

Membrane Business Group
Separation Materials Department
Mitsubishi Chemical Corporation

STERAPORE™

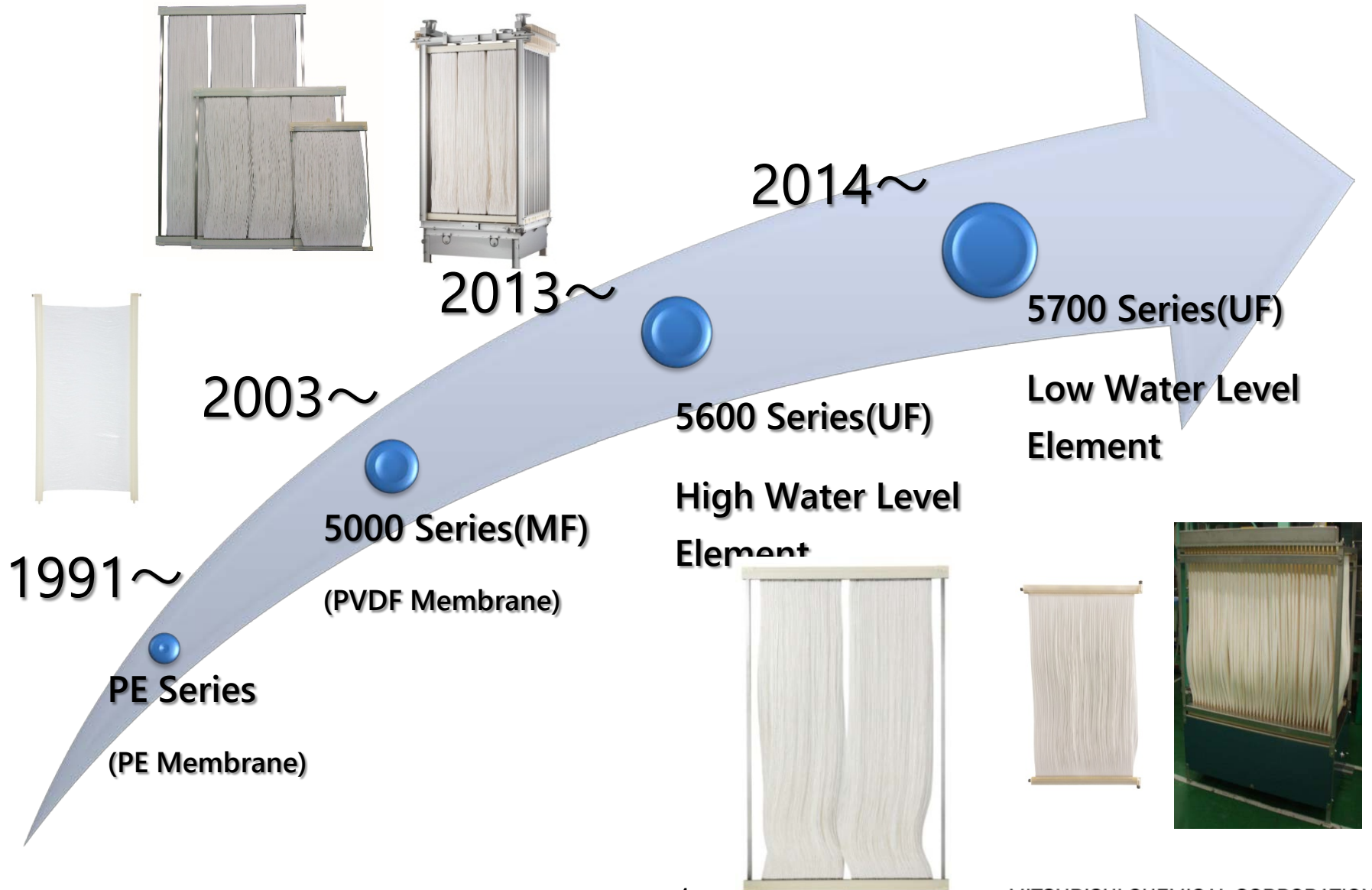
5600-5700 Series for MBR

Hollow Fiber UF Membranes

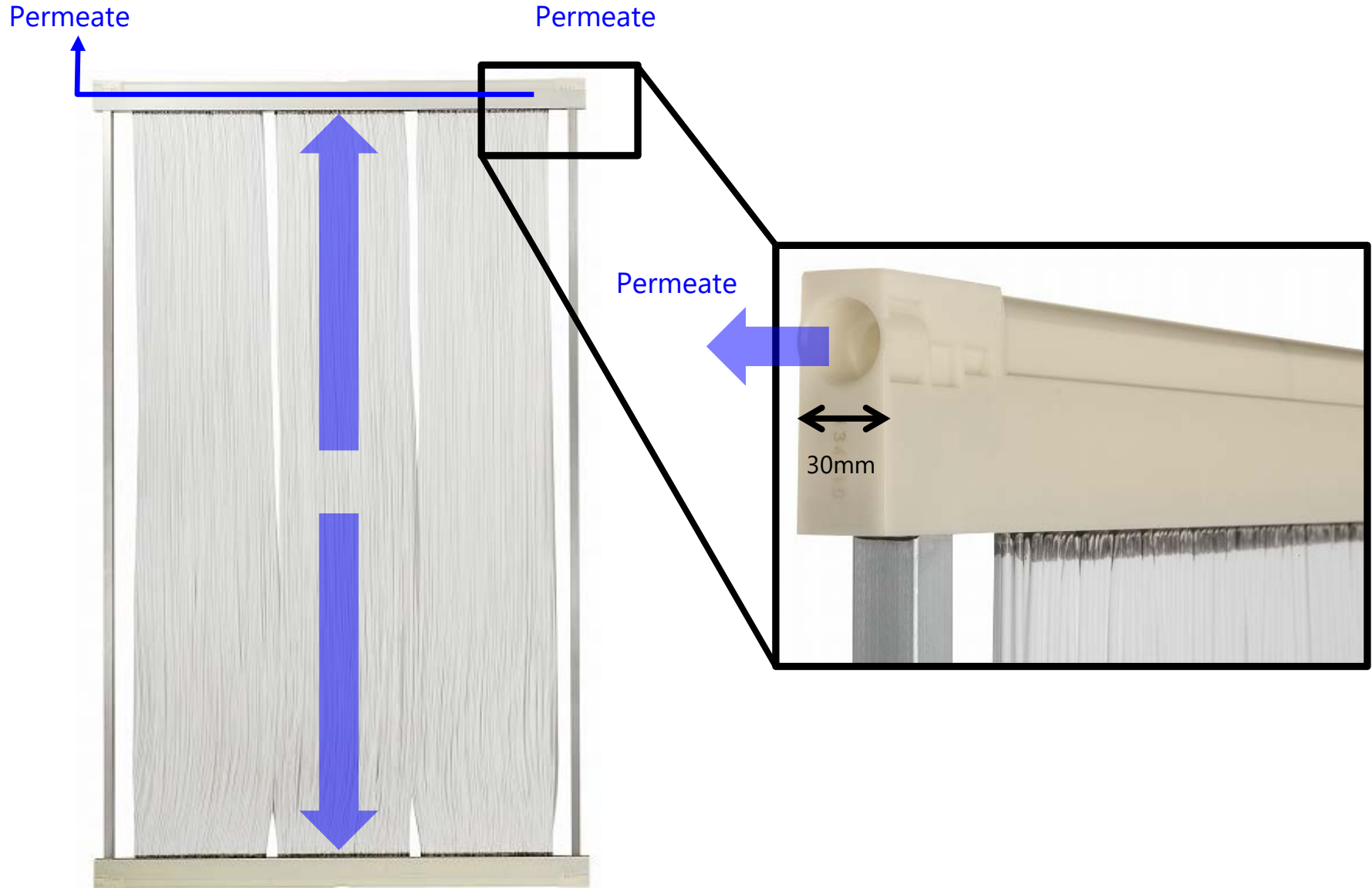
1. Mitsubishi Chemical Group
2. STERAPORE™ 5600-5700 Series
3. MBR Case Report

(2022.7)

STERAPORE™ -Product History-



STERAPORE™ 5600 Series - Element-



STERAPORE™ 5600-5700 Series -Element-

	5600 Series	5700 Series
Membrane Material	Reinforced PVDF	
Membrane Type / Pore Size	UF / 0.05μm	
Application	MBR, Tertiary Treatment	
Membrane Surface Area	40m ² /Element	5m ² /Element
	400 – 2,400m ² /Module	50 - 200m ² /Module
Flux*	Up to 33LMH	Up to 40LMH
Outer Diameter	1.65mm	
SADm	Min. 0.11m ³ /m ² /hr	Min. 0.27m ³ /m ² /hr
Storage Condition	Dry	
Photo	 2,000mm	 1,000mm

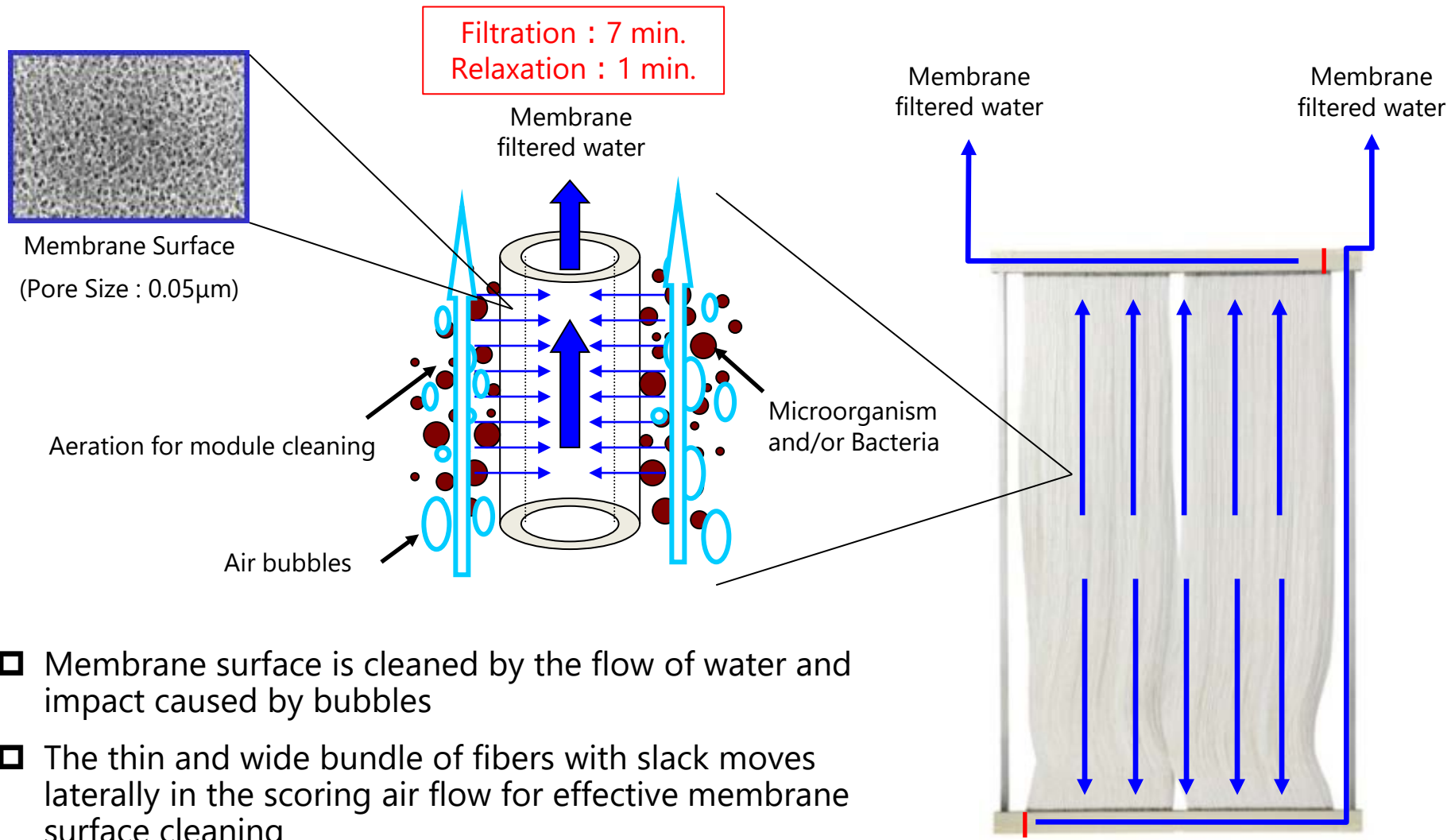
* : Reference

STERAPORE™ 5600-5700 Series -Module-

Item		Low Water Level			
PN(Module)		57M0050FF	57M0100FF	57M0150FF	57M0200FF
PN(Element)		57E0005SM(5m ² /Element)			
Number of Element		10	20	30	40
Membrane Surface Area	m ²	50	100	150	200
Capacity*	m ³ /d	25	50	75	100
Size	D×W×H mm	668×675×1,600	668×967×1,602	670×1,245×1,602	670×1,520×1,602
Min. WL	m	1.7			

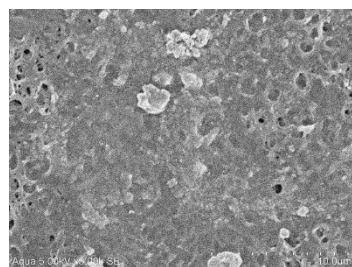
Item		High Water Level				
PN(Module)		56M0400FF	56M0800FF	56M1200FF	56M1600FF	56M2400FF
PN(Element)		56E0040SA(40m ² /Element)				
Number of Element		10	20	30	40	60
Membrane Surface Area	m ²	400	800	1,200	1,600	2,400
Capacity*	m ³ /d	200	400	600	800	1,200
Size	D×W×H mm	1,524×940×2,798	1,524×1,390×2,798	1,524×1,870×2,798	1,524×2,320×2,798	1,524×3,416×2,798
Min. WL	m	3.0				

Filtration and Relaxation Mode

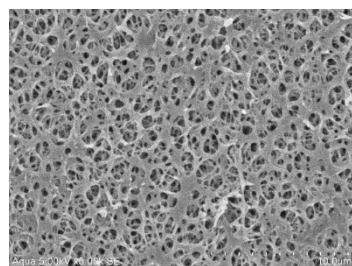


- ❑ Membrane surface is cleaned by the flow of water and impact caused by bubbles
- ❑ The thin and wide bundle of fibers with slack moves laterally in the scoring air flow for effective membrane surface cleaning

CIP Mode (In-situ cleaning)

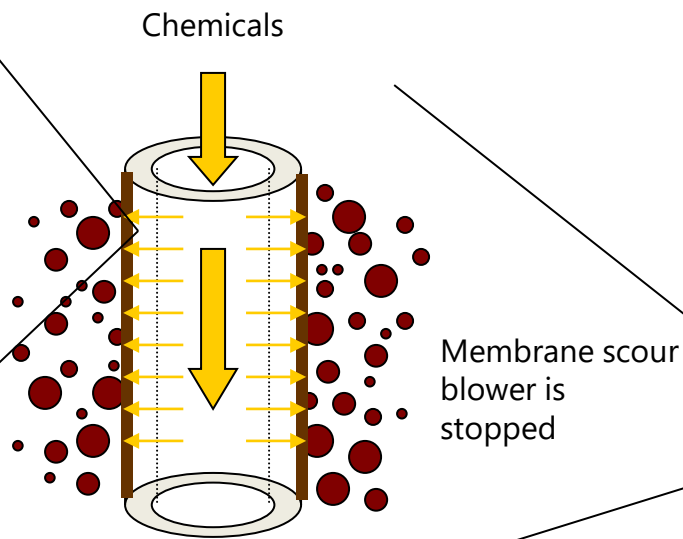


Before



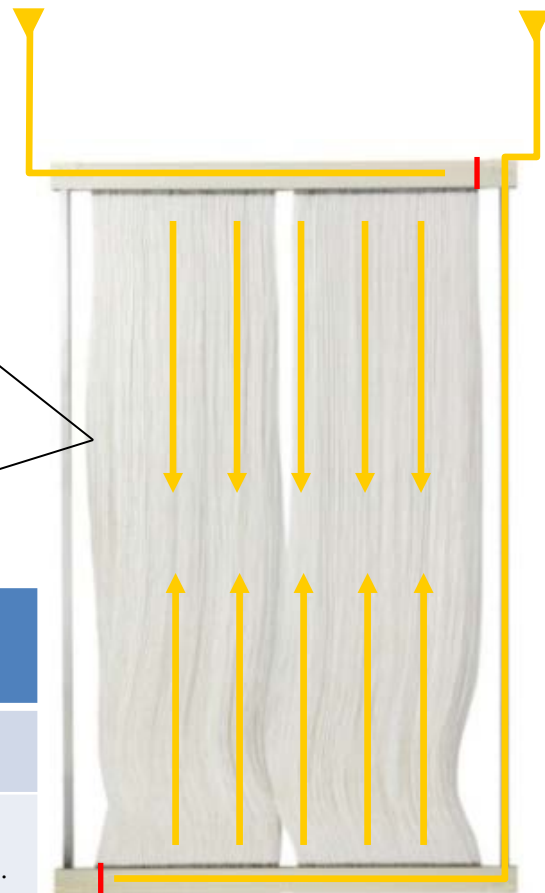
After

Injection and immersion time :
15 – 120 min. / time



Chemicals

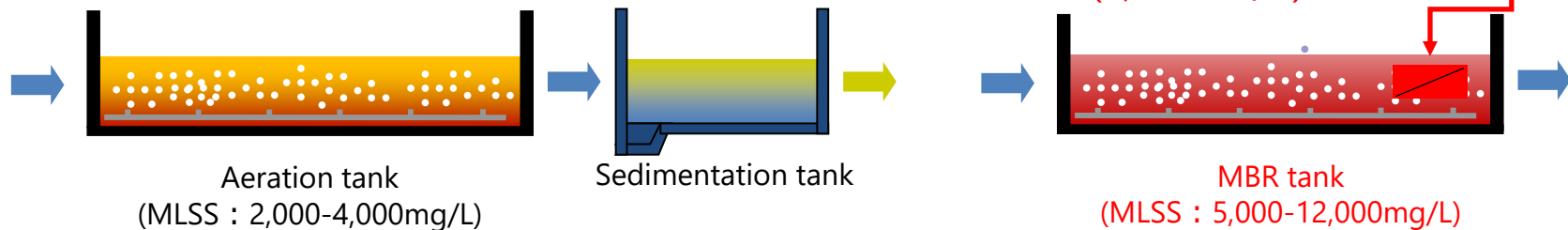
Chemicals



Type of cleaning	Cleaning frequency	Effective chlorine Concentration (for NaOCl)	Injection amount	Injection and immersion time
Maintenance cleaning(NaClO)	Every week (Flux > 16.7LMH)	NaClO 300 to 500 mg/L	2 L/m2	Only injection 15 to 30 min.
Recovery cleaning(NaClO)	Every 3 months and/or +15 kPa-TMP	NaClO 3,000 mg/L		Injection 30 min. Immersion 90 min.
Recovery cleaning(Acid)	Every 1 year	Oxalic acid or Citric acid 1 to 2 wt%		Injection 30 min. Immersion 90 min.

Upgrade Capacity New Town Wastewater Treatment

- End-user: Star City Thanlyin, Myanmar
 - Domestic wastewater treatment
- Furnished by: Myanmar Water Engineering And Products Co., Ltd
- Operation started: 2015
- Capacity: 1,100 m³/day
- MBR driving force: Upgrade Capacity
- Existing WWTP(500m³/d)



STERAPORE™



Before

After(MBR) Reference
(After
Conventional)