Operating instructions

AdBlue® / DEF tank system
VAS 6960

ASE: 40464090023

Document No.: 99 402 700

Issued: 02/15

Translation of the original document
(in the sense of Machinery Directive 2006/42/EC)

Contents

1 Introduction

1.1. Contents of the operating instructions

These operating instructions represent the original in the sense of the Machinery Directive 2006/42/EC.

The operating instructions contain important instructions about operating the tank system safely, properly and efficiently. Following them helps you avoid danger, reduce repair costs and downtime and increase the service life of the tank system.

The operating instructions must always be available with the tank system, and must be read and applied by each person who is tasked with working on or with the tank system. This includes:

– transport,
– installation,
– commissioning,
– operation and trouble shooting in operation,
– maintenance (servicing, care, repair) and
– disposal.

1.2. Validity of the certificate of conformity

The issued certificate of conformity only applies to the tank system described in the operating instructions. The certificate of conformity and the risk assessment lose their validity after changes, modifications or extensions are made.

2 Instructions for the operator

The operating instructions must be complemented with operating instructions from the operator on the basis of national regulations for accident prevention and environmental protection, including information on regulatory and reporting requirements to take account of particular operational characteristics, e.g. work organisation, work processes and the staff.

In addition to the operating instructions and the binding regulations valid in the country of use regarding accident prevention, the recognized technical rules regarding safety and best practice must also be observed.

The operator of the tank system may not make any changes, additions and overhauls of the tank system, which could compromise safety, without permission from **FLACO Geräte GmbH**!

This also applies to the installation and adjustment of safety systems as well as changes to hoses.

Spare parts must comply with the technical specifications defined by **FLACO Geräte GmbH.** This is always guaranteed with original spare parts.

Please also observe the manufacturer’s information for vendor parts.

Use only competent personnel. Clearly define the responsibilities of the personnel for operation, commissioning and maintenance.

The operator ensures that the operating instructions are included in the event of a resale of the tank system.

Fig.: 1 Pocket

A pocket is glued on the back of the service lid.

It contains among other things the operating instructions and is labelled “Operating instructions" in the language of the user.

The operator must indicate this pocket and its contents to its staff.

3 Safety instructions

The tank system has been built according to the current state of technology under the observance of technical safety guidelines. Nevertheless, danger to the operator or a third party and/or damage to the machine and other property can arise if it is:
– operated by untrained operators.
– not used as intended,
– improperly maintained or serviced.

The operation, maintenance and installation personnel must have the appropriate qualifications for this work. Area of responsibility, competence and the monitoring of staff must be exactly regulated by the operator. If personnel do not possess the required skills, they must be trained and instructed. Furthermore, the operator must ensure that the contents of the operating instructions are fully understood by staff.

The machine has been designed to handle substances that pose a hazard to water. The provisions of the regulations applicable at the site of use (e.g. WHG, VAwS) must be observed.

According to the legal regulations, only specialists may be entrusted with work on machines for liquids that pose a hazard to water.

Work on the system's electrical equipment may only be carried out by a certified electrician or persons under the guidance and supervision of a certified electrician in accordance with electrical regulations. Machine and system parts, where inspection, maintenance and repair work is carried out, must be connected with zero-potential.

3.1 Intended use

The VAS 6960 tank system is used for filling the vehicle tank with AdBlue® / DEF. AdBlue® / DEF is a trademark of the Verband der Automobilindustrie e.V. (VDA).

This unit may only be used for the **uncalibrated dispensing** of AdBlue® / DEF (according to DIN ISO 70070). Performance must be itemized on customer invoices with a lump sum only – litre prices or fuelled quantity must not appear on the invoice.

Another use or one that goes beyond that described here, in particular also the modification and removal of system parts, is deemed as unintended use. The manufacturer / supplier does not assume liability for any damage resulting from unintended use. The operating company is the sole bearer of the risk.

Failure to observe instructions invalidates all warranty claims.

Intended use also includes adherence to instructions regarding
– safety,
– operation and

– maintenance/servicing.

The unit may only be used as intended and in a fault-free, technical state by safety and risk conscious persons in accordance with the operating instructions. In particular, malfunctions that compromise safety must be repaired immediately.

3.2 Unintended use

Unintended use includes

– filling with materials other than AdBlue® / DEF,
– any change to the tank system,
– operation when damaged or when signs of wear are evident,
– the use of unsuitable spare parts as well as
  installation and operation of the unit outside of the workshop on unsealed ground and in the ATEX-area.

3.3 General danger warnings

Various danger warnings assist in the safe operation of the tank system.

DANGER

Danger to life from electric shock:
Work on the system's electrical equipment may only be carried out by a certified electrician or persons under the guidance and supervision of a certified electrician in accordance with electrical regulations. Machine and system parts, where inspection, maintenance and repair work is carried out, must be connected with zero-potential.

WARNING

Danger if swallowed:
If larger amounts of AdBlue® / DEF are swallowed, immediately consult a doctor. Do not induce vomiting except on the explicit instruction of medical personnel. Never administer an unconscious person anything by mouth.

CAUTION

Danger upon contact with skin:
Avoid prolonged or repeated skin contact with AdBlue® / DEF. In case of skin contact with AdBlue® / DEF wash with soap and water. Consult a doctor if irritation occurs.

Danger upon contact with eyes:
Rinse eye immediately with plenty of water upon contact with AdBlue® / DEF. Make sure, that eye wash stations are present in the vicinity of the workspace.

Personal protective equipment (PPE):
Safety glasses, safety gloves.

AdBlue® / DEF must not come into contact with clothing.

Also observe the AdBlue® / DEF safety data sheet from your AdBlue® / DEF suppliers!

PLEASE NOTE

Use only demineralised water when cleaning components that carry AdBlue® / DEF. Do not use tap water.

Always observe the instructions attached to the tank system as well as symbols such as warning signs, signs of activity, flow direction arrows or component labels.

Observe the safety instructions mentioned and behave especially carefully in event of danger! Pass all safety instructions on to other users!

- The eye-catcher point features work and/or operating steps. Perform the steps in the specified order!

– The bullet points represent lists.

3.4 Notices (labels)

Notices (labels) are attached to the case above and next to the display.

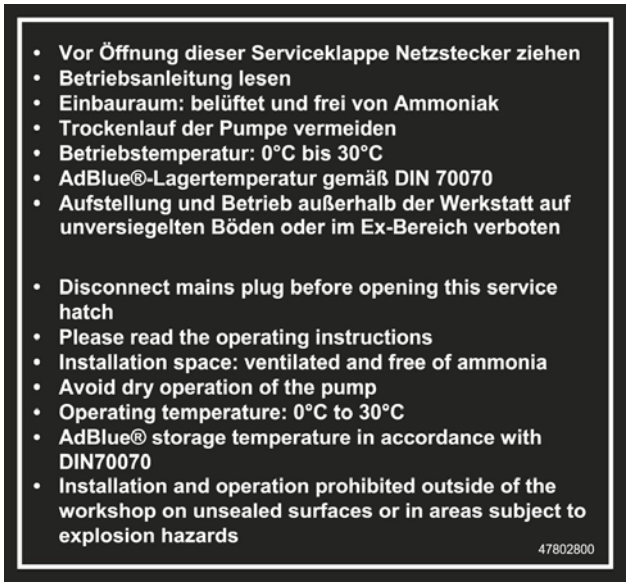


Fig.: 2 Label “Safety”

The notice (label) is located on the front side of the housing.

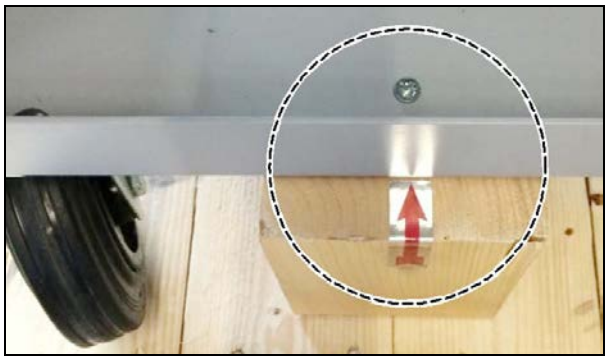
It provides instructions on the safe operation of the system.

The notice (label) “Not calibratable" is located above the display. It provides instructions on the operation of the system.

Dieses Gerät darf nur für die nicht eichfähige Abgabe von AdBlue (nach DIN ISO 70070) eingesetzt werden.
Die erbrachte Leistung auf der Kunden-Rechnung darf nur über einen Pauschalbetrag erfolgen -
es darf kein Literpreis oder die getankte Menge auf der Rechnung ausgeworfen werden.

This machine must only be used for the non-calibratable discharge of AdBlue (according to DIN ISO70070).
The service provided on the customer invoice may only be provided as a lump sum – a price per liter or the quantity refuelled cannot be shown separately on the invoice.

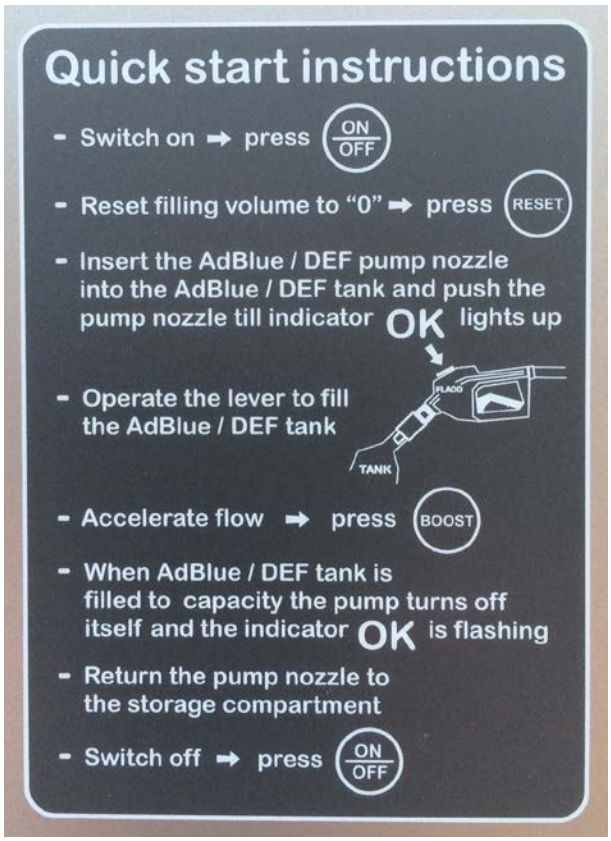
Fig.: 3 Label “Not calibratable"



The notice (label) "Transport anchor" is located several times on the pallet.

It indicates the transport anchors.

Fig.: 4 Label "Transport anchor"



The notice “Operating instructions” is located next to the main display.

It provides assistance for operation.

Fig.: 5 Label “Operating instructions”

Corresponding labels "Operating instructions" for the various language versions of the operating instructions can be found in the pocket on the back of the service lid. The German label is covered over.

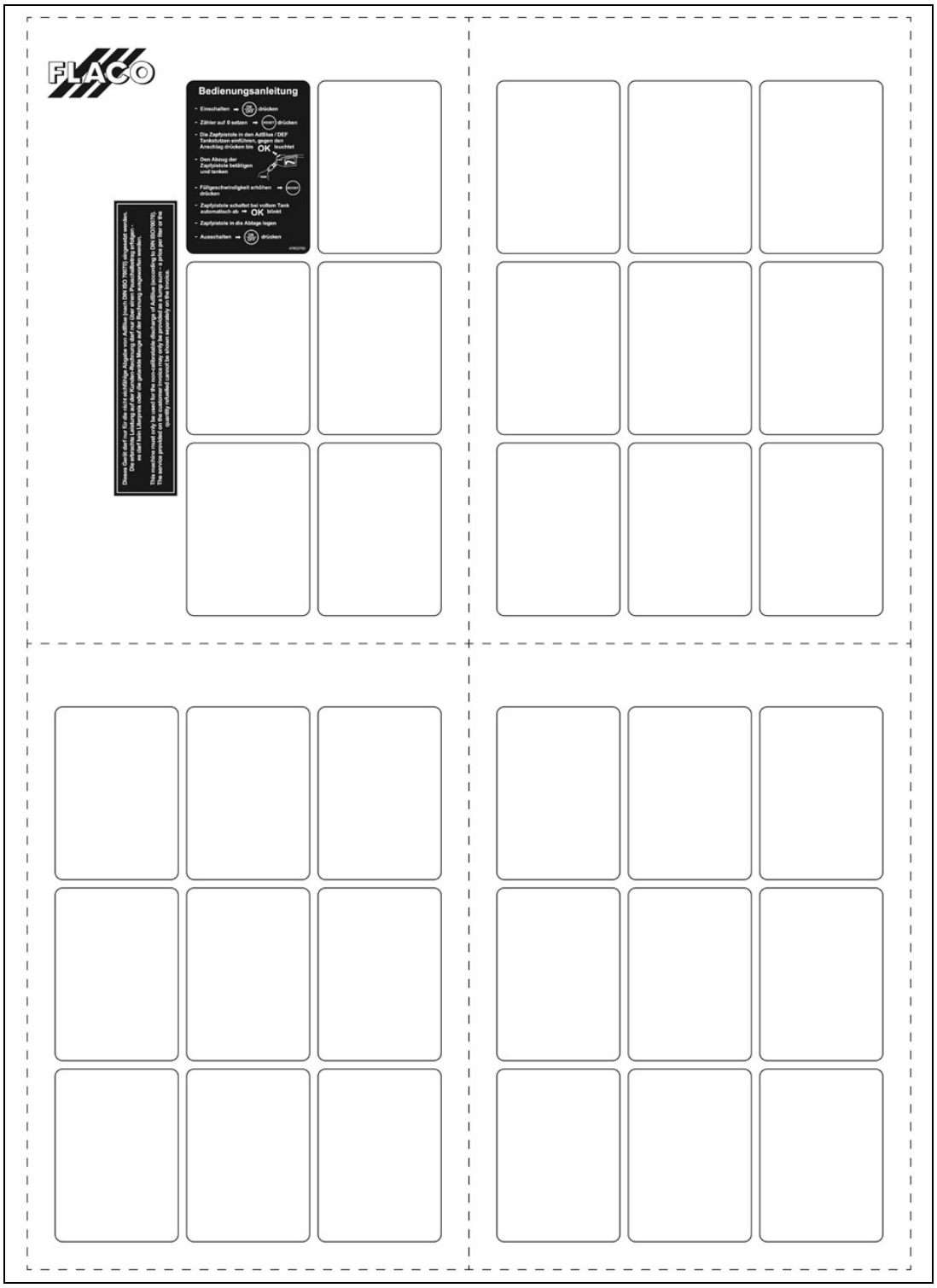


Fig.: 6 Label “Languages”

4. Product description

4.1. Construction

AdBlue® / DEF is injected into the exhaust gas of the vehicle to reduce nitrogen oxide emissions. AdBlue® / DEF consumption amounts to approximately 1.5% of fuel consumption. AdBlue® / DEF breaks down in exhaust gas to ammonia, which reduces nitrogen oxide in the catalytic converter. Nitrogen oxide emissions are reduced by 85%.

The VAS 6960 tank system is designed for fast and safe filling of AdBlue® / DEF tanks and is mainly used in automotive workshops.

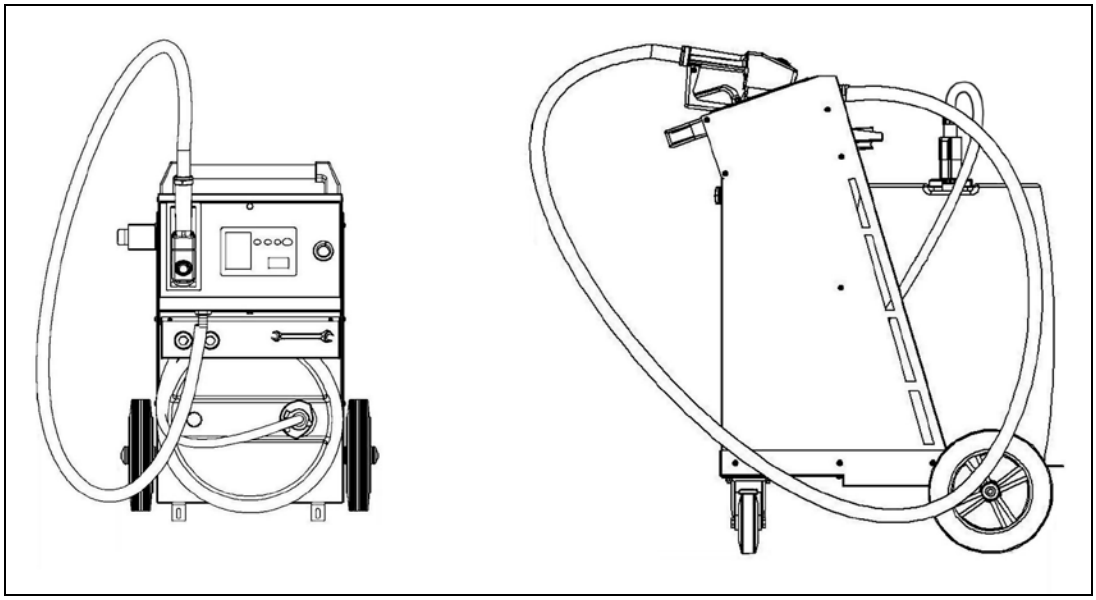
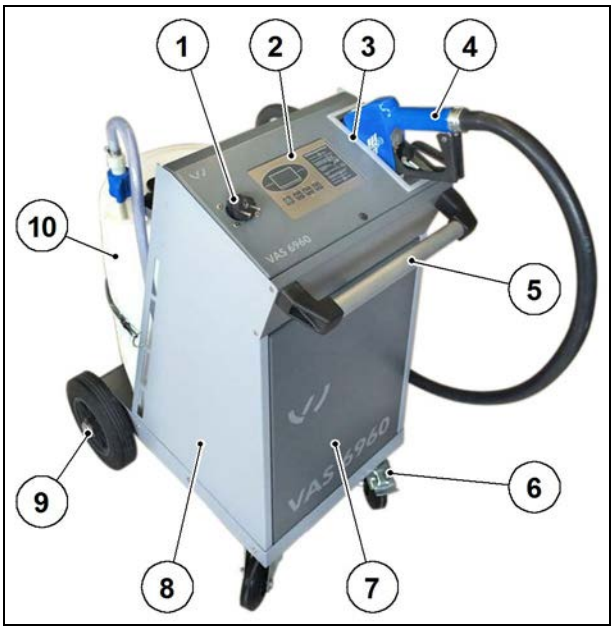


Fig.: 7 View from the top and from the side

Fig.: 8 Name plate

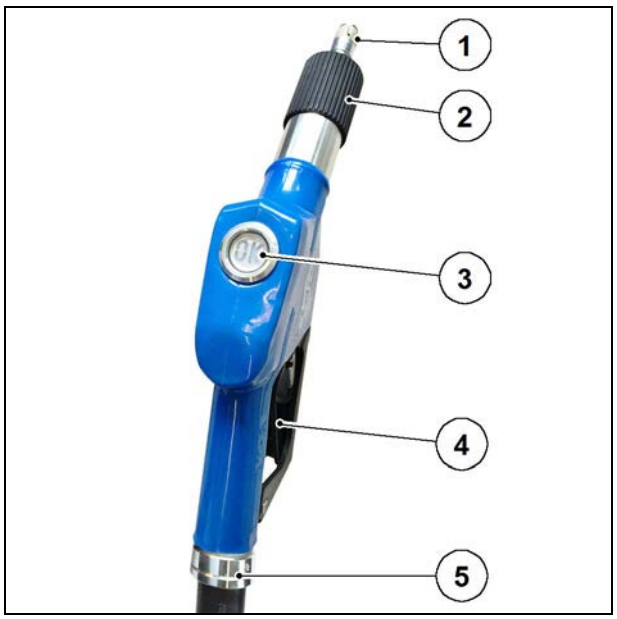
The nameplate with the device reference is attached to the back of the tank system.

The tank system consists essentially of the following components:



1 Plug for charger
2 Control unit
3 Nozzle holder
4 Nozzle
5 Handle
6 Steering wheel with brake
7 Service hatch
8 Housing
9 Disc wheel
10 Canister with CDS suction connection

Fig.: 9 Assemblies of the tank system



1 Quadro-sensor head
2 Filling head
3 Indicator light
4 Trigger
5 Hose fitting with swivel joint

Fig.: 10 Nozzle ZV 10.1A

The chassis is equipped with an empty 60 litre tank. Mains plug, control unit and nozzle bracket are located in the upper area. Battery, electric control and pump are arranged below the panel, behind the cover.

The tank system is battery operated. Therefore, an electric or compressed air connection is not required.

A large VGA display charge gauge provides information at all times about the condition of the battery and gives early warning, if the battery needs recharging with

built-in charger. Information is displayed about the total dispensed quantity, the quantity of the previous refilling and the remaining contents of the canister.

When the maximum filling level has been reached, the FLACO nozzle turns off automatically. The filling process is almost drop-free. To prevent misfilling, the nozzle has been adapted and approved for use with the AdBlue® / DEF filling inlet so as to avoid any confusion. The specially developed quadro-sensor head prevents the AdBlue® / DEF vehicle tank from overflowing.

Fig.: 11 Locking the nozzle

The trigger can be locked so that the nozzle does not need to be held during the entire filling procedure.

An indicator lamp is located on the nozzle.

Fig.: 12 Indicator lamp on the nozzle.

Continuous light “OK”:
The nozzle is correctly fitted to the inlet,
the nozzle is ready for use.

Flashing "OK":
The tank is full, the nozzle can be removed.

No light:
The nozzle is not operational.

4.2 Function

VAS 6960 is designed as a tank system for vehicle refilling (dispensing mode), which can be filled using commercially available containers (auto-filling mode).

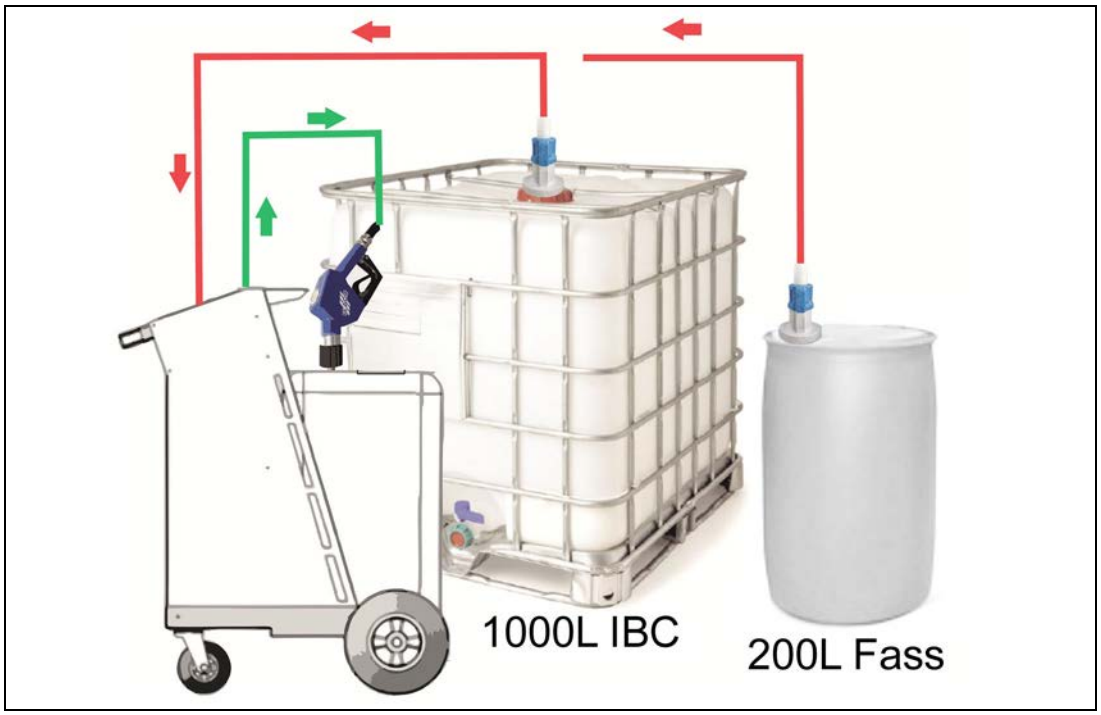


Fig.: 13 System display “Auto-filling"

The battery-powered pump transfers AdBlue® / DEF from the canister of the tank system to the AdBlue® / DEF tank of the vehicle. After retooling the tank connection and connecting the nozzle, the system’s own canister can be filled using the pump.

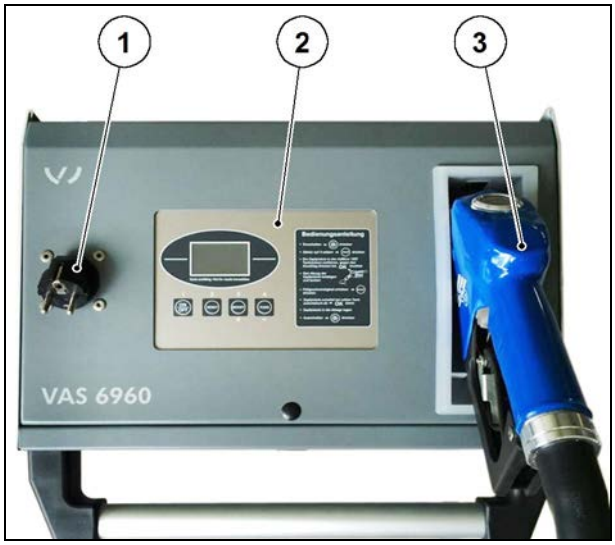
The controls allow various values to be adjusted. A "Booster" mode allows quick refuelling of vehicles.

	PLEASE NOTE
	Bleeding the system The system must always be vented whenever the suction connection is detached from the unit. To do this, keep pumping the nozzle until no air bubbles are visible in the pipeline system.

If the unit is flushed with water, the first 5 litres of dispensed AdBlue® / DEF cannot be used (dispose of properly).

4.3 Operating controls

The tank system is operated via a control unit and nozzle. The built-in charger is powered via the mains plug.



1 Mains plug

2 Control unit

3 Nozzle ZV 10.1A

Fig.: 14 Control elements

4.4 Technical data

Chassis	Made of stainless steel for 60 litre canister, with 2 fixed and 2 swivel wheels, brake and nozzle holder, surfaces powder coated in RAL colour.
Dimensions	Unit: approx. 800 x 580 x 970 mm (L x B x H) Total: approx. 1000 x 580 x 1080 mm (L x B x H)
Weight (empty)	Approx. 48 kg
Suction connection	Via CDS adapter
Feed pump	Self-priming, electric diaphragm pump with pressure switch, system flow rate max. 6.5 l/min. Max. Delivery pressure 2.7 bar.
Power supply	Leak-proof 12V gel battery with fill level indicator and electronic 230V charger.
Measuring instruments and display	Not calibratable, digital display for dispensing and total quantities, battery charge level and tank capacity.
Nozzle	Quad-sensor-controlled FLACO ZV 10.1A automatic nozzle adapted for the AdBlue® / DEF tank inlet (according to ISO 22241-5) to reduce confusion and status display and swivel fitting.
Mains power cable	On battery charger, 1.5 m long with 230 V safety plug
Delivery hose, Container	2 m long with swivel fitting 60l plastic canister with screw cap, opening no. 61
Ambient temp.	0 °C to 30 °C

5 Transport

The tank system is delivered on pallets. The transport anchors are marked with labels.

Fig.: 15 Transport anchor 1

The tank system is screwed onto the blocks of the palette at the points marked with arrows.

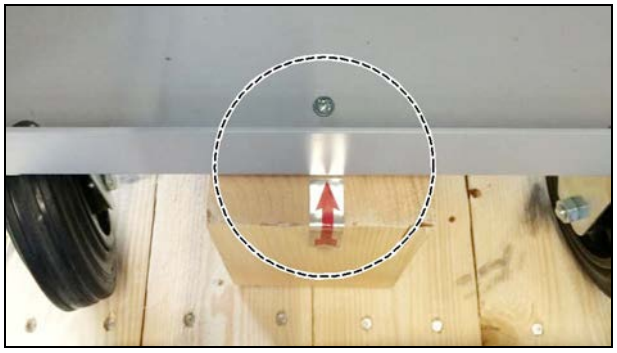


Fig.: 16 Transport anchor 2

- Remove the transport anchors.
- Lift the tank system from the pallet.

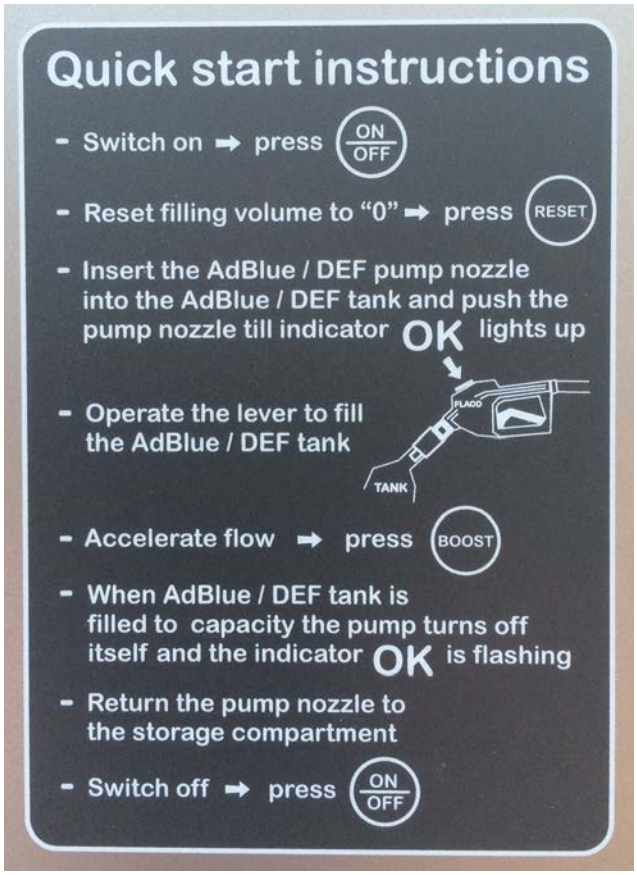
6 Commissioning

The tank system is supplied fully assembled.

6.1 Notice (label) modify “quick start guide”

Find the notice “label" in your language in the pocket on the back of the service lid.

- Cover the notice (label) "Quick start instruction" on the keypad with the supplied notice (label) in the language of the operating instructions.



The notice (label) is located next to the display.

Fig.: 17 Label “Operating instructions”

6.2 Recharging the battery

The tank system is shipped with a charged battery. However, the battery can be either fully or partially discharged by the time of commissioning.

In order to operate the tank system, the battery must first be charged. The charging process can take about 10 hours.

VAS 6960 is equipped with a battery charger.
The mains plug is located next to the control panel.

Fig.: 18 M

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Risk of death by electric shock:
Before you connect the power cord to the power supply, remove the plug and cord for damage.
Do not use, stop service if damage is apparent.

HINWEIS

Charge the battery
While the device is connected to the power supply for charging no refueling operation can be performed.

- Pull the mains plug from its holder and connect it to the power supply. The cable is about 1.5 m long
- After charging, insert the cable into the holder.

6.3 Filling the system

In order to fill the tank system canister (auto-filling), please refer to chapter "7 Operation".

CAUTION

Risk of injury!

Avoid skin and eye contact with AdBlue® / DEF. Contact can cause irritation and injury.

Also observe the AdBlue® / DEF safety data sheet from your AdBlue® / DEF suppliers!

7 Operation

The tank system is adjusted using the control panel. The nozzle is used for refilling. A quick guide is attached next to the control panel.

7.1 Control panel

The control panel allows the default settings to be changed.

PLEASE NOTE

Material damage can be caused by operating the touch panels with pointed objects.

Pointed objects damage the surface of the control panel.

The control panel must only be operated by tapping with the fingers. Don’t use any sharp objects such as screwdrivers or pens.

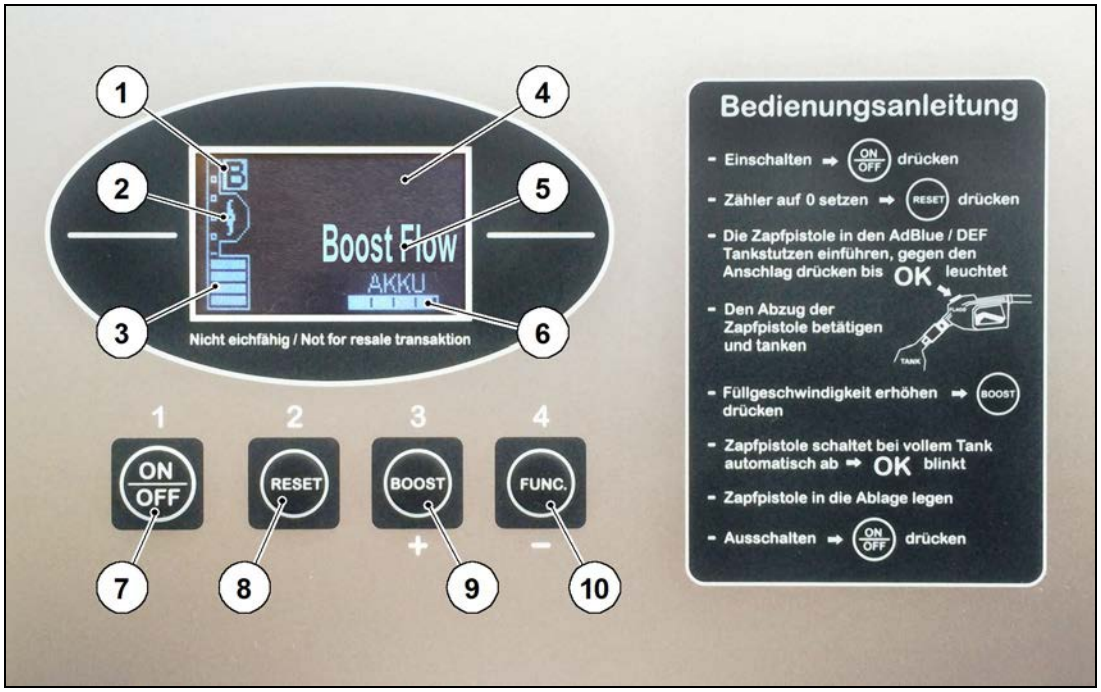


Fig.: 19 Control panel

1 Display “Booster mode”
2 Display “Pump function”
3 Display “Tank contents”
4 Display
5 Display “Filling mode”
6 Display “Battery charge level”
7 Button 1 “System ON / OFF”
8 Button 2 “Reset”
9 Button 3 “Booster ON / OFF”
10 Button 4 "Monitor exchange function"

Button 3 “Booster ON / OFF” allows you to switch to “Boost” mode. The tank system then operates at maximum volume flow thereby accelerating filling operations.

The following settings are factory-set by **FLACO**:

Configuration	Options	Pre-sets
Language	D / EN / F / ES	english
Units	L / Gal / Imp. Gal	gallon
Error diagnosis		

Keep in mind that some keys have multiple functions.

Change factory settings

- Hold Button 2 “Reset" for about 5 seconds to select the "Password” password entry window.

The "Password” password entry window appears.

- Enter "234432" by pressing the keys.

The configuration menu opens once the code has been entered correctly. Here, you can customize settings e.g. the language and units. By pressing the Button 2 “Reset”, you can click through the configuration options - by pressing the "+" or "-" keys (buttons 3 or 4), you can change the configuration.

At the end of the configuration cycle you return automatically to operating mode. The changes are saved.

PLEASE NOTE

Restriction of pump operation

Do not turn on the pump during the charging process.

The runtime of the pump (per pumping procedure) is limited.

If the pump has switched itself off, let it cool. Then turn on the pump again.

7.2 Auto-filling mode

In auto-filling mode (refill) the system's own canister is refilled.

Only sealed original containers must be used to avoid contaminating the AdBlue® / DEF and to ensure the trouble-free function of the VAS 6960.

PLEASE NOTE

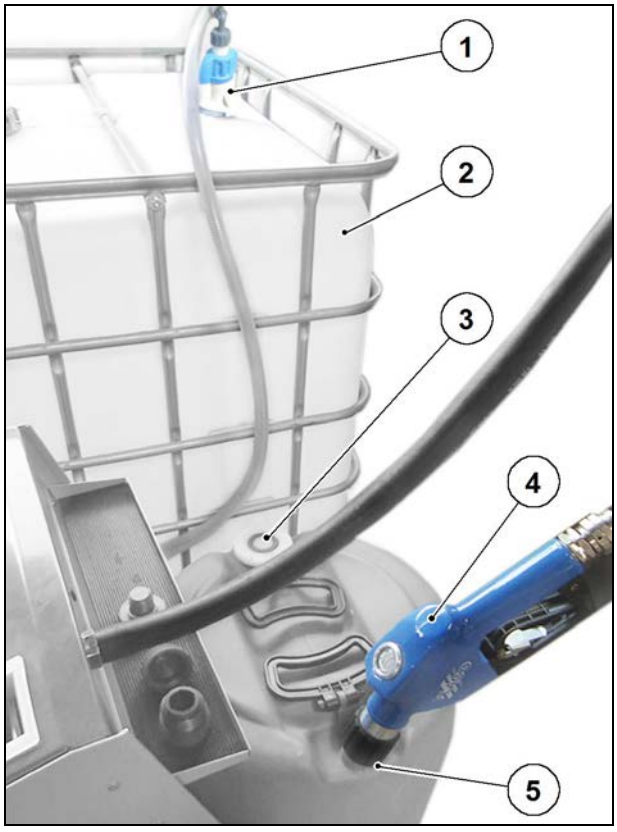
Material damage caused by contamination of the suction probe

When replacing the canister, it is essential to ensure that the suction probe does not come into contact with dirt particles. Never place the suction probe on the floor.

- Firmly fix the brake to the steering wheel.
- Clean the probe with a clean cloth before you insert it into the tank.

Auto-filling the VAS 6960

- Connect the CDS suction adapter to a 1000L-IBC.
- Insert the nozzle into the inlet port of the 60l canister.



1 CDS adapter (in auto-filling mode)

2 1000L IBC

3 Suction connection for CDS adapter (in dispensing mode)

4 Nozzle

5 Nozzle in inlet port for auto-filling

Fig.: 20 Auto-filling mode

The CDS of the suction hose is connected to supply container in the auto-filling mode (refill). In dispensing mode, it is connected to the canister attached to the tank system.

Fig.: 21 CDS adapter

- Press button 4. The sub-menu appears (2=replace canister, 3=refill / bleeding; 4=back).
- Press button 3 to activate auto-filling mode (refill). "R" (Refill) flashes in the display.

Fig.: 22 Sub-menu

- Fill the canister (60l).
- After the canister is filled, remove the CDS adapter from the 1000L-IBC.
- Connect the CDS adapter to the 60l canister.
- Close the 1000L-IBC.
- Bleed the system.

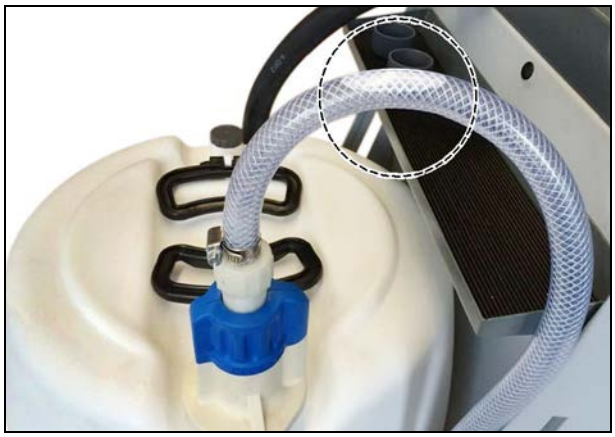
PLEASE NOTE

Bleeding the system

The system should be bled after each time you refill (refill / bleeding). To do this, pump AdBlue® / DEF with "Boost Flow" for about 1 minute around the cycle. Once air bubbles are no longer visible in the suction hose, you should continue to pump AdBlue® / DEF for approximately 20 seconds through the system.

Attention

Dry running damages the pump.



Air bubbles appear at the highest point of the hose.

Fig.: 23 Bubble

- Then insert the nozzle in the nozzle pocket.
- Finally press Button 4 “Back" to change into dispensing mode.

PLEASE NOTE

Replacing the canister

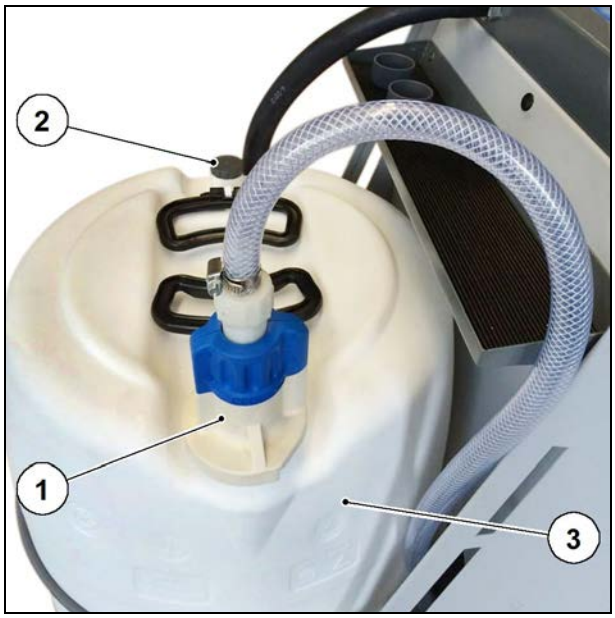
The canister can be replaced when system is switched off.

Attention

The canister must always be secured.

7.3 Dispensing mode

The tank system operates in dispensing mode when filling vehicles. In dispensing mode, the CDS suction adapter of the VAS 6960 is connected to the device's own 60l canister.



1 CDS adapter

2 Cap for inlet

3 60l canister

Fig.: 24 Dispensing mode

PLEASE NOTE

Handling AdBlue® / DEF

Efflorescence of AdBlue® / DEF is no reason for complaint.

Use only demineralised water when cleaning AdBlue® / DEF from any parts.

Do not use tap water.

A quick start guide is attached next to the control panel. Follow the information in the operating instructions.

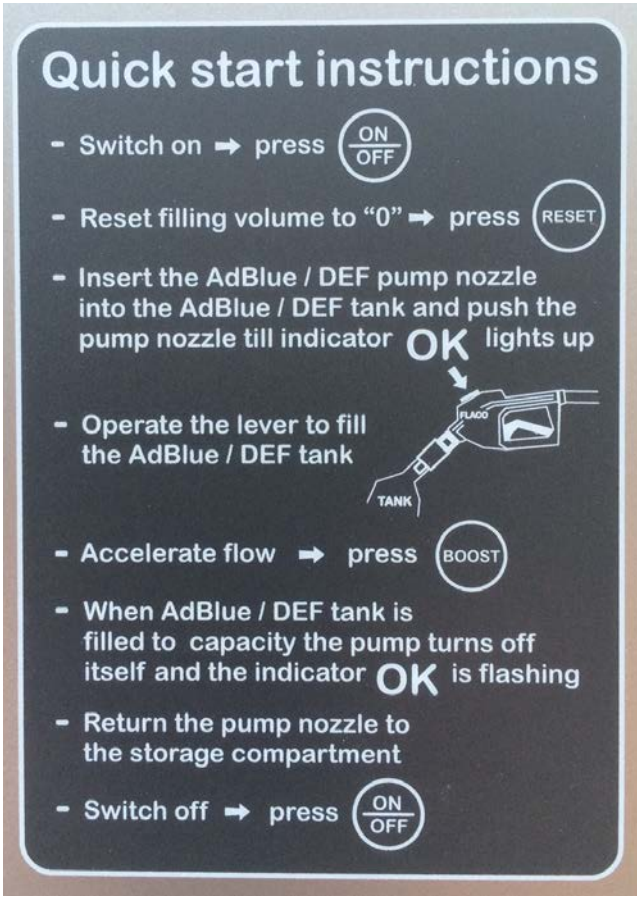


Fig.: 25 Operating instructions

The trigger can be locked so that the nozzle does not need to be held during the entire filling procedure.

	**CAUTION**
	Risk of injury! Avoid skin and eye contact with AdBlue® / DEF. Contact can cause irritation and injury Also observe the AdBlue® / DEF safety data sheet from your AdBlue® / DEF suppliers!

The two adjustable dispensing flows (3.5 l / min and after pressing the “Boost button" 6.5 l / min) are represented in the display with "Standard Flow" and "Boost Flow".

During the filling procedure the dispensing amount and the total output can be called up in litres (without decimals and units) by pressing the Button 4 “Monitor exchange function”.

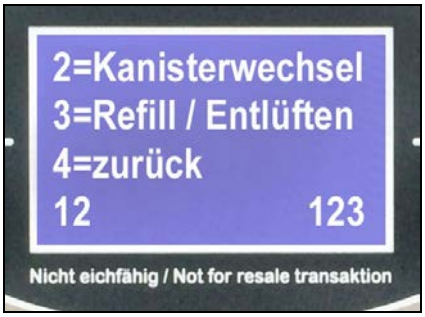


Fig.: 26 Menu and submenus

- Firmly fix the brake to the steering wheel.
- Insert the nozzle into the tank inlet port of the vehicle.

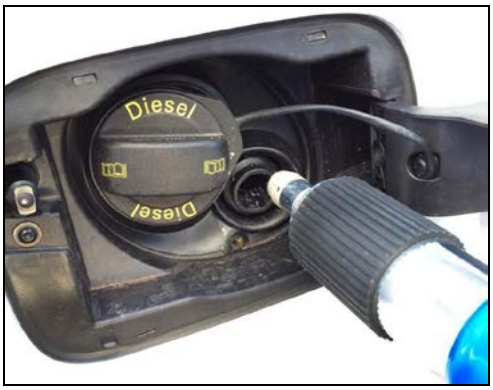


Fig.: 27 Tank inlet and nozzle

- Fill the tank.
- Insert the nozzle in the nozzle pocket and close the tank inlet.

After completing the filling procedure, the former dispensing quantity and the total output can be displayed without the decimal point and unit (litres) by pressing Button 4. The value on the left corresponds to the last dispensing quantity, the value on the right corresponds to the total output in litres.

- Turn off the system, as necessary.

8 Trouble shooting

If the nozzle is kept clean and the battery sufficiently charged, the dispensing system usually works trouble-free.

System flow rate too low

After a long period of operation, the flow rate may reduce.

- Clean the nozzle.
- Check the filter and the valve behind it for crystal deposits.
  A more detailed description can be found in chapter “9 Cleaning / maintenance / servicing”.

Battery not charged or insufficiently charged

To avoid a flat battery, charge the device at regular intervals. 1x per week (even when not in use).

Air in the system

In the course of time, leaks can occur.

- Check the integrity of the outer hoses carrying AdBlue® / DEF as well as connections.
- Retighten them.
- Remove the CDS adapter, replace it again and tighten.

If you are unable to resolve a fault, please call our service line: 866-518-4537.

Keep **item number** and **serial number** at hand when using the MAHA service line. You can find the numbers on the nameplate.

Or send an email to vas@maha-usa.com stating both **item number** and **serial number**.

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9 Cleaning / maintenance / servicing

Cleaning work is performed by the operator; maintenance and repair work may only be carried out by personnel trained by FLACO.
Turn off the system, before performing cleaning or maintenance work.

9.1 Cleaning

In general, all surfaces should be wiped daily with lukewarm tap water and dried with a clean cloth.
Clean the nozzle and the nozzle pocket as necessary.

The nozzle must not be immersed in water. It should also be cleaned out with a damp cloth.

It is important to keep the outlet of the nozzle free from crystal deposits. To do this, you may clean the outlet under running water. Take special care to ensure that the sensors are clean and dry.

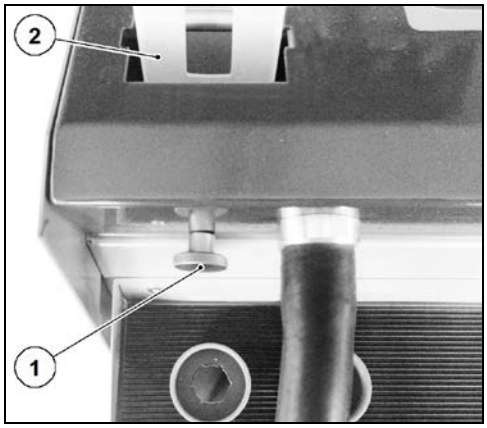


Fig.: 28 Locking button

AdBlue® / DEF residues can gather in the nozzle pocket (2).

The nozzle pocket can be removed from its holder for cleaning. To remove the nozzle pocket, the locking button (1) on the front of the system must be unlocked (pulled out). After replacing the nozzle pocket, the button back clicks into place and secures the nozzle pocket.

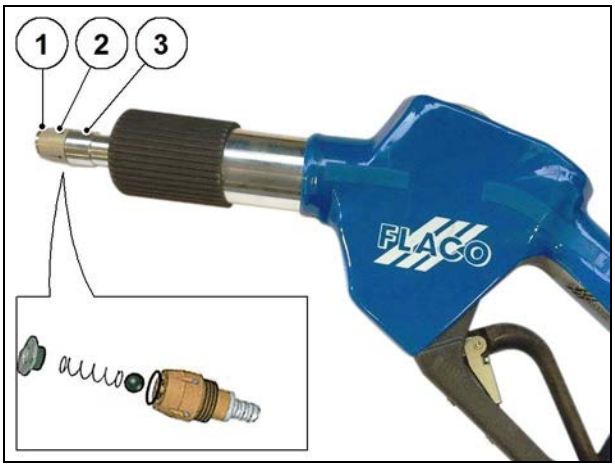
PLEASE NOTE

Cleaning the filter

The pump system is equipped with a pressure switch. If the pump suddenly alternates between on and off, the filter in the outlet of the nozzle must be cleaned. The installation and removal of the filter is described in the next paragraph (9.2).

9.2 Maintenance / servicing

In case of decreasing pump performance in “Booster" mode, the nozzle filter should be cleaned.

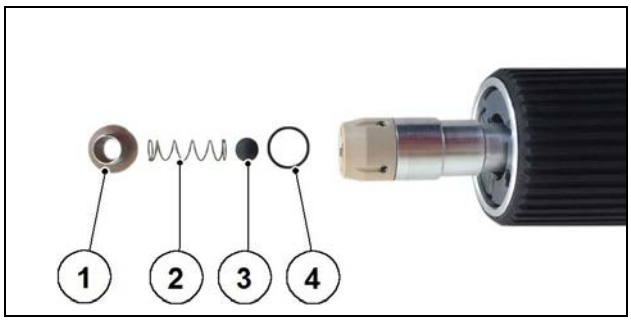


1 Filter support
2 Nozzle
3 Outlet

Fig.: 29 Nozzle ZV 10.1A

- Unscrew the filter support using a 10 mm open-ended spanner (supplied). Make sure that the inner spring and the rubber ball do not fall out.

Fig.: 30 Spanner on ZV 10.1A



1 Filter support
2 Spring
3 Rubber ball
4 Seal

Fig.: 31 Components ZV 10.1A

- Remove the filter support.
- Clean the filter with water.
- Replace the unit in the nozzle.
  Check the integrity of the seal when re-assembling.
  Insert a new seal if necessary.

Check that the ventilation hole goes right through the canister.

A clogged ventilation hole can interfere with the filling procedure.

Fig.: 32 Ventilation of the canister

- Regularly clean the ventilation hole either with compressed air or by sticking something through it.

Perform the following repairs **once a year** (trained personnel only):
– Check integrity of seals and replace seals and clamps if necessary.
– Check components (filter and nozzle valve, intake manifold etc.) and clean them. If necessary, replace components.

In addition, we recommend an **annual maintenance service** by us or by a company approved by us. This service includes inspection of volume flow and calibration and, if necessary, a software update. Pipes carrying AdBlue® / DEF may also be cleaned as well.

	PLEASE NOTE
	Cleaning the system Cleaning is not necessary so long as the system is used with AdBlue® / DEF in accordance with DIN / ISO and is operated professionally and cleanly so that contamination of AdBlue® / DEF can be excluded.

In case of damage, the pump assembly is typically not repaired on-site. It must be removed and sent to the manufacturers, FLACO-Geräte GmbH, for replacement. The steps necessary for this are initiated and coordinated by our service line 866-518-4537.

Replacement parts

00 000 206	Compl. pump assembly - replacement without suction hose
00 000 207	CDS adapter with seal
00 000 208	60 litre canister
42 501 256	Suction fitting for 200 litre drum (ASE40464200 000)

Spare parts

00 000 204	Filter replacement kit (ASE 40464100 000)

10 Decommissioning / disposal

Electrical components must be uninstalled by certified electricians only. They must be brought in a state where they can no longer be used for the purposes for which they were constructed.

Electrical components are hazardous waste and must be disposed of separately from the machine.

The manufacturer declines all liability for any injury or damage to property caused by the reuse of machine parts, if these are used for any purpose other than the original purpose.

The tank system must not contain any hazardous materials that must be disposed of separately.

Supply lines must be closed properly.

The producer recommends that disposal of the tank system be performed by a qualified, specialist company.

11 Customer service addresses / spare parts sales

Please contact the **MAHA USA Service Department** in case of questions or to order spare parts.

Availability:	Monday – Thursday	7:00 am – 4:30 pm CST
	Friday	7:00 am – 12:00 pm CST
Service Line:	866-518-4537	
Email:	**service@maha-usa.com**	
Service address:	**MAHA USA L.L.C.** 2404 East Highway 134 Pinckard, AL 36371	