COMPANY PROFILE

Benenv Co., Ltd. is a company with over 40 years of experience in environmental technologies with its headquarters in China, research center in Japan and overseas marketing center in the Philippines. "Benenv" is named after our mission to aid for the "Benefit the Environment", meaning to foster and promote our environmental protective technologies and equipment, ultimately contributing to a greener world.

Benenv focuses on design, engineering, supply and installation of domestic and commercial water, wastewater and sewage treatment systems, and other environmental engineering. Our product lines include MDS dewatering series, KDS dewatering series, electric osmosis equipment, sludge drying machine, sludge incinerator, membrane bioreactor and other wastewater treatment equipment.

Equipped with manufacturing facility and experienced design and service team, Benenv is able to offer our customers competitive integrated sludge & wastewater treatment solutions as design, equipment supply, constructions, and technology innovation. We are highly qualified of delivering turnkey and BOT projects of hazard wastewater treatment for any industry.

Company has got international qualifications as ISO9001:2008, CE mark, etc. national awards as Utility Model Patent for MDS series, KDS series and MBR, etc., and High-tech Enterprises Qualification, etc. Our company is also working closely with top 10 universities and government organizations in China and Japan to keep our cutting-edge technology abreast with the latest technology and transform science and technology into productivity.
KDS Introduction

**Slit Saver®**

KDS dewatering press is a solid-liquid separator machine with self-cleaning function by slits opposite continuous rotation, no vibration and noises.

### Features

**No clogging and backwash**
Solid-liquid separation and self-cleaning are carried out simultaneously by slits opposite continuous rotation.

**Stable treatment capacity**
Continuous cleaning process avoids the problem of treatment capacity reduction in other type dewatering machines.

**Large transport load**
Smooth rotation in a wave-shape of oval discs enables high transport load.

**Easy maintenance**
Since structure is quite simple, maintenance is also very easy.

Play a vital role in various solid-liquid separation projects.

Silt width can be adjusted to maximize its role according to different treatment targets and treatment purposes.

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**Structure**

- **Solid movement**
  - Accumulated sediments
  - Make up solids
  - Make down solids
  - Clogged material

- **No reason for clogging**
  - The minute thickness of the oval plate causes sure cleaning.

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**Demonstration**

- **Suspended solids and liquid wastes are mixed**
- **Solidified matters**
- **Supernatant and precipitated sludge**

- **Note:** Wastes used in the experiment were vegetable, fat and meat, sludges were done by first pressing 60 l/day and KDS hall was used.

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**Patented product**
**Principle & Applications**

### Working Principle

- Stock Solution
- Press Plate
- Air Cylinder
- Pressure
- Separated Water
- Separated Cake
- Rotated Oval-shape Plate

### Applications

- **Solid-liquid separation for oil waste etc.**
- **Primary treatment for wastes produced from livestock etc.**
- **Crushed wastes collection such as plastic etc.**

- Food wastes treatment in school feeding center for scraps of food processing
- Fishery wastes treatment
- Crusher drainage waste disposer
- Process before treatment wastewater
- Drain water off devise from food etc.
- Primary filtration for wastes coming from grease traps
- Enrichment screen before dehydration
- Dehydrator

**Images:**
- Sewage sludge treatment SS-412
- Treatment of wastes from school meal center SS-310
- Fishery wastes treatment purification equipment SS-510
- Purification dehydration facilities for dairy products wastes (clean saver) plant including SS-48
- Construction sites where sludge is treated by dewatering equipment screw press: sludge image is before and after treatment.

- Purification of lakes and rivers:
  - Primary treatment
  - Sediment and sludge treatment

- Case Study for Livestock Wastes

<table>
<thead>
<tr>
<th>Dehydration rate for reference</th>
<th>Sludge cake</th>
<th>Moisture content</th>
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<tbody>
<tr>
<td>Cow dung</td>
<td>70–75%</td>
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<tr>
<td>Pig excrement</td>
<td>75–86%</td>
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- Application Fields

- Food processing
- Sewer system
- Livestock wastes
- Industrial wastewater
Layout of KDS Dewatering Press

Model Reference

**Thickener Model**

<table>
<thead>
<tr>
<th>Model</th>
<th>DN</th>
<th>Oval discs column numbers</th>
<th>Capacity m³/h</th>
<th>Sludge (reference) kg-DS/h</th>
<th>Power</th>
<th>Weight</th>
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<tbody>
<tr>
<td>SS-312</td>
<td>300mm</td>
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<td>23</td>
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<tr>
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<td>107</td>
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<td>SS-1212</td>
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<td>130</td>
<td>280</td>
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**Dewatering Models**

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<th>Capacity 20000mg/L</th>
<th>Sludge (reference) kg-DS/h</th>
<th>Power</th>
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<tr>
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<td>~16</td>
<td>~8</td>
<td>120~160</td>
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<td>750kg</td>
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