**ACTIFLO® Duo**
Two in one ready-to-use system for wastewater treatment depending on flow rates

Designed to adjust to substantial fluctuations in water flows to be treated, Actiflo® Duo can operate as a Multiflo® format (or conventional lamella clarifier) in times of low flow, such as in dry weather, or as an Actiflo®, i.e. coagulation/flocculation and settling ballasted with microsand in times of high flow, such as in wet weather.

**Operating Principle**

Depending on the operating mode activated, Actiflo Duo has the same operating features as Actiflo or Multiflo (lamella clarification), giving it the advantage of high flexibility in treatment operations. This operational flexibility is especially important in managing excess flows during periods of heavy rainfall.

In high flows, Actiflo Duo operates exactly as Actiflo, with microsand use and mixer speed allowing for ultra high speed and ultra high performance treatment.

In low flows, like during dry weather, the Multiflo (or conventional lamella clarifier) option can be enabled. Mixers then run at low speed while the microsand is stored in the injection and maturation tanks.

Actiflo Duo offers a unique design and operating system allowing for optimal use of installed equipment with lower operating costs. It equally allows for unprecedented operational flexibility.
ACTIFLO Duo

**Advantages**

- Exceptional treatment performance regardless of field of application.
- Operational flexibility
- Optimization of installed equipment at lower operating costs.
- Lower reagent consumption: up to 50% savings compared to conventional processes.
- Lower civil engineering costs thanks to process compactness.
- Easy-to-use process: simply operation demanding little attention from operators.

<table>
<thead>
<tr>
<th>Operating procedure</th>
<th>Conventional clarifier</th>
<th>Conventional clarifier with reagents</th>
<th>ACTIFLO®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemicals</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Microsand location</td>
<td>Inactive at bottom of tanks</td>
<td>Inactive at bottom of tanks</td>
<td>In suspension</td>
</tr>
<tr>
<td>Scrapers and pumps</td>
<td>Operate intermittently</td>
<td>Operate intermittently</td>
<td>Operate continuously</td>
</tr>
<tr>
<td>Suspended solids removal</td>
<td>&gt;50%</td>
<td>&gt;90%</td>
<td>&gt;90%</td>
</tr>
</tbody>
</table>

**Some references**

- Illawarra, Sydney, Australia, 2006, 160 000 m³/day, CSO-120m/h treatment
- Hartevann (Bykle), Norway, 2011, 5 800 m³/day, secondary treatment, MBBR-70m/h clarification
- Tranemo, Sweden, 2004, 12 000 m³/day, CSO-89m/h tertiary treatment
- Port Clinton, USA, 2004, 91000 m³/day, CSO - 88m/h primary and tertiary treatment
- Danang Beach Resort, Vietnam, 2011, 13 000 m³/day, secondary treatment /MBBR - 110m/h clarification

Illawarra, Sydney, Australie