Reference Information for
Wastewater Treatment Plants

Project „Leppersdorf” (Germany)

Start up: 1994
Connection load: 1,600 PE
Canalization: Separate system
Technical details: SBR-reactor with inlet pumping station, pre-treatment station and sludge storage tank.
Earth tied and opened concrete building with separate operation building.
Floating CROWN surface aerator for, the mixing and oxygen input inside the SBR-reactor.
Reference Information for Wastewater Treatment Plants

Project “Crussow“ (Germany)

Start up: 2003
Connection load: 995 PE
Canalization: Separate System
Sewage origin: Municipal
Technical details: SBR-Reactor with sedimentation tank, inlet buffer tank and sludge storage tank.
Earth tied concrete building with covering.
CROWN COMPACT-System for the oxygen input and mixing in the SBR-Reactor.
CROWN decanting system for the discharging of the purified water out of the SBR-Reactor.
### Reference Information for Wastewater Treatment Plants

**Project “Los Gringos“ (Mexico)**

<table>
<thead>
<tr>
<th><strong>Start up:</strong></th>
<th><strong>1994</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Connection load:</strong></td>
<td><strong>21,500 PE</strong></td>
</tr>
<tr>
<td><strong>Canalization:</strong></td>
<td><strong>Separate System</strong></td>
</tr>
<tr>
<td><strong>Sewage origin:</strong></td>
<td><strong>Municipal</strong></td>
</tr>
<tr>
<td><strong>Technical details:</strong></td>
<td><strong>Four SBR-reactors with pumping station, pre-treatment station and sludge storage tank. Earth tied concrete building without covering. CROWN surface aerators with floating system for the mixing and the oxygen input in the SBR-reactors.</strong></td>
</tr>
<tr>
<td><strong>Special features:</strong></td>
<td><strong>Reuse of the purified wastewater for irrigation of green corridors.</strong></td>
</tr>
</tbody>
</table>
Reference Information for
Wastewater Treatment Plants

Project “Pulgas Pandas“ (Mexico)

Start up: 1992
Connection load: 2,000 PE
Canalization: Separate System
Sewage origin: Golf Court
Technical details: Two SBR-reactors with sludge storage tank.
Earth tied concrete building without covering.
CROWN surface aerator with floating system including a crusher device for the mixing and the oxygen input.
Special features: Reuse of the purified wastewater for irrigation of green corridors.
Reference Information for
Wastewater Treatment Plants

Project “Cedazo“ (Mexico)

Start up: 1994
Connection load: 21,500 PE
Canalization: Separate System
Sewage origin: Municipal
Technical details: Four SBR-reactors with pumping station, pre-treatment station and sludge storage tank. Earth tied concrete building without covering. CROWN surface aerators with floating system for the mixing and the oxygen input in the SBR-reactors.
Special features: Reuse of the purified wastewater for irrigation of green corridors.
Reference Information for Wastewater Treatment Plants

Project “Bosque Real“ (Mexiko)

Start up: 2003
Connection load: 1,300 PE
Canalization: Separate system
Sewage origin: Vacation plant
Technical details: SBR-reactor with inlet buffer tank, pre-treatment station and sludge storage tank. Earth tied and covered concrete building with operation building, that is founded on the cover.
Special features: Reuse of the purified wastewater for irrigation of green corridors.
Reference Information for
Wastewater Treatment Plants

Project “Maxen“ (Germany)

Start up: 1993
Connection load: 1,000 PE
Technical details: SBR-Reactor with inlet buffer tank and sludge storage tank.
Floating CROWN surface aerator for the mixing and oxygen input inside the SBR-reactor.
Earth tied concrete building with covering.

Special features: - / -
Reference Information for
Wastewater Treatment Plants

Project “Wiesenbach“ (Germany)

Start up: 1993
Connection load 1,500 PE
Canalisation: Combined system
Technical details Two SBR-reactors with pre-treatment station, sludge tank and outlet buffer tank
Earth-laid concrete tank with rectangular footprint.
Separate operation building
Floating surface aerator for the mixing and oxygen supply in the SBR-reactor

Special features − / −
Reference Information for
Wastewater Treatment Plants

Project “Tettau“ (Germany)

Start up: 1993
Connection load: 1,600 PE
Canalisation: Combined system
Technical details
Two SBR-reactors with pre-treatment station and sludge tank
Floating surface aerator for the mixing and oxygen supply in the SBR-reactors
Earth-laid concrete tanks with covering for the SBR-reactors.
Grounding of the operation building on the covering of the SBR-reactors

Special features:
- / -
Reference Information for Wastewater Treatment Plants

Project “Grünhain“ (Germany)

Start up: 1994
Connection load: 2,200 PE
Canalisation: Combined system
Technical details: Two SBR-reactors with pre-treatment station and sludge tank
Earth-laid concrete tank with opened SBR-reactors and covered sludge tank
Grounding of the operation building on the sludge tank
Injector aeration for the mixing and oxygen supply in the SBR-reactors.

Special features: - / -
Reference Information for Wastewater Treatment Plants

Project “Nowoagansk“ (Russia)

<table>
<thead>
<tr>
<th>Start up</th>
<th>2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connection load</td>
<td>200 m³/d</td>
</tr>
<tr>
<td>Canalisation</td>
<td>Combined system</td>
</tr>
<tr>
<td>Technical details</td>
<td>SBR-reactor with buffer tank, sedimentation tank and sludge tank</td>
</tr>
<tr>
<td></td>
<td>Fine bubbled aeration system with mixing unit inside the SBR-reactor</td>
</tr>
<tr>
<td></td>
<td>Rectangular steel tank with roof and heating system</td>
</tr>
<tr>
<td></td>
<td>Realization of the operation building beside the SBR-reactor.</td>
</tr>
<tr>
<td>Special features</td>
<td>Because of very low temperatures under the freezing point a tank heating had been installed.</td>
</tr>
</tbody>
</table>
Reference Information for
Wastewater Treatment Plants

Project “Greiffenberg“ (Germany)

Start up: 2001
Connection load: 2760 PE
Canalization: Combined system
Technical details: SBR-reactor, pre-treatment station, inlet buffer tank and sludge tank
Earth tied concrete tank (rectangular) with concrete covering
CROWN COMPACT-system (floating surface aerator) for the mixing and aeration of the SBR-reactor’s content
Special features: Inflow of faecal sludge
Reference Information for
Wastewater Treatment Plants

Project “Sollenau“

Start up: 2000
Connection load: 60,000 PE
Canalization: Combined rain- and dry weather system
Technical details: • Pre-treatment station
                • Four SBR-reactors
                • One sludge storage tank with dewatering system
Special features: Very compact plant concept
Reference Information for
Wastewater Treatment Plants

Project “Sababurg“ (Germany)

Start up: 2000
Connection load: 200 – 700 PE
Canalisation: Separate system
Technical details
- SBR-reactor with sieve station, buffer tank, sludge tank and outlet buffer tank
- Earth-laid rectangular concrete tank with a wooden roof construction for the operation building
- Aeration mixer for the mixing and oxygen supply in the SBR-reactor

Special features
Hydraulic load fluctuation
Reference Information for
Wastewater Treatment Plants

Project “Rommershausen“ (Germany)

Start up: 2003
Connection load: 900 PE
Canalisation: Separate system
Technical details: SBR-reactor with sieve station, buffer tank, sludge tank and outlet buffer tank. Partially earth-laid concrete tank with rectangular footprint covered by a wooden roof construction. CROWN COMPACT-system for the mixing and oxygen supply inside the SBR-reactor.

Special features Load fluctuations
Reference Information for Wastewater Treatment Plants

Project “Tinapa“ (Nigeria)

Start up: 2007
Connection load: 10,000 PE
Canalisation: Separate system
Technical details: Inlet chamber with main screen and crusher system for solids.
Two SBR-reactors with CROWN-surface aerator for the mixing and oxygen supply inside the SBR-reactor.
Open and earth-laid, rectangular reinforced concrete tank
Buffer tank for the equalization of the effluent rate

Special features None
Reference Information for Wastewater Treatment Plants

Project “Tirana“ (Albania)

Start up: 2007
Connection load: 2,500 PE
Canalisation: Separate system
Technical details: SBR-wastewater treatment with two inlet pumping station (sanitary and airplane wastewater) and sludge storage tank
 SBR-reactor with CROWN-surface aerator for the mixing and oxygen supply.
 Open and earth-laid, rectangular reinforced concrete tank. Foundation of the operation building on the covering of the sludge tank.

Special features Treatment of chemical sewage of airplane toilets
### Reference Information for
Wastewater Treatment Plants

**Project “Tlaxco“ (Mexico)**

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start up:</td>
<td>2008</td>
</tr>
<tr>
<td>Connection load:</td>
<td>13,370 PE</td>
</tr>
<tr>
<td>Canalisation:</td>
<td>Separate system</td>
</tr>
</tbody>
</table>
| Technical details:     | SBR-wastewater treatment with sludge drying beds  
                          Two SBR-reactors with CROWN-surface aerator for the mixing and oxygen supply and CROWN-decanting systems for the sludge-free clearwater discharge  
                          Open and overground, rectangular reinforced concrete tank.  |
| Special features       | UV-disinfection unit in the effluent area                                                                                               |
Reference Information for
Wastewater Treatment Plants

Project “Garden of Eden“ (Bulgaria)

Start up: 2008
Connection load: 2,500 PE
Canalisation: Separate system
Technical details: SBR-wastewater treatment with sludgetank
CROWN-surface aerator with crusher unit for the mixing and oxygen supply and CROWN-decanting system for the sludge-free clearwater discharge
Covered earth-laid, rectangular reinforced concrete tank.

Special features Invisible plant design in the center of a touristic area
Reference Information for
Mobile Wastewater Treatment Plant, type Puritainer
Project “Exxon Eket“ (Nigeria)

Start up: 2011
Connection load: 2* 140 PE
Application: mobile
Technical details: 2 off SBR Containers, standard 40“ size, with integrated buffer tank, crusher pumps, jet aerators, clear water pump, sludge pump, level measurement, control panels
Reference Information for Wastewater Treatment Plants

Project “Uyo“ (Nigeria)

Start up: 2012
Connection load: 700 PE
Canalisation: Separate system
Technical details: Two SBR-reactors with sieve station, buffer tank, sludge tank and sludge dewatering station. Overground founded and covered concrete tank with rectangular footprint. Floating CROWN surface aerators for, the mixing and oxygen input inside the SBR-reactor.

Special features Extreme load fluctuations
Reference Information for
Mobile Wastewater Treatment Plant, type Puritainer
Project “Dai Lam” (Vietnam)

<table>
<thead>
<tr>
<th>Start up:</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connection load:</td>
<td>200 PE</td>
</tr>
<tr>
<td>Technical details:</td>
<td>Two containerized PURITAINER-plants, standard 40“ size, with integrated buffer tank, crusher pumps, jet aerators, clear water pump, sludge pump, level measurement, control panels.</td>
</tr>
<tr>
<td>Special features:</td>
<td>One of the containers constructed for the production of biogas considering the reception of locally originated biological waste.</td>
</tr>
</tbody>
</table>
Reference Information for Wastewater Treatment Plants

Project “Toluca“ (Mexico)

Start up: 2011 (after modernization)
Connection load: 2000 PE
Canalisation: Separate system
Special features: Industrial company
Reference Information for
Wastewater Treatment Plants

Project “Friedlos“ (Germany)

Start up: 2005
Connection load: 5000 PE
Canalisation: Mixed system
Technical details: Two SBR-reactors with pre-treatment station (sieve station and sand trap), pumping station and sludge storage tank. Partially underground founded and covered concrete tanks with circular footprint. Floating CROWN surface aerators for the mixing and oxygen input inside the SBR-reactor.
Special features: Reconstruction and extension of an existing wastewater treatment plant