Oil Filtration Equipments
Transformer Oil Online Drying Unit
Bio Toilets
Waste to Compost Machines
Nano Waste Compaction Machine
Hydro Cyclone Solid-Liquid Separator
A Brief Introduction

**CbS** is a diversified group having interests in engineering, prefabricated structures, Waste 2 energy technologies, and developing many items under **MAKE IN INDIA**.

Companies under **CbS** group are:

- **CbS** Technologies Pvt. Ltd. (Unit -1) - at Gr. Noida, manufacturing a wide range of engine components, filtration machines, Centrifuges, etc.
- **CbS** Technologies Pvt. Ltd. (Unit-2) - Kashipur - Uttarakhand. Manufacture all types of BioToilet/Bio Digester and Waste 2 energy products.
- SU-RAJ FOUNDATION - An NGO committed for development of smart villages.
- **CbS** ITI - At Kashipur, Uttarakhand established to educate youth under skill development mission of India.

**Highlights of CbS**

- **CbS** is a recognized research and development house by **Ministry of Science and Technology, Govt. of India**.
- Technology transfer agreement with Defence Research Development organization (DRDO) and Bhabha Atomic Research Centre (BARC) and ECE Netherlands.
- Regular R&D support from "Indian Institute of Technology – Delhi" and DRDO (Defense Research and Development organization) ministry of Defense.
- Approved by DGQA (Ministry of Defence), GeM, RDSO – Railways DSIR - Ministry of Science and Technology, MES, CPWD, NTPC, Steel Mills, BHEL, HAL and Pvt. Multinational organizations like Honda, LG, TIMEX, Maruti, Escorts, etc.
- Modern Wi-Fi enabled factories and ITI.
- Country wide strong service team for after sales service.
- Products are also available in GeM under **Govt of India**.
- Products of **CbS** are regularly exported to many countries.
- **CbS** team of engineers have developed several products under import substitution programme for **Indian Railway** and **Indian army**.
OIL EQUIPMENT DIVISION
TRANSFORMER OIL FILTRATION MACHINE (OFFLINE)

Portable Transformer Oil Centrifuging Machine

**Features**
- Flow rate up to 500 - 5000 LPH.
- Sludge holding capacity 0.5-10 kgs.
- Purifies up to sub-micron level.
- Moisture removal centrifuge - No consumables.
- Solid removal centrifuge - No consumables.

<table>
<thead>
<tr>
<th>Available Models</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 TOCP-005-S</td>
</tr>
<tr>
<td>2 TOCP-010-S</td>
</tr>
<tr>
<td>3 TOCP-020-S</td>
</tr>
<tr>
<td>4 TOCP-050-S</td>
</tr>
<tr>
<td>many more</td>
</tr>
</tbody>
</table>

Transformer Oil Filtration System - Single Stage

**Features**
- Flow rate up to 500 - 12000 LPH.
- Trolley Mounted/Skid Mounted/ Vehicle Mounted (as per the requirement).
- Purifies up to sub micron level.
- Works as high vacuum dehydration.
- Achieves NAS-4.
- To achieve PPM upto 5 PPM & BDV upto 70 KV.
- To maintain dissolved gases.
- Results to be achieved in 3 to 5 passes.

<table>
<thead>
<tr>
<th>Available Models</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 TOFT-005-S</td>
</tr>
<tr>
<td>2 TOFT-006-S</td>
</tr>
<tr>
<td>3 TOFT-010-S</td>
</tr>
<tr>
<td>4 TOFT-012-S</td>
</tr>
<tr>
<td>5 TOFT-020-S</td>
</tr>
<tr>
<td>6 TOFT-024-S</td>
</tr>
<tr>
<td>7 TOFT-050-S</td>
</tr>
<tr>
<td>8 TOFT-060-S</td>
</tr>
<tr>
<td>many more</td>
</tr>
</tbody>
</table>

Transformer Oil Filtration System - Double Stage

**Features**
- Flow rate up to 500 - 25000 LPH.
- Trolley Mounted/Skid Mounted (as per the requirement).
- Weather proof.
- Purifies up to sub micron level.
- Works as ultra high vacuum dehydration.
- To maintain dissolved gases & acidity level.
- Results to be achieved in 1 to 2 passes.
- Achieves BDV upto 70 KV, PPM upto 5 and NAS level upto 4.
- Online moisture PPM sensor (optional).
- Mounted BDV test kit (optional).
- Online flow meter (optional).
- Transformer evacuation system can be provided (optional).

<table>
<thead>
<tr>
<th>Available Models</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 TOFT-005-D</td>
</tr>
<tr>
<td>2 TOFT-010-D</td>
</tr>
<tr>
<td>3 TOFT-020-D</td>
</tr>
<tr>
<td>4 TOFT-030-D</td>
</tr>
<tr>
<td>5 TOFT-050-D</td>
</tr>
<tr>
<td>6 TOFT-060-D</td>
</tr>
<tr>
<td>7 TOFT-080-D</td>
</tr>
<tr>
<td>8 TOFT-100-D</td>
</tr>
<tr>
<td>9 TOFT-120-D</td>
</tr>
<tr>
<td>many more</td>
</tr>
</tbody>
</table>
Transformer Oil Reclamation cum Reactivation Machines

Features

- Available in different capacities: 500-25000 LPH.
- Trolley/Vehicle mounted/Skid mounted (as per the requirement).
- Weather proof.
- Purifies up to sub micron level.
- Works as ultra high vacuum dehydration.
- Achieves NAS-4.
- To maintain dissolved gases level, acidity level, TAN delta, specific resistance, resistivity.
- Results to be achieved in 1 to 2 passes.
- Capable to convert burned black oil into close to new.
- Reclamation Bags.
- Online moisture PPM sensor (optional).
- Mounted BDV test kit (optional).
- Online flow meter (optional).
- Transformer evacuation system can be provided (optional).
- Reclamation media can be reactivated up to 300 times (optional).

Available Models

<table>
<thead>
<tr>
<th>No.</th>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TORT-005-D</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>TORT-010-D</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>TORT-020-D</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>TORT-030-D</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>TORT-050-D</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>TORT-060-D</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>TORT-080-D</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>TORT-100-D</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>TORT-120-D</td>
<td></td>
</tr>
</tbody>
</table>

Oil Before and After Reclamation

Transformer Oil Dry-Out System (TO-DOS)

Features

- The system is permanently connected with the transformer, while it continuously keeps on removing the moisture from the transformer in charged state.
- During the filtration process moisture PPM level is continuously monitored.
- This process does not only remove moisture from transformer oil but from the insulation as well.
- Cartridges can easily be replaced at customer point only.
- This machine is capable to remove solid contamination and maintains NAS-4.
- It will keep on maintaining PPM & NAS value which is required for long life and good health of transformers.
- SCADA Compatible PLC (optional).

Available Models

<table>
<thead>
<tr>
<th>No.</th>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TODP-005-MP</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>TODP-005-SS</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>TODP-005-MS</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>TODP-005-SP</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>TODP-005-O</td>
<td></td>
</tr>
</tbody>
</table>

PLC Screen showing machine results

Few of our esteemed customers

- NHPC
- NTPC
- Reliance Power
- Aditya Birla
- NHPC
- JST Transformaters
- Adani Power
OIL HANDLING PLANT

Regenerative Air Dryer

In heavy-duty industrial operations, water vapor in compressed air equipment can lead to premature failure, corrosion, frozen air lines, quality control issues and a range of other operational problems.

- The system purifies compressed air by absorbing moisture.
- The valve switch automatic display function, friendly man-machine interface, simple operation, convenient for daily maintenance.
- Automatic alarm device, fault alarm.
- High quality adsorbent.
- Reliable performance check valve, silencer, pneumatic valve and diffuser are available.

Transformer Evacuation System

Features

- System is designed with combination of the highly efficient pumping system of a Vacuum pump and mechanical booster pump.
- Can handle large volumes of moisture in transformer’s tank.
- It is a simple “plug & play” device.
- It is easy to maintain and operate
- It comprises of a vacuum pump, motor, separator, guages, valves and piping, on a portable base.

Showing Ultra High Vacuum

WE TAKE OUT WE WASH WE RE-FIT
ACCESSORIES

Filter Cartridges
- For removing very fine solid particle from the oil.
- Consumable.

Magnetic Strainer
- For removing solid particles with magnetic nature mixed with the oil.
- Consumable

Oil Storage Tanks
- For storage of various industrial oil.
- Weather proof.
- Leakproof proof

Oil Transfer Systems
- For transferring of oil from one storage unit to other.
- Easy to operate

TESTING EQUIPMENTS

BDV Tester
- Smooth operation from zero potential to FSV with motorized operation.
- Accurate & fast trip on breakdown.
- Digital display output, with display hold on trip.
- Open Ground interlock, Reset interlock for equipment protection

Particle Counter
- On-line oil particle counter of high precision.
- It adopts the principle of laser blockage method (laser shading method) to detect the size and number of solid particles in the oil.
- Based on the measurement, it does the analysis and then display the oil contamination level in various standards.

Moisture PPM Sensor
- Continuous online measurement of moisture in oil.
- Online, real-time detection of moisture in oil without sampling.
- Easy to install and operate. Installation through ball valve.

We Perform And Teach You How To Test Our Performance
HYDRAULIC / COMPRESSOR OIL FILTRATION MACHINES

For Solid Removal (Mono)

Features
- Is capable of removing the solid contamination.
- Can achieve upto NAS-4 from NAS-9.
- Is a portable system.
- Offers continuous filtration.
- Available in different flow capacities 500 - 12000 LPH.

Available Models

<table>
<thead>
<tr>
<th></th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>HOFP-005-S</td>
</tr>
<tr>
<td>2</td>
<td>HOFP-010-S</td>
</tr>
<tr>
<td>3</td>
<td>HOFP-020-S</td>
</tr>
<tr>
<td>4</td>
<td>HOFP-050-S</td>
</tr>
<tr>
<td>many more</td>
<td></td>
</tr>
</tbody>
</table>

Particle Counter Result

Can achieve NAS 4 and below

For Solid & Moisture Removal (Dual)

Features
- Is capable of removing solid as well as moisture contamination.
- Can achieve upto NAS-4 from NAS-9.
- Based on filter cartridge and vacuum dehydration.
- Is a portable machine.
- Offers continuous filtration.
- Available in different flow capacities 500 - 12000 LPH.
- Free water removal centrifuge (optional).

Achievements
- Our filtration machines for hydraulic oil has achieved NAS level below 4 at
  - HAL
  - IOCL

Available Models

<table>
<thead>
<tr>
<th></th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>HOFP-005-D</td>
</tr>
<tr>
<td>2</td>
<td>HOFP-010-D</td>
</tr>
<tr>
<td>3</td>
<td>HOFP-020-D</td>
</tr>
<tr>
<td>4</td>
<td>HOFP-050-D</td>
</tr>
<tr>
<td>many more</td>
<td></td>
</tr>
</tbody>
</table>

Moisture PPM Result

Free water removal centrifuge (optional)

Few of our esteemed customers
**Turbine Oil Centrifugal Filtration Machine**

**Features**
- Flow rate up to 500 - 12000 LPH.
- Moisture PPM improvement will be from 2000 PPM to 50 PPM.
- Portable (on castor wheels).
- Sludge holding capacity varies from 1 - 10 kgs.
- Purifies up to sub micron level.
- Moisture removal centrifuges - No consumables.
- Solid removal centrifuge - No consumables.

**Portable Turbine Oil Purification Machine**

**Features**
- Portable | Trolley mounted.
- Moisture PPM improvement will be from more than 15000 to 50 PPM.
- Sludge holding capacity varies from 1 - 10 kgs.
- Purifies up to sub micron level.
- Moisture removal centrifuges - No consumables.
- Solid removal centrifuge - No consumables.
- Based on high vacuum dehydration system.

**Oil Purifier Cum Dehydration Plant**

**Features**
- Flow rate up to 500 - 12000 LPH.
- Moisture PPM improvement will be from more than 15000 to 50 PPM.
- Trolley mounted.
- Can remove free water as well as dissolved moisture upto required level.
- Purifier centrifuge + ultra high vacuum dehydration system.
- Solid contamination removal upto sub micron level.

**NAS 4**

**RH 52% 35°C**

**Solid Particle Counter (NAS Value)**

**Moisture PPM Result**

**Available Models**

<table>
<thead>
<tr>
<th>Turbine Oil Centrifugal Filtration Machine</th>
<th>Portable Turbine Oil Purification Machine</th>
<th>Oil Purifier Cum Dehydration Plant</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 UOCP-005-S</td>
<td>2 UOCP-010-S</td>
<td>1 UOPP-005-D</td>
</tr>
<tr>
<td>3 UOCP-020-S</td>
<td>4 UOCP-040-S</td>
<td>3 UOPP-020-D</td>
</tr>
<tr>
<td>5 UOCP-050-S</td>
<td>6 UOCP-060-S</td>
<td>5 UOPP-050-D</td>
</tr>
<tr>
<td>7 UOCP-100-S</td>
<td>8 UOCP-120-S</td>
<td>7 UOPP-100-D</td>
</tr>
</tbody>
</table>

Few of our esteemed customers

[Logo of Jammu and Kashmir State Power Development Corporation] [Logo of NHPC]
Diesel Filtration Machine

Diesel Filtration Machine is fully automatic portable fuel cleaning and filtration system based on centrifuge technology. It has 100% consumables free solid removal centrifuge.

**Features**
- Available in different capacities: 500 - 12000 LPH LPH.
- Continuous water removal centrifuge.
- Removes free water continuously.
- Removes solid particles upto 1 micron.
- Very compact in size.
- Purify micron size impurities.
- Fully automatic operation.
- Flame proof electrical item (optional).
- Weather proof (optional).

<table>
<thead>
<tr>
<th>Available Models</th>
<th>1</th>
<th>DOFP-010-D</th>
<th>2</th>
<th>DOFP-020-D</th>
<th>3</th>
<th>DOFP-050-D</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>many more</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TAN Reduction System

Mineral based & Synthetic oils have very common problems of increase in Total Acidic Number (TAN). Increase in TAN is just because of complex chemical reactions within the system.

**Features**
- Available in different capacities: 500 - 5000 LPH
- Very compact in size
- Purifies impurities upto 1 micron
- Removes moisture upto less than 10 PPM
- TAN reduction upto the desired limit
Coolant/Cutting Fluid Filtration Machine

Features
- Coolant/Cutting fluid processing rate varies from: 500 - 5000 LPH.
- Portable.
- It helps to remove chips up to 200 micron/ dust upto 5 micron.
- Chips and fine dust removal is in 2 stages.
- Collect dry chips also from the machine and shop floor.
- Improves product finish & CNC tool life upto 4-5times.
- Increase the speed, efficiency & safety of machine tools.
- Coolant/Cutting fluid can get cleaned and does not require changing.
- Continuous skimming of tramp oil (optional).

Available Models

1. COFP-010-D
2. COFP-020-D
3. COFP-050-D
4. NOCP-010-P
5. NOCP-020-P
6. NOCP-050-P

Centrifugal Oil Filtration Machine

Benefits are guaranteed with the use of 100% maintenance expense free oil cleaning centrifuge system

Features
- Flow rate upto 1000 - 10000 LPH.
- Zero wastage of oil.
- Sludge comes out in dry cake form (easy to dispose).
- Easy to operate (any unskilled person can operate).
- Compact in size (1 person can take it anywhere).
- Fast Filtration Process.
- No consumable cost required.

Available Models:

For Wire Drawing Oil

1. WOCP-010-P
2. WOCP-020-P
3. WOCP-010-G
4. WOCP-020-G

For Lube/Gear Oil

1. LOCP-010-P
2. LOCP-020-P
3. LOCP-050-P

For Grinding/Honing Oil

1. GOFP-010-S
2. GOFP-020-S
3. GOFP-050-S

For Quenching Oil

1. QQCP-010-P
2. QQCP-020-P
3. QQCP-050-P
4. QQCP-010-G
5. QQCP-020-G
6. QQCP-050-G
7. QQCP-100-G

"zero Defect Zero Effect" Manufacturing Is Possible By CBS Support

Sludge coming out after filtration
Aviation Turbine Fuel Filtration System

The Filtration System consist of
- Storage Tank
- Mechanical Filtration Unit
- Vacuum Dehydration Unit
- Centrifugal Filtration Unit

Features
- Portable (on castor wheels).
- Sludge holding capacity varies from 1-10 kgs.
- Purifies up to sub micron level.
- Moisture removal centrifuges - No consumables.
- Solid removal centrifuge - No consumables.
- Achieves NAS upto 2.

Available Models

<table>
<thead>
<tr>
<th>No.</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>U OPP-005-D</td>
</tr>
<tr>
<td>2</td>
<td>U OPP-010-D</td>
</tr>
<tr>
<td>3</td>
<td>U OPP-020-D</td>
</tr>
<tr>
<td>4</td>
<td>U OPP-040-D</td>
</tr>
<tr>
<td>5</td>
<td>U OPP-050-D</td>
</tr>
<tr>
<td>6</td>
<td>U OPP-060-D</td>
</tr>
</tbody>
</table>

Aeroplane fly With our support

NAS 2
DN 53.2 35°C

Thermic Fluid Filtration Machine

Features
- Flow rate 1000 - 10000 LPH.
- Removes particle size less than 5 micron.
- Zero wastage of Oil.
- Sludge comes out in dry cake form (easy to dispose).
- Easy to operate (any unskilled person can operate).
- Compact in size (1 person can take it anywhere).
- Can operate at 300 deg. celcius of oil temperature.

Available Models

<table>
<thead>
<tr>
<th>No.</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ICFP-010-P</td>
</tr>
<tr>
<td>2</td>
<td>ICFP-020-P</td>
</tr>
<tr>
<td>3</td>
<td>ICFP-050-P</td>
</tr>
</tbody>
</table>

many more
Online Centrifugal Oil Cleaners - Online (COC)  

**COC** is a mechanical device, which purifies oil by centrifugal force action, many times more effectively than any other filtration method so far known in the world.

**COC** is necessary for the mating surface of machine elements in relative motion which are separated by a very thin oil film formation at contact. The film thickness generally happens to be of the order of microns. If lubricating oil incorporates dirt in the form of contaminants, debris, etc., it will destroy the protecting layer of lubricating film over the mating surfaces of machine parts. Which will further multiply component wear and premature failure of the system. The big advantage of the centrifuge is its ability to remove very fine particles of the one-tenth of a micron by centrifugal action.

**Models available:**

<table>
<thead>
<tr>
<th>Model</th>
<th>EL-1</th>
<th>EL-2</th>
<th>EL-3</th>
<th>EL-4</th>
<th>EL-5</th>
<th>EL-6</th>
<th>EL-7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processing Capacity (LPH)</td>
<td>100</td>
<td>250</td>
<td>1000</td>
<td>3000</td>
<td>4500</td>
<td>1200</td>
<td>1300</td>
</tr>
</tbody>
</table>

**Benefits:**
- Remove paper filters permanently.
- Extends oil life.
- Minimizes wear and tear of engine.
- Increases engine life.
- Reduces down time.
- Minimize maintenance cost.
- Increase contaminant holding capacity.
- No consumable cost

**Applications:**
- Railway, Defence, Automotive, Generators
  (can be installed on all diesel engines)

---

Centrifugal Oil Water Separators (COWS)  

**COWS** - (Eliminator - D) is a water separator and fuel filter for HSD/LDO/Hydraulic Oil, etc. An entirely new multistage centrifugal system ensures a 100% solution to the problem of water / moisture and particulate in fuel.

**Features**
- Compact design
- High efficiency
- Low flow restriction
- Long life of filter elements
- Easy installation.
- Simple maintenance
- Very high efficiency of water separation from fuel. Complete protection of injection pump, nozzles from water, dust, etc.

**Application of COWS (Eliminator-D)**
- Automotive industry – trucks, buses, mobile cranes, dozers, dumpers, excavators etc.
- Construction equipment, compressor sets, agricultural equipment, fork lift trucks etc.
- Marine propulsion Stationary engines – generators, welding and pumping installations etc.
- Mining applications, railway locomotives.
- Special custom made versions for certain applications available.
- Trolley mounted systems for removing moisture and dust at the time of unloading of fuel and filling at petrol pumps available.

**Available Models**

<table>
<thead>
<tr>
<th>Available Models</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 COWS</td>
</tr>
<tr>
<td>2 COWS: ELD-2</td>
</tr>
<tr>
<td>3 COWS: ELD-3</td>
</tr>
<tr>
<td>4 COWS: ELD-4</td>
</tr>
</tbody>
</table>

Few of our esteemed customers
TOTAL OIL MANAGEMENT (TOM)

In Association with Leading Oil Companies

TOM is the process where we manage oil in Power Plants, Substations and Manufacturing Unit. We manage Oil and undertake Filtration / Regeneration assignments on contractual basis. TOM is a service where we deploy our trained personnel to manage your onsite oil related activities. We take a reliability focused approach and aim at establishing world class lubrication practices at your facility.

We maintain your oil management processes, leaving you to focus on more important aspects of your production / power generation.

Process

Audit → Grade Selection → Inventory → In Plant Movement → Topping Up → Disposal → Renewal (Filtration/Regeneration) → Data Analysis → Condition Monitoring

MACHINE ON RENT

Machines available on rent are for different oil applications. We are the one of the leading providers of machines on Rent. We are equipped with well maintained and latest technology centrifuge based oil filtration plants for filtration of different oils to achieve the desired parameters. 100% consumable free centrifuge is used in our filtration machines for different oil applications and centrifuge enhances the life of filter upto 10 times. So consumable / running cost in our machines are almost negligible.

We have oil filtration equipment equipped with latest technology used for oil filtration to achieve the value of transformer oil as per IS 335 - NAS below 5 for Hydraulic Oil-Chips, Dust and Tramp oil removal for Coolant-Water and Carbon removal for Turbine oil - Similarly desired parameters will be achieved for different oil applications.

With large amount of filtration equipment we aim to provide our customer prompt delivery with added advantage of skilled operators (optional) for the continuous running of filtration plant.

All machines are mobile on pneumatic tyre to move on roads or mobile on castor wheels for in plant movement or Skid mounted (Fixed).

Available Range:

1. Transformer Oil Filtration Machine (Capacities Available : 2KLPH , 6 KLPH, 12 KLPH)
2. Transformer Oil Reclamation Machine (Capacities Available : 6 KLPH & 12 KLPH)
3. Transformer Evacuation System (For Transformer Commissioning)
4. Regenerative Type Air Dryer (For Transformer Commissioning)
5. Hydraulic Oil Filtration Machine (Capacities Available : 3 KLPH & 6 KLPH)
6. Thermic Fluid Filtration Machine (Capacities Available : 3 KLPH & 6 KLPH)
7. Turbine Oil Filtration Machine (Capacities Available : 3 KLPH & 6 KLPH)
8. Coolant Filtration Machine With Tramp oil Skimmer (Capacities Available : 3 KLPH & 6 KLPH)

Testing Equipments are also available like BDV Test Kit, Online Moisture PPM (If required along with the machine).
Hydro Cyclone Solid-Liquid Separator

SAND ELIMINATOR - Series
www.sandeliminator.in

In Technical Collaboration with Euro Consultants & Engineering, Netherlands

The sand eliminators are used
- As a pre-filter prior to finer filtration improves efficiency and minimizes liquid loss, for effective protection for heat exchangers against fouling.
- For removing solids that clog spray nozzles and other small orifices.
- For the removal of solids from liquids in your industrial process and allow reuse of the liquid to prevent Solids Accumulation in Sumps and Basins.
- To separate part of your process cooling system minimizes accumulation of solids that typically settle in sumps and basins.
- For Comfort Cooling Filtration.

Applications
- Source water intake
- Washing operations
- Firefighting systems
- Coolant iteration
- De-sanding
- Pump protection
- Pre filtration
- Waste water upgrading

Benets
- Low pressure drop
- No moving parts
- Continuous filtering
- No filter media
- Environmental friendly
- Easy installation
- Low maintenance costs
- High Efficiency
- Closed system
- Automatic purging possible

Can process upto 180 lakh liters of water per hour

Markets for our Sand Eliminator

Water Transport Water Treatment Chemical Oil & Gas
Cooling Towers Energy Aviation Manufacturing
Shipping & Dredging

Food & Pharmaceuticals Agriculture & Irrigation Environment & Waste Water Treatment Automotive Industry Infrastructure Storage & Trans loading
WASTE ENGINEERING DIVISION
CbS has researched and developed a second generation composting machine which reduces the waste processing time from conventional 24 hours to 10 hours and reduces the electricity consumption by up to 60%. A regular automatic composting machine uses electricity to heat the waste and evaporate the moisture content whereas the second generation composting machines separate 50% of the moisture content (liquid compost) at the first stage itself at the time of crushing (1). The volumetrically reduced semi-wet waste then enters the composting tank (2) where it is processed only for 8 - 10 hours giving out compost. As the electric consumption is significantly less, the machine can also be run by hybrid solar energy attachment (3).

**Features:**
- Fully automatic operation
- Separate door for waste input & separate door for compost removal
- Temperature controller and sensor
- Machine operation indicator

**Optional:**
- PLC (Touch/Text) Control System
- Stainless Steel Shredder
- Planetary Gear
- Humidity Sensor
- Water / Moisture Removal Squeezer

**MODULAR SOLAR COMPOSTING SYSTEM**

We also have a range of MSCS (Modular Solar Composting System) in which the waste is shredded by the electric shredder and then it is put in a specially designed modular solar composting unit, that works on the principle of solar dehydration, it removes the moisture from the waste and reduces time duration required for the drying process.

**Features**
- Less power consumption
- PLC operated Modular Solar Composting Unit
- Temperature Controlling and Sensing Unit
- Faster than traditional drying process.
MOBILE BIO-TOILETS

In Technical association with “Defence Research & Development Organization” (DRDO) Ministry of Defence-Govt. of India

**Highly Distinctive Advantages**
- Disposes Human Waste in a 100% eco-friendly manner.
- Generates colorless, odorless, inflammable bio gas (methane) for cooking, water & room heating etc.
- 100% solid discharge free.

**Saves/Conserves**
- Water, Energy, Space, Environment, Money, Time, Promotes Hygiene and Ensures Good Health.

**Models available**
- Trailer mounted Mobile Toilet Cluster
- Cluster of Toilet Cabins (from 4-14 cabins) as per the requirement of customer is mounted on Tractor trailer/Jeep trailer/truck. The trailer can be taken to the place where ever required
- Independently mounted Bio-Toilet for moving vehicles
- For Railway Coaches, for Buses, for Ships and Boats.

**Salient Features**
- Mounted on wheels and can be dragged to any place for use.
- Exclusively suitable for sub zero temperature of Himalayan Region, Railway Coaches, Highways, Remote areas, Sea ports, Beaches, Mining, Metro cities etc.
- Easy to transport and install in Hilly Terrains, Railway Coaches, Metro Footpaths.
- 100% maintenance free, continuous biological process.
- Elimination of pathogens.
- Economically viable.
- No dependence on the limited and costly conventional energy sources.
- No manual handling of Human Waste.
- No repeat dosing of Bacteria.
FRP/PUF BIO-TOILETS CABINS

Highly Distinctive Advantages of FRP cabin
- The Made up of good quality Fiber Reinforced Plastic.
- The Easy to install.
- The Readymade option available in Single Pan.
- The inbuilt water and sludge tank (option available).

Highly Distinctive Advantages of PUF insulated cabin
- The walls of Bio-Toilets are insulated with Polyurethane Foam.
- Suitable for Hilly and cold Regions.
- Easy to install.
- Readymade option available in 4 Pan, 2 Pan and Single Pan.

Saves / Conserves
- Water, Energy, Space, Environment, Time, Promotes Hygiene and Ensures Good Health.

If you do not go to toilet, Toilet will come to you

Few of our esteemed customers

[Logos of various organizations]
Bio-Digester Tank

CbS with support of technology, developed and approved by DRDO Ministry of Defence has offered an innovative technology for disposal of human waste in an eco-friendly manner.

Features
- Bio-Digester tank can function at any atmospheric temperature between -40 to 45°C.
- The bacterial consortium degrades night soil at temp as low as -40°C and produces colorless, odorless, inflammable biogas contacting 50-70% methane.
- Bio-digester can be designed of mild steel and Fiber Reinforced Plastic (FRP). Bio-toilets are cylindrical structure with the provision of inlet for human waste and outlet for Biogas. Temp in these bio-toilets is maintained between 5-30 °C.
- A person can use the toilet which is connected to the bio-digester. Night soil degradation occurs through microbial reaction which converts it into biogas.
- The smell of night soil, the disease causing organism in the night soil and the soil matter are almost eliminated. On dry weight basis 90% of the solid waste is reduced.
- The gaseous effluent (biogas) is continuously left off to the atmosphere.
- Biogas can be used for various energy incentive activities like cooking, water and room heating.
- Liquid effluent can be drained to any surface or soak pit without any environmental hazards.

Floating Bio-Digester

Smart Toilet

Features
- Prefabricated public toilet made of stainless steel
- Stainless Steel Platform & Closet (Indian/Western)
- Toilet Status Display – Vacant/In use
- Coin/Switch based automated entry
- Manual exit
- Automated interior light & exhaust fan
- Standard features like Wash basin, Health Faucet & Cloth Hanger
- Voice assistance system
- Self-cleaning and washing mechanism (Flushes & Floor wash)
- Water Low Indication
- Power backup facility
- Remote monitoring & control facility through Web/Mobile app

Key Features & Functionalities

- Fully unmanned & automated operations
- Enhanced cleanliness through auto flushes & floor washing
- Integrated with IoT technologies for remote monitoring health status
- Easy to install pre-fabricated steel structure
- Energy conserving & environment friendly
- 24/7 Customer Support
- Easy to Install
- Multiple revenue generation
- A Comprehensive end to end sanitation solution
- Dedicated Mobile / Web App for Remote Monitoring
Bio-sewage Treatment Plant (BIO-STP)

Technology behind Bio-STPs & Features

- This technology is suitable for any area and application in India.
- The process under this technology culminates into treated effluent which is free from Pathogens and is also environmentally acceptable.
- No operational cost & maintenance charges.

The technology has major three components.

- Low temp active in oculums/AMI.
- Bio-Digesters.
- Reed-Bed.

SEWAGE TREATMENT PLANT (BIO-STP)

NOTE
BLACK WATER – SEWAGE WATER FROM COMMUNITY / INDIVIDUAL TOILETS, GREY WATER – WASTE WATER FROM MULTIPLEXES / HOUSING COLONIES / INDIVIDUAL HOUSES

Saves and Conserves


Comparison Between Normal STP and Bio-STP

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Normal STP</th>
<th>Bio-STP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>Design is complex.</td>
<td>Very Simple Design &amp; easy to work based on DRDO, Bio-digester Technology.</td>
</tr>
<tr>
<td>Installation Cost</td>
<td>Very High.</td>
<td>Far less.</td>
</tr>
<tr>
<td>Maintenance Cost</td>
<td>Maintenance required. Additional Running cost incurred in the form of man power &amp; Electricity.</td>
<td>Maintenance not required. It recovers its cost within 10 years.</td>
</tr>
<tr>
<td>Space required</td>
<td>Larger space requirement. Above the Ground Construction.</td>
<td>Very small space needed due to Under-ground</td>
</tr>
<tr>
<td>Hygiene</td>
<td>Hygienic.</td>
<td>More Hygienic than normal STPs.</td>
</tr>
<tr>
<td>Diseases</td>
<td>Water-borne diseases spread by the effluent sewage.</td>
<td>All pathogens are eliminated inside the Bio-digester Tank.</td>
</tr>
<tr>
<td>Suitability</td>
<td>Suitable for most temain.sewage.</td>
<td>Suitable for all.</td>
</tr>
<tr>
<td>By-products generated</td>
<td>Lesser Biogas in comparison to Bio-STPs.</td>
<td>Relative large amount of Biogas &amp; potable water. Bio Gas can be used in CNG Genera-</td>
</tr>
<tr>
<td>Power/Electricity</td>
<td>Required Electricity.</td>
<td>No Electricity Required (Save Lots of Money).</td>
</tr>
</tbody>
</table>
FROM ORGANIC WASTE TO COMPOST

Developed in technical support with Defence Research & Development Organization (DRDO)

"VCM" - VERMI COMPOST MAKER

Vermi Compost Maker, comes with the motorized and manual shredder for crushing the garden/organic waste into the fine particles.

Benefits of Vermi Composting

Soil Benefits
- Increase Water Holding Capacity of Soil, Reduce Soil Erosion, Enhance Soil Productivity, Induces Resistant to Pest and disease attack.

Plant Benefits
- Crops with better taste, quality without toxic residues.
- Better plant roots growth, germination and crop yield.

Environmental & Economic Benefits
- Best & Economic practice to convert the garden/any kind of organic waste into high nutrient manure.

BIO-GAS REACTOR

"DBR" - DOMESTIC SIZE BIO-GAS REACTOR

In Technical Association with Bhabha Atomic Research Centre (BARC), Mumbai

Features
- Alternative fuel for cooking gas.
- Hygienic - no odor, no flies and insects.
- Easy to install and handle.
- Completely safe.
- Small in size.
- Outlet slurry is a organic fertilizer.
- Suitable for all types of kitchen cooked/ uncooked, veg/non-veg and organic waste.
- Biogas obtained: 70-80% methane.
- 250 to 600 litre of methane rich biogas daily from 1-3 Kg wastes.
- Bio Gas can be conveniently stored in biogas balloons, waste tubes or in the digester itself.
- Bones can also be processed.
- The digested discharge is free from acidic foul smell

Few of our esteemed customers
WASTE COMPACTOR MACHINE

Increases waste bin capacity upto 7 times

In times of smart modernization and all devices turning smart, we needed bins which can handle their own problems of getting filled. The nano waste compactor has inbuilt hydraulic system powered by sensors which compacts the waste inside the dustbin as soon as the dustbin is full. The compaction makes sure there are no empty pockets inside the bin and the storage capacity is used completely. It increases the waste holding capacity upto 6-7 times. The compaction machine can be used in industries also to keep space required by scrap material at its minimum by compressing the industrial scrap. The nano waste compactor machine are a huge hit for public spaces like parks, markets, restaurants, railway stations, airports, ships, offices, metros, industries.

Tech Specs:

- Volume reduction: 30-80%
- Compaction Ratio: 6:1
- Control System: PLC Based
- Compaction Cycle Time: 45 Sec
- DC/AC operated versions
- 110V/220V/440V Single Phase / Three phase versions

Features

- Inbuilt Hydraulics
- Stainless Steel and Mild Steel Body option available
- Proximity Sensor
- Control Panel
- Volume Reduction 30%-80%
- Compaction Cycle Time: 45 Seconds
- Fully automatic
- Separate door for waste input and compacted waste removal

www.talent-58.com

www.talent-58.com

Exclusive career portal for Retired Professionals

- www.talent58.com is a startup found with the intention of bridging the gap between the industry veterans and the industry (viz. organizations and entrepreneur).
- Our aim is to build a quality database of highly experienced industry veterans and connect them with the most coveted opportunities. The platform serves to aggregate profiles of highly experienced subject matter experts, consultants, specialist’s at all that are available for new challenges in the form of fulltime/part-time projects, consultancy and advisory roles.

In the Media
Talent58: A job portal only for retirees and those looking to retire.
- By Lakshmi Sivadas - in Indian Startups

Retired professionals improving India Inc’s health by returning into the job market.
- By Kala Vijayraghavan, Lijee Philip & Devina Sengupta, ET Bureau

90% organisations plan to engage their retiring workforce.
- By TimesJobs.com

50% of the employees in Oil & Gas due for retirement in the next 5 to 7 years.
- By Kanchana Dwarakanath, TimesJobs.com Bureauz

Firms tap retired professionals; competition experts in demand.
- By Press Trust of India
UNIT-I
H-5/6, SITE-5, UPSIDC Industrial Area
Kasna, Greater Noida, Uttar Pradesh

UNIT-II
Plot No. 403, Shree Dev. Ind. Estate
Mahuakhera Ganj, Aliganj Road
Kashipur-244713, Uttrakhand

Toll Free Number : 1800-212-4645