



Operating manual

Automatic nozzles

A2010/ A2003-ES/ A2003-ES-M

Item-No.: 252610000, 252620000, 252680000, 252711020, 252711030,
252711040, 252711050, 252711060, 252711070, 252711080

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.

Copyright

© HORN GmbH & Co. KG. 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 +49 1805 900 301

(0,14 €/Min: on the German landline network, Mobile telephone max. 0,42 €/Min.)

service@tecalemi.de

Document-No.: 44 0010 105-E
As of: 20.08.2014

Table of content

1.	Safety instructions.....	4
2.	Technical description	6
	2.1 Description.....	6
	2.2 Appropriate use.....	6
	2.3 Product versions.....	7
	2.4 Function / Safety equipment	7
	2.5 Technical data.....	7
3.	Requirements for the operating area	8
4.	Operating instructions	8
	4.1 Installation instructions/ Commissioning	8
	4.2 Operating instructions	8
5.	Maintenance.....	9
6.	Disposal.....	9
7.	Declaration of conformity.....	10
8.	Notice	11

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



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.

Compressed air



Only persons with special knowledge and experience with pneumatic systems may carry out work on pneumatic parts and equipment. Prior to any inspection, maintenance or repair work, ensure that the equipment is not under pressure. All lines, hoses and screw joints should regularly be checked for leaks and external damage. Any damage must be rectified immediately.

Hydraulics



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



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. Product description

2. Technical description

2.1 Description

The automatic pump nozzles of type A2010, A2003-ES, A2003-ES-M are automatically-closing full hose nozzles for the dispensing of fluids listed under no. 2.2 The A2010A, A2003-ES and A2003-ES-M automatic nozzles have been tested in accordance with the DIN EN 13012 standard.

The standard features of the nozzles include: a safety switching-off and a covering that protects against wear and cold conditions.

The type A2010 nozzles are moreover fitted with a 3-stage holding clip for the control lever and a spring around the outlet pipe to retain the latter in the tank filler pipe.

The type A2003-ES and A2003-ES-M nozzles are made of stainless steel with an outlet diameter of 19 mm, the type A2003-ES-M being additionally fitted in the grip with a magnet to provide a contact-free dispensing contact switch.

2.2 Appropriate use

The automatic nozzles are state of the art manufactured and are failsafe.



However hazards can arise from these products if they are not used according to specifications.

Each person concerned with the assembly, commissioning, maintenance and operation of the automatic nozzle must have read and understood the entire manual.



The automatic nozzles of type A2010 are only certified for dispensing diesel fuel as per DIN EN 590 or DIN 51628, biodiesel (RME) as per DIN EN 14214 and heating oil EL as per DIN 51603-1.



The automatic nozzles of type A2003-ES and A2003-ES-M are only to be used for dispensing aqueous urea AUS32 as per ISO 22241!



Using the machine for any other purpose would constitute inappropriate use. The manufacturer shall not be liable for any resultant losses or damages; the risk shall be borne by the operating company alone in such cases.

Adherence to the assembly, commissioning, operating and maintenance conditions prescribed by the manufacturer also qualifies as proper use.

The automatic nozzles may only be used on dispensing installations with motor driven pumps. The volumetric flow of the delivery pump may not exceed 80 l/min (A2010) or 40 l/min (A2003-ES, A2003-ES-M) or fall below **12 l/min**.

The zero delivery inlet pressure must not exceed 3.5 bar. The minimum operating pressure is 0.7 bar. The local safety and accident prevention regulations apply to the operation of the automatic nozzles.

Use extends to:

- Dispensing installations at petrol stations (in Germany: TRbF 40, No.4.1.1.6) and (TRwS 781-2)
- Filling of mobile containers and fuel tanks of working machinery outdoors (in Germany: TRbF 30, annex 4)
- Filling individual tanks with a capacity of up to 1000 litres for the storage of diesel fuel and heating oil (in Germany: TRbF 20, no. 9.3.2.3, section 3)

2.3 Product versions

252 610 000	A2010 connection with hose grommet, incl. swivel joint
252 620 000	A2010 connection with 1" internal thread, incl. swivel joint
252 680 000	A2010 connection with 1" external thread, incl. swivel joint
252 711 020	A2003-ES connection with 3/4" internal thread
252 711 030	A2003-ES connection with hose grommet DN20, incl. swivel joint
252 711 040	A2003-ES connection with 3/4" external thread, incl. swivel joint
252 711 050	A2003-ES-M connection with 3/4" internal thread
252 711 060	A2003-ES-M connection with DN20 hose grommet, incl. swivel joint
252 711 070	A2003-ES-M connection with 3/4" external thread, incl. swivel joint
252 711 080	A2003-ES-M connection with 3/4" external thread, incl. swivel joint and inspection glass

2.4 Function / Safety equipment

The closing valve of the A2010, A2003-ES, A2003-ES-M automatic nozzle can only be opened manually using the control lever. An automatic shutdown occurs as a result of negative pressure or shaking when

- the tank is full, i.e. fuel fills the sensor jet on the outlet pipe.
- the nozzle is held vertically (see fig. B).
- the nozzle with control lever set falls to the ground.

Switching-off can also be performed manually by releasing the holding clip (if present) on the control lever.

2.5 Technical data

Length	approx. 450 mm
Minimum operating pressure	0,7 bar
Weight	approx. 1300 g
Zero delivery pressure of the pump	max. 3,5 bar
Dispensing volume flow	min. 12 l/min max. 80 l/min (A2010) max. 40 l/min (A2003-ES, A2003-ES-M)

3. Requirements for the operating area



Among other the directives and regulations of the WHG §62 and §63 and VAWS §4 are to be followed regarding the support surface.

4. Operating instructions

The A2010, A2003-ES, A2003-ES-M automatic nozzles are ready for use. No adjustment or lubrication needs to be carried out.

4.1 Installation instructions/ Commissioning

1. When installing the nozzle, do not attach tools to the nozzle or the protective bracket. Use the wrench only on the hose connection.
2. Attach the optional hose swivel joint supplied to the nozzle, making sure to fit the seal (flat seal or o-ring).
3. To avoid damage, do not overtighten the screwed connections. **Do not use Telefon sealing tape.**
4. After completing the installation, vent the pump nozzle and **check the connections under pressure for leaks. Check the shutdown function in all possible control lever positions.**

4.2 Operating instructions



Smoking is generally prohibited, also when drawing off diesel and heating oil and aqueous AUS32. Sources of ignition, such as fire, flying sparks etc., must be eliminated.



If the A2010, A2003-ES, A2003-ES-M automatic nozzle is operated with a system other than the one supplied by us, a suitable pressure limiter must be installed because the automatic nozzle closes with pressure (max. operating pressure 3,5 bar)!

1. Insert the outlet pipe into the tank filler pipe to the extent that it will remain securely in the tank filler pipe (see fig. A). This also ensures that the nozzle shuts down when the fuel tank is full.
2. For product variants with a holding clip guide the latter towards the protective bracket and latch the control lever.

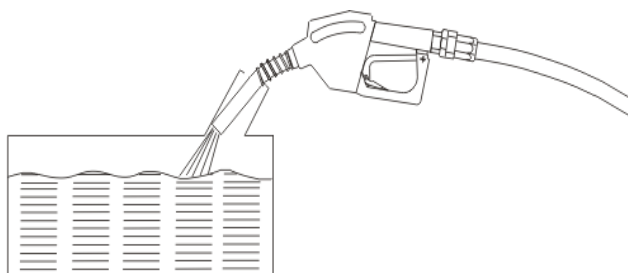


Fig. A

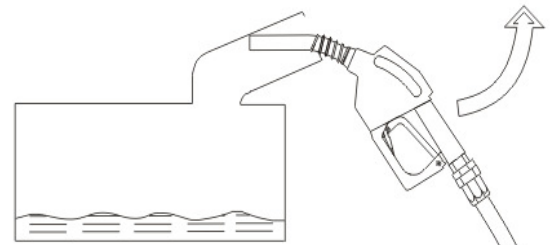
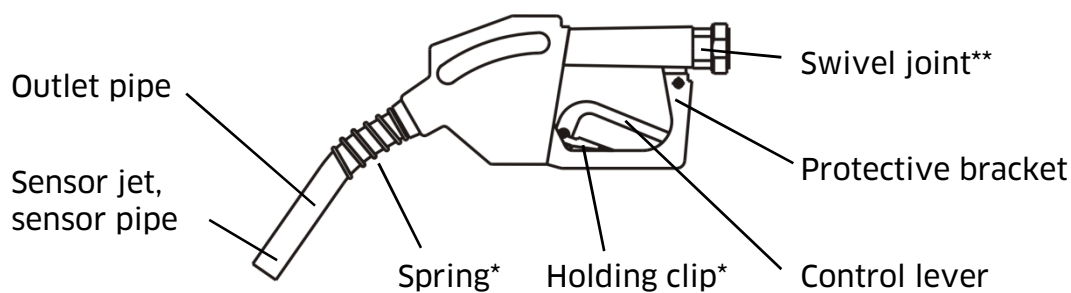


Fig. B

3. Once the nozzle has automatically shut down, tilt the nozzle towards the tank for a few seconds until the last drops have dripped out of the outlet pipe. This is also to be recommended when the filling procedure is ended manually.
4. If the nozzle can only be locked as shown in fig. B, it is not possible to fill the fuel tank. The nozzle shuts down immediately. Guide the nozzle in the direction of the arrow (see fig. B) to a position as shown in fig. A. The nozzle must be held in this position throughout the filling procedure. Items 2 and 3 apply accordingly.

! If small amounts are subsequently filled manually and when filling with the control lever locked, the volume flow may be less than the minimum allowed. In this case, the automatic shutdown of the nozzle can no longer work reliably! The fuel tank may be overfilled.

! The filling process must be supervised even when using an automatically-closing nozzle!



* only included in type A2010

** optional, see 2.3 Product variants

5. Maintenance

1. Make sure that the sensor jet on the outlet pipe is always open. The nozzle does not work if the sensor jet is dirty. Any dirt particles can be removed using a suitable wire.
2. Always hang up the nozzle securely after use so that it cannot fall. Handle the automatic pump nozzle with care.
3. Greasing or oiling is not necessary.
4. The automatic nozzles of type A2003-ES and A2003-ES-M for AUS32 use should be cleaned regularly with warmed distilled water.

6. 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.

7. Declaration of conformity

Hiermit erklärt die Fa. Horn GmbH & Co. KG die Übereinstimmung mit der DIN EN 13012 und dem allgemeinem bauaufsichtlichen Prüfzeugnis P-TÜ7-01340.



8. Notice

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