

AQUATWIN TOP GROUPS

WITH SELF-PRIMING CENTRIFUGALS PUMPS FOR RAINWATER RECOVERY



Technical Sheet

AQUATWIN TOP

PRESSURIZATION GROUP FOR RAINWATER RECOVERY SYSTEM



TECHNICAL DATA

Line voltage: 230V single phase
Pump voltage: 230V single phase
Supply frequency: 50Hz
Installation: only vertical
Fluid temperature range: from 0°C to +40°C
Maximum ambient temperature: 40°C
Pressure max: 5,5bar
Pumped liquid: clean, free from solid substances
Pressure regulation range: from 3 to 5 bar
Suction diameter (DNA): 1"
Flow diameter (DNM): 1" 1/2
Degree of protection: IP44

APPLICATIONS

AQUATWIN TOP groups have been designed and manufactured to meet the needs of the modern technique of plants for reuse of rainwater resulting in the saving of potable water.

They are suitable for medium to large applications in schools, nursing homes, hospitals, condominiums, hotels, gyms, shopping centers, for all uses in which there is no need of drinking water such as toilet flushing, washing floors, irrigation, irrigation, car washing, etc.

AQUATWIN TOP is characterized by versatility, low noise, reliable operation, compact and stable structure.

CONSTRUCTION FEATURES

AQUATWIN TOP is realized with a solid structure of black metal sheet with cathaphoresis treatment, this solution in addition to provide greater protection against corrosion and aggressive agents, also it gives an appealing and attractive look. The structure encloses in a very compact design the pumps group in the lower part, the control panel at the side and at the top a tank for water reserve of 150L, which guarantees continuity of supply even in case of lack of rainwater. Through adjustable feet positioned at the base, it is possible to stabilize the system even on non regular planes.

ADVANTAGES OF USING THE AQUATWIN TOP AND RAINWATER RECOVERY

A system of rainwater collection has as its purpose the reuse of the same water, as an alternative to the use of water of the public network.

Thanks to the rainwater stored in special tanks, it's possible to supply all those services that in homes do not require drinking water (washing machine, toilet...).

Therefore water savings is guaranteed. In domestic applications is estimated that the daily demand is 150 liters per person. In particular, when using: flushing the toilet, cleaning washing, watering the garden, washing the car, etc..

Approximately 50% of this water consumption can be provided by rainwater.

The use of rainwater allows a money savings equal to the water saved, then 50%.

In addition to the benefits of saving water and money, the reuse of rainwater gives other advantages due to its chemical composition.

Rainwater has a limited presence of limestone.

This leads to lower hardness that turns into advantages for the plant:

- limited fouling in pipes
- reduced limescale
- Detergent saving, resulting in less pollution of the environment

AQUATWIN TOP

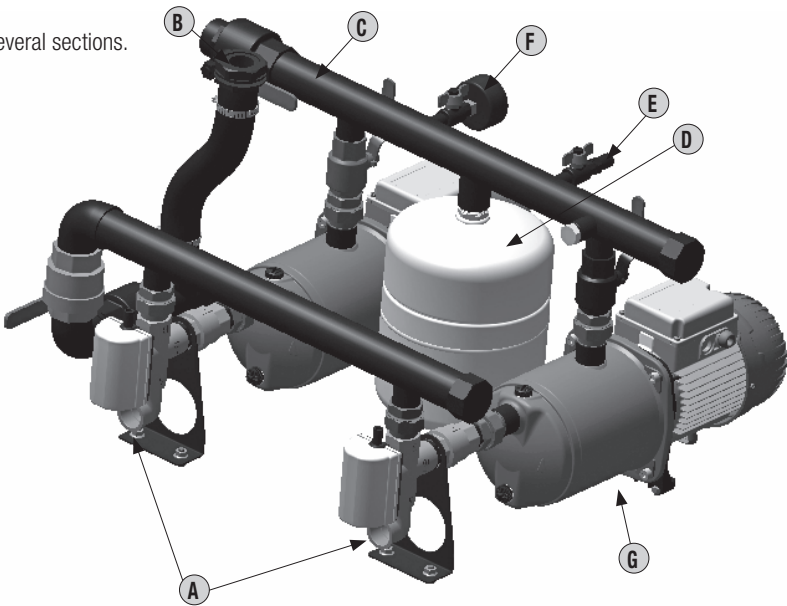
PRESSURIZATION GROUP FOR RAINWATER RECOVERY SYSTEM

HYDRAULIC PARTS

The hydraulic structure of AQUATWIN TOP is divided into several sections.

The pumping part, similar to a classic domestic pressurization group consists of:

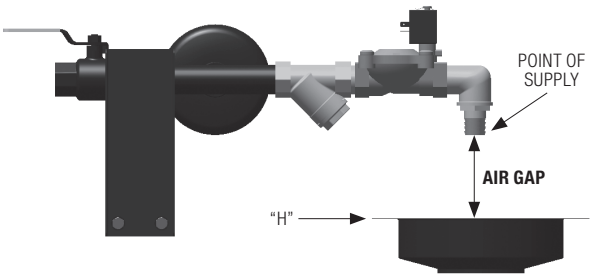
A	CONNECTION TO RAINWATER TANKS - THROUGH SOLENOID THREE-WAY VALVES
B	CONNECTION TO TANKS OF 150 L - PUBLIC WATER SUPPLY
C	FLOW MANIFOLD IN STAINLESS STEEL, CONNECTABLE AT BOTH SIDES
D	EXPANSION TANK 8L
E	PRESSURE SENSOR
F	PRESSURE GAUGE FOR PRESSURE CHECKING
G	PUMPS JETINOX OR EUROINOX



And also by a part of the automatic refilling of the 150 L water tank with drinking water, with a system called "AIR GAP", this system complies with the standard UNI EN1717: Protection against pollution of potable water in water installations and requirements of devices to prevent pollution by backflow.

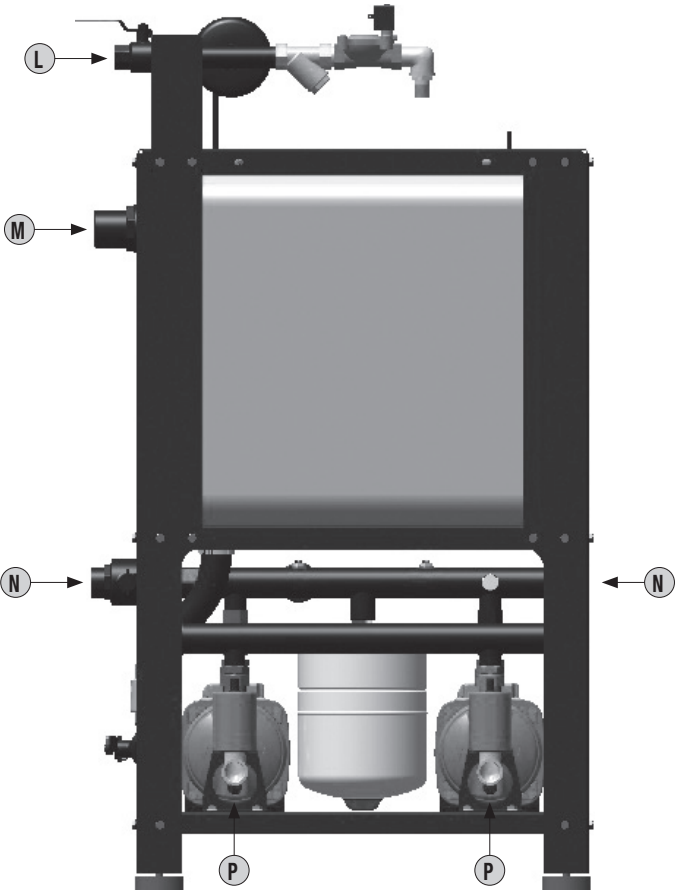


AQUATWIN meets this standard thanks to the "AIR GAP" system or air gap that prevents direct contact between the water of the public network and rainwater, respecting the safety distances between the point of supply and the point of maximum level of the tank (overflow "H").



WATER CONNECTIONS	
L	PUBLIC NETWORK SUPPLY
M	OVERFLOW DRAIN
N	CONNECTION TO UTILITIES (REVERSIBLE)
P	CONNECTION TO RAINWATER TANKS

The suction connection can be single or double, in the case of two distinct rainwater tanks.



AQUATWIN TOP

PRESSURIZATION GROUP FOR RAINWATER RECOVERY SYSTEM

ELECTRICAL PART

Electrical panel in shockproof plastic material, self-extinguishing with degree of protection IP55, installed on the front.

The panel protects the electric pumps with an ammeter and against dry running, it controls the alternation of operation, maintaining the system at a value of average pressure already preset at the factory.

It's possible to change the value of the average pressure acting on a trimmer inside the panel (SP).

At each cycle of operation is performed the Exchange order to start the pumps.

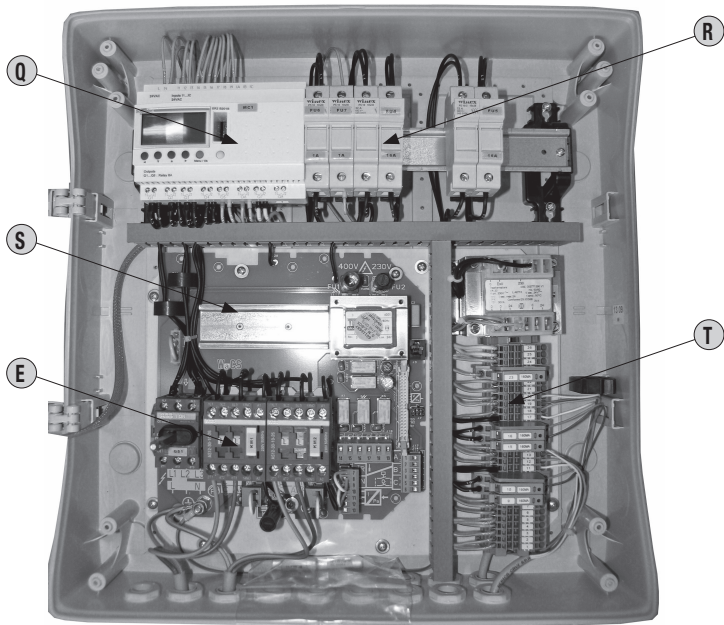
An electronic card manages the levels of rainwater in the tanks (**AQUATWIN TOP manages one or two independent water storage tanks**), handling the two solenoid valves for switching rainwater with the public network and the replenishing of the 150 liters tank to ensure continuity of service.

- Components from the front panel:
- main switch with lockable door lock
 - AUT-O-MAN function selection buttons
 - RESET button alarms
 - gear, lock and alarm warning lights
 - overflow buzzer alarm
 - System monitoring graphic display



On the E-Box card it is possible to perform additional types of connections:

- clamps for connection to pressure gages for dry running or overpressure (Optional).
- free contacts (voltage free) for alarms signaling.



COMPONENTS OF PANEL	
Q	DEDICATED ELECTRONIC CONTROL UNIT FOR THE MANAGEMENT OF THE SYSTEM
R	PROTECTION FUSES
S	E-BOX CARD
T	CONNECTING TERMINAL BLOCK FOR FLOATS
V	PUMP CONNECTION

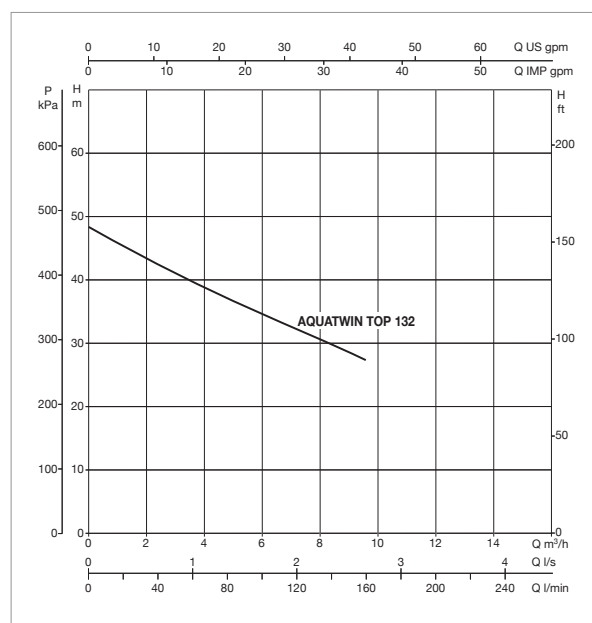
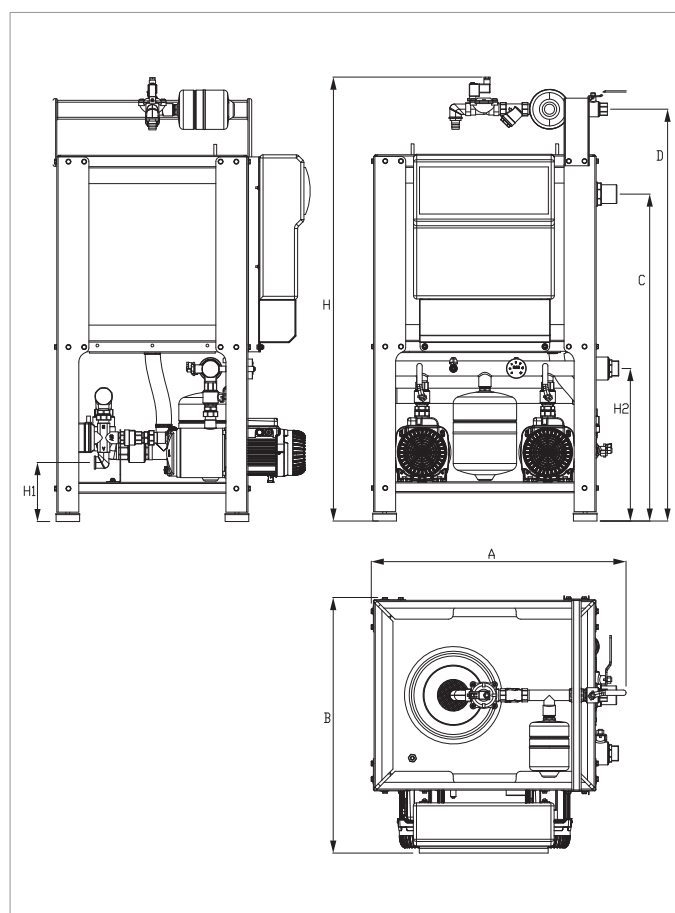
The units are supplied in a sturdy cardboard box with wooden scoop and instruction sheet with the wiring diagram.

AQUATWIN TOP 132

PRESSURIZATION GROUP FOR RAINWATER RECOVERY SYSTEM

MODEL	ELECTRICAL DATA			HYDRAULIC DATA	
	POWER 50 Hz	P2 NOMINAL		Q m³/h	H m
		kW X 2	HP X 2		
AQUATWIN TOP 132	1 X 230 V ~	1	1,36	0,3-9,6	48-28

MODEL	H1	H2	A	B	H	C	D	PACKAGE DIMENSIONS	DNA	DNM	WEIGHT Kg
AQUATWIN TOP 132	188	485	810	815	1415	1040	1310	900x1100x2200	1" + 1"	1" 1/2	113



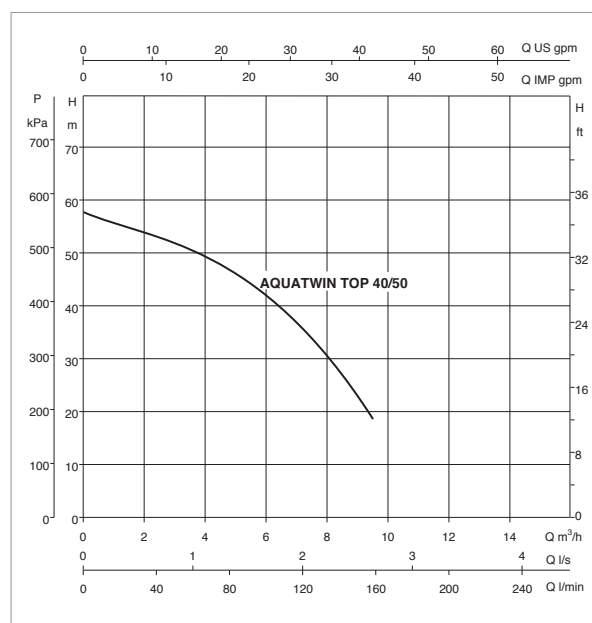
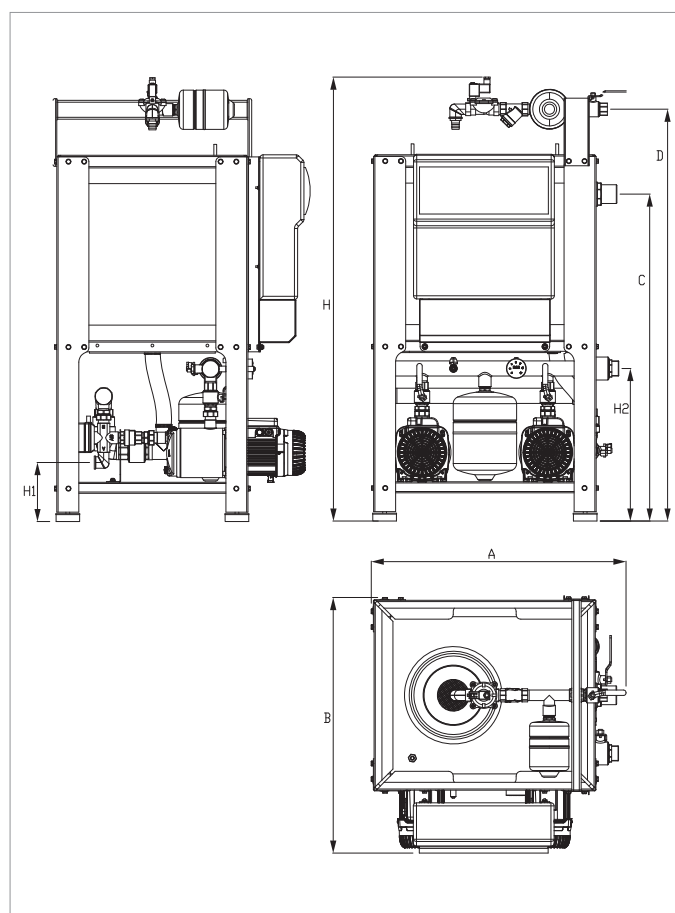
Overall performance refer to TWO pumps running at the same time.
The performance curves are based on values of kinematic viscosity = 1mm²/s and density equal to 1000 Kg/m³. Tolerance of curves according to ISO 9906

AQUATWIN TOP 40/50

PRESSURIZATION GROUP FOR RAINWATER RECOVERY SYSTEM

MODEL	ELECTRICAL DATA			HYDRAULIC DATA	
	POWER 50 Hz	P2 NOMINAL		Q m³/h	H m
		kW X 2	HP X 2		
AQUATWIN TOP 40/50	1 X 230 V ~	0,75	1	0,8-9,6	57-19

MODEL	H1	H2	A	B	H	C	D	PACKAGE DIMENSIONS	DNA	DNM	WEIGHT Kg
AQUATWIN TOP 40/50	188	485	810	815	1415	1040	1310	900x1100x2200	1" + 1"	1" 1/2	113

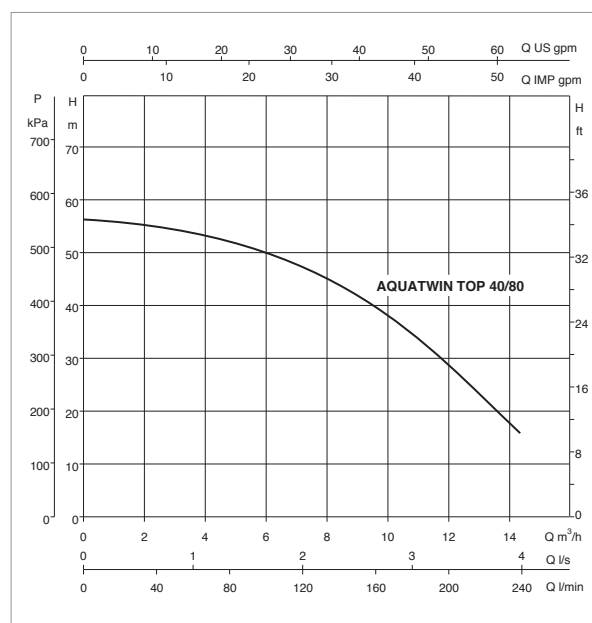
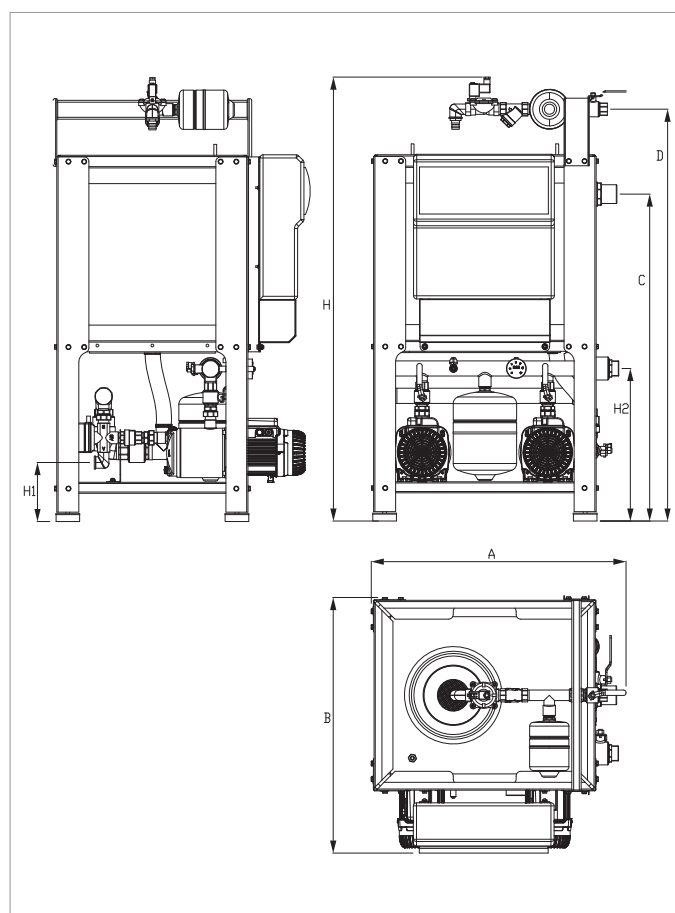


AQUATWIN TOP 40/80

PRESSURIZATION GROUP FOR RAINWATER RECOVERY SYSTEM

MODEL	ELECTRICAL DATA			HYDRAULIC DATA	
	POWER 50 Hz	P2 NOMINAL		Q m³/h	H m
		kW X 2	HP X 2		
AQUATWIN TOP 40/80	1 X 230 V ~	1	1,36	0,6-14,4	58-17

MODEL	H1	H2	A	B	H	C	D	PACKAGE DIMENSIONS	DNA	DNM	WEIGHT Kg
AQUATWIN TOP 40/80	188	485	810	815	1415	1040	1310	900x1100x2200	1" + 1"	1" 1/2	115





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