

# ASSYTECH

 Valtellina  
Impresa



MADE IN  
ITALY



Professional equipment  
for storing and dispensing  
additives and AdBlue®



[www.assytech.it](http://www.assytech.it)



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# 1 CERTIFICATIONS AND CONTACTS

## 1.1 Certifications

The equipment must be certified according to the regulations in force according to the use to which they are intended. Below are the symbols used and their references.

### COMPANY CERTIFICATIONS

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ISO9001 certificate



Compliant with 2014/34/EU ATEX Directive



Compliant with MID Directive 2014/32/EU



Accreditation certificate for type C inspection body according to UNI CEI EN ISO/IEC 17020:2012

### PRODUCT CERTIFICATIONS

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EU declaration of conformity



ESTI certificate (for equipment intended for the Swiss market)



ATEX certificates



Ministerial certification (Safety standards for working, storage, use or sale and for the transport of liquids of category C Diesel)



MID certificates



Certification for equipment used on motor vehicles

**Nota:** the products in this catalog comply with EU legislation unless otherwise indicated  
Some of the products indicated in the catalog are protected by titles and/or industrial property rights.

Assytech reserves the right to act, with all the means that the law makes available, in order to safeguard its rights in the event that third parties carry out serious acts detrimental to the titles and/or proprietary rights belonging to Assytech.

## 1.2 Contacts

Assytech Srl, established in 1997, is a dynamic company born from the union of different professionalisms and experiences in the oil and gas sector.

For years it was the main fuel dispenser assembly company for Nuovo Pignone and General Electric. Specializing in the design and manufacturing of fuel dispensers and refueling management equipment, Assytech is not just a supplier, but a partner in providing flexible services, technology and products that meet all customer requirements.

Assytech is one of the first in Europe has been producing systems for the storage and dispensing of AdBlue® for over 15 years.

Assytech offers technical assistance throughout the national territory directly or through authorized installers.



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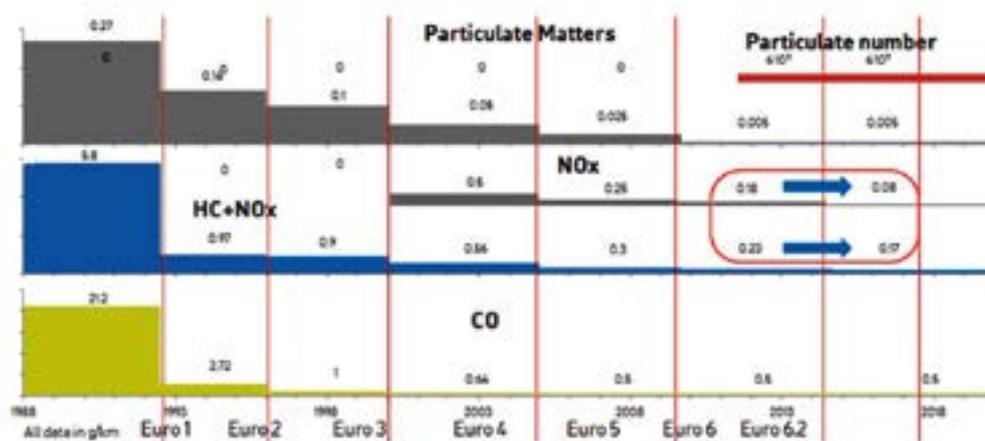


# 2 INTRODUCTION

## 2.1 The directives EURO 4, EURO 5, EURO 6

On 1<sup>st</sup> October 2006 the EURO 4 directive came into force, on 1 January 2008 the EURO 5 directive and on 1<sup>st</sup> September 2015 the EURO 6 directive governing the exhaust emission limits of vehicles weighing more than 3, 5 tons. Starting from these dates, all new heavy vehicles (7.35 Q) comply with the new provisions of the law. These directives set the goal of a reduction in the emission of fine particles and Nox (nitrogen oxides), substances that are harmful to the environment and health.

The evolution is indicated by the following table.



## 2.2 AdBlue® in reducing the polluting emissions of vehicles

From 1 September 2015, all new cars sold in Europe must be Euro 6.

Euro 6 also applies to new models of LV diesel vehicles under 3.5 tons (3) and therefore many cars, vans and commercial vehicles have a separate tank for AdBlue®.

The obligation was taken in September 2014 for the new approvals, while a year has been left to the builders to update all the models on the price list.

The European legislation provides for the Euro 6 more stringent limits for CO<sub>2</sub> emissions and therefore for consumption, but it is especially severe with emissions of nitrogen oxides, NO<sub>x</sub> of which diesel generators are generous.

## 2.3 SCR technology

To apply EURO 4 and EURO 5 directives, the manufacturers of diesel-powered heavy vehicles set up the SCR (Selective Catalytic Reduction) technology.

This consists of the installation of a special catalytic converter in which AdBlue® is used as reducing agent, to transform the noxious nitrogen oxides (Nox) into steam and nitrogen, being harmless substances for the environment.

## 2.4 AdBlue® action on exhaust emission

- Thermolysis of urea:  
 $(\text{NH}_2)_2\text{CO} \rightarrow \text{NH}_3 + \text{HNCO}$
- Hydrolysis:  
 $\text{HNCO} + \text{H}_2\text{O} \rightarrow \text{NH}_3 + \text{CO}_2$
- Selective catalytic reduction (Standard-SCR, temperature over 250 degrees):  
 $4\text{NO} + 4\text{NH}_3 + \text{O}_2 \rightarrow 4\text{N}_2 + 6\text{H}_2\text{O}$
- Fast SCR (temperature over 170 and up to 300 degrees):  
 $\text{NO} + \text{NO}_2 + 2\text{NH}_3 \rightarrow 2\text{N}_2 + 3\text{H}_2\text{O}$

The new Euro 6 diesel, in addition to the particulate engine filter (FAP) made necessary by the Euro 5, are equipped with NOx traps or, in the case of larger engines, an exhaust gas treatment system that uses an additive to urea base.

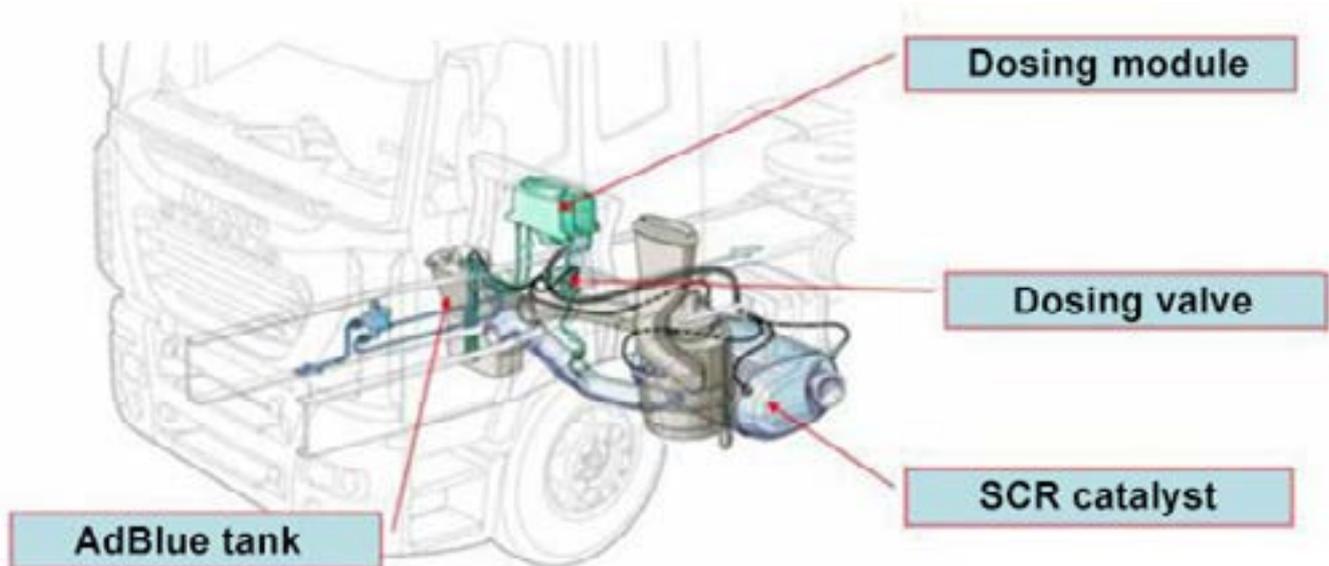
## 2.5 What is AdBlue®

AdBlue® is a particular solution with very high purity of Urea at 32.5%, whose constant quality is ensured by the compliance to DIN 70070 and ISO 22241:2008 standards.

AdBlue is placed in an auxiliary tank of the vehicle and the quantity used, according to EURO 4 directive, corresponds approximately to 5% of fuel consumption.

Only AdBlue® can ensure the correct operation of the catalytic converter.

AdBlue® is a harmless substance with crystallization point of  $-11^\circ\text{C}$ .



® (1) Trademark registered by the German automotive industry association (VDA) for urea solution 32.5% ISO 22241 / DIN 70070.

Synonyms: Aqueous Urea Solution "AUS 32", Diesel Exhaust Fluid "DEF" (USA), Automatic Liquid Reducing Agent "ARLA32" (Brazil)

(2) Selective Catalytic Reduction, a system to minimize the emissions of nitrogen oxide by injecting urea solution into the diesel exhaust gas

(3) LV Light vehicle weighing less than 3.5 tons

ISO22241: 2008 General regulation that indicates the characteristics of the AdBlue®

ISO22241-3 Storage and treatment of AdBlue®

ISO22241-4 AdBlue® nozzle for vehicles weighing over 3.5 tons

ISO22241-5 AdBlue® nozzle for vehicles weighing less than 3.5 tons

# 3 Dispenser of AdBlue®

Our dispensers for additives, such as AdBlue®, etc. are made with stainless steel plating and resistant to corrosion due to the presence of acids in the additives delivered.



**AT02/LCU**  
dispenser series, single or alternate with one or two nozzle.



**AT15/U**  
dispenser series, single, double or alternate delivery.  
Note: also available in double AdBlue® / diesel version.



**AT30/U**  
dispenser series, single, double or alternate delivery



**AT30/U**  
mobile dispenser complete with 200 l drum holder.



**AT30/LVU**  
dispenser series complete with 500 liters tank, single nozzle version



**AT30/LVU**  
dispenser series complete with 500 liters tank, single-side double nozzle version



**Tank dispenser series Twin capacity 2000 liters, with AT02/LCU alternate delivery dispenser**

# 3.1 AdBlue® dispenser AT02LC/U series

## DESCRIPTION

AdBlue® dispenser with flow rate from 2 to 40 l/min, available in single, alternate or double version.

The AT02LC/U dispenser is achieved with housing in steel AISI 304, internal piping in AISI 316, group electronic measurement with no moving parts and Elaflex delivery hose for AdBlue®.

The dispenser ensures high quality and reliability, as the result of a consolidated experience and continuous technological updating.

Conforms to the requirements of ISO22241.

## MAIN CHARACTERISTICS

- Flow rate up to 40 l/min
- Volumetric or comptometric for use in relation to third parties
- Maintenance-free LED backlit display
- Single or two-sides display
- Non-resettable electronic and electromechanical totalizer
- MID electronic meter without moving parts
- Designed for operation at temperatures below -20°C

## AMBIENT

External



**TECHNICAL CHARACTERISTICS**

Structure	AISI 304 Stainless steel
Fittings	AISI 316 Stainless steel
Delivery hose	Elaflex for AdBlue®
Delivery nozzle	Elaflex ZVA AdBlue® LV automatic type for light vehicles, ZVA AdBlue® HV automatic type for heavy vehicles
Computing head	CPTH02, with backlit LCD display, 6 digit height 1"
Accuracy	± 0,5% (MID Compliant)
Heater	150 W (optional)
Flow rate	4÷40 l/min (heavy vehicles), 2÷10 l/min (light vehicles)
Ambient temperature	-10°C ÷ +40°C (for temperatures below -10 ° C the additional heater kit is required)
Dimensions (LXDXH)	560X448X1523 mm
Marking	CE-M EU Type Approval No. T10821 (MID 2014/32/UE)

**POSSIBLE CONFIGURATIONS**

<b>CODICE</b>	<b>Flow rate</b>	<b>Hydraulics</b>	<b>Version</b>	<b>Display*</b>
AT02LCU110ANBCM	10 l/min	Single	Two-sides	Comptometric
AT02LCU120ANBCM	40 l/min	Single	Two-sides	Comptometric
AT02LCU412AABCM	10/40 l/min	Alternate	Two-sides	Comptometric

\*display also available in volumetric version

# 3.2 AdBlue® dispenser AT15 series

## DESCRIPTION

AdBlue® dispenser with flow rate from 2 to 40 l/min, available in single, alternate or double version.

The AT15 dispenser is achieved with housing in steel AISI 304, internal piping in AISI 316, group electronic measurement with no moving parts and Elaflex delivery hose for AdBlue®.

The dispenser ensures high quality and reliability, as the result of a consolidated experience and continuous technological updating.

Conforms to the requirements of ISO22241.

## MAIN CHARACTERISTICS

- Flow rate up to 40 l/min
- Volumetric or comptometric for use in relation to third parties
- Maintenance-free LED backlit display
- Single or two-sides display
- Non-resettable electronic and electromechanical totalizer
- MID electronic meter without moving parts
- Designed for operation at temperatures below -20°C

## AMBIENT

External



**TECHNICAL CHARACTERISTICS**

Structure	AISI 304 Stainless steel
Fittings	AISI 316 stainless steel
Delivery hose	Elaflex for AdBlue®
Delivery nozzle	Elaflex ZVA AdBlue® LV automatic type for light vehicles, ZVA AdBlue® HV automatic type for heavy vehicles
Computing head	CPTH02, with backlit LCD display, 6 digit height 1"
Heater	150 W (included)
Flow rate	4÷40 l/min (heavy vehicles), 2÷10 l/min (light vehicles)
Ambient temperature	-10°C ÷ +40°C (for temperatures below -10 ° C the additional heater kit is required)
Dimensions (LXPXH)	950X448X1750 mm
Marking	CE MID 2014/32/UE

**POSSIBLE CONFIGURATIONS**

<b>CODE</b>	<b>Flow rate</b>	<b>Hydraulics</b>	<b>Version</b>	<b>Display*</b>
AT15S110ANBCM	10 l/min	Single	Two-sides	Comptometric
AT15S120ANBCM	40 l/min	Single	Two-sides	Comptometric
AT15S212AABCM	10/40 l/min	Double	Two-sides	Comptometric
AT15S222AABCM	40/40 l/min	Double	Two-sides	Comptometric
AT15S412AABCM	10/40 l/min	Alternate	Two-sides	Comptometric
AT15S422AABCM	40/40 l/min	Alternate	Two-sides	Comptometric

\*display also available in volumetric version

# 3.3 AdBlue® dispenser AT30/U series

## DESCRIPTION

AdBlue® dispenser with flow rate from 2 to 40 l/min, available in single, alternate or double version.

The AT30/U dispenser is achieved with housing in steel AISI 304, internal piping in AISI 316 and group electronic measurement with no moving parts. The dispenser ensures high quality and reliability, as the result of a consolidated experience and continuous technological updating.

È conforme ai requisiti della norma ISO22241.

## MAIN CHARACTERISTICS

- Flow rate up to 40 l/min
- Volumetric or comptometric for use in relation to third parties
- Maintenance-free LED backlit display
- Single or two-sides display
- Non-resettable electronic and electromechanical totalizer
- MID electronic meter without moving parts
- Designed for operation at temperatures below -20°C

## AMBIENT

External



**TECHNICAL CHARACTERISTICS**

Structure	Stainless steel
Internal pipes	AISI 316 stainless steel
Delivery hose	Elaflex for AdBlue®
Delivery nozzle	Elaflex ZVA AdBlue® LV automatic type for light vehicles, ZVA AdBlue® HV automatic type for heavy vehicles
Computing head	CPTH02, with backlit LCD display, 6 digit height 1"
Accuracy	± 0,5% (MID Compliant)
Heater	150 W (Included)
Flow rate	2÷10 l/min (light vehicles), 4÷40 l/min (heavy vehicles)
Ambient temperature	-10°C ÷ +40°C (for temperatures below -10 ° C the additional heater kit is required)
Dimensions (LXPXH)	695X720X1677 mm
Marking	CE-M EU Type Approval No. T10821 (MID 2014/32/UE)

**POSSIBLE CONFIGURATIONS**

<b>CODE</b>	<b>Flow rate</b>	<b>Hydraulics</b>	<b>Version</b>	<b>Display*</b>
AT30U810AMCM	10 l/min	Single	Single side	Comptometric
AT30U820AMCM	40 l/min	Single	Single side	Comptometric
AT30U912AMCM	10/40 l/min	Alternate	Single side	Comptometric
AT30U912ABCM	10/40 l/min	Alternate	Two-sides	Comptometric
AT30U812ABCM	10/40 l/min	Standard	Two-sides	Comptometric
AT30U922ABCM	40/40 l/min	Alternate	Two-sides	Comptometric
AT30U822ABCM	40/40 l/min	Standard	Two-sides	Comptometric

\*display also available in volumetric version

# 3.4 MID mobile AdBlue® dispenser AT30/U series

## DESCRIPTION

MID mobile AdBlue® dispenser, applicable drum capacity up to 1000 l, 24 VDC or 230 VAC

## MAIN CHARACTERISTICS

- Housing for storage drum from 25 to 200 liters or IBC 1000 liters
- Flow rate up to 40 l/min
- Volumetric or comptometric for use in relation to third parties
- Maintenance-free LED backlit display
- Single side display
- Non-resettable electronic and electromechanical totalizer
- Self-priming pump including pressure switch
- Non-intrusive minimum level sensor
- Electrical protection
- MID electronic meter without moving parts
- Designed for operation at temperatures below -20°C

## OPTIONALLY THEY CAN BE EQUIPPED WITH:

- Ticket printer
- Delivery liters or amount presetting kit
- Elaflex ZVA nozzles for AdBlue®
- Additional heater for temperatures < -10°C
- Batteries for powerless operation

## AMBIENT

External



**TECHNICAL CHARACTERISTICS**

Power supply	110 - 240 VCA single phase	
Maximum consumption	500 W	
Heating (optional)	230 VCA 150 W	
Delivery pump	Self-priming complete with pressure switch	
Delivery flow rate	5 ÷ 15 l/min	
Autonomy with batteries	200 liters	
Measurement accuracy	± 0,5% MID	
Electronic computer head	CPTH02 with backlit LCD display, 6 digit height 1"	
THose	Length 2,5 metri	
Operating temperature	-10°C ÷ +40°C (-20°C ÷ +60°C on request)	
Applicable drum capacity	200 l / IBC 1000 l	
Dimensions (LXPXH)	200 l 759,50X999x1286 mm	IBC 1000 l 1000X1485X1375 mm

**POSSIBLE CONFIGURATIONS**

<b>CODE</b>	<b>Drum capacity</b>	<b>Power supply</b>
AT00321/1/1/0/0/0	60-200 l	230 VCA
AT00321/1/2/0/0/0	60-200 l	24 VCC
AT00321/3/1/0/0/0	IBC 1000 l	230 VCA
AT00321/3/2/0/0/0	IBC 1000 l	24 VCC

# 3.5 System for the storage and delivery of additives either for trucks or LV cars AT30/LVU series

## DESCRIPTION

Dispenser with flow rate from 2 to 40 l/min, complete with 500 l AdBlue® tank, in single, double or alternate version.

The AT30/LV/U dispenser is achieved with housing in steel AISI 304, internal piping in AISI 316 and group electronic measurement with no moving parts and Elaflex hose for delivery AdBlue®.

The dispenser ensures high quality and reliability, as the result of a consolidated experience and continuous technological updating.

Conforms to the requirements of ISO 22241-3-4-5.

## MAIN CHARACTERISTICS

- Flow rate up to 40 l/min
- Volumetric or comptometric for use in relation to third parties
- Maintenance-free LED backlit display
- Single or two-sides display
- Non-resettable electronic and electromechanical totalizer
- MID electronic meter without moving parts
- Designed for operation at temperatures below -20°C

## OPTIONALLY THEY CAN BE EQUIPPED WITH:

- 2" TODO quick connection
- Levele measurement probe

## AMBIENT

External



## TECHNICAL CHARACTERISTICS

Structure	Stainless steel
Internal pipes	AISI 316 stainless steel
Delivery hose	Elaflex for AdBlue®
Delivery nozzle	Elaflex ZVA AdBlue® LV automatic type for light vehicles, ZVA AdBlue® HV automatic type for heavy vehicles
Computing head	CPTH02 (MID Approval), with backlit LCD display, 6 digit height 1". Data backup without backup battery.
Electromagnetic meter	Electronic, stainless steel, without moving parts
Accuracy	± 0,5% (MID Compliant)
Heater	150 W (included)
Flow rate	2÷10 l/min (light vehicles), 4÷40 l/min (heavy vehicles)
Capacity integrated tank	500 l complete with load limiting valve and level sensor
Ambient temperature	-10°C ÷ +40°C (for temperatures below -10 ° C the additional heater kit is required)
Dimensions (LXPXH)	1608,50X 686,50X1298,50 mm
Marking	CE-M EU Type Approval No. T10821 (MID 2014/32/UE)



Installation example

## POSSIBLE CONFIGURATIONS

CODE	Flow rate	Hydraulics	Version	Display
AT30LVU810ANMCM5	10 l/min	Standard	Single side	Comptometric
AT30LVU820ANMCM5	40 l/min	Standard	Single side	Comptometric
AT30LVU812AABCM5	10/40 l/min	Standard	Two-sides	Comptometric
AT30LVU912AAMCM5	10/40 l/min	Alternate	Single side	Comptometric
AT30LVU912AABCM5	10/40 l/min	Alternate	Two-sides	Comptometric
AT30LVU922AABCM5	40/40 l/min	Alternate	Two-sides	Comptometric
AT30LVU822AABCM5	40/40 l/min	Standard	Two-sides	Comptometric

# 4 TANK DISPENSER

The tank dispensers are containers equipped for the storage of additives such as AdBlue®. They are made with a galvanized steel structure, covered with double-wall insulated panels in pre-painted steel, with insulated almond aluminum sheet flooring and with stainless steel measuring units particularly suitable for these types of products.

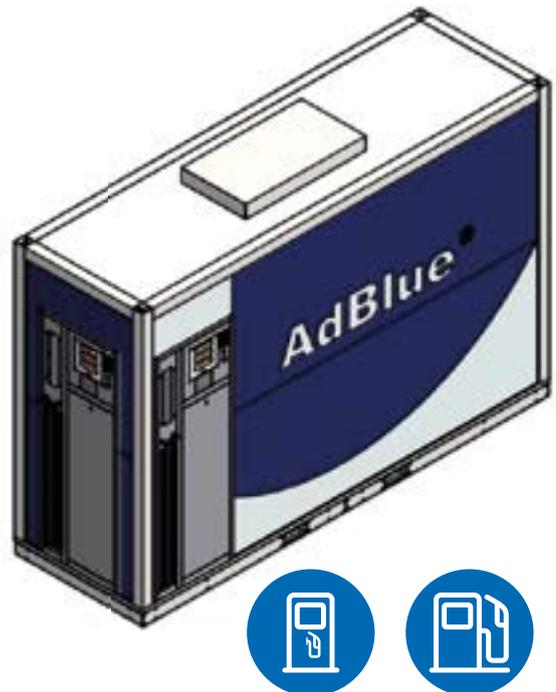


## VERSIONS

- Naked for indoor use
- Compact for fleet refueling
- Shuttle for service station
- Twin with associated dispenser (possibility of integration with other dispensers)

## DELIVERY SIDE:

- Right
- Front
- Left
- Customizable



## MAIN CHARACTERISTICS

- Self-supporting galvanized steel structure without welding for use in marine environments
- External insulation with double-walled heat-insulating, powder-coated metal panel
- Access panel with key for maintenance
- Antislip base in almond aluminum sheet insulated with anti-condensation material
- PEHD tank and metal reinforcements (Shuttle version)
- No opening in the lower part of the tank to avoid spills
- Automatic forced ventilation with thermostat
- Ventilation grilles with automatic opening
- Mechanical type stainless steel load limiting valve
- Low / high level optical and acoustic alarm, with reset button
- Anti-siphon safety solenoid valve
- Stainless steel hose reel with Elaflex hose (length: 5.5 meters)
- Elaflex ZVA delivery nozzle equipped with swivel connector and AdBlue® tank magnetic recognition device
- Measurement probe and level display through LCD 1" back lighted
- Electrical control panel with circuit breakers and motor protection switches
- Possibility of connecting several tanks in battery
- Automatic leak detection system (optional)
- Dispenser for indoor or commercial use MID compliant, with a stainless-steel magnetic meter, without moving parts, with a measurement accuracy less than  $\pm 0.5\%$
- OIML certificated
- Electronic and electromechanical non-resettable totalizer
- Interfaceable with the main service station management systems
- UE declaration of conformity



**Twin version**

# 4.1 Tank dispenser Naked series

These tanks are designed to contain additives using as little space as possible. They are made for internal use.



#### Tank capacity:

- 2000 LITERS
- 3000 LITERS
- 5000 LITERS

**TECHNICAL CHARACTERISTICS**

Supporting structure	Painted FE430B steel		
Handling	By forklift, with empty tank		
Tank material	High density linear polyethylene or stainless steel (on request)		
Tank capacity	2000 l	3000 l	5000 l
Dimensions	1,75x2,40	1,90x2,45	1,85x3,20
Level indicator	Indication of content (in cm and liters)		
Delivery pump	Parts in contact with the product in stainless steel		
Flow rate	40 ÷ 50 l/min		
Power supply	230 VAC		
Maximum current (In)	Max 3 KW		
Pump motor power supply	230 VAC 0,74 KW		
Heating (opt.)	230 VAC 1.200 W		
Ventilation	230 VAC 60 W		
Electronics	24 VAC 50 W		
Operating temperature	-20°C ÷ +40°C (+60°C on request)		

**AT30/U INTEGRATED DISPENSER (if present)**

Delivery flow rate	4,5 ÷ 45 l/min
Measurement accuracy	± 1,5 %
Computing head	CPTH02
System interface	Serial or parallel (see option)
Indicator	6 digit height 1 "backlit display
Totalizer	Electronic and electromechanical non-resettable type, 7 digits
Delivery nozzle	Elaflex automatic type ZVA AdBlue® HV for heavy vehicles, ZVA AdBlue® LV for light vehicles
Hose delivery	Length 5,5 m with hose reel
Hose-reel	Made of AISI 304 stainless steel with EPDM gaskets

**CODES**

<b>AT03711</b>	<b>Capacity</b>
	/200: 2000 l
	/300: 3000 l
	/500: 5000 l

## 4.2 Tank dispenser Compact series

These tanks are designed to contain additives using as little space as possible. They must be installed in special storage areas.



### Tank capacity:

- 2000 LITERS
- 3000 LITERS
- 5000 LITERS
- 11600 LITERS

Containment only /EA v.



With integrated dispenser /GE/EC v.

### VERSIONS

- /EA: dispenser or dispensing group absent
- /GE: industrial volumetric dispensing group
- /EC: dispenser for sale to third party counter, MID certified

## TECHNICAL CHARACTERISTICS

Supporting structure	Galvanized FE430B steel without welding			
Walls and roofing	Insulated panels containing foam layer of self-extinguishing, double-walled polyurethane resins, in pre-painted steel. White color Thickness: 25 mm			
Walkable flooring	Insulated almond aluminum sheet. Thickness: 3 mm + (1.5 mm)			
Handling	By forklift, with empty tank			
Tank material	High density linear polyethylene or stainless steel (on request)			
Tank capacity	2000 l	3000 l	5000 l	11600 l
Dimensions	1,50x2,32 H2,20 m	1,78x2,75 H2,20 m	2,00x2,94 H2,20 m	2,40x4,00 H2,55 m
Weight	600 Kg	650 Kg	800 Kg	1200 Kg
Level indicator	Indication of content (in cm and liters)			
Delivery pump	Parts in contact with the product in stainless steel			
Flow rate	40 ÷ 50 l/min			
Power supply	230 VAC			
Maximum current (In)	Max 3 KW			
Pump motor power supply	230 VAC 0,74 KW			
Heating (opt.)	230 VAC 1200 W			
Ventilation	230 VAC 60 W			
Electronics	24 VAC 50 W			
Operating temperature	-20°C ÷ +40°C (+60°C on request)			

## AT30/U INTEGRATED DISPENSER (if present)

Delivery flow rate	2 ÷ 30 l/min
Measurement accuracy	± 1,5 % GE version; ± 0,5% MID EC version
Computing head	CPTH02
System interface	Serial or parallel (see option)
Indicator	6-digit height 1" backlit display
Totalizer	Electronic and electromechanical non-resettable type, 7 digits
Delivery nozzle	Elaflex automatic type ZVA AdBlue® HV for heavy vehicles, ZVA AdBlue® LV for light vehicles
Hose delivery	Length 5.5 m with hose reel
Hose-reel	Made of AISI 304 stainless steel with EPDM gaskets

## CODES

AT09906	Capacity	Containment	Dispenser	Dispenser type
	/200: 2000 l /300: 3000 l /500: 5000 l /116: 11600 l	/V: with containment basin /N: without containment basin	/EA: dispenser or delivery group absent /GE: volumetric industrial delivery group /EC: MID certified contometric for sale to third parties dispenser	/SF: single frontal /SD: single right /SS: single left /DD: double /AX: alternate

AX: AA (Alternate Double Sided (1 nozzle per side)), AS (Alternate Single Sided Left), AD (Alternate Single Sided Right), AF (Alternate Single Sided Front), AB (Alternate Double Sided (2 nozzles per side))

# 4.3 Tank dispenser LC series

These tanks are made with a small width to be installed directly on the supply island.



#### Tank capacity::

- 500 LITERS
- 1000 LITERS
- 2000 LITERS
- 3000 LITERS
- 4000 LITERS

With integrated dispenser /GE/EC v.

#### VERSIONI

- /GE: industrial volumetric dispensing group
- /EC: dispenser for sale to third party counter, MID certified

## TECHNICAL CHARACTERISTICS

Supporting structure	Galvanized FE430B steel				
Walls and roofing	Insulated panels containing foam layer of self-extinguishing, double-walled polyurethane resins, in pre-painted steel. White color Thickness: 25 mm				
Handling	By forklift, with empty tank				
Tank material	High density linear polyethylene				
Tank capacity	500 l	1000 l	2000 l	3000 l	4000 l
Dimensions	1,00x1,17 +0,15 H2,25 m	1,25x1,40 +0,15 H2,25 m	0,90x2,95 +0,15 H2,25 m	1,00x3,15 +0,15 H2,25 m	1,17x3,30 +0,15 H2,15 m
Weight	225 Kg (single) 250 Kg (double)	300 Kg (single) 325 Kg (double)	500 Kg (single) 525 Kg (double)	600 Kg (single) 625 Kg (double)	700 Kg (single) 725 Kg (double)
Level indicator	Indication of content (in cm and liters)				
Delivery pump	Parts in contact with the product in stainless steel				
Flow rate	40 ÷ 50 l/min				
Power supply	230 VAC				
Maximum current (In)	Max 3 KW				
Pump motor power supply	230 VAC 0,74 KW				
Heating (opt.)	230 VAC 1200 W				
Ventilation	230 VAC 60 W				
Electronics	24 VAC 50 W				
Operating temperature	-10°C ÷ +40°C (-20°C ÷ +60°C a richiesta)				

## INTEGRATED DISPENSER (if present)

Delivery flow rate	2 ÷ 30 l/min
Measurement accuracy	± 1,5 % versione GE; ± 0,5% versione MID EC
Computing head	CPTH02
System interface	Serial or parallel (see option)
Indicator	6-digit height 1" backlit display
Totalizer	Electronic and electromechanical non-resettable type, 7 digits
Delivery nozzle	Elaflex automatic type ZVA AdBlue® HV for heavy vehicles, ZVA AdBlue® LV for light vehicles (optional)
Hose delivery	Length 3 m

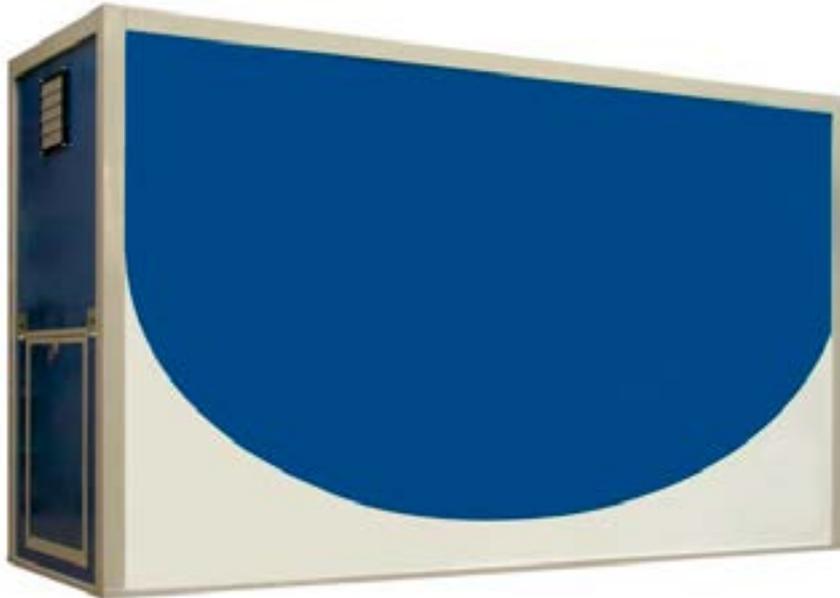
## CODES

AT13121	Capacità'	Containment	Dispenser	Dispenser type
	/500: 500 l /100: 1000 l /200: 2000 l /300: 3000 l /400: 4000 l	/V: with containment basin /N: without containment basin	/EA: dispenser or delivery group absent /GE: volumetric industrial delivery group /EC: MID certified contometric for sale to third parties dispenser	/SB: single two side /SD: single right /SS: single left /DD: double /AX: alternate

AX: AA (Alternate Double Sided (1 nozzle per side)), AS (Alternate Single Sided Left), AD (Alternate Single Sided Right), AF (Alternate Single Sided Front), AB (Alternate Double Sided (2 nozzles per side))

# 4.4 Tank dispenser Shuttle series

These tanks are made with a small width to be installed directly on the supply island.



**Tank capacity:**

- 1350 LITERS
- 2000 LITERS
- 3000 LITERS
- 4000 LITERS
- 5000 LITERS

**Containment only /EA v.**



**With integrated dispenser /GE/EC v.**

## VERSIONS

- /EA: dispenser or dispensing group absent
- /GE: industrial volumetric dispensing group
- /EC: dispenser for sale to third party counter, MID certified

## TECHNICAL CHARACTERISTICS

Supporting structure	Galvanized FE430B steel without welding				
Walls and roofing	Insulated panels containing foam layer of self-extinguishing, double-walled polyurethane resins, in pre-painted steel. White color Thickness: 25 mm				
Walkable flooring	Insulated almond aluminum sheet. Thickness: 3 mm + (1.5 mm)				
Handling	By forklift, with empty tank				
Tank material	High density linear polyethylene or stainless steel (on request)				
Tank capacity	1350 l	2000 l	3000 l	4000 l	5000 l
Dimensions EA	0,90x2,50 H1,92 m	0,90x2,60 H1,92 m	1,00x2,75 H2,25 m	1,17x2,94 H2,15 m	1,50x2,94 H2,25 m
Dimensions EC/GE	0,90x2,50 H1,92 m	0,90x2,95 H1,92 m	1,00x3,15 H2,25 m	1,17x3,30 H2,15 m	1,50x3,30 H2,25 m
Weight	450 Kg (single) 600 Kg (double)	500 Kg (single) 650 Kg (double)	600 Kg (single) 700 Kg (double)	700 Kg (single) 800 Kg (double)	750 Kg (single) 850 Kg (double)
Level indicator	Indication of content (in cm and liters)				
Delivery pump	Parts in contact with the product in stainless steel				
Flow rate	40 ÷ 50 l/min				
Power supply	230 VAC single phase				
Maximum current (In)	Max 3 KW				
Pump motor power supply	230 VAC 0,74 KW				
Heating	230 VAC 1200 W				
Ventilation	230 VAC 60 W				
Electronics	24 VAC 50 W				
Operating temperature	-10°C ÷ +40°C (-20°C ÷ +60°C on request)				

## AT30/U INTEGRATED DISPENSER (if present)

Delivery flow rate	2 ÷ 30 l/min
Measurement accuracy	± 1,5 % GE version; ± 0,5% MID EC version
Computing head	CPTH02
System interface	Serial or parallel (see option)
Indicator	6-digit height 1" backlit display
Totalizer	Electronic and electromechanical non-resettable type, 7 digits
Delivery nozzle	Elaflex automatic type ZVA AdBlue® HV for heavy vehicles, ZVA AdBlue® LV for light vehicles
Hose delivery	Length 5,5 m with hose reel
Hose-reel	Made of AISI 304 stainless steel with EPDM gaskets

## CODES

AT28007	Capacity	Containment	Dispenser	Dispenser type
	/135: 1350 l /200: 2000 l /300: 3000 l /400: 4000 l /500: 5000 l	/V: with containment basin /N: without containment tankbasin	/EA: dispenser or delivery group absent /GE: volumetric industrial delivery group /EC: MID certified contometric for sale to third parties dispenser	/SF: single frontal /SD: single right /SS: single left /DD: double /AX: alternate

\*AX: AA= alternato bifronte (1 pistola per lato), AS= alternato monofronte sinistro, AD= alternato monofronte destro, AF= alternato monofronte frontale, AB= alternato doppio bifronte (2 pistole per lato)

# 4.5 Tank dispenser Twin series

These tanks with associated dispenser are made with a small width to be installed directly on the supply island.

It is possible to integrate the dispensers of the main manufacturers.



### Tank capacity:

- 1350 LITERS
- 2000 LITERS
- 3000 LITERS
- 4000 LITERS
- 5000 LITERS

### VERSIONS

- /P: predisposition for dispenser
- /M: mounted dispenser provided by Assytech
- /C: mounted dispenser supplied by the customer

## TECHNICAL CHARACTERISTICS

Supporting structure	Galvanized FE430B steel without welding				
Walls and roofing	Insulated panels containing foam layer of self-extinguishing, double-wal- led polyurethane resins, in pre-painted steel. White color Thickness: 25 mm				
Handling	By forklift, with empty tank				
Tank material	High density linear polyethylene or stainless steel (on request)				
Tank capacity	1350 l	2000 l	3000 l	4000 l	5000 l
Dimensions (*)	0,90x3,74 H1,95 m	0,90x3,74 H1,95 m	1,00x3,89 H2,25 m	1,17x4,08 H2,25 m	1,50x4,08 H2,25 m
Level indicator	Indication of content (in cm and liters)				
Delivery pump	Parts in contact with the product in stainless steel				
Weight (/EA)	40 ÷ 50 l/min				
Power supply	230 VAC single phase				
Maximum current (In)	Max 3 KW				
Pump motor power supply	230 VAC 0,74 KW				
Heating	230 VAC 1200 W				
Ventilation	230 VAC 60 W				
Electronics	24 VAC 50 W				
Operating temperature	-10°C ÷ +40°C (-20°C ÷ +60°C on request)				

## AT02/LCU DISPENSER (if present)

Delivery flow rate	2÷40 l/min
Measurement accuracy	± 1,5 % GE version; ± 0,5% MID EC version
Computing head	CPTH02
System interface	Serial or parallel (see option)
Indicator	6-digit height 1" backlit display
Totalizer	Electronic and electromechanical non-resettable type, 7 digits
Delivery nozzle	Elaflex automatic type ZVA AdBlue® HV for heavy vehicles, ZVA AdBlue® LV for light vehicles
Hose delivery	Length 4 m
Hose-reel	Made of AISI 304 stainless steel with EPDM gaskets

(\*) In the case of an external dispenser, the dimensions of the associated dispenser must be added

**CODES**
**AT06821**

Capacity	Containment	Dispenser	Veicoli rifornibili	Dispenser tye	Installation
<b>/135:</b> 1350 l <b>/200:</b> 2000 l <b>/300:</b> 3000 l <b>/400:</b> 4000 l <b>/500:</b> 5000 l	<b>/V:</b> with contain- ment basin <b>/N:</b> without con- tainment basin	<b>/A2:</b> Assytech AT02LC <b>/A1:</b> Assytech AT15 <b>/H1:</b> Wayne Helix 1000 <b>/H2:</b> Wayne Helix 6000 <b>/OC:</b> Tatsuno Ocean <b>/SE:</b> Tatsuno Shark Economy <b>/SJ:</b> Tatsuno Shark Junior <b>/Q1:</b> Tokheim Quantum 110 <b>/Q5:</b> Tokheim Quantum 510 <b>/QM:</b> Tokheim Quantum 510M <b>/G1:</b> Gilbarco SK700-2 <b>/G2:</b> Gilbarco SK700-2 car/lorry	<b>/A:</b> car <b>/C:</b> truck <b>/E:</b> car/truck	<b>/S:</b> single <b>/D:</b> double <b>/A:</b> alternate	<b>/P:</b> predisposition for dispenser <b>/M:</b> mounted dispenser provided by Assytech <b>/C:</b> mounted dispenser provided by customer

# 5 MAIN CHARACTERISTICS

## 5.1 Tank

High thickness polyethylene compliant with ISO22241 standards. Provided with metal reinforcements where required.

**ISOLATED SIDE WALLS**  
WITH 25 MM THICKNESS OF  
SELF-EXTINGUISHING POLYURETHANE



**TANK IN POLYETHYLENE**  
IN ACCORDANCE WITH ISO22241  
Z-40.21-241 DIBt CERTIFICATE

**METAL STRENGTHENING BANDS**  
FOR SHUTTLE VERSION



**ISOLATED BASE**  
WITH 20 MM THICKNESS  
OF POLYESTER PANELS  
IN ANTI-CONDENSATION FOAM

## 5.2 Transport

Possibility of handling by forklift.



## 5.3 Leaks containment



**OVERFILL SENSOR**  
WITH ALARM CORRESPONDING TO 90% OF THE TANK VOLUME

**ANTI-SPILLING CONTAINMENT BASIN**  
(optional)

**LEAKS ELECTRONIC SENSOR**  
(optional)

## 5.4 Main components

**SUBMERSIBLE PUMP FOR AGGRESSIVE FLUIDS**

**INOX INLET FILTER**

**PRESET AND ANTI SIPHON VALVE SIDE A**

**MAGNETOSTRICTIVE LEVEL PROBE BODY AND FLOAT IN INOX**



**LIQUID PRESSURE SENSOR**

**AIR INLET FILTER AND VENT VALVE**

**PRESET AND ANTI SIPHON VALVE SIDE B**

**LOWER LOADING POINT**

**UPPER LOADING POINT**

### **AIR FILTER AND VENT VALVE**

Exhaust valves with Plus FPO filter in the intake that prevents pollution of the AdBlue® in the tank during the vehicle filling phase.

### **QUICK COUPLING**

Quick coupling 2" positioned in the lower part of the tank. makes filling from below possible and prevents spillage of product during the charging phase.



## SUBMERSIBLE PUMP

Special pump for additives, such as AdBlue® etc., made with materials compatible with the delivered product, supplied with a non-return valve and fixing bracket and support tube all in stainless steel.

**FIXING BRACKET**



**REINFORCED BRACKET FOR SUBMERSIBLE PUMP ASSEMBLY**

**SUBMERSIBLE PUMP FOR CORROSIVE FLUIDS**

**STAINLESS STEEL NON-RETURN VALVE**

## FORCED VENTILATION

Forced ventilation with pollen Plus FPO filter, air flow 100 m3/h.



## HEATER SYSTEM

Heating system 1.2 KW complete with temperature regulator and safety thermostat.



## LOW TEMPERATURE FRONT-PORT (optional)

Front-port for temperatures below -20°C



### AIR CONDITIONER (optional)

Refrigeration system for tropical environments designed for this type of application, with an ecological gas compressor according to current regulations.



## 5.5 Main hydraulic parts

### MID VOLUMETRIC METER

Electronic meter without moving parts. Components parts in contact with the fluid in stainless steel. It can work for years without requiring maintenance.



### HOSE-REEL

The reel with parts in contact with the fluid in stainless steel can contain hoses up to 6 meters in length. All parts in contact with the liquid are made of stainless-steel compatible with the dispensed additive.



## 5.6 Delivery nozzle

Elaflex ZVA AdBlue® LV and HV gun with automatic overfill lock, safety ball valve and check valve, 3 speed levels, for refueling heavy vehicles with AdBlue® solution Urea ISO 22241-1 (Diesel Exhaust Fluid DEF / AUS 32 / ARLA 32).

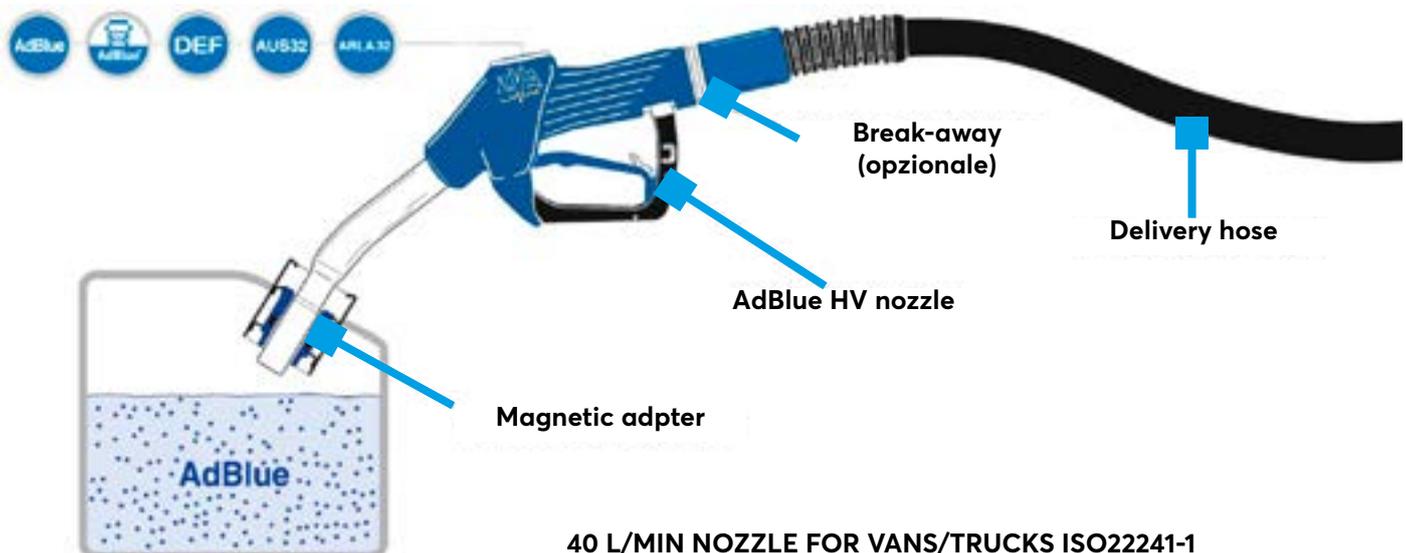
### Delivery nozzle for cars (LV)

Flow rate up to 10 l / min, working pressure 0.5–3.5 bar, pump outlet minimum 20 l / min.



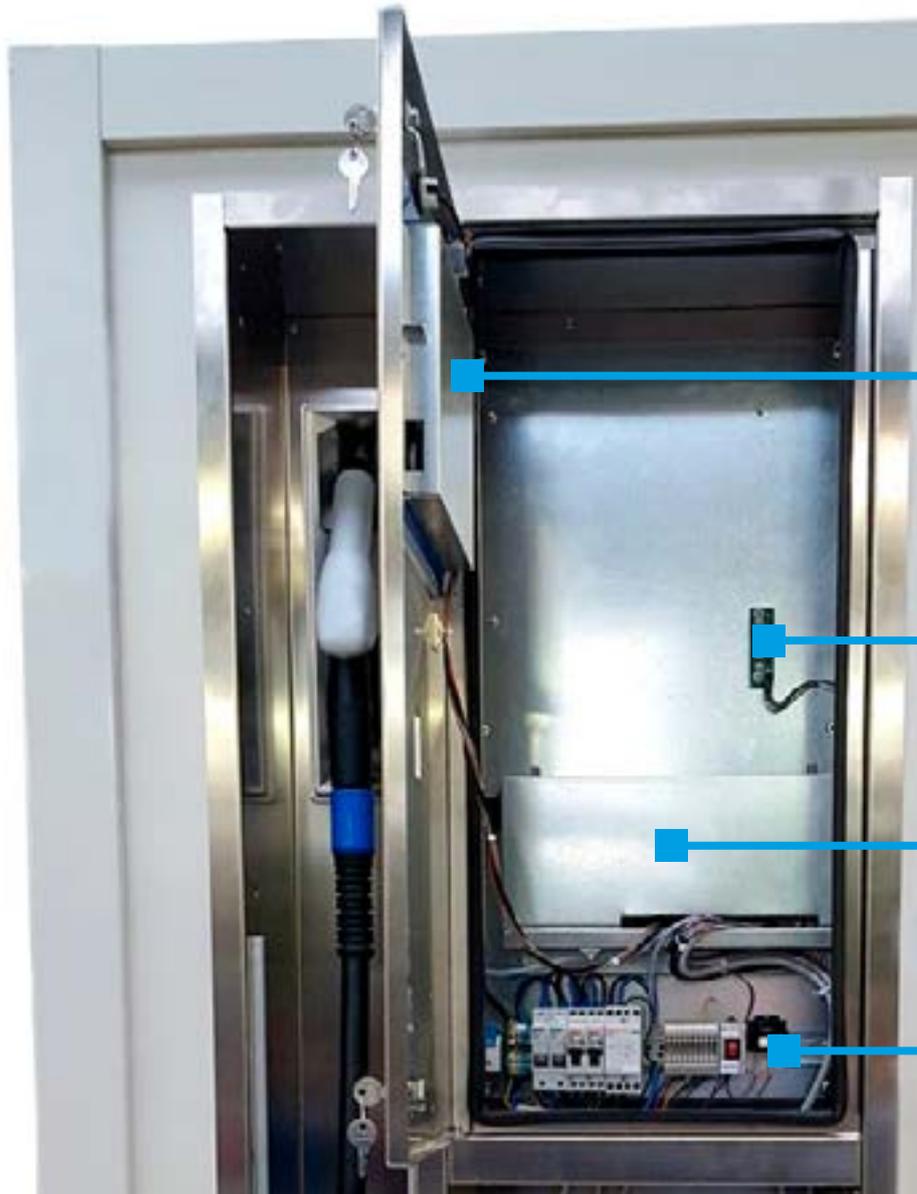
### Delivery nozzle for vans/trucks (HV)

Flow rate up to 40 l / min, working pressure 0.5–3.5 bar, minimum pump outlet 50 l / min for heavy vehicles. To avoid errors in refueling, in the HV version delivery is only possible in combination with magnetic adapters conforming to the standard such as Elafix 40, which are incorporated in the filling opening of AdBlue® vehicle tanks.



## 5.7 Electric and electronic parts

The device includes protection switches for the pump and accessory equipment.



6-6-6 DIGITS 1"  
COMPTOMETRIC  
DISPLAY

SETUP  
KEYBOARD

MID CPTH02  
COMPUTING  
HEAD

ELECTRICAL COMPONENTS  
AND PROTECTION DEVICES

OVER-PROTECTION WITH DI-  
SCHARGER (OPTIONAL)



## 5.8 Product level measurement probe

Magnetostrictive probe for measuring the level of the product stored with precision higher than a millimeter and made of stainless-steel compatible with the product supplied.



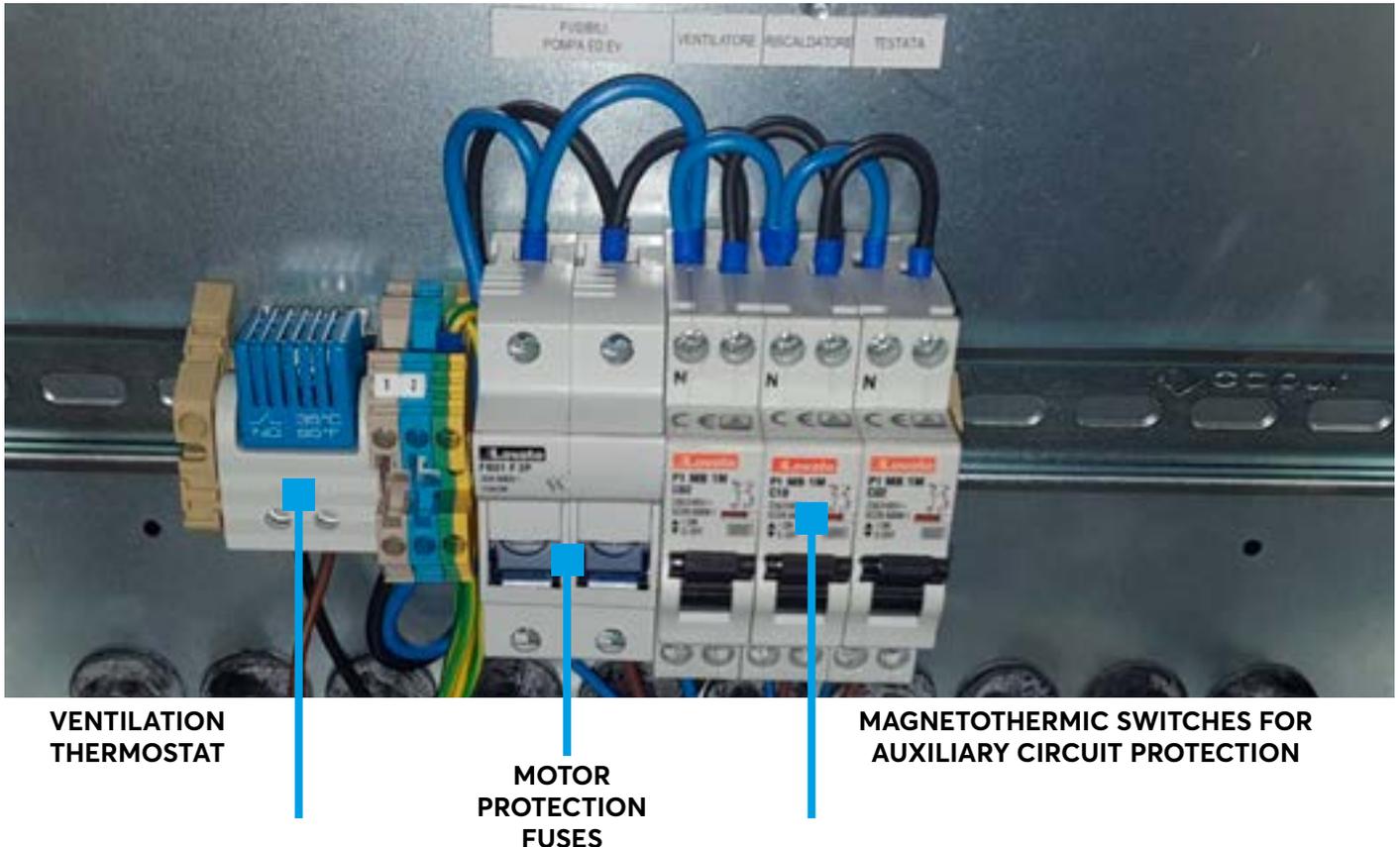
**MAGNETOSTRICTIVE  
LEVEL MEASUREMENT PROBE**



**HOUSING FOR LEVEL  
MEASUREMENT PROBE**

## 5.9 Electric connections

Automatic safety switches to protect all electrical components installed inside the enclosure.



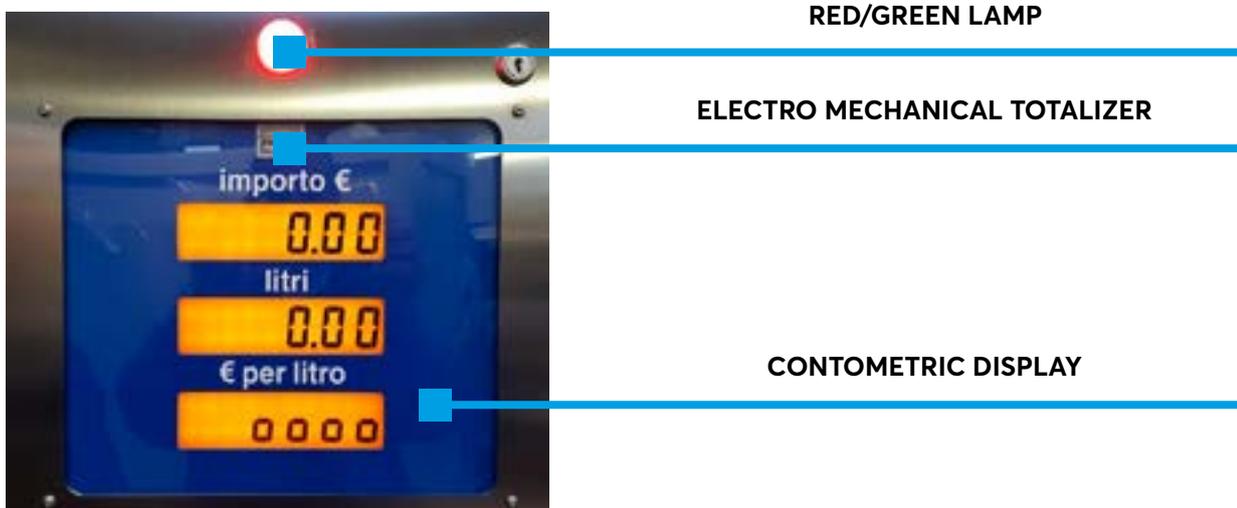
## 5.10 User interface

The signal lamp indicates the possible total filling of the storage tank, the filling request and the possible alarm conditions.

On the display of the electronic head, beyond the display of the delivery data, it is possible to view the volume of the liquid in the tank.

A series of codes identifies the defective component in the event of a malfunction.

The predetermination keyboard allows to set the liters or the equivalent amount of product to be dispensed, it is also possible to display the totals in liters and in money.



# 6 CUSTOMIZATION

The following default customizations of the external livery are available:

<p><b>TYPE 1</b></p>	 <p>AT006014/1/S</p>	 <p>AT006014/1/D</p>
<p><b>TYPE 3</b></p>	 <p>AT006014/3/S</p>	 <p>AT006014/3/S</p>
<p><b>TYPE 5</b></p>	 <p>AT006014/5/S</p>	 <p>AT006014/5/D</p>
<p><b>TYPE 6</b></p>	 <p>AT006014/6/S</p>	 <p>AT006014/6/D</p>
<p><b>TYPE 7</b></p>	 <p>AT006014/7/S</p>	 <p>T006014/7/D</p>

A

# 7 Accessories



## PROTECTION ROLLBAR

Code: ATO03509



## RS232 DATA REMOTE CONNECTION

Code: AT06406



## CPT/MODBUS DATA REMOTE CONNECTION.

Code: AT06606



## DATA REMOTE CONNECTION / C. LOOP N. PIGNONE.

Code: AT06506



## DATA REMOTE CONNECTION / C. LOOP GILBARCO.

Code: AT29506



## IFSF-LON DATA REMOTE CONNECTION.

Code: AT13521

# 8

## OPTIONS



### QUICK COUPLER F 2"

Quick coupler F 2" TODO. Complete with dust cap.

Code: **AT12406**



### LEVEL MEASUREMENT PROBE FOR ADDITIVES

Level measurement probe for additives, length 150, 175, 200 cm.

Code: **AT08919/WP/1/XXXX**



### HIGH LEVEL ALARM KIT

High level alarm kit with optical acoustic warning and silence button.

Code: **ATO16817**



### HIGH LEVEL ALARM KIT

High level alarm kit with thermistor and socket.

Code: **ATO12421**



### PREDETERMINATION KIT

VERSION	SIDE	CODE
SINGLE	SINGLE SIDE	AT32506/S/M
SINGLE	TWO-SIDES	AT32506/S/B
TWO-SIDE	SINGLE SIDE	AT32506/D/M
TWO-SIDE	TWO-SIDES	AT32506/D/B



### 100 PULSES/LITERS KIT

100 pulses/liters kit for parallel connection to management systems. Complete with CPU extension.

Code: **ATO16817**



## ANTISPILLING CONTAINMENT

Prevents product spreading in case of accidental loss.

**Containment basin for Compact tank**

Codice: AT004918/X\*

**Containment basin for LC and Shuttle tank**

Codice: AT004818/XX\*

(\*) X e XX = capacità tank

X=2 (2000 L); X=3 (3000 L); X=5 (5000 L); X=11 (11600 L); XX=05 (500 L); XX=10 (1000 L); XX=1 (1350 L); XX=3 (3000 L); XX=4 (4000 L); XX=5 (5000 L); XX=11 (11600 L)



## LIQUID PRESENCE DETECTOR SENSOR

Liquid presence detector sensor. To combine with the containment tank for tanks. Connected to the electronic head of the dispenser it signals the possible presence of accidental leaks from the main tank.

Code: **AT09119**



## INTERNAL HEATER

Internal heater 1,2 kW for deliveries at ambient temperatures below 0°C. Complete with accessories.

Code: **AT00117**



## FRONT-DOOR FOR LOW TEMPERATURES

Front-door for deliveries at ambient temperatures below -20°C.

Code: **ATO08619**



## AIR CONDITIONER

Refrigeration system for tropical environments with an ecological gas compressor.

Code: **AT11119**



## RS485 / 4-20 mA REPLICATOR

4-20 mA replicator that connected to the RS485 bus of the additive level measurement probes generates a 4-20 mA signal proportional to the height of the tank. To be used for connection to telemetry devices.

Code: **AT10208/K**



## RS485 / RS485 SPLITTER

RS485 splitter for duplicating the digital signal of the level probe. To be used for connection to existing level control units with RS485 bus.

Code: **AT08208/K**

# 9 Installation examples



Tank series Compact



Tank series Compact



Tank series Shuttle "EA"



Refueling station with AT30/U dispenser



**Tank series Shuttle, front side delivery**



**Tank series Shuttle, front and right side delivery**



Tank series Shuttle, right side delivery



Tank series Shuttle, right side delivery



Tank series Shuttle, left side delivery



Refueling station with AT30/U dispenser



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