

# UWO - Rainwater Management Unit

## ZS 450 & 900



- For use in large buildings
- Integrated compact floor mounted appliance with high performance components
- Simple installation with four plumbing hook-ups and three plug and socket connections for controls
- Hybrid technology with dual pressure pumps, loading pump and integral intermediary tank
- Advanced logic control for demanding applications with menu driven set-up
- Built to order with bespoke pump and BMS specification to suit the application

### Appliance Benefits

- ready-to-plug hook-ups and factory pre-commissioned
- compact floor standing unit
- highly efficient—no mains water waste using to hybrid technology
- easy access from removable panels
- all water contact parts are corrosion resistant
- auto and manual operation modes
- strain gauge pressure switch
- emergency shutdown for overflow and low water conditions



### UWO ZS450/900

Complete integrated rainwater supply management unit for automatic control of rainwater distribution for large buildings. Complete with measurement, switching and control tasks. Built with advanced logic control for optimum operation and high performance. Pump performance can be specified by the client or engineer. The appliance eliminates onsite construction of manual control systems and provides a simple, single location for maintenance and fault diagnostics. Fully enclosed with removable panels for service access.

### Technical

Designed to transport clear water, such as rainwater and cooling or chilled water with automatic mains water backup and pump control

pump manufacturer	variable
type	2 x pressure 1 x loading
power supply	1~ 230V (11-28A) 3~ 400V (6-9A)
working temperature	5 - 40°C
delivered flow	8 - 16m <sup>3</sup> /hr
nominal height	36 - 87m
motor power	0.85 - 1.75kW
max. pressure	10bar

### Functional Description

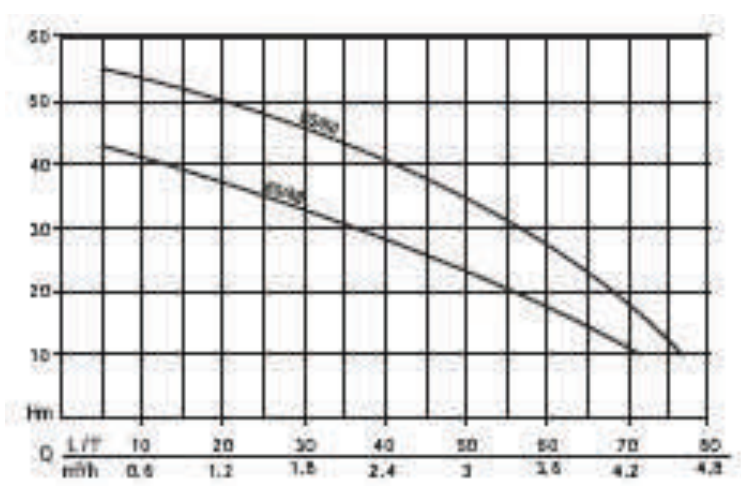
The UWO ZS rainwater management appliance with automatic switching between rainwater and mains water during periods of low rainfall. No mains water is wasted due to the hybrid technology using an intermediary storage tank inside the appliance.

Double pump unit for standard and heavy duty supply pressurization from a range of submersible or suction pumps depending on the application. Alternate pump operation for shared work load or dual pump operation for high demand. User selectable start and stop pressure points for both pumps from 2.2 - 6.5bar. Smooth pump circulation due to electronic pump shift. Tank located loading pump to supply the intermediary tank when at 50% full. Auto mains water supply if the intermediary tank falls below 30%. Appliance shut down at 10% intermediary tank to prevent air entering the system pipes with auto restart as the water level rises. Cat 5 intermediary tank with weir overflow and pump shut down during fault condition. Inlet solenoid WRAS approved.

LCD display for parameter readings: Fill level display for main and intermediate tanks, supply pressure, fault notice for pressure pumps, fault notice for back pressure and overflow of intermediate tank. Manual switching to mains water only operation.

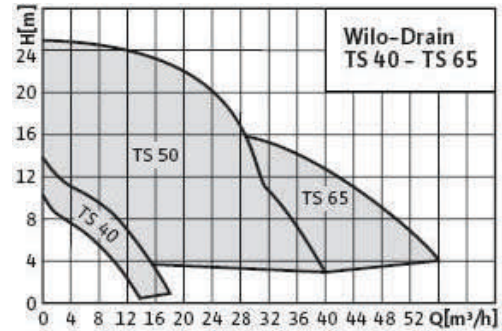
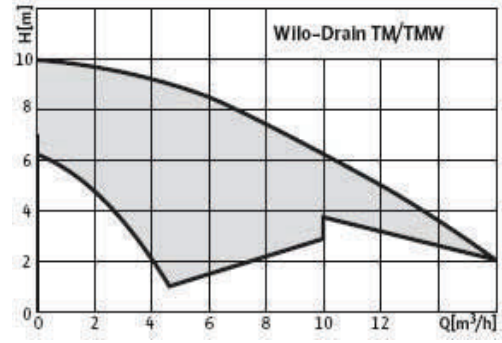
# ZS 450 & 900

## Pump Performance—pressure pump x 2



Std pressure pump model 60/80 (top)

## Pump Performance—loading pump x 1



Std loading pump model TMW 32/8

## Principle Components

Pumps	Variable mfr (see pump datasheets)
Solenoids	ODE
Pressure switch	G1
Flow switch	Stuart Turner
Controller	RVM 5.19
Intermediary tank	PE
Chassis	n/a
Mounting	Floor

## Hook-ups

### Mechanical

- mains water feed
- rainwater feed (in)
- pressure supply (out)
- emergency overflow
- Intermediary tank volume
- weight (dry)

- G 1"
- G1¼" or G1½"
- G1¼" or G1½"
- DN 100
- 450 L
- 160 kg

### Electrical

- system power
- loading pump
- main tank gauge

- Schuko (230V) EN60309 (400V)
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- Prop. plug & socket

