HORN TECALEMIT



Operating manual

TankQuick 100 F2

Item-No.: 013895201

Translation of the original operating manual

Important!

The operating manual is always to be read before commissioning the equipment. No warranty claim will be granted for faults and damage to the equipment arising from insufficient knowledge of the operating manual.

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Service Hotline +49 1805 900 301 (0,14 €/Min: on the German landline network, Mobile telephone max. 0,42 €/Min.)

service@tecalemit.de

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1 Safety instructions

The device is a state of the art piece of equipment and has been constructed according to recognised safety specifications. It is nevertheless possible that use of the device will present hazards to the operator or to third parties, or may damage the device or other property. It is therefore essential to act in accordance with these safety instructions, and in particular with those sections identified as warnings.

Warning notices and symbols

In the operating manual, the following signs are used for highlighting important information.

- Special information for economical use of the equipment.
- Special information or "dos and don'ts" for damage prevention.
- Information or "dos and don'ts" for the prevention of damage to persons or equipment.

Appropriate use

- The device may only be used if it is in perfect condition, and then only for its intended purpose, in compliance with all safety regulations, with an awareness of the potential risks, and according to the operating manual. Any faults that may impair the safety must be rectified immediately.
- The device and its components are only to be used for handling the liquids listed and the purpose described. Using the machine for any other purpose would constitute inappropriate use. The manufacturer is not responsible for any loss arising as a result of this, the risk for this is borne only by the operating company.

Organisational measures

This operating manual should always be kept readily available at the site of operation! Each person concerned with the assembly, commissioning, maintenance and operation of the equipment must have read and understood the entire operating manual. It is essential that the type plate and the warning notices attached to the device are observed, and are maintained in a fully readable condition.

Qualified personnel

The operating, maintenance and assembly personnel must be appropriately qualified for their work. The areas of responsibility, competences and supervision of the personnel must be precisely regulated by the operating company. If the personnel do not have the required knowledge, they must be trained and instructed. The operating company must also ensure that the contents of the operating manual are properly understood by the personnel.

Waters protection

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The device has been designed to handle water hazardous substances. The regulations on the operating place (e.g. Water Resources Act WHG, = ordinance on installations for handling of substances hazardous to water VAwS) must be adhered to.

Hydraulics



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Only persons with special knowledge and experience with hydraulic systems may carry out work on hydraulic parts and equipment. All lines, hoses and screw joints should regularly be checked for leaks and visible external damage. Any damage must be rectified immediately. Any oil spurting out can cause injuries and fire.

The relevant safety regulations for the product must be followed when handling oils, greases or other chemical substances!

Maintenance and Service

According to the regulations of the water resources law only authorized services may work on devices for flammable and/or water endangering substances. During such works, appropriate tools are to be used (avoid sparking). Before any kind of work on the device, all fuel lines are to be completely emptied and aerated.

Do not make any changes. Modifications or additions to the device which may affect the safety cannot be carried out without consent of the manufacturer. Exclusively genuine spare parts made by the manufacturer may be used.

Electric power



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Work on the electrical equipment may only be carried out by a qualified electrician or by trained persons under the guidance and supervision of a qualified electrician according to electro-technical guidelines. Machine or system components, on which inspection, maintenance or repair work is to be carried out must be de-energised.

Explosion Protection

The device is constructed for use with explosive substances. The design and production have been effected under observance of the valid regulations, especially regulation 94/9/EG (ATEX 95) and the technical rules for flammable fluids (TRbF). The operator has to observe the regulations concerning the operation of such devices, especially the regulation 1999/92/EG (ATEX 137) and the operational safety regulations (BetrSichV).

2 Product description

2.1 Appropriate use

The TankQuick 100 F2 is a device used to decant fuels from vehicles in to the devices own tanks and refilling the empty tanks. The device was especially designed for the use in car garages, petrol stations and similar facilities. Cases of use are the emptying of tanks of vehicles due to be worked on, or drainage of tanks after wrong fuelling.

This device is approved for use with potentially explosive liquids and for operation in potentially explosive atmospheres. The permissible type of use is specified by the Ex mark in the declaration of conformity and on the type plate. The device may be filled exclusively with the liquids listed below.

The device complies with the valid regulations, especially ATEX (RL 94/9/EG). This is documented in the declaration of conformity and with the CE-tag.

During operation, the fuel is extracted over the suction hose with the help of the pneumatic double membrane pump and filled into the container. For the duration of the operation, the fuel remains in the container. After switching over the control valve, the fuel is released from the container. The gas pendulum system ensures that the displaced gas does not escape, and that in case of overfilling the medium is redirected to the vehicle tank.

2.2 Features

- Wheeled 100 litre tank with check valve and content level indicator
- Pump unit with conveying pump, fuel filter, compressed air regulator and control valves
- Hose system with tank filler adapter, extraction, refuelling and gas pendulum hose.
- Accessories (optional): adapter set for extraction over fuel hose

2.3 Technical data

Dimensions	Height Width Depth	approx. 1150 mm approx. 600 mm approx. 610 mm
Empty weight Noise emission Tanks	Volume Max. permitted filling volume	approx. 56 kg < 70 dB(A) 100l 90l
Pump aggregate Operating resource	Output Compressed air, not oiled, filtered 25 µm	approx. 7,5 l/min min. 7 bar, max. 10 bar
Permissible ambient temp.	Operation and breaks in work	0°- 40° C
Permissible media temperature		0°- 40° C
Pumping media		Petrol, diesel, E85 (ethanol fuel), others on enquiry

3 Assembly

3.1 Site

The TankQuick can only be used in professionally equipped services, such as petrol stations or garages. The site has to be selected as to avoid danger to persons as well as pollution of the environment. Following points are to be observed:

- The device has to be operated as to be able to collect, recognize and dispose of escaping fluid. That is why it may only be operated and placed on a base impervious to fluids. Dripping amounts are to be wiped away immediately.
- In accordance with TRbF 40, the area with a radius of approx. 0.2 m around the equipment is to be classified as Ex-zone 2. The device must therefore only be used in the open air or in well-ventilated rooms. The necessary explosive hazard protection measures must be taken.

In particular smoking, naked flames and working with tools that generate sparks are forbidden in the vicinity of the device.

- Outside the operation times, the device is to be stored in a room where there are no people. Pay attention to sufficient ventilation and prevention of heating.
- In order to be able to divert static charges, the device may not be stood on isolating surfaces.
- The site must provide sufficient protection from unauthorized use.
- Set up protected form damages by third parties, i.e. not near driveways or roads or work surfaces.
- Set up protected from heating (i.e. direct sunlight).

3.2 Compressed Air Supply

Fault-free operation involving relatively little servicing is only ensured if the supply of compressed air is free from dirt, water condensation and oil.

The use of a compressed air filter with automatic condensate drain is strongly recommended.

For the operation of the TankQuick, an entry pressure of min. 7 bar is necessary.

4 Commissioning

4.1 Determination of medium

Also in an emptied container residues of the extracted fluids will remain. In order to ensure that there is no mixing of sorts, the medium for a device must be specified during commissioning (diesel, petrol or E85).

4.2 Setting operating pressure

When commissioning, or in case of a modification of the operating pressure in the compressed air supply, the internal operating pressure of the conveying pump must be checked and if necessary re-adjusted. The internal operating pressure can be read off the manometer when the compressed air supply is connected.

The max. internal operating pressure of the TankQuick may not exceed 6,5 bar. A higher operating pressure can result in damage to the pump.

The max. suction capacity is reached at 6,5 bar, a higher operating pressure does not produce an increase in the output.

Procedure:

- Switch the right lever to position "Aus" (off).
- Connect TankQuick to the compressed air supply (min. 7 bar max. 10 bar).
- Open casing of the TankQuick. For this, screw out the two upper screws (1) and loosen the two lower screws (2).
- Pull button of the pressure regulator up and set an operating pressure of max. 6,5 bar by turning the button (see ill. 1).
- Push button back down and shut casing. The now ready for operation.



Illustration 1

5 Operation

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5.1 Safety notes

The operation can only be carried out by instructed staff. Following points are to be observed:

- Flammable fluids may only be filled into appropriate containers.
- During operation the engine and the heating of the vehicle to be emptied / refilled are to be switched off.
- During operation appropriate fire control means must be present (i.e. fire extinguishers).

5.2 Extraction of fuel

The extraction is effected over the suction hose inserted in the tank through the tank filler. During the extraction, the gas pendulum line serves also as an overflow safety for the container. In case of an overfilling, the exceeding fuel is redirected into the vehicle tank.

5.2.1 Mounting hose set

For vehicles which will be emptied over the tank filler, the suction hose set must be mounted as follows (See fig. 2 – items 3 and 4 are part of the adapter set for extracting via the fuel hose. The set is available as an accessory):

- Screw out sealing plug (4) from the handle (1) and pull extraction hose through handle.
- Screw connector (5) to handle (hand tight).
- The thread of the handle (1) must fit the tank filler of the vehicle. Should this not be the case, the adapter (2) can be pushed over the handle. Ensure a perfect fit of the O-seal.
 8
 2
 1
 5
 7



5.2.2 Extraction process

The suction hose set can be used as in the delivery condition with the suction hose fed through the extraction adapter; see figure 3.

5.2.2.1 Extraction Procedure

- Move Drive the TankQuick to the vehicle to be emptied.
- Clamp bracket from the potential equalization cable to the vehicle
- Insert suction / lead back line into vehicle tank and lock handle in the tank filler by a right turn or insert adapter.

During operation secure handle in tank filler by hand! The gas pendulum line must hang into the tank filler!

- Connect compressed air supply.
- Switch the left and the middle switch to position "Absaugen" (suction).
- Switch on device over the right switch (on-off).
- Press the lever at the check valve (see ill. 4) of the container the tank content is sucked off.
- The suction process can be checked over the sight line of the check valve. It may be the case that the flow of medium is no longer visible in the inspection glass, although the vehicle tank is not yet completely empty. In this case, the suction hose must either be pushed further into the tank or pulled further out of the tank through the gripper piece in the filler pipe. This should be done slowly and in

short steps, since the suction hose must first be refilled with liquid. Only then is it possible to check again on the inspection glass.

- During the suction process constantly check the content level of the container to avoid overfilling!
 - After the suction procedure is finished, allow the pump to run on for a short while in order to empty the hoses. Then switch off the device with the control lever (switch setting '0') and disconnect the compressed air supply.

5.3 Extraction of fuel over fuel line

The extraction is effected over the suction hose connected to the fuel line of the vehicle. For this, the adapter set available as an accessory is necessary.



The extraction over the fuel line can only be carried out with the permission of the relevant vehicle manufacturer!

5.3.1 Mounting hose set

For vehicles which will be emptied over the fuel line, the suction hose set must be mounted as follows:

- Screw connector (5) out of handle (1) and pull suction hose out of the handle.
- Turn sealing plug (4) into the free thread of the handle (hand screwed).
- Screw hose adapter (3) into the ball tip (8).



5.3.2 Extraction process

- Drive the TankQuick to the vehicle to be emptied.
- Clamp bracket from the potential equalization cable to the vehicle.
- Mount handle with gas pendulum line in the tank filler of the vehicle.

The gas pendulum line must hang into the tank filler.

- Connect hose adapter with suction line to fuel line
- Connect compressed air supply.

- Switch the left and the middle switch to position "Absaugen" (suction).
- Switch on device over the right switch (on-off).
- Press the lever at the check valve (see ill. 4) of the container the tank content is sucked off. The suction process can be checked over the sight line of the check valve.
- During the suction process constantly check the content level of the container to avoid overfilling.
 - Should there no longer be any medium flowing through the sight line, the extraction process can be terminated. Switch off the device over the on off switch and disconnect the compressed air supply.

5.4 Re-fuelling

The refilling of fuel out of the container into the tank of the vehicle can only be effected over the tank filler.

- Refuelling over the fuel line is not permitted! Carry out mounting of the hose set as described in 5.2.1.
- To avoid an overfilling, only the fuel extracted should be refilled into a vehicle.
 - Drive the TankQuick to the vehicle to be fuelled.
 - Clamp bracket from the potential equalization cable to the vehicle.
 - Insert suction / lead back line into vehicle tank (approx. 20 cm) and lock handle in the tank filler by a right turn.

During operation secure handle in tank filler by hand! The gas pendulum line must hang into the tank filler!

- Connect compressed air supply.
- Switch the left and the middle switch to position "Rücktanken" (refuel).
- Switch on device over the right switch (on-off).
- Press the lever at the check valve (see ill. 4) of the container – the tank content is filled back.
- After ending the suction process, switch off device over the On-Off switch, and disconnect the compressed air supply.



Illustration 4

5.5 Breaks in work

The TankOuick is to be placed in special rooms during breaks in work; see chapter "place of installation".



The container is not a storage tank. It may only be used for fuels that occur in the /!\ respective work step and must be emptied again accordingly after a maximum of one day.

In order to ensure that the device works perfectly at all times, it should be emptied before breaks in work if at all possible. To do this, carry out the emptying procedure as described in the chapter "Refilling the Vehicle with Fuel" until only air exits from the dispensing hose.



The ambient temperature specified in the chapter "Technical data" must also be maintained during breaks in work.

6 Maintenance and service

6.1 Cleaning

Clean the equipment only from the outside with cold or lukewarm water. Do not use any aggressive cleansing agents or soap. If using a water hose, do not point the stream directly on the components. Do not use any high-pressure or steam cleaners.

6.2 Containers

The container is explosion pressure shockproof according to TRbF 40 and may only be filled with flammable fluids when in faultless condition. Therefore it is to be regularly checked for damages or corrosion.

/!\ It is absolutely forbidden to continue using a damaged or not faultless container!

6.3 Dirt traps and filters

The dirt traps and filters are to be cleaned at regular intervals, and their function is to be checked:

- Filter / water separator in constructional compressed air mains •
- Filter/ water separator at compressed air connection of device
- Fuel filter in pump aggregate

6.4 Pressure regulator

The pressure regulator is to be checked at regular intervals for faultless functioning and correct setting. The setting is to be effected according to chapter 4.2.

6.5 Pump

The compressed air pump is provided with a RESET-button, which brings the membranes of the pump chamber back into the start-up position. The button is accessible from the outside and can be actuated with e.g. a screwdriver (max. Ø4 mm) (see ill. 5)



6.6 Type plate and warnings

 ${\rm I}$ The warnings and type plate located on the device must be easily legible. Dirty plates are to be cleaned, or if necessary, replaced.

6.7 Error correction

Error	Possible reason	Measure
Pump does not run or	Middle position of the pump	Press RESET button on
stops during	membrane	pump (see ill 5)
operation		
	Fuel filter dirty	Demount sieve out of fuel
		filter and clean
	Lever on check valve is not	Actuate lever during
	pressed	suction or refuelling
		process (see ill 4)
	Too low operating temperature	Set inner operation
Little or po fuel is		pressure acc. to chap. 4.2
Little of no idel is	Suction line bent or defective	Check suction/refuelling
returned to the tank		line for possible damage
	Switch position wrong	Carry out suction or
		refuelling process ass. to
		chap. 5
	Service life of pump membranes	Send pump in for
	exceeded	maintenance
	Pressure regulator dirty	Clean / replace filter
		element

7 Disposal

The device is to be emptied completely and the liquids properly disposed of in case it is taken out of service.

The equipment is to be disposed of properly when taken permanently out of service:



- Return old metal for recycling.

- Return plastic parts for recycling.

- Return electronic waste for recycling.

The water legal regulations are to be followed.

8 Function plan



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9 Declaration of conformity

Konformitätserklärung Declaration of Confirmity

Hiermit erklären wir, dass die Bauart We herewith declare that the construction type

Bezeichnung: Designation:	Kraftstoff Umfüllgerät Fuel refilling device
Тур: <i>Туре:</i>	TankQuick 100F2
Artikel-Nr.: Item No.:	013895201

in der von uns gelieferten Ausführung folgenden einschlägigen Bestimmungen entspricht: in the form as delivered by us complies with the following applicable regulations:

-	Maschinenrichtlinie	2006/42/EG	- ATEX-Richtlinie	94/9/EG
	Machinery safety	2006/42/EC	ATEX-directive	94/9/EC

Angewendete harmonisierte Normen: Applied harmonised standards:

EN ISO 12100-1, -2	2 EN 1127-1	EN 13463-1	EN 13463-5
Kennzeichnung des	s Geräts gemäß EN	N 13463-1:	<छ II 2G c IIA T3
Labeling of the dev	ice according to EN	N 13463-1:	

EG-Dokumentationsbevollmächtigter: *EC official agent for documentation:*

Jörg Mohr Horn GmbH & Co. KG Munketoft 42 24937 Flensburg

09.02.2010 Datum *Date*

. Dipl.-Ing. Jörg Mohr Entwicklungsleiter / Manager R&D

HORN GmbH & Co. KG Munketoft 42 D – 24937 Flensburg Postfach 1853 D – 24908 Flensburg Telefon: +49 (0) 461/ 8696-0 Telefax: +49 (0) 461/ 8696-66 Geschäftsführer: Torsten H. Kutschinski Jürgen Abromeit



HORN GmbH & Co. KG

Munketoft 42 24937 Flensburg Germany

T +49 461-8696-0 F +49 461-8696-66

www.tecalemit.de info@tecalemit.de