

Lime Water Reactor **KWR**



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



AquaCare „Kalkwasser“ Reactor and
ultra pure Calcium Hydroxide

The AquaCare **Lime Water „Kalkwasser“ reactor KWR** ensures a simple and safe supply of calcium for sea water aquaria. The pH of the aquarium water will be increased a little bit and hinders a too much CO₂ concentration in the water. Additionally phosphate will be precipitated continuously. The AquaCare **Lime Water Reactor KWR** has following advantages:

- Intensive mixing of the calcium hydroxide with a rigid pump – low running costs
- free water outlet ensures a safe running – check or ball valves will be build in the inlet of the system and will not be crusted with chalk
- continuously or discontinuously running possible
- easy de-aeration
- size for all aquaria
- ideal in combination with automatic level control *BasiTech*
- pH control possible – therefore the quality of the „Kalkwasser“ will be monitored

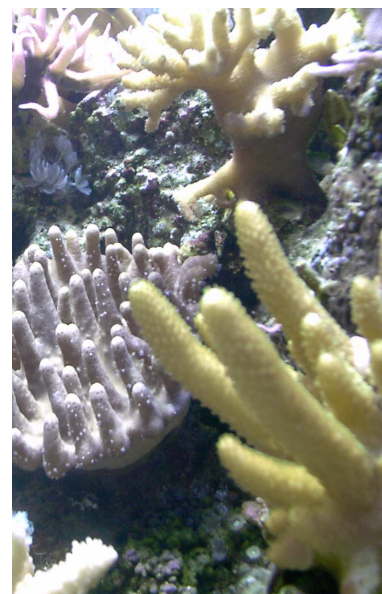
With the combination of a Chalk Reactor (disadvantage: CO₂ supply into the aquarium water) and a “Kalkwasser” Mixer (disadvantage: any carbonate hardness will be produced) a very safe supply of calcium and hydrogen carbonate is established. Please take care that the magnesium concentration in the right concentration, too.

A perfect “Kalkwasser” dosing can be realized with a AquaCare “Kalkwasser” Reactor in combination with a *BasisTec* Level Control and an AquaCare Dosing Pump. If the water level in the aquarium or in the filter sump caused by evaporation will fall the level control will start the dosing pump. The R.O. water is running through the “Kalkwasser” Reactor and drops into the water. There the “Kalkwasser” eliminates the too much carbon dioxide (e.g. from a chalk reactor), precipitated phosphate and enriches the water with calcium. If the right water level is reached, the *BasiTec* Level Control stops the dosing pump.

If you combine the level control with a timer you can operate the “Kalkwasser” Reactor during the night to prevent the pH drop, caused by missing photosynthesis.



Warning: Calcium hydroxide solution ("lime water") is highly corrosive. Keep calcium hydroxide powder and lime water reactor away from children. If the chemical comes into contact with skin or mucous membranes, rinse with plenty of water and seek medical advice (take the label of the calcium hydroxide with you!).



Detail of an
AquaCare aquarium

Technical data of the AquaCare Kalkwasser Reactors **KWR75-100**:

Size	KWR75		KWR100		
Order number	340-008		KWR100-50	KWR100-70	KWR100-100
Maximum aquarium size* in l	400		800	1200	1900
Diameter in mm	75		100		
Volume in litres, approx.	1.2		2.5	3.8	5.8
Maximum continuous flow in l/h	0.1		0.1	0.2	0.3
Maximum Kalkwasser production at discontinuous operation in l	0.2		0.4	0.6	0.9
Total height in cm	45		50	70	100
Necessary height	+5 cm				
Foot print in mm	210 × 160		220 × 190		
Erection	External, in the filter sump, with Hang-On holder to the aquarium or filter tank, with wall holders to a wall				
Materials	PVC hart, NBR, PA		PMMA, PVC, NBR, silicone, PA		
Connector inlet	6/4 mm hose				
Connector outlet	EHEIM connector 12/16		1/4" - 10 mm nozzle		
Connector drain	-		G1/4" valve for 6/4er hose		
Built-in circulation pump	EHEIM 1046		EHEIM 1048		
Maximum calcium hydroxide filling in g	110		250	380	580
Delivered calcium hydroxide in g	500				
Calcium concentration in outlet	at 15°C: 720 mg/l; at 20°C: 690 mg/l; at 25°C: 670 mg/l				
Quantity of lime water per filling at 25°C in l	100		200	300	470
pH value in outlet	at 15°C: 12.8; at 20°C: 12.6; at 25°C: 12.5				
Necessary feed	Centrifugal pump with ball valve throttled or dosing pump or magnetic valve				
pH probe	on request		can be retrofitted at any time		
Operation weight in kg	4.2		5.1	6.5	8.5

Technical data of the AquaCare Kalkwasser Reactors **KWR150-250**:

Size	KWR150			KWR250
Order number	KWR150-50	KWR150-70	KWR150-100	340-025
Maximum aquarium size* in l	1800	2900	4400	7000
Diameter in mm	150			250
Volume in litres, approx.	5.5	8.7	13.4	22
Maximum continuous flow in l/h	0.3	0.4	0.7	1.1
Maximum Kalkwasser production at discontinuous operation in l	0.9	1.4	2.2	3.6
Total height in cm	50	70	100	70**
Necessary height	+5 cm			
Foot print in mm	210 × 160			430 × 370
Erection	External, in the filter sump, with Hang-On holder to the aquarium or filter tank, with wall holders to a wall (KWR250 only extern or in the filter sump)			
Materials	PMMA, PVC, NBR, silicone, PA			PVC hart, NBR, PA
Connector inlet	6/4 mm hose			
Connector outlet	1/2" - 12 mm nozzle			PVC d20
Connector drain	G1/4" valve for 6/4er hose			PVC d20
Built-in circulation pump	EHEIM 1250			
Maximum calcium hydroxide filling in g	550	870	1300	2200
Delivered calcium hydroxide in g	1000			2500
Calcium concentration in outlet	at 15°C: 720 mg/l; at 20°C: 690 mg/l; at 25°C: 670 mg/l			
Quantity of lime water per filling at 25°C in l:	450	700	1100	1700
pH value in outlet	at 15°C: 12.8; at 20°C: 12.6; at 25°C: 12.5			
Necessary feed	Centrifugal pump with ball valve throttled or dosing pump or magnetic valve			
pH probe	can be retrofitted at any time			on request
Operation weight in kg				49

* the aquarium size is calculated by evaporation of 1 litre per 100 litre aquarium volume and a life time of the calcium hydroxide of 6 weeks. It is possible to use smaller types for big aquaria, but you have refill the reactor more often. Oversized reactors are suitable for small aquaria and extend the life time of the filling.