



Operating manual

HORNET

W 85 H INOX

Item Number: US108600005; US108600006; US108600007;
US108600008; US108600009; US108600010

Copyright

**Be certain to read this operation manual before commissioning the device.
No guarantee claim exists for malfunctions and damages to the device caused by
insufficient knowledge of the operation manual.**

© Tecalemit, Inc. All rights reserved.

Text, graphics and layout copyright protected. Reproduction and copying, including in part, only permitted with written permission. Technical changes reserved.

Service Hotline 281-446-7300

support@tecalemitemusa.com

Document Number: 44 1672 101-E
As of: August 11, 2016

Table of contents

1.	Safety Instructions.....	4
2.	Technical Description	6
2.1.	Description / Designated Use	6
2.2.	Product Variants	6
2.3.	Allowed Media.....	6
2.4.	Technical Information	7
3.	Assembly Instructions.....	7
3.1.	Installation Site.....	7
3.2.	Mounting Orientation.....	7
3.3.	Temperature.....	8
3.4.	Suction Hose.....	8
3.5.	Conveyance Capacity	8
3.6.	Electrical Connection	8
4.	Commissioning / Operation.....	8
4.1.	Suction / Dry Running.....	8
4.2.	Tank Procedure	9
4.3.	Meter FMT II or FMT 3 (optional)	9
5.	Error Message - What to do, if...?	9
6.	Maintenance.....	9
6.1.	Leak Test.....	9
6.2.	Electric cable	9
6.3.	Cleaning the System	10
7.	Replacement Parts	10
7.1.	Instructions for Replacing the Pump Rotor.....	10
8.	Disposal.....	11
9.	Scale Image of the HORNET W 85 H INOX	11

1. Safety Instructions

This device has been constructed per the current state of technology and in accordance with the recognized technical safety regulations. Regardless, risks to the user or third parties and/or damages to the device or other material assets could result from its use. The instructions in this operation manual, especially the safety instructions and the sections marked with warning signs, must thus be complied with.

Warning Signs and Symbols

The following symbols are used for especially important information in the operation manual.



Special information regarding the efficient use of the device.



Special information and/or dos and don'ts for damage prevention.



Information and/or dos and don'ts for personal accident prevention or comprehensive material damages.

Designated Use



This device may only be used when functioning free of technical problems and must be used according to its designated use, with full knowledge of the safety and hazard risks and in consideration of the instruction manual! Malfunctions which could affect safety must be remedied immediately.



The device and its components are to be used exclusively with the fluids listed and the use designated. Any other use or use extending beyond is deemed as undesignated. The manufacturer is not liable for damages thus resulting; the operator shall bear the risk alone.

Organizational Measures




The operation manual must always be kept accessible at the place of use! Every person who is involved with the assembly, commissioning, maintenance and operation of the device must have read and understood the complete operation manual. The type label on the device and the warning signs on the device must be heeded and kept in a fully legible condition.


Qualified Personnel

- !** The personnel for the operation, maintenance and assembly must have the corresponding qualifications for this work. The operator must precisely regulate the spheres of responsibility, authority and monitoring of the personnel. If the personnel do not possess the necessary knowledge, they must be trained and instructed. In addition, the operator must ensure that the contents of the operation manual have been fully understood by the personnel.


Water Protection

-  The device is designed to handle substances hazardous to water. The valid regulations for the place of use (e.g. water resources act, ordinance for systems with substances hazardous to water) are to be complied with.

Hydraulics


-  Only personnel with special knowledge and experience with hydraulics may work on the hydraulic parts and equipment. All wires, hoses and screws must be checked regularly for leaks and externally detectable damages and these must be remedied immediately.
Squirting oil can cause injuries and fires.
Note the safety guidelines valid for the product when dealing with oils, greases and other chemical substances!

Maintenance and Repairs

-  In accordance with the legal regulations, only companies specialized can be hired for work with systems for substances hazardous to water. Do not make any modification, additions or conversions to the system which could affect its safety with the approval of the manufacturer. Replacement parts must correspond to the technical requirements of the manufacturer. This is always ensured when original parts are used.

Only the manufacturer is permitted to make manipulations of any kind to device.

Electrical Energy

-  Work on the electrical equipment may only be conducted by a trained electrical technician or by trained personnel under the supervision of an electrical technician as per the electrical engineering regulations. Machines and system components which are to undergo inspection, maintenance and repair work must be rendered current-less. First check that these components are voltage-free, then ground and short circuit them, as well as insulate neighboring voltage-carrying components.

2. Technical Description

2.1. Description / Designated Use

Electric hybrid pump HORNET W 85 H INOX

The HORNET W 85 H INOX is a self priming electric pump.

The HORNET W 85 H INOX is intended for use in industries, factories, gas stations and similar facilities. It is intended for the conveying and discharge of DEF urea solution (AUS 32) in accordance with ISO 22241. The pump must be firmly installed on the IBC tank or container during operation.



The HORNET W 85 H INOX may not be operated with flammable and explosive fluids with a flame point below 131°F (55°C) (hazard classes AI, AII and B). Fluids with a flame point above 131°F (55°C) (hazard class A III) may not be pumped if they have been heated above their flame point.



The pump has no safety device to prevent automatic restarting after interruption of the power supply.

2.2. Product Variants

The electric pump HORNET W 85 H INOX without accessories has Item no.:

US108600005	FMT II
US108600006	without meter
US108600007	FMT II + CSA approved
US108600008	without meter + CSA
US108600009	FMT 3
US108600010	FMT 3 + CSA approved

2.3. Allowed Media

All variants of the HORNET W 85 H INOX pump can convey DEF urea solution (AUS 32) in accordance with ISO 22241 and water.



No other media may be conveyed!



Please note the safety data sheet of your medium.

2.4. Technical Information

HORNET W 85 H INOX

Motor	AC Motor	Output	0.78 kW
Rated Current	9.5A	Voltage	120 V / 60 Hz
Duty Cycle	100 %	Protection Class	IP 54
Pump Type	Hybrid Pump	Pump Volume	max. 12.5gpm (48 l/min)*
Conveyance Pressure	max. 36.25psi (2.5 bar)*	Suction Height	max. 10' (3m)*
Dimensions (HxWxD)	10 1/3"x8"x4 1/2" (261x206x116mm)	Suction Ports	IG 3/4" (BSP)
Environmental Temperature	14°F to 104°F (-10°C to 40°C)	Pressure Ports	IG 3/4" (BSP)
Media Temperature	19°F to 104°F (-7°C to 40°C)		
Sound Pressure Level	max. 80 dB(A)	Weight	ca. 8.15lb (3.7 kg)

*Viscosity and system-dependent

3. Assembly Instructions

3.1. Installation Site

The pump is designed for installation within building and outdoors. The installation site should be selected so that flawless operation and maintenance are ensured. The pump can either installed directly on the tank or drum.



The local regulations for environmental protection and fire protection must be complied with.

3.2. Mounting Orientation



In the standard mounting orientation the suction tube will be on the bottom of the pump if the installation is correct.



In other mounting orientations the IP protection against water and dust will be decreased and the cooling may be reduced.



The operator must prevent the penetration of water and dust by using, for example, an additional housing. The duty cycle and/or the maximum permissible environmental and media temperature will be decreased in the event of reduced cooling.

3.3. Temperature

The pump may be operated at environmental temperatures from 14°F to 104°F (-10 to +40°C) and media temperatures from 19°F to 104°F (-7 to +40°C).

! At wet or filled pump must be only stored and operated at temperatures above the freezing point of the media, as freezing media will damage the pump.

Condensing humidity must be avoided.

3.4. Suction Hose

The suction hose must be at least diameter ¾" (DN19) and should be as short as possible. Long suction lines and every fitting (elbow, dry coupling etc.) will reduce the flowrate and may overload the pump. We recommend a max. 5' (1.5m) suction hose when using a dry coupling.

3.5. Conveyance Capacity

The pump is designed for operation with tap hose DN19, tap valve A2003 and tap nozzle urea.

The installation of longer tap hoses or small cross sections reduces the conveyance capacity and may overload the pump. We recommend a max. 26' (8m) tap hose.

3.6. Electrical Connection

The pump is operated with alternating current 120V / 60Hz. The electricity consumption is 780W. The pump is equipped with a safety plug.

4. Commissioning / Operation



The user must wear suitable protective clothing (eye protection, hand protection) is the risk of spraying exists during operation. You can find more information on the safety datasheet of the pump medium.

! The HORNET W 85 H INOX electric pump may only be operated under supervision.

4.1. Suction / Dry Running

The HORNET W 85 H INOX pump works according to the self priming hybrid pump principle.

The suction process should be completed after a few seconds. If the pump has not taken in any medium after ca. 30 seconds, a problem exists (e.g. suction hose is leaking, tank is empty, suction height is too great).

If this occurs, the pump must be turned off immediately and the problem must be remedied.

The pump has thermal dry running protection which automatically turns off the pump. The pump must be turned off after triggering the thermal dry running detector in order to prevent it from unintentionally starting again, as the pump will start up again after cooling.

Please ensure that pump is not run dry for an extended period of time. For the first use, the nozzle valve should be opened above a suitable container and then the start switch of the pump should be pressed. The conveyance system is free of air if no air bubbles escape the nozzle valve with the medium. This also applies for continued suction after refilling the container or changing the container.

4.2. Tank Procedure

Turn on the pump => pump will automatic suck in the medium.
Filling the vehicle tank and/or container.
Turn off the pump; place the tap nozzle aside.



Avoid long periods of operation with a closed tap nozzle!

4.3. Meter FMT II or FMT 3 (optional)

If the HORNET W 85 H INOX is equipped with flow meter FMT II or FMT 3 please note the operation manual of the FMT II or FMT 3.

5. Error Message – What to do, if...?

... The pump turns itself successively on and off?

The pump is running dry and automatically turns itself back on after the pump chamber has cooled. Turn off pump and remove the cause of the dry running. Possible causes: Empty container or improperly installed dry coupling.

... The bottom of the pump is leaking?

The O ring of the pump chamber or the suction ports are leaking and must be replaced.

... The pump is leaking at the pressure ports?

Check that the screws on the pressure side are tight and reseal them if necessary.

... The pump is not sucking (e.g. first use, longer period of non-use)?

Check the suction hose and all screws on the suction side for leaks and reseal them if needed.

... The conveyance capacity is too low?

Air is also being sucked in.

... the flow meter is clearly showing more than the dispensed quantity?

The suction hose has a leakage and the sucked air is also counted. Reseal the suction hose and clean the CDS-coupling.



In the event of disproportionate noise, further operation is only allowed after the cause of this has been remedied!

6. Maintenance

The HORNET W 85 H INOX is nearly maintenance-free, however, the following work should be conducted regularly in order to ensure flawless operation.

6.1. Leak Test

The device and the other components of the system are to be checked regularly for leaks and damages and are to be repaired if needed.

6.2. Electric cable

The electric cable has to be checked regularly for damages and has to be replaced if needed.

6.3. Cleaning the System

In the event of external dirt on the device, disconnect it from the electrical network and carefully clean it with a mild household cleaning product. Do not use any aggressive cleaning products or solvents.

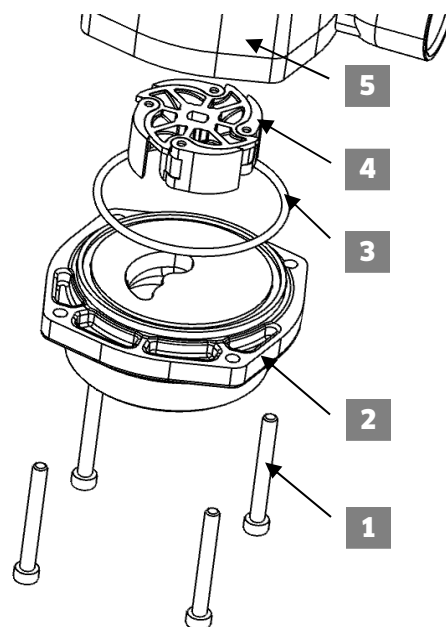
If used the spout of the nozzle and sealing side of the dry coupling have to be regularly cleaned with distilled water.

7. Replacement Parts

Pos.	Quantity	Production No.	Designation
10	1	816 428 003	Pump rotor including O ring for pump chamber Hornet W85 INOX
20	1	616720001	Replacement cable (may only replaced by a certified electrician)

7.1. Instructions for Replacing the Pump Rotor

1. Loosen the four screws (1) at the bottom of the pump chamber.
2. Remove the suction housing (2) and replace the rotor (3).
3. Always replace the O ring (4) when replacing the rotor.
4. After properly positioning the rotor and replacing the O ring, place the suction housing back on the pump chamber (5).
5. Now tighten the four screws with a torque of 3.0 Nm.
6. The suction housing can now be fixed in a position with the four screws on the pump chamber.



The pump may only be repaired and replaced by authorized service partners.

8. Disposal

The device is to be completely emptied during decommissioning and the fluids are to be properly disposed of. In the event of the final decommissioning of the HORNET W 85 H INOX, the device is also to be disposed of properly:

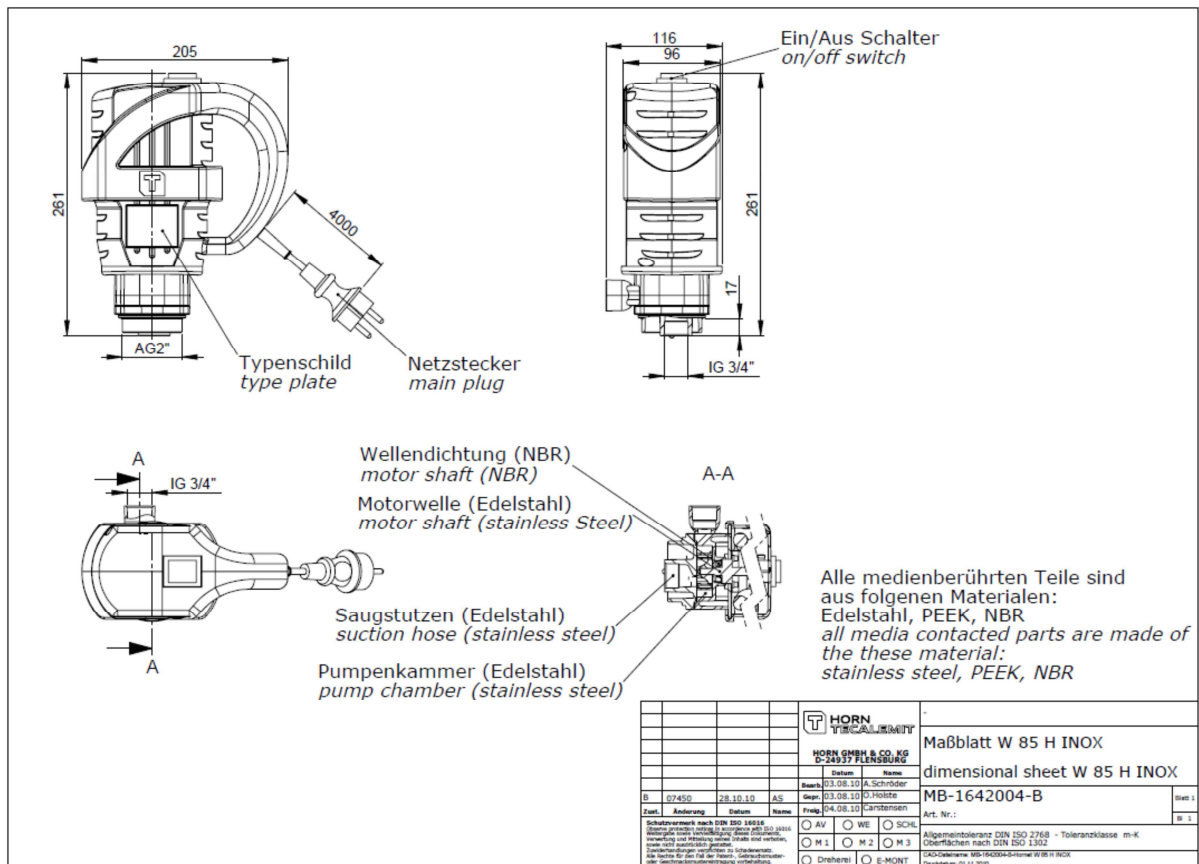


- Dispose of the scrap metal parts in the scrap metal recycling.
- Dispose of the plastic parts in the recycling.
- Dispose of the electrical scrap in the recycling.



The local water and environmental regulations must be heeded.

9. Scale Image of the HORNET W 85 H INOX





TECALEMIT Inc.

6324 Greens Road
Humble, Texas 77338

T 832 300-7480
F 832 300-7483

sales@tecalemityusa.com
www.tecalemityusa.com