



chemapan c.c.

CK 89/03321/23

Unit 12 Florida Business Centre, Cnr. Daniel Malan & Jan Smuts Dr. Florida Park, Roodepoort

P.O.Box 6333 Ansfre 1711 Gauteng South Africa.

Tel: Int (+27) (0)11 674 4742, 4722712

Fax: Int.(+27) (0)11 674 4743

E-mail: chemapancc@icon.co.za Web site: www.chemapan.co.za

SEAWATER DESALINATION.



As the world's water resources become more scarce, and as the population continues to grow, we continue to look at more and different ways to use our resources to provide for all the people. One vast, largely unused reservoir of water that is being considered is the ocean. In order to use seawater from the ocean the salt must be removed. With salt concentrations exceeding the concentrations that humans or livestock can tolerate, the water of the oceans must be purified before it can be used in either a drinking water capacity, or as a source of water for crops and animals. In the past, distillation was the only way to remove the salt from the water, but membranes is now the lower cost alternative. Membranes can now remove the salt from water with a fraction of the energy consumption of distillation.

Typically seawater has a total dissolved solids level (salt content) of between 35 000 and 36 000 mg/l. Desalination can reduce this 350 to 400 mg/l. Well



CK 89/03321/23

Unit 12 Florida Business Centre, Cnr. Daniel Malan & Jan Smuts Dr. Florida Park, Roodepoort

P.O.Box 6333 Ansfreere 1711 Gauteng South Africa.

Tel: Int (+27) (0)11 674 4742, 4722712

Fax: Int.(+27) (0)11 674 4743

E-mail: chemapancc@icon.co.za Web site: www.chemapan.co.za

within the World Health organisation standards of 500 ppm.

Chemapan use a patented hi tech energy conserving design to further enhance the cost effectiveness of sea water desalination by reducing the average energy requirement from 7.5 kW per cubic meter to 2.8 kW per cubic meter. (We have systems running at 1.5 kW per cubic meter.)

Further processing of the water can achieve water qualities that can be used for various hi tech industrial processes.

Pretreatment.

All desalination systems need varying degrees of pre treatment to render the raw water suitable for desalination. Please contact our sales team to design an appropriate pre treatment package for your desalination unit.

Chemapan can design, fabricate and install a complete Turnkey package to suit your needs.

Typical product water analysis: Subject to Raw water analysis.

Total Dissolved Solids	< 400 ppm
Fe ³⁺	< 0.2 ppm
Ca ²⁺	<75 ppm
Mg ²⁺	<50 ppm
Na ¹⁻	< 250 ppm
SO ₄ ²⁻	< 150 ppm
Cl ¹⁻	< 120 ppm