

## Product Data Sheet

# PlasmaConnect Base Unit

### Non-Thermal Plasma for Water- and Wastewater Treatment

#### DESCRIPTION

**PlasmaConnect** is an innovative and future-oriented technology for advanced oxidation based on ionized air – known as non-thermal plasma (NTP). Due to its high efficiency, easy integration, and broad effectiveness against a wide range of pollutants, **C-ION™** technology sets new standards in modern water treatment. It removes even difficult-to-degrade organic substances such as drug residues, hormones, pesticides, and herbicides, and oxidizes inorganic substances such as metals (iron, manganese, and arsenic). In addition, the process has a disinfecting and decolorizing effect and contributes to a lasting improvement in the microbiological quality of water. **PlasmaConnect** is used in numerous areas – from wastewater and drinking water treatment to water reuse.

#### C-ION™ PLASMA UNIT

Plasma generation:	Dielectric barrier discharge (DBE)
Plasma type:	Non-thermal (cold) plasma
Dimension:	700 x 180 x 125 mm
Weight:	approx. 5.5 kg
Connections:	Air inlet / plasma outlet: DN20

#### FEED REQUIREMENTS

Temperature range:	4 – 40°C
Humidity:	< 70%
Air flux:	min. 20 l/min max. 120 l/min

#### OPERATION INFORMATION

Power supply:	230 V / 50 Hz (1 Phase)
Power:	max. 0.1 kW
max. diffuser depth:	1 m
max. cleaning capacity:	5 m <sup>3</sup> /h* *depending on the degree of contamination

Please also note:

- Inlet and outlet at opposite ends of the tank to avoid short circulation
- Keep the plasma hose as short as possible (efficiency reduction)
- Connecting parts must be ozone resistant
- The oxidation tank must be designed as a closed system with exhaust air openings. Ozone enrichment is possible in the oxidation tank.

**PRODUCT HIGHLIGHTS**

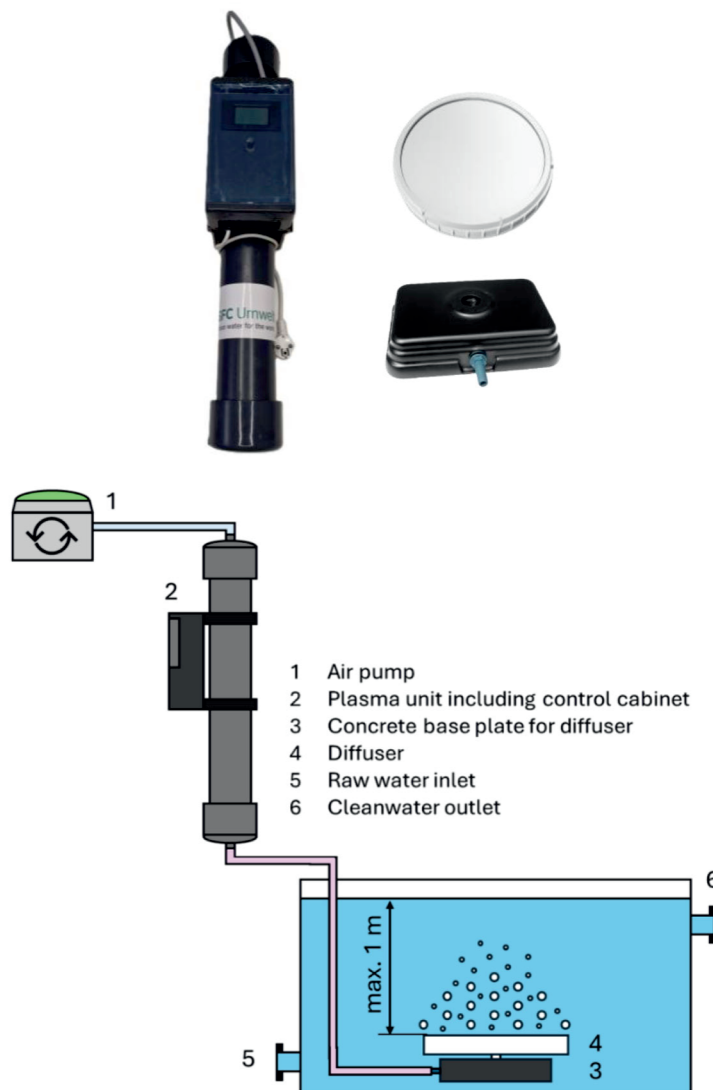
- Ready-to-connect base unit including control panel
- High oxidation potential (2.75 V through the formation of hydroxyl radicals, reaction rate  $2.2 \cdot 10^7$  to  $1.8 \cdot 10^{10}$  M<sup>-1</sup>s<sup>-1</sup>)
- Lower energy consumption compared to other oxidation processes, e.g., ozone
- No additional cooling required
- No special explosion or emission containment measures required
- No chemical consumables required
- No supply air treatment required
- Easy retrofitting of existing tanks possible

**INCL. AERATION PACKAGE**

- 1 Disc diffuser: 12" x 70 mm; 1.35 kg; connection: 1"
- 1 Concrete base plate: 320 x 220 x 70 mm; 9.6 kg; connection: 16 mm

**OPTIONAL PACKAGES**

- Reaction tank including level control
- System integration into building management



*The information contained in this document is deemed to be accurate and reliable. Nevertheless, it should not be construed as conferring any warranty or guarantee of performance. Dimensions and membrane geometry are subject to modification due to production and process enhancements. No responsibility, obligation, or liability is assumed for any outcomes or damages resulting from the utilization of the unit.*