

# CO<sub>2</sub>-Reactor COR



AquaCare GmbH & Co. KG  
Am Wiesenbusch 11 • D-45966 Gladbeck • Germany  
☎ 0 20 43 - 37 57 58-0 • 📠 0 20 43 - 37 57 58-90  
www.aquacare.de • info@aquacare.de



## Why CO<sub>2</sub>?

In sea water the CO<sub>2</sub> Reactor can be used for the injection method for CO<sub>2</sub>. This method is practicable however only in nitrogen and phosphate-limited tanks (both substances should be at the detection limit). In hard coral breeding tanks the growth can be offered with this method easily by offering inorganic carbon (CO<sub>2</sub> – hydrogen carbonate - carbonate) to the hard corals. In aquariums, that are fed very well and therefore phosphate and nitrate are well present, this method should not be used in any case. Otherwise algae will grow very fast and may damage the corals. We advise urgently to use the CO<sub>2</sub> Reactor within the sea water range only with pH value control (pH measuring and controller, solenoid valve).

In fresh water (amazon type) one of the main conditions is the supply of CO<sub>2</sub> for healthy and strong plant structure. How much CO<sub>2</sub> one aquarium needs depends on several factors:

1. Carbonate hardness of the aquarium water; 2. Volume of the aquarium; 3. Species and quantity of the plants; 4. daily lightning time and strength of the lights. The lower carbonate hardness the less CO<sub>2</sub> is needed on the one hand to press down the pH value under 7.0 and on the other hand to nourish the plants. In any carbonate hardness available (0°dKH) - e.g. water from a good reverse osmosis plant - additional carbon dioxide dosage is not necessary. To operate an aquarium without carbonate hardness it will work however only, if very many plants are in the tank and only very few fish with a corresponding food needs are nursed. If too much is fed a pH fall may happen, which may end for fish and plants deadly. If many fish are kept in the aquarium the carbonate hardness should be 3-4 °dKH. The carbonate hardness can be supplied to the water automatically with KH plus, Triple Buffer, Mineral Salt or can be produced with a Mineral Filter directly behind the reverse osmosis plant. The necessary carbon dioxide quantity for the right pH value can be easily supplied with the CO<sub>2</sub> Reactor. If hard to very hard water is in the aquarium, the CO<sub>2</sub> Reactor must be number larger, in order to regulate the pH value deeply enough.

## Description of the AquaCare COR

The AquaCare CO<sub>2</sub> Reactor consists of PVC and can be fastened with two wall clips. The pressure side of an external filter or a pump leads to the upper connection of the reactor - the lower connection leads back again into the aquarium. With very strong pumps the reactor should be operated in the bypass. The CO<sub>2</sub> bubbles from the bottom into the reactor - an extra bubble counter is not necessary, if the equipment is well visibly attached. The higher the number of CO<sub>2</sub> bubbles, the more the water is acidified. The ideal pH value is in a plant aquarium (amazon type) between 6,5 and 7,0. The dosage of the carbon dioxide can be done automatically with a pH value controller and an attached solenoid valve. Like that an overdosing is impossible. Alternatively the night shut off equipment can be used, which is operated with the help of a timer and a solenoid valve. However a check valve made for CO<sub>2</sub> must be used to prevent the CO<sub>2</sub> tank for damages.



Tip! If you use an CO<sub>2</sub> Reactor the pH value should be measured and controlled. Otherwise a pH value drop may occur.

## Technical Data of the AquaCare CO<sub>2</sub> reactor:

Type	COR50	COR75	COR110	COR160	COR250
Order number	330-005	330-075	330-110	330-160	330-250
max. aquarium size, litres	1.000	5.000	20.000	100.000	500.000
max. water flow in l/h	400	800	2,000	4,500	11,000
Diameter reaction tube, mm	50	75	110	160	250
Volume tube, litres	0,5	1,7	4,7	14	44
height, mm	300	400	500	700	900
nozzle or PVC union please decide if you order	12 / d16	16 / d20	25 / d32	- / d40	- / d50
Night shut off control	solenoid 230 V AC with plug and timer: 321-003				
Check valve for CO <sub>2</sub>	321-002				