

Product Data Sheet

PlasmaConnect™ 5 (Expandable to 10)

Non-Thermal Plasma for Water- and Waste Water 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. The PlasmaConnect™ 5 Plus can be expanded to 10 NTP units.

C-ION™ PLASMA UNIT

Plasma generation:	Dielectric barrier discharge (DBE)
Plasma type:	Non-thermal (cold) plasma
Dimension:	710 x 180 x 125 mm
Weight:	5.5 kg
Connections:	Air inlet / Plasma outlet: DN40

PRODUCT SPECIFICATION

Number of plasma units:	5 ((Expansion: 10 NTP-units)
Piping:	PVC-U / Stainless steel 304/304L
Frame:	Stainless steel 304/304L
Dimension:	1170 x 791 x 1940 mm
Weight:	approx. 190 kg
Connections:	Plasma outlet: DN40

FEED REQUIREMENTS

Temperature range:	4 – 40°C
Air-Humidity:	< 70%

OPERATION INFORMATION

Blower	24 m³/h; 250 mbar (Expansion: 48 m³/h; 250 mbar)
Power supply:	400V / 50Hz (3-phase)
Power:	2.0 kW (Expansion: 2.25 kW)
max. Diffusor depth:	2 m
max. cleaning capacity:	up to 25 m³/h* (Expansion: 50m³/h)* *depending on the degree of contamination

Note:

Inlet and outlet at opposite ends of the tank to avoid short circulation

Keep the plasma hose between the plasma unit and the water tank as short as possible (to avoid a loss of efficiency)

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.

The system must be protected from weather conditions.

PRODUCT HIGHLIGHTS

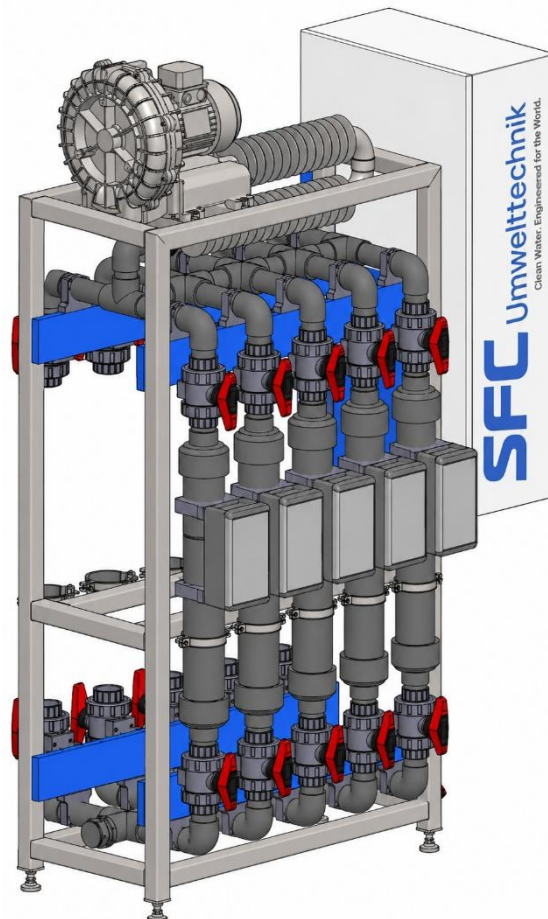
- Ready-to-connect base unit including control panel
- High oxidation potential (2.75 V through the formation of hydroxyl radicals, reaction rate $2.2 \cdot 10^7$ to $1.8 \cdot 10^{10}$ M-1s-1)
- Lower energy consumption compared to other oxidation processes, e.g., ozone
- No additional cooling required
- 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

- 5 Disc diffuser: 12" x 70 mm; 1.35 kg; connection: 1"
- 5 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.