

TecBox P30 - The box of technology for water features and well systems

The HYDROZON® TecBox P30 is an innovative, compact water treatment system that is specially geared to the needs of water features, nozzle and fountain arrays and also public well systems.

The TecBox contains all process-related components that are required for circulation and treatment of the water. The TecBox is supplied as a compact, ready-to-connect and factory-tested unit.

So that water features and well systems always remain attractive and clean and do not harbour any risk of infection, a reliable supply of clean and safe water must be guaranteed. The HYDROZON® TecBox P30 provides this in places where which no continuous fresh water source is available. A continuous supply of drinking water is not required, with the water being circulated and treated instead.



Water treatment with ozone

The water is treated in the HYDROZON® TecBox P30 by ozone followed by filtration. Ozone (O₃) is the most powerful oxidation medium and disinfectant used in water treatment. It reacts with the water constituents and breaks down into oxygen during the reaction (O₂).

At the same time, ozone reacts with the bromide ions added via the flocculant and acts as a disinfectant with a lasting effect (depot effect).

Advantages

- Ozone is produced in situ! This means no use of hazardous chemicals that must be monitored and refilled.
- Outstanding water quality like in a swimming pool thanks to the ozone-bromine method.
- No unpleasant chlorine odour around the water feature.
- Largely stable pH value, good algae prevention.
- Improved material compatibility with ozone. Chlorine attacks surfaces (including stainless steel).
- Fully-automatic system operation
- Long-life units

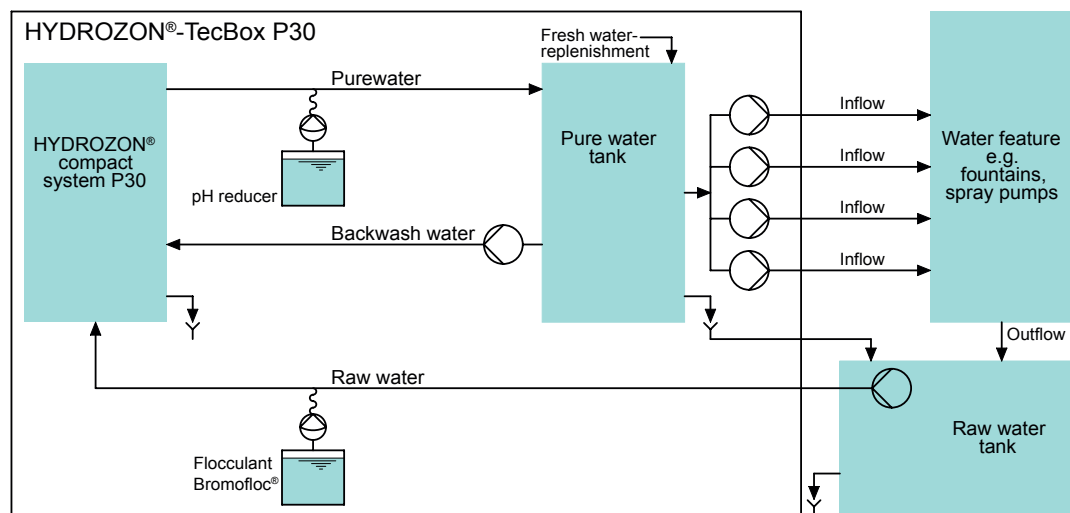


Water problems The quality of the water features' and public well systems' circulation water being treated greatly depends on environmental influences, location-specific factors and both human and animal influences. Consequently, unwanted substances (e.g. leaves, sand, faecal contamination, left-over food etc.) enter the water circulation system all year round.

- Treatment requirements**
- Removal of physically problematical substances (e.g. impurities causing turbidity, organic carbon)
 - Removal and inactivation of bacteria, viruses and germs
 - Control and adjustment of the pH value
 - Provision of pleasant, clean and odourless wellness water
 - Building up a disinfectant depot

The HYDROZON® TecBox P30 is the most reliable and safest water treatment system for water features and public well systems.

Basic scheme



The water is treated in the HYDROZON® TecBox P30 in several stages:

Treatment stages **Flocculation:** With the aid of the flocculant BROMOFLOC®, agglomerates that are retained in the filter are formed from the particulate water constituents. The required amount of bromide is added at the same time.

Oxidation and disinfection with ozone: Ozone is an outstanding oxidation medium and disinfectant. Its high oxidation potential brings about rapid oxidation of organic and inorganic substances in the water. This deactivates micro-organisms. Following a reaction with the water components, ozone breaks down into oxygen, surplus ozone reacts with bromide and forms the disinfectant depot.

Filtration: During the filtration step, the undissolved water constituents and particles are removed, with micro and macro flakes from the flocculation process being retained.

pH value adjustment: pH value fluctuations can occur as a result of calcareous constituents leaching out on water-bearing surfaces or from acidic rainwater. These are balanced out during the process by means of dosing, in order to keep the pH value in the neutral range at pH 7.

Components The ready-to-connect HYDROZON® TecBox P30 container unit consists of an insulated, ventilated and frostproof standard container with the following permanently installed components:

- HYDROZON® compact system P30
- Pure water tank
- Dosing system
- Pump system for treatment and water features
- Control unit

- Special features**
- Modular structure of all required operating components
 - High-quality design
 - Modern control technology with visualisation via touch panel
 - Fully-automatic operation
 - User-friendly operation
 - Safe monitoring via mobile terminal devices
 - Optional: remote servicing module
 - Optional: design in a shaft configuration instead of a container



Data	HYDROZON® compact system Type	Treatment capacity [m³/h]	Ozone quantity [g/h]	Power required* [kW]	Backwash water/backwash [m³]
	P30/10	10	up to 10	1.55	0.50
	P30/15	15	up to 20	1.90	0.75
	P30/20	20	up to 30	2.40	1.00

* plus pump capacity for water features

Service Water features and well systems too require regular maintenance and both controlled commissioning and decommissioning (winter pause). We would be pleased to assist you with this, or take on all of the work.

Project number: _____

Planning office: _____

Commission: _____

Planned location: _____

Number of water features: _____

Type of water features: _____

Number of nozzles: _____

Space size: Surface: _____ m² (if plan is available, please append to the enquiry)

Raw water tanks: Contents: _____ m³

Circulation water volume: _____ m³/h

Floor covering around nozzles: _____

Number of circuits: _____ (controllable separately)

Water temperature: _____ °C

Filter technology: Compact design Special design

Control technology: Level control, fresh water
 Dry-run protection
 Fresh water measurement
 Additional external control module
 Remote servicing

Dirt/contaminant ingress: _____

Miscellaneous: _____

