

# ECO-MXA404/5

## MULTI-STAGE WATER PUMP WITH ELECTRONIC PRESS CONTROL

Manufactured to meet Australian and New Zealand standards



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Dear Customer,

Congratulations on your purchase of the CEG ECO-MXA water pump. Like all CEG products, we have developed them with the help of the latest technology and they have been manufactured with the most advanced components. Please check the following points upon receiving your pump:

- Check that no damage has occurred during the shipping process
- See page 4 for technical Table 1.0 to ensure the pump model is fit for your purpose

Take the time to read the instructions carefully before using the ECO-MXA pump. We strongly recommend that you keep this instruction manual in a safe place for future reference. Please fill in the service reference information on page 20 and the warranty card supplied with product

**These Safety marks are contained in these Instructions.**



This symbol means caution. If not complied with, this may result in damage to product.



This symbol means danger. If not complied with it may cause death or severe physical injury.

## GENERAL

### SUPPLIED WITH PRODUCT

Depending of your choice of model, the ECO-MXA is available in three different configurations

#### ECO-MXA BARE PUMP

- ECO-MXA pump
- 1.5 metre lead with NZ/AU compatible plug
- Installation and operating instructions
- Certified of conformity to AS/NZ standards
- Warranty card



#### ECO-MXA WITH ELECTRONIC PRESSCONTROL

- ECO-MXA pump
- Electronic PRESSCONTROL
- 25mm non-return valve
- 5m x 12mm thread seal tape
- 1.5 metre lead with NZ/AU compatible plug
- Installation and operating instructions
- Certified of conformity to AS/NZ standards
- Warranty card



#### ECO-MXA WITH ELECTRONIC PRESSCONTROL & 3L PRESSURE TANK

- ECO-MXA pump
- Electronic PRESSCONTROL
- 3L pressure tank
- 25mm non-return valve
- 5m x 12mm thread seal tape
- 1.5 metre lead with NZ/AU compatible plug
- Installation and operating instructions
- Certified of conformity to AS/NZ standards
- Warranty card



## PRODUCT DESCRIPTION

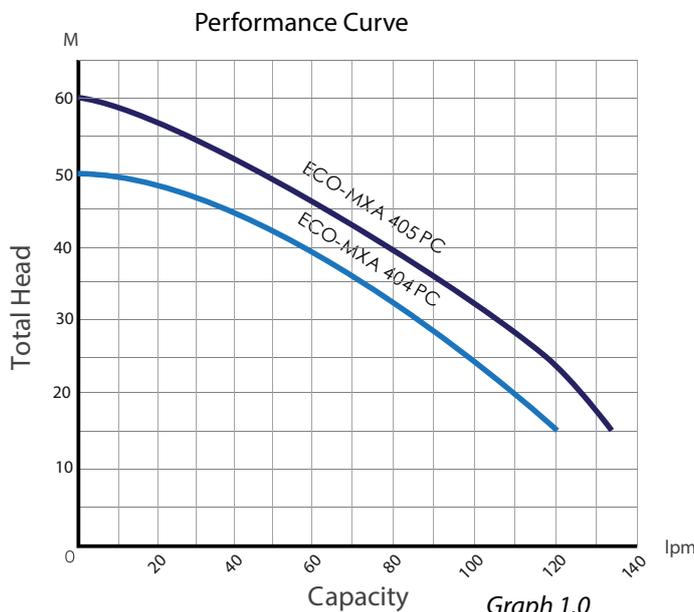
With the ever increasing need for water and electricity to meet global demand and the continual increase in energy costs to the consumer, thought had to be put into a new domestic water pump design with premium efficiency. The method for design of the ECO-MXA Premium Efficiency Series was developed by focusing on the mechanisms causing water hydraulic loss. The ECO-MXA was created for the Australian and New Zealand market using the latest CAD water hydraulic 3D design technology and manufacturing processes that are currently only found in large commercial models. The ECO-MXA Series Premium Efficiency range are self-priming. All parts in contact with the liquid are made from long life, corrosion resistant materials such as stainless steel AISI 304 and glass reinforced polymer. The ECO-MXA's motor has an automatic built-in thermal overload protector that switches off the motor on overload, then on again after a cooling down period.



## TECHNICAL DATA

Water temperature range min / max	5°C - 40°C
Ambient temperature	0°C - 50°C
Maximum suction lift	8.5 m
Max working pressure	10 bar
Inlet/outlet pipe connection	25 mm BSP / 1" Inch BSP
Max particle size	1 mm (non-abrasive material)
Electrical supply	220V - 240V, 50 Hz
Electrical connection	AS/NZ plug fitted to 1.5m lead
Motor speed	2900 RPM
Insulation	Class F
Electromagnetic compatibility (EMC)	EN 60335-2-41 EN 61000-6-1 EN 61000-6-3
Sound pressure Level	61 dBA
Mechanical Seal	Carbon / Ceramic

Table 1.0



Model	Capacity
ECO-MXA 404	
ECO-MXA 405	

\* = 10 lpm at 1.5bar (22psi) Table 1.1

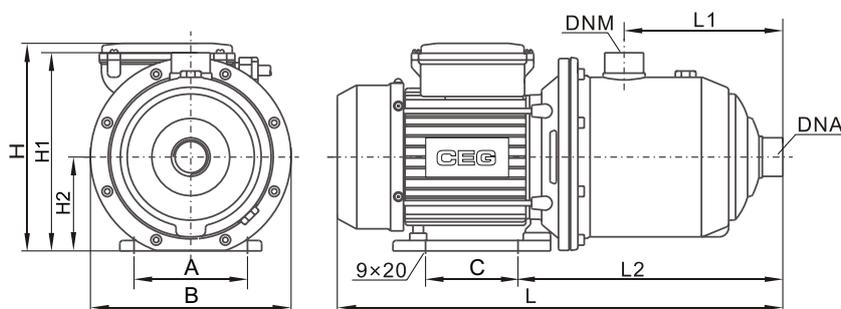
Model	Power		Max head	Max capacity	Inlet		Outlet		Weight
	W (P1)	W (P2)	m	lpm	mm	inch	mm	inch	kg
ECO-MXA 404PC	1400	1000	50	120	25	1	25	1	11.4
ECO-MXA 405PC	2000	1500	60	133	25	1	25	1	15.6

Table 1.2



Be careful not to exceed the recommended specifications in the use of your ECO-MXA!

## DIMENSIONAL DRAWING



Drawing 1.0

Model	Dimensions (mm)										
	A	B	C	H	H1	H2	L	L1	L2	DNA	DNM
ECO-MXA 404	108	191	88	217	190	90	426	151	251	25	25
ECO-MXA 405	108	191	88	223	190	90	482	175	275	25	25

Table 2.0

## APPLICATION

The ECO-MXA pump is an inexpensive water supply unit suitable for domestic purposes such as; household water supply, draining of tanks and containers, watering and sprinkling gardens from tanks and bores.

The ECO-MXA is a self-priming pump, making it suitable for pumping from water sources (e.g. underground tanks, bores, streams) or flooded suction (e.g. above ground tanks). It must not be connected directly to civil water supply systems.

This pump is designed for residential clean water jobs only and cannot pass particles over 1mm, nor can it be used for a continuous duty fountain pump nor intended for commercial use.

Approved fluids for the ECO-MXA series are:

- Rainwater
- Domestic water
- Water without solid particles
- Well water/bore water



The ECO-MXA pump must be installed and serviced by qualified personnel only!



The ECO-MXA cannot be used for sea water, flammable, corrosive, explosive or dangerous liquids!!

## ENVIRONMENTAL PROTECTION

CEG is dedicated to a recovery and recycle service which simplifies the disposal process for end users at the completion of a products life, minimising the environmental impact. CEG is dedicated to minimising its environmental footprint wherever possible and is continuously searching for improved ways to operate. All ECO-MXA packaging material can be recycled, so we encourage you to do so responsibly. Old pumps contain material that can be recycled, please arrange for the correct recycling of your old pumps.



## WARRANTY

The ECO-MXA has a standard 2 year warranty. In the event of a warranty claim, please contact your local distributor and submit claim with proof of purchase. We will repair potential failures of an ECO-MXA within the warranty period free of charge, provided the failure is due to faulty material or manufacturing defects. Damage as a result of failing to comply with the instructions in this manual will void warranty. It is the operator's responsibility to take all preventative measures (e.g. provision of alarm systems, standby pump etc.) To avoid consequential damages such as flooding due to pump failure.

In the unlikely event that a problem should occur all products must be returned to base at customers cost, we will either repair the product or replace at our discretion.

## SAFETY

This instruction manual contains basic rules on safety which must be strictly adhered to. The installer and the operator must carefully read these instructions prior to installation and commissioning. Please observe all of the safety directions, not only under the main heading 'Safety' but each sub-heading also. Non-observance of safety reference may cause bodily harm to persons or damage to the pump.



Failure to follow this safety reference could invalidate warranty and/or damage claims to pump!



Failure to follow this safety reference could cause death or severe physical injury!!  
Keep pump equipment out of reach from children!!

## GENERAL ELECTRICAL SAFETY

Before installation please check the following for safety reasons:

- Check power cords and electrical sockets for any damage and ensure they are in a flood free area
- The mains plug and any extension cords must be watertight, ensure any couplings are not lying on the ground
- Never carry the pump by its power cord or pull to power cord to unattach from the mains
- Install the pump in a safe, dry place where it is clear of harsh weather (continuous rain, flooding or humidity)
- Ensure the voltage indicated on the nameplate corresponds with the voltage on the electrical source

## PERSONNEL QUALIFICATION

Only suitably qualified personnel may service this equipment. The operator must observe the local regulations for the prevention of accidents. The operator is responsible for ensuring that all inspections and installation work are carried out by authorised and qualified personnel only, having made themselves fully conversant with these instructions.



Work must only be carried out when the pump is switched off and at a complete stand still!!!

## ALTERATIONS AND SPARE PART PROCUREMENT

Any alterations to the pump are only permitted in agreement with the manufacturer's written consent. Only original spare parts and authorised accessories are permitted. The use of unauthorised parts will immediately void warranty.

## ABNORMAL OPERATING CONDITIONS

Operational safety of the pump is only ensured if the pump is used in accordance with technical data Table 1.0. The limits stated there must not be exceeded under any circumstances.

## TRANSPORT AND STORAGE

When transported and stored, the pump must not be subjected to temperatures outside the limits of 0 - 50 °C. Pump must be stored in a dry, sheltered place.

## INSTALLATION

The pump must operate in strict compliance with local water supply regulations. Before installation, be certain that the pump's power source is disconnected.

The installation location must be:

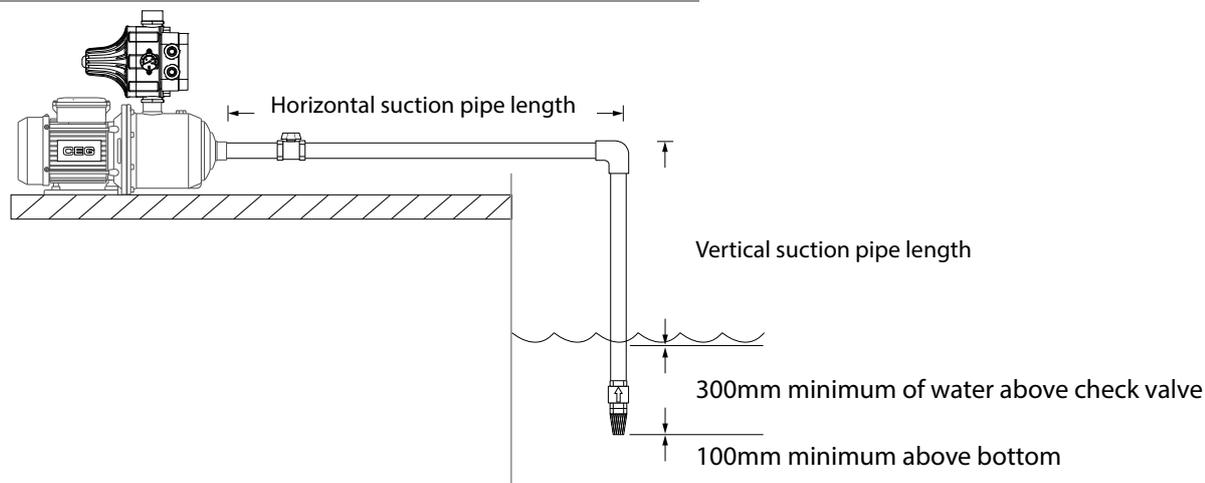
- Easy to reach
- Well ventilated, covered for weather protection, dry and frost-free
- On a concrete pad or directly on a smooth and horizontal floor
- Adequately ventilated
- A location where you are familiar with the maximum diameter of the particles in the water (a pre-filter screen may be required in some locations)
- For suction lift installation please refer to Drawing 2.0
- Non-return valve must be installed on the inlet side of the pipe, as close to the water source inlet as possible
- If a non-return valve is required at the end of the suction line. It must be located no less than 300mm below the lowest water level and 100mm from the bottom (a pre-filter screen may be required). See Drawing 2.0
- Inlet and outlet piping to be provided by operator
- When using solid pipe connections the pump must be firmly fixed to the floor
- If not firmly fixed, flexible connectors must at least be used for inlet and outlet ports
- The suction pipe must be fully airtight and be installed free of stress, steadily rising towards the pump
- Discharge pipe connections must be free of stress on the pump

It is the operator's responsibility to take all preventative measures (e.g. provision of alarm systems, standby pump etc.) To avoid consequential damages such as flooding due to pump failure.

**!** In order to ensure proper operation a static discharge head of 300mm is required; the discharge pipe must be installed with a vertical rise of at least 300mm!

**!** Frost damage will not be covered under warranty!

## SUCTION GUIDE



Drawing 2.0

Vertical Suction Installation Only

Vertical Suction Pipe Length (m)	Minimum Suction Pipe Diameter (mm)
0 - 3m	25mm
3 - 6m	32mm
6 - 8.5m	40mm

Table 3.0

Horizontal Suction Installation Only

Horizontal Suction Pipe Length (m)	Minimum Suction Pipe Diameter (mm)
0 - 5m	25mm
5 - 10m	32mm
10 - 25m	40mm

Table 3.1

## Suction Pipe Section Chart

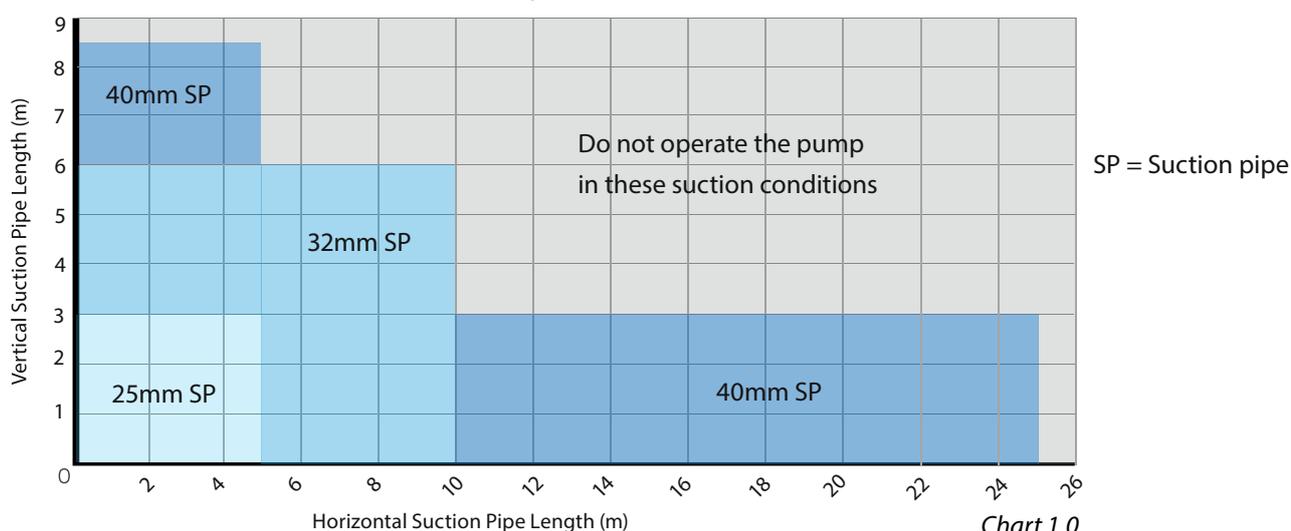


Chart 1.0

**!** Incorrect size selection of pipes may result in pump damage that is not covered under warranty and may affect pump performance!

## ELECTRICAL CONNECTION

The pump should be connected to a separate circuit breaker or fuse with a minimum carrying capacity of 10A. Please note that if other appliances share an outlet, they may cause low voltage resulting in blown fuses, tripping of motor overload or burning out of the motor. A permanent earthed connection to the pump is mandatory. ECO-MXA pumps come with an earthing conductor and a grounding type attachment plug. Do not connect the pump to a power supply until permanently earthed. For maximum safety, connect pump to a circuit equipped with a Residual Current Device (RCD).

Every care has been taken to ensure the accuracy of the information contained in this publication, but due to continuous development and improvement the right is reserved to supply products which may differ slightly from those illustrated and described in this publication.

- Electrical plug connections must be made in flood-safe locations and be protected from moisture
- Check available power supply
- Verify that the voltage and frequency of the ECO-MXA pump shown on the nameplate corresponds to those available on the supply
- Observe local earthing requirements (do not cut off earth pin or use an adapter fitting)
- Pumps must only be operated with electrical cables or extension leads up to a maximum of 10 metres



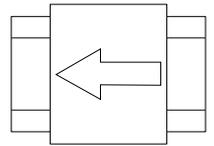
Do not use the pump if the power cord or plug are damaged. If damaged, please get these replaced by qualified personnel!!



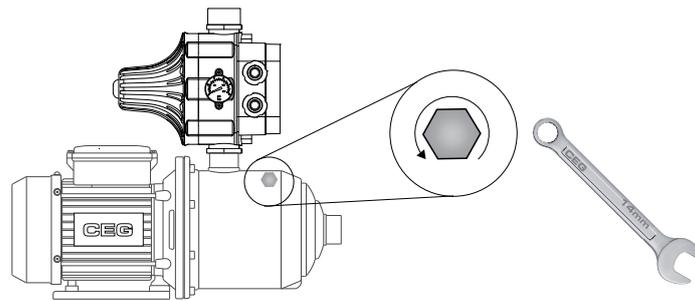
All electrical work to be carried out by a qualified and locally licensed electrician in strict conformity with local regulations!

## INSTALLATION FOR FLOODED SUCTION

- Check to ensure that a sufficient water level is available in the supply tank
- Ensure that the ECO-MXA is securely fastened to stop any vibration that may cause slow wear of the pump
- Ensure that the pump is unplugged
- Ensure suction pipe has non-return valve (provided) fitted to the discharge of the water supply, or fitted to the bottom end of the suction pipe.
- Ensure the non-return valve is installed in the correct direction
- Ensure correct suction pipe sizes - see Tables 3.0, 3.1 and Chart 1.0
- Ensure inlet and outlet pipes are correctly installed and tightened



Non-return valve



Drawing 3.0

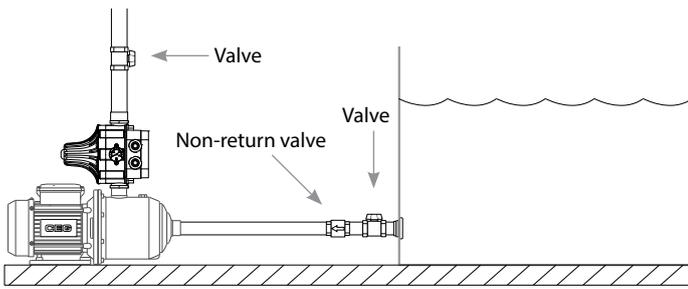
- Release the top priming plug (found on the stainless steel pump body) by turning anti-clockwise 3/4 of a turn with a 14mm ring spanner. This will release air pressure allowing the pump to fill sufficiently (ensure that the water supply has been turned on). Once air has released and water begins to spill, then fasten the priming plug
- Open main discharge valve
- Plug pump into main socket
- Run the highest and furthest valve/tap from the pump for 2 minutes (e.g. shower or garden tap on opposite side of house)
- Close the discharge valve once excess air has evacuated the system
- Check for any leaks around the inlet/outlet pipes and the pump while the pump is still running
- Unplug the pump from main socket
- Check for any leaks around the inlet/outlet pipes and the pump when the pump is turned off
- If leaks are present, please tend to appropriately
- If no leaks are present, plug in pump to begin use of your ECO-MXA



Leaks of any size, large or small will cause the pump to cycle and not function correctly and may void the warranty!

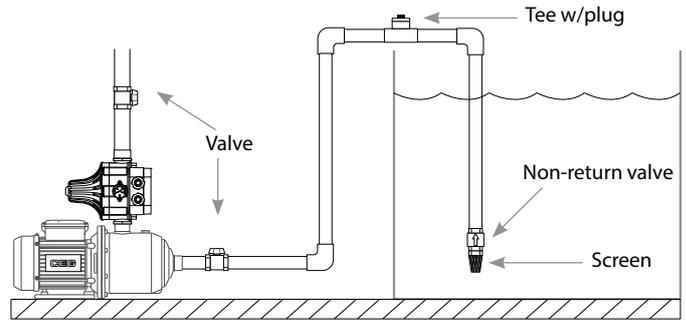
✓ Recommended installation

✗ Not recommended installation



Flood suction from tank above ground

Drawing 3.1

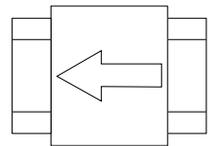


Flood suction from tank above ground

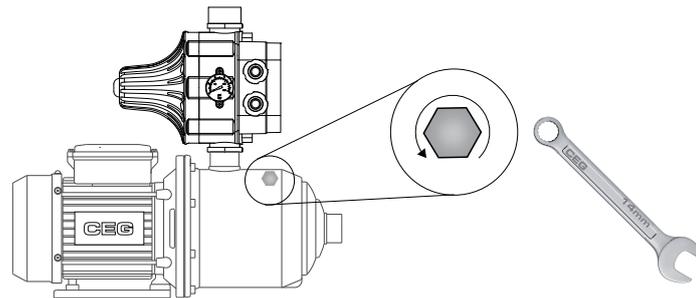
Drawing 3.2

## INSTALLATION FOR LIFT SUCTION

- Check to ensure that a sufficient water level is available in the supply tank or bore
- Ensure that the ECO-MXA is securely fastened to stop any vibration that may cause slow wear of the pump
- Ensure that the pump is unplugged
- Ensure suction pipe has non-return valve (provided) fitted to the discharge of the water supply, or fitted to the bottom end of the suction pipe
- Ensure the non-return valve is installed in the correct direction
- Ensure correct suction pipe sizes - see Tables 3.0, 3.1 and Chart 1.0
- Ensure that suction pipe is completely filled with water
- Ensure inlet and outlet pipes are correctly installed and tightened



Non-return valve



Drawing 4.0

- Remove top priming plug completely, fill pump body completely with water. This will take some time as it is a small inlet and takes around 2L of water to fill the pump. Once full water will begin to spill over, fasten the priming plug with a 14mm ring spanner
- Open main discharge valve
- Plug pump into main socket
- Run the highest and furthest valve/tap from the pump for 2 minutes (e.g. shower or garden tap on opposite side of house)
- Close the discharge valve once excess air has evacuated the system
- Check for any leaks around the inlet/outlet pipes and the pump while the pump is still running
- Unplug the pump from main socket
- Check for any leaks around the inlet/outlet pipes and the pump when the pump is turned off
- If leaks are present, please tend to appropriately
- If no leaks are present, plug in pump to begin use of your ECO-MXA

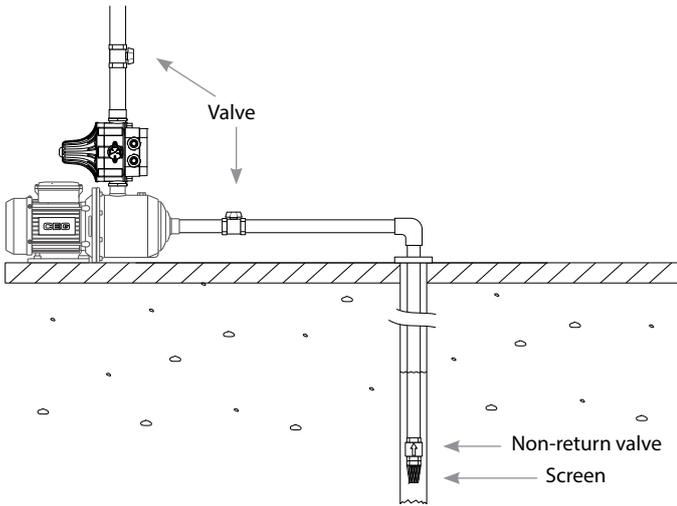


Only once pump has been filled it has a self-priming capacity. Please ensure that pump has been sufficiently filled as dry-running causes damage to the pump!



Leaks of any size, large or small will cause the pump to cycle and not function correctly and may void the warranty!

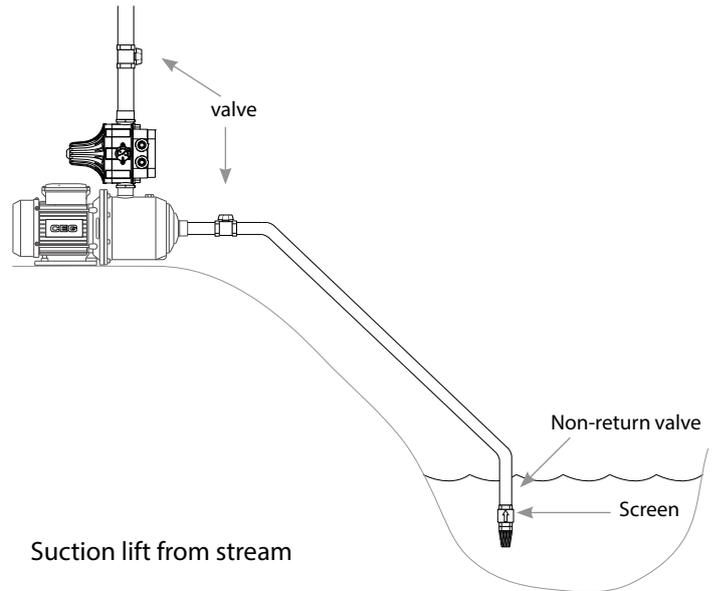
✓ Recommended installation



Suction lift from bore/well

Drawing 4.1

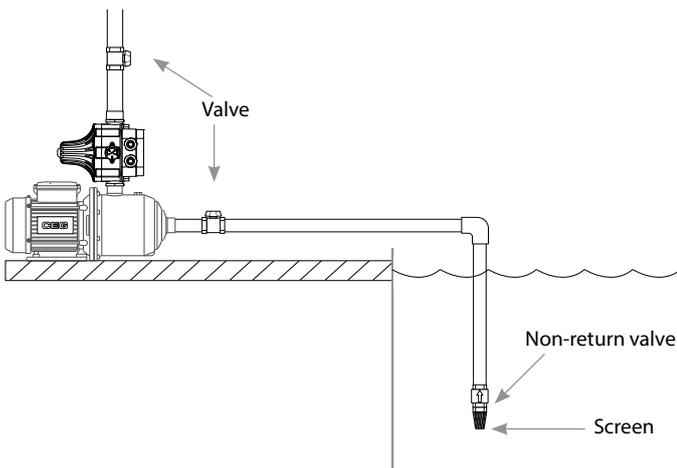
✓ Recommended installation



Suction lift from stream

Drawing 4.2

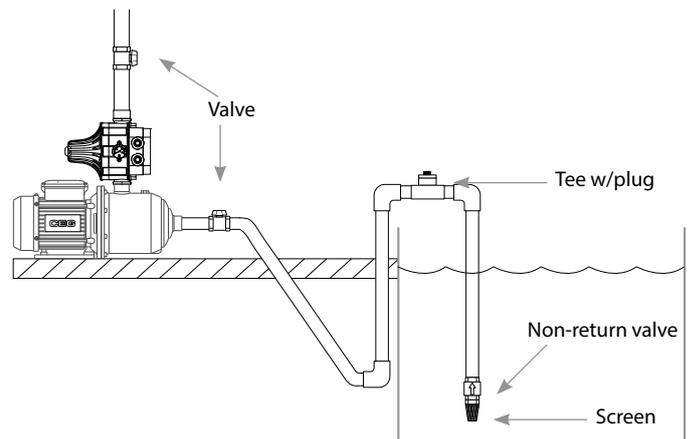
✓ Recommended installation



Suction lift from tank below ground

Drawing 4.3

✗ Not recommended installation



Flood suction from tank below ground

Drawing 4.4

## MAINTENANCE



Isolate from the power supply before checking the pump. Any damage to the connecting cable should only be repaired by a qualified electrician!!

To ensure highest operational safety and reliability at lowest possible cost, the following routine checks are always recommended at 6 month intervals:

- Check pump and pipe work for leaks
- Check non-return valve and screen (if installed) for debris
- Check pressure tank diaphragm pressure (if installed)

If there is danger of freezing, then it is necessary to completely drain the pump using the drain plug at the bottom of the pump housing. For prolonged stand-down periods (e.g. winter shutdown) the pump needs thorough cleaning, complete draining and dry storage. On re-commissioning check for free rotation by briefly switching on the pump on. Then follow installation procedures set out in this manual.



Any dry-running of the pump must be prevented as it will lead to failure of its internal pump parts!! (ECO-MXA Electronic PRESSCONTROL version has built in run-dry protection)!!

## OPTIONAL EXTRAS

### 3L PRESSURE TANK

The installation of a small 3L pressure tank after the pump and PRESSCONTROL in the system is recommended. This reduces water hammer and pump start and stop cycle, increasing the operating life for your ECO-MXA and reducing start up wear. By decreasing the pump's start/stop cycling with a 3L expansion tank, this then helps to decrease the total power consumption significantly.

The pressure tank should be precharged at a slightly lower value than the restart pressure calibration value of the PRESSCONTROL device. The PRESSCONTROL is calibrated at 1.5 bar (22PSI), precharge the pressure tank at approximately 1.2 bar (18PSI).



For systems with minimal delivery demands, e.g. a glass of water, ice-making refrigerator, filter system, UV system inverse, osmosis systems or old systems with small losses a 3L pressure tank is mandatory.



3L Pressure Tank

768kWh  
per year



ECO-MXA 404

653kWh  
per year



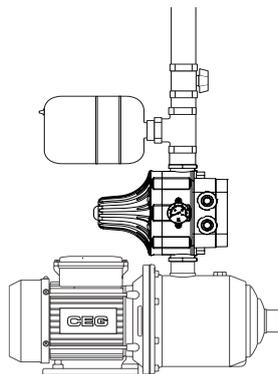
ECO-MXA 404 with 3L  
pressure tank installed

Up to  
**15%**  
reduction



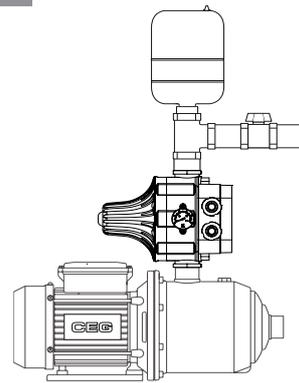
\*Based on a family of four

### 3L PRESSURE TANK INSTALLATION



Drawing 5.0

3L tank mounted horizontally



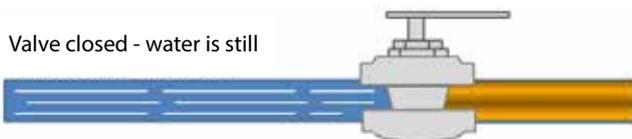
Drawing 5.1

3L tank mounted vertically

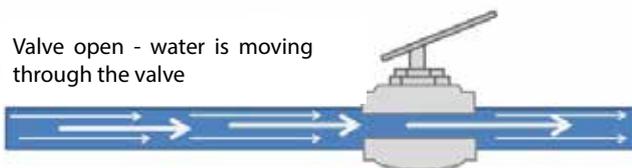
### WATER HAMMER

Water hammer is a pressure surge or wave caused when a fluid in motion is forced to stop or change direction suddenly. Water hammer commonly occurs when a valve closes suddenly at an end of a pipeline system, and a pressure wave propagates in the pipe. This pressure wave can cause major problems, from noise and vibration to pump failure, with the installation of the pressure tank, the effects of the water hammer pulses can be removed.

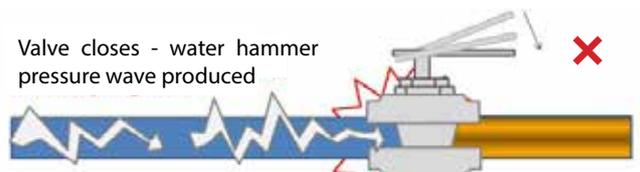
Valve closed - water is still



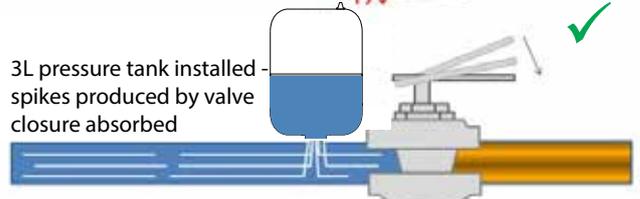
Valve open - water is moving  
through the valve



Valve closes - water hammer  
pressure wave produced



3L pressure tank installed -  
spikes produced by valve  
closure absorbed



System with Ceramic taps, solenoid mixing valve (these are fitted in washing machines & dish washers etc) or copper pipes must have a 3L pressure tank installed to absorb water hammer!

## ECO-PURE FILTER HOUSING

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20" JUMBO FILTER HOUSING KIT

10" TWIN FILTER HOUSING KIT

ALL FILTER HOUSING KITS INCLUDE:

Appropriate filter, mounting brackets, screws and spanner

\*10" Twin Filter Housing Unit also includes stainless steel faucet, hoses and tap

Type	Max Working Pressure	Max Working Temperature	Inlet/Outlet Size
10" Filter Housing	8 bar (116psi)	45°C (113°F)	25mm (1")
10" Jumbo Filter Housing	8 bar (116psi)	45°C (113°F)	25mm (1")
20" Jumbo Filter Housing	8 bar (116psi)	45°C (113°F)	32mm (1 1/4")
10" Twin Filter Housing	8 bar (116psi)	45°C (113°F)	6.35mm (1/4")

Table 4.0



## ECO-PURE POLY SPUN

Provide high efficiency filtration for the removal of sediment in water supplies, removing sand, silt, dirt and rust particles.

Ideal for:

- Mains drinking water
- Rainwater
- Dam water / Bore water
- Pretreatment for UV treatment systems

Available in 1micron, 5micron, 20micron and 50micron



## ECO-PURE POLY PLEATED

Ideal for removal of sand, silt, dirt and rust particles from drinking water. These elements have up to 7 times more holding capacity than traditional rope wound elements. Suitable for repeated re-use by simply washing in warm soapy water.

- High flow rates improving water pressure and flow
- Pre-treatment for poly spun elements and UV treatment systems
- High dirt holding capacity lengthens cleaning intervals

Available in 20micron



## ECO-PURE BLOCK ACTIVATED CARBON

Designed to remove unpleasant taste and odours as well as removing fine sediment. This design makes it an excellent filter for removing contaminants, to ultimately produce cleaner, clearer and simply better tasting water.

Removes:

- Bad Taste and Odour
- Chlorine
- Pesticides and agricultural sprays
- Metals such as lead

Available in 5micron



### FLOW RATE

Type	Flow Rate Capacity	Poly Spun (lpm)	Poly Pleated (lpm)	Block activated carbon (lpm)
10 " Standard	4 x 	40	50	20
10 " Jumbo	8 x 	80	100	35
20 " Jumbo	16 x 	160	200	50

\*  = 10 lpm at 1.5bar (22psi) with 20micron filter. Averaged lpm of the 3-6 month life span.

Table 5.0

Every care has been taken to ensure the accuracy of the information contained in this publication, but due to continuous development and improvement the right is reserved to supply products which may differ slightly from those illustrated and described in this publication.

## ELECTRONIC PRESSCONTROL PC-1100

### PRODUCT DESCRIPTION

PRESSCONTROL is a device that guarantees optimal control of pumps for domestic use. Deriving from a hydraulic and electronic logics project for the Australian and New Zealand market, it is capable of simultaneously detecting both the pressure and the flow, as well as automatically managing the pump operation. It replaces the traditional pressure controller and pressure tank, protecting the pump in the case of water shortages. PRESSCONTROL:

- Starts and stops the pump in accordance with the opening and closing of the taps
- Maintains constant pressure during delivery
- Stops the pump in the case of water shortage, protecting it from dry running
- Maintenance-free

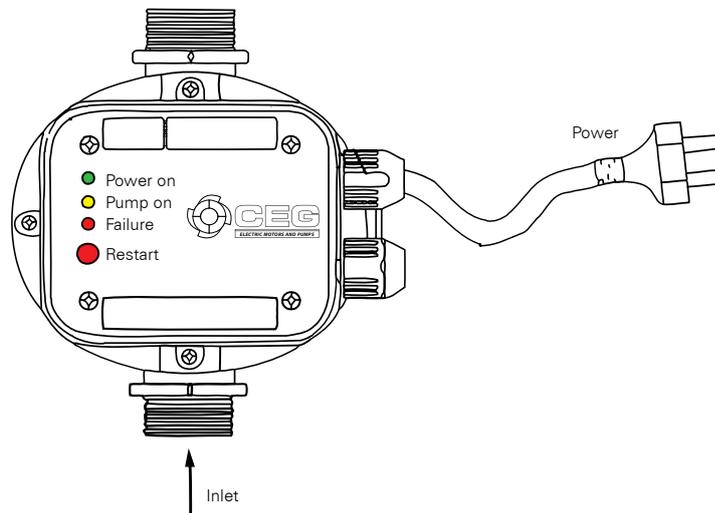


### TECHNICAL DATA

Water temperature range min / max	5°C - 40°C
Ambient temperature	0°C - 50°C
Max. working pressure	10 bar
Start pressure	1.5 bar
Inlet/outlet pipe connection	25 mm BSP / 1" Inch BSP
Max particle size	1 mm (non-abrasive material)
Electrical supply	220V - 240V, 50 Hz
Electrical connection	AS/NZ plug fitted to 1.5m lead
Max current	10 A
Software version	4.0

Table 6.0

### UNIT STARTING AND WORKING



## STARTING

When the unit is connected to the electrical network, the green LED "Power On" lights up and the yellow LED "Pump On" indicates that the pump is in operation. The pump continues to operate for up to 5 seconds enabling the system to fill the pipes and to reach the required pressure. If this is insufficient, the red LED "Failure" lights up. In this event, keep the "Restart" button pressed and wait with a tap open until the red LED "Failure" light is off. Once the button is released and the tap is closed, the unit stops the pump is at it's maximum pressure.

## FUNCTIONING

When starting operation is achieved, the unit is programmed to perform all the pump control operations automatically. When particular operational breakdowns occur, such as water failure, obstruction of the suction pipe etc, the unit recognises the breakdown and the red LED "Failure" lights up. At the same time a stop signal is sent to the pump to prevent damages caused by it's working in the absence of water. Rectification of the failures that have caused the blockage, allows the system to be restarted manually by pressing the "Restart" button.

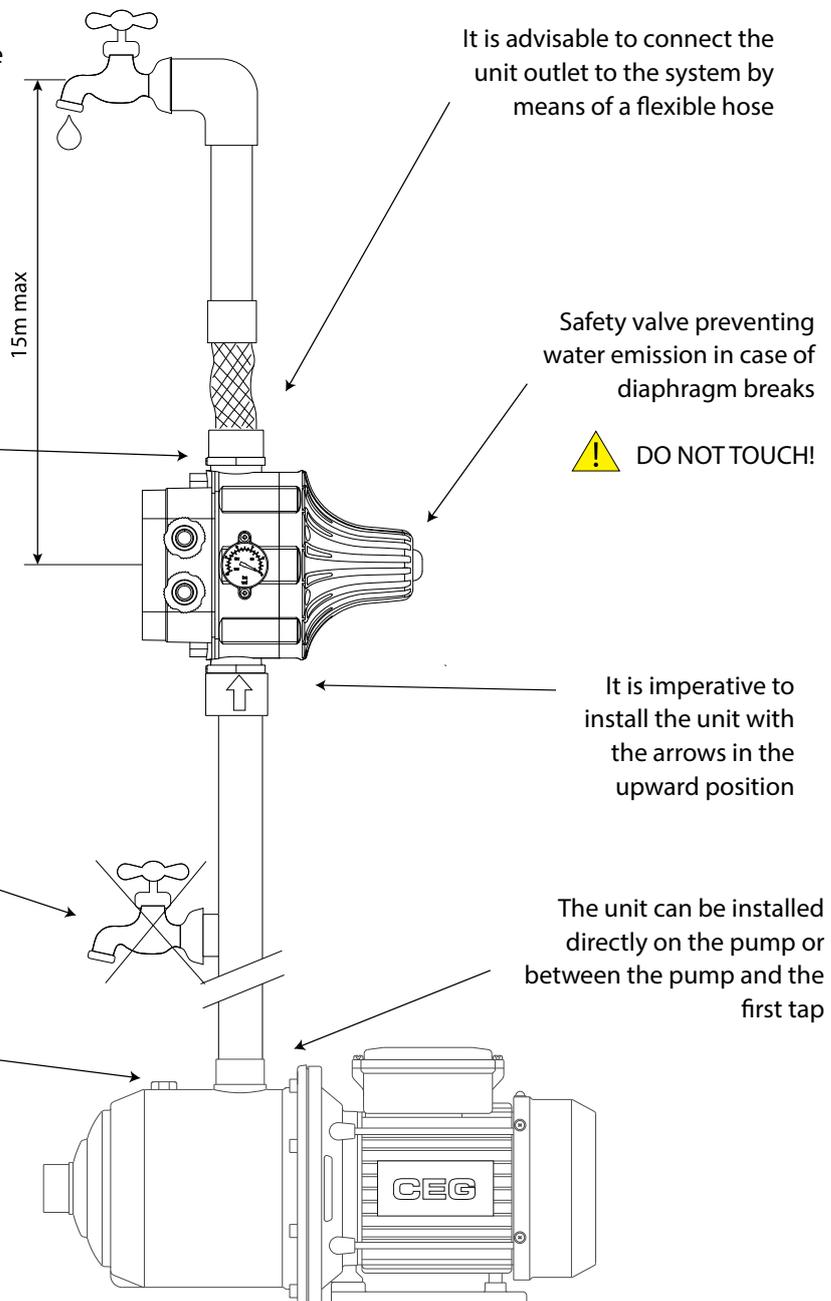
## INSTRUCTIONS FOR CORRECT UNIT INSTALLATION

If the column of water between the pump and the highest tap exceeds 15m, the unit cannot be installed directly on the pump. The PRESSCONTROL has to be raised until the column of water between the unit and the highest tap does not exceed 15m

The unit is equipped with a non-return valve to prevent the pipeline from losing pressure

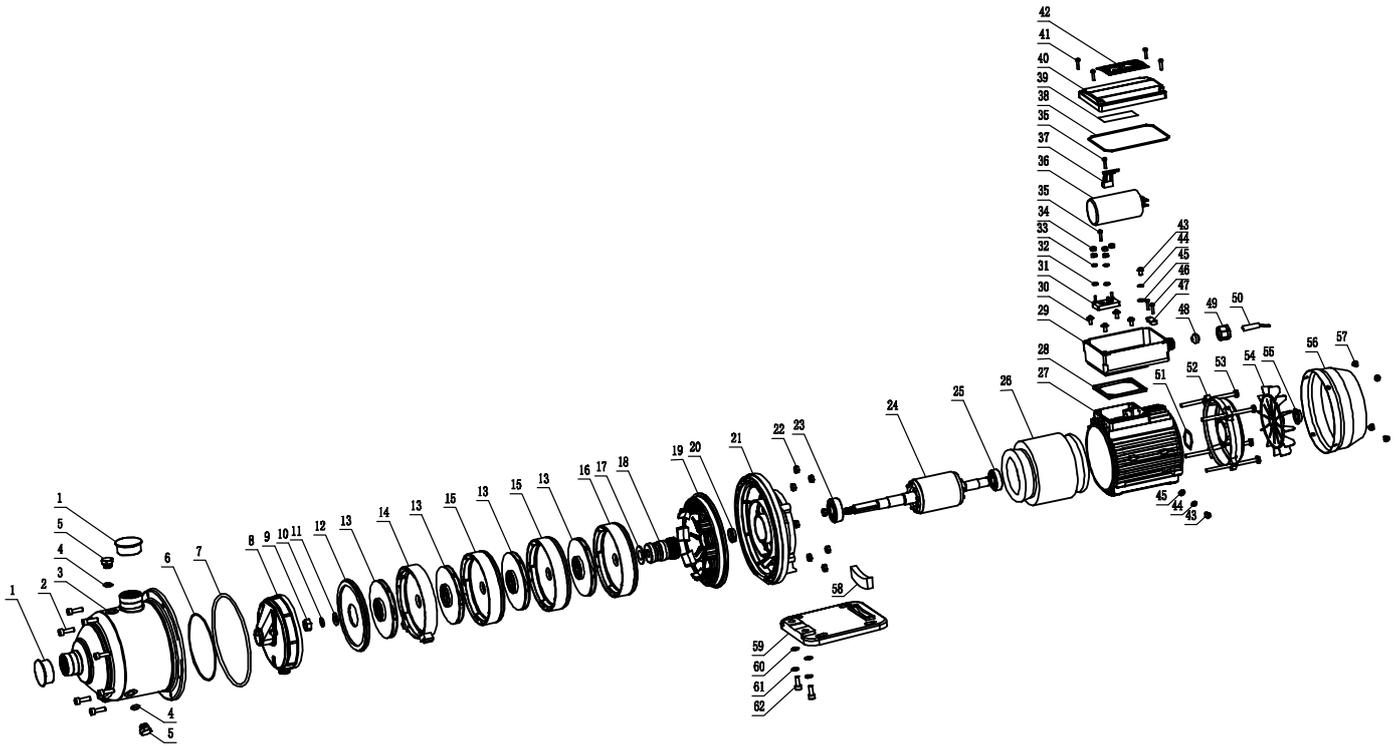
No taps can be installed between the pump and the unit

The unit is pre-set by the manufacturer at the restarting pressure of 1.5bar (22psi). The pressure produced by the pump must be 0.8bar (12psi) higher than the preset pressure



## SPARE PARTS

### ECO-MXA 404 STAINLESS STEEL SELF-PRIMING JET PUMP



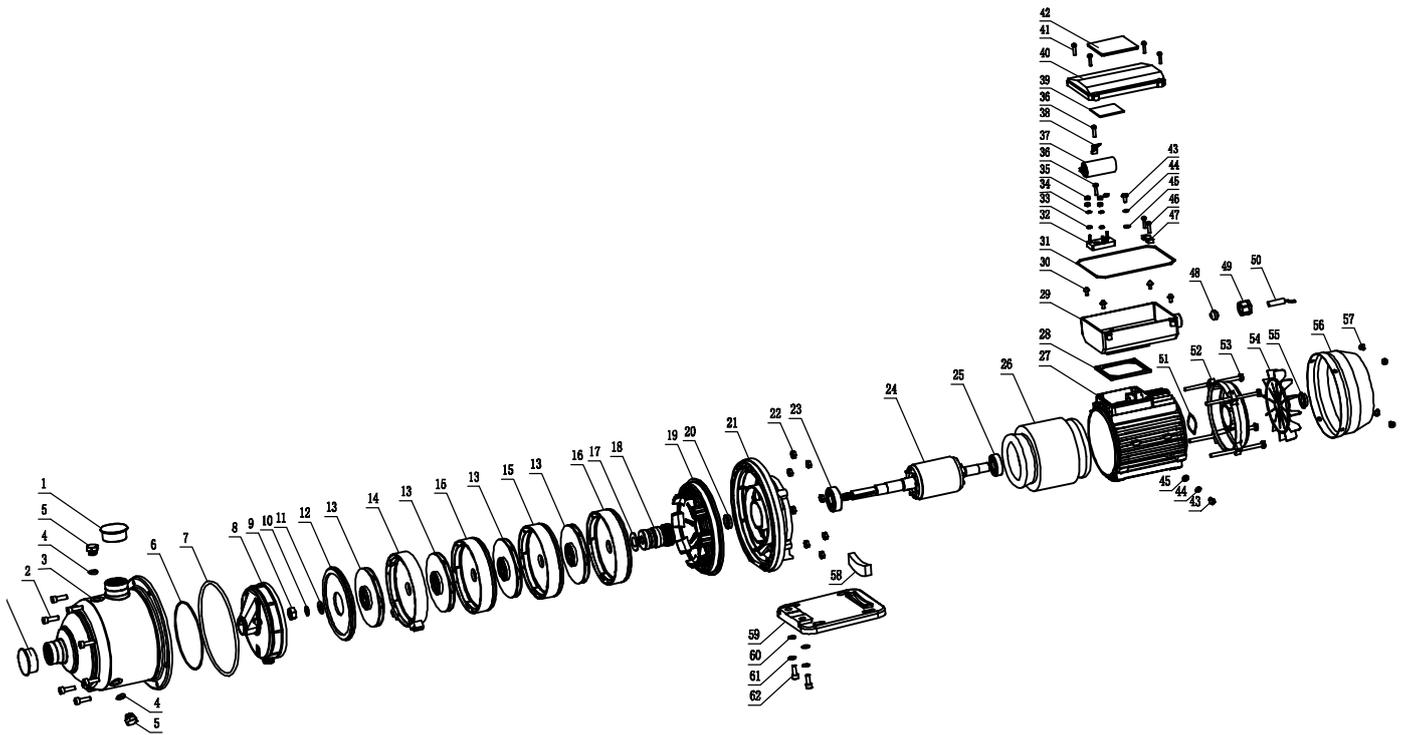
No.	Name
1	Dust cap
2	Hexagonal screw M6x20
3	Pump casing
4	O-ring d11.2x2.4
5	Plug
6	O-Ring d111.4x1.8
7	O-Ring d152x4
8	Self chuck assembly
9	Hexagonal nut M10
10	Spring washer $\Phi$ 10
11	Washer $\Phi$ 10
12	Guide vane cover
13	Impeller 50Hz $\Phi$ 98x $\Phi$ 37.7x5
14	Primary guide vanes components
15	Middle section
16	Diffuser
17	Washer $\Phi$ 30x14.2x1.5
18	Mechanical seal
19	Pump cover
20	Slinger
21	Front cover
22	Hexagonal nut M6
23	Bearing 6203-2RS
24	Rotor
25	Bearing 6202-2RS
26	Stator
27	Motor house
28	Terminal box pad
29	Junction box
30	Cross recessed countersunk head screw with pad M4x8
31	Connection pole

No.	Name
32	Serrated lock washer external teeth $\Phi$ 4
33	Washer $\Phi$ 4
34	Hexagonal nut M4
35	Cross recessed pan head tapping screws ST3.5x12
36	Capacitor 220V 30uF
37	Cable gland
38	O-Ring d120x2.0
39	Wiring diagram
40	The junction box
41	Cross recessed pan head tapping screws ST3.5x16
42	Nable gland
43	Cross recessed pan head screws M5x10
44	Spring washer $\Phi$ 5
45	Washer $\Phi$ 5
46	Cross recessed pan head tapping screws ST3.5x16
47	Cable gland
48	Junction box nut plug
49	Junction box nut
50	Cable
51	Three wave ring D35
52	Back cover
53	Hexangular stud bolt M5x142
54	Fan
55	Fix ring
56	Fan cover
57	Bolt and washer assembly screws M4x8
58	Silent blonk
59	Base frame
60	Washer $\Phi$ 6
61	Spring washer $\Phi$ 6
62	Hexagonal screw M6x20

NOTE: When ordering any spare parts, please state all nameplate data.

## SPARE PARTS

### ECO-MXA 405 STAINLESS STEEL SELF-PRIMING JET PUMP



No.	Name
1	Dust cap
2	Hexagonal screw M6x20
3	Pump casing
4	O-ring d11.2x2.4
5	Plug
6	O-Ring d11.4x1.8
7	O-Ring d152x4
8	Self chuck assembly
9	Hexagonal nut M10
10	Spring washer $\Phi 10$
11	Washer $\Phi 10$
12	Guide vane cover
13	50Hz $\Phi 98 \times \Phi 37.7 \times 5$
14	Primary guide vanes components
15	Middle section
16	Diffuser
17	Washer $\Phi 30 \times 14.2 \times 1.5$
18	Mechanical seal
19	Pump cover
20	Slinger
21	Front cover
22	Hexagonal nut M6
23	Bearing 6203-2RS
24	Rotor
25	Bearing 6203-2RS
26	Stator
27	Motor house
28	Terminal box pad
29	Junction box
30	Cross recessed countersunk head screw with pad M4x8
31	O-Ring d135x2.4

No.	Name
32	Connection pole
33	Serrated lock washer external teeth $\Phi 4$
34	Washer $\Phi 4$
35	Hexagonal nut M4
36	Cross recessed pan head tapping screws ST3.5x12
37	Capacitor 40uF
38	Cable gland
39	Wiring diagram
40	The junction box
41	Cross recessed pan head tapping screws ST3.5x16
42	Nable gland
43	Cross recessed pan head screws M5x10
44	Spring washer $\Phi 5$
45	Washer $\Phi 5$
46	Cross recessed pan head tapping screws ST3.5x16
47	Cable gland
48	Junction box nut plug
49	Junction box nut
50	Cable
51	Three wave ring D40
52	Back cover
53	Hexangular stud bolt M5x160
54	Fan
55	Fix ring
56	Fan cover
57	Bolt and washer assembly screws M4x8
58	Shock pad
59	Base frame
60	Washer $\Phi 6$
61	Spring washer $\Phi 6$
62	Hexagonal screw M6x20

**NOTE:** When ordering any spare parts, please state all nameplate data.

*Every care has been taken to ensure the accuracy of the information contained in this publication, but due to continuous development and improvement the right is reserved to supply products which may differ slightly from those illustrated and described in this publication.*



## FAULTS, CAUSES AND SOLUTIONS

Faults	Causes	Solutions
Pump does not run	Interruption of the power supply, short circuit or an insulation fault in the motor coil	Check power supply Call an expert to check the pump unit
Pump runs, but little or no delivery	Pump or pipes are blocked due to foreign matters	Check all filters/check valve for foreign matters
	Lack of supply water	Ensure all taps are turned on
	Primed incorrectly	Repeat priming procedure (refer to page 8 for flooded suction or page 9 for lift suction) to remove any air from the system
	Air in suction pipes	Check the tightness of the whole pipe up until the pump and tighten it
Motor overheats	Low voltage	Ensure power supply is not running on an extended cable exceeding 10m. Check voltage on terminals of the motor. It should be within $\pm 10\%$ of 230V (this should be carried out only by qualified personnel)
	Ambient temperature above +40 °C or insufficient ventilation	Relocate pump to a cooler, better ventilated environment
The flow is too little	Length of pipe is excessive and diameter is too small	Decrease pipe length and increase pipe size (diameter)
	Excessive head	Decrease head on pump
Pump vibrates	Incorrectly mounted/fixed	Ensure pump is fastened to a solid surface by two mounting screws
Fuse blows or circuit breaker trips when pump starts	Pump jammed. Motor stator may be defective, circuit leakage or insulation failure. Fuse size or circuit breaker may be too small	Get pump serviced
Controller failure light	Loss of prime or no water in tank	Check pump is primed and water supply is sufficient
	Electronic controller faulty, maybe damaged by power surge or spike	Replace controller

REFERENCE/CERTIFICATE ID NO: CEG5400



**PRODUCT CONFORMITY CERTIFICATE**

This Certificate provides a legally recognizable statement that the products listed below or any genuine spare parts are safe to use for their intended design purpose.

**PRODUCT TYPE**

- ECO-MXA 404
- ECO-MXA 405

This product has been tested to relevant standard and found compliant with specification:

- CEG AS/NZ Issue F0054 version A

We CEG New Zealand Ltd and CEG Group PTY Ltd declare under our sole responsibility that the product is in conformity with the listed standard or other normative documents.

Inspector:  
Keith Norling (Director)

Inspector:  
Tyrone Norling (Director)



CUSTOMER COPY - THIS IS AN IMPORTANT DOCUMENT AND SHOULD BE RETAINED FOR A MINIMUM OF 7 YEARS

Certificate Holder:  
CEG New Zealand Ltd, 76-86 Cuba Street, Palmerston North 4410, New Zealand  
CEG Group PTY Ltd, Unit 2, 711 Boundary Road, Coopers Plains, 4108, Queensland, Australia

Dated: 01/01/2016

**SERVICE REFERENCE INFORMATION**

For ease of service in the future please fill in below:

Model	
Date of Purchase	/ /
Serial Number	
Invoice Number	