

Installation

1. Installation of AD Blue dispenser
This product is designed to integrate the petroleum diesel vehicle exhaust gas treatment fluid filling machine and the urea storage tank into a skid tank, so there is no need for special construction of foundations and pipelines at the oil station site. Only the relevant cables need to be laid and installed on site according to the site construction requirements.
2. Power supply installation of AD Blue dispenser
 - a) The power cord of the filling device must be connected from the explosion-proof box.
 - b) The main switch of the power supply should be placed indoors, and the short circuit of the main switch should be selected according to the power and quantity of the filling device.
 - c) The phase sequence of the three-phase power supply connected to the explosion-proof box should be correct. The three-phase wires are connected to A, B, and C respectively, and the neutral wire is connected to N. Make sure that the steering direction of the three-phase motor is consistent with the direction of the steering arrow shown on the liquid-adding pump. If the steering is incorrect, just swap any two of the three lines A, B, and C.
 - d) All power cords should use four-core sheathed copper core cables with good liquid resistance and corrosion resistance. The cross-sectional area of three-phase cable conductors is not less than 2.5mm^2 . When the user's power cord is connected to the explosion-proof box, please note that the outer diameter of the incoming cable should match the inner hole size of the rubber sealing gasket at the entrance of the explosion-proof junction box. The cable should be introduced from the joint with G3/4" external thread. After the power cord is introduced into the explosion-proof box, tighten the nut and clamp the cable to ensure the explosion-proof performance of the explosion-proof box. The metal gasket matching the sealing ring cannot be missing, and its function is to protect the sealing gasket and compress the gasket. Blind gaskets should be added to unused cable entry holes to compress the gaskets to ensure the explosion-proof performance of the explosion-proof junction box.
 - e) The grounding connection of the filling device must be reliable, and the grounding wire should be a 4mm^2 stranded copper wire.
3. Explosion-proof safety precautions for AD Blue dispenser
 - a) The installation location of the host should comply with GB 50156-2012 "Code for Design and Construction of Automobile Filling stations", GB/T 3836.15-2017 "Explosive Environment Part 15: Design, Selection and Installation of Electrical Devices" and GB 50016- Relevant provisions of the 2014 "Code for Fire Protection Design of Buildings".
 - b) When installing the host machine, ensure that the microcomputer control system (computer control box) is in a non-hazardous area of the filling station.
 - c) The explosion-proof surface should be properly protected and not damaged. There should be no rust layer on the explosion-proof surface. After cleaning, it should be coated with phosphating paste or 204-1 replacement anti-rust oil.
 - d) When replacing components and parts of explosion-proof electrical equipment, their size, model, and material must be the same as the original ones. Fastening bolts must not be replaced or missing.
 - e) It is prohibited to change the internal circuits and wiring of intrinsically safe equipment. If components are replaced, they must be the same as the original specifications. If there is any battery replacement, it must be done in a safe area, and the battery must be replaced with the same model and specification.
 - f) During installation, attention should be paid to the protection of the explosion-proof surface: the explosion-proof surface should have anti-corrosion measures. Water should be prevented from entering the explosion-proof gap. Pads may only be used if permitted by documentation. The joint surfaces must not be treated with medium-hardening substances or painted. Generally, non-coagulating grease preservatives can be used. Silicone grease is generally suitable, but should be used with caution on gas detectors. When selecting materials, ensure that they are non-solidifying so as not to affect the tightness of the joint surface.
 - 1) The inner diameter of the rubber sealing ring in the cable entry device should match the outer diameter of the cable that should be inserted, and be pressed tightly with a compression nut or pressure plate; if it is steel pipe wiring, it should be sealed with packing according to regulations;
 - 2) Entrances to entrances where cables are not installed should be blocked with plugs complying with the standards.
 - 3) All fastening screws on the flameproof enclosure should be tightened.
 - g) Any plugging or unplugging operation must be powered off. Any operation must prevent electric shock.
 - h) For products that have passed the explosion-proof inspection, components and structures that affect the explosion-proof performance cannot be replaced or modified at will.
 - i) When installing and maintaining explosion-proof electrical equipment, the explosion-proof surface must be protected to avoid mechanical scratches; the fastening bolts, spring washers and washers on the box cover should be complete and fastened intact; in addition, the cable entry and exit devices must be installed completely. There are corresponding sealing rings and gaskets, etc., and unused holes must be sealed with special metal blanking parts. The distance between the explosion-proof surface and other solid obstacles shall not be less than 10mm.
 - j) The external grounding of explosion-proof electrical equipment must be connected to the ground of the whole machine using a special yellow-green two-color grounding wire. The whole machine of the gas filling machine must be well grounded, and the grounding resistance is less than 4Ω .
 - k) During on-site maintenance, the cover of the explosion-proof electrical equipment must not be opened until the rotating part of the explosion-proof electrical equipment has completely stopped. If the equipment in the explosion-proof enclosure has energy storage components, the power outage should be delayed for a certain period of time according to the manufacturer's regulations, and the cover should be opened after the energy is exhausted.
 - l) During on-site maintenance, non-explosion-proof instruments, lighting fixtures, telephones, etc. are not allowed to be used unless the explosive mixed gas is completely eliminated and corresponding safety measures are taken. The tools used are non-sparking and explosion-proof tools, and the explosion-proof tools are made of beryllium copper alloy. Adding beryllium, aluminum, titanium, nickel, magnesium, etc. to pure copper with low strength and hardness is smelted into a copper-based alloy. Improved strength and hardness, no sparks produced by friction or impact due to the absence of carbon; The strength, hardness and thermal conductivity of copper alloys are better than those of steel materials. Local friction points will undergo plastic deformation to avoid the concentration of friction energy on individual contact points, and the heat generated by friction can be quickly dispersed to the matrix to reduce the occurrence of friction impact points. Danger of hot temperatures.



Ad Blue dispenser



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Henan Eaglestar Energy Technology Co., Ltd

Company Profile



Company

Eaglestar, located in Zhengzhou City, Henan Province, China, is one leading manufacturer of petroleum equipment for retail petroleum markets.

Eaglestar is involved in fuel dispenser industry since 2005. After over 15 years development, Eaglestar continuously set up the sales network in Africa, Middle East and Asia markets. The high quality products and the convenient rapid service bring well reputation for Eaglestar. In some markets such as Nigeria, Ghana, Eaglestar has been No.1 brand and achieved over 50% market share.

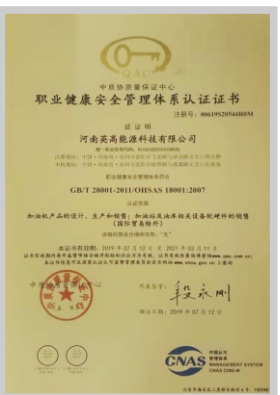
In Eaglestar, innovation is the core spirit. Innovation demonstrates in research & design, production, quality control and sales & service etc. every segment. All the electronic system are designed and developed by Eaglestar high professional team. The key electronic components are imported from US or Japan originally to keep the good quality. The mechanical hydraulic system designed by Eaglestar team and produced by qualified OEM suppliers. The factory passed ISO9001 system.

Besides the national explosion proof and metrology pattern approvals, Eaglestar also passed OIML testing and got the approvals. Meanwhile, the company is in process for ATEX.

Our Goals: to maximize our market in global market. to provide the high quality products and best service for our customers.

Our vision: to be one professional manufacturer for retail petroleum equipment and solutions.

Company Qualification



EGF2221N1



EGY1111N1



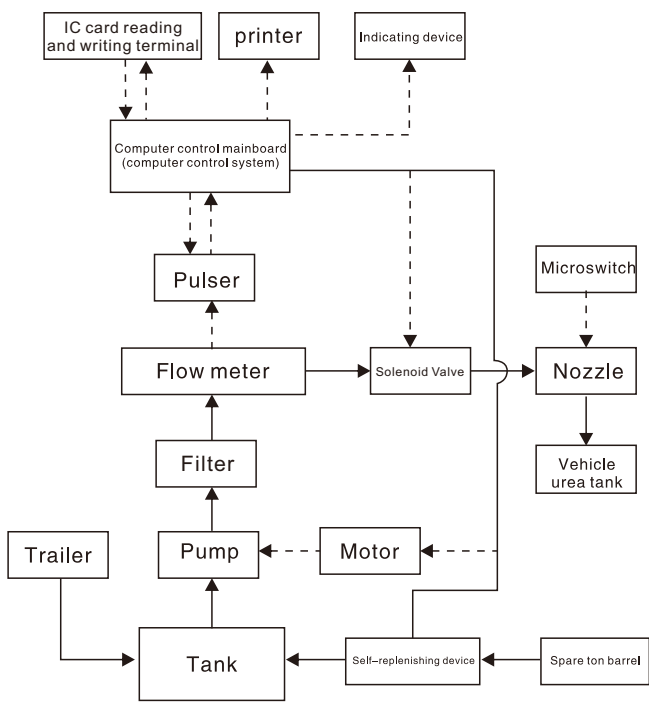
Working principle

1.Lift the nozzle and turn on the switch of the nozzle. The switch signal is sent to the computer control main board and waits for background authorization. After the authorization is successful, the computer control main board sends a start signal to the drive board and opens the solenoid valve.

2. The motor drives the pump to operate, sucking in the urea liquid through the filter and entering the flow measurement transducer to push the piston to reciprocate. It drives the indexing plate in the encoder on the output drive shaft of the flow measurement transducer to rotate, causing the counting board to generate pulse signals and send them to the metering and control main board.

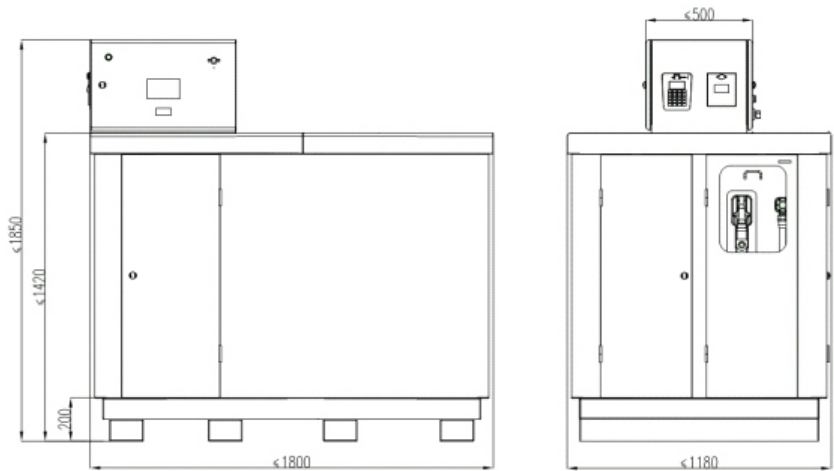
3. The computer control mainboard performs calculations on the received pulse signals. Calculate the liquid volume and amount passing through the flow measurement transducer, and display the liquid volume, amount, and price on the display screen at the same time.

3. The liquid that passes through the flow measurement transducer passes through the solenoid valve and the electrostatic infusion hose, and is output to the liquid receiving container through the nozzle.

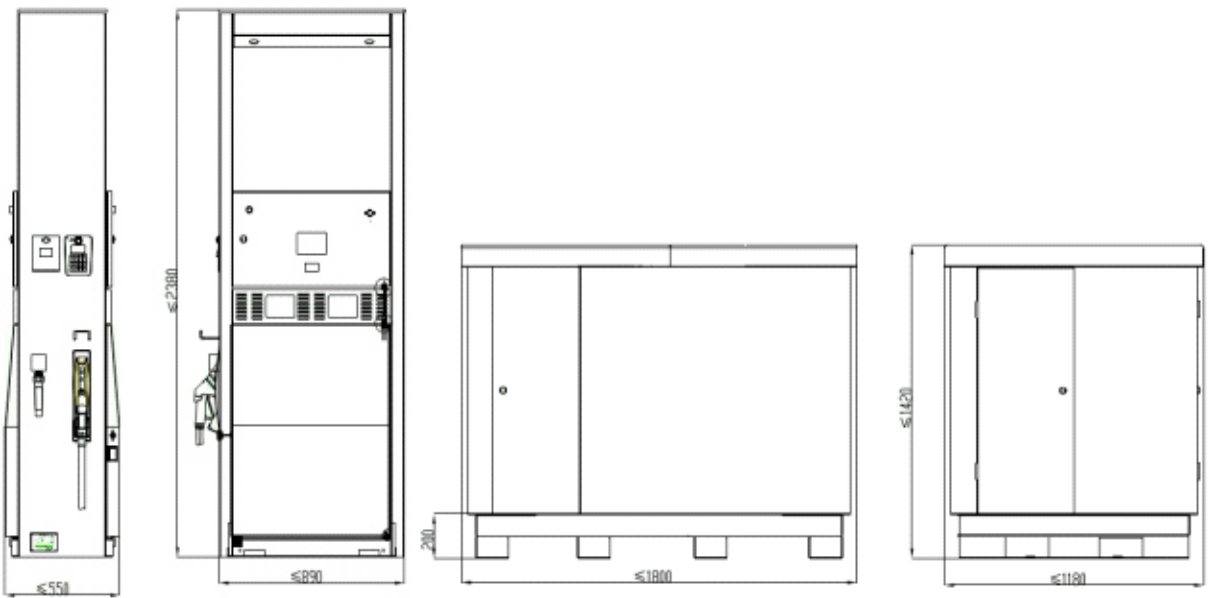


Technical Parameters

Item	Description
Voltage	Three-phase 380V (+10%, -15%), frequency 50Hz ± 1 Hz
	Single phase 220V (+10%, -15%), frequency 50Hz ± 1 Hz
Flow range	(5~30)L/min
Measurement accuracy	± 0.30%
noise	≤70dB
Single counting range	Volume: (0--9999.99) liters
Total cumulative count range	Amount: (0--9999.99) yuan
	Total cumulative count range 0--9999999.99 liters
Unit price range	0--99.99 yuan/liter
ambient temperature	-25℃ ~ +55℃
Relative humidity	≤95%RH
Atmospheric pressure	86kPa ~ 106kPa
Maximum working pressure of filling pump	<0.3MPa
Machine explosion-proof mark	Ex d e ia mb nA nC IIA T3 Gc



Appearance of EGY1111N1 integrated AD Blue dispenser



Appearance of EGF1111N1 split AD Blue dispenser

Structural diagram of diesel vehicle exhaust gas treatment fluid filling machine

The petroleum AD Blue dispenser mainly consists of a flow measurement transducer, an encoder, a filling pump and a motor, a solenoid valve, a nozzle and a hose, a control main board (microcomputer control system), input and indicating devices, and auxiliary devices. , storage tank (ton barrel), self-replenishing device, liquid level indicating device, connecting pipeline, shell, etc.