

# ICMF (INTEGRATED CONTINUOUS MEMBRANE FILTRATION) SYSTEM

# TriTech

MEMBRANE RELATED PRODUCT

The **TriTech® ICMF** (integrated continuous membrane filtration) system uses the state of the art membrane separation technique, cross-flow filtration method and on-line automated cleaning (gas, water flushing) technology. A series of automated membrane filtration operations are controlled by PLC. The design concept of modularization and integration of the system provides significant convenience to users and offer stable and high quality product water.



## CHARACTERISTICS

### High performance UF membrane module

ICMF system uses high performance TriTech® ParaMax™ UF membrane module which is developed by the TriTech group. This hollow fiber UF membrane with narrow pore size can effectively reject SS (suspended solids) and completely filter out pathogenic microorganisms. It provides stable and reliable high quality water production. High packing density of the ParaMax™ membrane module provides a higher membrane area per unit area. Therefore the footprint of the equipment can be reduced.

### Modular system design

ICMF system uses a modular design concept to allow flexibility in the configuration of the number of ParaMax™ membrane modules to meet the water output capacity requirement. They can be preinstalled in the factory and shipped directly to job site for assembling, effectively avoiding the secondary pollution of system pipes. Each membrane module is independent and can be maintained or repaired without affecting the overall system.

### On-line automatic clean and fault diagnosis

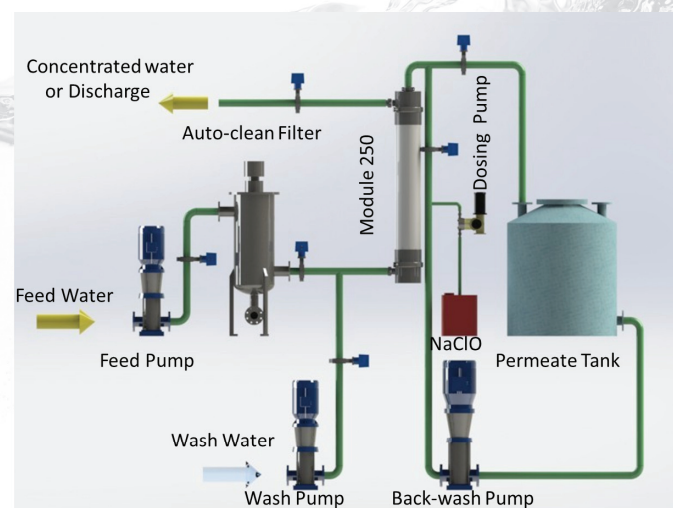
ICMF system has both backward flushing and water/gas mixed forward flushing process. With an automated on-line flushing and sterilizing agent replenishment system, it can be ensured that the UF filtration module and the whole system are operational with minimum downtime.

Fault diagnosis is built into the system to simplify troubleshooting.

### PLC automatic monitoring

The normal operations of filtration, backward flushing and forward flushing are controlled by PLC, reducing the risk of manual intervention. The manpower requirement to operate this automated system is minimized with the aid of a simple operator interface with simple operational procedures.

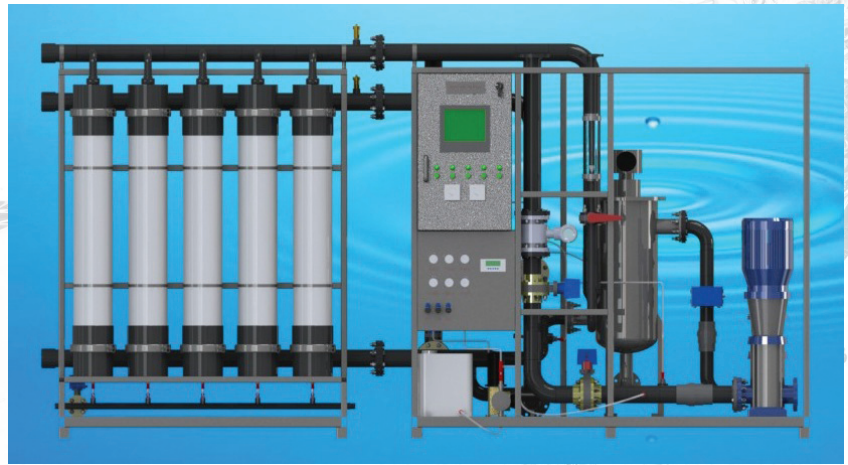
## PROCESS FLOW



## Main application fields

- Pretreatment of water supply for large scale RO and desalination plant
- Treatment for large and medium sized drinking water plant
- Treatment for household and industrial wastewater
- Recovery of useful material from industrial wastewater
- Equipment for mineral water and purified water production
- Extraction, enrichment and separation for biomedical and F&B industries.

## MODULAR SYSTEM DESIGN



## PRODUCT RANGE FOR TRITECH® INTEGRATED CMF SYSTEM

Pre-engineered Package Plants are cost effective and compact solutions for water treatment

Model No	Production Volume (m3/d)	Size(L*W*H)	Power source	PoraMax™ Membrane module model
TIUF-02	20	1000*1300*2650	220V	STMUF0909
TIUF-05	50	1500*1300*2650	220V	STMUF0909
TIUF-10	100	1500*1300*2650	380V	STMUF1615
TIUF-30	300	2000*1300*2650	380V	STMUF1615
TIUF-50	500	4000*1300*2650	380V	STMUF2215
TIUF-100	1000	4900*1300*2650	380V	STMUF2515
TIUF-150	1500	5500*1300*2650	380V	STMUF2515