Sustainable Water Treatment and Reuse
Rothwell sets its business benchmark to global water companies like Veolia and SUEZ, and performs PPP (Public Private Partnership) business model based on water treatment process technology.

Rothwell has global executives with broad experience in the water business. Our CEO has 35 years of experience managing water projects; our CTO has 50 years of experience designing water treatment processes; and our COO has 28 years of experience in field work.

Based on the design of water treatment process, we accomplish competent engineering services as business development, feasibility study, financing modeling, designing, manufacturing, construction, and commissioning/operation management.

Origin of Rothwell

Rothwell Water was established in December 2013 by Peter L. Timpany, CSBR inventor, and Mr. Keonho Lee, with the goal of conducting a global water business based on CSBR process engineering experience applied to more than 30 wastewater/sewage treatment plants worldwide.

The Anyang Bakdal Underground Sewage Treatment Plant, implemented by Rothwell and which won the International Water Association’s (IWA) No.1 Award for Resource Recovery has become a cornerstone event to successfully achieve Rothwell’s goal of entering the global Water Market.

The Package CSBR Sewage Treatment System developed for the Water Market in Bolivia is an innovative eco-friendly technology that overcomes the Not In My Backyard (NIMBY) phenomenon, highlighting Rothwell’s expertise in the water business.

Our technology portfolio is applied to domestic and international markets, fulfilling our vision of being a global water company.

History

- 2012.12 Established Rothwell Watertech (Korea), Inc.
- 2014.03 Certification of Venture Company / R&D Institute
- 2014.12 Awarded ‘Excellent Environment Venture Company’ (Korea Environmental Industry & Technology Institute; KETI)
- 2015.04 Registered patent for CMBR Processing System (Patent No. 10-2174042)
- 2015.11 Received ‘The Citation of Excellent Small and Medium Business’ (Ministry of Industry and Commerce)
- 2016.08 Changed company name to Rothwell Water Co., Ltd.
- 2017.05 Registered patent for Advanced Treatment Process with Activated Sludge Purification System (Patent No. 10-1744451)
- 2017.12 Registered license for Engineering and Construction of Domestic Water Facilities
- 2019.12 Registered license for Engineering and Construction of Domestic Water Facilities

Business Model

- Rothwell sets its business benchmark to global water companies like Veolia and SUEZ, and performs PPP (Public Private Partnership) business model based on water treatment process technology.
- Rothwell has global executives with broad experience in the water business. Our CEO has 35 years of experience managing water projects; our CTO has 50 years of experience designing water treatment processes; and our COO has 28 years of experience in field work.
- Based on the design of water treatment process, we accomplish competent engineering services as business development, feasibility study, financing modeling, designing, manufacturing, construction, and commissioning/operation management.
### Process Flow

**Competencies**

CSBR™ is a water treatment process that achieves continuous flow by improving batch operation flow of conventional SBR (Sequencing Batch Reactor) process.

- A2O activated sludge process with continuous process flow is arranged in the first stage.
- Two series of SBR system, maintaining a fixed water level, are arranged at the end of A2O process.
- The influent undergoes anaerobic/aerobic reaction from organic decomposition process and flows into the lower water level SBR tanks - in which sedimentation and supernatant discharge occurs.
- The influent is mixed with sludge and undergoes SBR reaction with aerobic, anaerobic and sedimentation processes - therefore biodegradation is once again performed.
- The microbial sludge is discharged to the outside through the thickened return activated sludge (TRAS) system on the bottom of SBR tank, where sedimentation occurs. The remaining sludge is mixed with the influent of the previous stage and the process is repeated in bioreactors.

### Economic Value

<table>
<thead>
<tr>
<th>Activity</th>
<th>BNR</th>
<th>CSBR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Cost</td>
<td>100%</td>
<td>70%</td>
</tr>
<tr>
<td>Operation Cost</td>
<td>100%</td>
<td>80%</td>
</tr>
<tr>
<td>Foot Print</td>
<td>100%</td>
<td>70%</td>
</tr>
</tbody>
</table>

* BNR: Biological Nutrient Removal

### Practical Case

- **Jenkin WWTP**
  - Capacity: 40,000m³/d
  - Year: 2001
  - Budget: 67,547m²
  - Construction Cost (300MM won): 25,184m²
  - Operation Cost (300MM/year): 2,3

- **Jenju WWTP**
  - Capacity: 100,000m³/d
  - Year: 2002
  - Budget: 672m²
  - Construction Cost (300MM won): 44,409m² (52%)
  - Operation Cost (300MM/year): 6,3
Decanting Device

CSBR® adopts a hydraulic decanter system using pressure of air blower achieving maintenance-free guarantee in whole-life cycle of the plant. The patent of continuous SBR system was granted to Aqua Aerobic in the United States in 1993 by Peter Timpany and co-inventor Mark Lansdell, as registered trademark MSBR™. (MSBR: Modified Sequencing Batch Reactor).

---

CSBR and MSBR

<table>
<thead>
<tr>
<th>Reactions / Patents</th>
<th>Reactor / Equipment Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSBR</td>
<td>Water Quality: BOD&lt;10, TN&lt;20, TP&lt;1.0 mg/l</td>
</tr>
<tr>
<td>MSBR</td>
<td>Water Quality: BOD&lt;10, TN&lt;20, TP&lt;1.0 mg/l</td>
</tr>
</tbody>
</table>

---

Technology Introduction - CSBR

**Aerobic/Anoxic/Anaerobic**

<table>
<thead>
<tr>
<th>Reactor Operation Stage</th>
<th>Step.1</th>
<th>Step.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerobic</td>
<td>Aerobic</td>
<td>Aerobic</td>
</tr>
<tr>
<td>Anoxic</td>
<td>Anoxic</td>
<td>Anoxic</td>
</tr>
<tr>
<td>SBR-1 (Aerobic mode)</td>
<td>Aerobic</td>
<td>Aerobic</td>
</tr>
<tr>
<td>SBR-2 (Anoxic mode)</td>
<td>Aerobic</td>
<td>Aerobic</td>
</tr>
</tbody>
</table>

---

PKG CSBR

Rothwell’s Package CSBR Processing System (PKG CSBR) has been developed as a part of the Bolivian Government’s Wastewater Treatment project to solve the eutrophication problem of Lake Titicaca, the largest lake in South America, by applying CSBR’s proven design techniques using Corrugated Steel Pipes. The success of PKG CSBR technology has been proven by an outstanding operation performance in GeO City’s Pilot Plant in South Korea.

---

Water Quality

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Influent (max/min)</th>
<th>Treated Water Quality</th>
<th>Effluent</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOD</td>
<td>30~200 mg/l</td>
<td>≤50</td>
<td>≤10</td>
</tr>
<tr>
<td>COD</td>
<td>150~700 mg/l</td>
<td>≤55</td>
<td>≤40</td>
</tr>
<tr>
<td>TSS</td>
<td>80~300 mg/l</td>
<td>≤15</td>
<td>≤15</td>
</tr>
<tr>
<td>NH3-N</td>
<td>30~10 mg/l</td>
<td>≤10</td>
<td>≤15</td>
</tr>
<tr>
<td>T-P</td>
<td>5~2 mg/l</td>
<td>≤15</td>
<td>≤15</td>
</tr>
</tbody>
</table>

---

Production to Construction

**Performance Characteristics**

<table>
<thead>
<tr>
<th>Water Quality</th>
<th>Influent</th>
<th>Effluent</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOD</td>
<td>50~150 mg/l</td>
<td>10</td>
</tr>
<tr>
<td>COD</td>
<td>150~700 mg/l</td>
<td>40</td>
</tr>
<tr>
<td>TSS</td>
<td>50~200 mg/l</td>
<td>12</td>
</tr>
<tr>
<td>T-N</td>
<td>30~10 mg/l</td>
<td>15</td>
</tr>
<tr>
<td>T-P</td>
<td>5~2 mg/l</td>
<td>12</td>
</tr>
</tbody>
</table>

---

**Operation Cost**

- 50% of existing structure cost
- 50% of existing structure cost

**Construction Period**

- 6 months

**Scalability**

- 200%
**Vacuum Degassing**

The Vacuum Degassing process was developed in 1990 and its treatment efficiency has been proven through on-site operations in Europe and Asia. Regardless of season, Vacuum Degassing enables effective advanced treatment for existing and new activated sludge treatment plants, with low construction cost, maximum processing capacity, and efficient quality stabilization.

**Process Features**

**Efficiency**
- No continuous sludge settling failure throughout the year
- Consistent high return sludge concentration of up to 2%
- Maintain high HILS concentration of 0.0% to 0.6% mg/l

**Stability**
- No sludge flocculation in the secondary clarifier
- Prevent overload and processing degradation during rain
- Stable processing performance and easy operation management
- Elimination of sludge bulking problems due to Biofilm microorganisms and prevention of potential biofilm growth

**Economic Value**
- Space collection and treatment facilities are unnecessary in the second settling tank
- Concentrated source sludge discharge reduces dewatering

**Compactness**
- Reduced reactor size by about 50% compared to existing and new activated sludge treatment plants
- Stable processing performance and easy operation management
- No sludge floatation in the secondary clarifier

**Vacuum Degassing**

![Vacuum Degassing Diagram](image)

**Bio Media(MBBR)**

Bio-Media(MBBR), which improves the water quality and treatment efficiency of existing wastewater treatment plants using Media, was developed in Norway in 1990 and has been applied to more than 200 wastewater treatment plants around the world. Bio-Media(MBBR) is semi-permanent, operates stably and can be applied whenever it is needed. Especially, it is very useful in improving treatment capacity of existing sewage treatment plants.

**Process Features**

**Compaction**
- Minimization of required site sizes since new construction is not necessary
- Improvement of treatment capacity of plant by adding media
- Low initial investment
- Possibility to utilize existing civil structures
- Easy to increase processing capacity

**Stability**
- No sludge bulking in the secondary clarifier
- Maintained high HILS concentration, ensuring secondary clarifier performance
- Quick recovery after major upsets
- No sludge bulking in the secondary clarifier

**Biodegradation Efficiency**

![Bio Media(MBBR) Diagram](image)

**Technology Trends and Portfolio**

- **PKG CSBR®**
  - Small Scale WWT
  - Guri, Triticus Lake
  - Cap.: 5,000~10,000m³/day
  - BOD: 10mg/l
  - COD: 40mg/l
  - TSS: 10mg/l
  - T-N: 20mg/l
  - T-PO: 5mg/l

- **CSBR®**
  - Medium, Large Scale WWT
  - 36 Plants in Operation
  - Cap.: 1,000~3,000m³/day
  - BOD: 10mg/l
  - COD: 40mg/l
  - TSS: 10mg/l
  - T-N: 20mg/l
  - T-PO: 5mg/l

- **MCSBR®**
  - Increased Capacity of CSBR WWT

- **CMBR™**
  - Reclamation of CSBR WWT

**Reclamation of CSBR WWT**

- Aryong, Bokodal
- **CSBR®**
  - CSBR® Upgrade 200%
  - BOD: 5mg/l
  - COD: 10mg/l
  - TSS: 5mg/l
  - T-N: 15mg/l
  - T-PO: 5mg/l

- **MBR**
  - MBR Technology
  - High HILS concentration, ensuring secondary clarifier performance
  - Quick recovery after major upsets
  - No sludge bulking in the secondary clarifier

**Bio Media(MBBR)**

- **Type**
  - K-5B
  - K-5A
  - K-1
- **Size (mm)**
  - 7×10
  - 25×3.5
- **Density (g/ea)**
  - 0.944
  - 0.368
- **Weight (g/ea)**
  - 0.169
  - 0.345
- **Porosity (%)**
  - 71.0
  - 71.0
- **Specific Surface Area (㎡/㎥)**
  - 1,340
  - 1,340
- **Surface Area (㎠/ea)**
  - 40.21
  - 40.21
- **Surface Area (ea/㎥)**
  - 335,000
  - 335,000
- **Material**
  - PE+Enzyme
  - Waterful
  - Rothwell Water
  - Veolia

**Kaldnes expired Veolia**

- **K-5B**
  - PE Kaldnes expired Veolia
  - Korea 30-0617651
  - China; 1481786

**Vacuum Degassing**

- INFLOW
  - PHASE 2
  - De-vac Tower
  - PHASE 3
  - Vac Pump

**Bio Media(MBBR)**

- **Type**
  - Bio Media
  - **Size**
  - 7×10
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  - 1,340
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- **Surface Area (㎠/ea)**
  - 40.21
  - 40.21
- **Surface Area (ea/㎥)**
  - 335,000
  - 335,000

**Corporate**

- **Kaldnes expired Veolia**
  - Korea 30-0617651
  - China; 1481786
- **Veolia**
<table>
<thead>
<tr>
<th>Name of Project</th>
<th>Flow [m³/day]</th>
<th>Country</th>
<th>Status</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bakdal WWTP (Underground)</td>
<td>250,000</td>
<td>South Korea</td>
<td>Commissioned 2017</td>
<td>CSBR</td>
</tr>
<tr>
<td>Nongso WWTP (Underground)</td>
<td>100,000</td>
<td>South Korea</td>
<td>Commissioned 2016</td>
<td>MSBR</td>
</tr>
<tr>
<td>Sosabeol WWTP (Underground)</td>
<td>22,000</td>
<td>South Korea</td>
<td>Commissioned 2015</td>
<td>MSBR</td>
</tr>
<tr>
<td>Daegu Techno Police Industrial WWTP (Underground)</td>
<td>4,500</td>
<td>South Korea</td>
<td>Commissioned 2014</td>
<td>CSBR</td>
</tr>
<tr>
<td>Jumunjin WWTP</td>
<td>4,800</td>
<td>South Korea</td>
<td>Commissioned 2014</td>
<td>CSBR</td>
</tr>
<tr>
<td>Byeolrae WWTP</td>
<td>27,000</td>
<td>South Korea</td>
<td>Commissioned 2013</td>
<td>CSBR</td>
</tr>
<tr>
<td>Minrak WWTP</td>
<td>16,000</td>
<td>South Korea</td>
<td>Commissioned 2013</td>
<td>CSBR</td>
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<tr>
<td>Gulhwa WWTP</td>
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<td>South Korea</td>
<td>Commissioned 2013</td>
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<tr>
<td>JinKun-II WWTP</td>
<td>20,000</td>
<td>South Korea</td>
<td>Commissioned 2010</td>
<td>CSBR</td>
</tr>
<tr>
<td>Wonnung WWTP</td>
<td>80,000</td>
<td>South Korea</td>
<td>Commissioned 2008</td>
<td>CSBR</td>
</tr>
<tr>
<td>Byukje WWTP</td>
<td>30,000</td>
<td>South Korea</td>
<td>Commissioned 2007</td>
<td>CSBR</td>
</tr>
<tr>
<td>Kunjang Industrial Park WWTP</td>
<td>30,000</td>
<td>South Korea</td>
<td>Commissioned 2006</td>
<td>CSBR</td>
</tr>
<tr>
<td>Jeonju WWTP</td>
<td>100,000</td>
<td>South Korea</td>
<td>Commissioned 2005</td>
<td>CSBR</td>
</tr>
<tr>
<td>Yeosu WWTP</td>
<td>110,000</td>
<td>South Korea</td>
<td>Commissioned 2004</td>
<td>CSBR</td>
</tr>
<tr>
<td>Jinkun WWTP</td>
<td>80,000</td>
<td>South Korea</td>
<td>Commissioned 2004</td>
<td>CSBR</td>
</tr>
<tr>
<td>Gwangyang WWTP</td>
<td>24,000</td>
<td>South Korea</td>
<td>Commissioned 2002</td>
<td>MSBR</td>
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<tr>
<td>Incheon International Airport WWTP</td>
<td>110,000</td>
<td>South Korea</td>
<td>Commissioned 2000</td>
<td>MSBR</td>
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<tr>
<td>CAP CANA</td>
<td>110,000</td>
<td>Dominican Republic</td>
<td>In operation</td>
<td>CSBR</td>
</tr>
<tr>
<td>D’Clase Industrial WWTP (Zona Franca Gurabo)</td>
<td>1,700</td>
<td>Dominican Republic</td>
<td>In operation</td>
<td>CSBR</td>
</tr>
<tr>
<td>Charoen Pokhand Poultry WWTP</td>
<td>6,600</td>
<td>U.S.A</td>
<td>Commissioned 1998</td>
<td>MSBR</td>
</tr>
<tr>
<td>Marys Ville WWTP</td>
<td>40,000</td>
<td>U.S.A</td>
<td>In operation</td>
<td>MSBR</td>
</tr>
<tr>
<td>Cumana East WWTP</td>
<td>25,000</td>
<td>Venezuela</td>
<td>Commissioned 1999</td>
<td>CSBR</td>
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<tr>
<td>Juangriego WWTP</td>
<td>10,000</td>
<td>Venezuela</td>
<td>Commissioned 1990</td>
<td>MSBR</td>
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<tr>
<td>Mariposa WWTP</td>
<td>207,360</td>
<td>Venezuela</td>
<td>Commissioned 1999</td>
<td>MSBR</td>
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<tr>
<td>Punta Gorda WWTP</td>
<td>80,000</td>
<td>Venezuela</td>
<td>Commissioned 1996</td>
<td>CSBR</td>
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<tr>
<td>Huai’an Municipal WWTP</td>
<td>20,000</td>
<td>China</td>
<td>Commissioned 2007</td>
<td>CSBR</td>
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<tr>
<td>Jinan Sewage Treatment Plant (135% WWTP)</td>
<td>35,000</td>
<td>China</td>
<td>In operation</td>
<td>MSBR</td>
</tr>
<tr>
<td>Shanghai Nanpu WWTP</td>
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<td>China</td>
<td>Commissioned 2014</td>
<td>CSBR</td>
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<tr>
<td>Shanghai Yangpu WWTP</td>
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<td>China</td>
<td>Commissioned 2004</td>
<td>MSBR</td>
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<tr>
<td>Shanghai Bingpu WWTP</td>
<td>35,000</td>
<td>China</td>
<td>Commissioned 2004</td>
<td>MSBR</td>
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<tr>
<td>Dalian Iron and Steel Industrial Park WWTP</td>
<td>20,000</td>
<td>China</td>
<td>Commissioned 2010</td>
<td>CSBR</td>
</tr>
<tr>
<td>Tangshan PARK WWTP</td>
<td>10,000</td>
<td>China</td>
<td>In operation</td>
<td>MSBR</td>
</tr>
<tr>
<td>Shenyang WWTP</td>
<td>50,000</td>
<td>China</td>
<td>Commissioned 2013</td>
<td>CSBR</td>
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<tr>
<td>Chengdu WWTP</td>
<td>6,000</td>
<td>China</td>
<td>Commissioned 1995</td>
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<tr>
<td>Zhuhai WWTP</td>
<td>10,000</td>
<td>China</td>
<td>In operation</td>
<td>MSBR</td>
</tr>
<tr>
<td>Xiamen WWTP</td>
<td>20,000</td>
<td>China</td>
<td>Commissioned 2015</td>
<td>MSBR</td>
</tr>
<tr>
<td>Hangzhou WWTP</td>
<td>30,000</td>
<td>China</td>
<td>Commissioned 2006</td>
<td>CSBR</td>
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<tr>
<td>Shenzhen Municipal WWTP</td>
<td>120,000</td>
<td>China</td>
<td>Commissioned 2001</td>
<td>MSBR</td>
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<tr>
<td>Songjiang East Municipal WWTP</td>
<td>30,000</td>
<td>China</td>
<td>Commissioned 2004</td>
<td>MSBR</td>
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<tr>
<td>Wuxi Municipal WWTP</td>
<td>30,000</td>
<td>China</td>
<td>Commissioned 2003</td>
<td>MSBR</td>
</tr>
</tbody>
</table>
### Consulting / Feasibility Study References

**Project** | **Capacity (m^3/day)** | **Country** | **Year** | **Process** | **Remark**
--- | --- | --- | --- | --- | ---
Pohang WWTP | 25,000 | South Korea | 2003 | | Bio-SAC Media
Gaeun WWTP | 2,000 | South Korea | 2003 | Queensland | Bioreactor Media
Kumi WWTP | 330,000 | South Korea | 2005 | | DNR BNR Upgrade
MNB Very High Strength Chemical Industrial WWTP | 340 | South Korea | 2008 | | MBBR Media
Uijeonbgu WWTP | 200,000 | South Korea | 2009 | | MLE BNR Upgrade
Suwon Phase-1 WWTP | 220,000 | South Korea | 2009 | | TEC BNR Upgrade

**Vacuum Degassing**
- **Vacuum Degassing (Biogradex TM)** 500 m^3/d or above

### Feasibility Study / R&D

**Feasibility Study**
- **Pioneering Support Project for Overseas Construction Market** 8 waterworks projects in Central Java, Indonesia ICAK 14.1.1~14.12.31
- **Business Support Project for SMEs Expansion of environmental market project using CSBR** KEITI 14.6.1 ~ 15.4.30
- **Feasibility Study Support for Overseas Environmental Projects** Juliaca, Peru WWTP Project KEITI 14.6.23 ~ 15.2.28
- **Support Project for Industry Cooperation Development** Colombia Water Treatment Industry Development Cooperation KIAT 14.7.1 ~ 14.12.31
- **Support Project for Overseas Plant Feasibility Study** Puno, Peru WWTP Project KOPIA 14.10.23 ~ 15.2.28
- **Feasibility Study Support for Overseas Environmental Projects** Abancay, Peru WWTP Project KEITI 15.4.15 ~ 15.12.31
- **Pioneering Support Project for Overseas Construction Market** Small cities’ WWTP near Titicaca Lake in Peru ICAK 15.7.1 ~ 15.12.31

**R&D**
- **New Product Project for Overseas Demand** PKG CSBR Sewage Treatment System with Ultrasonic waves (MOU with Ministry of Environment and Water, Bolivia) TIPA 16.12.16 ~ 18.12.15
- **Development Project for Start-up Growth Technology** Development of biological advanced treatment CMSBR process with increased water quality and capacity TIPA 17.10.30 ~ 18.10.29

### Vacuum Degassing Studies

**Industrial**
- **Bio Media (Kaldnes media TM)** Industrial 5,000 m^3/d or above

## Bio Medics Filtration media (TM)

**Industrial**
- **Name of Plant** | **Flow (m^3/day)** | **Country** | **Year** | **Type**
--- | --- | --- | --- | ---
All Khao Yai | 14,000 | Thailand | 2018 | MADHFA
Ambala Biogas Pulp and Paper | 17,400 | India | 2021 | MADHFA
Katawwal | 15,000 | India | 2017 | MADHFA
Rahaduk | 2,700 | India | 2020 | MADHFA
Rahaduk | 4,600 | India | 2021 | MADHFA
Rolled Giant Mill | 8,500 | China | 2016 | MADHFA
CMPC Chiusi | 6,000 | Chile | 2018 | MADHFA
CMPC Lugo | 1,700 | Chile | 2018 | MADHFA
CMPC Paco | 5,400 | Chile | 2019 | MADHFA
CMPC Puentelillo | 5,500 | Chile | 2018 | MADHFA
CMPC San Felipe | 5,500 | Chile | 2018 | MADHFA
Franz Papers, Japan | 8,000 | Japan | 2018 | MADHFA
Nagarik Madhubani | 3,500 | China | 2019 | MADHFA
Papikko Paper Mill | 18,000 | China | 2016 | MADHFA
Quinton Ream Mill | 3,500 | Canada | 2018 | MADHFA
Refractory Shanxi | 7,500 | China | 2019 | MADHFA
SACE Graphic Okitosh | 10,000 | China | 2019 | MADHFA
SACE Packaging Heilongshan | 12,200 | China | 2019 | MADHFA
Simmental Mill | 3,500 | Germany | 2019 | MADHFA
Stora Enso Aalavus | 8,000 | Finland | 2015 | MADHFA

| Municipal | **Name of Plant** | **Flow (m^3/day)** | **Country** | **Year** | **Type**
--- | --- | --- | --- | --- | ---
Hmeanford, Indonesia | 4,907 | Thailand | 2019 | MADHFA
Condy, ETH | 4,200 | Switzerland | 2018 | MADHFA
DORN Soar Malémoros | 3,500 | Spain | 2021 | MADHFA
EDM Naturam | 8,036 | Portugal | 2013 | MADHFA
Field Point, IT | 34,000 | USA | 2018 | MADHFA
Gacklheimen | 5,700 | Norway | 2018 | MADHFA
Lübke-Mariager | 14,200 | Denmark | 2018 | MADHFA
Lübbenau | 2,899 | Germany | 1999 | MADHFA
Muyil | 3,000 | Spain | 1998 | MADHFA
Papipack | 3,000 | Spain | 1998 | MADHFA
CMI, China | 2,700 | Italy | 2018 | MADHFA
EITM West Phase A1 | 8,000 | Spain | 2018 | MADHFA
Povoa Forninhas (CF2) | 8,000 | Spain | 2018 | MADHFA
Rivas | 7,000 | Spain | 2018 | MADHFA
Viladecans | 3,000 | Spain | 2018 | MADHFA
Witnica | 5,500 | Germany | 2018 | MADHFA
Yurací | 4,200 | Italy | 2018 | MADHFA

Sustainable Water Treatment and Reuse

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