

Quotation for the supply of Rainwater Harvesting Equipment

Client:

Caroline Runham AC Architects Cambridge Ltd

Site Reference:

72 & 74 Foster Road, Trumpington, Cambs

Prepared by:

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Our reference: IMW231259

Date of proposal: 06/04/2021



Your Proposal

Thank you for your enquiry and time on the telephone earlier and as requested please find the following information regarding our proposed systems.

SHALLOW DIG F-LINE TANK

	1500	3000
W + 1 + 12		
Weight Kg	80	170
Length	2400	2400
Width	1200	2400
Overall Height	1015 1415	1015 - 1415
Ground to Invert VS60 (Pedestrian 635mm Shaft)	320 - 720	320 - 720
Invert to Outlet	162	162
EXCAVATION		
Length	2800	2800
Width	1600	2800
Overall height VS60	1115 - 1515	1115 - 1515

Overall height allows for 100mm compacted aggregate

The overall height difference above is because up to 400 mm can be cut off of the 635 mm shaft on site so as to achieve your exact invert level.

Rainwater Harvesting Limited is a private family owned company, our strong service ethos has been built on many years of experience and this is reflected in our ability to offer both simple to install rainwater harvesting systems and mix and match components to provide bespoke solutions reflecting clients needs. At our 100,000sq ft warehouse in Peterborough we hold over 3000 stock items, we are the largest stockholder of the Shallow Dig Rewatec tanks in the UK and we regularly despatch to site complete rainwater harvesting systems within 5-7 days of order.

Generally a rainwater harvesting system is simple in concept however the differences in design and performance vary greatly from supplier to supplier, the fact that we manufacture as well as supply enables us to help you specify the right system for your project at an aggressive price, we also provide full technical support on all our products.

We would welcome the opportunity of supplying your rainwater harvesting system and I can easily be contacted either by phone or email as shown on the previous page

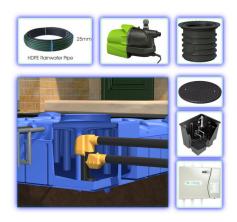


Components and Prices – Supply Only

Option 1

Product Code: RWH-1599FL-DUK4.

1500 Litre Shallow Dig Gravity Feed System



Components

Product Code	Description	Qty
RWFT1500	F-LINE 1500L TANK	1
RWDS0062	F-LINE TANK 635mm EXTENSION SHAFT - VS60	1
RWDS0066	F-LINE TANK WALK ON LID	1
RWH-RV01	RAINVANTAGE FILTER KIT INC SIPHON & OVERFLOW	1
RWH-HYD03FL	HYDROFORCE SERIES 3 PUMP / INC STRAINER	1
RWH-HDPE25/25	25mm HDPE RAINWATER PIPE - 25m ROLL	1
RWH-RD01	RAIN DIRECTOR CONTROL UNIT	1
RWH-RDT-100	RAIN DIRECTOR HEADER TANK 100 LITRE	1
RWH-PKFLINE-	FLINE INSTALLATION PACK PRO / INC LABELS & 90°	1
PRO	ELBOW	

Price: £2,070.00 (£2,484.00 Inc. VAT)

UK delivery is included in the price (Highlands and islands extra)

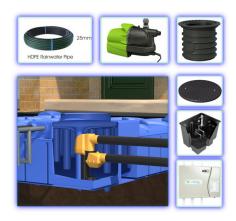


Components and Prices – Supply Only

Option 2

Product Code: RWH-3099FL-DUK4.

3000 Litre Shallow Dig Gravity Feed System



Components

Product Code	Description	Qty
RWFT3000	F-LINE 3000L TANK	1
RWDS0062	F-LINE TANK 635mm EXTENSION SHAFT - VS60	1
RWDS0066	F-LINE TANK WALK ON LID	1
RWH-RV01	RAINVANTAGE FILTER KIT INC SIPHON & OVERFLOW	1
RWH-HYD03FL	HYDROFORCE SERIES 3 PUMP / INC STRAINER	1
RWH-RD01	RAIN DIRECTOR CONTROL UNIT	1
RWH-RDT-100	RAIN DIRECTOR HEADER TANK 100 LITRE	1
RWH-HDPE25/25	25mm HDPE RAINWATER PIPE - 25m ROLL	1
RWH-PKFLINE-	FLINE INSTALLATION PACK PRO / INC LABELS & 90°	1
PRO	ELBOW	

Price: £2,400.00 (£2,880.00 Inc. VAT)

UK delivery is included in the price (Highlands and islands extra)



Mains backup and rainwater management

Rain Director mains backup and computer-controlled rainwater management system with smart header-tank

The Rain Director® ensures a constant head of clear rainwater under gravity for washing machines, toilets, the garden and other uses. A header tank in the home is controlled by electronic level sensors, valves and a control panel (fitted on a wall on the ground floor). The advantages over rainwater pumping systems like the Rain Manager are:

- a) The header tank only refills once it's completely empty so wear on the pump and electricity usage are both reduced (by a factor of 8).
- b) Provides a constant flow of rainwater under gravity at any time, including during power cuts.
- c) Mains water backup is automated by 12v electric level sensors.
- d) Rain Director®'s dashboard indicates present mode and allows special modes to be selected.
- e) Rain Director®'s auto-flush function detects when the occupant is away from home (for example, for holidays) and puts mains into the header instead of rainwater: no stained toilet bowls.
- f) Rain Director®'s set-up mode lets the control unit memorise the header tank size and flow rate of the mains and rain water inflow. This enables the time-out periods and operating water levels to be set.
- g) Rain Director® header tank has a built-in air gap as required by UK building regs.
- h) Price is similar to, or lower than, that of rain managers and other mini header-tank systems.
- i) Pump remains in the underground rain water tank so, there is no pump noise in the house.

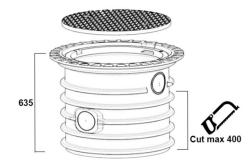
All components have been designed to comply with WRAS (Water Regulations Advisory Scheme) and UK Building Regulations.

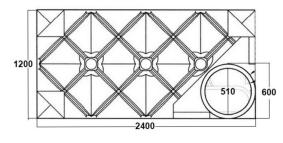


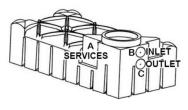


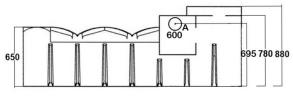


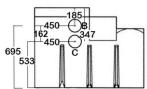
1500L F-Line





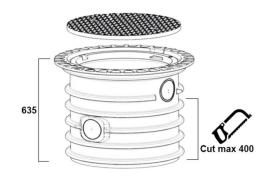


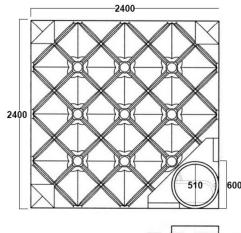


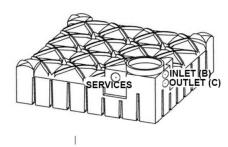


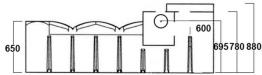


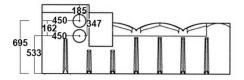
3000L F-Line













The **Series 3** water pump from HydroForce Pumps Ltd.



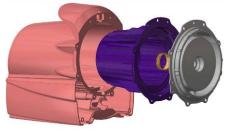


The Series 3 pump has been engineered by HydroForce Pumps Ltd in Peterborough to respond to the demand for the highest quality pump for use underwater in rainwater harvesting tanks. Using the most rugged components it has been exhaustively tested for trouble-free running. The pump features a self-controlling pressure switch and dry run protection. It is suitable for total immersion in rainwater or it can be externally connected to the tank above ground. The Series 3 will

deliver up to 3.5 bar (household pressure is around 2.5-4.0 bar). If connected to a hose or tap, the pump will automatically start to pump water when the tap or hose is turned on. The pump delivers over 2500 litres per hour using a 1" connector and runs at 230v AC delivered by a 10 metre cable.

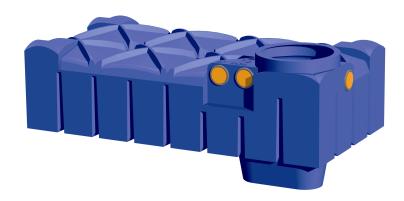
Specifications

- · Submersible: for underwater use in a rainwater tank, or can be used above ground
- Extended two year guarantee
- Nominal pump pressure at outlet 3.5 bar
- Max head 35 metres
- Pressure-sensitive (demand) pump: turns itself off until there is demand for water
- Dry-run Protection: when no water is detected for 8 seconds, the pump is turned off in order to protect the motor and pump from burning out. Automatic reset after a period of 30 minutes.
- Radial flow centrifugal roto-dynamic pump with no reciprocating parts
- New: Alloy bulkhead, pressure release gap and twin chamber design prevents ingress of water to motor, electrical components and to bearing oil.
- New: Double bearing seal prevents egress of bearing oil.
- New: Alloy bulkhead dissipates motor heat to water in the second chamber.
- New: Logic processors in Series 3 printed circuit board prevent other pump anomalies and permit factory programming of reset timings.
- **New:** Each pump is tested before leaving our factory. Factory measurements are on record for each individual pump. No user-serviceable parts
- Electricity consumption 800 watts at 230 Volts AC 50 Hz (requires 10 or 13 amp fuse and RCD mains socket). Connection cable 10m H07RN-F.
- Dimensions L 565 W 185 H 260 mm, weight 12 kg
- Max suction 8 metres deep, preferable operating regime 4 metres deep
- Inlet port to the non-removable cartridge filter 1 inch (25mm) female BSP
- Outlet port 1 inch (25mm) female BSP provided with push-fit connector for 1 inch (25mm) MDPE pipe.
- Supplied with an inline filter, 1" intake strainer and 1" outlet connection.





F-Line Flat Tank shallow dig underground tank



Why buy this tank?

- The F-Line is a high quality, rotationally moulded, one piece rainwater tank that can be installed without the need for concrete, thereby minimising installation costs and supported by our long term 25 year tank guarantee.
- Minimal installation depth
- · Easy and quick to install
- Small excavation pit and little earth excavation preserves your garden
- Ideal for installation in new or existing properties
- Can be installed in ground water up to tank shoulder
- Easy to install

The F-line flat tank can be installed into much higher water tables than a standard round tank. If you don't know what your water table will be like in the winter, you're safer to install a flat tank. The F-Line tanks are flat and the installation depth is up to 60% less than other rainwater tanks. The excavation can be up to 70% less, meaning little earth excavation, easy handling and less cost for you! The small excavation pit is easily filled in and your garden will look just like it did before.



Recommended Rainwater Pipe

Rainwater Pipe in HDPE (High Density Polyethylene) for rainwater use as recommended by Water Authorities is available as an option for all tanks and systems. Black with 4 green stripes and available in both 25mm and 32mm diameter. High quality HDPE.

RainWater Harvesting Limited has worked with the UK Rainwater Harvesting Association and listened to WRAS and several of the water companies, to bring to the market the pipe marked with four green stripes. The identification helps maintenance staff and the end user, after installation, to know which pipes on site carry rainwater (which is non-potable in the UK Building Regs). We stock the following two sizes preferred by contractors fitting rainwater systems.



25mm diameter, flexible, in 25 or 50m coils Product ID: RWH-HDPE25/25

Ship weight of one 25m coil: 4.3 kg



32mm diameter, flexible, in 25 or 50m coils Product ID: RWH-HDPE32/25

Ship weight of one 25m coil: 5.5 kg

Other sizes available upon request

RAINWATER

RAINWATER

RAINWATER