



NEWWATER GROUP

www.newwatergroup.cz

MINT-UF

ULTRAFILTRATION FRAME UNITS



Member of

ALL
FOR
WATER

IN-EKO
TEAM

We bring intelligence
to ultrafiltration

Ultrafiltration Frame Units MINT-UF



MINT-UF – filtration for 21. century

Smart design	
Minimal layout	= Minimal spatial requirements
Optimal frame dimensions	= Easy transport and placement
Frame design	= Simple on-site installation
Modular system design	= Variable configuration to specifically suit customer and application
Smart operation	
Self-optimizing IQ-MINT operation software	= Fully automated and safe operation with emphasis on optimal recovery, operating costs, and lifetime of components
Intelligent technology design	
Custom design with state-of-the-art membrane technology	= Optimal membrane process design based on required capacity and quality of treated water
Evaluation of economic and technological factors in real time	= Return of investment and environmental impact are the main pillars of any recycling technology
Intelligent after-sale services	
Electronic operating log MINT-eBook	= Observe and log data in real time including service records. Create data sets and evaluate trends to effectively analyse and record operation parameters
Remote access support MINT-eCare	= Surveillance of technology via remote access by qualified NWG personnel

Ultrafiltration Frame Units MINT-UF

Ultrafiltration is a membrane separation process used to remove solids, viruses and bacteria from water and reduce turbidity. The removal efficiency of ultrafiltration is an order of magnitude higher than sand filtration or other conventional methods. Ultrafiltration can function as a perfect substitute, while maintaining similar operating pressures as well as comparable pressure drops. In combination with other disinfecting processes (dosing of disinfecting agent, UV) a multi-barrier system is formed, ensuring a robust and safe operation of water recycling technology.

We offer the most compact technological solutions on the market. The key feature of our frame units is their modularity, allowing for a wide variety of special configurations with no additional changes to the basic design. This includes installing the frame into standard 10" transport containers.

The modular character of the design allows the technology to be positioned in numerous arrangements – alongside a wall, around the corner as well as in open space. Meaning the technology can be installed to meet the specific requirements of any customer without the need for custom adjustments.

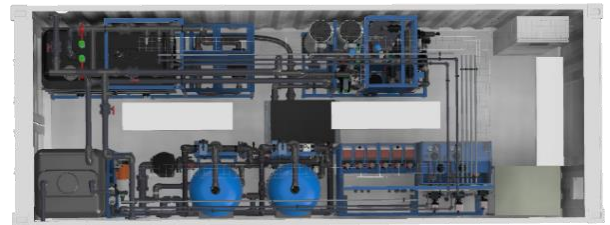


The basic system design consists of:

- Main filtration frame – contains the feed pump, preliminary filter, ultrafiltration membrane modules, piping and fittings, sensors, cabinet with main control panel
- Backwash frame – contains the backwash pump, product accumulation tank, piping and fittings, sensors

Available extensions:

- Buffer tank for accumulating feed water with water level sensor
- Pretreatment of feed water – pH, disinfectant, oxidizing agent
- In-line coagulation
- Chemically enhanced backwash (CEB)
- Automatic Forward Flush – cleaning of membranes in cross-flow mode
- Automatic testing of membrane integrity



Containerized installation of UF frame unit – multiple-process MINT-ConTech technology

Operating limits:

Power supply:	400 V, 50 Hz
Turbidity:	max 300 NTU
TOC:	max 40 mg/l
TSS:	max 200 mg/l
pH:	5-10 (1,5-12,5 for CEB, CIP)
Water Temperature:	max 40 °C
Cl ₂ :	max 3 mg/l
Recovery:	up to 98 %

- **MINT-UF** uses Inge multibore membranes
- IN-OUT filtration
- Verified membrane quality and lifetime



Ultrafiltration Frame Units MINT-UF



MINT-UF60A with feed water accumulation tank, backwash frame, CEB system and all additional extensions

Examples of application for MINT-UF units:

- Water pre-treatment before reverse osmosis plants
- Production of drinking water
- Preparation of irrigation water
- Pool water filtration
- Recycling of wastewater from sand filter cleaning
- Process water treatment
- Recycling of wastewater treatment plant effluent – tertiary treatment of wastewater

Model	Max feed capacity* m ³ /h	Membrane modules	Membrane area m ²	Installed power kW	Primary purpose
MINT-UF60A	8.4	1	60	4.5	Low water pollution (condensates, filtered water, underground water sources)
MINT-UF70A	16.8	2	120	8.5	
MINT-UF80A	33.6	4	240	16.5	
MINT-UF61A	8.4	2	120	7	Low turbidity, TSS and TOC, pre-treatment recommended
MINT-UF72A	16.8	4	240	14	
MINT-UF82A	25.2	6	360	20.5	
MINT-UF60B	3.2	1	40	3.6	Surface water, higher turbidity, TSS, pre-treatment necessary
MINT-UF70B	6.4	2	80	5.1	
MINT-UF80B	12.8	4	160	8.5	
MINT-UF61B	3.2	2	80	4.6	High water pollution, biological WWTP effluents, pre-treatment necessary
MINT-UF72B	6.4	4	160	6.6	
MINT-UF82B	9.6	6	240	14	
MINT-UF60C	6	1	50	4.1	Recirculation of pool water, recycling of wastewater from sand filter cleaning
MINT-UF70C	12	2	100	8.5	
MINT-UF80C	24	4	200	16.5	

* Feed flow capacities represent maximum values for unpolluted water, realistically achieved feed flow range is 30-85 % depending on feed water quality and character of pollution

Smart services:

IQ-MINT

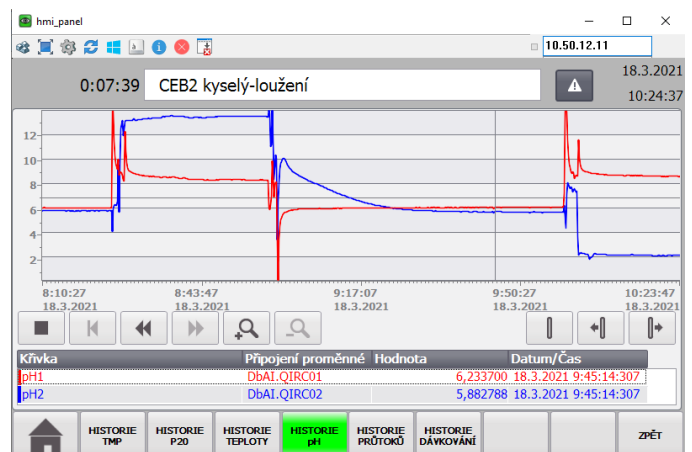
- Self-learning software set to optimize operating parameters based on real-time data evaluation
- Maximizing recovery, minimizing operating costs, prolonging lifetime of key components

MINT-eBook

- Electronic operating log
- Continuous surveillance of technology operation and condition

MINT-eCare

- Supervision and assistance of professional personnel via remote access



THE FUTURE IS NEW WATER!