

Carbon Dioxide pH control

CO2 - pH Control Cabinet

For safer pH control in Pools, Spas and Industrial Applications

Carbon Dioxide CO2 is a natural non-corrosive gas that can be used as a substitute for other acids (such as Muriatic acid HCI) in chemical treatment of pools, spas and industrial applications.

CO2 is available in standard pressurized gas cylinders. When dissolved in water, it forms carbonic acid H2CO3, a weak acid which can be used to lower the pH of water and neutralize liquid chlorine.



Advantages

- No handling of corrosive acid containers,
- No corrosion of equipment and facilities from acid fumes.
- No dangerous chemical reactions with chlorine.
- Less danger of excessive low pH in water. Because carbonic acid is a weak acid, the lowest pH value that can be reached is 6.8, even under accidental runaway conditions.





Check valve/ co2 injector

Specifications

- ✓ CO2 control cabinet ready for pH outlet relay connection of the CHEMTROL® controller.
- ✓ Designed to control CO2-GAS flow Inlet & outlet connection with 1/4" tubing,
- ✓ Direct reading precision FLOWMETER with adjustable flow, 10-100 SCFH,
- ✓ ASCO SOLENOID VALVE, brass body 750 psi rating, 1/4", 230V, 500r 60Hz,
- \sqrt{PVC} check valve, 1/4" CO2 injector,
- \checkmark Feed tube & fitting 1/4"

Recommended for industrial applications, as well as pools up to 2,250,000 liter



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Installation

The schematic shows the principle of installation with an optional Automatic Switchover System which is recommended to assure continuous pH control. One or more CO2 gas cylinders can be manifolded together on each line, depending on the feed rate required to maintain proper pH.



Caution

- CO2 increases the alkalinity of water and is therefore not recommended for applications where high alkalinity is a problem. Total Alkalinity (TA) should be maintained between 80 and 125 ppm.
- High alkalinity increases acid demand, makes it difficult to lower the pH and may result in the formation of bicarbonate scale.
- High alkalinity may be reduced with muriatic acid HCl or dry acid.

Automatic CO2 Switchover System

Designed for 2 or more cylinders on the same feed line, one being kept on standby until the first one is empty. The switchover automatically switches to the second cylinder when the pressure gets low. Additionally, more than one cylinder can be manifolded on each side of the switchover to further increase the CO2 supply.



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