

Chemtrol® CO2 pH Control

FOR SAFER pH CONTROL
in POOLS AND SPAS

Carbon Dioxide CO₂ is a natural, non-corrosive gas that can be used as a substitute for liquid acid in chemical treatment of swimming pools and spas. CO₂ is available in standard pressurized gas cylinders. When dissolved in water, it forms carbonic acid H₂CO₃, a relatively weak acid which can be used to lower the pH of water and neutralize liquid chlorine.

ADVANTAGES

- No handling of corrosive acid container
- 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
- Optional **AUTOMATIC SWITCHOVER** assures continued control of pH
- LED indicator when feeding



**SANTA BARBARA
CONTROL SYSTEMS**
Leaders in Automated Water Treatment Since 1976
800-621-2279 | 805-683-8833 | sbcontrol.com



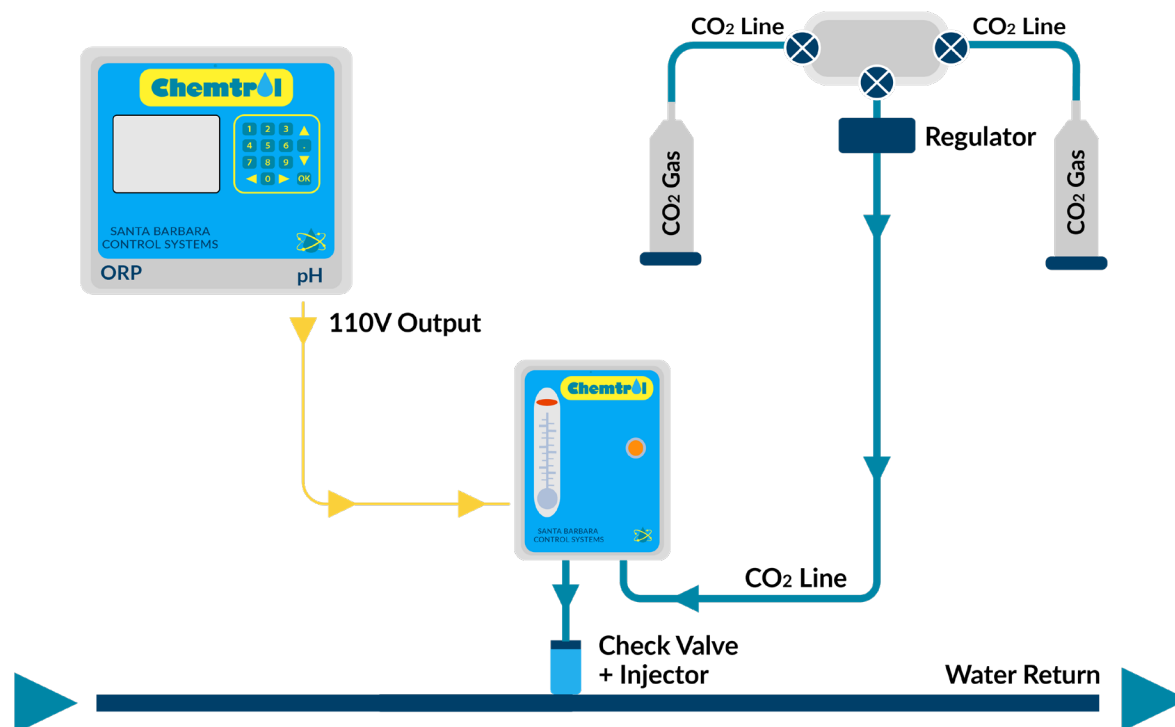
TECHNICAL SUPPORT

- Technical support from CHEMTROL® is based on our experience with over 30,000 installations worldwide. It is also available by toll-free phone, by fax or by e-mail.

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.





The above schematic shows the principle of installation with an Automatic Switchover System which is recommended to assure continuous pH control. Control of acid injection is done by connecting the 110V pH control output of the CHEMTROL™ controller to the solenoid valve on the CO₂ injection line. One or more CO₂ gas cylinders can be manifolded together on each line, depending on the feed rate required to maintain proper pH. Select the proper pressure regulator as indicated below according to pool size.

SPECIFICATIONS

ASCO SOLENOID VALVE	brass body, 750 psi rating, 1/8" FPT, 110V, 500r 60Hz. For connection to pH output relay of the CHEMTROL® controller
PVC CHECK VALVE/INJECTOR	3/8" MPT
FLOWMETER	Nema 4X enclosure with 0-100 flow meter
FEED TUBE	15 ft
VICTOR SR 311 PRESSURE REGULATION	factory set at 80 psi outlet pressure Recommended for pools up to 500,000 ga
DIMENSIONS	7 1/2 x 9 1/2 x 5

STANDARD

- VICTOR SR 311 PRESSURE REGULATOR
factory set 80 psi outlet pressure, 0 -100 SCFH
flowmeter Recommended for pools up to 500,000 ga
- Nema 4X enclosure with 0-100 flow meter.

OPTIONS

- 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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THE CHEMTROL GUARANTEE

Every unit we make is supplied with a comprehensive operation manual and is backed by our five year electronics warranty. Our customer support department is second to none, providing the technical support you need – and we've been part of over 100,000 installations worldwide.