



## SOLVOCARB® diffusion hoses – carbon dioxide for water. Flexible and low-maintenance solution for deep tanks.



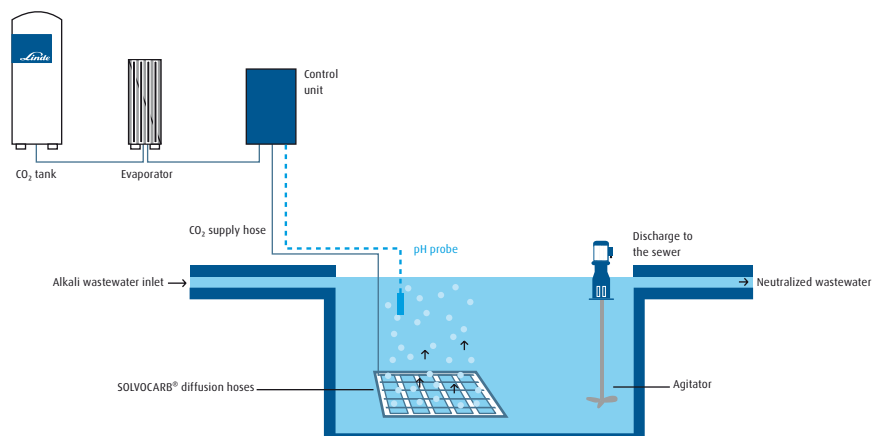
### Accurate and reliable pH control

Linde SOLVOCARB® product line has been developed to meet neutralization and remineralization needs from wastewater to drinking water applications, in a reliable and safe manner. Compared to mineral acids, carbon dioxide has many advantages. It prevents the excessive accumulation of salts such as chlorides and sulfates and makes over-acidification of wastewater almost impossible, due to its self-buffering properties. CO<sub>2</sub> is also much safer to use than highly corrosive mineral acids, while being effective at neutralizing alkaline process water, for example in the textile, construction, paper, chemical and F&B industries.

The SOLVOCARB diffusion hoses are designed for fast and easy installation, even in operational tanks. The diffuser hoses will run clog-free for long periods of time without requiring periodic maintenance and an external energy supply. Its chemical-resistant material has demonstrated above average resistance to the effects of acids and alkalis.

### Installation

Fixed at the bottom of the neutralizing tank, the hoses are configured in a customized hose frame, designed to fit the format of the basin. Mass transfer of the gas into the liquid is achieved through fine perforations in the hoses that are produced by a quality-controlled manufacturing process. When carbon dioxide passes through the hoses, it causes a slight expansion of the hoses, which allows the passage of gas into the wastewater through the fine perforations, in the form of fine bubbles. When the pressure is reduced, the perforations are immediately closed, preventing the back-flow of liquid into the hose. This cost-effective solution for deep tanks is ideal for both temporary and long-term use.



SOLVOCARB diffusion hoses installation. Gas transfer via tubular diffusion hoses, made of chemical resistant elastomer rubber, installed at the bottom of the neutralization tank.

**Benefits at a glance**

- Uniform gas distribution, to avoid pH peak spots and ensure precise pH control.
- Clog-free operation for long periods of time, even after long periods of non-operation.
- Minimum energy requirements.
- Minimal maintenance required.
- Simple to install, with minimal civils works required.
- Readily adapted to any basin or tank configuration.
- Silent, environmentally friendly operation.
- Can be used in deep tanks without ancillary power.

**Applications**

- pH control of alkali industrial wastewater in industries such as textile, pulp and paper, food & beverage (breweries, milk products, etc), pharmaceutical, petrochemical, fine & specialty chemicals and construction.
- Enhanced coagulation.
- Raw water pH correction in deep tanks.
- Industrial process water pH control.

**Technical characteristics**

**SOLVOCARB diffusion hoses**

Material	Ethylene-propylene elastomer (EPDM)
Dimensions	18 x 4.5 mm (0.7 x 0.2 in)
Opening pressure of pores	1.7 bar (plus water column pressure)
Maximum operating pressure	12 bar (g)
Weight	0.35 kg/m
Colour	Black
Perforations	3000 m <sup>-1</sup>
Quantity per roll	40 m

**SOLVOCARB standard diffusion mats**

CO <sub>2</sub> transfer capacity	10 to 30 kg/h (22-66 lbs/h)	20 to 60 kg/h (44-132 lbs/h)	30 to 90 kg/h (66-198 lbs/h)
Length of diffuser hose	20 m (66 ft)	40 m (131 ft)	60 m (196 ft)
Dimensions of diffuser mat	4 x 1 m (13 x 3 ft)	5 x 2.2 m (16 x 7.2 ft)	5 x 2.2 m (16 x 7.2 ft)
Weight (excluding frame)	7 kg (15 lbs)	14 kg (31 lbs)	21 kg (46 lbs)

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