



Glen Waverley Uniting Church Rain Water Harvesting Project Part 3 Equipment Specifications



GWUC, RAIN WATER HARVESTING SYSTEM

(REFER TO PREVIOUS SECTION, PART 2 EQUIPMENT SCHEDULE, FOR LISTING OF MAJOR EQUIPMENT, AND ITEM NO.S).

WEST TANK SYSTEM

WT1 West Tank

Team Poly, 22,000 litre tank.

3,530 mm diameter, 2,440 wall height, 2,670mm overall height,

2 x 50mm outlets,

1 x 500mm inlet strainer, with manhole cover,

1 x centre pole with cone,

1 x 90mm outlet with elbow,

1 x Pacific, float level gauge.

WATER TANKS

Team Poly Brochure **SIZES 545 - 27,000 LITRES**

- Corrugated profile, an Australian tradition
- Designed for small to large scale water harvesting
- [14 COLORBOND® tank colours](#) to complement sheds, fences or other structures
- Molasses, heavy duty tanks available in sizes 545 to 13,500 litres
- UV stabilised polyethylene used to ensure Team Poly tanks are made tough for harsh Australian conditions Team Poly products are manufactured from food grade polyethylene to meet Australian Standards AS 2070 (Food Grade Polyethylene) and Australian Standards AS/NZS 4020 (Testing of Products for Use in Contact with Drinking Water)
- Multiple outlet options and multiple inlet and overflow configurations available
- Removable lids allow for easy tank cleaning.
- Tanks should be cleaned thoroughly every 2 to 3 years
- Support centre poles are supplied with 2,300 litre and 13,500 - 27,000 litre tanks
- 25 year pro rata [warranty](#)



Fig 3.1 - Team Poly Water Tanks

GWUC, RAIN WATER HARVESTING SYSTEM

Purchase Receipt, WT1 West Tank



Azalea Engineering Pty Ltd
 489 Warrigal Rd
 Moorabbin, VIC 3189
 Ph: 03 9559 3900
 Fax: 03 9559 3999
 ABN: 71 091 206 441
 Email: sales@kingstonwatertanks.com.au

Trading As :

Work Order / Tax Invoice

Work Order / Invoice #: 9127
 Account #: 95609798
 Entered By: Steve
 Page: 1 of 1
 Date: 11/12/2008

Kingston Water Tanks

Bill To: Lyn McDonald GLEN WAVERLEY UNITING CHURCH 30 Panoramic Grove GLEN WAVERLEY, VIC 3150 03 9560 9798	Ship To: Pls del Team Poly Tank Thursday morn at 8am GLEN WAVERLEY UNITING CHURCH KINGSWAY (Just before Bogong Ave) GLEN WAVERLEY, VIC 3150
-------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------

Reference #	Comment:	Shipping Carrier	Tracking Number:
		To Be Delivered	cust will post cheque for depo

Shipping Notes:

Del 8000lt Sat 13/12 \$50

Item Code	Description	Ordered	Issued	RTD	Price	GST	Extended
TPR22000TallBei	Team P 22000L Tall Beige In stock 8/12	1	0	1	\$2,790.00	Y	\$0.00
Extrafitt	Extra Fitting	1	0	1	\$0.00	Y	\$0.00
PGWatGa	Pacific Gauge Water Gauge	3	0	3	\$34.00	Y	\$0.00
PGFlaPI	Pacific Gauge Flange Plate	3	0	3	\$0.00	Y	\$0.00
TPR8000CorRnBei	Team P 8000L Corr Rd Beige SPOKE TO CUSTOMER CALLING FRIDAY TO ORGANISE PAYMENT AND DEL EMMA 8/12	1	0	0	\$1,590.00	Y	\$0.00

Due to limited storage facilities all tanks purchased from stock must be PICKED UP or DELIVERED within 10 days of purchase. All tanks on order must be PICKED UP or DELIVERED within 14 days of the tank(s) arriving into stock. Failure to do so will result in your tank(s) being offered to another customer. A 20% non - refundable deposit is required.
 Methods of Payment: VISA, MASTERCARD, EFTPOS, DIRECT DEPOSIT, CASH
 Full payment must be made prior to delivery/pick up of goods. Please allow 48 hours for processing direct deposit payment before booking your delivery/pick up.
 Direct Deposit details: Bank: ANZ Banking Group
 BSB: 013 267 Acc No: 492746617. Please provide invoice number with payment details and e-mail (kristy@kingstonwatertanks.com.au) or fax it to us.

Order Sub Total:	\$4,074.54
Order GST Total:	\$407.46
Order Deposit Total:	\$1,680.00
Order Shipping Total:	\$90.00
Order Total (Inc.GST):	\$4,572.00
Issued Sub Total:	\$0.00
Issued GST Total:	\$0.00
Deposit Made:	\$1,590.00
Previous Deposit:	\$90.00
Issued Total (Inc.GST):	\$0.00
Balance Due:	\$0.00
Payment Method:	EFTPOS

WT2, Tank Level Gauge

- "Pacific" Float level Gauge, with float on "string", 100mm dial,
- 45mm Screwed fitting with poly nut inside tank.
- Purchase receipt as for WT1.

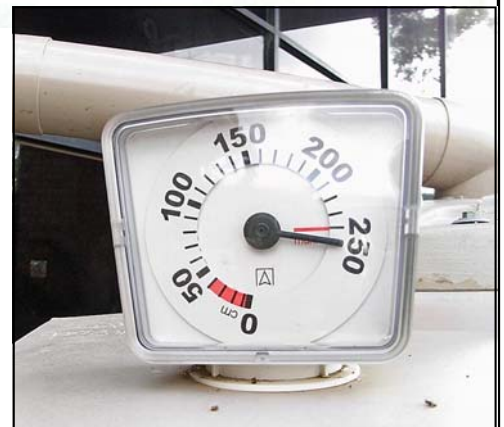


Fig 3.2 - Tank Level Gauge

GWUC, RAIN WATER HARVESTING SYSTEM

WT3 High Level Float Switch

MAC3 float level switch (A), complete with counter weight (B) for HIGH level in West Tank.

The regulators are homologated in compliance with **CEI EN 60730** standards and thereby comply with the fundamental requisites of Directive **93/68/EEC**.

The appliance combined with a pump connected by a flexible cable, permits the regulation of the level of the liquid in which it is immersed.

The regulator in fact features a float with a totally waterproof casing, inside which there is a microswitch connected to the cable.

The float position depends on the liquid level and determines the commutation of the microswitch which in turns control the pump operation.

Installation

To ensure the efficient function of the appliance it is necessary to fix the electric cable inside the tank or well as illustrated in figures no. 5 and no. 6 (page 5).

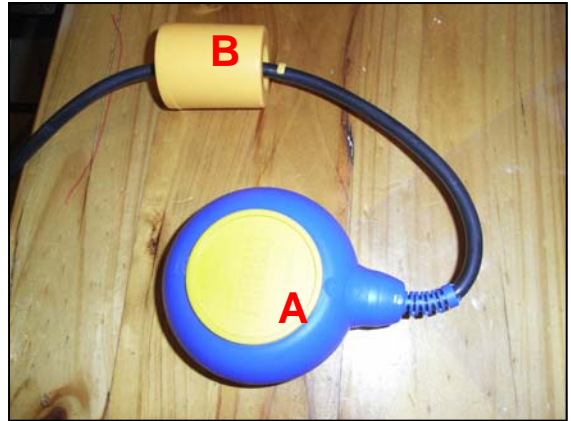


Fig 3.3 - High Level Float Switch

Features	
Microswitch electrical features	20(8)A 250V ~ 16(4)A 250V ~
Approval certificates	ENEC/CE
External marking	10(8)A 250V ~ 10(4)A 250V ~
Operating temperature	0° + + 50° C
Storage temperature	-20°C + + 80° C
Pollution Index	IP68
Switch angle	± 45
Dimensions	mm 106 x 154 x54
Weight	gr. 250
Volume	cm ³ 430
Max depth level	1BAR
Housing	Non-toxic polypropylene (PP)
Colouring	Non-toxic
Function class	I and II
Cable standard	PVC 3X1 H07RN-F 3G1 H07RNF 4G1 A07RNF 3X1
Note	When ordering please specify if needed for filling or emptying function

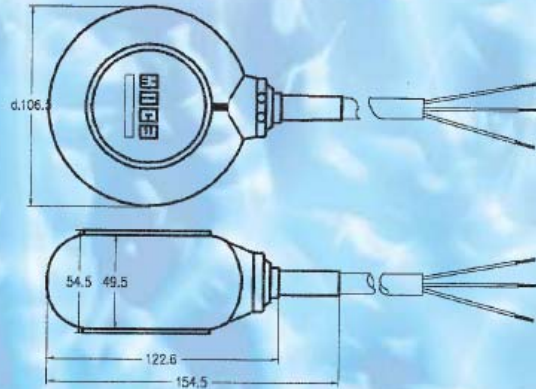


Fig 3.4 - Features of High Level Float Switch

The length of the cable section between the fixture point of the same and the regulator body, determines the total extension of the float and the consequent distances between the pump stopping and starting level. It is also necessary to check that the float is not obstructed during its run.

During installation joins to the level regulator cable must not be made under any circumstances.

An eventual cable join section must never be immersed in water.

Counterweight Installation

For correct counterweight installation refer to the following procedure as illustrated in figure no. 7.

- Insert the cable into the counterweight, from the conic part, turning it. This will result in the detachment of the plastic ring inserted in the mouth (if necessary aid detachment by using a screwdriver). Place the ring at the point of the cable where the counterweight is to be fixed.
- Fix the counterweight on the ring using moderate pressure and turning it. The counterweight is only provided on request.

Electrical Connections

The regulator may be used for filling or emptying according to the connections made between the terminals of the microswitch and the cable.

For correct product installation refer to wiring diagrams in figures no.1-2-3-4.

GWUC, RAIN WATER HARVESTING SYSTEM

NOTE

When making the connections described above ensure that the maximum motor power does not exceed the values indicated on the level regulator.

The power supply cable is an integral part of the appliance. Should the cable be found to be damaged the appliance is to be replaced. Repairs to the cable itself are not possible.

The earth wire of yellow/green colour must be connected to a suitable earth terminal and the section dimension must not be less than 1 mm. The eventual terminal used must be effectively protected against accidental slackening.

Electrical Connections

MAXIMUM OPERATIONAL TEMPERATURE 50°C

PROTECTION GRADE IP68 (tested by IMQ at a depth of 1m for a period of 7 days at water temp. of 50°C)

MAC3 RELIABILITY TEST The appliances pass an immersion test at depth of 10 m, at a temperature of 50°C for a period of 7 days.

POLLUTION GRADE NORMAL FEATURES OF AUTOMATIC ACTION 1B (micro-disconnections in operation)

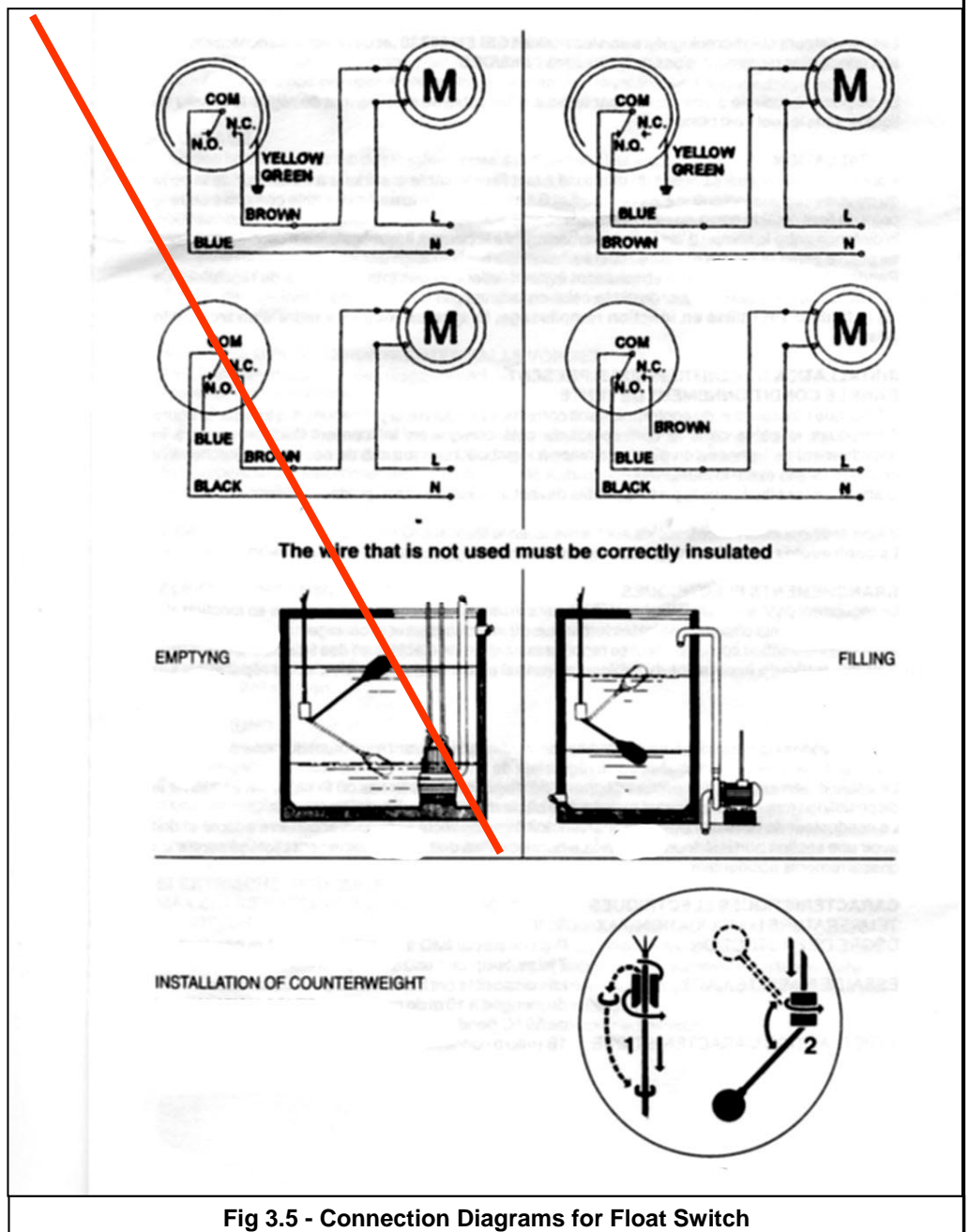


Fig 3.5 - Connection Diagrams for Float Switch

GWUC, RAIN WATER HARVESTING SYSTEM

WT3 High Level Float Switch, Purchase Receipt,

VICTORIAN IRRIGATION SUPPLIES

Factory 11, 170 Forster Road, Mount Waverley, Victoria, 3149, Australia

Telephone: (03) 9543 3711 Fax: (03) 9543 5668 ABN: 15 452 089 971

www.vicirrigation.com.au email: enquiries@vicirrigation.com.au

Tax Invoice

Invoice Number: 81558

Date: 18/03/09

Invoice to:

Glen Waverley Uniting Church
Lyn 9560 8798

Deliver to:

CASH SALES c/o VIS
11/170 Forster Road
MOUNT WAVERLEY VIC

Account Number	Customer Reference	VIS Order No.
2000	Lyn McDonald	15252

Item Code	Item Description	Order B/Ord Invoice			Disc Price	Disc %	Tax Nett	Tax Amount	Total Amount
		Qty	Qty	Qty					
DMAC3-5M	Mac 3 Float Switch c/w 5m cable & weight	1	0	1	50.91	0	50.91	5.09	56.00
TSWC150	150mm Stormwater Coupling	2	0	2	18.00	0	36.00	3.60	39.60
DBVB025	BALL VALVE, Brass 25mm	2	0	2	11.70	0	23.40	2.34	25.74
TAFPE25X25	ADAPTOR FEMALE, POLY 25mm x 25mm F	1	0	1	4.12	0	4.12	0.41	4.53
TAMPE25X25	ADAPTOR MALE, POLY 25mm x 25mm M	1	0	1	3.09	0	3.09	0.31	3.40
TTPE25	TEE, POLY 25mm	1	0	1	7.88	0	7.88	0.79	8.67
DNRPY32X25	NIPPLE REDUCING, Poly, 32x25mm	1	0	1	1.70	0	1.70	0.17	1.87
DNPY25	NIPPLE, Poly, 25mm	2	0	2	1.25	0	2.50	0.25	2.75
DEPL25	ELBOW, Plastic, F&F 25mm	8	0	8	2.45	0	19.60	1.96	21.56
	25mm BARRELL UNION	3	0	3	8.50	0	25.50	2.55	28.05

PAID

Please note new banking details:

Banking Details - BSB: 013-701 Account Number: 478918013

Please notify us if using direct credit option: accounts@vicirrigation.com.au

Credit card payments will attract a surcharge of 2.5% for any amount over \$3000

Terms: PAYABLE ON INVOICE

Subtotal	174.70
Total GST	17.47
Total	192.17

GWUC, RAIN WATER HARVESTING SYSTEM

WT4 Piping to Valve Train

32mm Black, Medium Density Polyethylene (MDPE) water pipe PN12.5 (= max pressure rating 1250kPa).

VICTORIAN IRRIGATION SUPPLIES

Factory 11, 170 Forster Road, Mount Waverley, Victoria, 3149, Australia
 Telephone: (03) 9543 3711 Fax: (03) 9543 5668 ABN: 15 452 089 971
 www.vicirrigation.com.au email: enquiries@vicirrigation.com.au

Tax Invoice

Invoice Number: 81591

Date: 25/03/09

Invoice to:

GLEN WAVERLEY UNITING CHURCH
 LYN McDONALD

Deliver to:

CASH SALES c/o VIS
 11/170 Forster Road
 MOUNT WAVERLEY VIC

Account Number	Customer Reference	VIS Order No.							
2000	GWUC	0							
Item Code	Item Description	Order Qty	B/Ord Qty	Invoice Qty	Price	Disc %	Nett	Tax Amount	Total Amount
TEPE32	ELBOW, POLY 32mm	5	0	5	8.60	0	43.00	4.30	47.30
TEFPE32X25	ELBOW FEMALE, POLY 32mm x 25mm F	1	0	1	6.70	0	6.70	0.67	7.37
TAMPE32X25	ADAPTOR MALE, POLY 32mm x 25mm M	1	0	1	4.33	0	4.33	0.43	4.76
TPPE32/12X	PIPE, MDPE 32mm PN12.5 x 50m	1	0	1	98.00	0	83.00	8.30	91.30
PAID									
Please note new banking details:								Subtotal	137.03
Banking Details - BSB: 013-701 Account Number: 478918013								Total GST	13.70
Please notify us if using direct credit option: accounts@vicirrigation.com.au								Total	150.73
Credit card payments will attract a surcharge of 2.5% for any amount over \$3000									
Terms: PAYABLE ON INVOICE									

Elbows & fittings
 Piping

WT5 & 6 Polyethylene Elbows

Various sizes, angles and adaptor fitting.

For typical invoice see above.

GWUC, RAIN WATER HARVESTING SYSTEM

WT7 Barrel Unions

Various sizes (eg 25mm) polyethylene Barrel Unions.

Barrel Unions provide the facility to disconnect the pieces of pipe either side of the union without the need to unscrew any pipe fittings.

These fittings are used, inside the pump enclosure and on piping between pumps and down-stream equipment.



Fig 3.6 - Barrel Union

VICTORIAN IRRIGATION SUPPLIES

Factory 11, 170 Forster Road, Mount Waverley, Victoria, 3149, Australia
 Telephone: (03) 9543 3711 Fax: (03) 9543 5668 ABN: 15 452 089 971
 www.vicirrigation.com.au email: enquiries@vicirrigation.com.au

Tax Invoice

Invoice Number: 81558

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Deliver to:

CASH SALES c/o VIS
 11/170 Forster Road
 MOUNT WAVERLEY VIC

Account Number	Customer Reference	VIS Order No.
2000	Lyn McDonald	15252

Item Code	Item Description	Order B/Ord Invoice			Disc Price %	Tax Nett	Tax Amount	Total Amount	
		Qty	Qty	Qty					
DMAC3-5M	Mac 3 Float Switch c/w 5m cable & weight	1	0	1	50.91	0	50.91	5.09	56.00
TSWC150	150mm Stormwater Coupling	2	0	2	18.00	0	36.00	3.60	39.60
DBVB025	BALL VALVE, Brass 25mm	2	0	2	11.70	0	23.40	2.34	25.74
TAFPE25X25	ADAPTOR FEMALE, POLY 25mm x 25mm F	1	0	1	4.12	0	4.12	0.41	4.53
TAMPE25X25	ADAPTOR MALE, POLY 25mm x 25mm M	1	0	1	3.09	0	3.09	0.31	3.40
TTPE25	TEE, POLY 25mm	1	0	1	7.88	0	7.88	0.79	8.67
DNRPY32X25	NIPPLE REDUCING, Poly, 32x25mm	1	0	1	1.70	0	1.70	0.17	1.87
DNPY25	NIPPLE, Poly, 25mm	2	0	2	1.25	0	2.50	0.25	2.75
DEPL25	ELBOW, Plastic, F&F 25mm	8	0	8	2.45	0	19.60	1.96	21.56
	25mm BARRELL UNION	3	0	3	8.50	0	25.50	2.55	28.05

PAID

Please note new banking details:

Banking Details - BSB: 013-701 Account Number: 478918013
 Please notify us if using direct credit option: accounts@vicirrigation.com.au
 Credit card payments will attract a surcharge of 2.5% for any amount over \$3000

Terms: PAYABLE ON INVOICE

Subtotal	174.70
Total GST	17.47
Total	192.17

GWUC, RAIN WATER HARVESTING SYSTEM

WT8 Check Valves (or non return valves)

Brass or polyethylene check valves with dual spring loaded stainless steel balls.



Fig 3.7 - Check Valve

VICTORIAN IRRIGATION SUPPLIES

Factory 11, 170 Forster Road, Mount Waverley, Victoria, 3149, Australia
 Telephone: (03) 9543 3711 Fax: (03) 9543 5668 ABN: 15 452 089 971
 www.vicirrigation.com.au email: enquiries@vicirrigation.com.au

Tax Invoice

Invoice Number: 81856

Date: 10/06/09

Invoice to:

GLEN WAVERLEY UNITING CHURCH
 LYN 9560 9798

Deliver to:

CASH SALES c/o VIS
 11/170 Forster Road
 MOUNT WAVERLEY VIC

Account Number	Customer Reference	VIS Order No.
2000	GWUC	15376

Item Code	Item Description	Order B/Ord Invoice			Disc Price	Disc %	Tax		Total Amount
		Qty	Qty	Qty			Nett	Amount	
DPP040/12	PIPE, PVC 40mm CL.12 SCJ	16	0	16	21.60	0	345.60	34.56	380.16
DCV040SP	CHECK VALVE BRASS SPRING, 40mm	1	0	1	42.00	0	42.00	4.20	46.20
DCF250	CLEANING FLUID, 250 M.L. Red	2	0	2	5.50	0	11.00	1.10	12.10
DSC250	SOLVENT CEMENT, 250 M.L. GREEN	2	0	2	8.50	0	17.00	1.70	18.70
DEP040X90	ELBOW PVC. 40mm x 90 Deg.	18	0	18	2.60	0	46.80	4.68	51.48
DEP040X45	ELBOW PVC. 40mm x 45 Deg..	3	0	3	3.20	0	9.60	0.96	10.56
DCP040	COUPLING, PVC 40mm	3	0	3	1.60	0	4.80	0.48	5.28
DEPL40MF	40mm M & F POLY ELBOW	1	0	1	5.40	0	5.40	0.54	5.94
DVTOA040X0	VALVE T.O.A. PVC 40 X 40mm	1	0	1	4.00	0	4.00	0.40	4.40
DBUP040	BARREL UNION, PVC 40mm	4	0	4	9.00	0	36.00	3.60	39.60
DTOP40	40mm POLY TANK OUTLET	2	0	2	11.80	0	23.60	2.36	25.96
DVSP040	VALVE SOCKET, PVC 40mm	1	0	1	2.10	0	2.10	0.21	2.31
FFF	40MM POLY THREADED BARRELL UNION	1	0	1	8.10	0	8.10	0.81	8.91
FFF	FREIGHT & HANDLING	1	0	1	8.00	0	8.00	0.80	8.80

DELIVERY TO SITE WEDNESDAY 10TH

PAID

Please note new banking details:

Banking Details - BSB: 013-410 Account Number: 296111585
 Please notify us if using direct credit option: accounts@vicirrigation.com.au
 Credit card payments will attract a surcharge of 2.5% for any amount over \$3000

Terms: PAYABLE ON INVOICE

Subtotal	564.00
Total GST	56.40
Total	620.40

GWUC, RAIN WATER HARVESTING SYSTEM

WT9, West pump

Pumpset supplied by Aerocycle, comprising,

- Aerocycle enclosure with removable lid,
- AL-KO Jet Pump 601,
- AL-KO Hydrocontrol pressure control system

Plus AL-KO Pre filter .

Jet Pump Catalogue

(Jet 601 for West & Fernery Pumps, Jet 802 for Manse Pump)

Introduction



Fig 3.8 - West Pump, Lid removed



Fig 3.9 - West Pump, enclosure

JET 601
JET 802

JET 601 INOX
JET 802 INOX
JET 1002 INOX

AL-KO
Garten+Hobby



- D
- GB
- F
- I
- E
- NL
- RUS
- PL
- SK
- CZ
- HR
- SLO
- H
- DK
- S
- FIN

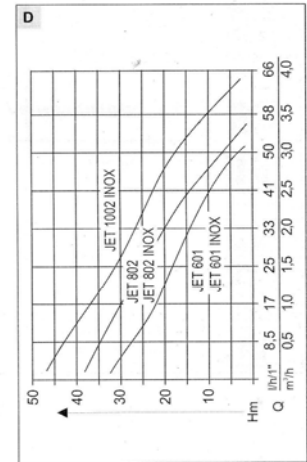
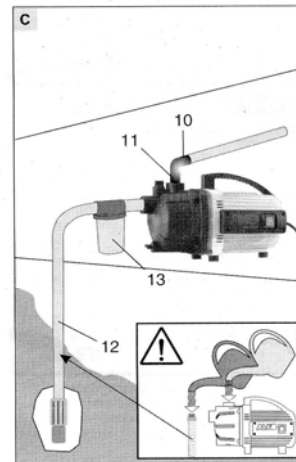
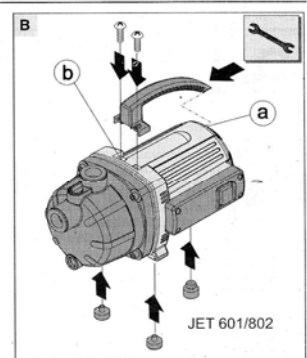
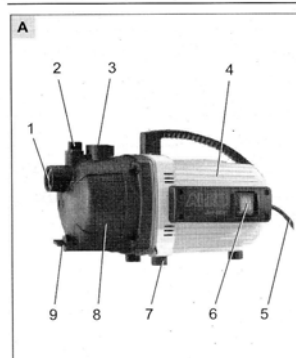


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3

Please read the operating instructions carefully before you use the garden pump to prevent accidents and ensure the trouble-free operation of the pump.

Make sure you keep the instructions at hand for quick reference. If you resell your pump or give it to another user, please include these instructions in the sale or the gift.

The following symbols are used in the instructions:

! DANGER

This symbol draws your attention to work processes or operating procedures that have to be carefully observed in order to prevent serious injury to the user or another person.

C CAUTION

This symbol draws your attention to information you need to ensure that your system is not damaged due to improper or careless use.

I PLEASE NOTE

GWUC, RAIN WATER HARVESTING SYSTEM

The information symbol draws your attention to essential technical requirements.

For your safety

- ! The garden pump may only be connected to an electrical device which is compliant with DIN/VDE 0100, Parts 737, 738 and 702 (swimming pools). Make sure that fuse protection in the form of a 10 A automatic cut-out and a fault current guard circuit with a nominal fault current of 10/30 mA is installed.
- ! The supply voltage and current specified on the type plate must be identical with the voltage and current of your electrical system.
- ! If you need to connect your pump to an extension cord, make sure that the cable is 3 x 1.5 mm², that it corresponds to type H07RN-F and is compliant with DIN 57282/57245. The connector must be splash-proof. Cable drums must be completely unwound.
- ! The garden pump may not be operated by anyone who has not read or does not fully understand the operating instructions or is under the age of 16.
- ! The garden pump may not be used for any other than its designated use. Before putting the system into operation, make sure that the garden pump, the electric cable and the plug are not worn or damaged and the garden pump is not exposed to water jets or is operated in the rain. Do not operate the garden pump if it is damaged. Necessary repairs must be carried out in a qualified ALKO service centre.
- ! Never use the electric cable to lift, carry or attach the garden pump to another object. Do not pull on the cable when unplugging the pump.
- ! Make sure that the pump is unplugged before beginning any maintenance, repair or cleaning work. In the event of a malfunction, immediately unplug the pump. Make sure that the plug does not get wet.
- ! Do not attempt to make any changes or modifications to the garden pump by yourself. You may endanger your life or invalidate the warranty.
- ! Make sure that the garden pump is placed securely onto a flat surface when in operation so that it cannot tip over.













Use

Designated use

The garden pump is designed for home use in your house or garden. Please observe the technical data given in the instructions before putting the pump into operation.

- Your garden pump has been designed for use in the following applications:
- irrigation and watering, e.g. of your lawn or flower and vegetable gardens,
- emptying containers or pumping liquid from one container into another (e.g. swimming pools),
- pumping water from wells, rain drums or cisterns.
- The system is designed to pump only the following liquids:
- clear water,
- rain water,

ALKO

	JET 601	JET 601 INOX	JET 802	JET 802 INOX	JET 1002 INOX
	Art. Nr. 112 370	Art. Nr. 112 366	Art. Nr. 112 450	Art. Nr. 112 457	Art. Nr. 112 456
	600 W		800 W		1000 W
	230-240 V, 50 Hz		230-240 V, 50 Hz		230-240 V, 50 Hz
	X4		X4		X4
	86 dB (A)		86 dB (A)		86 dB (A)
	9 m		9 m		9 m
	35 m/3,5 bar		38 m/3,8 bar		48 m/4,8 bar
	3100 l/h		3400 l/h		3800 l/h
	35 °C		35 °C		35 °C
	1		1		1
	1"		1"		1"
	6,4 kg netto	6,2 kg netto	7,7 kg netto	7,5 kg netto	10,5kg netto

- chlorine water (pool water).

Prohibited use

Your garden pump is not intended for permanent operation. The pump may not be used to pump the following liquids:

- drinking water
- saltwater,
- beverages or liquid foods,
- corrosives or chemicals,
- acids or combustible, explosive or gas-forming liquids,
- liquids with a temperature above 35 °C,
- sandy water or water containing abrasives.

Description of the pump

Garden pump/accessories (Figs. A, B,C)

- Pump inlet/suction hose connector
- Filler screw
- Pump outlet/pressure hose connector
- Motor housing
- Electric cable
- On/Off switch
- Suction body
- Pump chamber
- Draining screw

GWUC, RAIN WATER HARVESTING SYSTEM

- Elbow nipple with washer (accessories)
- Threaded connector (accessories)
- AL-KO suction kit (accessories)
- Filter (accessories)

Function

The garden pump sucks the liquid to be pumped into the pump through the suction hose (1) and pumps it out at the outlet (3).

Use the On/Off switch (6) to switch the garden pump on or off as desired.

Thermal protection

Your pump is equipped with a thermal protection switch, which switches the pump off if it over-heats. The pump will remain off until it has cooled down. After about 15-20 minutes, the pump will automatically switch on.

Setting up and operating the system

- Place the garden pump onto a hard, flat surface so that it cannot tip over and so that it will not be near the flow of water.
- Make sure that the pump is protected from rain and any direct exposure to water.

Attaching the suction hose

C Choose a hose which is long enough so that the pump will not suck in air and run dry. The hose should be at least 30 cm under the surface of the liquid to be pumped while the pump is in operation.

- Attach the suction hose. Make sure to screw it in tightly, but take care not to damage the threads.

I If the liquid to be pumped is deeper than 4 m, you should use a suction hose which is larger than 1" in diameter for the best performance. We recommend our AL-KO suction set (12), which consists of a suction hose, strainer and non-return valve. The suction set is available at your local retailer's.

C Before pumping sandy water, you must insert a filter (13) between the suction hose and the pump inlet or you will damage your garden pump. The filter is available at your local retailer's.

When laying the suction hose, make sure that it is lower than the pump.

I If the suction hose is laid so that it is higher than the pump, bubbles will become trapped in the line and the pump will suck air. Fill the suction hose.

Attaching the pressure hose

- Screw the threaded connector (11) into the pump outlet (3).
- Attach the elbow nipple (10) to the connector and turn the nipple so that it points in the desired direction.
- Attach a hose to the elbow nipple. The nipple can be cut to fit the size of the hose used.
- Clear the pressure line (open valves, sprayers, etc.).

Filling the garden pump

C Before putting your garden pump into operation, you must fill it with water until it overflows to achieve full suction power. Do not operate the pump while it is dry because this will cause serious damage to the pump.

- Remove the filler screw (2).
- Pour water into the opening until the chamber of the pump (8) is full.
- Replace the filler screw (2) and tighten it.

Switching the pump on and off

- Plug the electric cable into the socket.
- Make sure that the pump does not run on a blocked or closed pressure hose.
- Clear the pressure line (open valves, sprayers, etc.).
- Switch the pump on by pushing the switch (6) to On.
- Switch the pump off by pushing the switch (6) to Off.

Switching off the system

- Switch the system off by unplugging the electric cable from the socket.

Maintenance and Cleaning

! Before beginning any maintenance or cleaning work, make sure that the garden pump has been unplugged and take precautions to ensure that it cannot be switched on during work!

Cleaning the pump

If you have used your garden pump to pump chlorine water (swimming pool water) or liquids which leave a residue, flush your pump out with clear water after use.

Clearing blockages

If your garden pump should become blocked so that it does not suction or pump out liquid, re-move the obstruction as follows:

- Remove the suction hose from the pump inlet (1).
- Attach the pressure hose to the water tap and spray water into the pump chamber until the blockage is flushed out.
- Check to see that the obstruction has been cleared entirely by switching on the pump for a short time. Do not let the pump suck air.
- If the pump runs trouble-free, put it into operation as described in the instructions.

Frost protection

Store your pump so that it is protected from frost. Remember to empty it of any remaining liquid before storing it by removing the filler screw (9) and dumping out any water.

Disposal

Do not dispose of worn-out units through the household garbage!



The appliance, its packaging and accessories are all produced from recyclable materials and must be disposed of accordingly

GWUC, RAIN WATER HARVESTING SYSTEM

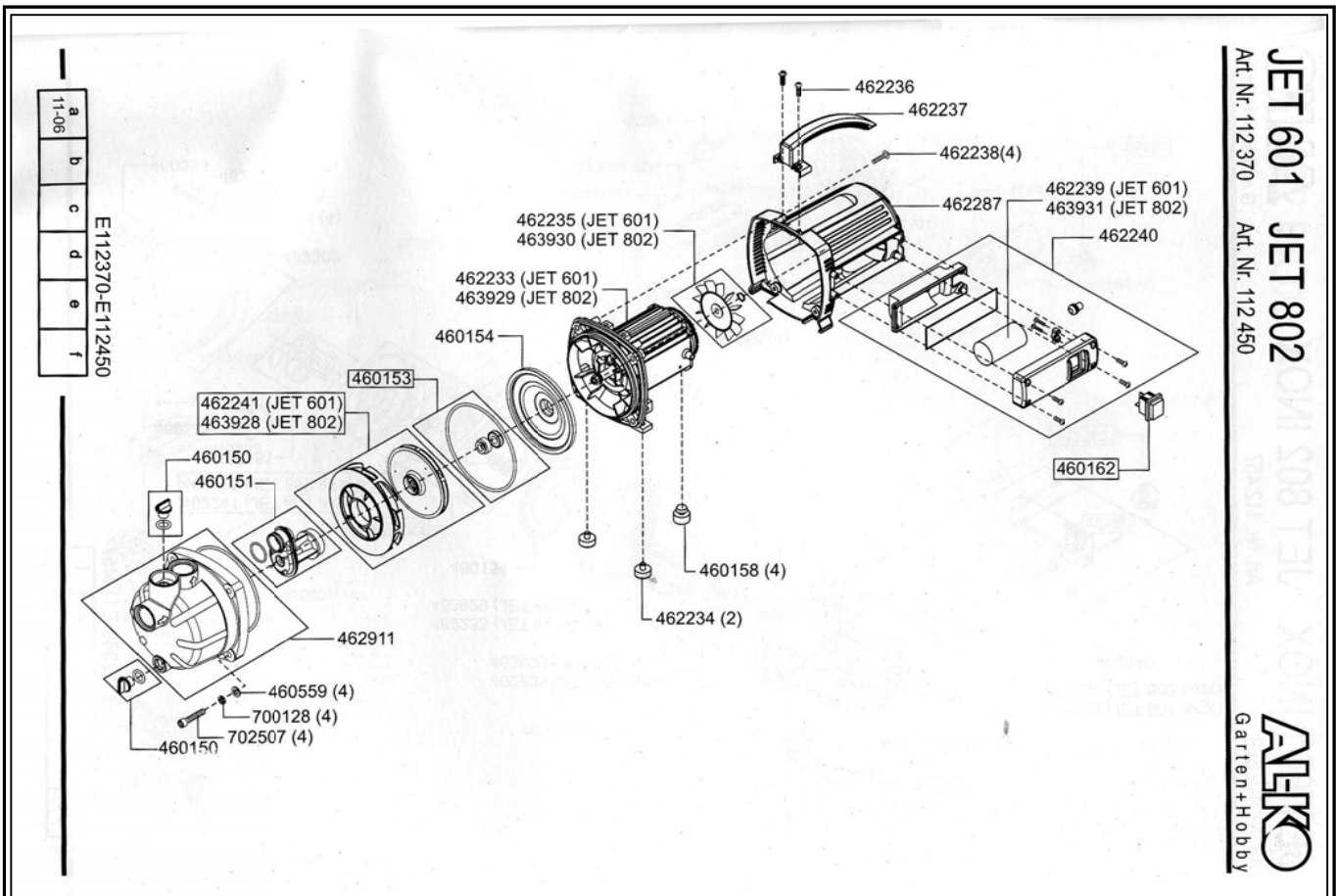
Malfunctions

Before you attempt to remedy any malfunction of your pump, pull the plug to prevent injury or death due to electrocution!

What is wrong?	What is the possible reason?	How to remedy the malfunction:
Motor does not run.	<p>Impeller is blocked.</p> <p>Thermal switch has switched off.</p> <p>No power.</p>	<p>Remove blockage in inlet area. Clean the impeller with a jet of water.</p> <p>Wait until the thermal switch has automatically switched the pump on again.</p> <p>Check the temperature of the liquid. Have the pump checked.</p> <p>Check the fuses.</p> <p>Have a qualified electrician check the power supply</p>
Garden pump runs but is not pumping out liquid.	<p>Water level too low.</p> <p>Air is trapped in the pump chamber.</p> <p>Suction hose is blocked.</p> <p>Pressure line is blocked.</p> <p>Pressure hose is bent.</p>	<p>Lower the hose further underwater. Fill the pump chamber with water.</p> <p>Clear blockage in suction hose.</p> <p>Clear blockage in pressure line.</p> <p>Straighten out pressure hose.</p>
Garden pump is only pumping out liquid very slowly or weakly	<p>Pressure hose is bent.</p> <p>Hose diameter is too small.</p> <p>Suction hose is blocked.</p> <p>Pumping height is too great.</p> <p>Suction height is too great.</p>	<p>Straighten out pressure hose.</p> <p>Attach a hose with a larger diameter.</p> <p>Clear blockage in suction hose.</p> <p>Lower pumping height (see technical data).</p> <p>Lower suction height (see technical data).</p>

If you are unable to remedy a malfunction, please call the AL-KO service centre nearest you

GWUC, RAIN WATER HARVESTING SYSTEM



JET 601 **JET 802**
 Art. Nr. 112 370 Art. Nr. 112 450
ALFKO
 Garten+Hobby

Guarantee

During the legal guarantee period, we will remedy any faults due to faulty materials or manufacture at our discretion by repair or by the supply of spare parts.

The guarantee period is subject to the current law of the country in which the machine was purchased.

The guarantee is only valid under the following conditions:

- The machine has been treated properly.
- The operation instructions have been followed.
- Genuine spare parts have been used.
- The guarantee is void if:
- Attempts have been made to repair the machine.
- The machine has been altered.
- The machine has been used incorrectly, (e.g. commercial or communal use etc.).

The following items are excluded from the guarantee:

- Paint damage due to normal wear.
- Wearing parts on the spare parts card which are marked with the box XXX XXX (X)
- Internal combustion engines - separate guarantee conditions apply to these from the relevant engine manufacturer.

In the event of a claim under the guarantee, please contact your dealer or the nearest authorised customer service centre with this guarantee declaration and a proof of purchase.

The legal guarantee rights of the purchaser in respect of the seller remain unaffected by the terms of this guarantee.

GWUC, RAIN WATER HARVESTING SYSTEM

WT9, West pump Hydrocontrol (provided with pump)

Hydrocontrol

ALKO

Garten + Hobby



Introduction

The Hydrocontrol is an electronic manometric switch with integrated dry run protection and a return flow inhibitor. It serves to convert a surface pump in an automatic domestic water system.

Prior to starting up the Hydrocontrol (hereafter referred to as manometric switch), please read these operating instructions and those for the pump, which is used together with the Hydrocontrol, very carefully. This is the prerequisite for safe work and fault-free handling.

Always keep operating instructions readily at hand and also pass these onto subsequent users.

The symbols used in these operating instructions are explained below:

! CAREFUL

stated with working or operating procedures that are to be precisely observed, in order to rule out danger to persons.

C CAUTION

contains information which must be observed in order to prevent damage to the device.

i NOTE stands for technical requirements, which must particularly be observed.

Safety instructions

! The manometric switch must only be operated in an electrical system according to DIN/VDE 0100, Part 737, 738 and 702 (swimming pools). For fuse protection, a line safety switch 10 A and an earth leakage circuit breaker with nominal residual current of 10/30 mA must be installed.

! The specifications for power supply voltage and voltage type on the rating plate must correspond with the data of your power network.

! Only use a 3 x 1.5 mm² extension cord, of at least the quality H07RN-F, according to DIN 57282/57245 with spray water protected sockets. Cable drums must be fully unrolled.

! The manometric switch must not be operated by:

- Persons, who have not read and understood the operating instructions.
- Children and youths under the age of 16.
- **!** The manometric switch must only be used as intended.

Prior to use, ensure that:

- the manometric switch, supply cable and the mains plug are not damaged.
- the manometric switch is not exposed to direct water jets or rain.

! Damaged manometric switches must not be operated. Repairs are only to be carried out by our customer service workshops.

! Prior to maintenance, care and repair work, or with failures, always switch the manometric-switch-operated pump off and remove the mains plug from the socket. Protect the mains plug from dampness.

! All unauthorised changes to, or conversions of, the manometric switch are prohibited.

C The manometric switch does not work, if the extraction point is higher than 15m above the manometric switch.

C The allocated pump must not take up more than 10 A and must not fall below pressure of 1.8 bar and must not exceed 8 bar.

Purpose

Intended use

The manometric switch is intended for private use in the house and garden. It must only be operated within the range of the utilisation limits, according to the technical data.

GWUC, RAIN WATER HARVESTING SYSTEM

The manometric switch is exclusively suitable for the following applications:

- for converting a surface pump or a pressure pump in a pump with automatic switching (automatic domestic water system).

The manometric switch is exclusively suitable for the purpose of conveying the following liquids:

- clear water
- rain water
- chlorinated water (swimming pool water).

Improper use

The manometric switch must not be used in permanent operation. It is not suitable for the conveying of:

- drinking water
- salt water
- foodstuffs
- sewage water
- aggressive media, chemicals
- corrosive, flammable, explosive or gaseous liquids
- liquids that are warmer than 35 °C
- water containing sand and abrasive liquids.

Device description

Manometric switch (Figure A)

- Connection cable to pump
- Supply cable with mains plug
- Manometer
- Pressure line connection (1" outer thread)
- "Power" LED
- "Failure" LED
- "On" LED
- "Reset" button
- Connection to pump (1" outer thread)

Scope of delivery

The manometric switch is delivered complete with two connection cables. The installation material for connection to a pump is not part of the scope of delivery.

Functions of the manometric switch

Automatic operation of the pump

When opening a latch in the pressure line, the pump is automatically switched on by the manometric switch. If the latch is closed, the manometric switch switches the pump off again, after achieving the maximum pump pressure.

Protection of the pump from dry running

The manometric switch is equipped with a safety device, which switches the pump off with insufficient water.

The switching off takes place after approx. 45s and is signalled by illumination of the "Failure" LED.

Constant flow rate and pressure

The manometric switch ensures a constant flow rate with constant pressure.

Functional range of the manometric switch

Switch-on pressure approx. 1.8 bar

Switch-off pressure max. 8.0 bar (or maximum pressure of the pump)

Device setup, start-up

The manometric switch is attached to the pump output (pressure line connection). The manometric switch has a 1" outer thread for connection to the pump.

The manometric switch must only be installed vertically. If direct attachment to the pump outlet is not possible for space reasons, a suitable connector must be used.

The manometric switch can be installed at any position on the pressure line.

For connecting the pressure line, there is a connection on the manometric switch with a 1" outer thread.

C In order to ensure operation of the manometric switch, a preliminary filter must be installed in the suction line.

Initial start-up

Fill pump and suction line up to overflow.

i 1 The pump cannot be filled over the manometric switch, as a non-return valve is installed toward the pump.

2 Open a latch available in the pressure line (valve, spray jet, water tap).

3 Attach the mains plug of the supply cable to the socket. The pump will begin to operate.

C With initial start-up, the pump automatically switches off after approx. 10 sec. After this, the "RESET" (8) button must be pressed down until the pump conveys water. If the "RESET" button is released before the pump conveys water, the pump automatically switches off, for safety reasons. If the suction process should take longer than 2 minutes, fill the pump and suction hose again, check the screws for impermeability and repeat the process.

4. Close the latch in the pressure line when water has flowed out of the line without trapped air. The manometric switch will automatically switch the pump off after approx. 15s. The automatic domestic water system is ready for operation.

Switching off manometric switch

Remove mains plug from the socket.

Operating the device

Start up the device as described (Initial start-up).

The manometric switch is electronically controlled and works automatically after initial start-up.

Manual restart

- 1 After failures, or if no water is conveyed during initial start-up, the pump must be manually started.
- 2 Check the suction side of the device and the water level.
- 3 Start the pump by pressing the "RESET" button (8).
- 4 If, after several unsuccessful attempts, no water is being conveyed, check the screws for impermeability and refill the pump.

Operating condition indicators

The operating conditions are indicated with the aid of control lamps (LED).

"Power" control lamp (5)

Indicates whether the device is connected to the power supply.

GWUC, RAIN WATER HARVESTING SYSTEM

"Failure" control lamp (6)

Indicates that a failure is present.

"On" control lamp (7)

Indicates that the pump is operating.

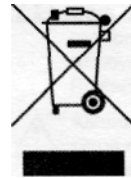
Maintenance and care

! Prior to starting all maintenance and care works, the manometric switch must be disconnected from the power supply. Remove the mains plug of the power cable from the socket.

Frost protection

Protect the manometric switch and the pump from frost.

Empty the manometric switch and pump and store such that they are protected from frost.



Disposal

Do not dispose of disused devices with domestic waste!

The packaging, device and accessories are produced from recyclable materials and are to be disposed of accordingly.

Purchase Receipt, WT9, West pump (system complete with enclosure and valves)



Aerocycle Environmental Solutions

Ph: 02 9838 1084
 Fax: 02 9838 1678
 email: hwatson@aerocycle.com.au

P.O. BOX 247
 Riverstone NSW 2765
 ABN: 17 131 036 765

Bill To:
 Lyn McDonald
 30 Panoramic Grove
 Glen Waverley Vic 3150

Site Address:
Lyn McDonald
30 Panoramic Grove
Glen Waverley Vic 3150

Tax Invoice

Date: **19/03/2009**
 Invoice #: **00008213**

Purchase Order No: E- Mail

	Amount	GST	Amount inc GST
1 x Aerocycle 60 LPM Beige Bypass Pump System	\$750.00	\$75.00	\$825.00
1 x 60LPM Pump & Controller, 2 x Unions & Poly Fittings & Beige Box	\$550.00	\$55.00	\$605.00
1 x 60LPM Pump & Controller, 2 x Unions (no poly fittings no box)	\$450.00	\$45.00	\$495.00
4 x Valve Trains Plus Union	\$880.00	\$88.00	\$968.00
2 x Califfe Valves	\$170.00	\$17.00	\$187.00

Banking Details
 Commonwealth Bank
 Account Name: Aerocycle
 BSB: 062 596
 Account No: 10235432
 Reference: 00008213

Terms 14 Days
 Thank you for prompt payment

Freight: \$0.00
 Total Inc GST: \$3,080.00
 Amount Applied: \$0.00
Balance Due: \$3,080.00

GWUC, RAIN WATER HARVESTING SYSTEM

WT10, West Pump Inlet Filter

Mounted inside Pump enclosure

This filters the INLET water to the pump..

The coarse and fine filters can be accessed by unscrewing the clear lower section of the filter container.

The filters can be then cleaned under running water, with a brush or by an air supply.



Fig 3.11 - Inlet Filter in enclosure

Filter



Purchase Order

Evergreen Water Tanks

A.B.N. 91 275 424 177

Factory 10 / 7 Vesper Dr
Narre Warren Vic 3805

Phone: 9704 0011
Mbl: 0400 380 021
Fax: 03 5941 9951

Tax Invoice

Invoice #: **00003361**
Date: 5/03/2009

'Cash Sale

Invoice Details:

'Cash Sale
Glen Waverley Uniting Church

Description	Amount
2 x Alko HW802	\$560.00
3 x inline filter	\$150.00
2 x non return	\$30.00
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;">Thank you!</div> <div style="width: 35%;"> <p style="text-align: right;">GST: \$67.27</p> <p style="text-align: right;">Total Inc GST: \$740.00</p> <p style="text-align: right;">Amount Applied: \$740.00</p> <p style="text-align: right;">Balance Due: \$0.00</p> </div> </div>	

Direct Deposit: Bank ANZ 013-757, Account 4966 02936 Ref Invoice number

GWUC, RAIN WATER HARVESTING SYSTEM

WT 11 Filter Pit

Water inlet pipe from concrete stormwater pit

Complete Filter Pit (lower part as picture below, and where basket fits)

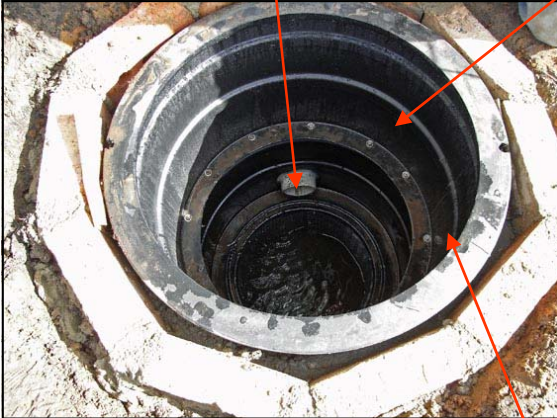


Fig 3.12 - Filter Pit with filter basket removed

Fig 3.13 - Atlantis Filtration Unit

Atlantis Large Filtration Unit

Half of empty pit, as upper part bolted and sealed to lower complete pit.

Purifying storm water at the source is the most effective method of creating a more sustainable water supply and reducing waterway contamination.

A pre-filter system specifically designed to capture gross pollutants, dissolved solids and silt from roofs and stormwater surface pits allowing clean water to enter the Atlantis system.

Benefits

separates large debris from stormwater in an easy-to-clean unit biologically remediates dissolved stormwater contaminants through two biological filter processes delivers clean water to Atlantis Matrix Tank Modules where continuous remediation occurs easily installed, low maintenance water reservoir can provide water for outdoor landscape applications, toilets and other non-drinking water applications.

Part No: 60003 A

Size: (H)880 x (W)680mm

Flow Rate: 20l/sec

Locking arrangement for the lid includes special security hexagon head stainless steel screws and captive nuts, The nut is captive in a hexagon space within the stainless steel plate. The upper section of nylon provides a spacer to the pit rim and guide hole for the screw.



Fig 3.14 - Captive Nut for Pit Lid locking

GWUC, RAIN WATER HARVESTING SYSTEM



Filtration Units

The system is designed to remove gross pollutants, such as vegetation matter and silt from roofs and stormwater pits before allowing water to enter the **Atlantis® Matrix® Tank**

How it Works!

The unit features a removable trash screen for easy cleaning, which ensures litter free water enters the tank system.

The unit also contains a filtration system that bio-remediates soluble stormwater contaminants. This filtration chamber provides primary macro and secondary biological water remediation. The unit delivers decontaminated water to the **Atlantis® Tank Modules** where tertiary remediation occurs continuously.

Easy to Use!

The Atlantis Filtration Unit is user friendly, easy to install and provides years of trouble free service requiring low maintenance.

Benefits:

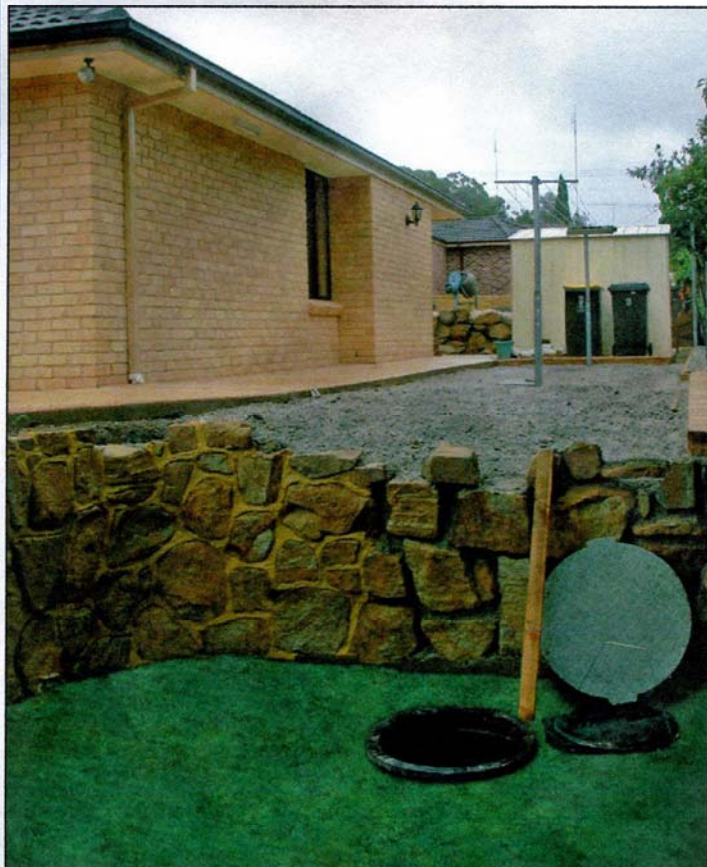
- Filters stormwater "at source"
- Easy installation
- User friendly maintenance



Small Filtration Unit



Large Filtration Unit



An Atlantis® Filtration Unit installed into the garden area.

GWUC, RAIN WATER HARVESTING SYSTEM



Installation of an **Atlantis® Filtration Unit** in the garden area of new home.

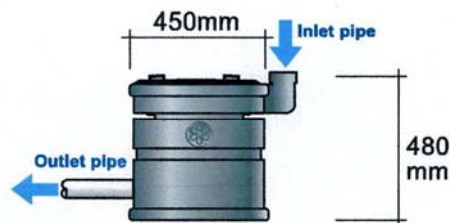


The large **Atlantis® Filtration Unit** features a lightweight aluminium lid allowing easy access for maintenance.



The trash screen collects all gross pollutants and micro pollutants as small as 180 microns.

Filtration Units

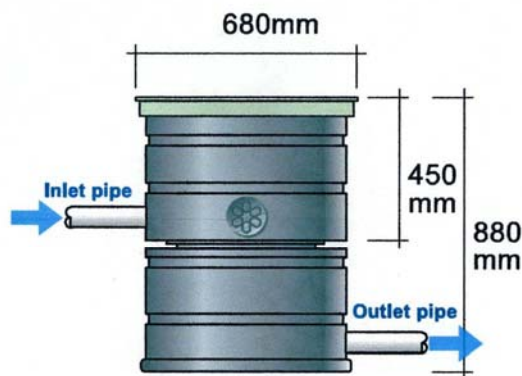


Part No: 60002

Single down Pipe

Suitable for single pipe applications of 12 L/sec.

Size: (H)480 x (W)450mm



Part No: 60003

Multiple down Pipe

Suitable for flow situations of 12 L/sec.

Size: (H)880 x (W)680mm

Note: Atlantis® products are manufactured from high quality recycled materials, carefully selected and under strict quality control procedures. The strength could vary slightly due to raw material, country of manufacture, manufacturing process and external conditions.

Safety Factors: Engineers, designers and geotechnical engineers should design and calculate safety factors to a serviceable limited state to suit specific project. In case of doubt, consult your nearest distributor or Atlantis representative.

Disclaimer: All information provided in this publication is correct to the best knowledge of the company and is given out in good faith. This information is intended only as a general guide, no responsibility can be accepted for any errors, omissions or incorrect assumption. As each project is unique, and as Rebirth Pty Ltd, Atlantis Water Management, Atlantis Corporation Pty Ltd and its distributors and agents world wide have no direct control over the methods employed by the user in specifying, installing or supervising of its products hence no responsibility is accepted by Rebirth Pty Ltd, Atlantis Water Management, Atlantis Corporation Pty Ltd and its distributors and agents world wide. Users should satisfy themselves as to the suitability of the product for their purpose.

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3/19-21 Gibbes Street, Chatswood, NSW 2067, Australia

Tel (612) 9417 8344 | Fax (612) 9417 8311

Mail: info@atlantiscorp.com.au | Web: www.atlantiscorp.com.au


Agent

2008 - 0.1/2 - 004

GWUC, RAIN WATER HARVESTING SYSTEM

Atlantis Filter Pit purchase receipt

Complete Pit with filter.



Atlantis Water Management Victoria
30 Venture Drive
Sunshine, VIC 3020

Tax Invoice

Invoice #: AV904003

A.B.N. 65 003 250 986
A.C.N. 003 250 986

V-6

40.5468

\$35.

Bill To:
Glen Waverley Uniting Church
Cnr Bogong Avenue & Kingsway
Glen Waverley VIC 3150

Customer ABN:

Ship To:
Glen Waverley Uniting Church
Cnr Bogong Avenue & Kingsway
Glen Waverley VIC 3150

SALESPERSON	YOUR NO.	SHIP VIA	SHIP DATE	TERMS	DATE	PG.
Harper, David		Pick Up	2/04/2009	C.O.D.	2/04/2009	1

QTY.	ITEM NO.	DESCRIPTION	PRICE	UNIT	DISC %	EXTENDED	CODE
1	60003a	Filtration Unit Large with Aluminium Lid	\$650.00	Each		\$650.00	GST

COMMONWEALTH BANK
EFTPOS
ATLANTIS WATER MANAG
CHATSWOOD NSW
TERMINAL: 41874700

MOTO

CARD NO.: 4509499220500880
EXPIRY DATE: 10/09
CREDIT: 001392
PURCHASE: 715.00
TOTAL: AUD715.00

02 APR 2009 15:40
ANZ AFFINITY CARD 1

MOTO APPROVED 08

COMMENT	CODE	RATE	GST	SALE AMT.	SALE AMT.	FREIGHT	GST	TOTAL AMT.	PAID TODAY	BALANCE DUE
	GST	10%	\$65.00	\$650.00	\$650.00	\$0.00	\$65.00	\$715.00	\$715.00	\$0.00

This is a Payment Schedule made under the following Acts:
 Building and Construction Industry Security of Payment Act 1999 NSW
 Building and Construction Industry Security of Payment Act 2002 VIC
 Building and Construction Industry Payments Act 2004 QLD

Atlantis Water Management
3/19-21 Gibbes Street
Ph 1 300 38 28 38
email info@atlantiscorp.com.au

GWUC, RAIN WATER HARVESTING SYSTEM

Atlantis Empty Pit purchase receipt.

atlantis
Management for Life

Atlantis Water Management Victoria
30 Venture Drive
Sunshine, VIC 3020

Ta
Invo

Alto As pay 22

V-7
#405438

Pay
R Van.

A.B.I
A.C.I

S
G
C
G

Bill To:
Glen Waverley Uniting Church
Cnr Bogong Avenue & Kingsway
Glen Waverley VIC 3150

Customer ABN:

SALESPERSON	YOUR NO.	SHIP VIA	SHIP DATE	TERMS	DATE	PG.	
Harper, David		Pick Up	24/04/2009	C.O.D.	1/05/2009	1	
QTY.	ITEM NO.	DESCRIPTION	PRICE	UNIT	DISC %	EXTENDED	CODE
1	60003	SWPU Large Drum	\$350.00	Each		\$350.00	GST
		OUR BANK DETAILS		COMMONWEALTH BANK EFTPOS ATLANTIS WATER MANAG CHATSWOOD NSW TERMINAL: 41874700			
		BSB:082 201 Account Number: 038833024		MOTO CARD NO.: 4940525274140871 EXPIRY DATE: 06/11 CREDIT 001419 PURCHASE 385.00 TOTAL AUD385.00 29 APR 2009 13:35 CBA VISA CLASSIC MOTO APPROVED 08			
COMMENT	CODE	RATE	GST	SALE AMT.	SALE AMT.		
	GST	10%	\$35.00	\$350.00	FREIGHT	\$350.00	\$0.00 GST
					GST	\$35.00	
					TOTAL AMT.	\$385.00	
					PAID TODAY	\$385.00	
					BALANCE DUE	\$0.00	

This is a Payment Schedule made under the following Acts:
Building and Construction Industry Security of Payment Act 1999 NSW
Building and Construction Industry Security of Payment Act 2002 VIC
Building and Construction Industry Payments Act 2004 QLD

Atlantis Water Management 3/19-21 Gibbes Street Ph 1 300 38 28 38 email info@atlantiscorp.com.au
Victoria Pty Ltd Chatswood NSW 2067 Fax +61 2 9417 8311 web www.atlantiscorp.com.au
4 44 44 003 950 986 Australia

GWUC, RAIN WATER HARVESTING SYSTEM

WT12 Pump Pit



Fig 3.15 - View into installed pit



Fig 3.16 - View of Pit



Fig 3.17 - Captive Nut for Pit Lid locking

The Pump Pit is a black polythene cylinder, of 600 litres capacity, 850mm diameter and 1,430 mm high. It includes a push-on lid, modified on-site to lock-down using two stainless steel security screws and captured nuts attached to the underside of the Pit rim, in a similar arrangement as for the filter pit.

VICTORIAN IRRIGATION SUPPLIES

Factory 11, 170 Forster Road, Mount Waverley, Victoria, 3149, Australia
 Telephone: (03) 9543 3711 Fax: (03) 9543 5668 ABN: 15 452 089 971
 www.vicirrigation.com.au email: enquiries@vicirrigation.com.au

Tax Invoice

Invoice Number: 81701

Date: 29/04/09

Invoice to:

Glen Waverley Uniting Church
 Lyn McDonald
 9560 9798

Deliver to:

CASH SALES c/o VIS
 11/170 Forster Road
 MOUNT WAVERLEY VIC

Account Number	Customer Reference	VIS Order No.							
2000	GWUC	15281							
Item Code	Item Description	Order Qty	B/Ord Qty	Invoice Qty	Price	Disc %	Nett	Tax Amount	Total Amount
DPFIT	Poly Pump Pit c/w Lid 24/4/09	1	0	1	313.64	0	313.64	31.36	345.00
DTOP32	POLY TANK OUTLET (RX) 32mm 150mm STORMWATER GRATE 22/4/09	1	0	1	9.09	0	9.09	0.91	10.00
		1	0	1	18.00	0	18.00	1.80	19.80
DEPL20	ELBOW, Plastic, F&F 20mm	1	0	1	2.81	0	2.81	0.28	3.09
DEPLA20	ELBOW, Plastic 20mm x 90 M & F	1	0	1	1.80	0	1.80	0.18	1.98
TPPE32/12X	PIPE, MDPE 32mm PN12.5 x 50m	1	0	1	85.00	0	85.00	8.50	93.50
TPPE25/12X	PIPE, MDPE 25mm PN12.5 x 50m	1	0	1	58.00	0	58.00	5.80	63.80
TCPE32	CONNECTOR, POLY 32mm	1	0	1	7.07	0	7.07	0.71	7.78

GWUC, RAIN WATER HARVESTING SYSTEM

WT13 Sump Pump

LOWARA DOC SERIES, SUBMERSIBLE PUMPS

DOC pumps are versatile, corrosion-resistant and compact. Three basic versions are available with 0.3 to 0.7 kW power.

A DOC 7VX version with Vortex impeller is available.

APPLICATIONS

Emptying of residential sump pits, rainwater tanks or laundry drainage.

Garden and lawn irrigation, with suction from rainwater tanks.

Emergency draining of flooded basements and garages.

Transfer of water from tanks, cisterns and swimming pools.

SPECIFICATIONS

Maximum liquid temperature: 40°C with partially submerged pump.

Dry motor.

Maximum immersion depth: 5 m.

Class B insulation.

IP 68 protection.

The DOC 3 pump has a delivery of **145 l/min**, head up to 7 m, and passes **suspended solids up to 10mm** in diameter. Only available in single-phase version.

- The DOC 7 pump has a delivery of **230 l/min**, head up to 11 m, and passes **suspended solids up to 10 mm** in diameter.
- The DOC7/10 has 10m of cable.
- The **DOC 7VX** pump has a delivery of **180 l/min**, head up to 7 m, and can handle liquids with **suspended solids up to 20 mm** in diameter.

A "shallow-suction device", that can be mounted on both the DOCS and DOC7 models, is available on request. It ensures complete drainage of flooded floors (to 3 mm from floor). *(This device included on the operating pump see Part 3_1 Page 27, bottom of page)*

Versions:

Single-phase 220 V 50 Hz 2 poles (2850 rpm).

Three-phase 380-415 V 50 Hz 2 poles (2850 rpm).

60 Hz and without floats (SG) models are available on request.

The single-phase versions feature:

Pre-assembled float for automatic pump operation (version without float available on request SG).

Built-in capacitor.

Thermal overload protection to stop

pump supply in case of overheating.

LAB-LIP SEAL SYSTEM

The electric motor is protected by **three lip seals**.

An impeller counterblade system keeps solid particles away from the seal unit to prevent damage to the lip seals and ensure their long-lasting efficiency. A double **Labyrinth** and a **V-ring** on the shaft have also been provided.

TABLE OF MATERIALS

PART	MATERIAL
Pump body. Suction screen. Handle. Upper support. Impeller	NORYL TECHNOPOLYMER
Outer sleeve. Motor casing, Lower cover. Screws and tie-rods	STAINLESS STEEL (AISI304-DIN 1,4301)
Shaft extension	STAINLESS STEEL (AISI416-OIN 1.4005)
Elastomers	NITRILE RUBBER (NBR)

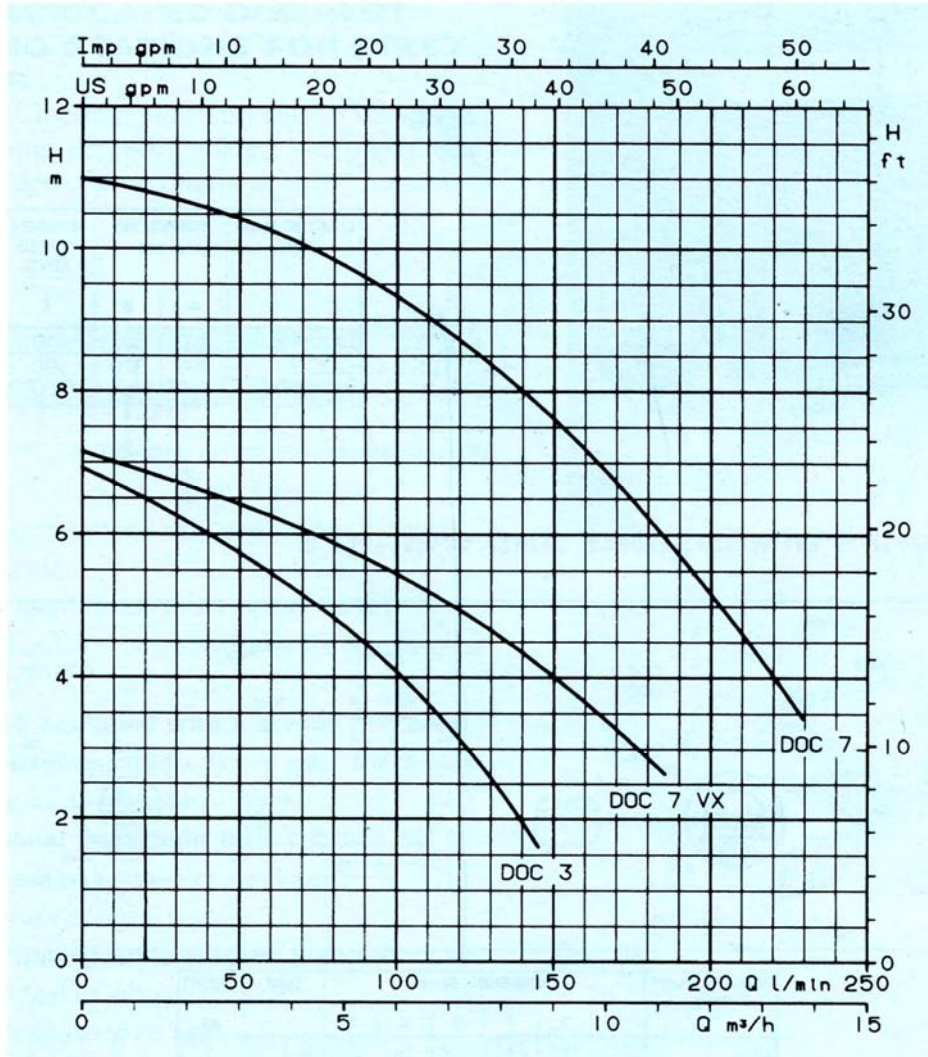


Fig 3.18 - Submersible Pump

GWUC, RAIN WATER HARVESTING SYSTEM



DOC SERIES OPERATING CHARACTERISTICS AT 2850 rpm 50 Hz



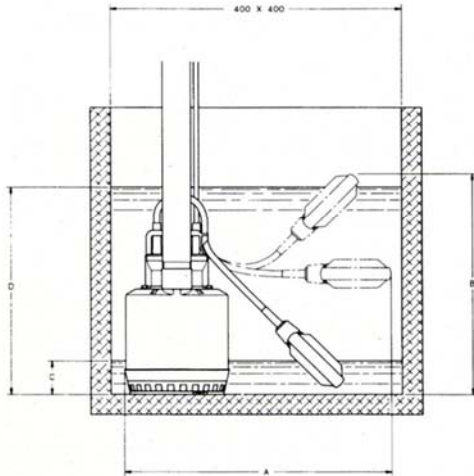
PUMP TYPE		kW	HP	INPUT POWER		CAPACITOR		INPUT CURRENT IN AMP.		Q = DELIVERY									
SINGLE-PHASE 220 V 50 Hz	THREE-PHASE 220-240/ 380-415 V 50 Hz			SINGLE-PHASE	THREE-PHASE	μF	V	SINGLE-PHASE 220 V	THREE-PHASE 380-415 V	l/min. 25	50	75	100	125	150	175	200	225	
										H = TOTAL HEAD METERS COLUMN OF WATER									
DOC 3	-	0,25	0,33	0,31	-	6	450	1,5	-	6,3	5,7	5	4,1	2,8	-	-	-	-	
DOC 7	DOC 7T	0,55	0,75	0,78	0,7	16	450	3,7	1,4	10,7	10,4	9,9	9,3	8,5	7,6	6,5	5,3	3,7	
DOC 7VX	DOC 7VXT	0,55	0,75	0,7	0,65	16	450	3,4	1,3	6,8	6,4	6	5,4	4,8	4	3	-	-	

NOTE: single-phase versions without float are marked "SG".
These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\gamma = 1 \text{ mm}^2/\text{sec}$.

GWUC, RAIN WATER HARVESTING SYSTEM

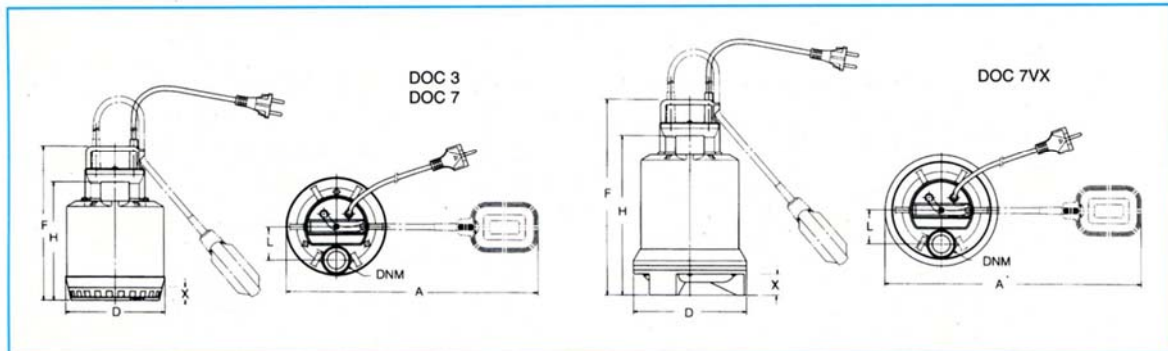


INSTALLATION DIAGRAM



ELECTRIC PUMP TYPE	DIMENSIONS IN mm		MINIMUM WATER LEVEL	MAXIMUM WATER LEVEL
	A	B		
DOC 3	390	330	50	310
DOC 7	390	370	90	350
DOC 7VX	390	395	115	375

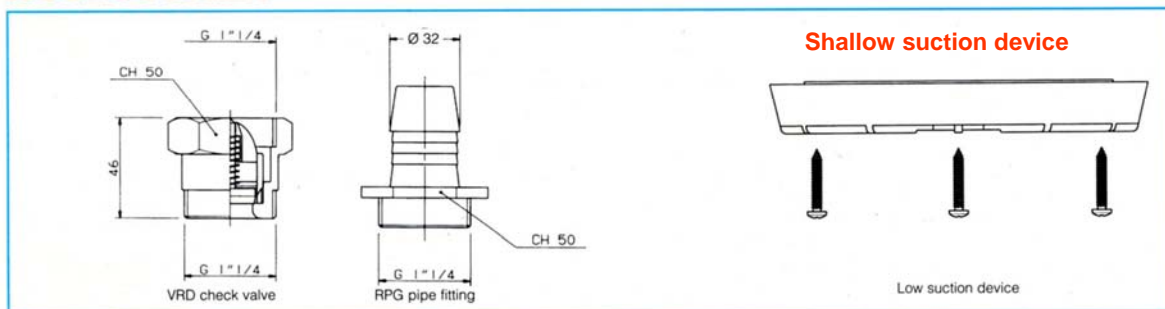
DOC SERIES DIMENSIONS AND WEIGHTS



ELECTRIC PUMP TYPE	DIMENSIONS IN mm						DNM	WEIGHT kg
	A	D	F	H	L	X		
DOC 3	390	155	245	188	54	20	G 1 ¹ / ₄	4
DOC 7	390	155	285	228	54	20	G 1 ¹ / ₄	6
DOC 7VX	390	175	310	252	54	50	G 1 ¹ / ₄	6

X = Minimum draining level. 3 mm if shallow suction device has been installed on DOC 3 and DOC 7.

ACCESSORIES



GWUC, RAIN WATER HARVESTING SYSTEM

LOWARA INSTALLATION & MAINTENANCE MANUAL



ITT

107540020XXXUDJ DOC7/A AU 220 – 240 50 10M CABLE

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MADE IN ITALY



TB003

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Lowara reserves the right to make modifications without prior notice.

Engineered for life



GWUC, RAIN WATER HARVESTING SYSTEM

1. HANDLING

The product must be lifted and handled with care, using the handle or the eyebolt.

2. APPLICATIONS

The pump is suitable for the transfer of clean, dirty or turbid liquids, with suspended solids not exceeding the dimensions indicated below. The most common uses are: drainage of domestic wastewater collection tanks, of rainwater collection tanks, of flooded rooms, of excavations and trenches in the building industry. The versions with the VORTEX impeller are also suitable for liquids with suspended filaments.

3. WORKING LIMITS

EN standard 60335-2-41 forbids the use of the pump in tanks or swimming pools while people are in the water, and requires the use of the 10 m cable version for external applications.

Liquid temperature: < 35°C

N.B. When operating continuously the pumps must be entirely submersed, with the exception of the DOC and DIWA models.

Maximum immersion depth: 5 m (7 m for the DIWA models)

Max diameter of suspended solids for the DOC pump is 10mm.

Max. number of Starts per house is 40.

4. INSTALLATION (see FIG 1)

The well dimensions must be such as to prevent an excessive number of starts per hour (FIG 2). The float is adjusted by increasing or diminishing the free length of the cable (FIG 3).

Improper adjustments may cause malfunctions.

5. ELECTRICAL CONNECTION

SINGLE-PHASE VERSIONS: insert the plug in a standard power outlet.

NOTE: The single-phase version electric pumps are fitted with a built-in automatic reset magneto-thermal protection.

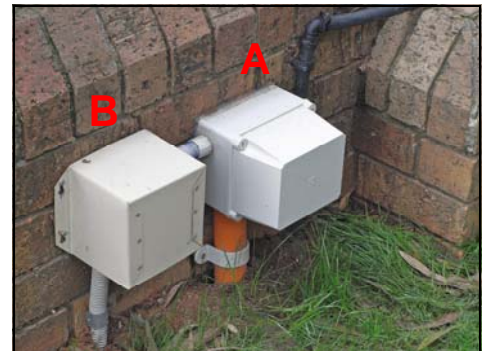
THREE-PHASE VERSION: FIG. 4 (*not applicable to GWUC*)

5.1 Direction of rotation (only for three-phase version) The proper rotation direction is clockwise when looking at the pump from above. Check by observing the pump performance. The correct direction of rotation is the one that generates higher Q/H performances for single-channel and double-channel versions, and lower rates of absorption for the VORTEX impeller versions.

Power supply is provided from a power outlet behind the Church brick sign.

The pump flexible cable is fed through an underground (orange) conduit from the Pump Pit and up into the (right hand side) Power Outlet Enclosure (A).

The left hand side enclosure (B) has a slide off metal cover and had a double power outlet. This outlet is isolated from a switch at low level on the inside north wall for the Office.



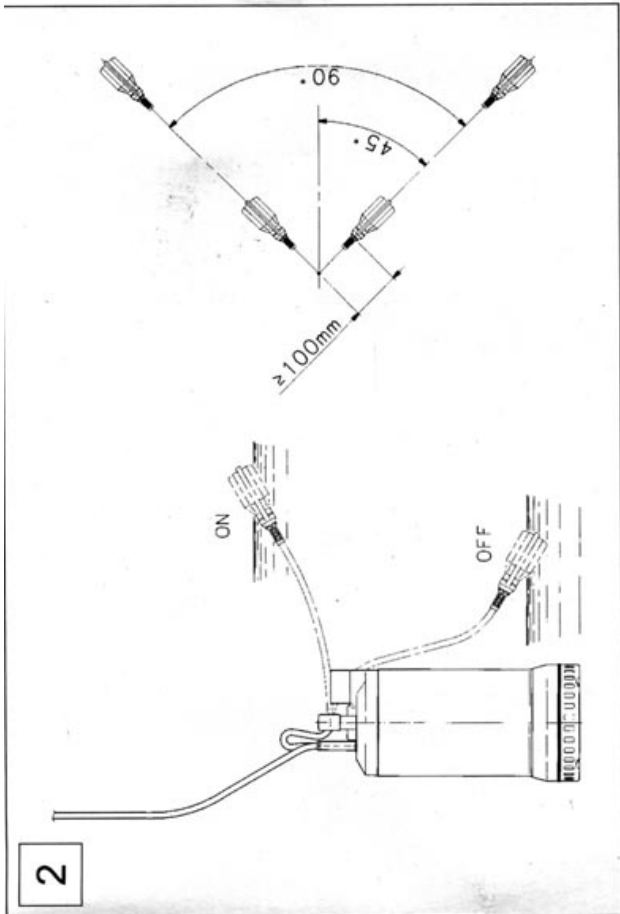
**Fig 3.19 - Power Outlet Enclosures,
Left Hand for general power,
Right Hand for Sump Pump**

6. MAINTENANCE

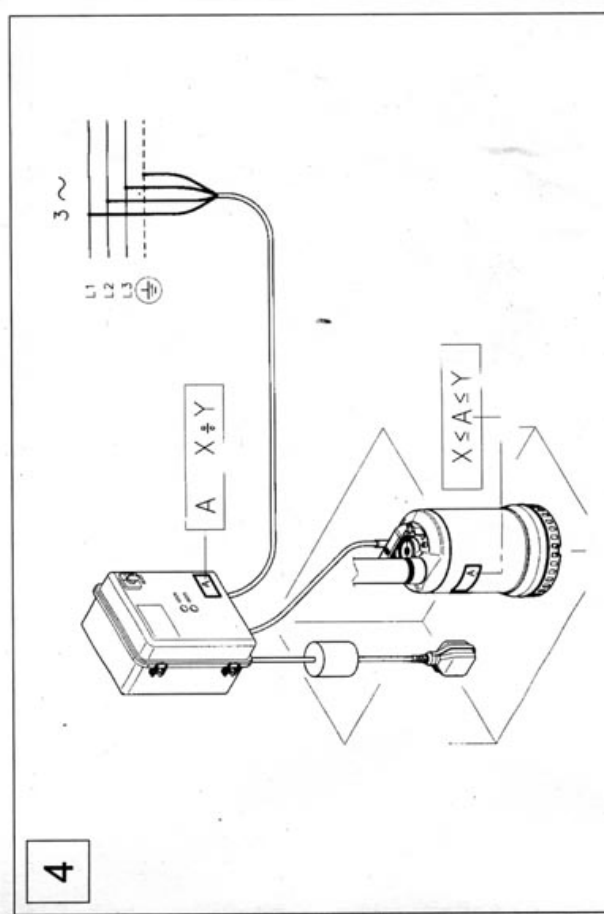
The pump should be serviced by qualified personnel only, and after having been disconnected from the power mains.

The pump does not require any routine maintenance. It may occasionally be necessary to clean the suction screen (DOC-DIWA-DN) or the impeller. To access the impeller on models equipped with a screen, loosen the screws that fasten the screen.

GWUC, RAIN WATER HARVESTING SYSTEM



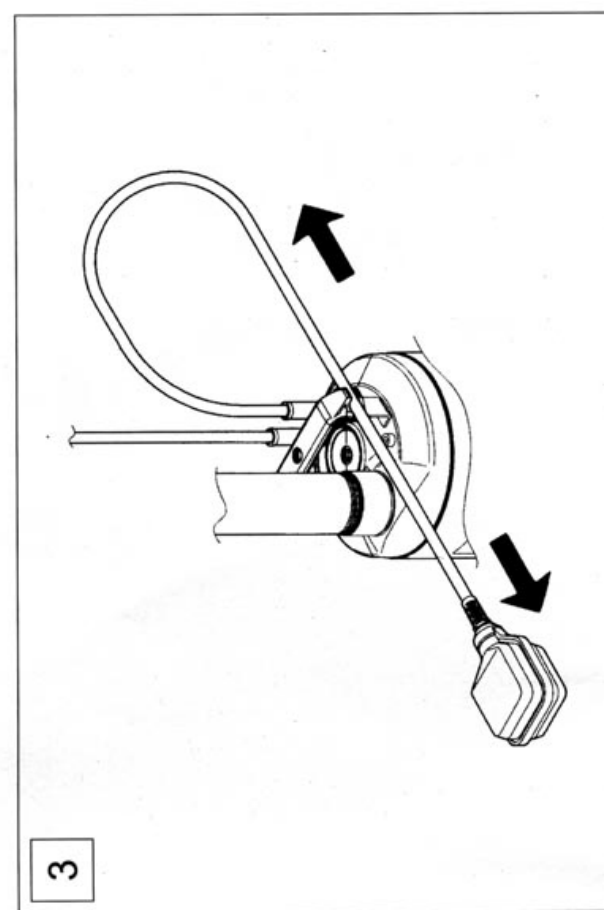
2



4

S	1 BACKVENTIL 2 STROMBRÜCHE MIT FLÖTTER 3 KOPPLING I. DELAR 4 SLUSSVENTIL
N	1 TILBAKESLÅSVENTIL 2 FLÖTTERBRYTER 3 KOPPLING I. DELAR 4 SLUSSVENTIL
SF	1 TILBAKESLÅSVENTIL 2 UMKOPPLING 3 FLÖTTERBRYTER 4 SLUSSVENTIL
GR	1 BAMBULA ENETKOY 2 AKKORTIÇE FLOTIRAZ 3 PAKOP JE 3 KOMBATA 4 BAMBULA
TR	1 ÇEK VALF 2 SÖZ YÖZÜ KESİLMİŞ ELEKTRİK ÇİFTLİK 3 KAPAK 4 KİLİT
ع	1 صمام عطف 2 مفت كهربائي مقطوع 3 غطاء 4 قفل
R	1 ÖRNEKLEME KILIMAI 2 İZOLASYONLUH İBİK İPİATİ İBİ 3 KAPAK VE 3 KOMBİTAR 4 SAKIMKA
PL	1 ZAPOR 2 PRZECIENNIK 3 PRZECIENNIK 4 ZASTAWKA
I	1 VALVOLA DI RITENZO 2 INTERRUPTORE A GALLEGGIANTE AUTOMATICO 3 RACCORDO 3 PEZZI 4 SARNICESKA
GB	1 CHECK VALVE 2 FLOW SWITCH 3 BRACE CONNECTOR 4 GATE VALVE
F	1 SOUPAPE DE RETENUE 2 FLÔTEUR AUTOMATIQUE 3 RACCORD 3 PRESES 4 VANNE
D	1 RÜCKSCHLAGVENTIL 2 SCHWIMMSCHALTER 3 3-TEILIGES ANSCHLUSSSTÜCK 4 SCHEIBER
E	1 VÁLVULA DE RETENCIÓN 2 INTERRUPTOR DE FLUJADOR AUTOMÁTICO 3 CONECTOR DE 3 PZAS 4 COMPLETA
P	1 VÁLVULA DE RETENÇÃO 2 INTERRUPTOR DE FLUADOR 3 CONEXÃO 3 PEÇAS 4 COMPOSTA
NL	1 TERUGSLAALP 2 SCHWIMMARMET FLÖTTER 3 AANSLUITING 4 AFSLUITER
DK	1 BAKVENTIL 2 SVØMMEBRYTER 3 3-DELT FORBING 4 SPÆLDEL

1



3

GWUC, RAIN WATER HARVESTING SYSTEM

7. SAFETY INSTRUCTIONS

FIG. 5 The pump is not suitable for use with flammable or dangerous liquids.

FIG. 6 Do not use the power supply cable to lift or move the pump.

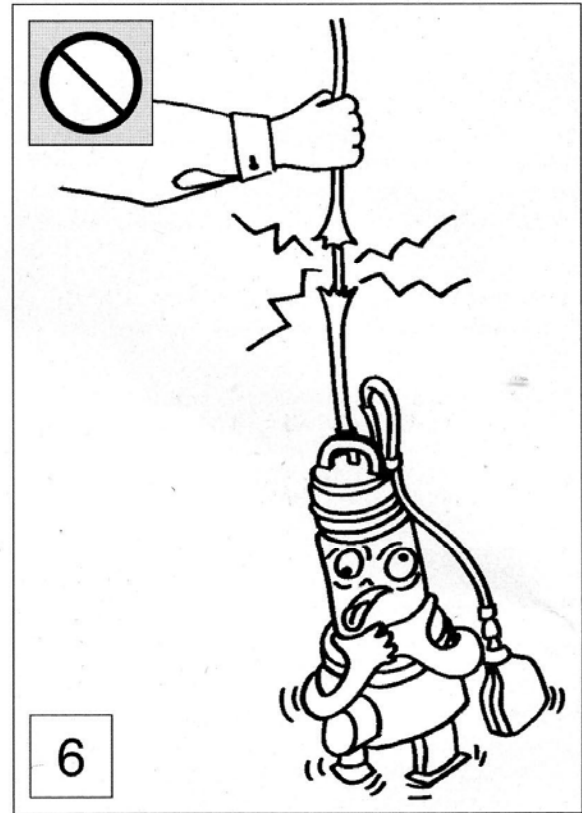
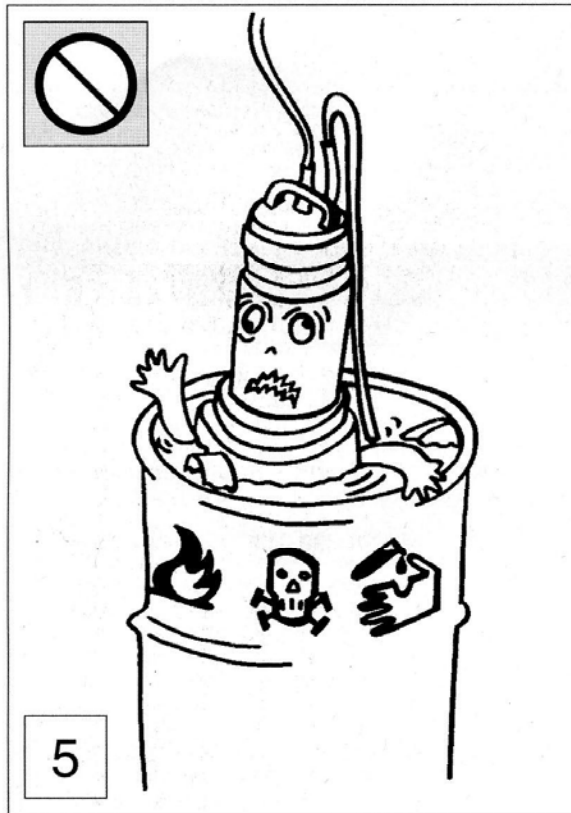
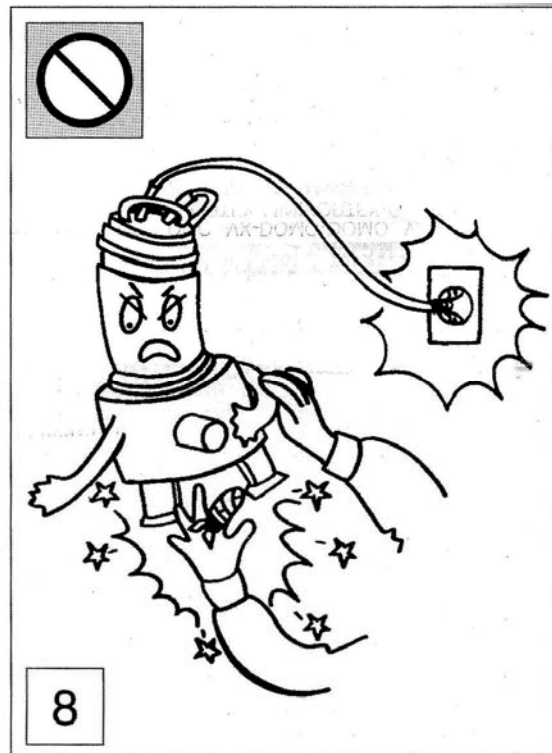
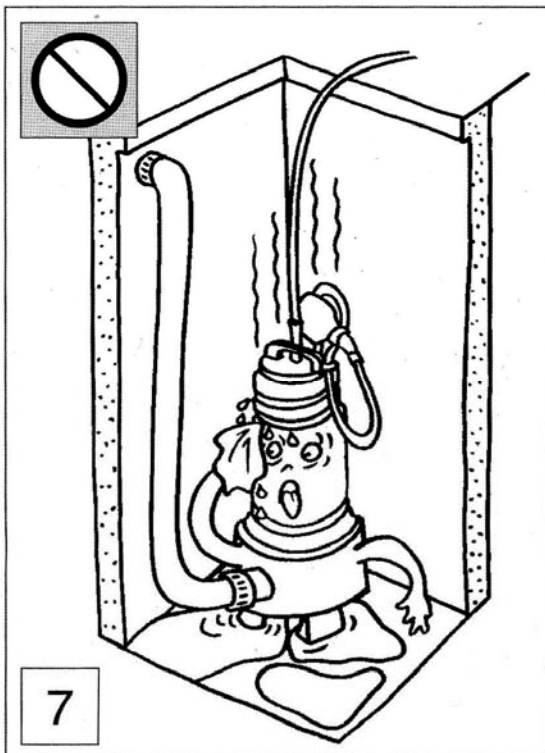


FIG. 7 Do not allow the pump to run dry or operate out of the water.

FIG. 8 As the pump can start and stop automatically, never insert your hands or other objects in it while it is connected to the power mains.



GWUC, RAIN WATER HARVESTING SYSTEM

FIG. 9 The power plug and capacitor carrier (if any) must never be submerged.

FIG. 10 Pay attention to the working limits. Improper use may damage the pump and other property, and injure people.

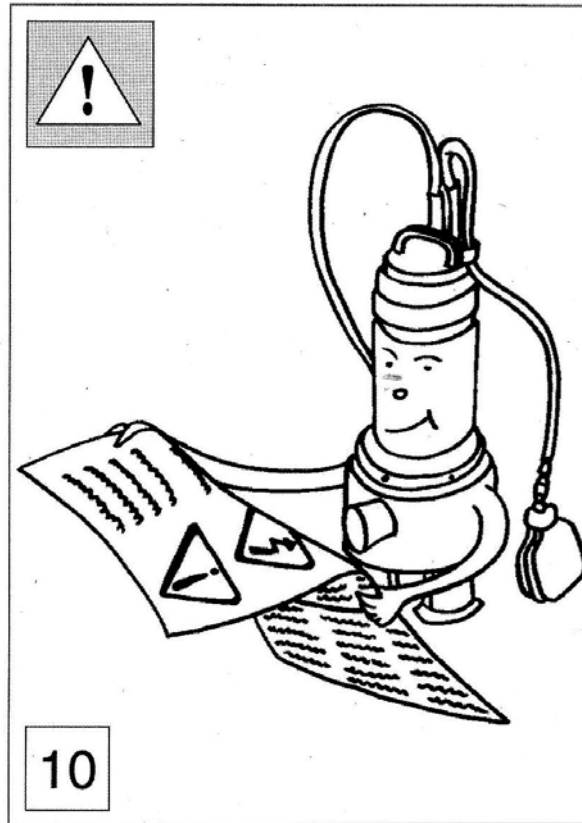
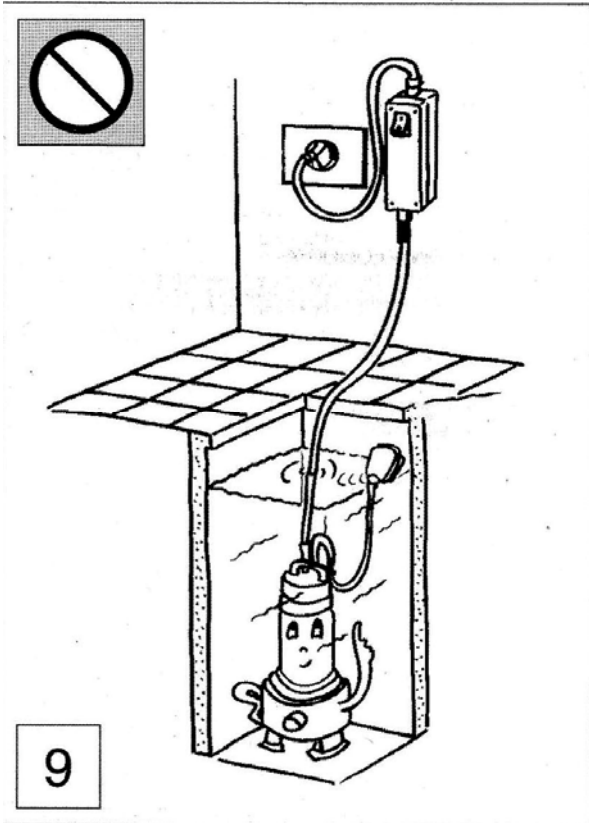
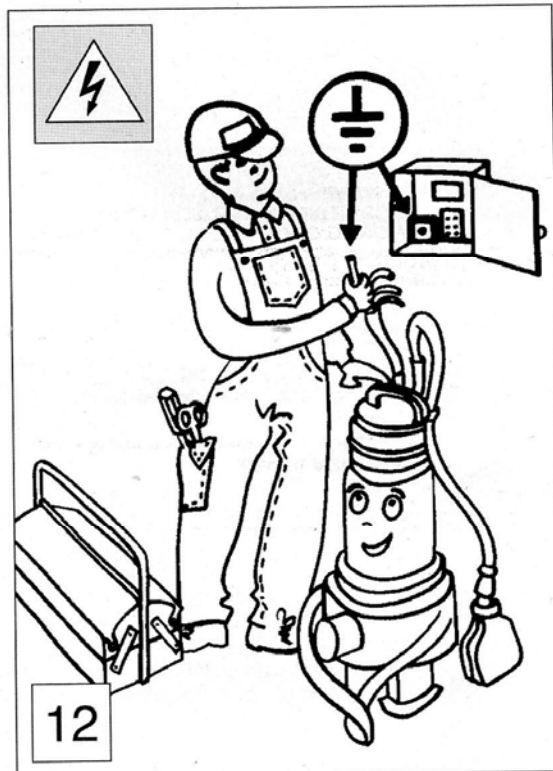


FIG. 11 Make sure that the rated voltage matches the mains voltage.

FIG. 12 If the pump is a three-phase model, make sure that the mains connection and grounding are performed by qualified personnel (certified electrician).



GWUC, RAIN WATER HARVESTING SYSTEM

FIG. 13 As additional protection from lethal electric shock, install a high sensitivity differential switch (0.03 A).

FIG. 14 Make sure that unauthorized persons do not have access to the pump.

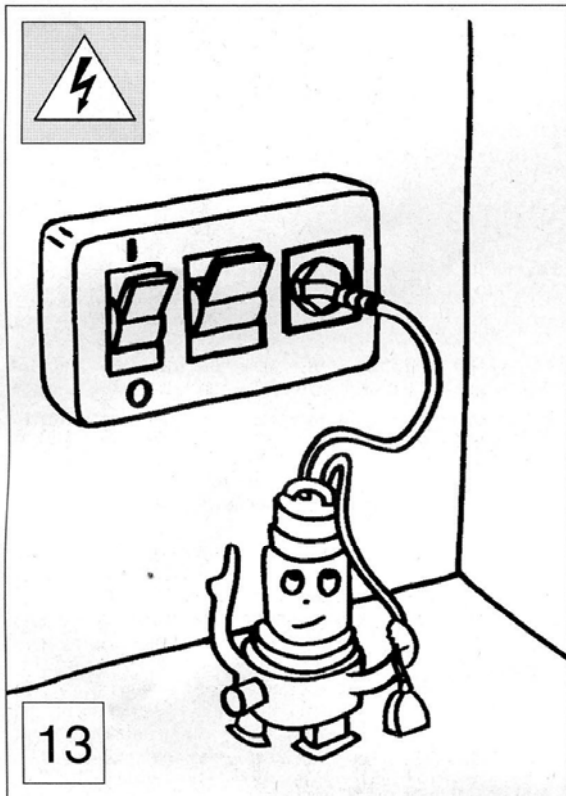
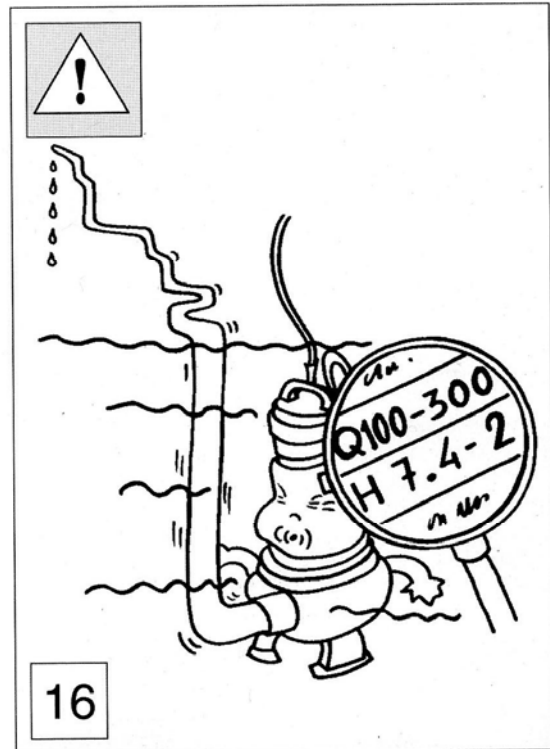
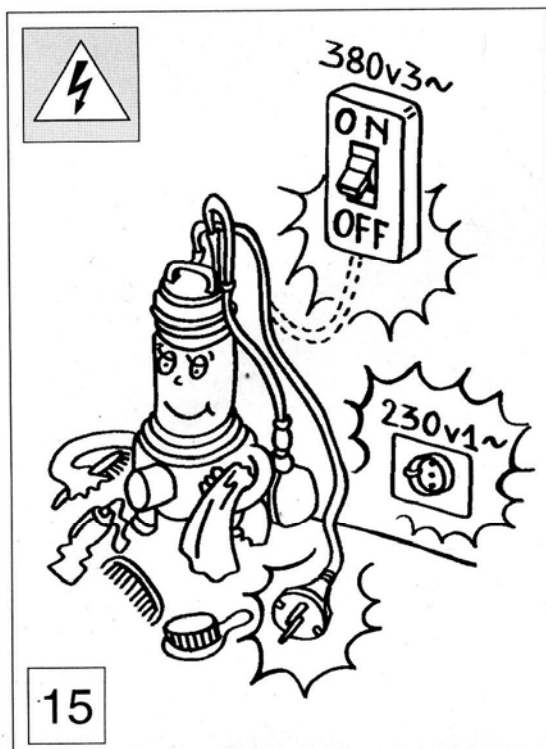


FIG. 15 Disconnect the electric pump, or unplug it (for models fitted with a plug) before moving it or carrying out any maintenance or cleaning operations.

FIG. 16 Use the pump only within the specified limits shown on the rating plate.



GWUC, RAIN WATER HARVESTING SYSTEM

FIG. 17 Caution! Avoid icing.

FIG. 18 Protect the pump from clogging.

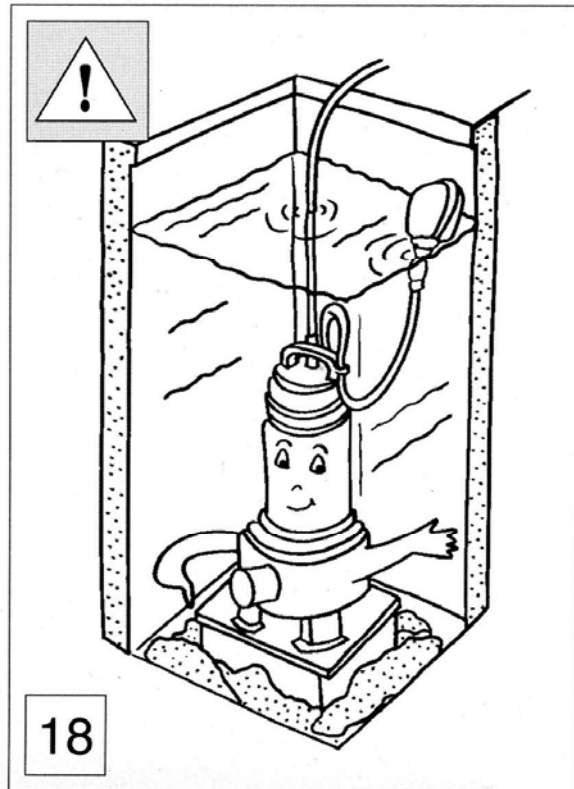
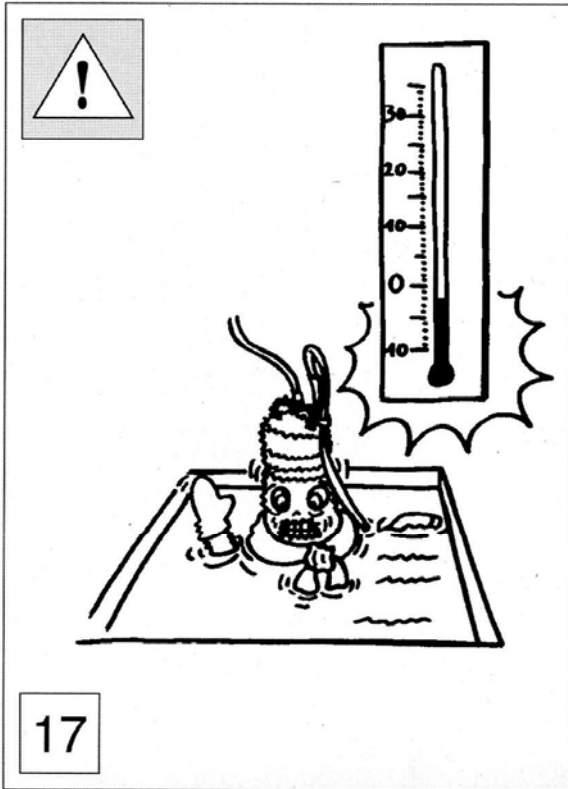
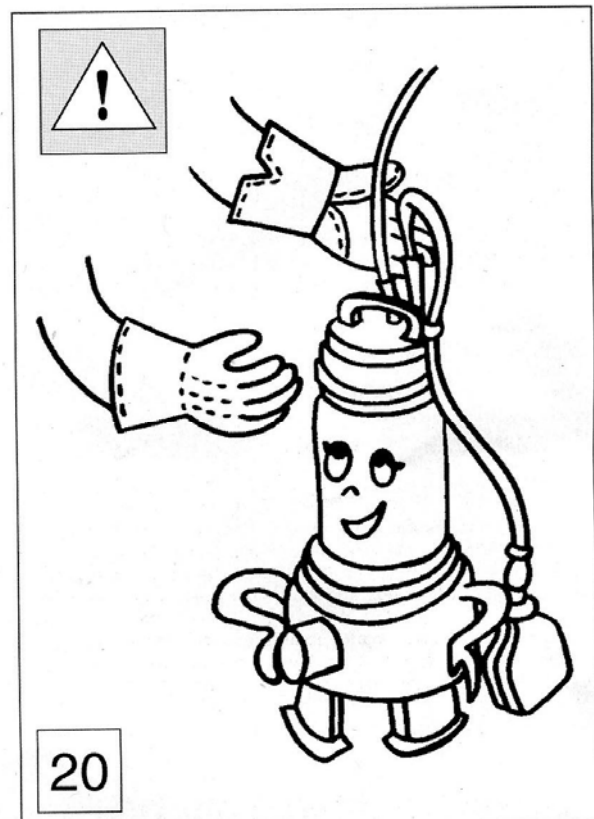
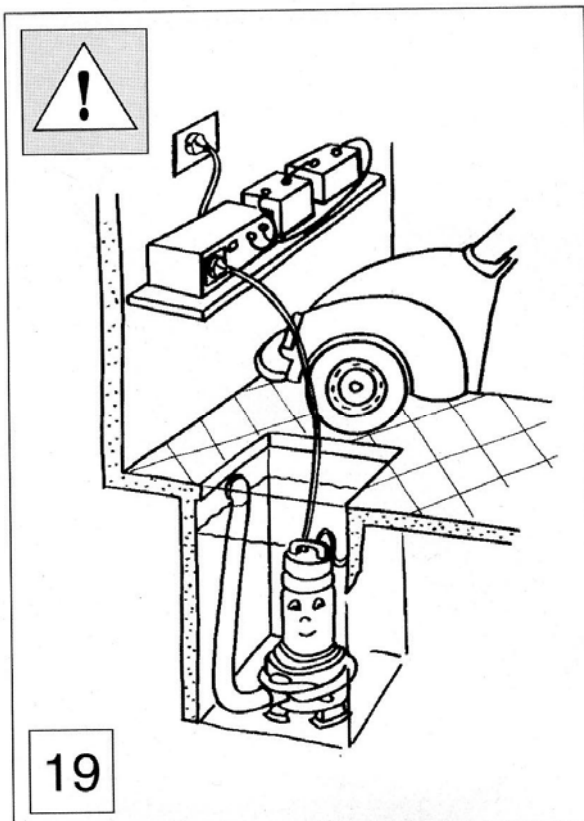


FIG. 19 Prevent any accidental power failure (for example, use a battery operated back-up power supply).

FIG. 20 Wear gloves during any pump servicing operations.



GWUC, RAIN WATER HARVESTING SYSTEM

8. TROUBLESHOOTING

THE PUMP DOES NOT START:

- Make sure that the plug is pro-perly inserted in the power socket and that the line is live. Reset the ground fault interrupter or circuit breaker if it has kicked off. • The thermo-amperometric protection incorporated in the single-phase versions may have activated; it will reset automatically after a few minutes, once the motor has cooled. If any one of the three protec-tions mentioned above kicks off again, call a qualified electrician.

THE MOTOR STARTS BUT THE PUMP DOES NOT DELIVER:

- Make sure that the water level is not too low and that the suction port or delivery pipe are not clogged.

THE PUMP'S DELIVERY IS REDUCED:

- • Check for clogs and make sure that the rotation direction on the three-phase models is correct.

• THE PUMP WORKS INTERMITTENTLY:

- The float is positioned incorrectly
- The well is too small
- Excessive power consumption
- Clogged pump or pipes.

9. NOISE

Not applicable when the pump works completely submerged; in any case, below 70 dB(A) if the pump is operating partially submerged.

10. EC DECLARATION OF CONFORMITY

PRODUCTS: DOC-DOC VX-DOMO-DOMO VX-DOMO GRI-DIWA-DN-DL-DLV-VORTEX-MINIVORTEX-GL-GLV
Manufactured by LOWARA - Montecchio Maggiore (VI) - Italy.

The products listed above comply with the following Directi-ves: Machinery 98/37/EC, Low Voltage 2006/95/EC (year of first use of the mark; DOC-DOC VX-DOMO-DOMO VX-DN-DL-DLV-VORTEX-MINIVORTEX-GL-GLV= 1 993; DIWA= 1 996 DOMO GRI=2008), standards EN 60335-1 and 60335-2-41, Electromagnetic Compatibility 89/336/EEC and related supplements.

SIGNATURE/TITLE: Amedeo Valente
 (Director of Engineering and R&D)

Purchase Receipt for WT13

VICTORIAN IRRIGATION SUPPLIES

Factory 11, 170 Forster Road, Mount Waverley, Victoria, 3149, Australia
 Telephone: (03) 9543 3711 Fax: (03) 9543 5668 ABN: 15 452 089 971
 www.vicirrigation.com.au email: enquiries@vicirrigation.com.au

Tax Invoice

Invoice Number: 81839

Date: 04/06/09

Invoice to:

GLEN WAVERLEY UNITING CHURCH
 LYN McDONALD

Deliver to:

CASH SALES c/o VIS
 11/170 Forster Road
 MOUNT WAVERLEY VIC

Account Number	Customer Reference	VIS Order No.							
2000	GWUC	15368							
Item Code	Item Description	Order Qty	B/Ord Qty	Invoice Qty	Price	Disc %	Tax Nett	Tax Amount	Total Amount
DLDOC7/10S	LOWARA DOC7/10 DRAINAGE SUMP PUMP PRICE INCLUDES LOW LEVEL SUCTION SCREEN	1	0	1	436.36	0	436.36	43.64	480.00
PAID								Subtotal	436.36
Please note new banking details: Banking Details - BSB: 013-701 Account Number: 478918013 Please notify us if using direct credit option: accounts@vicirrigation.com.au Credit card payments will attract a surcharge of 2.5% for any amount over \$3000								Total GST	43.64
Terms: PAYABLE ON INVOICE								Total	480.00

GWUC, RAIN WATER HARVESTING SYSTEM



Fig 3.20 - First Flush Diverter (A)



Fig 3.21 - Parts of 1st Flush Diverter

WT 14

First Flush Diverter

Downpipe First Flush Diverter

A FIRST FLUSH device that fits to 90mm, 100mm or 150mm PVC downpipes at the gutter downpipe in-line or via a T-junction to a new or existing system of downpipes. Takes the first flow of water which may contain contaminants from the roof and gutters, seals it off and then automatically diverts the flow to the tank. When used in conjunction with a rain head, first flush diverters improve water quality and catchment efficiency, protect pumps and internal appliances, and reduce maintenance. This unique device empties itself of contaminated water and resets automatically.

Supplied in kit form - just add the appropriate length of pipe based on the quantity of water you wish to divert.



Downpipe First Flush Diverter kit

Description	Code
Downpipe First Flush Diverters *	
90mm	WDDP01
100mm	WDDP02
150mm	WDDP03



- Available at an extra cost • (1) Optional Stainless Steel Primary Screen (Product Code: WDAC02); (2) 90mm Plastic Pipe Bracket set - ideal for under eaves installations (Product Code: WDAC10).

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	286699 TRANS 300ML		\$ 5.09
9317118090030	WATER TANK-ACCESSORIES		
	WDDP01 FIRST FLUSH 90MM DIVERT		
3 @ \$37.44			\$ 112.32
3 @ SubTotal:			\$ 295.91

Total	\$ 295.91
GST INCLUDED IN THE TOTAL	\$ 26.90
EFT	\$ 295.91

TERMINAL: 33722906
 CARD NO: 45094900-0688
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 TOTAL AUD \$295.91
 APPROVED

Change \$ 0.00

--- "g" INDICATES NETT PRICED ITEM(S) ---
 --- "*" INDICATES NON TAXABLE ITEM(S) ---

05/02/2009 17:09:16

R6 P63 S6359 C202593 #600027604

Thank you for shopping with Bunnings.
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 Mon - Fri 7AM - 9PM
 Sat - Sun, P. Hols 8AM - 6PM

Please retain receipt for proof of purchase

GWUC, RAIN WATER HARVESTING SYSTEM

WT 15 Downpipe Filter, "Leaf Beater"

The downpipe Filter is fitted under a gutter and screens the water with a coarse and fine stainless steel mesh.

These fittings are manufactured by "Rain Harvesting" and may be purchased at stores selling water collection and tank equipment.

BUNNINGS WAREHOUSE
NOTTING HILL
 ABN 26 008 672 179
 Ph: 03 9518 4400

Sale
**** TAX INVOICE ****

9317118010007	LEAF EATER-RAINWATER HARVESTI	
	RHLE01 DUAL FIT 8119 LEAFEATER	
3 @ \$59.50		\$ 178.50
9310492441153	SILICONE-ROOF & GUTTER BO	
	286699 TRANS 300ML	\$ 5.09
9317118090030	WATER TANK-ACCESSORIES	
	WDDP01 FIRST FLUSH 90MM DIVERT	
3 @ \$37.44		\$ 112.32
3 @ SubTotal:		\$ 295.91
Total	\$ 295.91	
GST INCLUDED IN THE TOTAL		\$ 26.90
EFT		\$ 295.91

TERMINAL: 33722906
 CARD NO: 45094900-0688
 CREDIT
 TOTAL AUD \$295.91
 APPROVED

Change \$ 0.00

--- "&" INDICATES NETT PRICED ITEM(S) ---
 --- "*" INDICATES NON TAXABLE ITEM(S) ---

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Fig 3.22 - Leaf Beater (A)

Leaf Beater

A compact high performance rain head with an elliptical primary screen that can be adjusted to achieve the best operating setting depending on the intensity of rain fall and the amount of debris. The 6mm aperture mesh primary screen is virtually vertical as water washes the screen to reduce maintenance. Like the Leaf Eater*, the Leaf Beater* features a fine, mosquito proof secondary screen. Comes in four variants to fit directly into 80/90mm or 100mm round PVC, or 100x50mm or 100x75mm metal rectangular downpipes.

Description	Code
Leaf Beater®	
80/90mm Dual Fit ROUND	RHLB01
100mm ROUND	RHLB02
100x50mm RECTANGLE	RHLB03
100x75mm RECTANGLE	RHLB04



GWUC, RAIN WATER HARVESTING SYSTEM

WT 16 & 17 Pipe Covers

The white PVC pressure water pipe (A) delivering water from the in-ground sump at Kingsway Bogong Avenue corner is saddled to treated pipe wooden slats across the roof or saddled directly to the brick walls.

Galvanised or Colorbond covers (B) were screwed down over the pipe for both mechanical and UV protection.



Fig 3.23 - White PVC Piping with covers

WT16 & 17 Purchase Receipt

***** *** TAX INVOICE *** *****		ORDER NO : 452322
ABN : 56 755 990 314		BBS DATE 15/06/09 PAGE 1
AM&F SHEETMETAL 42-44 NORCAL ROAD NUNAWADING VIC 3131	PHONE : 03 9894 1799 FAX : 03 9894 0299 ACN 005 068 986	BBS
100001 CASH SALES - NUNAWADING LYN MCDONALD 0407 040 939		PICK UP NOON
100001 CASH SALES - NUNAWADING LYN MCDONALD 0407 040 939		PICK UP NOON
CUST ORDER NO. LYN MCDONALD SALES TAX NO. P	S/M NO. 01	DATE WANTED 17/06/09
PROD CODE	DESCRIPTION	QTY UM PRICE DISC EXT AMT GST AMT TOT AMT
F6C 3254	ST 325G .60 C/BOND 4BEND FLASH	6.0 MTR 12.30 0.00% 73.80 7.38 81.18
F6G 3254	325G .60 GALV 4BEND FLASH	12.0 MTR 10.20 0.00% 122.40 12.24 134.64
	PRODUCT	EXT AMT 196.20 GST AMT 19.62 INC GST 215.82
	DELIVERY	0.00 0.00 0.00
	TOTAL	196.20 19.62 215.82
JOB NO : 452322	PLEASE PAY THIS AMOUNT	\$215.82
LYN MCDONALD 0407 040 939	REMIT PAYMENT TO : P O BOX 283, NUNAWADING, 3131	
Messages :		
	PRODUCT	EXT AMT 196.20 GST AMT 19.62 INC GST 215.82
	DELIVERY	0.00 0.00 0.00
	TOTAL	196.20 19.62 215.82
JOB NO : 452322	PLEASE PAY THIS AMOUNT	\$215.82
LYN MCDONALD 0407 040 939	REMIT PAYMENT TO : P O BOX 283, NUNAWADING, 3131	

GWUC, RAIN WATER HARVESTING SYSTEM

WT18 Rubber Couplings

These flexible rubber coupling provide a flexible and removable joint in PVC stormwater piping.

These are attached to the piping with stainless steel pipe clamps/"ratchet clips" (which are supplied with the couplings).

A silicone spray was applied to the piping prior to assembly and to date there has been no issue taking these fitting apart.



Fig 3.24 - Rubber Couplings with pipe clamps

VICTORIAN IRRIGATION SUPPLIES

Factory 11, 170 Forster Road, Mount Waverley, Victoria, 3149, Australia

Telephone: (03) 9543 3711 Fax: (03) 9543 5668 ABN: 15 452 089 971

www.vicirrigation.com.au email: enquiries@vicirrigation.com.au

Tax Invoice

Invoice Number: 81516

Date: 12/03/09

Invoice to:

GLEN WAVERLEY UNITING CHURCH
LYN 9560 9798

Deliver to:

CASH SALES c/o VIS
LYN 9560 9798

PAID

Account Number	Customer Reference	VIS Order No.
2000	LYN MCDONALD	15239

Item Code	Item Description	Order B/Ord Invoice			Disc Price %	Tax Nett	Total Amount
		Qty	Qty	Qty			
TPPSW150	PIPING, PVC 150mm Stormwater	1	0	1	56.00 0	56.00	61.60
TPPSW100	PIPING, PVC 100mm DWV Stormwater	3	0	3	33.00 0	99.00	108.90
TECPSW150	END CAP PVC Stormwater 150mm Push On	2	0	2	9.50 0	19.00	20.90
TSWR150X90	150 X90 STORMWATER REDUCER	2	0	2	30.00 0	60.00	66.00
TSWCAPTHR	100mm DWV THREADED CAP	1	0	1	3.00 0	3.00	3.30
TSWT100X45	100X 45 DEG JUNCTION TEE DWV	2	0	2	5.50 0	11.00	12.10
TSW100X88TE100X 88	DWV TEE	1	0	1	5.60 0	5.60	6.16
TSW100X90B	100X 90 DEG DWV ELBOW	2	0	2	3.40 0	6.80	7.48
TSWR100X90	100 X 90 STORMWATER REDUCER SOCKET	1	0	1	4.20 0	4.20	4.62
T100SADDLES100	DWV SADDLES	4	0	4	2.50 0	10.00	11.00
TECPSW090T	END CAP PVC Stormwater 90mm Threaded	1	0	1	2.60 0	2.60	2.86
DPPP25X100	PIPE PIECE, PVC, 25mm X 100mm	1	0	1	2.00 0	2.00	2.20
TPPP25X150	PIPE PIECE, PVC, 25mm X 150mm	1	0	1	2.10 0	2.10	2.31
TTPSW090X9	TEE PVC Stormwater 90mm x 90 Deg.	9	0	9	2.35 0	21.15	23.27
	90mm RUBBER SLEEVE JOINER	2	0	2	9.65 0	19.30	21.23

Please note new banking details:	Subtotal	321.75
Banking Details - BSB: 013-701 Account Number: 478918013	Total GST	32.18
Please notify us if using direct credit option: accounts@vicirrigation.com.au	Total	353.93
Credit card payments will attract a surcharge of 2.5% for any amount over \$300.00		
Terms: PAYABLE ON INVOICE		