

09.3



WATER TREATMENT

AMMONIA CONTAINERIZED PLANT



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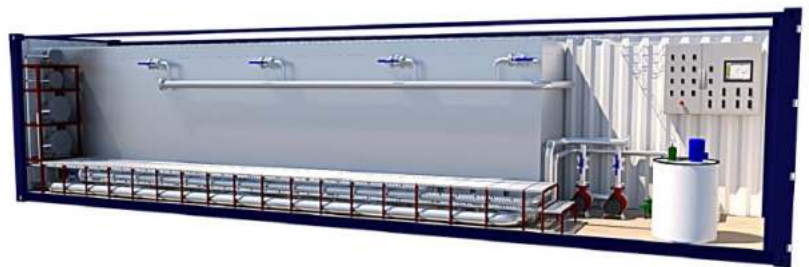
AMMONIA CONTAINERIZED PLANT

MAIN CHARACTERISTICS

- 18 m3/h flow operating 24 hours/day.
- 7 days per week.
- 1 line with 18 m3/h capacity.
- Pumping systems include spare pump.
- Fully automated and remote access included.
- Containerized plant. 1 40' HQ dry container.
- 25 mg/l of ammonia in raw water. 5 mg/l of ammonia in treated water.

PROPOSED INSTALLATION

- The proposed installation is following the diagram attached in the annex 1 of this offer.
- Proposed plant will be supplied in 1 marine container 40' HQ
- The whole process is fully automatic without the need of permanent staff. A regular check is required for supervising chemicals remaining, possible leaks, etc



AMMONIA REDUCTION PLANT 18 M3/H. 25 ppm AMMONIA IN RAW WATER.

Daily flow (m3)	432
Daily working time	24 h
PPM ammonia to a eliminate	20
Price Kw (€/kW)	0,15 €

	Power (kW)	Operating time (h)	Power Consumption (Kw)	Cost (€)
Main feeding pumps	1,30	23,50	30,55	4,61
Back Washing pumps	3,00	0,50	1,50	0,23
Dosing pumps	0,02	23,50	0,42	0,06
Vertical agitator	0,09	8,00	0,74	0,11
Air Blower	1,60	23,50	37,60	5,67
Back washing air blower	3,00	0,50	1,50	0,23
Instrumentation	0,80	24,00	19,20	2,90
PLC	0,04	24,00	0,89	0,13
Extractor	0,20	8,00	1,60	0,24
Light	0,30	1,00	0,30	0,05
Sockets	2,00	0,10	0,20	0,03
POWER REQUIRED (KW)	12,35			

Daily energy cost	14,25 €
Energy cost/m3	0,00 €

	Consumption kg/m3	Consumption/day (kg)	Cost (€)
CaCO3 (0,80 €/kg)	0,072	31,104	24,88 €
Phosphate (1,56 €/kg)	0,015	6,690	17,12 €

Day Cost Chemicals	42,01 €
Cost/m3 Chemicals	0,10 €

TREATMENT COST/M3	0,13 €
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DAILY COST	56,26 €
Monthly	1.687,72 € (30 days)