

Series description: Wilo-RWN 1500



Design

Ready-to-plug rainwater utilisation system with rainwater tank

Application

Rainwater utilisation in single-family houses for conserving potable water as a complete system for installation within the building.

Fields of application e.g.:

- Toilet flushing
- Sprinkling/irrigation
- Supplying washing machines
- Secondary cleaning purposes
- Other non-potable water applications

Type key

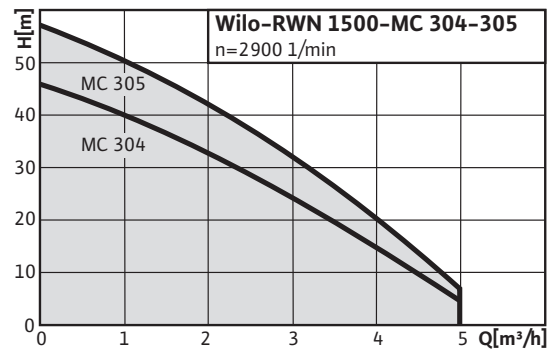
Example	Wilo-RWN 1500 MC 304 EM
RWN	Automatic rainwater utilisation and potable water replenishment system
1500	Nominal content of replenishment reservoir (hybrid tank) (l)
MC	Self-priming, horizontal, multistage centrifugal pump of the series MultiCargo MC
3	Volume flow (m ³ /h) at optimum efficiency
04	Number of stages
EM	Single-phase motor 1~230 V, 50 Hz

Special features/product advantages

- Low-noise, self-priming pump ensures almost noiseless system operation
- Corrosion-free
- Can be expanded at any time
- Multi-tank system with replenishment and settling zone for better water quality
- Greatest possible connection flexibility, due to rotating rainwater inlet
- Particularly suitable for retrofitting existing buildings

Technical data

- Mains connection 1~230 V, 50 Hz
- Fluid temperature max. +5 °C to +35 °C
- Max. operating pressure 6 bar
- Replenishment reservoir 1500 l
- Protection class IP 54
- Connections:
 - Pressure pipe / pressure side, 1" hose
 - Inflow pipe HT 100
 - Inlets HT 100
 - Connection overflow 2x HT 100
 - Expansion port 2x HT 100



Equipment/function

RWN 1500:

- Self-priming centrifugal pump
- Electronic pump control with Wilo-FluidControl
- Connection cable with plug
- 1500 litre storage tank made of polyethylene
- Make-up funnel
- Dome cover
- Protection against low water level
- Flexible connection on pressure side
- 4 transport carrying handles

RWN 1500 A: same as RWN 1500, but also with

- Float switch as well as solenoid valve for automatic water replenishment
- Sable set

RWN 1500 AU: same as RWN 1500 A, but also with

- Float valve for overflow protection when installed under backflow level

Attachment set 1500: for enlargement of storage volume by 1700 litres. Extension kits can be retrofitted at any time. The tanks can be connected on the left or on the right. The tank is UV-stabilised, made of black polyethylene, and includes DN 100 connection line and the required fixation accessories.

Description/design

The Wilo rain Collector II reflects years of experience at Wilo in terms of industrially manufactured, professional compact units for rainwater utilisation. Due to the unique multi-chamber storage system (MKS system), the reduction of freshwater requirements to the minimum amount that is essential for ensuring functional capability during dry periods has been achieved. Whereas the entire storage capacity needs to be increased with conventional systems, here replenishment takes place in an MKS system chamber made for that purpose. As a result, the maximum storage capacity is retained for rainwater when rain falls. Specially coordinated materials and the use of particularly high-quality pumping technology make practically noiseless operation possible. The multi-chamber storage tanks are made of UV-stabilised, black polyethylene (PE), thus providing effective protection against the formation of algae.

The electronic control of the pump with the Wilo-Fluidcontrol makes a diaphragm expansion tank superfluous. In order to ensure optimum usability for the system, both in new buildings and in retrofitting projects, the dimensions of the system were selected in such a way that it would be able to be brought through any door in upright position. The input connection can be swivelled by 300 degrees. The system can be expanded to include any number of auxiliary tanks, each with a capacity of 1,700 litres. This expansion is also possible within a very short time, even with existing systems. This way the Wilo-RainCollector provides optimum adjustment to accommodate the changing requirements of its users.

Materials

- Pump housing stainless steel 1.4301
- Impeller made of Noryl
- Shaft stainless steel 1.4028
- Mechanical seal made of ceramic/carbon
- Stage chambers made of Noryl

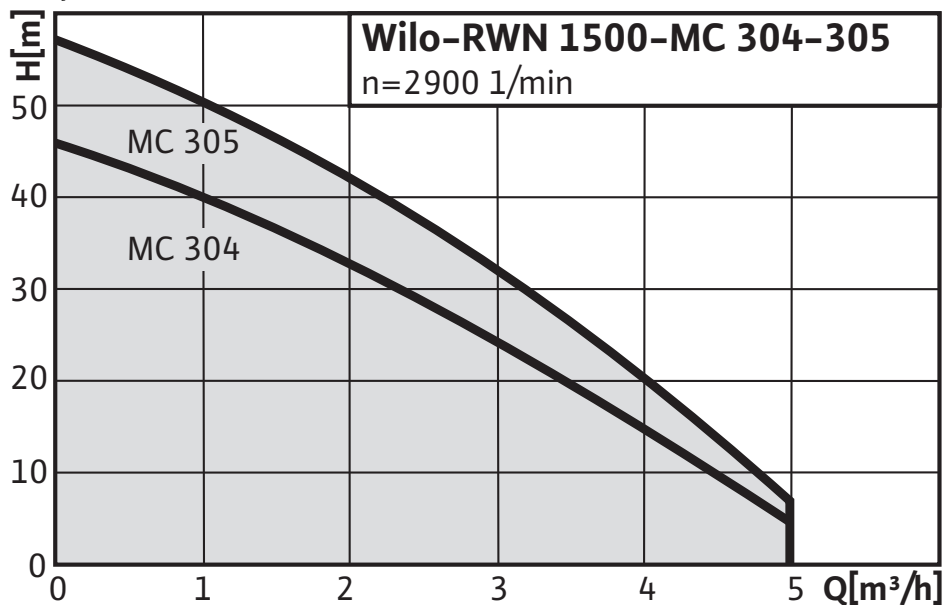
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Scope of delivery

- Heavy-duty, connection-ready single-pump rainwater utilisation system with noise-reduced, self-priming multistage centrifugal pump and electronic flow monitor / pressure controller
- 1500 l storage tank made of black polyethylene with all required connections, inside tank, make-up funnel, manhole cover, mains connection cable with plug

Duty chart: Wilo-RWN 1500

Pump curves



Equipment/function: Wilo-RWN 1500

Design	
Compact rainwater utilisation system	–
Replenishment reservoir	V 1500 l
Corrosion-free	•
Protection against low water level	•
UV-stabilized system tank	•
Diaphragm pressure vessel	–
Connection for backflow warning	–
Corrosion-free steel tubing framework	–
Ball valve on suction and pressure sides	–
Joint tubing on pressure side	–
Pressure gauge	•
Hydraulics	
Self-priming	•
Non-self-priming	Optional
Multistage centrifugal pump	•
Directly flanged motor	•
Motor data	
Mains connection	1~230 V, 50 Hz
Equipment/function	
Electronic control, RainControl Professional	–
Electronic system control, RainControl Hybrid	–
Menu-prompted operation and LCD display	–
Operation and fault signals	•
Wilo-Fluidcontrol (for automatic operation)	•
Pump cycling and test run function	–
Automatic fault-actuated switchover and peak-load cut-in	–
Automatic water exchange in the replenishment reservoir	–
Automatic prevention of lime deposits on the solenoid valve	–
Permanent display of rainwater storage tank level, system pressure, operating status via LCD	–
Accessories	
Operating hours counter	–
Individual run and fault signals	–
Water backflow signalling device	–
Extension modules	–
EPP cap	–
Overflow signalling device	–

• = available, = not available

Technical data: Wilo-RWN 1500

Approved fluids (other fluids on request)

Pure water without settling sediment	•
Rainwater	•

Output

Q_{max}	Q	5 m ³ /h
H_{max}		55 m
Max. suction head	H	8.0 m
Nominal motor power	P_2	550 W 750 W
Start-up pressure		1.5 bar
Switch-off pressure		2.2 bar and less than 0.6 l/min volume flow
Fluid temperature	T	+5...+35 °C
Max. ambient temperature	T	40 °C
Mains connection		1~230 V, 50 Hz
Replenishment reservoir	V	1500 l
Gross weight	m	142 kg

Motor/electronics

Protection class	IP 54
Insulation class	F

Connections

Pressure pipe/pressure side	Hose 1"
Inlet	HT 100
Connection overflow [DN]	2 x HT 100
Expansion ports	2 x HT 100

Materials

Pump housing	1.4301
Impeller	Noryl
Pump shaft	1.4028
Mechanical seal	Carbon/ceramic
Stage chambers	Noryl

• = available, = not available

1) Potable water replenishment via float valve with free outlet in accordance with EN 1717

2) Potable water rep□

Rainwater storage pump connection: Connecting piece d.50 (inlet integrated with non-turbulent supply line on the tank side)

3) with overflow siphon as anti-siphon trap and full passage in accordance with DIN 1986) Overall system protection class: