

# ARIS ARGUS 7eco R

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Rainwater unit



# Systematic rainwater harvesting

Rainwater harvesting is not a new invention, but has been practiced worldwide for thousands of years. By collecting and treating rainwater, we provide a hygienically safe medium that is naturally soft with low mineral content, which is ideal for various process water applications.

Rainwater harvesting is a sustainable and efficient way to reduce the strain on drinking water resources while also cutting costs. This preserves resources and supports sustainable water management – in an environmentally friendly, economical, and future-oriented way.

- ① Washing machine
- ② Toilets
- ③ Landscaping irrigation
- ④ Green Facades
- ⑤ Adiabatic cooling
- ⑥ Green roofs
- ⑦ Tree irrigation



# Rainwater unit ARIS ARGUS 7eco R

## Mains water supply

Supply line from the mains water network to supply consumers when no rainwater is available.

## Control

The control system is the central intelligence of the ARGUS and handles all control and regulation processes:

- ◆ Control of supply and pressurisation pumps as well as all other components
- ◆ Evaluation of level sensing
- ◆ Leakage monitoring
- ◆ Communication, e.g., with the building management system, via volt-free contacts, Modbus, BACnet, or the Internet
- ◆ Display of all operating parameters and fault messages via graphical touch display
- ◆ All control parameters are customisable within sensible operational boundaries

## Housing

The housing protects the unit from dirt ingress and external manipulation while still allowing a view of the interior.

- ◆ Aluminum profile with acrylic glass sheets
- ◆ Integrated ventilation grids and pipes connectors
- ◆ Can be removed in a few simple steps for maintenance purposes

## Booster pumps

The booster pumps supply water at the required flow rate and pressure. They are:

- ◆ Variable speed inverter-controlled
- ◆ Individually isolatable and replaceable
- ◆ Specifically chosen for each project
- ◆ Made of corrosion-free stainless steel

## Pressure pipe to applications

The pipe transporting water from the ARGUS to the supplied outlets.

- ◆ With automatic minor leak protection and pipe burst monitoring

## Mains water feed

Connection to the mains water pipe with valve and air gap, for feeding the distribution network when the storage tank is empty. The valve opens and closes automatically as required.

- ◆ Top-up via Type AB air gap
- ◆ Compliant with EN 1717, DIN 1988 and WRAS
- ◆ Automatic stagnation prevention in accordance with the German DVGW

## Break tank

Serves as a buffer tank for mains water top-up. If the storage tank runs dry, mains water is supplied as needed via the break tank.

- ◆ With emergency overflow
- ◆ Level monitoring of the break tank
- ◆ Monitors leaks, dry-run and overflow

## Suction pipe

Connection between the rainwater unit and the supply pumps in the storage tank. The ARGUS monitors the rainwater tank level and activates the supply pumps when water is needed.

Configuration options

Basic functions	ARGUS 7eco R	ARGUS 9 R
Number pressure pumps	2-3	individual
Booster pumps speed-controlled	yes	yes
Non-potable water sources (tank, dwell, ...)	up to 2	individual
Flow rate	max. 30 m³/h	individual
Pressure	max. 10 bar	individual
Installation in housing	yes	individual
General failure note via volt-free contact	yes	yes
Display of pressure, water level, failure notice	yes	yes
Installation area (w x d x h)	1,2 x 0,6 x 1,6 m	individual
Supply pumps	max. 2 x 2	individual
Stagnation prevention	yes	yes
Freely programmable control	Touchpanel	Touchpanel

Security functions	ARGUS 7eco R	ARGUS 9 R
Redundant supply pump (optional)	yes	yes
Butterfly valves (optional)	max. 2	individual
Redundant butterfly valves (optional)	max. 2	individual
Wire breakage and short circuit survey of all sensors	yes	yes
Dry-run protection of all pumps	yes	yes
Leakage survey of pressure pipe	yes	yes
Leakage survey of all tanks	yes	yes
Pipe burst survey	yes	yes
Overflow alarm for break tank	yes	yes

Additional functions (optional)	ARGUS 7eco R	ARGUS 9 R
Automatic tank drain down	yes	yes
Water feed prioritisation from several sources	yes	yes
Redundant Mains water top-up valves	yes	yes
Monitoring and selfcleaning LUPO filter	yes	yes
Monitoring of other filter systemes	ARIS CLEAN	individual
Water meters	up to 3	individual
Time-controlled UV-desinfection	yes	yes
Holiday mode (regular test operation of inactive parts)	yes	yes
Connection via Modbus + BACnet	yes	yes
Remote monitoring and mantainance	yes	yes
Supply pumps in several tanks	up to 2	yes
Function display in APP	yes	yes
Delivery in components for difficult installation situations	no	yes
Direct ("flooded") suction from basement tank(s)	yes	yes
External panel display	yes	yes
Housepipe ban implementation	yes	yes

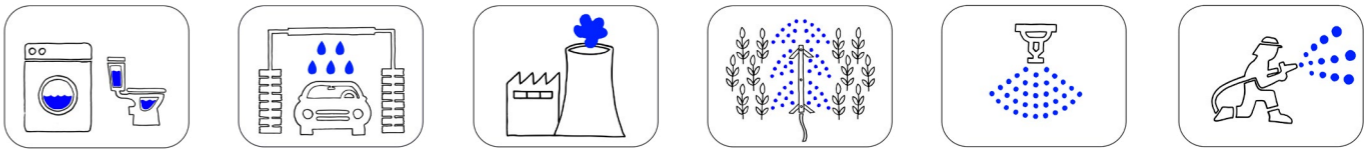
Why rainwater unit?

Rainwater harvesting requires a second pipe network in the building to ensure that drinking water and process water remain reliably separated. If rainwater is not available, it must be possible to supplement the supply with mains water in a hygienically safe manner (in accordance with EN 1717/DIN 1988/WRAS) as required.

What is rainwater useful for?

Rainwater can replace many drinking water applications. In fact, rainwater is the better medium for many of these applications, as it is naturally soft with very low mineral ion concentrations.

Rainwater is therefore ideal for applications where its soft, almost distilled water quality is advantageous. Areas of application include:



Operating safety

The water supply is essential for building operation. This also applies to process water, which must arrive at the consumption points safely, in the best quality, and with sufficient pressure and flow rate. ARIS ARGUS rainwater units are individually designed for the desired level of reliability and, if desired, monitor the entire system from the inlet filter to the distribution network.

All measured values and operating states can be shown on the intuitive touch screen display. All information, including remote maintenance, can be easily forwarded via volt-free signal contacts, plus optional communication interfaces with building management systems, or if desired, via an internet connection.

Commissioning and Maintenance

To ensure the longest possible service life, a rainwater harvesting system must be professionally commissioned and regularly maintained. This is the only way to provide fault-free functionality.

For all our ARIS systems, we offer annual maintenance by our ARIS customer service team throughout Germany as standard.

A rainwater unit performs precisely this function. It also monitors the fill level in the rainwater tank, controls the supply pumps, and transmits operating and fault messages to a central location, if desired.

- Toilet flushing
- Cleaning, e.g. car wash, industrial/cleaning/rinsing processes etc.
- Adiabatic cooling systems
- Facade and roof irrigation
- Irrigation of green spaces
- Firefighting water storage

Leakage monitoring

Leak detection identifies and reports minor losses in the tank, in the system, or even in the distribution network, e.g., via leaky toilet cisterns. Of course, this does not lead to the system being shut down! In contrast to...

... pipe burst detection

This not only triggers an alarm, but also causes the system to shut down for safety reasons, thus preventing extensive damage caused by uncontrolled water leakage.

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