Pumptronics

Zeon

Commercial

Fuel Pumps and Dispensers

Operating, Service, and Installation Manual

Zeon

Suction + Dispenser
Mono
Model code ZE11LC, ZE11MC, ZE11HC

Zeon

Suction + Dispenser
Twin
Model code ZE22LC, ZE22MC, ZE22HC

Zeon AdBlue®

Suction + Dispenser
Mono
Model code ZE11ABLC, ZEAB11MC, ZE11ABHC

Zeon AdBlue®

Suction + Dispenser
Twin
Model code ZE11ABLC, ZEAB11MC, ZE11ABHC

Zeon Extra High Speed

Suction + Dispenser
Mono
Model code ZE11OSOB

Zeon Extra High Speed

Suction + Dispenser
Twin (Hose)
Model code
ZE11OSOB-F
Add "/DISP" onto the product code for a dispenser.
(Twin outlet only)

Front Loading Nozzle

Zeon Also Comes In Front Loading Nozzle

TABLE OF CONTENTS

INTRODUCTION

// It is important that the contents of this manual are read and fully understood before commencing with the Installation of this equipment. Failure to do so may result in an incorrect installation and will invalidate warranty.

GENERAL

The Pumptronics Zeon range of fuel pumps and dispensers are manufactured in the UK to the highest quality; all models are approved to the 2015 Diesel hazardous environmental regulations and comply with European Community CE Mark requirements.

Installation of the equipment should be made in accordance with the relevant petroleum Codes of Practice and National/Local requirements. You should also ensure that the electrical and pipe work engineers are qualified to undertake the work. Ensure all essential installation and electrical diagrams have been issued.

For safety and warranty reasons, electrical connections to the pumps and dispensers must only be made by the approved Pumptronics Engineers, who have received all necessary training.

The Pumptronics Commissioning Engineer should ensure that each item of equipment has been installed correctly, safe to operate and has been fully tested and calibrated.

// Failure to comply with the above requirements is a breach of our conditions and will invalidate the equipment warranty.

The Zeon range is designed and equipped for use in Tank cabinets, Diesel Fuel Islands

and at fuel bunkering sites for the delivery of Diesel, Gasoil and Adblue® into the tanks of automobiles, commercial vehicles, boats, portable containers at flow rates up to 110 l/min. Within each model range there are versions for “standard delivery “up to 50 l/min (e.g. car refuelling) and high speed up to 110 l/min (e.g. truck refuelling) Combinations of both are available in twin models.

// Zeon Pumps or dispensers cannot be used for public retail. and are not approved for installation into petroleum defined hazardous areas

All pumps and dispensers are equipped with pumping and measuring systems controlled by and electronic processing system. For the delivery of fuels, Suction pumps have pumps located within the unit. With dispensers there will be a submersible pump in the tank.

Pipes and flexible hoses connect the nozzle to the hydraulic output of each measuring device. A sight glass may be fitted between the nozzle and hose, or between the hose and the meter outlet.

Pumps and Dispensers can be equipped with safety break coupling mounted within the nozzle or inline. If the vehicle drives away leaving the nozzle in the tank, a built in safety valve stops the fuel flow at the hose.

The force required to operate the safety break means that during normal use a break not will occur. In cases of the vehicle driving away, the safety break also prevents greater damage to the pump/ dispenser and to the environment. However, damage to the pump enclosure, hoses etc. cannot be

completely prevented when a vehicle is driven away with the hose still connected.

In certain circumstances additional in line safety break can also be connected between the pump out and the hose inlet. Should a break occur we recommend a full check over of the pump to ensure there is no damage.

In order to assist with reconciliation of wet stocks and electromechanical, non-resettable totalizer is housed within the display. This shows the total throughput of fuel in litres.

OPERATING INSTRUCTIONS

The pumps and dispensers can be used as stand alone units or can be linked to appropriate fuel management systems. The delivery process for units linked to a Fuel Management system will be authorised by the Fuel Management system in order for fuel to be drawn. The delivery process starts after the removal of the nozzle. A nozzle switch closes indicating the removal nozzle, the control computer sets the displays to show zero and starts the required pump motor (or submerged pump) and if necessary solenoid valves.

After opening the nozzle, fuel flows through the filter, through the non return valve and into the gas/air separator (dispenser models only). Here any gas/air is removed and released to atmosphere.

The flowing fuel rotates the measuring devise which in turn rotates the pulser, whose pulses are then transmitted to the control computer.

The measured fuel is flowing through the pipes to the connection point of the hose. The fuel flows through the flexible hose into the nozzle. A hand operated lever by which the flow rate can be controlled opens the nozzle. The nozzle stops automatically when the fuel touches the end of the spout. The nozzle will also only operate if its spout is tilted downwards.

Fuel delivery/measurement stops by closing the nozzle and returning it back into its holster. The control computer then stops the pump motor

Suction pumps are fitted with by-pass valves, adjusted to zero flow pressure, to return the undelivered fuel back to the suction side of the pump.

USE AS DIRECTED

General Safety Information / Danger Warnings

// Deviations from stated use may cause risk to individuals and /or the equipment and the environment.

All pumps and dispensers are only to be used for the delivery of Diesel in accordance

with BSEN 590 specification for Diesel Fuels and AdBlue® in accordance with ISO 22241.

These fuels contain dangerous substances. When using such fuels, always refer to the relevant data instruction sheets. Always adhere to National and / or local safety /security regulations.

The site operator has to ensure that the following instructions are displayed within the operating range of the pump or dispenser, namely as picture graphs or written signs, e.g.:

- **No smoking, fire or naked flames**
- **Turn off engine**
- **Fill only authorised containers.**

The site operator must ensure that the area around the pump or dispenser is adequately lit to enable its safe use.

It is also recommended that appropriate chemical spill kits are readily available to contain any accident spillage. We can supply these to you Part Number CS000058.

OPERATION INSTRUCTIONS FOR THE END USER

// **The use of these fuel pumps is only permitted with completely closed and secured display housing, panels and doors.**

Pre condition of use:

- **Turn off engine and ancillary heating equipment.**
- **Turn off electrical equipment**

Refuelling process

1. When pumps are linked to a Fuel management system, this will need to be authorised before the re fuelling can commence.
2. Remove nozzle from its holder.
3. Insert the nozzle spout fully into the tank filler neck.

The nozzle has an integral safety tilt device, which stops the delivery of fuel when the spout is positioned horizontally or higher.

Adblue® nozzles of type Elaflex ZVA are fitted with a spout with magnet opening. Refuelling is only possible with a magnet adaptor fitted within the vehicle filler neck. This is to stop accidental re fuelling of Adblue® into a Diesel tank.

4. Squeeze the nozzle trigger

The trigger regulates the fuel flow. The delivered volume is shown in the display. To prevent over filling, the nozzle is fitted with an automatic shut off, stopping the fuel delivery when the vehicle tank is full. Before removing the nozzle from the tank filler, ensure that remaining fuel is allowed to drip into the vehicle tank.

// **When removing the nozzle from the fuel filler try to ensure that no remaining fuel can drip from the nozzle spout onto shoes, clothing, the vehicle or the ground.**

5. Replace the nozzle in its holster. Delivered volumes are shown in the display.

// **Attention! Ensure that the hose is returned to its intended position and it is not lying on the ground. This will cause damage to the pump, hose and nozzle.**

AUTOMATIC DRY BREAK REFUELLING (IF APPLICABLE)

1. Typical Posilock filler cap and cowl.
   Cap closed.

2. Cap open ready for fuelling.
   Pins in the Posilock nozzle head engage with the adaptor slots.

3. Locate the nozzle to the adaptor.
   Rotate clockwise until it stops.

4. Rotate the side lever back and down.
   Pull and latch the trigger to begin fuelling.

5. Trigger clicks off when fuelling complete.
   Rotate side lever back to the 'up' position.
   Rotate nozzle 15° anticlockwise and remove.

// **Do not attempt to Top Up. Repeated use of the operating lever will cause overfilling and will damage the nozzle.**

6. Close cap.

CARE AND MAINTENANCE BY SITE OPERATOR

Care and maintenance by the site operator is limited to the following actions: further servicing functions may only be carried out by qualified maintenance staff.

Fuel Leaks

// **Check daily that no fuel is leaking from the base of the pump or dispenser. All leaks are to be to repaired immediately and if necessary the pump or dispenser removed from service**

Hoses

// **Check daily that the nozzles, hoses and sight glasses (if fitted) are undamaged and that the hoses are free from kinks or blisters. Damaged nozzles and hoses must be replaced immediately by maintenance personnel.**

// **In the case of fuel leaks the pump or dispenser should be removed from service until the fault is rectified.**

// **Adblue® nozzles should be washed in warm water on a weekly basis to remove signs of crystallisation.**

Checking pump or dispenser prior to daily use

- **Switch on mains supply**
- **Check pump or dispenser functions by removing and replacing the nozzle**

Removal from Service

- **Disconnect the mains supply**

Pump and Dispenser Cleaning

// **Display surfaces (plastic) are easily scratched and damaged and should only be cleaned with light, non abrasive detergents e.g. washing up liquid, soap and water.**

// **External panels and especially display units must not be cleaned with solvents or any other substance containing solvents.**

// **Do not use high pressure cleaners (pressure washers/ steam cleaners) on any part of the pump or dispenser.**

// **To remove minor scratches or blemishes from the stainless steel panels rub the area with a scotch bright type pad, following the grain of the stainless steel. Never use steel wool.**

// **In severe weather conditions remove build up of snow and ice regularly**

// **AdBlue® units, wash away the regular "white deposits" that regularly build-up with warm soapy water. Excessive build up on the nozzle should be removed by submerging the nozzle into a bucket of warm (not soapy) water, to dissolve the crystal growth within the nozzle spout.**

MAINTENANCE AND REPAIR BY AUTHORISED SERVICE PERSONNEL

The maintenance and repair of pumps and dispensers is only to be carried out by manufacturer (Pumptronics) trained personnel of professionally certified companies.

// **Always adhere to national health and safety regulations as well as important safety information contained in the maintenance documents provided.**

- **Remove both front and rear doors. Ensure the pump or dispenser is well ventilated**
- **Before commencing work visually check for leaks and remove any existing fuel residues.**

- **Avoid general sparks whilst working**

// Any changes made to this equipment could invalidate the warranty.

The nature and periodicity of the inspections depends on the volume throughput. Nevertheless, the following operations must be performed within the indicated interval.

Every 3 months

- **Clean and check suction pump filters**
- **Check electrical and electronic system condition**
- **Clean the nozzle filter and check automatic closing system.**
- **Check for leaks in the hydraulic systems and fuel lines.**
- **Check transmission belt tension**

Every 6 months

Mechanical system

- **Check the operating condition of the suction pumps**
- **Check hose condition**
- **Check condition of pump flexible supply pipes**

Electrical system

- **Check cable glands for condition and tightness (do not over-tighten)**
- **Check junction boxes leak – tightness**
- **Check electrical cabling condition**
- **Check for motor noise**

Display and Head assembly

During maintenance, check that the seal around the fascia is fitted and functioning correctly. A visual check must be undertaken and any defective seals must be replaced before the pump or dispenser may be brought back into use.

Additionally, the cable glands should be checked for correct fitting and serviceability. Loose fittings should be re-tightened and defective fittings replaced.

Filters

Fuel filters should be changed 1 week after the initial installation to remove any debris from the installation process. And thereafter not later that once a year. Earlier filter replacement may be necessary if the fuel flow rate is unacceptable. To prevent skin contact with fuels protective gloves must be worn.

Drive Belts

Drive belt tension must be periodically checked and adjusted as necessary. Visibly damaged drive belts must be replaced.

Safety Breaks

After an accident involving the operation of a safety break assembly, the equipment is to be inspected for damage and all damaged parts must be replaced. Safety breaks may be reused after re-assembling according to the manufactures manual by an authorised person and prescribed test. After repairs, functional and leakage tests must be carried out.

Disposal

When disposing of the equipment or parts of it (e.g. filter, hose etc. take into the directives regarding disposal of waste containing hazardous materials

COMMISSIONING OF YOUR EQUIPMENT

Pumptronics pumps and dispensers are usually sold through our authorised distributor network.

This means that the authorised distributor will be responsible for the installation and commissioning of the units, ensuring that the installation of the equipment is made in accordance with the relevant petroleum codes of practice, international / national and local requirements. The distributor will then take on the responsibility for the labour aspect during the standard warranty period with Pumptronics providing the parts element during the warranty period. However in some circumstances the units can be sold direct to the end user, reseller or to an Installation Company. In these instances where a third party is involved in the installation, the Installation Company will be responsible for ensuring that the Installation meets the relevant petroleum Codes of Practice and International / National and Local requirements. In these circumstance Pumptronics will arrange for an authorised distributor to undertake the final commissioning of the units.

Commissioning can only take place when the installation is complete and fuel is available. The Commissioning engineer will make the final electrical connections within the pump. If these electrical connections are made by persons not authorised by Pumptronics the warranty on the equipment will be invalidated.

Prior to commissioning the engineer will check that the:

- **Pump is securely bolted in position to an island of minimum height 150mm.**
- **Pipe work is correctly connected to the pump**
- **Pump is situated such that it can be correctly used and maintained.**
- **Base sealing cap is fitted and that all connections pass through this correctly.**
- **Earth connections are properly made and that all equipment is effectively bonded.**
- **Any peripheral equipment to which the pump is connected is correctly earthed.**

If the commissioning engineer is not satisfied on any of the above points you will be advised. If the deficiency is minor the commissioning will be undertaken and the deficiencies noted on the work sheet which the client will be asked to sign. If the deficiency is more major and the installation is considered to be unsafe the commissioning the engineer will explain the requirements to correct the non-compliance and whether it is more appropriate for the engineer to remain on site or make a return visit. In either case the additional time / visit will be chargeable.

// To arrange the commissioning please call Pumptronics on 01692 500640, confirming the following details.

- **Pump Serial Number**
- **Site address and telephone number**
- **Required commissioning date**

Please provide advance notice of at least 5 working days of your commissioning requirements.

UNPACKING THE PUMP OR DISPENSER

Safety Information

// Caution! Take care when lifting/handling the pump. It is very heavy, and can cause serious injury if handled incorrectly.

During installation, factory test fluid may be present in, or on equipment therefore suitable precautions must be taken, such as the use of gloves and / or barrier cream to prevent skin damage whilst handling the components that may be affected.

// General Safety Information
Upon arriving at the site where the installation of a pump or dispenser is to be placed, ensure that you have all the necessary safety equipment available prior to commencing work.

Approximate Pump Weights

Model	Weight
ZE11LC - ZEON Mono units ZE11HC	90kg
ZE22LC – ZEON Twin ZE22HC	140kg
ZE11EHC – ZEON Twin Hose Extra High Speed	140kg

RECOMMENDED TOOLS

INSTALLATION AND COMMISSIONING PROCEDURE

Safety Information

- **Electrical Supply**
  All electrical work must be undertaken by a suitably qualified electrical engineer. If the pump has been wired by an unqualified person, the product warranty will be affected.

- **Mechanical Commissioning**
  All Pipe work and surrounding areas should comply with the current regulations. Engineers must be suitably trained and qualified to work in hazardous zones, especially where petrol or gas is being dispensed.

  Be careful when lifting and handling any heavy equipment on site. Health and safety guidelines must be followed on site at all times.

- **Hazardous Substances**
  When working with fuels, environmental and personal safety is paramount. Any spillages must be reported to the relevant person, and the use of PPE to reduce the risk of dermatitis or accidental ignition should be used.

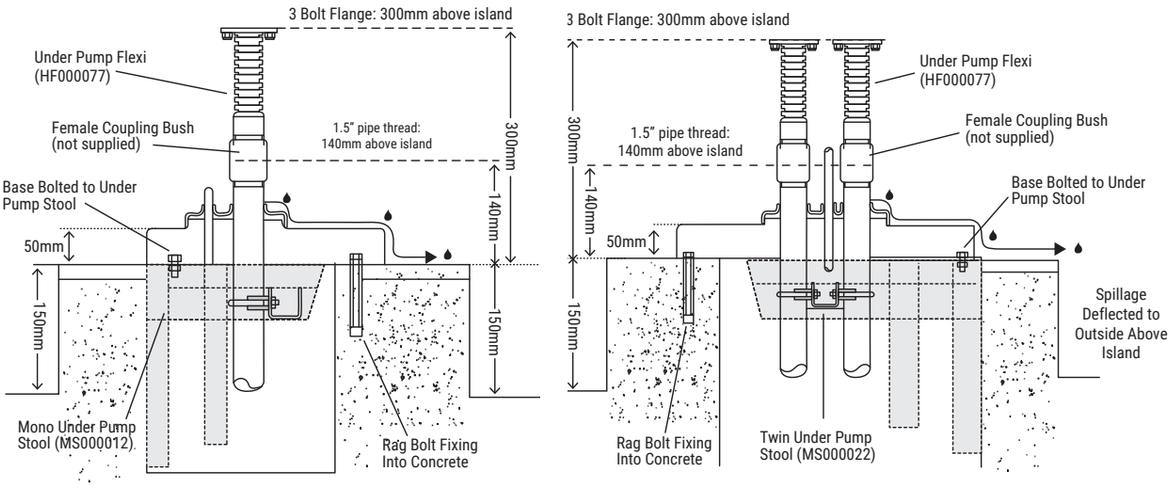
Initial Preparation

1. Prior to lifting into position confirm that the fuel lines, electrical and communications supplies are correctly positioned.

The pump or dispenser needs to be on a plinth or raised island with a height of 150mm. The diagrams below show the required positions of the pipe work and power and data cables.

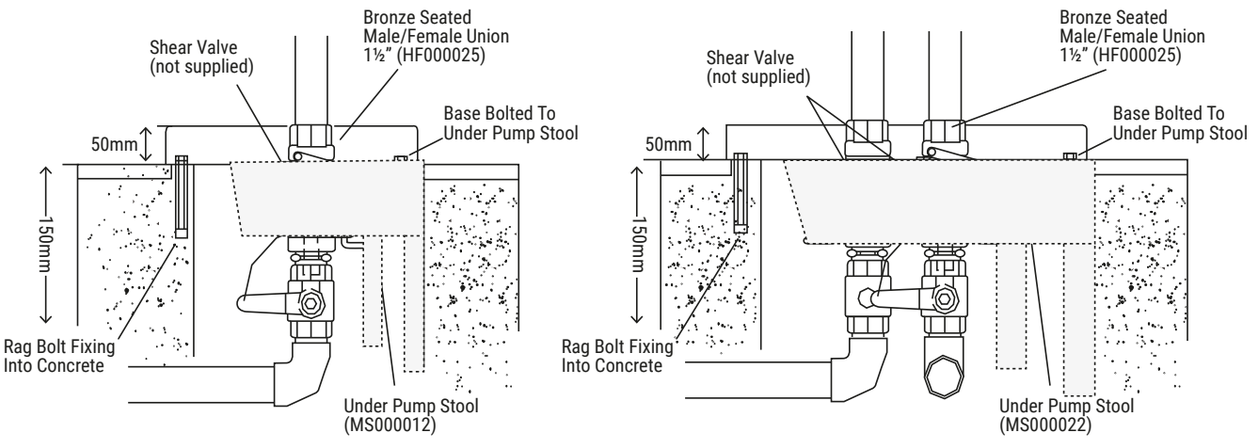
SUCTION PUMPS

Fig. 1



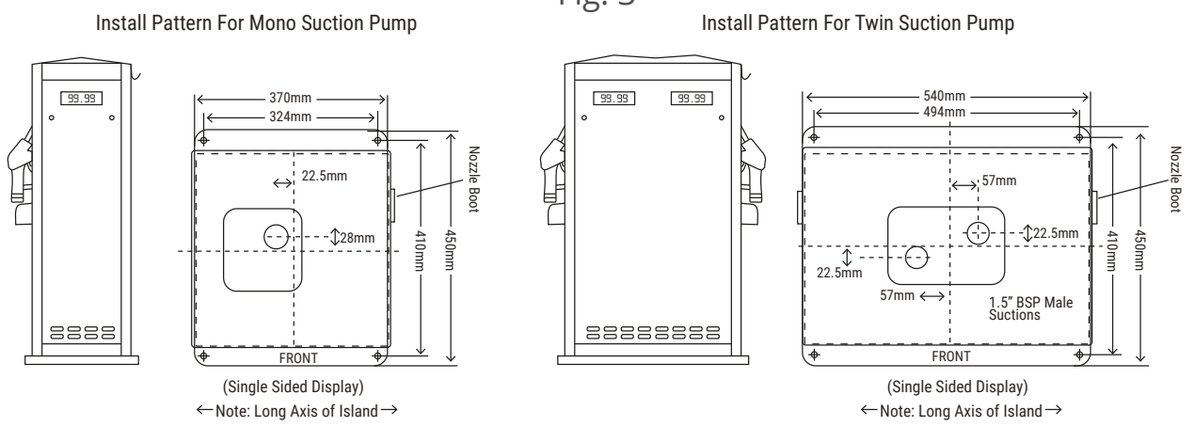
DISPENSERS

Fig. 2



NOTE: MUST BE INSTALLED OVER TOTAL CONTAINMENT SYSTEM

Fig. 3



Once you have confirmed that all necessary connections are correctly positioned, you can proceed.

2. Remove the triangular blanking plate located underneath the pumping unit (Fig. 4)

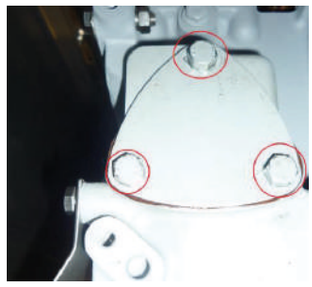


Fig. 4

High Hose Fitting

If the unit requires high hose mast (optional extra) this should be fitted now as follows (see Fig. 5)

1. Ensure power supply is isolated.

2. Unpack and check high hose for damage

3. Identify the chamfer in the compression ring; this is where the O-ring sits. Be sure that it is assembled the correct way round to avoid causing damage.

4. Carefully push high hose through panel, sliding on the compression nut, compression ring, and o ring. (Fig 4)

5. Tighten compression assembly with a 36mm spanner, ensuring not to over-tighten, as this can damage the O-ring.

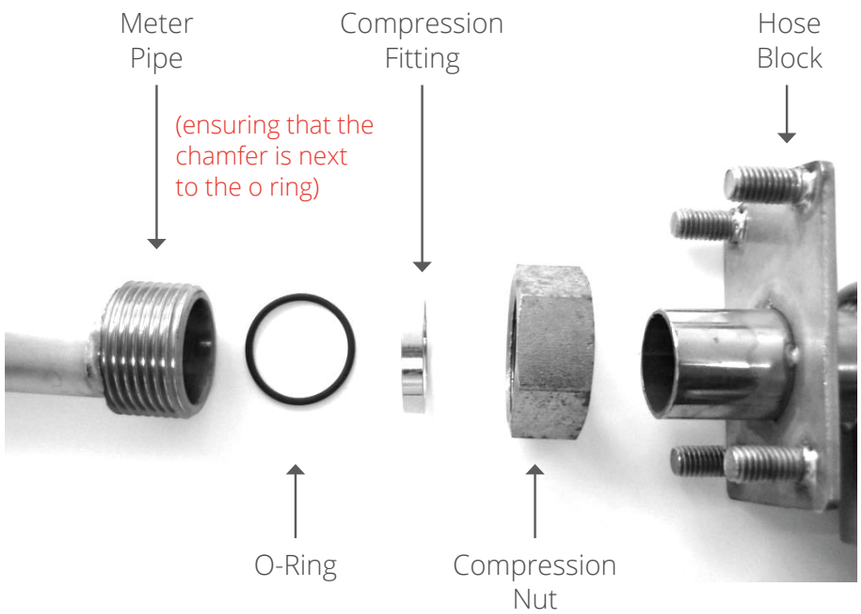


Fig. 5

Hydraulic Connection

// Mechanical Commissioning
All Pipe work and surrounding areas should comply with the current regulations. Engineers must be suitably trained and qualified to work in hazardous zones.

- **Pipe work should be minimum of 1½" BSP, per side, if smaller diameter pipe work is used, or suction lines are joined, the flow rate will be reduced.**

- **When using an above ground tank, ensure a PRV (Pressure Relief Valve) is fitted between the pump and tank. Failure to fit a PRV can cause fuel to leak out of the flame trap on the pump unit.**
- **Pipe work should be securely bolted down to an island of minimum 150mm height, with pipe connections as shown in the installation schematic.**
- **All pipe work should be situated in key positions, so valves etc. are easy to maintain.**

Connection of Fuel line(s) – Suction Pumps

1. From the installation kit remove the base seal and carefully cut the hole in the correct position for the fuel pick up line (s), mains connection and communication connection.

2. Feed the electrical wires through the base seal (ensuring enough cable length is available for connection) slide the base seal over the Fuel pick up line (s), until it creates an effective seal over the base aperture.

3. Construct the feed pipe assembly before lifting the pump onto the check valve and tightening making sure that the fixing holes are aligned correctly (fig 4)

4. Feed the power and data cables through the hole in the base seal. At least 1.5M of cable should be available from the base of the pump to make necessary connections to the data and power terminal.

5. Ensure that the base seal is sitting over the opening in the pump base. There should be no gaps between the base seal and the steel Pipe work or electrical cables.

6. Electrical termination should only be carried out by a suitably qualified engineer, and should be terminated within current guidelines.

7. Communications terminations are made by the commissioning engineer. For more details on communication termination, please refer to the electrical schematic towards the rear of this document.

8. After all necessary connections have been made; you can perform a functional test of the pump.

Connection of Fuel line(s) - Dispensers

1. From the installation kit remove the base seal and carefully cut the hole in the correct position for the fuel delivery line (s), mains connection and communication connection.

2. Feed the electrical wires through the base seal (ensuring enough cable length is available for connection) slide the base seal over the Fuel pick up line (s) until it creates an effective seal over the base aperture.

3. Connect the vapour recovery system (if fitted)

4. Connect the fuel supply pipe to the dispenser inlet pipe using the M/M union supplied.

5. Please refer to mechanical schematic to ensure the pressurised delivery pipe is correctly positioned.

6. Lift the dispenser; take away the wooden pallet and position over the Pumptronics under pump plinth or stainless steel plinth

7. Refer to the mechanical schematic for connection details on how to connect the pump using the F/F 1" union.

Fig. 6

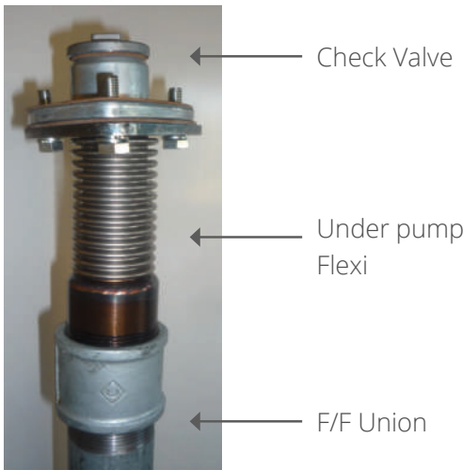
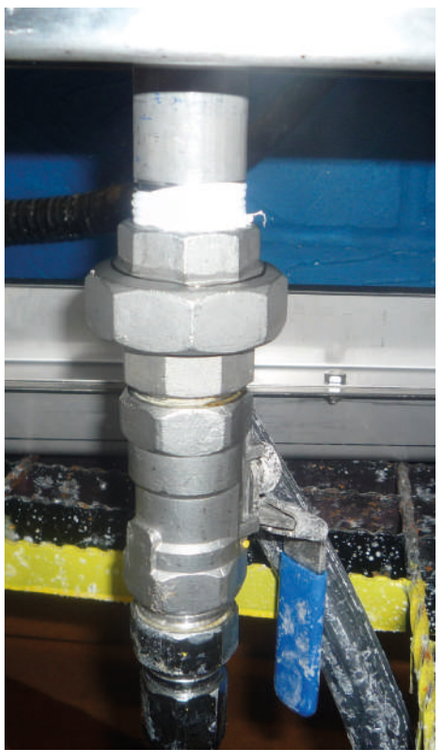


Fig. 7

AdBlue® Dispensers

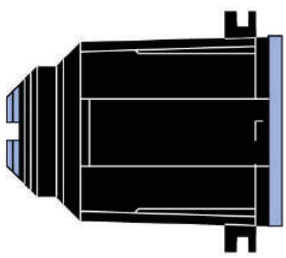


When installing an Adblue® dispenser, a stainless steel union (supplied) is used to connect the dispenser pipework to the feed pipe.

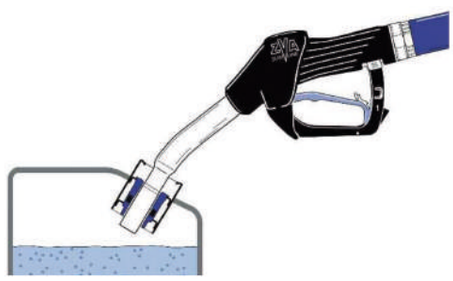
The nozzle has an integral safety tilt device, which stops the delivery of fuel when the spout is positioned horizontally or higher.

Adblue® nozzles of type Elaflex ZVA are fitted with a spout with magnet opening. Refuelling is only possible with a magnet adaptor fitted within the vehicle filler neck. This is to stop accidental re fuelling of Adblue® into a diesel tank.

Magnetic Collar



AdBlue® Nozzle

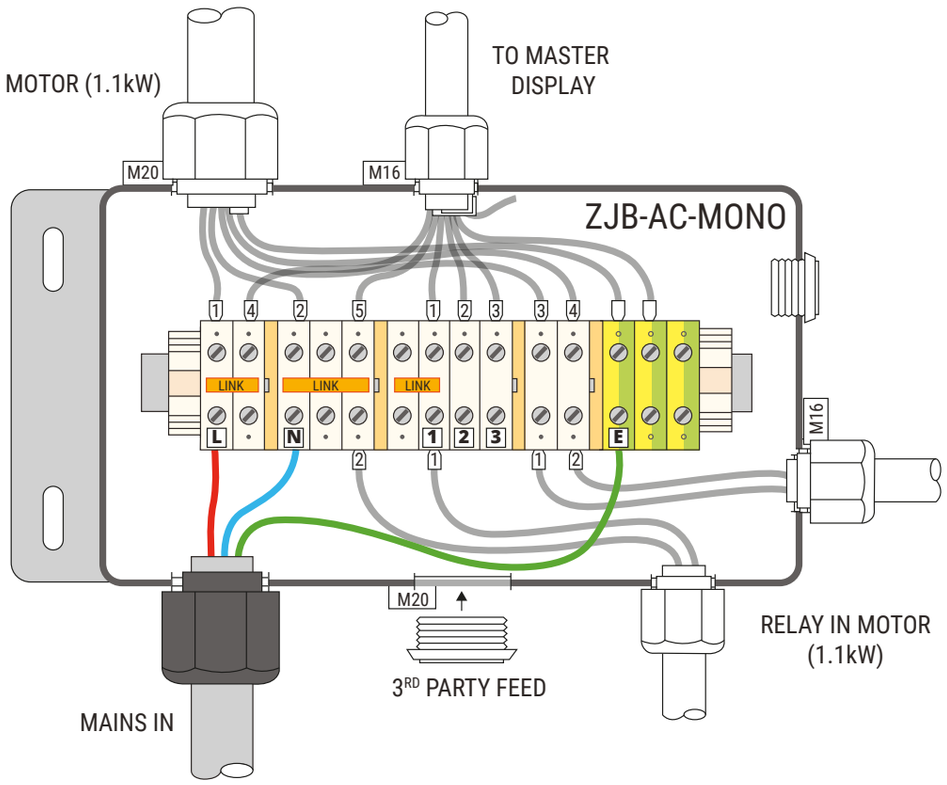


Electrical Connection

All electrical work must be undertaken by a suitably qualified electrical engineer. If the pump has been wired by an unqualified person, the product warranty will be invalidated.

- **The conductor size should be 1.5mm² for mono units, and 2.5mm² for twin units.**
- **A 'C' Type Circuit breaker should be used due to the high current required for a short period while the pump starts (recommended but not essential)**
- **All pumps should be supplied with a 3 core SWA with a dedicated earth core with a minimum of 1.5 metres cable from the base of the pump.**

Mains Junction Box



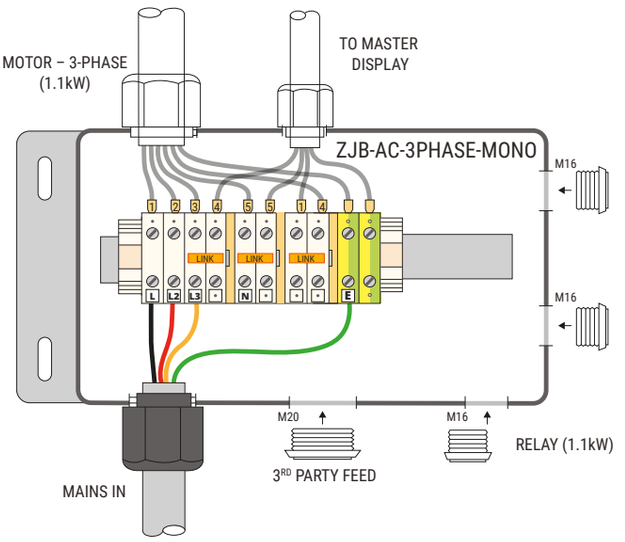
1. Remove the label blanking off the mains hole
2. Feed the electrical cable through the compression gland and connect according to the wiring diagram above.

Dispensers

In addition for Dispensers, look in the mains junction box for a terminal marked “C”. This is the 230v control out suitable for connecting to contactors and relay devices.

Three Phase Pumps

When installing a pump fitted with a three phase motor, it is important to get the phase rotation correct, Failure to do so will cause the motor to run backwards.



Communications Connection (Junction Box)

The pump will leave the factory with a link between the purple and blue wires (R and A … request and authorise).

This means the pump is in standalone and the pump will start when the nozzle is lifted. To connect to the third party Fuel monitor remove the link and fit the standard 4 wire connection to the locations shown.

It will be necessary to run a separate communications cable from the pump. Do not use cores from within the Mains power cable

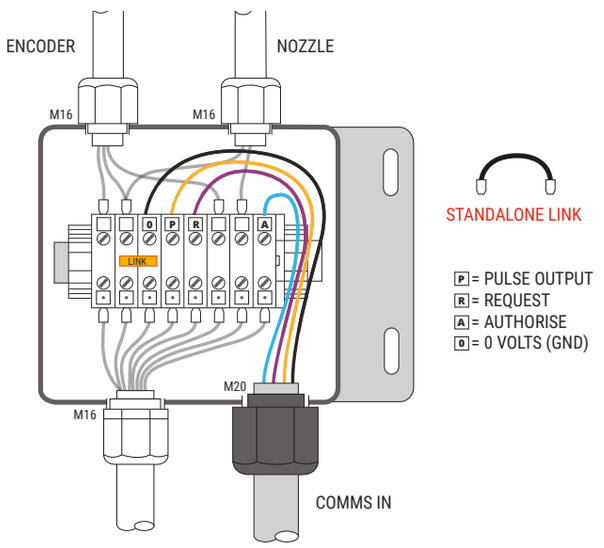
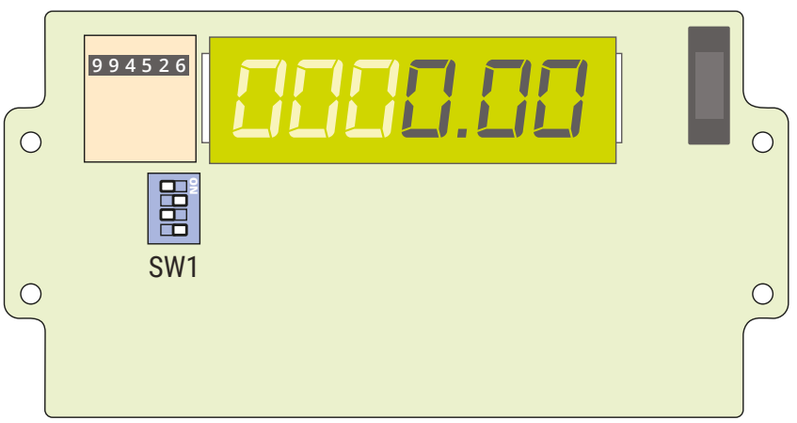
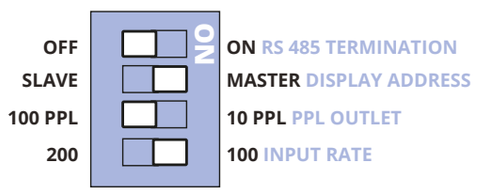


Fig. 8

ELECTRO-MECHANICAL TOTE

MAINS FUSE 1A (ANTI-SURGE)





DEFAULT SETTINGS SHOWN

Data Cabling

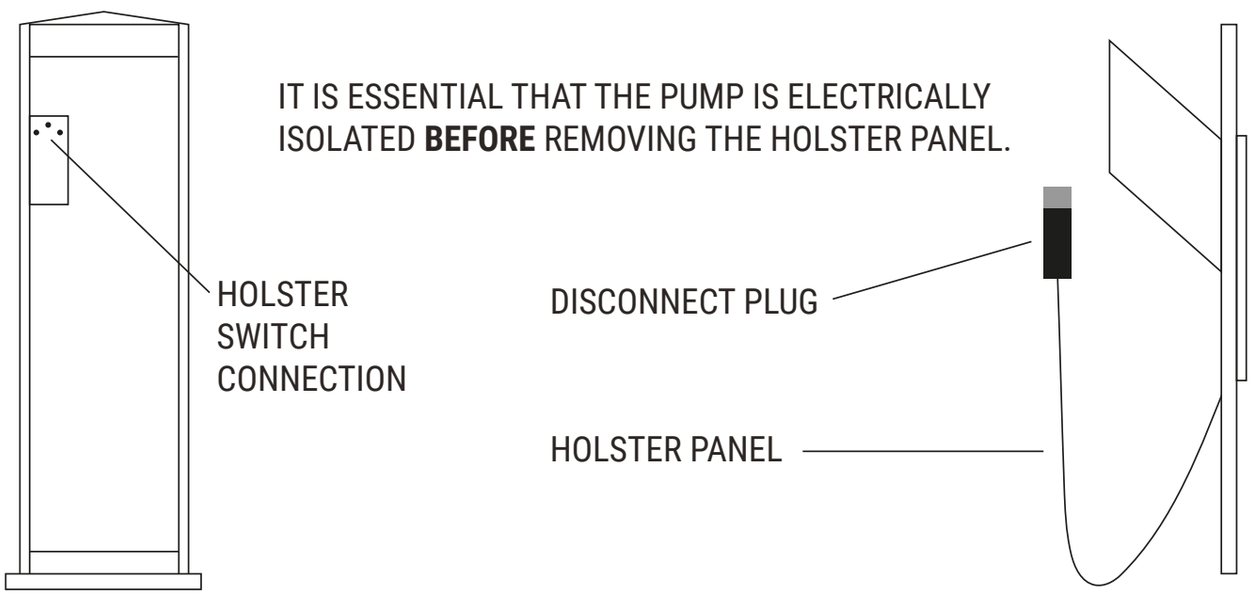
- **Under no circumstances should the power supply and data circuits to be contained in the same cable.**
- **The Supply cable must be suitable for the fuelling environment (see below)**
- **Screen cable is recommended, earthed at only one end.**

Mono requires 4 cores.
Twin requires 7 cores.

The pump is set to 100 pulses per litre output as standard. This can be changed by toggling DIP switch 3 under the display on the circuit board (see Fig. 8)

FRONT LOADING PUMPS/DISPENSERS

On front loading Zeon Pumps and Dispensers, there is a plug which must be disconnected when the door is removed to allow access to the inside of the cabinet.



Remember to re-connect the holster switch connection before fitting the holster panel, otherwise the Display will show the message “Nozzle” upon power being applied refusing to operate further.

Badger Meter Programming Guide

RESET Button – Change value / increase value

TOTAL Button – Acknowledge and go to the next step

You can exit in any menu; new values will be saved immediately in EEPROM memory.

1. **To enter the program mode, remove the 3 fastening screws around the perimeter of the unit, and press the program button on the rear of the register for 3 seconds.**	**Display shows flashing**
2. **Unit** Select unit L – PT – QT – GA Select L for LITRES	**L**
3. **Display** d 0 = Register will show resettable totaliser d 1 = Register will show actual flow rate	**d 0**
4. **Pulse Length** 0 = no pulse 2 = 10ms 4 = 40ms 1 = 2ms 3 = 20ms 5 = 100ms	**b 0**
5. **Pulse input from meter** 00000 L Select the pulse input of the meter rate .00L Select decimal part	→ **.00 L**
6. **Scale Factor** 1.0000 L Use this figure to calibrate the meter	→ **00000 L**
7. **Pulse output** 100.00 PPL	**1.0000 L**
8. **Batch Quantity (optional)** 000.00 L - Select quantity you want to batch	**= 000.00 L**
9. **Advance switch off** P00.00 L – correction of batch due to slow valves, etc.	**P00.00 L**
10. **Press program to exit from the program mode. The display will show the changed settings and then return to the normal**	

Calibration Procedure

1. Set totaliser on pump or dispenser to zero
2. Fill the measuring can until the pump or dispenser reads 10 litres exactly
3. Note down the amount of fluid in the measuring can
4. Divide the amount delivered by the amount displayed and write this down.
5. Go to the scale factor menu (6) on the meter, and write this number down.
6. Multiply the correction factor by the scale factor, and enter this as the new scale factor.

Amount Delivered (Measuring Can)

÷ = Error Factor

Amount Displayed (Tote Reading)

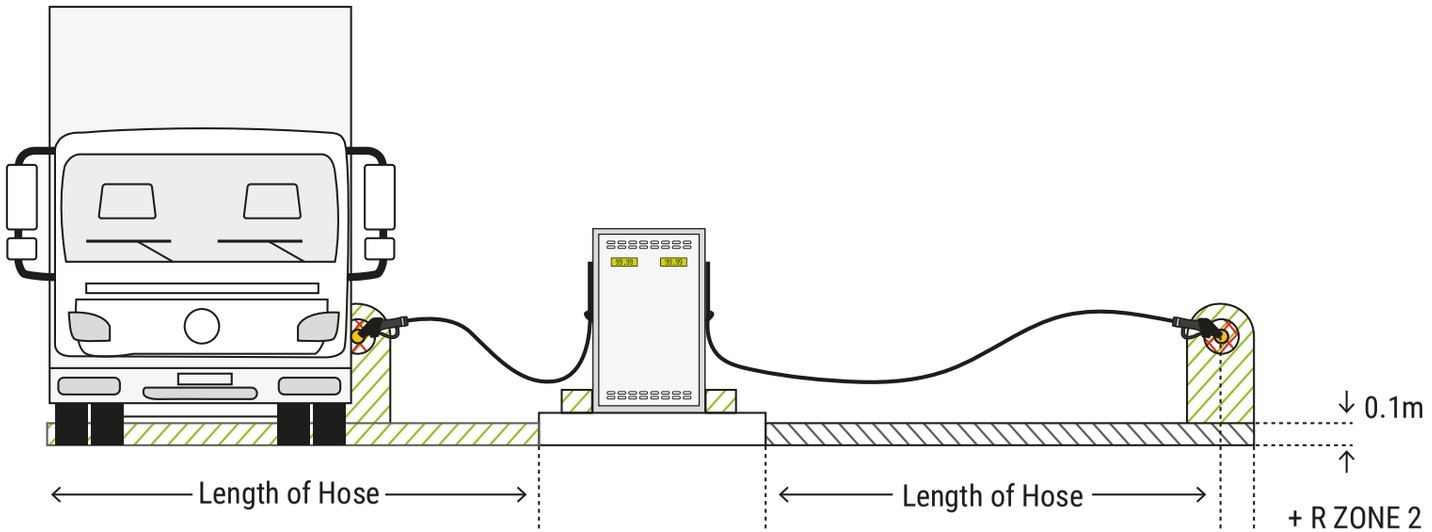
Error Factor X Existing Correction Factor = New Correction Factor

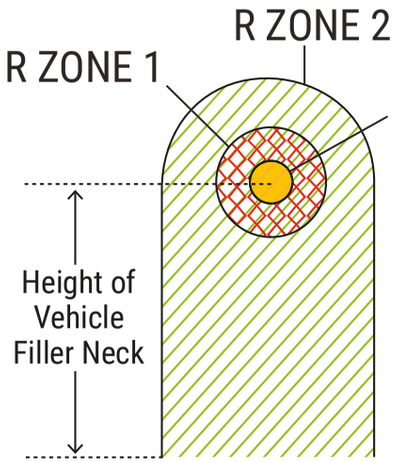
7. Press the reset button again to set the new correction factor.
8. Re-fill calibration can to verify new settings.

When calculating a new correction factor, the result will be an average correction. You may need to repeat this process until the meter accuracy is within the tolerated range.

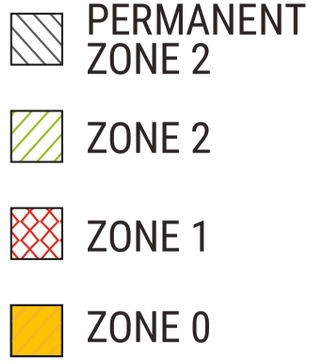
TECHNICAL SPECIFICATION

	ZE11LC ZE22LC	ZE11HC ZE22HC	ZE110**
Explosion Protection	**Ex II 2 G**		
Ex type examination certs.	**CML 15ATEX9092 Issue 1 / CML 22UKEX9019**		
Temperature Range	-20 C to 55 C		
Pump Pressure, Max.	3.5 Bar (50 psi)		
Power Supply	230 / 400 V AC 50 / 60 Hz -/+ 10 %		
Flow Rate	50 L/min	70-90 L/min	110 L/min
Max Running Current (Pumps)	5A Mono 10A Twin	5A Mono 10A Twin	10A
Max Running Current (Dispensers)	3.3A Mono 5.3A Twin		
Pump Motor Rating (Single Phase)	.55 kW Mono 1.1 kW Twin	1.1 kW Mono 2.2 kW Twin	2.2 kW
Pump Motor Rating (3 Phase)	.75kw Mono 1.5 kw win	.75kw Mono 1.5 kw win	1.5 kw win
Control	0.3 kW		





ZONE RADIUS	<40LPM	40> <80LPM	80> <200LPM
R ZONE 0	5CM	10CM	10CM
R ZONE 1	10CM	20CM	25CM
R ZONE 2	20CM	30CM	50CM



WARNING!

All installation and electrical wiring must be carried out by a competent person with relevant qualifications and comply with local and national standards.

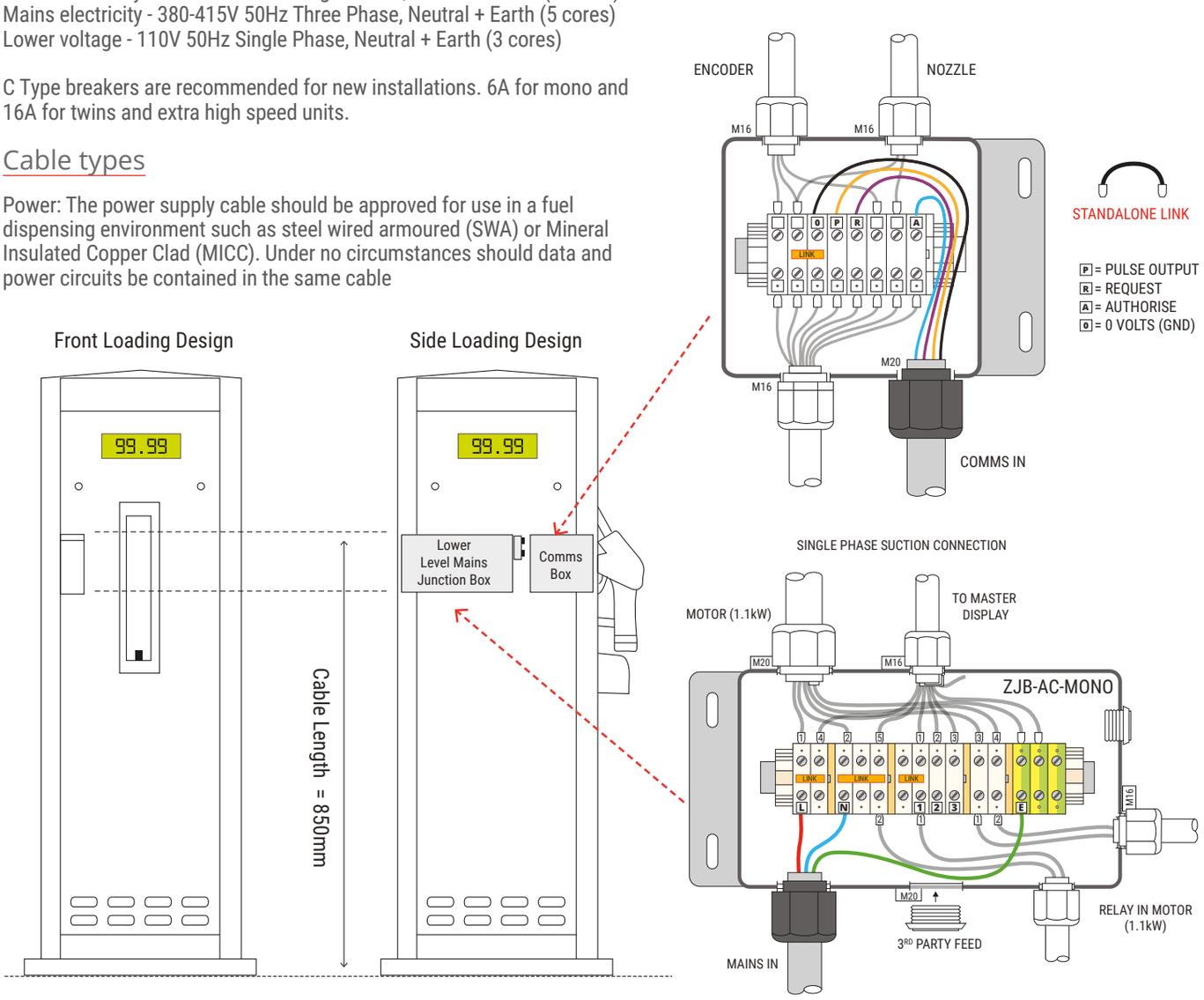
Supply Types

Mains electricity - 200-250V 50Hz Single Phase, Neutral + Earth (3 cores)
Mains electricity - 380-415V 50Hz Three Phase, Neutral + Earth (5 cores)
Lower voltage - 110V 50Hz Single Phase, Neutral + Earth (3 cores)

C Type breakers are recommended for new installations. 6A for mono and 16A for twins and extra high speed units.

Cable types

Power: The power supply cable should be approved for use in a fuel dispensing environment such as steel wired armoured (SWA) or Mineral Insulated Copper Clad (MICC). Under no circumstances should data and power circuits be contained in the same cable



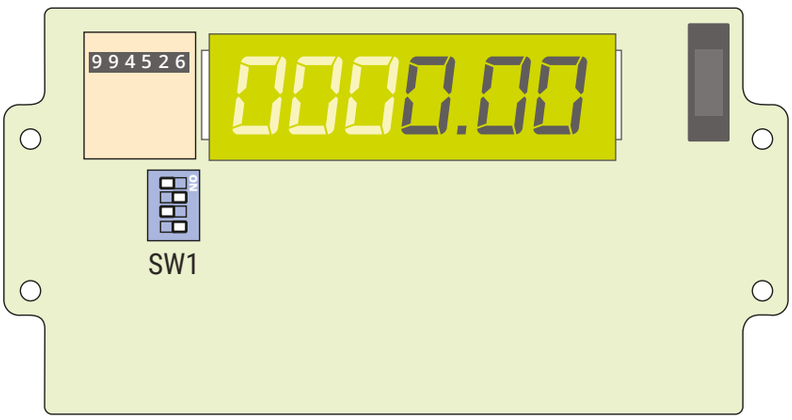
Three Phase Pumps

When Installing a pump fitted with a three phase motor, it is important to get the phase rotation correct; failure to do so will cause the motor to run backwards.
When the motor is wired correctly, it should turn clockwise when viewed facing the pully. Depending on what type of motor has been specified, the junction box will be wired in either single phase and neutral, or three phase and neutral.

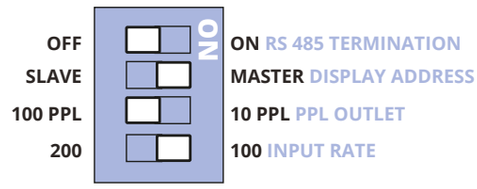
Single Phase Unit: L N E

Three Phase Unit: N L_1 L_2 L_3 E

ELECTRO-MECHANICAL TOTE



MAINS FUSE 1A (ANTI-SURGE)



DEFAULT SETTINGS SHOWN

Comms Connections

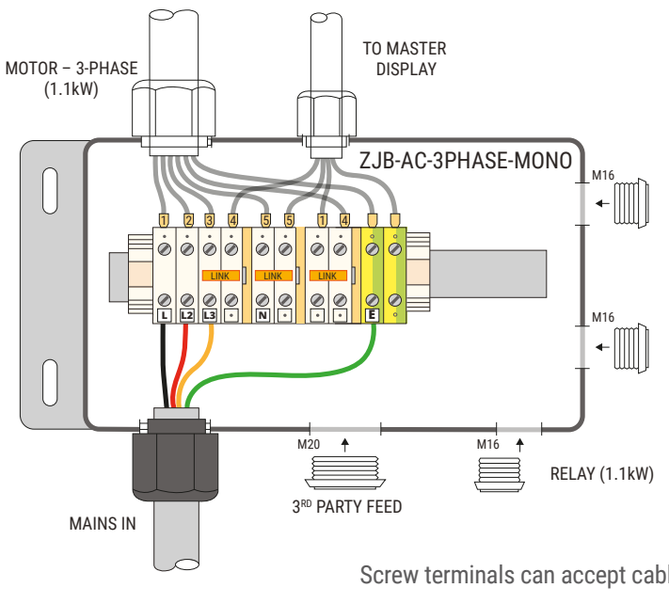
Data: Communication cables should also be resistant to mechanical damage, so it is recommended that again SWA is used. However, other cable types can be used as long as they are suitable for the environment.

Supplied with a link between R-A for standalone operation.

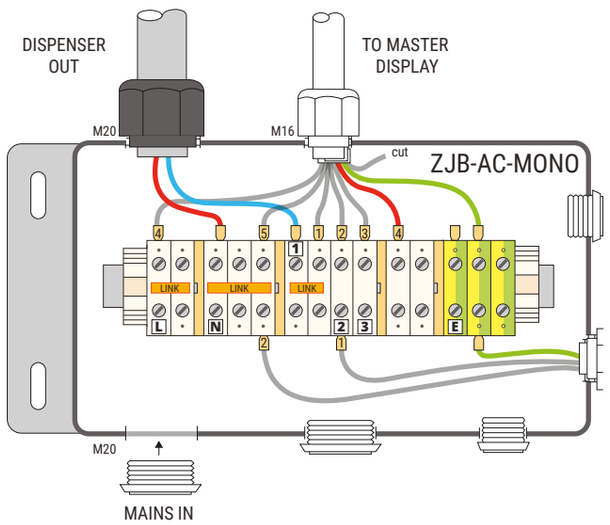
Comms Settings

All Zeon pumps and dispensers come with pulse interface set to 100 pulses per litre. The pulse output can be switched between 10 and 100 pulses per litre using DIP switch 3 under the display on the MPACT board.

THREE PHASE SUCTION CONNECTION

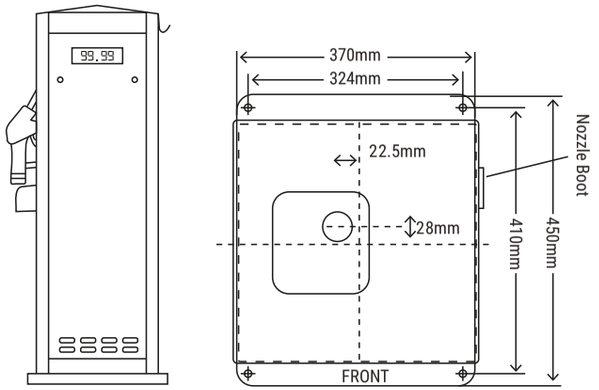


DISPENSER CONNECTION



Screw terminals can accept cables up to a diameter of 4mm

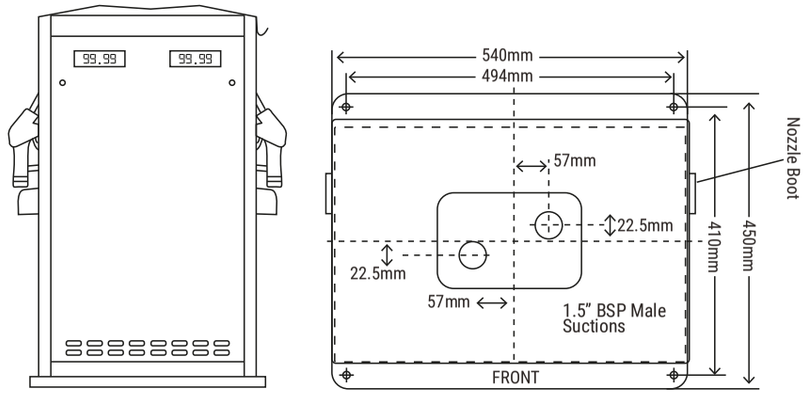
Install Pattern For Mono Suction Pump



(Single Sided Display)

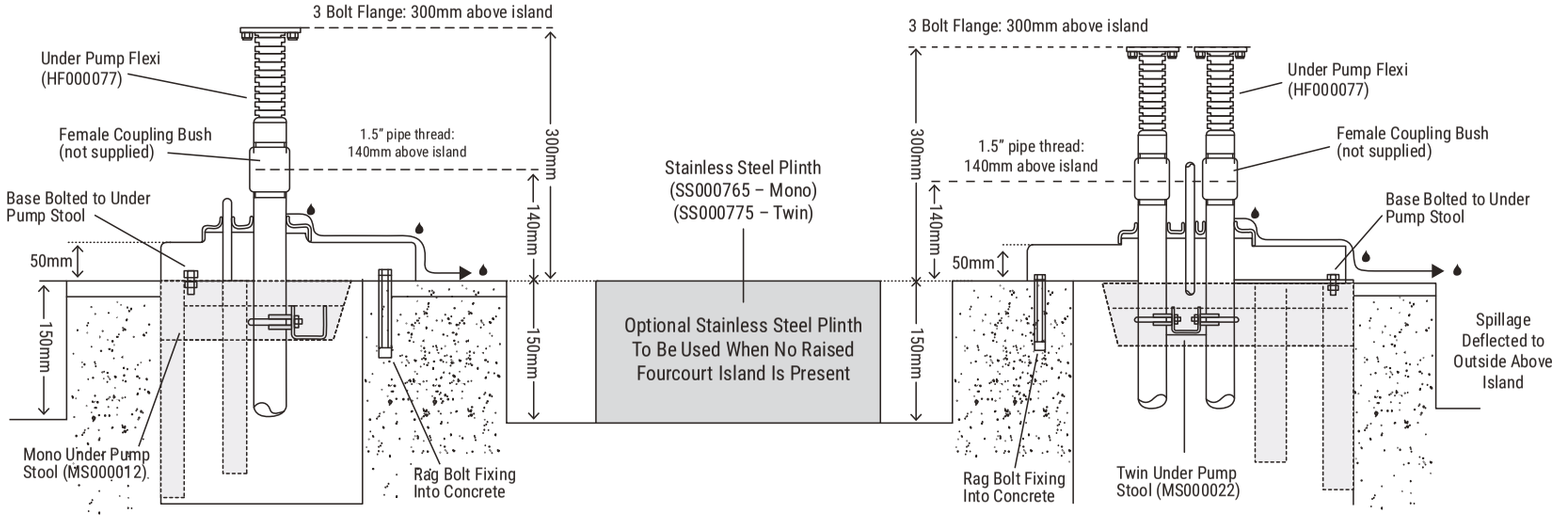
←Note: Long Axis of Island→

Install Pattern For Twin Suction Pump



(Single Sided Display)

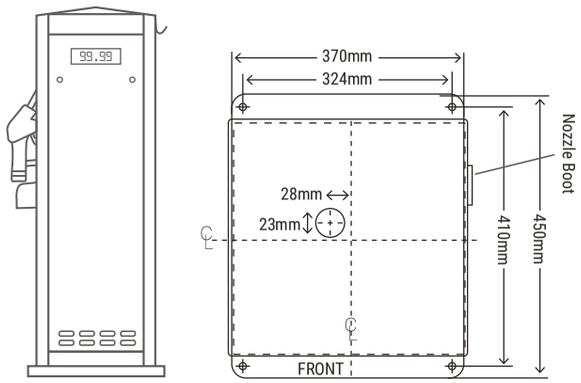
←Note: Long Axis of Island→



Above Ground Tanks

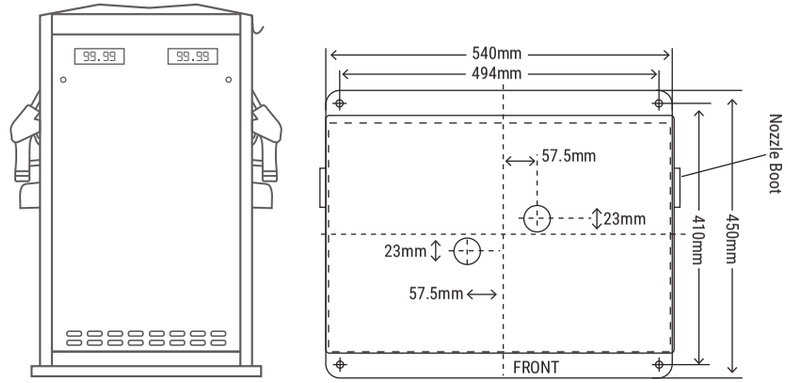
Our pumps are suitable for pumping fuel from both underground and above ground tanks. When the pump is connected to an above ground tank, a PRV (Pressure Relief Valve) / Anti Syphon should be used.

Installation Drawing For Mono Dispenser

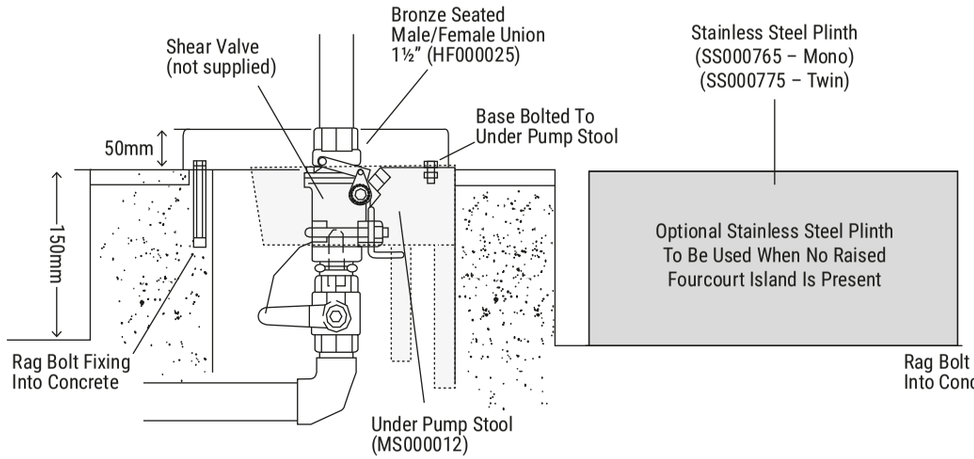


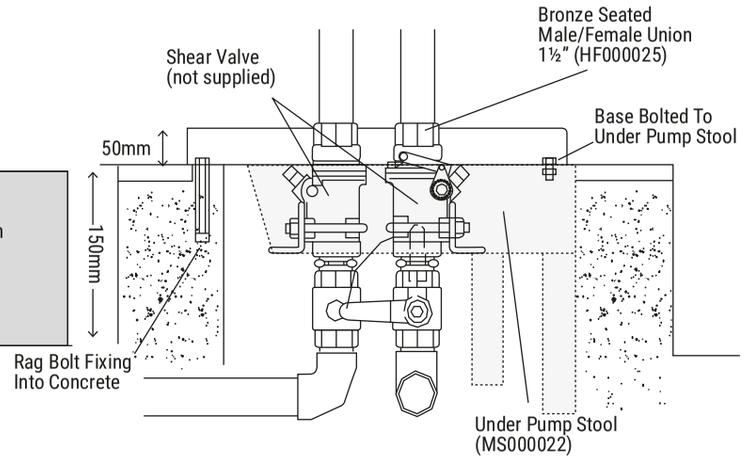
(Single Sided Display)
←Note: Long Axis of Island→

Installation Drawing For Twin Dispenser



(Single Sided Display)
←Note: Long Axis of Island→





NOTE: MUST BE INSTALLED OVER TOTAL CONTAINMENT SYSTEM

MAIN PARTS SPARES LIST

For any queries on spares contact our sales team on +44 (0)1279 815 600 with your pump serial number. Many spares will vary to the age of the pump. Photos shown are for reference only.

MOTORS

EL000002 (0.55kW)
EL000009 (1.1kW)

Part needed identified by serial number.

NOZZLE MAGNET SWITCH

3 Core Zeon
EL000020

STANDARD NOZZLES

XNZV25C | XNZV4.4C | XNZV4.40
HE000110 | HE00110B | AdBlue®

Part needed identified by serial number.
Safety breaks are available.

MAIN PARTS SPARES LIST

For any queries on spares contact our sales team on 01692 500640 with your pump serial number. Many spares will vary to the age of the pump. Photos shown are for reference only.

HOSES (3.3m)

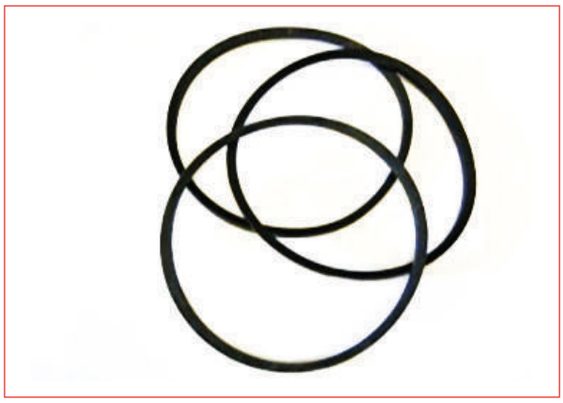
Longer lengths available.

XN000002 (1")

XN000001 (3/4")

HE002002 – Adblue®

Part needed identified by serial number.



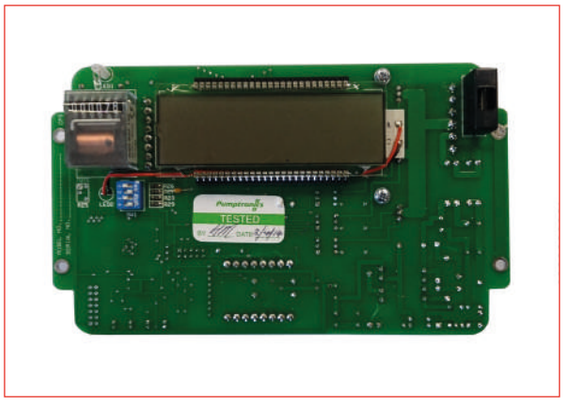
DRIVE BELTS

HF000008

HF000009

Recommend to be replaced yearly.

Part needed identified by serial number.



HEAD MASTER DISPLAY

XMRHEAD

DECLARATION OF CONFORMITY

Company Name: **Hytek (GB) Ltd**

Address: **Delta House**
Green Street
Elsenham
Bishops Stortford
Hertfordshire
CM22 6DS

Date of Issue: 4th May 2022

Equipment Details: **Zeon Range of Liquid Fuel Dispensers**

Applicable Directives: & Standards

SI 2016 1091 Electromagnetic Compatibility Regulations

SI 2016 1101 Electrical Equipment Safety Regulations

SI 2008 1597 Supply of Machinery Safety Regulations

SI 2016 1105 Pressure Equipment Safety Regulations

SI 2013 3113 Waste Electrical & Electronic Equipment Regulations

SI 2012 3032 Restriction of Hazardous Substances Regulations

2014/34/EU ATEX Directive (effective date 20th April 2016)
EN 13617-1:2012 & EN 1127-1:2019
EC Type examination Certificate No.: CML 19ATEX9092 Issue 1
Marking: Ex II 2 G
EN 13617-2012
Notified Body: CML B.V. Number 2776
Hoogoorddreef 15, Amsterdam, 1101 BA, The Netherlands

SI 2016 1107 (as amended) The Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016
Type examination Certificate No.: CML 22UKEX9019
Marking: Ex II 2 G
EN 13617-2012

Approved Body: Eurofins CML Number 2503

Newport Business Park, New Port Road, Ellesmere Port, CH65 4LZ

Declaration Number: **UK152 Issue 2**

On behalf of the above-named company, I declare under our sole responsibility that, on the date the equipment accompanied by this declaration is placed on the market, the equipment conforms with all technical and regulatory requirements of the above listed directives.

Clive Wellings

Clive Wellings, Technical Manager – 4th May 2022, Bishops Stortford, Herts

OTHER PUMPTRONICS PRODUCTS

The Pumptronics range provides solutions to all fuelling possibilities. From delivering low-speed AdBlue to filling large vehicles at 180L/min Pumptronics pumps deliver reliable results. Our cabinet pumps are compatible with petrol, kerosene, AvGas, diesel and AdBlue, with options for volume and currency displays for resale models. Alongside our standard pump designs, we offer a comprehensive customisation process to cover all eventualities, however niche the situation may be.

C Series
Resale Range
Dispense by Currency

C Series
Resale Range
Dispense by Litres

C Series
AdBlue® Range

C Series
Mechanical Range

Alpha
Petrol Range

Alpha
Diesel Range

Alpha
AdBlue Range

Zeon
Compact Pump Range

PUMP NOTES

Pumptronics

PT/TD/23 Issue G

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LIQUID HANDLING TECHNOLOGIES

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