of products and raw materials. Pumping and storage	Thermal oil
		Oxyethylidene diphosphonic acid OEDPA
		Paraffin
		Dielectric oil
		Petroleum softener PN-6
		Cylinder oil 38
		Match wax
		Engine oil
		Aviation oil
Pharmaceuticals	Manufacturing of products. Pumping and storage of raw materials	Fish oil
		Glycerin
		Plastisol
		Carbolic acid
		Furan acid
Food production	Manufacturing of products. Pumping and storage of raw materials	Animal and vegetable fat
		Olive oil
		Coconut oil
		Fish oil
		Glycerin
		Hydro processed oil sludge
		Caramel
		Molasses
		Vegetable and fruit puree
		Suspensions and syrups of various viscosities
		Chocolate mass
Syrup		

Note: For information on each solution, please contact ErichHahn.

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