

# **Irrigation unit type I**

Short manual and instructions (UK)

series: I-500(q)/I-1500/I-2500/I-5000Q

# 1 Introduction

## 1.1

This manual contains important information for a correct usage of the irrigation unit type I. It is crucial to follow instructions for a long-life and reliable product. Please read and follow this manual. For any further instructions or questions, please feel free to contact us.

## 1.2 Symbols

The following symbols are used



### WARNING

Electronic danger. Norm IEC 417 - 5036.



### WARNING

Procedures when not conducted the right way may cause damage. General guidance ISO 7000-0434.



### REMARK

Safety instructions.






### ENVIRONMENT

Related to the environment.

## 1.3 Identification

The identification sticker explain the model, type, production number, production date and order number.

  				
	Art. Nr:		Ord. Nr:	
	Prod. Nr:			

## 1.4 Warranty

The warranty starts on the date of activation. The standard warranty is 24 months. Parts that are subject to wear are not under the warranty. De warranty is void when the unit is changed, repaired by others or with other parts, abused and/or misused. Defects are handled under warranty when they are caused by a defect in the unit within the warranty period.

## 2 Introduction

### 3.1 Right usages

The irrigation units type I are used for pumping irrigation water within the specified range and capacity. The unit is used to prevent backflow of water to the main water network. Other usage is not according to the right usage. HBWT accepts no responsibility for damage or hurt. The unit is produced according to the applicable norms and guidelines. Only use the unit when it is technically in order. When In doubt, do not use the unit and contact us.

### 3.2 Range

<i>Type</i>	<i>Maximum head</i>	<i>Maximum flow m3/h</i>
I-500	1 to 2 BAR	0,6 m3/h/group at 1,5BAR
I-500Q	1 to 2 BAR	0,6 m3/h/group at 1,5BAR
I-1500	3 to 4 BAR	0,5-1,5 m3/h/group at 2,8BAR
I-2500	3,6-4,0 BAR	0,5-2,5 m3/h/group at 2,6 BAR
I-5000	made to measure	made to measure

### 3.3 Operation

When water is tapped, the pump will activate automatically because of loss in pressure, for instance by opening a magnetic valve with the irrigation computer. Water is pumped from the water tank to the magnetic valves. When water is no longer tapped, the pump will automatically be stopped by the pressure control. The water level in the water tank is arranged by a float valve

#### **Type I:**

Surrounding temperature [°C] +4 tot 40

Water temperature [°C] +4 tot 40

Maximum pressure [BAR] 6

Minimum delivery pressure [BAR] 1

Maximum delivery pressure [BAR] 2.5 (on float valve)

#### **type / range**

Irrigation unit for roofgardens, vertical gardens and planters.

## 4 Transport

### 4.1 Transport



WARNING: Follow regulations for transport and lifting. Do not damage the unit. Protect from frost.

## 5 Installation

### 5.1 Installing the unit

Place the unit loose on the floor with at least the following surroundings:

- Connect the water delivery pipe to the float valve connection (side tank). Please watch out for turning the brass coupling.
- Connect the main pipes from the irrigation groups (top back).

To reduce noise:

- Place on a rubber mat
- Fix the pipes
- Make sure the water delivery pipe gives clean water or use a filter
- Reduce tension on pipes
- Use pipes with the right diameter.

**REMARK**

Use a manual valve in the main pipes to prevent emptying the entire pipe with service.

## 5.2 Electrical installation

### Connections

- Make sure that the electrical installation is in correspondence with the irrigation unit.
- Connect the unit with the electric plug in an available outlet.
- Close the casing after installation.

## 5.3 Putting into service

**WARNING**

The Irrigation Unit may not run without water!

**Unit demands:****Space**

- Clean, dry, dust free, frost free and well lit.
- Surface must be clean and well measured, so that the unit is reachable for service.
- The height of the room must meet the minimum demand for the unit.
- The setup must be so that free flowing water or leakage water can be drained without trouble.

**Foundation**

- The system must stand free from walls.
- The surface must be flat.
- The foundation must support the unit.

To put the unit in service:

- 1 Open the tank.
- 2 Activate the water supply to the float valve
- 3 Check if the float valve stops the filling of the water tank on the correct level.
- 4 Plug the electric plug into the available outlet.
- 5 Program and activate the irrigation computer according to the manual.
- 6 Check the active unit so it is leak free and working properly.
- 7 In some cases it may be needed to relief the pump of air. Press the reset button on the pump control to re-activate the pump (when there is air it may be on failure). If needed repeat until the pump is pressurized.

### 5.3.1 Reset after failure

**WARNING**

Repair after failure may only be done by certified people.

When there is no water in the tank, the unit will be protected by a dry run protection. The installation is reset by filling the tank and pressing the reset button on the pump control. When the power is off the unit will switch off, when the power is on again the unit will resume.

### 5.3.2 Pump overload

When the pump is overloaded the safety will activate automatically. To reset the unit, power off the unit by removing the electric plug. Wait for 30 seconds and re-activate the unit. When needed the installation is reset by pressing the reset button on the pump control or a power reset.

### 5.3.3 Pre-pressure (when pressure tank is installed with I-2500 / I-5000)

The unit is tested with preset correct pre-pressure. This may be controlled once a year.

For correct functioning the pressure tank must 0,5BAR lower than the general working pressure.

1. Measure pre-pressure and general pressure.
2. If needed modify pressure in pressure tank.

## 6 Control and usage

### 6.1 Control

The irrigation unit is controlled by the irrigation computer. For controlling the computer please refer to the according manual.

### 6.2 Usage I-500 / I-1500

The pump is protected against dry-run. It is best to avoid dry-running.



#### WARNING

The irrigation unit may not run dry longterm. This may damage the pump. A dry run safety is installed, which will become active when there is no water available. An automatic restart program becomes active to check for water availability. Resetting the pump control may be needed in some cases.

### 6.3 Usage I-2500 / I-5000

The underwater pump is provided with a build-in dry run protection.



#### WARNING

The irrigation unit may not start more often than 20 times per hour.



#### WARNING

The temperature of the water may not be higher than 35 degrees Celcius.



#### WARNING

Do not use with salt water, water with oil or other pollution.

## 7 Maintenance

### 7.1 Intro



#### WARNING

Please respect general maintenance line for pumps and water systems

### 7.2 Maintenance

Regular maintenance improves lifespan. Check and clean the filter, pump and water tank on a regular basis, depending on water quality the interval may vary!

### 7.3 Longterm off

Rotate the pump shaft every 3 months to prevent fixture. Protect against frost by emptying all water.

## 8 Attachments

### 8.1 Technical data

<i>Type</i>	<i>hK</i>	<i>kW</i>	<i>Voltage</i>	<i>Amperage</i>
I-1500/I-2500	0,75-1,00	0,65-0,8	230volt	2,90-3,50
I-5000	made to measure	made to measure	230volt	made to measure

### 8.2 State of conformity

According to NEN-EN-10204

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