



BW WATER

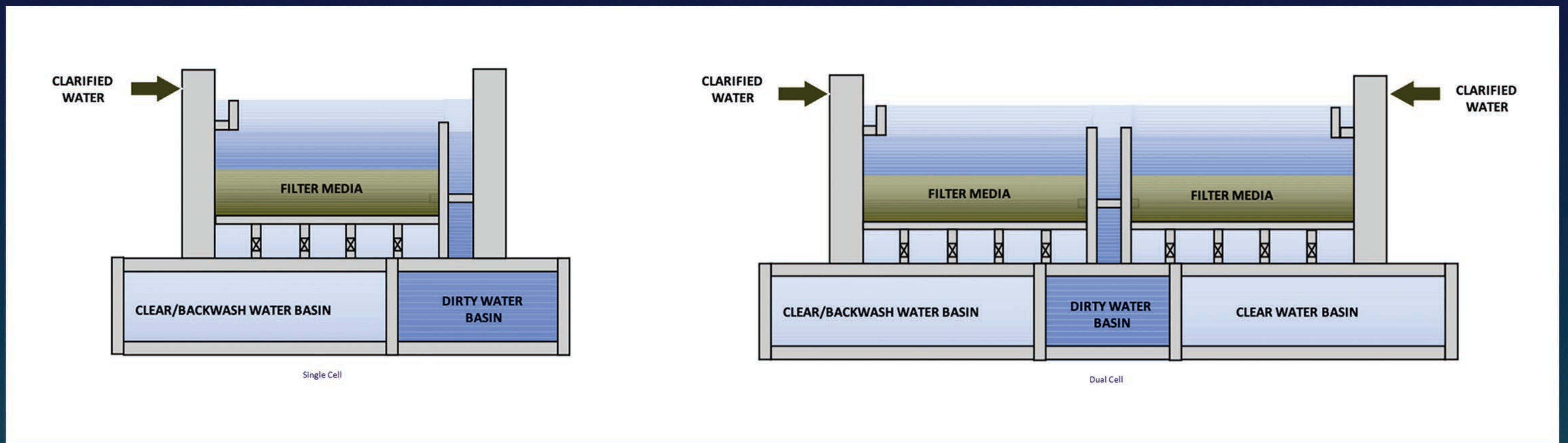
**HYDRO-FIL
SYSTEM**

**OPEN SAND FILTER
SYSTEM**

PRINCIPLES

HYDRO-FIL

OPEN SAND FILTER SYSTEM



- ✔ Clarified feed water is continuously channeled into individual filter units.
- ✔ Each unit is equipped with arrays of nozzles and has a deep bed of sand acting as the filter medium.
- ✔ The entire flow path is done under gravity, reducing the need for pumping.
- ✔ The system is designed such that the freeboard is controlled in order to maintain adequate filter pressure on the sand.
- ✔ During a backwash cycle, the feedwater flow rate is maintained in order to provide the crossflow needed to aid in the removal of solids into the drainage trench.

CASE STUDY

EAST WATER

HYDRO-PAQ &

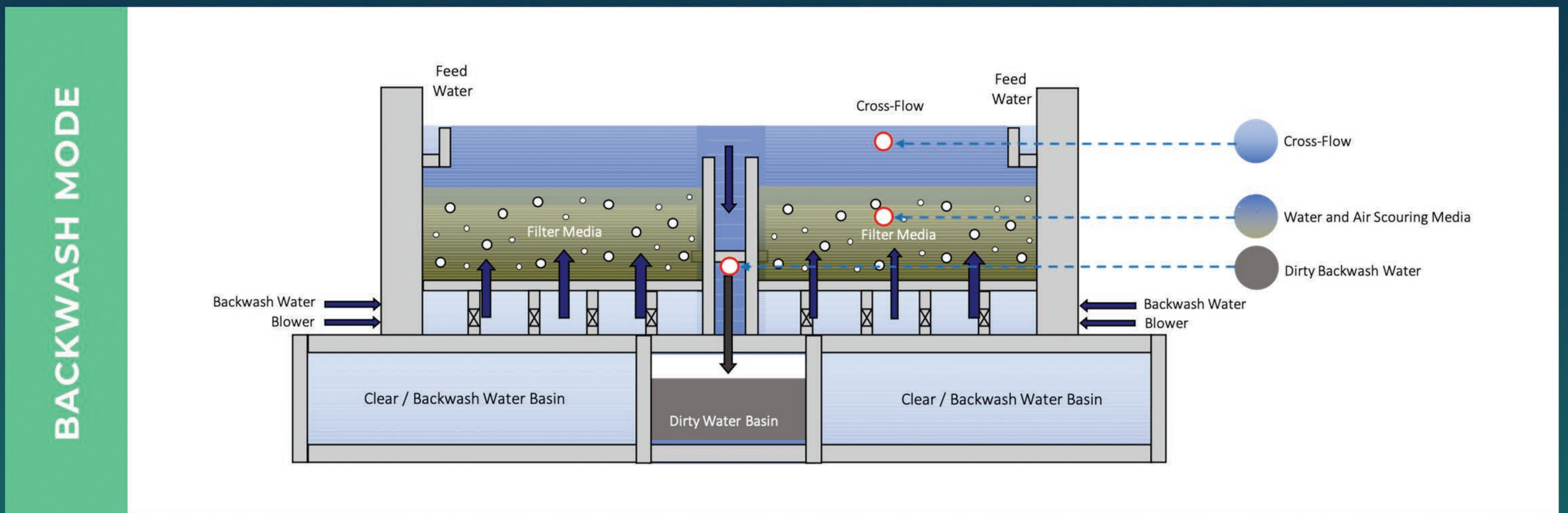
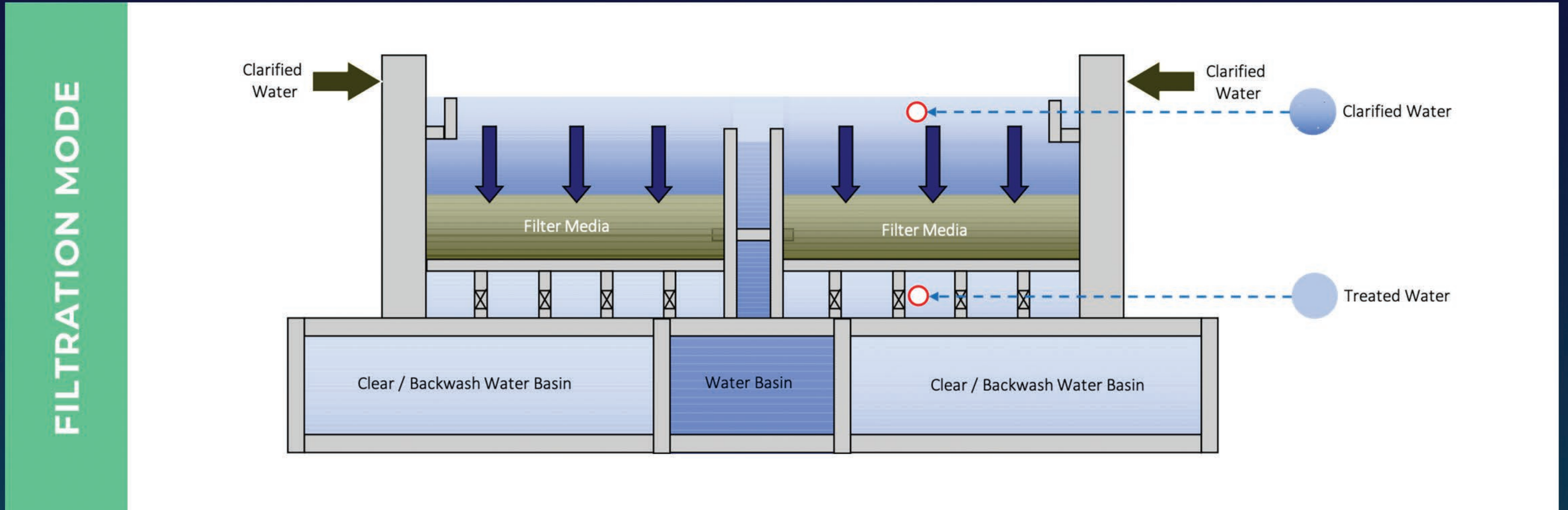
HYDRO-FIL,

100,000m³/day



EFFICIENT AND COST-EFFECTIVE BACKWASHING

- ✔ Cross-flow backwashing increases backwash efficiency and also saves on washing water, this in turn results in smaller backwash pumps and reduces energy consumption.



ITEM	PRESSURIZE FILTER	HYDRO-FIL	MF/UF
Capacity (Typical)	< 20 MLD	> 20 MLD	> 1 MLD
Footprint	30% Lesser	Medium	50% Lesser
Investment cost (High Capacity)	Medium	Medium	High
Operation cost	Medium	Low	High
Efficiency	< 0.5 NTU	< 0.5 NTU	< 0.1 NTU
TSS Outlet Expected	1 ppm	1 ppm	< 0.1 ppm

ADVANTAGES

EFFICIENT AND COST-EFFECTIVE BACKWASHING DURING THE BACKWASH STEP:

- ✔ Increases backwash efficiency by using feed water as the cross wash medium, allowing for shorter backwash durations and smaller pumps **save power consumption**
- ✔ The other online Hydro-FIL units are designed to be able to operate at higher flow rates with no impact on outlet water quality.
- ✔ Using filtered water, raw water is also used aid it crosses over the filter surface in order to wash out accumulated floc to the waste trench.
- ✔ Backwashing takes 10-20 minutes Only requires 3 to 5 m³ of filtrate per m² of filter surface



OPTIMISED FILTRATION EFFICIENCY

- ✔ Higher filtrate quality due to high filter layer
- ✔ Increased pollutant removal due to depth longer filter paths
- ✔ Increased filtered water output
- ✔ Deep filtration throughout an even depth of sand increases filtration cycle time.

EACH FILTER CHAMBER IS INDIVIDUALLY CONTROLLED

- ✔ Each filter unit has its own drainage control system, which makes the overall filter system even more reliable & further increases the availability of the filter system as a whole. Automation can activate a backwash depending on filter condition.

CONTACT US

SINGAPORE

BW Water Pte Ltd

📍 101 Thomson Road,
#06-01, United Square,
Singapore 307591.

☎ Tel No.: +65 6829 5368

✉ info@bw-water.com

MALAYSIA

BW Water Sdn Bhd
(Fka HEA Water Engineering Sdn Bhd)

📍 Suite 8.07, 8th Floor, MWE Plaza,
No. 8, Lebuh Farquhar,
10200 Penang

☎ Tel No.: +604 263 1288

BW Water Sdn Bhd

📍 2450 (Plot 212) Mukim 1, Tingkat
Perusahaan 4, Free Industrial Zone,
13600 Prai, Penang

☎ Tel No.: +604 384 2899

THAILAND

BW Water Co Ltd

📍 8 T-One Building,
Unit No. 1902, 19th Floor, Soi Sukhumvit 40,
Sukhumvit Road, Khwaeng Phra Khanong,
Khet Khlong Toei, Bangkok 10110, Thailand.

☎ Tel No.: +66 2 115 8218

INDONESIA

BW Water Pte Ltd (Indonesia)

📍 Jl. Yos Sudarso Kav. 89,
Mitra Sunter Boulevard B29-30,
Jakarta 14350, Indonesia.

☎ Tel No.: +62 216 507 774

PHILIPPINES

BW Water Inc

📍 4th Floor Unit 4 C&D Commerce & Industry
Plaza, Mc kinley Town Center, Park Avenue
Fort Bonifacio, Taguig City 1634

☎ Tel No.: +63 2 8683 6246

GERMANY

BW Water GmbH

📍 Curiestraße 2 · 70563 Stuttgart,
Germany

☎ Tel No.: +49 711 6740 0100