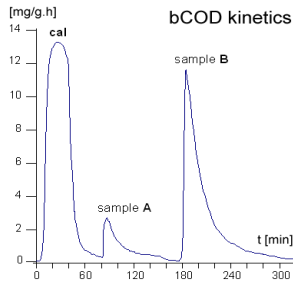


Model Engineering nv/sa (ME) is an inventive consultancy and engineering firm with a novel approach, advanced technology and over 33 years worldwide expertise in sustainable water solutions.

ME's expertise covers advanced water and wastewater treatment (clear water), sustainable water management (water efficiency) and green energy (biogas) for industries and communities.



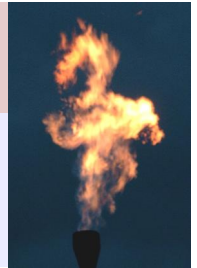
more with less

By using a novel MODEL based approach, ME develops and applies its new water technologies **AN+™**, **AS+™** and **5D-WM™** to achieve **more with less**: **more** biogas and water for reuse with **more** efficiency in **less** space and with **less** energy consumption, waste and cost for a drastically smaller carbon footprint.

AN+™ produces more green energy with less

AN+™ converts **more** organic wastewater and sludge into more methane rich biogas for more green energy and more CDM revenue in new and existing biogas plants.

At up to 95% conversion efficiency **AN+™** results in **less** waste and less energy consumption downstream to further shrink the carbon footprint of the whole treatment plant.



AS+™ is the **ultimate** activated sludge (AS) system generating the highest water quality for reuse at the lowest cost in **new and existing** (upgrade) biological sewage and wastewater treatment plants.

AS+™ outperforms other AS systems including MBBR and MBR by its excellent results, small footprint, low total cost and easy O&M.

AS+™ successfully cleans municipal sewage as well as wastewater from drink, food, chemical, pharmaceutical and pulp/paper industries since 1995. Most industries and all cities would benefit from **AS+™**.

The **AS+™** clear water formula :

- synergy of super bugs
- in high density flocs
- up to 80% biosorption
- cyclic regeneration
- super clarification

Typical **AS+™** water quality for **reuse** including groundwater recharge:

BOD < 3 mg/l, COD < 30 mg/l, TSS < 5 mg/l, turbidity < 0.3 NTU

In addition, **AS+™** cuts back up to 50% on energy consumption and waste sludge production without adding chemicals.

As a result, an investment in **AS+™** pays itself back quickly, especially in case of water reuse and when combined with **5D-WM™**.

"We do believe the **AS+™** technology has high potential for Asia, including for treatment of industrial effluent of paper mills.

We will use the available opportunities to promote and disseminate it both to ADB clients and within the ADB community."

Sergei Popov,
Senior Environment Specialist
Asian Development Bank
March 13th, 2009





5D-WM™ sustainable water management shrinks your water footprint by drastically reducing fresh water consumption and wastewater production - even down to zero discharge - while saving energy and costs on the way.

5D-WM™ explores and integrates 5 dimensions to shrink your water footprint:

D1 = water pinch : pinching direct fresh water consumption to what is needed.

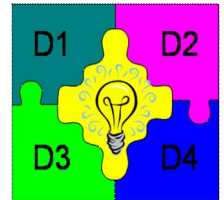
D2 = substitute fresh water : creating a balanced mix of alternative water sources.

D3 = multiple use : using water multiple times in different processes.

D4 = redesign & regeneration: cycling water within units and processes.

D5 = closing the loop : adding **AS+™** for sustainable water reuse at the lowest total cost either directly (short loop) or via groundwater recharge (long loop).

Over 50% savings on fresh water consumption and wastewater discharge have been achieved in many industries with minimal capital expenditure and maximal ROI.



Worldwide, ME has prominent **clients & partners** covering most areas of **water (re)use**:



- municipal sewage treatment, drinking water production and groundwater recharge
- breweries, malting, beverages, food and dairy industries
- fermentation, starch, sugar and alcohol industries
- pharmaceutical, chemical and petrochemical industries
- pulp, paper, rubber, rendering and various agro industries
- machinery, building products, wood processing, printing, paint, glue, ...

Besides advice, technology, design and engineering, ME also supplies specialised project services such as on-site investigation, testing, project planning, detailed engineering, tendering, project supervision, installation, start-up, tuning, training and operation support.

ME cooperates worldwide with R&D institutions, consultancy firms, contractors and other companies specializing in water treatment, wastewater treatment and/or green energy production.



more information ? free advice ?

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MODEL approach

MODEL technology

+33 years worldwide expertise