

HYDRAsub[®]-MBR

Hollow Fiber Membranes for Membrane Bioreactor Applications in Wastewater Treatment

Membrane bioreactor (MBR) technology is gaining worldwide acceptance as the technology of choice for municipal and industrial wastewater treatment. HYDRAsub[®] - MBR technology offers lower footprint and superior effluent quality in a design that is easy to service and maintain.

State of the Art MBR Technology

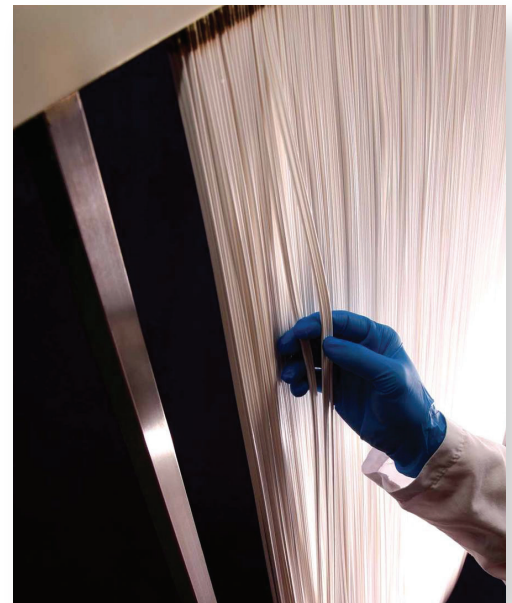
- Alternative to conventional treatment
- Supported PVDF capillary fiber
- Highly chlorine tolerant membrane
- High flux/low pressure operation
- Greatly reduced footprint as compared to conventional treatment

State of the Art Customer Support

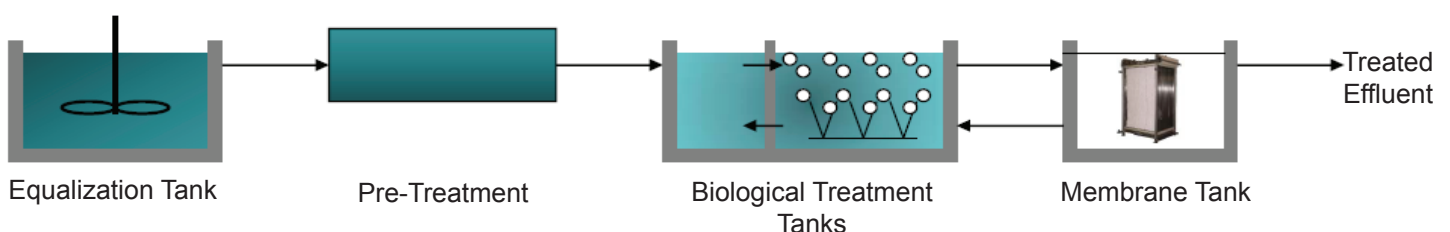
- Worldwide sales and field service team
- Proven engineering history
- Membrane system design support
- Integrated Membrane Solutions (IMS) Design services available

State of the Art Design

- Module engineered for ease of service
- Self-supporting elements
- Robust fiber with excellent mechanical strength and durability
- Large inner diameter offering low permeate pressure drop along the lumen
- Permeate pulled from the top and bottom of element providing uniform fouling and cleaning



HYDRAsub[®]-MBR Typical Process Flow

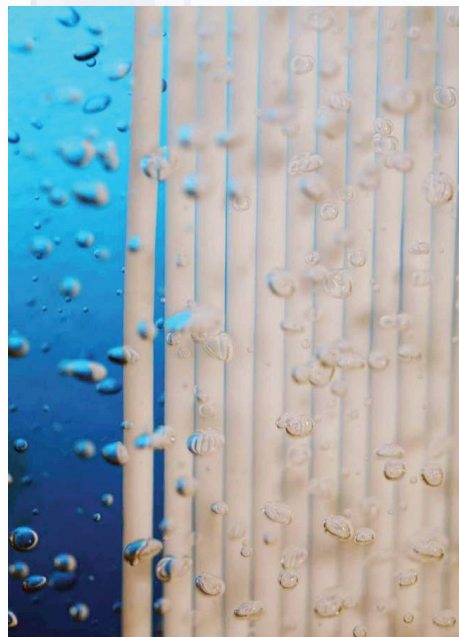


HYDRAsub®-MBR Competitive Advantages

- High flux, competitive design
- Low energy consumption
- Small Footprint
- No backwash
- Low chemical consumption, simple cleaning procedure
- Low pressure operation



HSM500-ES



HYDRAsub®-MBR Fibers

HYDRAsub® MBR Product Offering

Part Number	Membrane Area (m ²)
HSM250-ES	250
HSM500-ES	500
HSM750-ES	750
HSM1000-ES	1000
HSM1500-ES	1500

*Modules include cage, elements, permeate adapters and air diffusers

Solutions You Need. Technologies you Trust!

Hydranautics Corporate office:

401 Jones Road, Oceanside, CA 92058, USA 1-800-CPA-PURE Phone: 760-901-2500 Fax: 760-901-2578 Email: info@hydranautics.com

Website: www.membranes.com

Americas Hydranautics	Europe/Africa Hydranautics	Middle East Hydranautics	Indian Subcontinent Hydranautics	S.E. Asia/Australia Nitto Denko	Japan Hydranautics- Nitto Denko Corp.
401 Jones Road Oceanside, CA 92058, USA Tel: +760-901-2500 Tel: 1-800-CPA- PURE Fax: +760-901-2578	Wilhelmina Singel 116, NL 6221 BL Maastricht, The Netherlands Tel: +31-(0) 43-350 3470 Fax: +31-(0)43-350 3489	DAFZ, Building No.6WA, Office No.828, PO Box 29 38 35, Dubai - UAE Tel: +9714 2146820/1 Fax: +9714 2146822	407, Palm Springs Center, Link Road, Malad (West), Mumbai 400 064, India Tel: +91-22-40030500 Fax: +91-22-40030496	438 Alexandra Road #19-01/04, Alexandra Point Singapore 119958 Tel: +65-6879-3820 Fax: +65-6223-7690	East Tower, Gatecity Osaki, 1-11-2 Osaki Shinagawa, Tokyo Japan, 1410032 Tel: +81-3-57402166 Fax: +81-3-57402265