NECON

Chemical-free water purification system

“The company
with competence
and responsibility”

Contents

The principle

As a result of our extensive collaboration with leading scientists and laboratories, NECON has succeeded in redefining the age-old principle of electrophysical water purification. The NECON system consists of the patented treatment electrodes, which release ions into the water precisely controlled by a microprocessor unit.

We have made enormous efforts to ensure that our claim of "100% chemical-free" water purification is fulfilled. Advanced automation technologies and novel electrode materials stabilize the ionization process even with fluctuating water quality and volume flow. Analytical data available from successful international NECON GmbH projects have repeatedly confirmed best water quality.

The NECON system efficiently eradicates bacteria, fungi, algae and biofilms from water and water supply systems, without being corrosive, irritant or caustic, is taste and odour-neutral and, according to the WHO and national guidelines is safe for humans even on long-term exposure – is there a more suitable water for the widest range of applications?

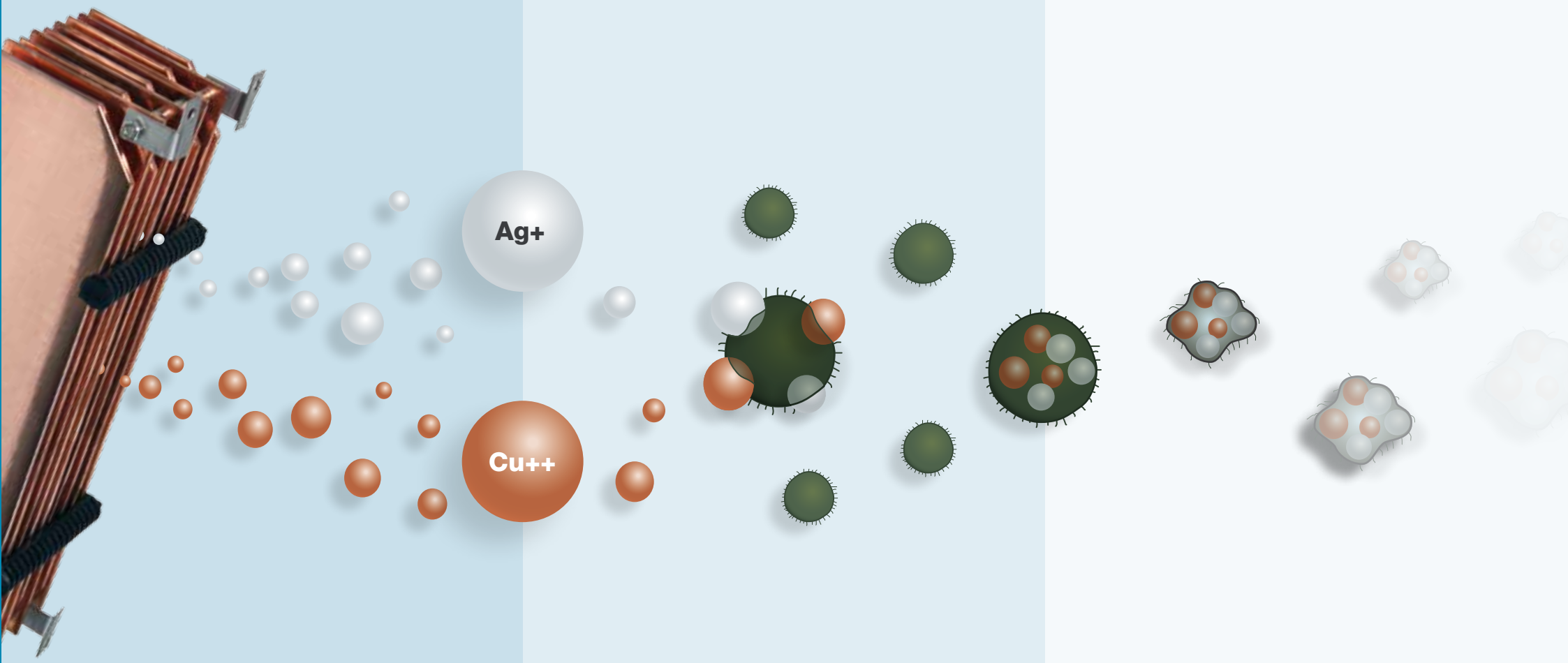
The most important advantage of the ions is that they are retained in the water and continue to provide long-term protection by purifying the water without the use of toxins. Even after the filter system has been switched off this depot effect persists for several months. Constant adjustments and permanent monitoring, which require continuous supervision, are therefore unnecessary. The NECON water purification system is easy to operate and requires minimal maintenance.

It has been demonstrated that just micrograms of copper and silver ions are sufficient for elimination of Cryptosporidium, E. coli bacteria, Pseudomonas, Legionella and many other pathogenic species. This method of water disinfection technology can be used in practically all situations where permanent eradication of bacteria, pathogenic microorganisms, algae and even fungal contamination is required.

Average copper concentration in nutritional products

Cow milk	0.4 mg/kg
Beef	0.9 mg/kgS
Pork	2.0 mg/kg
Game	2.1 mg/kg
Cod	5.5 mg/kg
Poultry	3.4 mg/kg
Hens egg	2.5 mg/kg
White bread	2.0 mg/kg
Rye bread	3.5 mg/kg
Oats	8.8 mg/kg
Rice	1.8 mg/kg
Potatoes	2.2 mg/kg
Various types of cabbage	1.5 mg/kg
Dried vegetables	9.0 mg/kg
Various types of nuts	5.0 mg/kg
Apples and pears	0.9 mg/kg
Bananas	1.3 mg/kg

NECON purified water **0.5–1.0 mg/L**
(higher concentrations in some special applications)



The NECON treatment electrode produces positively charged ions.

Searching for a balance for their positive polarity, the ions attach themselves to and penetrate the walls of bacteria and pathogenic microorganisms.

Photosynthesis and nutritional uptake of the cells is prevented; they rapidly succumb

Certificates & laboratory tests

Agricultural applications

In the cultivation of crops NECON prevents the majority of fungal diseases, i.e. all those that rely on airborne transport. The advantage of the method is that the surrounding flora and useful microorganisms in the earth are hardly affected by the treatment, as the ions sprayed with the irrigation system develop their effects on the plant leaves. In addition, the method is safe for humans, as NECON-purified water is effectively of drinking water quality. Correspondingly there are no principle restrictions with regard to the frequency or duration of the treatment.

Other positive effects include strengthening of the plants due to the copper uptake from the earth and a marked improvement in root growth, together with the prevention of Legionella particularly in the context of overhead sprinkler irrigation, as the whole water supply system is kept free of pathogenic bacteria starting from the point of ionization.

NECON purified water can also prevent the spread of pathogenic bacteria and microorganisms in the fields of animal breeding, livestock husbandry and processing.

Medical and cosmetic applications

Particularly dentists have discovered the advantages of the “NECON system” for ensuring the safety of patients and staff associated with a simplification of hygiene management. Reports from installations in the practice setting confirm reductions in bacterial counts to well below the regulatory limits or even to zero with a parallel simplification of the hygiene management. Even installations with older equipment and dentist’s chairs were permanently cleared of bacterial contamination even without conventional decontamination; in a further study not a single pathogenic microorganism was detected even after a vacation break of several weeks.

Initial applications in the cosmetic field are relevant to ensuring a germ-free water supply for production equipment and the prevention of bacterial burden due to contamination over the shelf life of the product. In addition, it can be assumed that the application of bactericidal and fungicidal ions increases the skin-improving effects of the products; relevant large-scale trials are currently underway in the context of research projects.

Treatment of Legionella

Copper-silver ionization is the most effective method of eliminating Legionella in water supply systems. In the United Kingdom alone, systems of this type have been installed in more than 1100 hospitals and nursing facilities.

NECON offers all the technical requirements for eradication of Legionella: volume flow-dependent dosing, automatic monitoring and regulation of copper levels, remote access to the operating parameters and recoding of parameter changes.

Cooling systems present a particularly broad spectrum of challenges with regard to water quality. The NECON system represents the most economic solution to organic contamination of the cooling water required for the installations (bio-fouling): Without additional chemicals it prevents bacteria, fungi and algae, eliminates any microbial contamination present and is completely non-corrosive. The need to drain water systems on account of accumulation of corrosive agents is avoided.

Together with the low maintenance requirement and extensive automation of the process, the NECON system represents both an efficient and economic solution for the prevention of microbes in cooling systems.

Comparison of water purification system methods

Method	Corrosion damage to pipes	Toxic	Temperature-dependent	pH-dependent	Development of lime scale	High energy consumption	Rapid re-contamination with microorganisms after treatment	Residual effects	Simple application	Evaluation
Heat shock	×	—	×	×	×	×	×	—	—	– Unsuitable for large-scale units, hot water hazard
Maintenance of constant high temperatures	×	—	×	×	×	×	×	—	—	– Unsuitable for large-scale units, hot water hazard
Pulse chlorination / shock over-chlorination	×	×	×	×	×	—	×	—	—	– Precautionary measures for operation – Waste water restrictions
Continuous chlorination	×	×	×	×	×	—	×	×	—	– Precautionary measures for operation – Waste water restrictions
Chlorine dioxide / monochloramine	×	×	×	×	×	—	×	×	—	– Precautionary measures for operation and against explosion
Use of ions	—	—	—	—	—	—	—	×	×	– Highly effective, with long-term protective effects
Hydrogen peroxide (“active oxygen”)	×	×	—	×	—	—	×	—	—	– Water clouding due to carrier chemicals or degradation products
Ozone	×	×	—	—	—	×	×	—	—	– Water clouding due to carrier chemicals or degradation products
Ultraviolet light	—	—	—	×	—	×	×	—	×	– Not safe for humans as a sole method of disinfection

× = applies
— = does not apply

Water purification for swimming pools and whirlpools

Banish chlorine and all other chemicals from your swimming pool with the "NECON system"! If you have your own swimming pool, you, your family and guests can enjoy pure, natural fresh water of the best quality. With the "NECON system" public swimming pool operators create a safe environment free of pathogens even under peak load conditions, so that visitors return again and again for a sustainable, relaxing wellness experience or sport activities, without health risks.

As far as sport swimming is concerned, there are good reasons for the 100% chemical-free purified water long-preferred by athletes and trainers in the previous Eastern-block countries. The athletes swimming at the Olympic games in 2004 in Athens were privileged to compete under optimum conditions in NECON-water.

Comparison of NECON with conventional disinfection: example: swimming pool application

Conventional (chlorine)	NECON (copper / silver)
Causes reddened and stinging eyes	No stinging eyes
Dry, brittle skin	Silk-soft skin
Active odour, especially in indoor pools	Odourless water
Respiratory tract irritation	No irritants present in the water
Chlorine represents a health hazard	Copper is healthy (essential element)
Requires use of flocculation agents	Natural flocculent formed
Special winter agents required during operational shutdown	No development of algae over winter
Requires additional anti-algae agents	No additional agents required
Storage and stockpiling of the treatment products	No storage space requirement
Permanent chlorine value measurements, at least once per week	Copper concentration measured only once every 3 months
Risk of caustic burns if liquid chlorine is used	Fully automatic ionization
Additional agents required for pH adjustment	No additional agents required for pH adjustment
Risk of corrosion for swimming pool equipment and environment	No corrosive properties
Poor buffer capacity	Constant formation of ions
Water treated with chlorine needs to be replaced once yearly	No replacement of the water required
Filter sand requires replacement every 2–3 years	Filter sand replacement only every 10 years
Rapid loss of effectiveness under strong sunlight	Temperature-independent
Backwashing water requires special disposal	Backwashing water ideal for plant irrigation

Model ranges

necOnX

System for flow rate-controlled treatment of water volumes up to 15 litres/minute, for example in the dentist practice or for individual taps in the domestic environment.

MAB-3000

Cost-efficient units combining electrolysis control and a primary electrode in a separate treatment cell. Suitable for flow rates in the usual domestic range and for the treatment of water volumes e. g. in swimming pools up to 50 m^3.

NEC-5000

Installations based on the NEC-5000 control series, the completely newly developed, next-generation replacement of the successful NEC-1000/7000 systems. Options such as touch-screen, remote-control and remote-maintenance are supported including integration in the "iOn test line" Online-measurement system. Control of up to 2 primary electrodes and one secondary electrode, installed as for the MAB-3000 units in separate treatment cells.

NEC-20

System for time-controlled treatment of water volumes up to 20 m^3, e. g. whirlpools or above-ground pools.

NEC-8000

Large-scale units, with up to 10 primary electrodes complete with piping and electrical installations; up to 2 secondary electrodes can be installed.

The electrodes are controlled by completely newly developed control box in which several system units can be centrally activated via a touch screen.

The system units are based on the NEC-5000 series and offer the same technical options.

NECON Comprehensive technology

In a space-saving design, electrolysis units consisting of a control unit plus a primary and, if applicable, a secondary electrode combined with high-bed filtration, suitable in combination with the non-oxidative and non-aggressive NECON process for efficient removal of contaminants from the water.

Depending on the type of unit, this can be optionally fitted with automatic filter-backwash and temperature control. NE-Clear filter granulate is available as an optional filling material for the filter.

Treatment cells and electrodes

Doublesize-Combi electrode – C21039

Electrode weight:	16 kg
Treatment cell:	Double-Size (plastic, optionally stainless steel with PVC top lid)
Cell dimensions (H x W x D):	540 × 225 × 200 mm
Stainless steel version:	715 × 195 × 195 mm
Connector thread:	2× 2“ female thread
Stainless steel version:	2× 2“ male thread
Blanking plug thread:	– 1× ½“ 1x 1/2" BSP for optional paddle-wheel flow monitor – 1× ⅜“ BSP for optional venting valve (plastic version only)
Cell pressure resistance:	3 bar
Stainless steel version:	6 bar
Cell temperature resistance:	70 Grad Celsius
Stainless steel version:	60 Grad Celsius

Figure p. 16 ff:

Maxi-Combi electrode – C21035
(Maxi-Ag electrode – C21038)

Electrode weight:	8 kg
Treatment cell:	Maxi-Size (plastic, optionally cast metal)
Cell dimensions (W × H × D):	340 × 225 × 200 mm
Connector thread:	2× 2“ BSP
Cast metal version:	2× 2“ BSP
Blanking plug thread:	– 1× ⅜“ BSP for optional venting valve – 1× ½“ BSP for optional paddle-wheel flow monitor
Cell pressure resistance:	3 bar
Cast metal version:	6 bar
Cell temperature resistance:	70 degrees Celsius

Figure p. 16 ff: = C21035 = C21038

Mini-Combi electrode – C21031
(Mini-Ag electrode – C21036)

Electrode weight:	1 kg
Treatment cell:	Mini-Size (plastic, optionally cast metal)
Cell dimensions (W × H × D):	200 × 115 × 100 mm
Connector thread:	2× 1 ½“ BSP
Cast metal version:	2× 2“ BSP
Blanking plug thread:	1× ½“ BSP for optional paddle-wheel flow monitor
Cell pressure resistance:	3 bar
Cast metal version:	6 bar
Cell temperature resistance:	70 degrees Celsius

Figure p. 16 ff: = C21031 = C21036

MAB-3000

Technical data
Control unit

1. Voltage supply 110–230 V switchable 50/60 Hz; contact rating filter pump max. 1.1 kW, can be replaced by optional external contactor.
2. Electrode current 0.25–2.5 A variable; with max. 15 V output voltage.
3. Power consumption max. 170 Watts.
4. Dimensions (W × H × D) 195 × 180 × 120 mm.
5. Programmable switching times 1 per day
6. Flow control by turbine or paddle-wheel flow monitor, or magnetic-inductive flow monitor for volume flow-dependant water treatment. (each optionally available)
7. IP protection class 54.

Installations based on the MAB-3000 control unit are the lowest-cost NECON systems, which combine the electrolysis control and one primary electrode in a separate treatment cell.

A special feature of the MAB-3000 is the control of electrolysis even at the low-volume water flow range after corresponding adaption with turbine flow monitor (optionally available) and a fine-dosage setting of the ampere range covered. MAB-3000 units are therefore ideal for normal domestic flow volumes; in addition, they offer excellent cost-efficiency for die treatment of water volumes encountered in smaller swimming pools.

Product variants	Measurement system included	Treatment electrodes
MAB-3000.1 – Treatment of flow rates with 0.5 – 1.0 ppm; 900 – 1.800 m^3 service life – For private pools up to 30 m^3	Cu-test kit Comparator	1 × C21031 
MAB-3000.2 – Treatment of flow rates with 0.5 – 1.0 ppm; 7.500 – 15.000 m^3 service life – For private pools up to 50 m^3	Cu-test kit Comparator	1 × C21035 

NEC-5000 "FUNK"

Technical data
Control unit

1. Voltage supply 110–230 V switchable 50/60 Hz; contact rating filter pump max. 1.1 kW, can be replaced by optional external contactor.
2. Electrode current 1–7 A adjustable for the primary electrode(s) and 0.25–2.5 A for the optional secondary electrode (in 0.25 A-steps); with max. 15 V output voltage.
3. Power consumption max. 370 Watts.
4. Dimensions (W × H × D) 335 × 270 × 150 mm.
5. Up to 3 programmable switching times per day.
6. Flow control by automatic filter-backwash control unit, paddle-wheel flow monitor or magnetic-inductive flow monitor for volume flow-dependant water treatment. (each optionally available)
7. Heating control adjustable to 40 °C.
8. IP protection class 54.

NEC-5000 is the recently introduced "flagship" model of the NECON control units, which can control up to two primary electrodes; the NEC-5000 "FUNK" can also control an additional electrode via a second regulator circuit with its own parameters; usually used for adjustment of the Cu-Ag standard levels. The NEC-5000-control unit "FUNK" also includes a temperature control for the pool water.

The special feature of the NEC-5000 "FUNK" model is its remote control, on the one hand via a local WLAN per App from an optionally available "touch" player, and on the other via NECON's own maintenance servers in Internet via an optional local Power-LAN- (dLAN, PLC) network connection.

The control unit has an optional touch screen operating display, which in addition to more convenient operation also provides a detailed Log history function.

Product variants	Measurement system included	Treatment electrodes
NEC-5000.1 – Treatment of flow rates with 0.5 – 1.0 ppm; 900 – 1.800 m^3 service life – For private indoor pools up to 40 m^3 – For private outdoor pools up to 30 m^3	Cu-test kit Comparator	1 × C21031 (+ optional 1 × C21036) 
NEC-5000.2 – Treatment of flow rates with 0.5 – 1.0 ppm; 7.500 – 15.000 m^3 service life – For private pools up to 80 m^3 – For public pools up to 50 m^3	Cu-test kit Comparator	1 × C21035 (+ optional 1 × C21036) 
NEC-5000.4 – Treatment of flow rates with 0.5 – 1.0 ppm; 15.000 – 30.000 m^3 service life – For private pools up to 160 m^3 – For public pools up to 100 m^3	Cu-test kit Comparator	1 × C21039 (+ optional 1 × C21036) 
NEC-5000.5 – Treatment of flow rates with 0.5 – 1.0 ppm; 30.000 – 60.000 m^3 service life – For private pools up to 320 m^3 – For public pools up to 250 m^3	Cu-test kit Comparator	2 × C21039 (+ optional 1 × C21036) 

NEC-5070

Technical data
Control unit

1. Voltage supply 110–230 V switchable 50/60 Hz; contact rating filter pump max. 1.1 kW, can be replaced by optional external contactor.
2. Electrode current 1–7 A adjustable for the primary electrode(s) and 0.25–2.5 A for the optional secondary electrode (in 0.25 A steps); with max. 15 V output voltage.
3. Power consumption max. 370 Watts.
4. Dimensions (W × H × D) 335 × 270 × 150 mm.
5. Up to 3 programmable switching times per day.
6. Flow control by automatic filter-backwash control unit, paddle-wheel flow monitor or magnetic-inductive flow monitor for volume flow-dependant water treatment (each optionally available).
7. Heating control adjustable to 40 °C.
8. IP protection class 54.

The next-generation model replacing our successful NEC-7000 control unit offers the same basic functions: operation of 2 primary electrodes and an additional optional electrode, controlled by a second regulator circuit, including control of the pool water temperature via a heat exchanger.

At the same time the completely redesigned control unit offers the same professional functions as its sister models NEC-5000 and NEC-5010: ampere stabilized operation with combinable time and flow rate parameters, including volume flow-dependent electrolysis depending on the flow monitor installed.

The control unit has an optional touch screen operating display, which in addition to more convenient operation also provides a detailed Log history function.

Product variants	Measurement system included	Treatment electrodes
NEC-5070.1 – Treatment of flow rates with 0.5 – 1.0 ppm; 900 – 1.800 m³ service life – For private indoor pools up to 40 m³ – For private outdoor pools up to 30 m³	Cu-test kit Comparator	1 × C21031 (+ optional 1 × C21036) 
NEC-5070.2 – Treatment of flow rates with 0.5 – 1.0 ppm; 7.500 – 15.000 m³ service life – For private pools up to 80 m³ – For public pools up to 50 m³	Cu-test kit Comparator	1 × C21035 (+ optional 1 × C21036) 
NEC-5070.4 – Treatment of flow rates with 0.5 – 1.0 ppm; 15.000 – 30.000 m³ service life – For private pools up to 160 m³ – Für öffentliches Bad bis 100 m³	Cu-test kit Comparator	1 × C21039 (+ optional 1 × C21036) 
NEC-5070.5 – Treatment of flow rates with 0.5 – 1.0 ppm; 30.000 – 60.000 m³ service life – For private pools up to 320 m³ – For public pools up to 250 m³	Cu-test kit Comparator	2 × C21039 (+ optional 1 × C21036) 

NEC-5010

Technical data
Control unit

1. Voltage supply 110–230 V switchable 50/60 Hz; contact rating filter pump max.1.1 kW, can be replaced by optional external contactor.
2. Electrode current 1–7 A adjustable; with max. 15 V output voltage.
3. Power consumption max. 370 Watts.
4. Dimensions (W × H × D) 335 × 330 × 150 mm.
5. Up to 3 programmable switching times per day.
6. Flow control by automatic filter-backwash control unit, paddle-wheel flow monitor or magnetic-inductive flow monitor for volume flow-dependant water treatment (each optionally available).
7. IP protection class 54.

The completely newly developed next-generation model replacing the successful NEC-1000 control unit was designed as the basic model for the 5000 series and meets the same basic requirements for a wide variety of applications like its sister models NEC-5070 and NEC-5000: ampere stabilized operation with combinable time and flow rate parameters, including volume flow-dependent electrolysis depending on the flow monitor installed.

The control unit has an optional touch screen operating display, which in addition to more convenient operation also provides a detailed Log history function.

Product variants	Measurement system included	Treatment electrodes
NEC-5010.1 – Treatment of flow rates with 0.5 – 1.0 ppm; 900 – 1.800 m^3 service life – For private indoor pools up to 40 m^3 – For private outdoor pools up 30 m^3	Cu-test kit Comparator	1 × C21031 
NEC-5010.2 – Treatment of flow rates with 0.5 – 1.0 ppm; 7.500 – 15.000 m^3 service life – For private pools up to 80 m^3 – For public pools up to 50 m^3	Cu-test kit Comparator	1 × C21035 
NEC-5010.4 – Treatment of flow rates with 0.5 – 1.0 ppm; 15.000 – 30.000 m^3 service life – For private pools up to 160 m^3 – For public pools up to 100 m^3	Cu-test kit Comparator	1 × C21039 
NEC-5010.5 – Treatment of flow rates with 0.5 – 1.0 ppm; 30.000 – 60.000 m^3 service life – For private pools up to 320 m^3 – For public pools up to 250 m^3	Cu-test kit Comparator	2 × C21039 

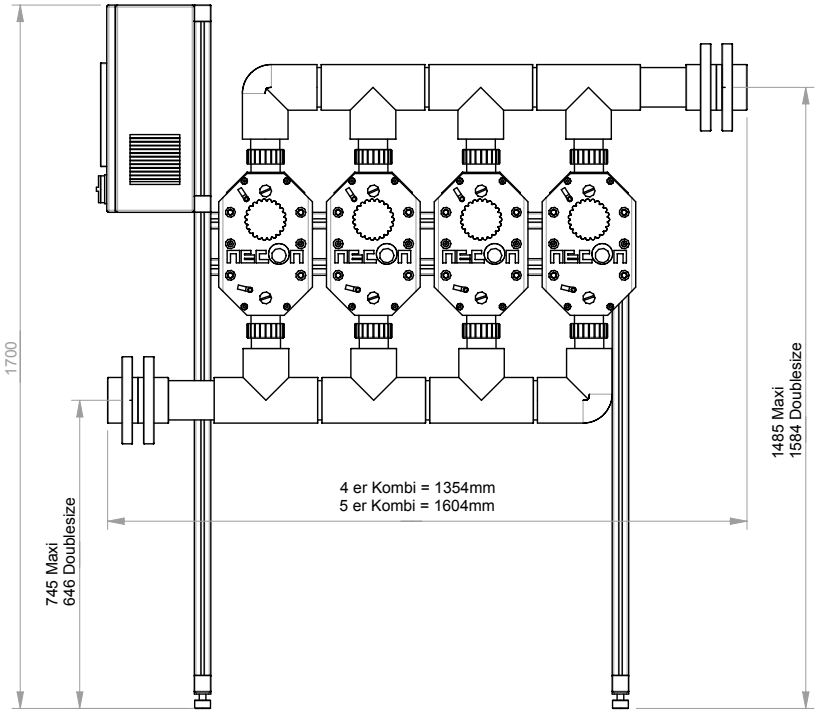
NEC-8000

Technical data
Control unit

1. Voltage supply 110–230 V switchable 50/60 Hz
2. Electrode current 1–7 A adjustable for the primary electrodes and 0.25–2.5 A for up to 2 optional secondary electrodes (in 0.25 A steps); with max. 15 V per electrode
3. Power consumption
   – NEC-8000.4, 8000.8, 8001.8: max. 1,5 kW
   – NEC-8000.5, 8000.10, 8001.10: max. 1,85 kW
4. Dimensions (W × H × D)
   – NEC-8000.4, 8000.8, 8001.8: 610 × 1700 × 1535 mm
   – NEC-8000.5, 8000.10, 8001.10: 610 × 1700 × 1785 mm
5. Up to 3 programmable switching times per day
6. Flow control by paddle-wheel flow monitor (included), external pump contactor(optional), magnetic-inductive flow monitor for volume flow-dependant water treatment (optional)
7. IP protection class 54

NEC-8000-systems are large-scale units with up to 10 primary electrodes complete with piping and electrical installations. The primary electrodes are controlled by a completely newly developed control box in which four or five system units can be centrally activated via a touch screen. In addition to a maximum of 10 primary electrodes up to 2 secondary electrodes can be controlled via a second regulator circuit with its own parameters.

In addition to the convenient operation the touch screen display also provides a detailed Log history function. As a further option NEC-8000 systems can be remotely controlled via NECON's own maintenance servers in Internet via an optional local PowerLAN- (dLAN, PLC) network connection.



Options:

– iOn test line online measurement
– Remote control (PowerLAN/d LAN module
– Service account), up to 2 secondary electrodes in Mini or MAXI size controlled via a second regulator circuit

Product variants	Measurement systems included	Treatment electrodes
NEC-8000.4 – Treatment of flow rates with 0.5 – 1.0 ppm; 30.000 – 60.000 m³ service life – For swimming pools up to 500 m³	Cu-test kit Photometer + Ag-test kit	4 × C21035 (+ optional 1–2 × C21036 / 1–2 × C21038) 
NEC-8000.5 – Treatment of flow rates with 0.5 – 1.0 ppm; 37.500–75.000 m³ service life – For swimming pools up to 650 m³	Cu-test kit Photometer + Ag-test kit	5 × C21035 (+ optional 1–2 × C21036 / 1–2 × C21038) 
NEC-8000.8 – Treatment of flow rates with 0.5 – 1.0 ppm; 60.000–120.000 m³ service life – For swimming pools up to 800 m³	Cu-test kit Photometer + Ag-test kit	8 × C21035 (+ optional 1–2 × C21036 / 1–2 × C21038) 
NEC-8000.10 – Treatment of flow rates with 0.5 – 1.0 ppm; 75.000–150.000 m³ service life – For swimming pools up to 1.500 m³	Cu-test kit Photometer + Ag-test kit	10 × C21035 (+ optional 1–2 × C21036 / 1–2 × C21038) 
NEC-8001.8 – Treatment of flow rates with 0.5 – 1.0 ppm; 120.000–240.000 m³ service life – For swimming pools up to 2.500 m³	Cu-test kit Photometer + Ag-test kit	8 × C21039 (+ optional 1–2 × C21036 / 1–2 × C21038) 
NEC-8001.10 – Treatment of flow rates with 0.5 – 1.0 ppm; 150.000–300.000 m³ service life – For swimming pools up to 3.000 m³	Cu-test kit Photometer + Ag-test kit	10 × C21039 (+ optional 1–2 × C21036 / 1–2 × C21038) 

NECON Comprehensive Technology

Comprehensive technology combining NECON electrolysis units with a high-bed filtration, designed for efficient removal of contaminants from the water with the non-oxidative and non-aggressive NECON process, for crystal-clear water.

The units with a filter filling volume of up to 350 kg are supplied complete with all piping and electrical connections on a space-saving, adjustable platform

Figure: D5070.2 with the options automatic filter-backwash control unit and heat exchanger for pool heating.

Product variants	Measurement system included	Filter	Motor	Treatment electrodes
D5000.1, 5070.1**, 5010.1*** – For private indoor pools up to 40 m³ – For private outdoor pools up to 30 m³	Photometer	250 kg 	0,55 kW / 230 V	1 × C21031 
Platform dimensions (W × D × H): 1010 × 900 × 1690 mm				
D5000.2, 5070.2**, 5010.2*** – For private pools up to 80 m³ – For public pools up to 50 m³	Photometer	350 kg 	0,75 kW / 230 V	1 × C21035 
Platform dimensions (W × D × H): 1010 × 900 × 1640 mm				
D5000.4, 5070.4**, 5010.4*** – For private pools up to 160 m³ – For public pools up to 100 m³	Photometer	610 kg 	1,10 W / 230 V	1 × C21039 
Platform dimensions (W × D × H): 1010 × 900 × 1835 mm				
D3000.1*** – For private pools up to 30 m³	Photometer	250 kg 	0,55 kW / 230 V	1 × C21031 
Platform dimensions (W × D × H): 1010 × 900 × 1690 mm				
D3000.2*** – For private pools up to 50 m³	Photometer	350 kg 	0,75 kW / 230 V	1 × C21035 
Platform dimensions (W × D × H): 1010 × 900 × 1640 mm				

* **Options:** Automatic back-wash control units, touch screen, NEClear granulate for filling the filter, iOn test line.
** **Options:** Automatic back-wash control units, touch screen, NEClear granulate for filling the filter
Temperature control unit with heat exchanger 40 or 75 kW for supply water 90°C inflow temperature, secondary electrode C21036.
*** **Option:** NEClear granulate for filling of the filter.

Test kits

Cu-test kit Comparator

Manual measurement case for rapid determination of copper levels by a colour comparison test.

Cu-test kit photometer

Manual measurement case for rapid determination of copper levels by a photometric measurement instrument.

Ag-test kit

Manual measurement case for rapid determination of silver levels by a colour comparison test.

iOn-Testline

Fully automatic, rapid online determination of copper levels at adjustable time intervals by an integrated measurement instrument. The values shown on the display can be transmitted to control units of the NEC-5000 and NEC-8000 types for automatic adjustment to a preset Cu level. For NECON control units with Internet connection all values can be checked remotely, including data records.

Dimensions (control unit) W × H × D:
195 × 180 × 120 mm

NECON agencies worldwide

About NECON

NECON GmbH was founded in 1981 by Dr.-Ing. Klaus Gebhardt as an engineering company for automation technology and metal construction and is now a global player in the field of chemical-free water purification.

With the aim of developing a safe, economic, human and environmentally friendly alternative to chemical water purification systems, NECON GmbH has collaborated intensively for many years with well-known experts, laboratories and institutes.

The "NECON system" redefines a century-old principle of electrophysical water purification that has now been patented and developed to the series production level.

A broad product range is available for private and public operators for a wide variety of applications.

Chemical-free water purification system

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