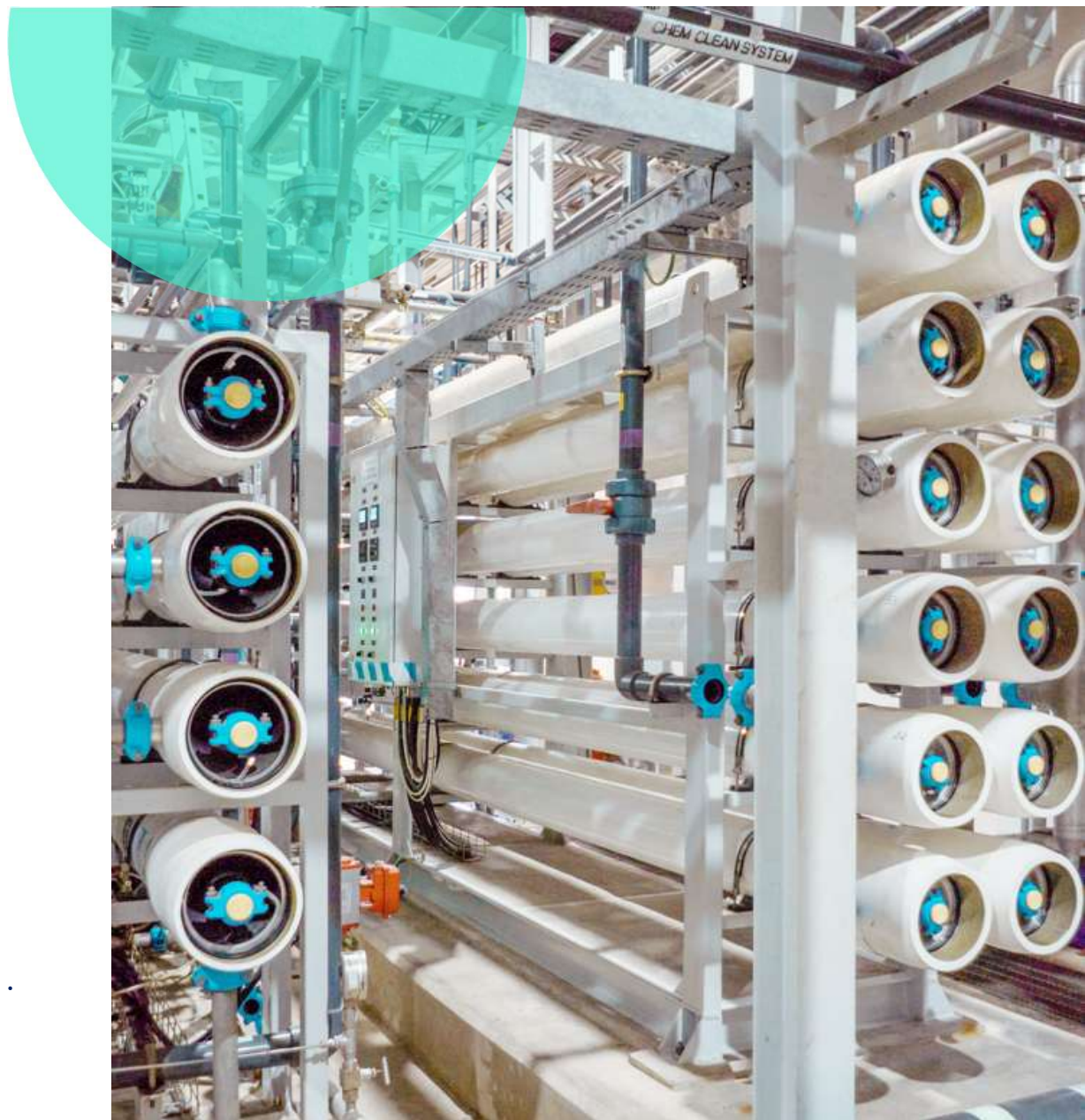


GUARDSMAN

MEMBRANE TREATMENT SOLUTIONS

KOBELL FLUID TECHNOLOGY LTD.





ABOUT GUARDSMAN

Guardsman™ is a Kobell's brand whose mission is to provide clean water solutions by combining our extensive knowledge and proprietary chemistry with the latest technology in the industry at .

With nearly 20 years of experience in the water treatment industry, we provide unparalleled technical service and support for our products with a focus on the customer.

INTRODUCTION

KOBELL is a committed partner helping municipalities industries, and distributors achieve optimal performance in their water treatment processes. We always utilize the best available technology and enable our customers to get the most out of their processes with environmentally friendly products. We have a passion for helping our customers ensuring secure and fast delivery of products with highest quality and service.

PRODUCT LINES

- Membrane Pre-Treatment Chemicals
- Membrane Cleaners, Liquid/Powder
- Membrane Biocides
- Membrane Preservatives
- Coagulants & Flocculants
- Membranes, Filters, & Spare Parts



GUARDSMAN™ SERIES MEMBRANE ANTISCALANT TECHNICAL MANUAL

Product Model	Max LSI / S&DSI;	CaSO4 Limit	SrSO4 Limit	BaSO4 Limit	CaF2 Limit	Silica Saturation	Allowed Metals (Al, Fe, Mn)	Core Positioning & Market Application
GT190& GT190C	≤ +2.8	≤ 3.5x (350%)	≤ 10.0x (1000%)	≤ 40.0x (4000%)	≤ 3.5x (350%)	≤ 1.2x (100% Sat.)	< 0.5 ppm	Pure civilian and standard food/beverage market preference. High efficiency for CaCO3 lattice distortion, absolute flavor safety.
GT710& GT710C	≤ +2.8	≤ 5.0x (500%)	≤ 10.0x (1000%)	≤ 50.0x (5000%)	≤ 15.0x (1500%)	≤ 1.2x (100%)	< 2.0 ppm	Designed for deep well groundwater with mid-low Fe2+. Chelates iron to protect polymer activity, enhancing synergistic inhibition.
MR510	≤ +2.8	≤ 4.5x (450%)	≤ 10.0x (1000%)	≤ 50.0x (5000%)	≤ 5.0x (500%)	≤ 1.2x (120%)	< 0.5 ppm	Industrial wastewater reuse base model. Sulfonic acid group provides strong electrostatic repulsion to prevent calcium gelation.
MR420	≤ +2.8	≤ 5.5x (555%)	≤ 12.0x (1200%)	≤ 60.0x (6000%)	≤ 25.0x (2500%)	≤ 1.5x (150%)	< 5.0 ppm	Handles severe surface water and complex reclaimed water. Saturated dosing structure prevents metal-induced fouling under high Fe/Al/Mn.
MR plus	≤ +3.0	≤ 10.0x (1000%)	≤ 25.0x (2500%)	≤ 100.0x (10000%)	≤ 50.0x (5000%)	≤ 1.8x (180% Limit)	< 5.0 ppm	Flagship for ZLD systems and extreme high-salt, high-fluorine wastewater. Offers ultimate protection without pre-softening.