



**PURON<sup>®</sup> HF**

# Solutions

Low energy, cost-effective water  
and wastewater treatment



# Market-Driven Solutions

## *PURON® HF technology and solutions.*

The Koch Membrane Systems' (KMS) family of PURON submerged membrane modules is providing industries and municipalities around the world with economical, comprehensive water and wastewater solutions.

### Complete Solids Tolerance Solutions

Koch Membrane Systems offers a wide range of ultrafiltration products to meet any application challenge.

#### TARGA® II

Up to 50 mg/L

#### PURON® MP

Up to 1000 mg/L

#### PURON® HF

Up to 3,000 mg/L

#### PURON® MBR

Up to 15,000 mg/L

#### ABCOR®

Up to 500,000 mg/L

### PURON Membrane

The PURON HF module uses the same membrane as the well proven PURON MBR module. The fiber consists of a 0.03 micron PVDF Ultrafiltration membrane, providing excellent physical barrier to suspended solids, bacteria and other pathogens. The narrow pore size distribution ensures high permeability and sustainable operation.

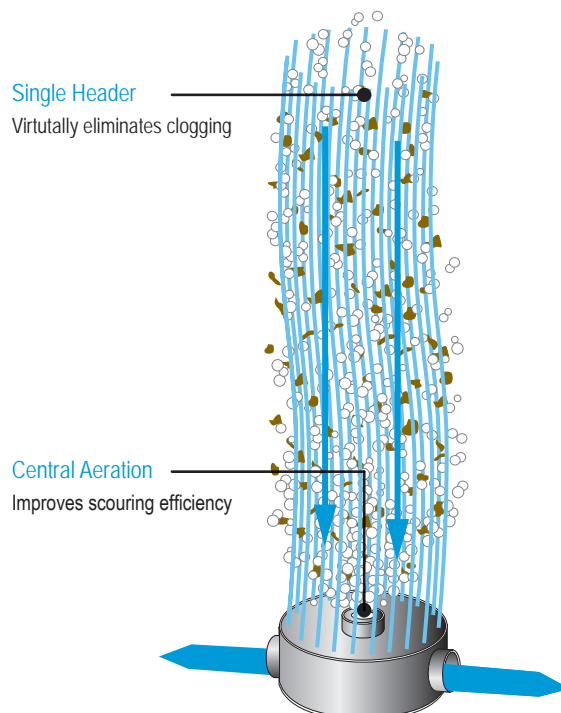
### PURON HF Modular Systems

KMS isn't just a membrane company. KMS offers pre-engineered modular MBR PURON HF filtration systems for flow rates up to 3 MGD (11,500 m<sup>3</sup>/day) per train. KMS modular PURON HF systems can be arranged to meet almost any plant layout or required flow rate.

### PURON HF Modules

The latest generation of high flux PURON HF modules for tertiary applications and other high solids filtration are newly-designed and improved, while continuing to leverage the innovative PURON central aeration and single header design. The PURON HF Modules provide the highest packing density product in the market, packing 2650 m<sup>2</sup> in a single module.

### PURON Single Header Design



# Value-Added Benefits

*Effluent quality superior to conventional treatment technology.*

Cost-effective, compact, and automated, KMS ultrafiltration systems have a successful history of advanced treatment of municipal effluent, providing a high-quality, consistent filtrate.

## Why PURON® HF?

Based on the same single-header, central aeration design as the PURON MBR modules, the PURON HF (High Flow) module is ideal for tertiary applications including RO pretreatment and surface water treatment. With system recoveries of greater than 95%, the PURON HF module produces consistent, high quality effluent that meets or exceeds most regulatory requirements. The PURON HF submerged reinforced hollow fiber module features 47% more membrane area than the current PURON MBR module within the same product dimensions. The result is a high throughput, compact wastewater solution that can be implemented for a low life-cycle cost.



Alto da Boa Vista Drinking Water Treatment Plant, São Paulo, Brazil

45 MGD (170,000 m3/day)



Boatou Steel Tertiary Treatment Plant, Inner Mongolia, China

15.8 MGD (60,000 m3/day)

## Key Product Features

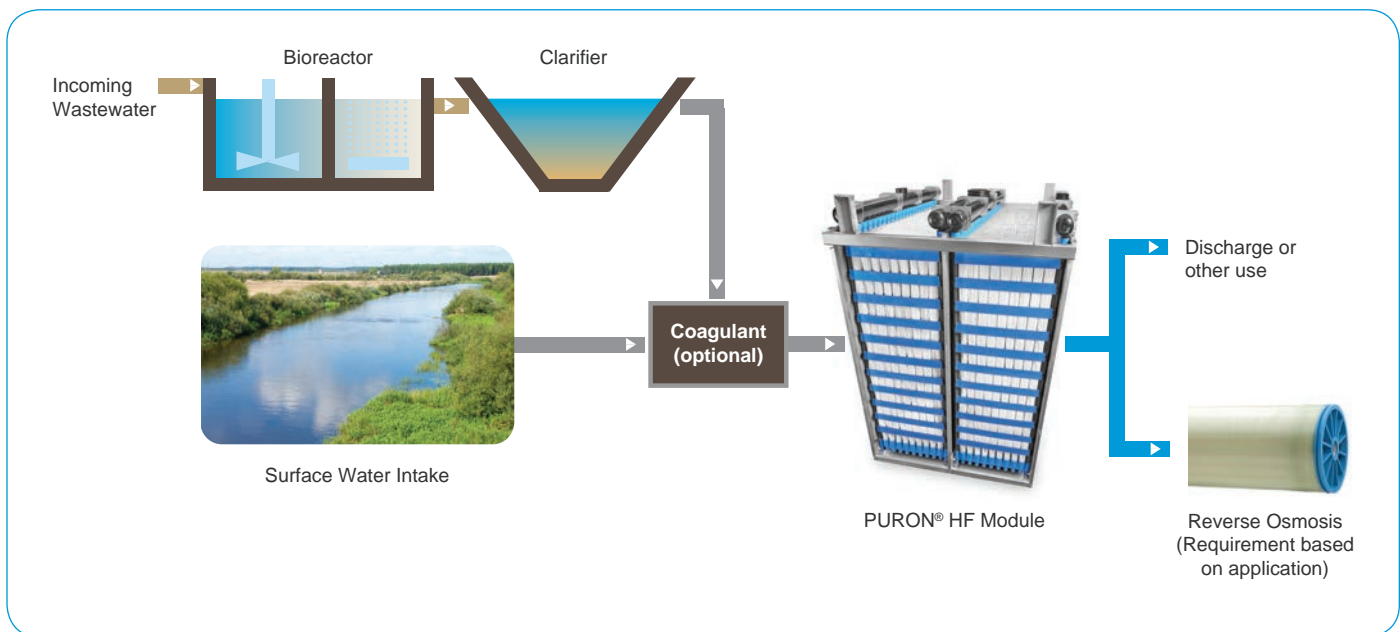
- High solids tolerance
- High packing density
- Small, medium, and large modules to fit any flow rate
- Reduced system footprint
- Single-header, central aeration design

## Robust Fiber and Excellent Chemistry

- Supported membrane fibers virtually eliminate risk of breakage
- High flux, low fouling rate
- High sustainable permeability

## Applications

- Tertiary treatment
- RO pretreatment
- Surface water for industrial water and drinking water



# The PURON® HF Solution

Our best-in-class designs provide a truly integrated solution, from membrane chemistry, morphology and fabrication to process and application design, with dedicated technical support every step of the way.

KMS isn't just a membrane company. The KMS global team of engineers is ready to assist you with:

- Process & System Design
- Project Management
- Piloting
- Start Up and Commissioning
- Mechanical Design
- KMS ASSIST® Service and Maintenance Program
- Global Fabrication

## Piloting – Unique solutions are our specialty...

*Not all process streams are alike. New and specialized applications can benefit from pilot testing to develop and validate system designs.*

Our Process Engineering Group stands ready to support those applications that require more process expertise, attention or testing. With a sizeable inventory of pilot systems in our fleet, a testing program can be up and running at your facility in a matter of days.



Contact your local Koch Membrane Systems representative for more information:

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