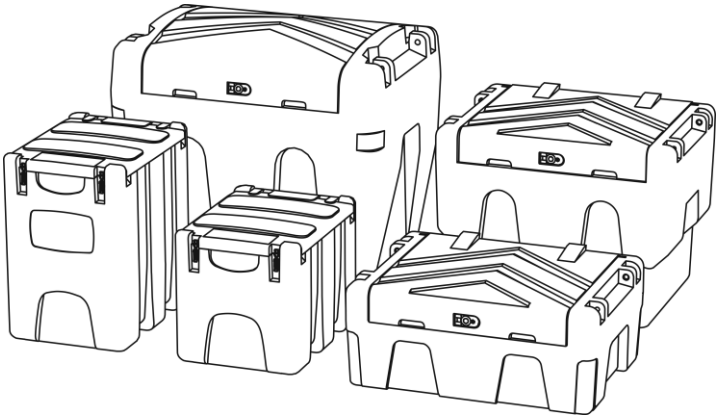
BlueTruckMaster®

Mobile tank for distribution and transport of AdBlue®

Operating and safety manual



Kingspan

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2. SAFETY INSTRUCTIONS

This manual contains important operating and safety information and warnings. Read this manual thoroughly and carefully and follow all the guidelines contained therein.

This manual is intended for information purposes only and should not be regarded as a source of law. Following these guidelines does not release the user from complying instructions in AdBlue® material safety data sheet, the local regulations on H&S, fire protection and environmental protection. The manufacturer is not liable for damages or losses caused by improper use of the product and failure to comply with applicable regulations.

Store the manual in a safe place for future use. The manufacturer reserves the right to change the wording of this manual without prior notice.

3. INTRODUCTION

This is the operating and safety manual for a mobile tank for distribution and transport of AdBlue®.

Before first use, please read this manual and follow its guidelines. This manual will be your guide for many years to come and will allow for safe operation of the product. Furthermore, these guidelines are part of the warranty conditions. Failure to follow them may result in the loss of warranty.

4. BLUETRUCKMASTER® USE

BlueTruckMaster® is designed for the transport and distribution of AdBlue®[1]. AdBlue® is a trade name for an aqueous urea solution made with 32.5% urea and 67.5% deionized water used as a consumable in selective catalytic reduction (SCR) in order to lower NOx concentration in the diesel exhaust emissions from diesel engines. Depending on the country, it is known also as AUS 32 (aqueous urea solution), DEF (diesel exhaust fluid), NOXy® etc.[1]. In the further parts of this text only AdBlue® name is used.

Using the tank for storage, transport or distribution of other liquids it is prohibited without written permission of the manufacturer. Moreover, do not use the product for long-term storage of liquids.

The manufacturer is not liable for damages or losses caused by improper use or failure to observe the rules applicable to this type of equipment.

5. TECHNICAL SPECIFICATIONS

BlueTruckMaster® is available in five sizes. Technical data for each product is presented on the next page. The detailed technical specification of each tank is dependent on the version of the tank and optional accessories.

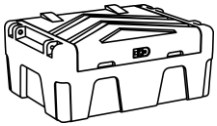
[1] Registered trademarks are used only for reference.

BlueTruckMaster® 200

dimensions (W × D × H)	600 × 800 × 620 mm
nominal capacity	200 L

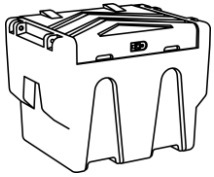
BlueTruckMaster® 300

dimensions (W × D × H)	600 × 800 × 890 mm
nominal capacity	300 L



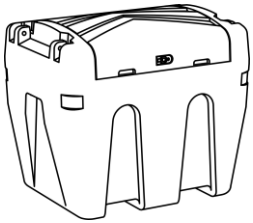
BlueTruckMaster® 200
(low profile)

dimensions (W × D × H)	1180 × 860 × 500 mm
nominal capacity	200 L



BlueTruckMaster® 430

dimensions (W × D × H)	1180 × 860 × 910 mm
nominal capacity	430 L



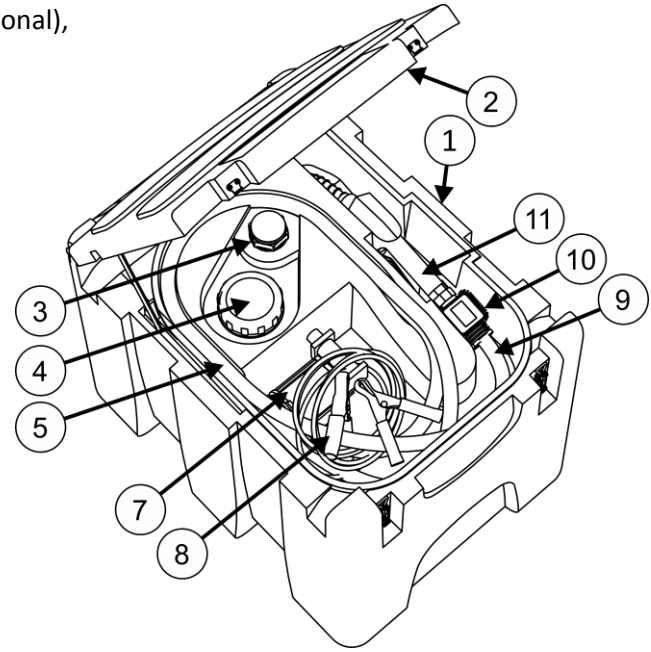
BlueTruckMaster® 900

dimensions (W × D × H)	1140 × 1050 × 1210 mm
nominal capacity	900 L

BlueTruckMaster® consists of a polyethylene rotationally moulded tank and a distribution set that allows refuelling of vehicles and other equipment.

Tank distribution system consists of the following elements (they may vary depending on the actual specification of the tank):

1. polyethylene tank,
2. lid,
3. vent,
4. inlet,
5. hose/suction pipe fitted with a mesh filter,
6. shut-off ball valve[2],
7. pump[3],
8. pump supply cord with clamps or plug,
9. distribution hose,
10. flowmeter (optional),
11. filling nozzle.



[2] Only in BlueTruckMaster® 900

[3] Available options depend on the model of the tank

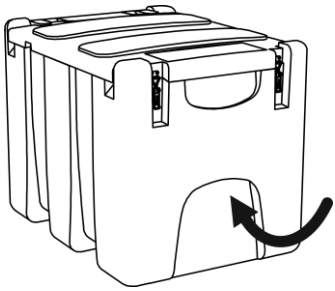
6. FIRST USE

Before the first use and after any repairs the user should check if the tank and its equipment are clean. If need be clean with distilled or deionized water. If these are not easily available tap water can be also used providing that the final rinse is done using AdBlue®.

Fill tank as described in Point 9 then pump the first 5 L into another container and use as agricultural fertilizer or dispose of with the help of a specialised company. This collected AdBlue® cannot be used in vehicles or discharged into sewage system.

If the above guidelines are not followed, the content of the tank may get contaminated and this can result in damage to the engine in the vehicle.

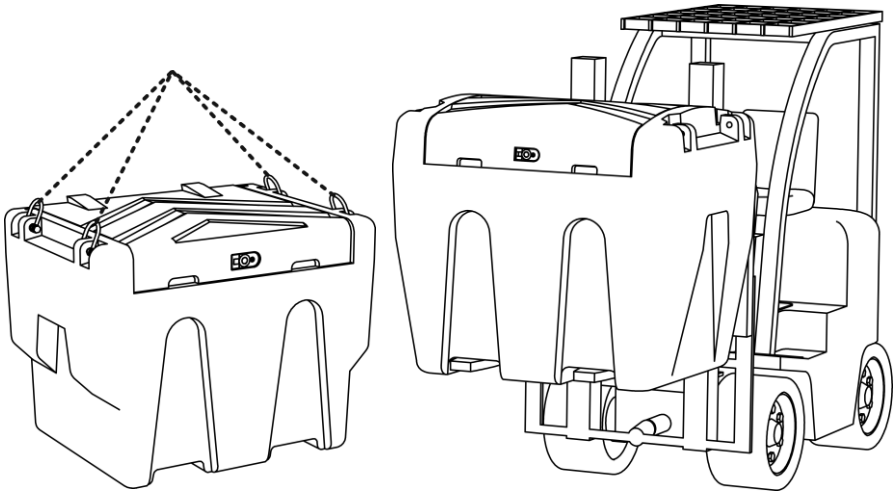
7. HANDLING



An empty BlueTruckMaster® can be lifted using the handles on the sides of the tank. The weight of the lifted device must not exceed the limit values specified in the Occupational Health and Safety regulations for lifted items.

Each tank comes equipped with special channels at the bottom for convenient lifting with a forklift when the tank is filled.

Some tanks also come with lifting points for attaching special shackles when using a crane or other lifting equipment. Pushing or moving tanks on the ground is prohibited.

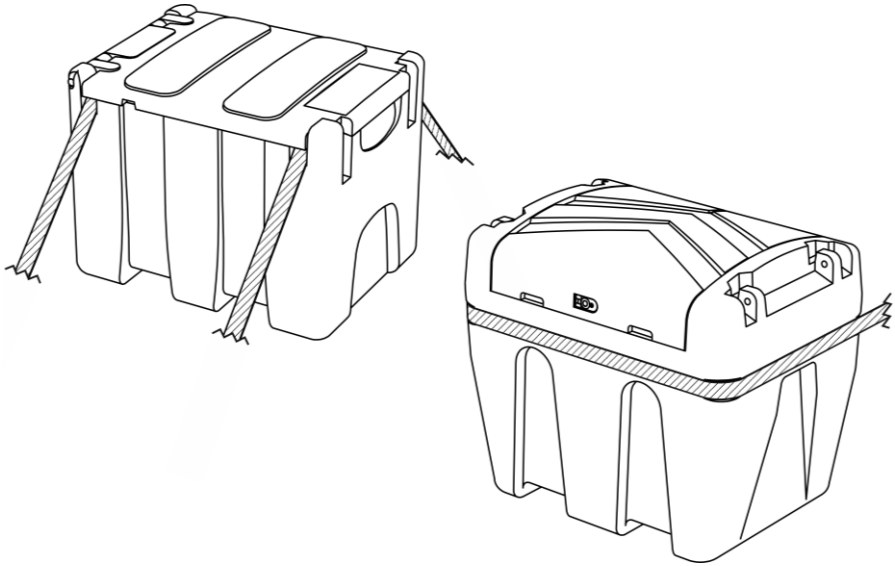


8. TRANSPORT

When placed on the vehicle, the tank must be adequately secured to prevent displacement while respecting international and local regulations concerning traffic, securing and transport of cargo, in particular the provisions of the ADR on international carriage of dangerous goods by road and EN 12195, which specifies the methods and rules for calculating clamping force.

Tanks have special features to allow securing of the device to the vehicle by belts. Examples are shown in figures below.

Prior to transporting the product, make sure that the lid and the filling nozzle are closed. When handling BlueTruckMaster® 900 make sure that the ball shut-off valve before the pump is locked. Pump power cord and distribution hose must be rolled up and tucked under the lid. Filling nozzle should be placed in the designated holder.



9. FILLING A TANK

The tank should be filled through inlet (see Point 5) using dispensing nozzles, e.g. being the part of dispensing units in gas stations.

It is forbidden to fill the tank directly from a tanker. Moreover, BlueTruckMaster® can be filled only with AdBlue®. The maximum filling rate is 100 l/min and it should not be exceeded. Pay attention to the vent and check if it is not blocked when filling a tank.

10. CONNECTING THE PUMP

Before refuelling, the pump must be connected to a power source. Depending on the specifications, BlueTruckMaster® can be equipped with a pump powered by a 12 V DC and/or 24 V or 230 V AC. The supply voltage of the pump must be consistent with the voltage stated on the pump nameplate.

Wires of the DC-powered pumps must also be correctly connected, namely, the black wire must be connected to the negative and the red wire connected to the positive pole.

More information can be found in the pump manual included with the device.

11. VEHICLE REFUELLING

Before refuelling, the BlueTruckMaster® pump must be connected to a power source (see Point 10). Also, when using BlueTruckMaster® 900, make sure that the ball shut-off valve before the pump is open. Turn on the pump using the switch and insert the filling nozzle into the AdBlue® tank inlet. Refuelling will start within two minutes after pressing the nozzle pushbutton.

When handling tanks that are not equipped with automatic filling nozzles, pay attention to prevent tank overflow as they do not automatically cut off the flow.

Do not start pumping when BlueTruckMaster® is empty. Therefore, the pump should be shut off immediately after draining the tank. Otherwise the pump may be damaged. The maximum pump running time is indicated on the nameplate or in the pump manual that is included with the device. Do not exceed the allotted time because otherwise the pump will get overheated.

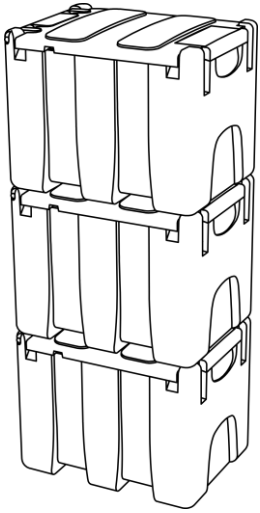
12. FLOWMETER

Depending on the specifications, tanks can be equipped with a flowmeter. Information on flowmeter usage can be found in a separate guide included with the device.

13. STORAGE

Store the products in a dry place. Protect from sunlight. Only temporary storage of AdBlue® in the tank is allowed, subject to compliance with local fire protection and Health and Safety regulations.

BlueTruckMaster® should not be stored in temperatures lower than -10°C unless the tank and its equipment (esp. pump, flowmeter and nozzle) are absolutely empty. Otherwise freezing liquid may damage these elements. Prolonged storage of AdBlue® in temperatures higher than 25°C may lead to its decomposition or excessive evaporation of water from it. This does not influence the tank and its equipment.



After use the pump power cord should be disconnected from the power source and the unit lid should be closed. The lid is shower proof and protects the tank and equipment from light and moderate rain, but is not water tight.

With the exception of BlueTruckMaster® 900, all tanks can be stacked on top of one another (up to 3), but only if they are empty. Otherwise they can be damaged.

14. MAINTENANCE

Keep the tank and its equipment clean and in good condition. Before each use, check the product for damages, in particular check whether the structure of the tank is not affected, all connections are tight and the pump power cord is not damaged.

Do not use a damaged or poorly marked tank. A dirty tank or its equipment may contaminate the stored AdBlue® and as a result cause engine damage.

15. WARRANTY

Prior to leaving the factory, each product was carefully and thoroughly checked in terms of safety and operation. If you spot a defect or damage, contact your dealer or manufacturer.

Warranty details are in a separate document included with the product.

16. ACTIONS IN THE CASE OF ACCIDENT

In the case of leak or overfilling a tank safety actions should be immediately taken as described in the safety data sheet of AdBlue®.

In particular, quickly and safely stop or reduce the spill of AdBlue® by sealing a tank or cut of the flow of AdBlue® (in the case of events occurring during the filling of a tank). Depending on the size of spill and its location transfer spilled AdBlue® into another container or soak up with an appropriate absorbent material (e.g. sand) and dispose of safely following local regulations or use as agricultural fertilizer.

17. COMMON PROBLEMS AND SOLUTIONS

Problems such as those connected with pump or flowmeter operations are described in separate instructions included with the tank. The following circumstances may occur when operating the device:

Problem	Possible cause	Remedy
Tank walls buckled slightly when the tank was full.	Symptom typical for plastic tanks with no effect on the functionality of the device.	-
Tank walls collapsed when refuelling vehicle.	Vent is clogged or damaged.	Stop refuelling the vehicle and eliminate the fault / clean or replace the vent.
The content is contaminated.	Tank or its equipment are dirty.	Empty tank and wash it with distilled or deionized water (see Point 6). The contaminated AdBlue® can be used as agricultural fertilizer or disposed with the help of a specialised company.
Pump does not work.	No power or inadequate power is supplied to the pump. Pump is damaged or blocked.	Check if the pump is connected to the correct power source. Repair or replace the pump.
Pump is operating but no liquid is fed.	The tank is empty. Ball shut-off valve is closed (applies to BlueTruckMaster® 900). The sucking system is blocked. The turbine of a flow meter is blocked. Distribution hose or filling nozzle is blocked or there is air in the pump.	Turn off the pump and fill the tank. Open the valve. Clean the hose / sucking pump, especially the end filter. Clean the distribution hose and filling nozzle. Clean the turbine and unblock it. Wait 2 minutes and if this does not help, unscrew the filling nozzle and re-start the pump.
The filling nozzle prematurely cuts off the AdBlue® supply.	Refuelling speed is too high. The tip of the filling nozzle is too close to the walls of the inlet.	Reduce the flow velocity. Reposition the filling nozzle.

Problem	Possible cause	Remedy
The flowmeter LCD does not work	Batteries are used up.	Replace batteries.
The flowmeter does not count, but the flow rate is correct	Incorrect installation of gears after cleaning. Possible electronic card problems	Repeat the reassembly procedure. Contact your dealer.

18. DISPOSAL

After use, the tank must not be disposed of with other unsorted waste but must be disposed of with the help of a specialised company or by delivering it to the facility accepting electronic waste.

19. PRODUCT MODIFICATION AND SPARE PARTS

Product must not be modified without the written permission of the manufacturer. When repairing the tank, use only the OEM spare parts available. Failure to observe this requirement will result in the loss of warranty rights.

The manufacturer is not liable for damages and losses caused by the modification of equipment or use of parts other than OEM spare parts.

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