

# **MQ PROJECT BOOSTER PUMPSET**



# **OPERATING INSTRUCTIONS**

ISSUE 9: 29/03/10

CE

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- These instructions are intended for the installer/operator/user/maintenance of this equipment and must be kept with the equipment, for the life of the equipment and made available to all persons. Please read GENERAL SAFETY INFORMATION 0.0, WARNINGS 0.1 and CAUTIONS 0.2, 0.3 & 0.4 before doing anything else, and then follow them carefully.
- The unit must only be installed/operated/used/maintained by a competent person; A competent person is someone who is technically competent and familiar with safety practices and the hazards involved.
- Hydraulic Accumulators/Expansion Vessels installed as part of/in conjunction with this equipment, with Pressure x Volume above 250 Bar-litres, require regular formal inspection by a *competent person*. This is a <u>Legal Requirement</u> under the "Pressure Systems Safety Regulations" (PSSR) and the <u>Owner/User</u> should be made aware of their responsibility for this. (see section 3. Servicing).
- Failure to install/operate/use/maintain the equipment as recommended below could cause damage to the equipment any anything subsequently connected to it, and invalidate the warranty provided by AquaTech-Pressmain to the buyer.
- Any damage caused to the equipment by misapplication, mishandling or misuse could lead to risk of **Electrocution, Burns, Fire, Flooding or injury to people or property** dependent upon the circumstances involved.
- This equipment contains moving/rotating parts that must remain guarded. Removal of or missing guards could lead to serious personal injury.
- This equipment automatically restarts after a power interruption.
- We accept no responsibility or liability for any consequences or damage/losses due to misapplication, mishandling or misuse of the equipment.
- It should be noted that the assembly of pressure equipment on site under the responsibility of the user (or his representative) is not subject to the Pressure Equipment Directive 97/23/EC. (National legislation covering assembly on site will apply)
- The latest version of this instruction manual with up to date safety information can be downloaded from our website at www.aquatechpressmain.co.uk

# 0.1 **M**WARNINGS

- 0.1.1 Do not touch any live parts for at least 5 minutes after switching off the electricity supply. Failure to observe this will constitute a severe Electric shock and/or Burns hazard and may be lethal.
- 0.1.2 The equipment is only suitable for earth referenced supplies and must be permanently earthed to avoid Electric shock hazard.
- 0.1.3 With equipment isolator OFF, mains voltage may still be present from BMS system. This constitutes an Electric shock hazard.
- 0.1.4 Emergency stop button does not remove dangerous voltages from control panel/pump motor assemblies. This constitutes an Electric shock hazard.
- 0.1.5 Metal parts (e.g. heat sinks) may reach temperatures of 90 degrees centigrade and will constitute a Burns hazard.
- 0.1.6 Some equipment is designed to operate with liquid temperatures up to 150 degrees centigrade and will constitute a Burns/scalding hazard.
- 0.1.7 The equipment must not be pressurised beyond the maximum working pressure as stated on pumps/pipework/vessels/control panel otherwise serious mechanical damage/destruction could occur causing injury to people or property.
- 0.1.8 The equipment must not be heated/chilled beyond the maximum/minimum working temperature as stated on pumps/pipework/vessels/control panel otherwise serious mechanical damage/destruction could occur causing injury to people or property.
- 0.1.9 Any damage to equipment, pumpset, vessels, pipework or system components caused by misapplication, mishandling or misuse could lead to Electric shock hazard, Burns hazard, Fire hazard, Flooding hazard or cause injury to people or property.

- 0.1.10 This equipment may contain moving/rotating parts that must remain guarded. Removal of or missing guards could lead to serious personal injury.
- 0.1.11 Pressure vessels must never be disassembled whilst in use, they contain high pressure air/gas charge which could cause injury to people or property.
- 0.1.12 Pump motors with lifting eyes; the lifting eyes are only suitable for lifting motors NOT the entire pump assembly. This could cause injury to people or property.
- 0.1.13 Ensure the base/foundation/plinth/wall to which the equipment is to be attached is sufficiently strong enough to carry the entire mass of the equipment including the water that it will contain under worst-case fault conditions. E.g. fully saturated pressure vessel with no air charge, break tank full to overflowing, etc. Failure to observe this could cause serious mechanical damage/destruction resulting in injury to people or property.

# 0.2 ACAUTIONS FO

# **CAUTIONS FOR INSTALLATION**

- 0.2.1 READ GENERAL SAFETY INFORMATION 0.0, WARNINGS 0.1 and CAUTIONS 0.2, 0.3 & 0.4
- **0.2.2** The unit should only be installed/operated by a competent person; A competent person is someone who is technically competent and familiar with safety practices and the hazards involved.
- **0.2.3** Do not lift the pumpset by pipework. Lift the pumpset by the container pallet using a pallet/forklift or crane by passing strops underneath the skid using a spreader bar. Failure to utilise these facilities will result in damage to the pumpset.
- **0.2.4** Store in a dry place to avoid damp conditions deteriorating the equipment.
- **0.2.5** Protect against dirt, damage and frost. It is absolutely essential that no foreign matter such as pipe thread swarf, welding slag, grit or stones are allowed to enter the set. Debris of this type can cause severe damage to the mechanical seals, diaphragms and impeller. Frost/freezing will damage pumps/pipework and control panel components.
- **0.2.6** The equipment is only suitable for installation in a clean, dust free indoor environment, with adequate protection from heat and frost, and sufficient ventilation to ensure cooling of the motors. Ambient air temperature should be between 5 and 40 degrees centigrade, non-condensating. Operation outside of these conditions could seriously damage the equipment.
- **0.2.7** If the equipment were to be stored or taken out of service for a period of time (e.g. 1 week or more), then we would recommend draining the equipment of all water/liquid (with due regard to any local regulations) to prevent frost damage to components. When restarting is required we would recommend commissioning by our authorised service agent.
- **0.2.8** Ensure the base/foundation/plinth/wall to which the equipment is to be attached has sufficient mass compared to the equipment, in order to avoid noise/vibration transmission. E.g. the mass of the base should be at least five times the mass of the equipment.
- **0.2.9** Ensure the electrical supply is the correct voltage, current, frequency and type for the equipment supplied and that suitable circuit protection equipment is installed in the supply. Incorrect electrical installation could be an electric shock/burns/fire hazard.
- **0.2.10** When accessing the control panel to make electrical connections adopt anti-static procedures e.g. wear anti-static earthed wristband, to avoid risk of damaging the controller.
- 0.2.11 All products that are packaged to include Pressure vessel(s)/Hydraulic Accumulator(s)/Expansion Vessel(s) are classed as "Assemblies" under the Pressure Equipment Directive (PED). Where units are despatched with "Loose" vessel(s) for assembly on site it is absolutely essential that they be installed as detailed in the instructions using the fittings provided where appropriate. Failure to observe this will nullify compliance with the PED and may present a safety hazard. Your warranty may also be affected.
- **0.2.12** Do not operate this equipment/pumpset prior to commissioning (section 2.2) This could cause irreparable damage to equipment/pumpset/pipework/system components.
- **0.2.13** Isolate the equipment/pumpset before pressure testing system. Excess pressure could irreparably damage the pressure transducer, pressure switches (where fitted) and the diaphragms of pressure vessel/hydraulic accumulators.
- 0.2.14 It is the installers' responsibility to ensure subsequent pipework etc can accept the pressures generated by the equipment/pumpset and to install an overpressure safety device into the system with due respect to the suction pressure present on the pumpset, the pump closed valve pressure stated on the pump, the maximum working pressure stated on any of the attached pressure vessels and any other device connected to the system e.g. boilers, calorifiers etc.
- **0.2.15** When chlorination of the system is carried out, ensure that any residual chlorine is removed by thorough flushing as detailed in the HSE approved code of practice L8, to avoid damaging the equipment/pumpset. The normal level of chlorination is up to 2 parts per million (ppm), but shock dosing for sterilization

- purposes, at 25-50 ppm for 24-48 hours is acceptable as long as all chlorine is removed once the process is complete. Chlorination beyond these limits could seriously damage pumpset components and WILL NOT be covered by the warranty.
- **0.2.16** The installer/user is responsible for the installation of the correct earthing and protection according to valid national and local standards. All operations must be carried out by a suitably qualified person.
- **0.2.17** The equipment is only suitable for earth referenced supplies and must be permanently earthed to avoid electric shock hazard.
- **0.2.18** The equipment must be permanently earthed with appropriate sized Earthing.
- **0.2.19** Never perform high voltage resistance tests on control panels, variable speed drives/motors without first disconnecting the panel/drive/motor from the circuit being tested as this will damage the built in electronic components.
- **0.2.20** Metal parts (e.g. heat sinks) may reach temperatures of 90 degrees centigrade.
- **0.2.21** EMC With respect to BS EN61000-3-2 this equipment is defined as 'professional equipment' and therefore the installer/user may need to seek permission from the supply utility to connect this equipment to the public low voltage mains supply.
- 0.2.22 Where "Expansion vessels" are used on Domestic hot water systems (DHWS) or LTHW heating system pressurisation units, the temperature of the fluid returning to the vessels should not exceed 70 degrees Centigrade as this could damage the vessel diaphragm. Where the temperature exceeds 70C an intermediate cooling vessel should be fitted.
- **0.2.23** Drain cocks/valves and air bleed screws must not be left open as this could cause flooding.



# CAUTIONS FOR OPERATION/USER

- 0.3.1 READ GENERAL SAFETY INFORMATION 0.0, WARNINGS 0.1 and CAUTIONS 0.2, 0.3 & 0.4
- **0.3.2** The unit should only be operated/used by a competent person; A competent person is someone who is technically competent and familiar with safety practices and the hazards involved.
- **0.3.3** The Owner/User of this equipment has a <u>Legal Responsibility</u> to ensure that it is subject to regular formal inspections. See Section 3. Servicing, for details.
- **0.3.4** Where Hydraulic Accumulator(s)/Expansion Vessel(s) are supplied as a loose item, they must be installed/connected correctly before operating the equipment, otherwise serious damage from overpressure could occur.
- **0.3.5** The set must not be run until commissioned by an authorised AquaTech-Pressmain agent, this could irreparably damage the pump set and/or system components/pipework connected to it.
- **0.3.6** The pumpset should be left switched ON with the pumps switched to AUTO for normal operation.
- **0.3.7** The pumpset should not be left in "Hand" operation for more than 1 minute. This could lead to severe damage of pumpset components and/or pipework system from over-pressure and/or overheating.
- **0.3.8** Ensure pumpset has an adequate water supply at all times to prevent dry running causing pump seal damage and water leakage.
- **0.3.9** Do no attempt to start pumps without liquid in volutes (pumps must be fully primed); mechanical seals must have a film of liquid between faces for proper operation and to prevent damage.
- **0.3.10** Portable telephones or other electro-magnetic equipment must not be used near the set to avoid corruption of program and unpredictable operation of unit.



0.4

# CAUTIONS FOR MAINTENANCE

- 0.4.1 READ GENERAL SAFETY INFORMATION 0.0, WARNINGS 0.1 and CAUTIONS 0.2, 0.3 & 0.4
- **0.4.2** The unit should only be operated/maintained by a competent person; A competent person is someone who is technically competent and familiar with safety practices and the hazards involved.
- **0.4.3** Where the set is fitted with Building Management Services (BMS) interconnections, notify the appropriate persons before switching OFF for maintenance or adjustments, to avoid unnecessary alarm conditions occurring. WARNING: With pumpset isolator OFF, mains voltage may still be present from BMS system. This constitutes an Electric shock hazard.
- **0.4.4** To prevent seizing, pumpsets must not be left unused for long periods (e.g. 1 week).
- **0.4.5** The pumps must be run regularly to avoid stagnation of water in the pumps/pipework (e.g. daily).
- **0.4.6** Do not vent air from air valves on vessels. These are for adjustment of pre-set cushion pressures. If wrongly adjusted this will lead to incorrect operation of the pumpset and possible damage to pumps, pipework and system components from overheating and over-pressure.

#### 0.4.7

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Before beginning installation procedures, these installation and operating instructions should be studied carefully. The installation and operation should also be in accordance with local regulations and accepted codes of good practice.

#### 1. General description

The MQ is a compact water supply system consisting of a pump, motor, pressure tank and controller combined in an integral unit.

The pump starts automatically when water is consumed in the installation and it stops when the consumption ceases. The MQ is a low-noise pump which can be installed both indoors and outdoors.

The pump is self-priming and has a non-return valve incorporated in the suction port, see fig. 1. The pump features a user-friendly control panel.

The pressure tank incorporated in the pump reduces the number of starts and stops in case of leakages in the installation.

The MQ pump has built-in overtemperature and dryrunning protection.

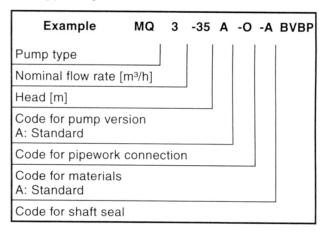
#### 1.1 Applications

Typical applications:

- Water pressure boosting in storage tanks (maximum inlet pressure 3 bar) and
- water supply from wells (maximum suction lift 8 metres), e.g.
  - in private homes,
  - in summer houses and weekend cottages,
  - on farms,
  - in market gardens and other large gardens.

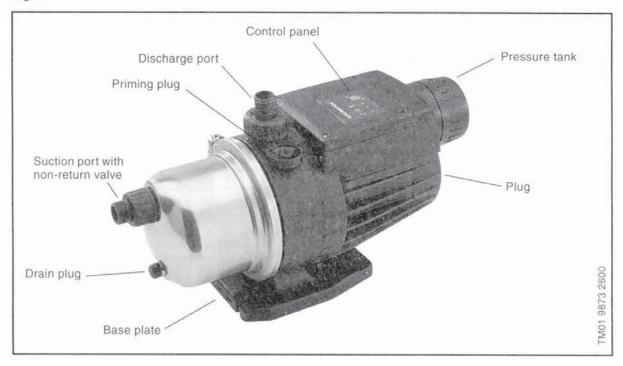
The pump can be used for rain water and has been approved for drinking water.

#### 1.2 Type key



# 1.3 MQ pump

Fig. 1



# 2. Pumped liquids

Thin, clean, non-aggressive liquids, not containing solid particles or fibres.

# 3. Technical data

# 3.1 Operating conditions

	MQ 3-35	MQ 3-45
Maximum pressure [bar]	3.5	4.5
Maximum system pressure [bar]	7.5	
Maximum suction lift [m]	8	
Minimum ambient temperature [°C]	0	
Maximum ambient temperature [°C]	45	
Minimum liquid temperature [°C]	0	
Maximum liquid temperature [°C]	35	
Net weight [kg]	13.0	
Sound pressure level [dB(A)]	< 70	
Tank volume [I]	0.3	0.4
Air pressure in tank [bar]	1.5 to 1.7	
50 Hz:	•	
Maximum flow rate [m³/h]	4.5	
Connections	G 1	
60 Hz:		
Maximum flow rate [m <sup>3</sup> /h]	5	
Connections	1" NPT	

#### 3.2 Electrical data

		MQ 3-35	MQ 3-45
Enclosure class		IP	54
Insulation class		В	
Supply cable		2 m H07RN-F with/without plug	
50 Hz:			
Voltage [VAC]		1 x 220-240 V -10/+6%	
Power consumption, P <sub>1</sub> [W]		850	1000
60 Hz:	·		
Voltage,	1 x 110-120 V -10/+6%	800	1000
power consumption, P1 [W]	1 x 220-240 V -10/+6%	850	1050

#### 3.3 Dimensions

See dimensions at the end of these instructions.

#### 3.4 Approvals

Materials in contact with the pumped liquid have been approved by the British Water Research Council (WRC) according to BS 6920 for use in drinking water.

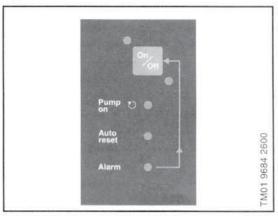
Other approvals: See pump nameplate.

#### 4. Functions

#### 4.1 Control panel

The MQ pump is operated entirely by means of the control panel, see fig. 2. The control panel offers the possibility of starting/stopping the pump. The pump settings and operating condition are indicated by indicator lights.

Fig. 2



The functions of the control panel are described in the following table:

Illustration	Description
Off	Indicator light (red): When the indicator light is on, the pump is on standby.
2 On John	On/off button: The pump is started/stopped by means of the on/off button. The on/off button can also be used for manual resetting in case of an alarm condition: - press once for resetting and - press once more for starting.
3 On Off	Indicator light (green): Indicates that the pump is ready for operation. When the indicator light is on, the pump will start automatically when water is consumed. The pump will stop a few seconds after the water consumption has ceases.
Pump on	Pump on (green): The indicator light is on when the pump is running.
Autoreset	Auto-reset (green): As standard, this function is activated on delivery (does not apply to pump versions for Australia). When the indicator light is  on, the Auto-reset function is activated. The pump will automatically attempt to restart every 30 minutes after an alarm fault over a period of 24 hours. After this period, the pump will remain in the alarm condition.  off, the Auto-reset function is deactivated. The pump will not restart after an alarm/fault.  The Auto-reset function can be activated/deactivated by pressing the on/off button for 5 seconds.
Alarm	Note: When water is consumed, the pump will start and stop automatically, whether the Auto-reset light is on or off.  Alarm (red): The indicator light is on when the pump is in alarm condition. The alarm condition may have been caused by: - dry running, - overtemperature, - overloaded motor or - seized-up motor/pump. See section 4.2 Pump stop.

**Note:** The pump settings are stored. After supply failure, the pump will automatically revert to its operating condition when the electricity supply is connected again.

#### 4.2 Pump stop

The pump incorporates an electronic protective function which will stop the pump in case of

- · dry running,
- · overtemperature,
- · overloaded motor,
- · seized-up motor/pump.

The pump will restart automatically after 30 minutes (for 24 hours) in case of any type of fault if the Autoreset function is activated (the green indicator light on the control panel is on, see point 5 in the table in section 4.1 Control panel).

#### 5. Mounting and connection

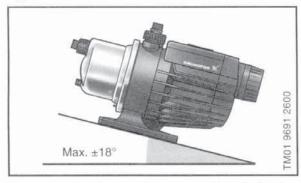
#### 5.1 Mounting the pump

The pump is resistant to sunlight and can be installed both indoors and outdoors. When installed outdoors, it is recommended to protect the pump by means of a suitable cover.

Always mount the pump on the base plate with horizontal suction port and vertical discharge port.

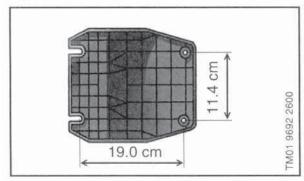
The pump must be mounted horizontally  $\pm 18^{\circ}$ , see fig. 3.

Fig. 3



The pump must be secured to a solid foundation by bolts through the holes in the base plate, see fig. 4.

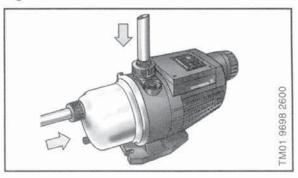
Fig. 4



The pump discharge is flexible,  $\pm 5^{\circ}$ , to facilitate the connection. Never apply unnecessary force when connecting the pipes.

The pump is supplied with G 1 (50 Hz) or 1" NPT (60 Hz) screwed connections to be fitted in the suction and discharge ports, see fig. 5.

Fig. 5

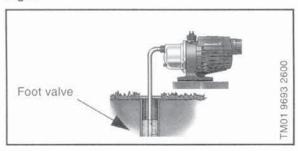


A non-return valve is factory-fitted in the suction port. This non-return valve prevents the liquid from disappearing from the pump "suction chamber" during a priming attempt and during operation.

Note: The non-return valve must be fitted under all operating conditions.

If the pump is installed in long pipes, the pipes must be adequately supported on either side of the pump in order not to strain the pump connections. If the pump draws water from a well, it is recommended also to fit a foot valve to the end of the suction pipe, see fig. 6.

Fig. 6



If a hose is used for suction pipe, it must be of a noncollapsible type.

As the pump is self-cooling, no space is required around the pump and no ventilation is required.

#### 5.2 Electrical connection

The electrical connections and additional protection should be carried out by qualified persons in accordance with local regulations



Never make any connections in the pump terminal box unless the electricity supply has been switched off for at least 5 minutes.

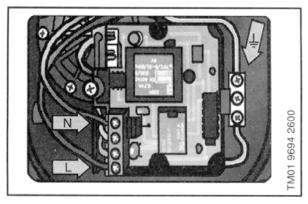
The pump must be earthed (PE).

Do not start the pump until it has been filled with water (primed).

The operating voltage and frequency are marked on the nameplate. Make sure that the motor is suitable for the electricity supply on which it will be used.

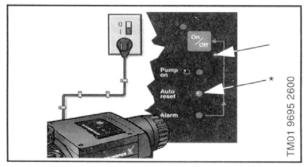
The pump must be connected to the mains via a rubber-sheathed cable with a protective earth lead. It is possible to replace the mains supply cable, see fig. 7.

Fig. 7



Connect the mains supply cable of the pump to the electricity supply. When the cable is connected, a red and a green indicator light on the control panel will be on, see fig. 8.

Fig. 8

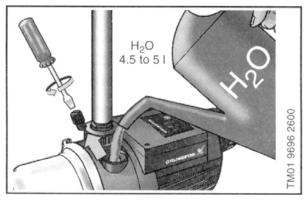


\* Does not apply to pump versions for Australia.

#### 5.3 Start-up

Before start-up, the pump must be filled with 4.5 to 5 litres water to enable it to self-prime, see fig. 9. The pump is self-priming with a maximum suction lift of 8 metres.

Fig. 9



When the pump is started, it will start to self-prime. When the pump has been primed, it will automatically change over to normal operation. If the priming has not been completed within 5 minutes, the pump will stop automatically and attempt to restart after 30 minutes. It is possible to reset the pump manually, see point 2 in the table in section 4.1 Control panel.

#### 6. Maintenance

Under normal operating conditions, the pump is maintenance-free. However, it is recommended to keep the pump clean.

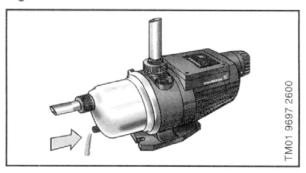


Do not remove the pressure tank from the pump unless it has been vented through the air escape valve.

Never touch the electronics unless the pump has been switched off for at least 5 minutes.

If there is any risk of frost damage, drain the pump through the drain hole, see fig. 10. The pump must be filled with liquid before it is started up again, see fig. 9.

Fig. 10



#### 6.1 Service kits

Service kits are available for the MQ pump. The service kits consist of the following replaceable parts:

- shaft seal,
- motor.
- · electronic units.
- · hydraulic components.

#### 6.2 Start-up after a long time of inactivity

The end cover incorporates a plug which can be removed by means of a suitable tool. It is then possible to free the pump rotor if it has seized up as a result of inactivity. If the pump has been drained, the pump must be filled with liquid before start-up, see fig. 9.

#### 7. Service

**Note:** If a pump has been used for a liquid which is injurious to health or toxic, the pump will be classified as contaminated.

For commissioning or maintenance, contact AquaTech Limited on Tel: 01206 215121.

# 8. Fault finding chart

Fault	Cause	Remedy
1. The pump does not	a) Insufficient water.	Check the water supply/suction pipe.
start.	b) Overheating due to excessive liquid temperature (above +35°C).	Supply cold liquid to the pump.
	c) Overheating due to seized-up/ choked-up pump.	Contact your pump supplier.
	d) Too low or too high supply voltage.	Check the supply voltage and correct the fault, if possible.
	e) No electricity supply.	Connect the electricity supply.
	f) No water consumption.	Open a tap. Check that the height between the top point of the discharge pipe and the pump does not exceed 15 metres.
	g) The pump is in alarm condition.	Reset the pump by means of the on/off button. See point 2 in the table in section 4.1 Control panel.
<ol><li>The pump does not stop.</li></ol>	a) The existing pipework is leaking or defective.	Repair the pipework.
	b) The non-return valve is blocked or missing.	Clean the valve or fit a new non-return valve.
3. The pump cuts out	a) Dry running.	Check the water supply/suction pipe.
during operation.	b) Overheating due to excessive liquid temperature (above +35°C).	Supply cold liquid to the pump.
	c) Overheating caused by:	Contact your pump supplier.
	• high ambient temperature (> 45°C),	
	overloaded motor or	
	seized-up motor/pump.	
	d) Too low supply voltage.	Check the supply voltage and correct the fault, if possible.
<ol> <li>The pump starts and stops too fre-</li> </ol>	a) Leakage in suction pipe or air in the water.	Check the water supply/suction pipe.
quently.	b) Too low or too high pressure in pressure tank.	Check pressure in pressure tank, see section 3.1 Operating conditions.
<ol><li>The pump gives electric shocks.</li></ol>	a) Defective earth connection.	Connect the earth connection to the pump in accordance with local regulations.
The pumps starts when no water is consumed.	a) Defective non-return valve or the existing pipework is leaking or defective.	Clean the valve or fit a new non-return valve.

# **DISPOSAL**

Disposal of this product or parts of it must be carried out in accordance with the following guidelines:

Use the local public or private recycling/waste collection service.

In case such a recycling/waste collection service does not exist or cannot handle the materials used in this product, please deliver the product or any hazardous material from it to your nearest AquaTech-Pressmair office.

# MAINTENANCE AND CARE OF YOUR EQUIPMENT

The AquaTech-Pressmain equipment that is described in this instruction booklet has been manufactured and tested to the highest standards of design and quality. It will give trouble free operation over many years provided it is maintained regularly from when it is commissioned. To keep it operating efficiently in a safe, economical and environmentally friendly condition, regular maintenance is an essential part.

AquaTech-Pressmain Limited along with its' sister company, and fellow AGM Group member, Acorn Pressurisation Services Ltd are the official providers of commissioning and maintenance services. (see below).

Several companies operating under the Aquatronic Group Management structure are available to fulfil a wide range of servicing and maintenance requirements, as detailed below.

#### LEGAL REQUIREMENTS

Hydraulic Accumulators/Expansion Vessels installed as part of/in conjunction with this equipment, with Pressure x Volume above 250 Bar-litres, require formal inspection in accordance with a "Written Scheme of Examination". This is a <u>Legal Requirement</u> on the part of the <u>Owner/User</u> under the "Pressure Systems Safety Regulations" (PSSR). A "Written Scheme" and regular inspection can be provided by either Acorn Pressurisation Services (combined maintenance and inspection) or ESIS Ltd (inspection only), see details below.

#### **Plant Servicing & Inspection**



ACORN PRESSURISATION SERVICES LIMITED, AGM House, Essex, CO6 1GT. Ph: 01206 215151 130 Princess Rd, Manchester, M16 7BY. 0161 226 4727

Acorn provides maintenance and installation of all types of packaged water pumping equipment for building services. Its specialist fields are Pressure booster equipment and sealed systems for heating and chilled water distribution systems. Regular servicing of any plant for essential services is vital because wear and tear are very gradual processes. With preventative maintenance, the costs are small and benefits in reliability, safety and economy can be significant. Acorn Pressurisation Services Ltd can provide a complete package of schemes for preventative maintenance on all AquaTech-Pressmain and other makes of equipment.

#### **Pressure Vessel Inspection**



ESIS ENGINEERING SAFETY & INSPECTION SERVICES LTD, AGM House, London Rd, Copford, Colchester, Essex, CO6 1GT. Phone: 01206 215141 Fax: 01206 215142

Under the Pressure Systems Safety Regulations, expansion vessels and hydraulic accumulators, generally 250 bar-litres and greater, and protection devices, require a Written Scheme of Examination before they can be operated. ESIS Inspection and Insurance Services Limited specifications can provide the means to comply with these regulations. These services can be extended to cover other units e.g. air pressure receivers etc.

#### SERVICE CONTACTS

For service during warranty period contact: AQUATECH-PRESSMAIN Service Department
Head Office Tel: 01206 215121 Manchester Office Tel: 0161 226 4727
For regular servicing, contact their service agents: ACORN PRESSURISATION SERVICES LTD
Head Office Tel: 01206 215151 Manchester Office Tel: 0161 226 4727

who will be pleased to give you expert advice on this or any other servicing matter.

#### **EC DECLARATION OF CONFORMITY**

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We, Aquatech-Pressmain Limited, declare that this BOOSTER SET MODEL: PROJECT MQ when installed and used in accordance with the instructions provided is in conformity with the following standards: BS EN 60204-1: 2006, EN61000-3-1, EN61000-6-1 following the provisions of EEC Directives: Low Voltage Directive 73/23/EEC and 93/68/EEC; Electromagnetic Compatability Directive 89/336/EEC with amendments 92/31/EEC.

I.D.Taylor, I.Eng.MIET., Director, Aquatech-Pressmain Limited. 16.04.02