FIRST INSTANT MEMBRANE™

INSTANT PRECIPITATION • MAXIMUM REMOVAL • ZERO DISSOLVED CONTAMINANTS

WATCH WATER a Water Company

Instant Membrane™ is a diluted Liquid Membrane containing Two very strong Compounds – One Cationic and One Anionic. These compounds attract and capture opposite charged ions from water, causing instant precipitation of dissolved contaminants.

WE HAVE DONE A REVOLUTIONARY WONDER!

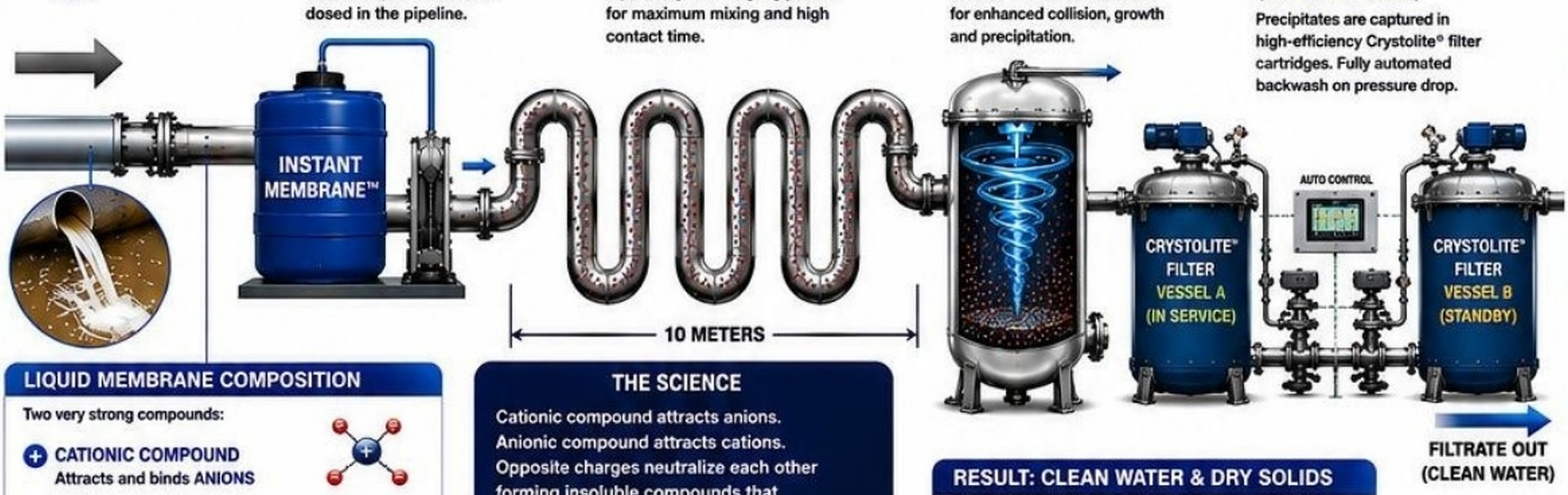
1 UNTREATED WATER / WASTEWATER INLET

2 INSTANT MEMBRANE™ DOSING
Diluted Liquid Membrane dosed in the pipeline.

3 ZIGZAG CONTACT PIPE (10 METERS)
Pipe designed in zigzag pattern for maximum mixing and high contact time.

4 PRESSURE VESSEL WITH VORTEX SYSTEM
Creates intense vortex action for enhanced collision, growth and precipitation.

5 AUTOMATED CRYSTOLITE® FILTER (DUPLEX SYSTEM)
Precipitates are captured in high-efficiency Crystolite® filter cartridges. Fully automated backwash on pressure drop.



LIQUID MEMBRANE COMPOSITION

Two very strong compounds:

+ CATIONIC COMPOUND
Attracts and binds ANIONS

− ANIONIC COMPOUND
Attracts and binds CATIONS

Both compounds work in synergy to form insoluble precipitates instantly.

THE SCIENCE

Cationic compound attracts anions.
Anionic compound attracts cations.
Opposite charges neutralize each other forming insoluble compounds that precipitate out of the water instantly.

INSTANT PRECIPITATION | MAXIMUM REMOVAL | ZERO DISSOLVED CONTAMINANTS | MAXIMUM RECOVERY

RESULT: CLEAN WATER & DRY SOLIDS

- Instant precipitation of dissolved ions
- Very high removal efficiency
- High contact time (Zigzag + Vortex)
- Fully automated duplex filtration
- Continuous operation – zero downtime
- Low chemical consumption
- Handles high TDS & high contaminant load
- Compact, robust and industrial grade

AUTOMATED CRYSTOLITE® FILTER – DUPLEX SYSTEM

AUTOMATIC BACKWASH
When pressure drop reaches set point, the system automatically initiates backwash on the vessel in service while the standby vessel takes over. Zero downtime operation.

PRECIPITATION CAPABILITIES

CATIONS REMOVED
- Heavy Metals (Pb, Cu, Zn, Cd, Hg, Ni, Cr, etc.)
- Alkaline Earth Metals (Ca, Mg, Sr, Ba)
- Transition Metals
- Ammonium (NH^{4+})
- And many more...

ANIONS REMOVED
- Sulfate (SO_4^{2-})
- Nitrate ($NO3^-$)
- Phosphate (PO_4^{3-})
- Fluoride (F^-)
- Chloride (Cl^-)
- Carbonate (CO_3^{2-})
- And many more...

KEY APPLICATIONS

- Industrial Wastewater
- Municipal Wastewater
- RO Concentrate / Brine
- Mining & Metallurgy
- Electroplating
- Food & Beverage
- Pharmaceutical
- Power Plants
- Pulp & Paper
- Chemical Industry

KEY BENEFITS

- Revolutionary Instant Precipitation
- Maximum Removal Efficiency
- Zero Dissolved Contaminants
- Low Energy – Ultra Low Pressure
- Low Footprint – Easy to Operate
- Maximum Resource Recovery

WE HAVE DONE A REVOLUTIONARY WONDER! ★★★★★

CLEAN WATER FOR LIFE | SUSTAINABLE FUTURE | RESOURCE RECOVERY | ZERO LIQUID DISCHARGE

INSTANT MEMBRANE™ – THE REVOLUTION IN WATER TREATMENT Capture. Precipitate. Remove. Recover.

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WATCH WATER a Water Company