

# Agricultural / Commercial Rainwater Harvesting Systems

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# **Applications**

- Agricultural Buildings
- Commercial Buildings
- Industrial Buildings

# Rain water re-use

- Agricultural wash down
- Agricultural water reserve
- Agricultural drinking equipment
- Flushing toilets
- Industrial Equipment (large washing plants)

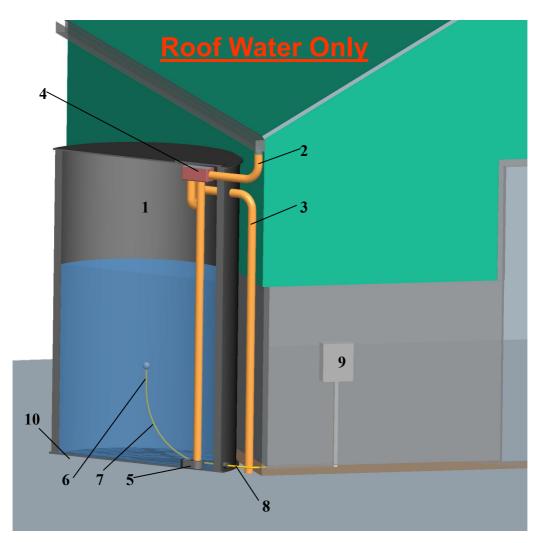
# **Advantages**

- No ground excavation required
- Simple to retro-fit
- Extra hydrostatic pressure
- Easily accessible

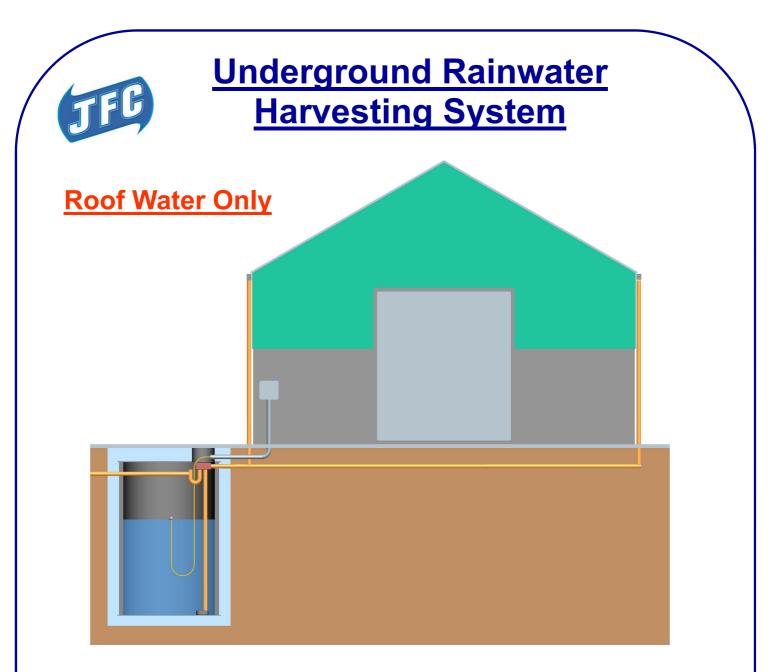
## <u>Sizes</u>

 2,000 — 8,000 Gallons Larger sizes available on request

# Overground Rainwater Harvesting System



- 1. Tank
- 2. Inlet Pipes<sup>1</sup>
- 3. Overflow Pipe<sup>1</sup>
- 4. Self Cleaning Filter
- 5. Calmed Inlet
- 6. Floating Extraction Unit
- 7. Water Extraction Pipe
- 8. Ducting to Control Panel<sup>1</sup>
- 9. Pump / Control Panel<sup>2</sup>
- 10. Tank Foundation
  - <sup>1</sup> Items not supplied with system
- Sizes from 2000— 8000 Imp Gallons DN110 / DN150 DN110 / DN150 For roof areas up to 350m² (DN110) (Optional DN150 filter up to 700m²) DN110 / DN150 Polyethylene float with filter valve 25mm water pipe 50-100mm ducting pipe See pump / control panel section 200mm Reinforced Concrete slab on Solid foundation
- <sup>2</sup> Pump / control pannel to be ordered separatly



# **Applications**

- Agricultural Buildings
- Commercial Buildings
- Industrial Buildings

# Rain water re-use

- Agricultural wash down
- Agricultural water reserve
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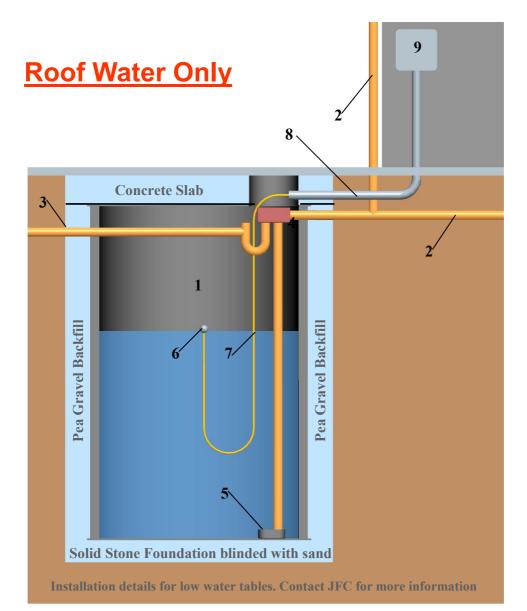
## **Advantages**

- Connection with several buildings and down pipes
- Larger storage volumes available underground
- Horizontal and vertical tanks
   available
- Not limited by height of gutter

## <u>Sizes</u>

2,000 — 8,000 Gallons Larger sizes available on request

# Underground Rainwater Harvesting System



- 1. Tank
- 2. Inlet Pipes<sup>1</sup>
- 3. Overflow Pipe<sup>1</sup>
- 4. Self Cleaning Filter
- 5. Calmed Inlet
- 6. Floating Extraction Unit
- 7. Water Extraction Pipe
- 8. Ducting to Control Panel<sup>1</sup>
- 9. Pump / Control Panel<sup>2</sup>

DN110 / DN150 DN110 / DN150 For roof areas up to 350m<sup>2</sup> (DN110) (Optional DN150 filter up to 700m<sup>2</sup>) DN110 / DN150 Polyethylene float with filter valve 25mm water pipe 50-100mm ducting pipe See pump / control panel section

Sizes from 2000- 8000 Imp Gallons

- <sup>1</sup> Items not supplied with system
- <sup>2</sup> Pump / control pannel to be ordered separatly



# **Applications**

- Agricultural Buildings
- Commercial Buildings
- Industrial Buildings

# Rain water re-use

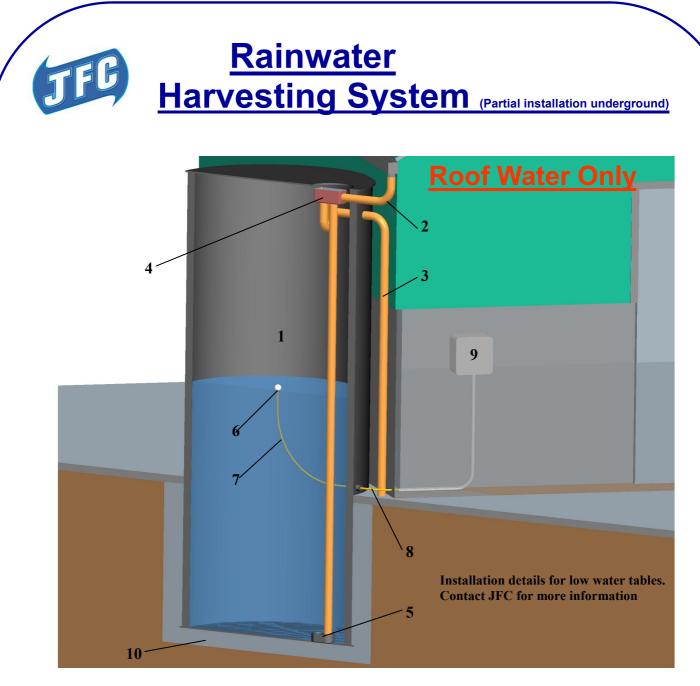
- Agricultural wash down
- Agricultural water reserve
- Agricultural drinking
   equipment
- Flushing toilets
- Industrial Equipment (large washing plants)

## **Advantages**

- Connection with several buildings and down pipes
- Larger storage volumes available
- Not limited by height of gutter

## <u>Sizes</u>

 2,000 — 8,000 Gallons Larger sizes available on request



- 1. Tank
- 2. Inlet Pipe<sup>1</sup>
- 3. Overflow Pipe<sup>1</sup>
- 4. Self Cleaning Filter
- 5. Calmed Inlet
- 6. Floating Extraction Unit
- 7. Water Extraction Pipe
- 8. Ducting to Control Panel<sup>1</sup>
- 9. Pump / Control Panel<sup>2</sup>
- 10. Tank Foundation
  - <sup>1</sup> Items not supplied with system
  - <sup>2</sup> Pump / control pannel to be ordered separatly
- Sizes from 2000— 8000 Imp Gallons DN110 / DN150 DN110 / DN150 For roof areas up to 350m² (DN110) (Optional DN150 filter up to 700m²) DN110 / DN150 Polyethylene float with filter valve 25mm water pipe 50-100mm ducting pipe See pump / control panel section Solid stone foundation blinded with sand



# JFC Manufacturing Co. Ltd

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# <u>10,000 litre</u> Rainwater Harvesting System



#### **Complete Water Management Pump System**



Pump 5 - This is a water management control panel which consists of an inline self priming pump, pump controller and mains inlet connection point. The unit uses water from the tank as a primary supply, if the tank is running dry it automatically switches to mains water supply. The controller switches the pump on & off with demand.

The mains water feed is in accordance with EN1717 for backflow prevention.

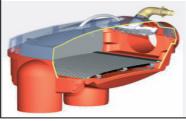
#### NP10000VT

#### Non Potable Water Storage Tank

Diameter:	2260 mm
Height:	3200 mm
Weight:	250 kg
Actual Capacity:	10100 litres



Pump Specification:	
Max. Flow Rate	6.0m³/hr
Max. Pressure Rating	6 Bar
Max. System Pressure	4 Bar
Max. Head	48 Meters
Max. System Head	15 meters



Optimal cleaning performance of rainwater with over 95 % water yield. This unit is a low maintenance filter solution with self-cleaning filter offering > 95 % water yield. Tank and filter overflow are connected to the overflow drain network with this filter package. Max. roof area covered: 350 sqm

#### **Standard Tank Components**

- 450mm hinged inspection point
- 2" BSP outlet
- DN110 Inlet connection
- Internal pipework c/w Calm inlet

#### **Required Groundwork's**

200mm reinforced concrete slab 2.5m x 2.5m on a compacted solid base Bespoke Rainwater Harvesting units available on request from 2000 gals upward to 8000 gals

Site visit and limited Installation Service available

Varying pump sizes & systems available ...

Both Self Priming Inline & Submersible pumps

From 4.2m<sup>3</sup>/hr - 8.4m<sup>3</sup>/hr



# Lowara Pump Options

## Pump 1 - Inline (Self Priming)



Specification:	
Max. Flow Rate	4.2m³/hr
Max. Operating Pressure	8 Bar
Max. Head	53 Meters
Max. Total Lift	8 meters
Maximum Ambient Temp.	40°C
Temp of Pumped Liquid	-10 to + 40°C
Protection	IP55

### Pump 2 - Inline (Large Flow - priming required)



Specification:	
Max. Flow Rate	8.4m³/hr
Max. Operating Pressure	8 Bar
Max. Head	62 Meters
Maximum Ambient Temp.	40°C
Temp of Pumped Liquid	-10 to + 40°C
Protection	IP55

#### Pump 3 - Submersible



Specification:	
Max. Flow Rate	4.8m³/hr
Max. Head	70 Meters
Maximum Ambient Temp.	40°C
Max. Immersion Depth	20 meters
Temp of Pumped Liquid	0 to + 40°C
Passage of Solids	up to 2.5mm
Suspended Sand	up to 25g/m <sup>3</sup>

#### Pump 4 - Submersible (Large Flow)



Specification:	
Max. Flow Rate	7.5m³/hr
Max. Head	50 Meters
Maximum Ambient Temp.	40°C
Max. Immersion Depth	20 meters
Temp of Pumped Liquid	0 to + 40°C
Passage of Solids	up to 2.5mm
Suspended Sand	up to 25g/m <sup>3</sup>



# **Pump / Control Options**

#### Pump 5 - (Combined water management System)



Pump 5 is a water management control panel consists of an inline self priming pump, pump controller and mains inlet connection point. The unit uses water in the tank when available, if the tank is running dry it automatically switches to mains water. The controller switches the pump on and off with demand. The mains water feed is in accordance with EN1717 for backflow prevention.



Pump Specification:	
Max. Flow Rate	6.0m³/hr
Max. Pressure Rating	6 Bar
Max. System Pressure	4 Bar
Max. Head	48 Meters
Max. System Head	15 meters

#### Genyo Pump Control



Genyo pressure control enables automatic pump start up and shut down based on actual water demand.

- Dry run protection
- Automatic restart
- Adjustable starting pressure (1.5-2.5 bar)
- Optional Back-up tank



#### Tank Top-up Kit



The tank top up kit comprises of a level detector, control unit, solenoid valve, tundish and ball valve.

Upon low level detection the unit activates a solenoid valve which diverts mains water into the tank through a tundish for backflow prevention. Once the tank is topped up the solenoid switches off and stop flow into the tank. Usually used where mains back-up is not suitable due to low water pressure.



# **Checklist**

6.

7.

#### 1. Twin Wall Overground Tank

Capacity:2000 Gallons.....Capacity:3000 Gallons.....Capacity:4000 Gallons.....Capacity:5000 Gallons.....Capacity:6000 Gallons.....Capacity:7000 Gallons.....Capacity:8000 Gallons.....

#### 2. Twin Wall Underground Tank

Capacity:2000 Gallons.....Capacity:3000 Gallons.....Capacity:4000 Gallons.....Capacity:5000 Gallons.....Capacity:6000 Gallons.....Capacity:7000 Gallons.....Capacity:8000 Gallons.....

#### 3. Single Skin Overground Tank

Capacity:	2200 Gallons	
Capacity:	1100 Gallons	

#### 4. Inlet Pipework

DN110 (4")	
DN150 (6")	

#### 5. Roof Area (feeding to tank)

Up to 350m <sup>2</sup> (3,706 ft <sup>2</sup> )	
Up to 700m <sup>2</sup> (7,412 ft <sup>2</sup> )	

# Pump Options Pump 1...(Self priming)..... Pump 2...(Large Flow)..... Pump 3...(Submersible)..... Pump 4...(L/F Submersible)..... Pump 5... (Combined system).....

Genyo Pump Controller[	$\Box$
25Litre Back-up tank[	

#### 8. Tank top up

Tank top up	kit	
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# Price List (ex-vat)

#### 1. Twin Wall Overground Tank

Capacity: 200	00 Gallons€ 4631.00			
Capacity: 300	00 Gallons€ 5330.00			
Capacity: 400	00 Gallons€ 6029.00			
Capacity: 500	00 Gallons€ 6875.00			
Capacity: 600	00 Gallons€ 7679.00			
Capacity: 700	00 Gallons€ 8233.00			
Capacity: 800	00 Gallons€ 9662.00			
(This tank maybe installed partially underground				
to a maximum depth of 2 meters)				

#### 2. Twin Wall Underground Tank

Capacity:	2000 Gallons	€ 4789.00
Capacity:	3000 Gallons	€ 5488.00
Capacity:	4000 Gallons	€ 6187.00
Capacity:	5000 Gallons	€ 7034.00
Capacity:	6000 Gallons	€ 7837.00
Capacity:	7000 Gallons	€ 8391.00
Capacity:	8000 Gallons	€ 9820.00

#### 3. Single Skin Overground Tank

Capacity: 2200 Gallons......€ 1700.00 Capacity: 1100 Gallons......€ 1300.00

#### 4. Inlet Pipework

DN110 (4")	standard
DN150 (6")	€ 100.00

#### 5. Roof Area (feeding to tank)

Up to  $350m^2$  (3,706 ft<sup>2</sup>).....standard Up to  $700m^2$  (7,412 ft<sup>2</sup>).....€ 315.00 (700m<sup>2</sup> filter for underground use only)

#### 6. Pump Options

Pump 1...(Self priming).....€ 345.00 Pump 2...(Large Flow).....€ 570.00 Pump 3...(Submersible)....€ 495.00 Pump 4...(L/F Submersible)...€ 660.00 Pump 5 (Combined system)..€1050.00

#### 7. Control Options

Genyo Pump Controller	€ 120.00
25Litre Back-up tank	€ 150.00

### 8. Tank top up

Tank top up	kit	.€ 560.00
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