

## WHO ARE WE?

MASAR Technologies, Inc., is an innovative and internationally recognized water desalination and membrane technology consulting, innovative developer and training company, with about 37 years of hands-on plant experience, technical expertise and industrial innovation. We provide consulting. expert training courses and professional plant services and innovative worldwide. software solutions including UF/MF pretreatment and seawater and brackish water RO/NF membrane systems monitoring, evaluation, real-time performance troubleshooting, optimization, membrane fouling management in real time.

Your Strategic Partner for Optimizing your Membrane Plant Operational Efficiency, Performance and Overall Cost of Water Production via Expert Consulting & Digital Transformation.

**Contact us** today to see how we can help you optimize your plant operations, availability, performance and overall cost effectiveness in real time, and customize an effective and practical training program for your team on site.

### **OUR EXPERT SERVICES**

- Technical Consulting on Pretreatment, Membrane Desalination & Filtration Systems (RO, NF, UF & MF)
  For Design Specs, Evaluation, Monitoring, Troubleshooting, Optimization, Pilot Plant and Feasibility Studies and Overall Cost Analyses & Minimization
- SilentAlarm™ Technology and Software Solutions for Remote Monitoring & Analytics to Optimize the Operation and Performance of Water Treatment Plants as part of Water Utility Digital Transformation.
- Customized Training Programs and Courses for Supervisors, Engineers, Designers and Plant Operators & Technicians (classroom and on-site)

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# **Our Expert Services**

- Technical Consulting (on-site and remote).
- Pretreatment & Membrane Systems Design.
- Technical & Design Specifications Reviews.
- Engineering Project & Documentation Management.
- New Plant Commissioning and Supervising Site Acceptance Tests (SATs) and Factory Acceptance Tests (FATs).
- Plant Operation & Performance Evaluations.
- Plant Monitoring, Optimization & Upgrade Recommendations.
- Troubleshooting & Membrane Autopsies (on-site).
- Fouling Inspection & Management Programs.
- O&M Cost Analysis, Minimization & Saving.
- Pilot Plant & Feasibility Studies.

## **Our Experience**

Over 37 years of technical expertise and hands-on experience & involvement in tens of membrane plants & projects worldwide, especially in Saudi Arabia, United Arab Emirates, Bahrain, Kuwait, Oman, Malta & USA.

Supervision of UF membrane installation as part of engineering project management of a newlyconstructed UF-SWRO IWP Plant

On-site membrane autopsy



Fouling troubleshooting





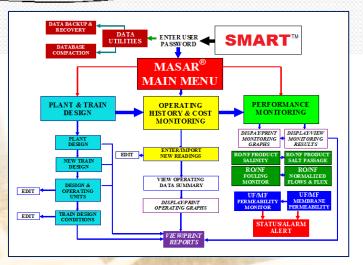
SMART Real-Time, Early-Warning SilentAlarm<sup>™</sup> Technology & Software for Efficient Digital Transformation of Water Treatment Plants

# Our Innovative Technology

- Detection, Measurement and Monitoring of Membrane Fouling, Plant Performance & Cost Optimization in Real Time.
- Calculates the Fouling Monitor (FM) for RO/NF and the Permeability Monitor (PM) for UF/MF and Warns As Soon As They Exceed Set Limits.
- Universally Applicable to Any Membrane-Based Water Desalination or Filtration System, Raw Water Source or Membrane Manufacture, Staging or Configuration.
- Uniquely capable of simultaneous and dynamic monitoring and comparisons of the operational efficiency and true performance of different membrane manufacturers, process configurations, pretreatment regimes or cleaning cycles.

## **Our Experience**

Installed and tested at over 25 RO, NF, UF & MF plants worldwide (Saudi ARAMCO & SWCC; S. Australia Corp.'s Penneshaw; Bahrain RAJ; UAE's SEWA, Fujairah 1, CA, FL, CO, TX in USA) and officially validated and recommended by the industry's membrane technology pioneer and manufacture, "Permasep" Products, E.I. DuPont de Nemours, USA.



Flow chart of the Silent Membrane Alarm in Real Time (SMART<sup>TM</sup>) system

Available Custom Software Suites SilentAlarm™ Software Suite for: Single-pass RO/NF Plants Double-pass RO/NF/UF/MF Plants Single-stage UF/MF Plants Single-train RO/NF Plants



Software License CD & User Manual

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# **Our Practical Training**

- Design & Instruction of Short Classroom Courses on Membrane Desalination & Filtration for Industry Professionals
- Design and Implementation of Customized In-House Engineering and O&M Training Programs for Organizations' Personnel On-Site.
- Design & Production of Plant-Customized O&M Manuals and Computer-Based Training for the Water & Power Industries.
- Design & Production of Interactive Training Courses CD-ROMs and Workbooks.

### **Our Experience**

Trained over 700 professionals via public courses, international conferences and organizations (IDA, EDS, SWPF, MEDRC), and customized in-house programs for water & power authorities and companies (Saudi ARAMCO, SWCC, MARAFIQ, MEW, Buraidah, ACWA Power; UAE's FEWA, DEWA, SEWA; Bahrain's EWA; Malta) and others worldwide since 1984.



TECHNOLOGIES IN PRACTICI TRAINING COURSE WORKBOOK

DESALINATIO

COURSE INSTRUCTOR المهندس محمد أمين سعد Eng. MOHAMAD AMIN SAAD President Chief Consultant & Tainer





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