



20+ YEARS EXPERIENCE

Manufacturer & Exporter

DEALS IN :

TRANSFORMER / INDUSTRIAL OIL FILTRATION MACHINE, NITROGEN INJECTION FIRE PROTECTION SYSTEM/ PSA OXYGEN /NITROGEN GENERATION PLANT & WASTE HANDLING EQUIPMENT

Toll Free No.: 1800-212-4645

+91- 8826994629

info@cbsenergy.com, cbsenergy@gmail.com

www.cbsenergy.com

Manufacturing Unit : H-5/6, Site-5, UPSIDC Industrial Area, Kasna, Greater Noida, U.P. - 201310
Registered Office : 110-111, 1st floor Rishabh Iplex Mall, Opp. Max Hospital, I. P. Extension, Patparganj Delhi, India Pin : 110092



A brief Introduction

CbS is a diversified group having interest in engineering, Industrial Oil Filtration Machines, PSA Oxygen / Nitrogen Generation Plants, Waste Handling Equipments and developing many items under Make in India. Companies under CbS group are:

CbS Technologies Pvt. Ltd. (Unit-1)

At Greater Noida, manufacturing a wide range of Industrial oil filtration machines, centrifuges, Transformer oil filtration plant, Nitrogen Injection Fire Protection System

CbS Technologies Pvt. Ltd. (Unit-2)

At Greater Noida, manufacturing PSA Oxygen / Nitrogen Generation Plants, Waste Handling Equipment

Su-Raj Foundation:

An NGO committed for development of smart villages.

CbS I.T.I.:

At Kashipur, Uttarakhand established to educate youth under skill development mission of India.

Why CbS?

R&D Affiliations



Defence Research & Development Organisation



Bhabha Atomic Research Centre



Council of Scientific & Industrial Research



Indian Institute of Technology

Business Affiliations



Indian Oil Corporation Limited



Ordnance Factory Board

Make in India

Manufacturing Partner of M/s E c&e lt, Netherlands

Certifications



Certified



Quality council of india



9001 : 2015



13485 : 2016



14001 : 2015



7396-1 : 2016



Certified

Important OEM Routine Customers



Customer's Advantage



24x7 Service Support



Modular Option Available



IoT Enabled Products
(Option Available)

We Export To



- USA
- Australia
- Tanzania
- Saudi Arabia
- Bangladesh
- Vietnam
- New Zealand
- Russia
- Congo
- UAE
- Nepal
- Azerbaijan
- Kenya

Division 01

Oil Filtration Equipments

TRANSFORMER OIL FILTRATION MACHINE (OFFLINE)

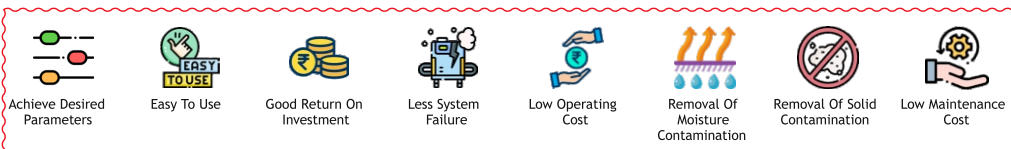
Transformer Oil Dehydration Plant (High Vacuum Type)

- Capacities available from 500 - 12000 LPH
- Features:
 - Purifies upto 1 micron
 - Works in high vacuum dehydration
 - Achieves NAS below 5
 - Achieves PPM upto 5 & BDV upto 70 Kv
 - Maintains dissolved gases upto 1
 - Results to be achieved in upto 3 passes
- Options available:
 - Skid / Vehicle / Trolley Mounted
 - Weather Proof / Open Type
 - Stack Disc Separator to Remove Excess water



Transformer Oil Dehydration Plant (Ultra High Vacuum Type)

- Capacities available from 500 - 25000 LPH
- Features:
 - Purifies upto 1 micron
 - Works on ultra high vacuum dehydration technology
 - Helps in maintaining dissolved gases & acidity level
 - Achieves BDV upto 70KV, PPM upto 5 & NAS level below 5
 - Result can be achieved in single pass
- Options available:
 - Skid / Vehicle / Trolley Mounted
 - Weather Proof / Open Type
 - Online Moisture PPM Sensor
 - Mounted BDV Test kit
 - Online flow meter
 - Transformer Evacuation System
 - Stack Disc Separator to Remove Excess water



Transformer Oil Regeneration Plants

- Capacities available from 500 - 4000 LPH
- Features:
 - Purifies upto 1 micron
 - Converts burned black oil into new
 - Reclamation media can be reactivated several times
 - Stack Disc Separator to Remove Free water
 - Online Moisture PPM Sensor
- Options available:
 - Mounted BDV Test kit


Recycle and Reuse



TRANSFORMER ONLINE DRYOUT UNIT

- Features:
 - The system can be temporarily or permanently installed on a transformer or OLTC
 - Continuously keeps on removing the moisture from the transformer in charged state
 - PPM level is continuously monitored during filtration process
 - Removes moisture not only from oil but from the insulation as well
 - Easy to replace cartridge
 - Removal solid contamination also and maintains desired NAS levels
- Options available
 - Skid / Portable Type
 - SCADA Compatible PLC



							
24x7 Protection	Effective Moisture Removal	Low Maintenance Cost	Low Operating Cost	No Additional Manpower	Online Filtration	Optimized Performance	Plc Screen

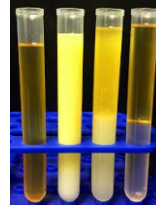
Few of Our Esteemed Customers



TURBINE OIL PURIFICATION PLANT

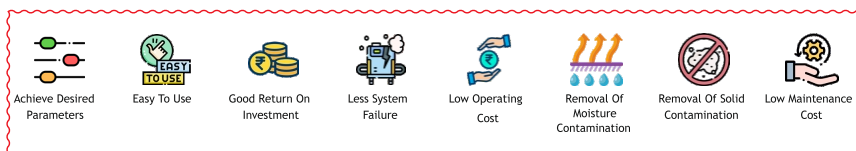
Turbine Oil Purification Machine (Portable Type)

- Capacities available from 100 - 6000 LPH
- Features:
 - PPM improvement from 15000 to 500 PPM
 - Purifies upto 1 micron
 - High Speed Stack Disc Type Centrifugal Separator
 - Sludge holding capacity from 1 - 10 Kg
 - Achieves ISO 21/18 to ISO 15/12
- Options available:
 - Skid / Portable Type
 - Open / Weather Proof
 - Available with Flame / Explosion proof electrical equipment



Turbine Oil Purifier Cum Dehydration Machine

- Capacities available from 500 - 12000 LPH
- Features:
 - PPM improvement from 15000 to 50 PPM
 - Removes free water as well as dissolved moisture upto required level
 - Based on purifier centrifuge + ultra high vacuum dehydration
 - Solid contamination removal upto 1 micron
 - Achieves ISO 21/18 to ISO 15/12
- Options Available:
 - Skid / Portable Type
 - Open / Weather Proof
 - Available with Flame / Explosion proof electrical equipment



Few of Our Esteemed Customers



GAIL (India) Limited



HYDRAULIC OIL FILTRATION MACHINE

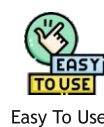
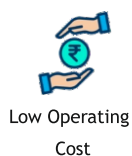
For Solid removal (Mono)

- Capacities available from 500 - 5000 LPH
- Features:
 - Removes solid contamination
 - Achieves NAS below 5
 - Offers continuous filtration
- Options available:
 - Portable (Castor Wheels) / Skid Mounted



For Solid & Moisture removal (Dual)

- Capacities available from 500 - 12000 LPH
- Features:
 - Removes solid as well as moisture contamination
 - Achieves NAS below 5
 - Offers continuous filtration
 - Based on filter cartridge and vacuum dehydration
- Options available:
 - Portable (Castor Wheels) / Skid Mounted
 - Free water removal centrifuge



Few of Our Esteemed Customers



Sundram Fasteners Limited



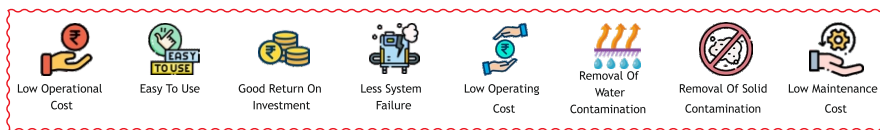
DIESEL PURIFICATION SYSTEM

Features:

- Capacities available from 500 - 12000 LPH
- Removes free water continuously
- Removes solid particles upto 1 micron
- Solid removal centrifuge - No consumables
- Stack Disc Separator to Remove Free water

Options available:

- Available with Flame / Explosion proof electrical equipment
- Weather Proof / Open Type



TRAMP OIL TERMINATOR

Features:

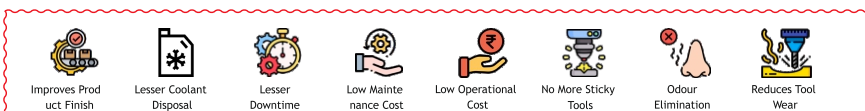
- Capacities available from 100 - 3000 LPH
- Continuous separation of Tramp Oil
- High Speed Stack Disc Separator
- Protection From Microbial Bacteria Generation



COOLANT SUMP CLEANER

Features:

- Capacities available from 500 - 5000 LPH
- Cost-effective cleaning of coolant
- Chips and fine dust removal in 3 stages
- Removes chips upto 200 micron / dust upto 5 micron
- Collects dry chips from the machine and shop floor
- Improves product finish & CNC tool life upto 4 - 5 times
- Increase the speed, efficiency and safety of machine tools.



Few of Our Esteemed Customers



CENTRIFUGAL OIL FILTRATION MACHINE

■ Capacities available from 1000 - 10000 LPH

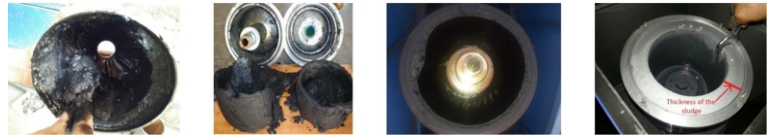
■ Features:

- Zero wastage of oil
- Sludge comes out in dry cake form (easy to dispose)
- Easy to operate
- Compact in size
- Fast filtration process
- No consumable cost required



■ Application Oil

- | | |
|-----------------|--------------------|
| ● Quenching Oil | ● Grinding Oil |
| ● Lube Oil | ● Honing Oil |
| ● Gear Oil | ● Wire Drawing Oil |



Achieve Desired Parameters	Easy To Use	Good Return On Investment	Fast Filtration	Low Operating Cost	Low Operational Cost	No More Oil Disposal Concern	Low Maintenance Cost

OIL HANDLING PLANT

■ Transformer Evacuation System

- 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 and Play" device.



■ Oil Storage Tanks:

- For storage of various industrial oil
- Stationary & Moveable
- Also available in SS & All ASTM Grades



■ Oil Transfer System

- For transferring of oil from one storage unit to other
- Easy to operate



Few of Our Esteemed Customers



Centrifugal Oil Cleaner (Online)

COC (Centrifugal Oil Cleaner) 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.

■ Flow rate: from 100 LPH to 4500 LPH

■ Benefits:

- Remove paper filter 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: Railways, Defence, Automotive, Generators (can be installed on all diesel engines)

Centrifugal Oil Water Separator (Online)

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.

■ Benefits:

- Very high efficiency of water separation from fuel
- Complete protection of injection pump, nozzles from water, dust, etc
- Low flow restrictions
- Simple maintenance
- Long life of filter elements

■ Applications: Automotive industry, Marine propulsion stationary engines, mining, railway locomotives, construction equipment, compressor set, agricultural equipment, fork lift truck, etc.



Few of Our Esteemed Customers



Division 02

Fire Protection System

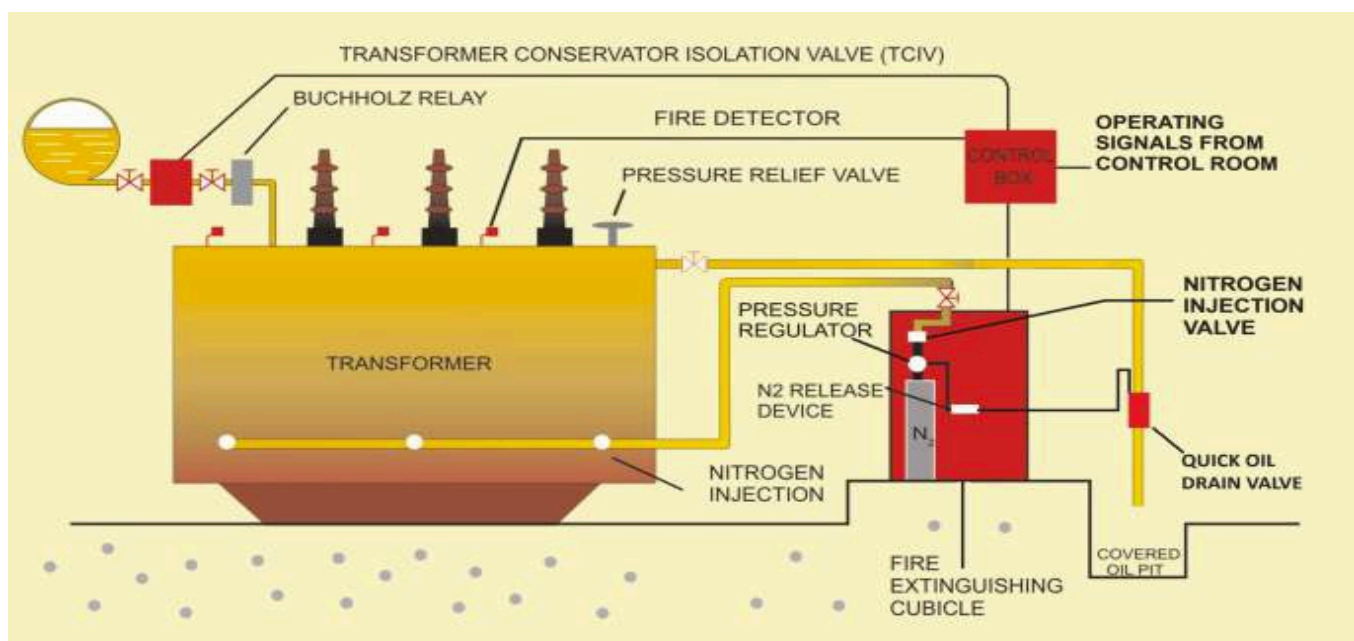
NITROGEN INJECTION FIRE PROTECTION SYSTEM (NIFPS)

Basic Principal

- Prevention of Explosion, Rupture, & Fire:
- NIFPS prevents oil tank explosion or rupture and potential oil fire.
- Addresses minor arcing due to internal or external faults in the transformer.
- Handles failures like transformer's condenser bushing or other sources.
- Reacts to rising temperature within the transformer.

Features & Benefits Of NIFPS

- Low investment cost as compared to other conventional system.
- Retrofitting possible using existing openings.
- Minimum maintenance and running cost.
- Auto and Manual Extinguishing System, from field and Control Room.
- Unpretentious by climatic change.
- Suitable for indoor / outdoor installation.
- Minimum space requirement.
- Multi signals for activation, eliminates false alarms.
- Fully automatic, unattended and a fool proof system.
- It can be operated manually / automatically, local / remote control.



Division 03

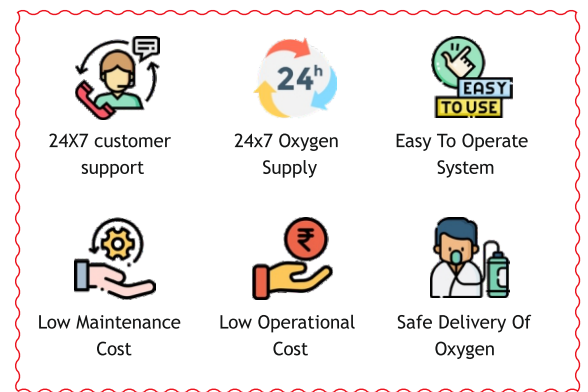
Air Handling Equipments

A. PSA Oxygen Generation Plant

- Capacities available from 150 LPM to 1500 LPM
- Features:
 - 24X7 Oxygen availability
 - Zero wastage
 - PLC based fully automatic operation
 - Energy efficient
 - Modular design comparatively less space required



- Benefits:
 - 50-70% savings every year
 - High quality Oxygen with 93% purity level
 - Automatic and unattended operation
 - Economically viable
 - Plug and play type
 - Easy to install
- Accessories: Booster for Cylinder filling

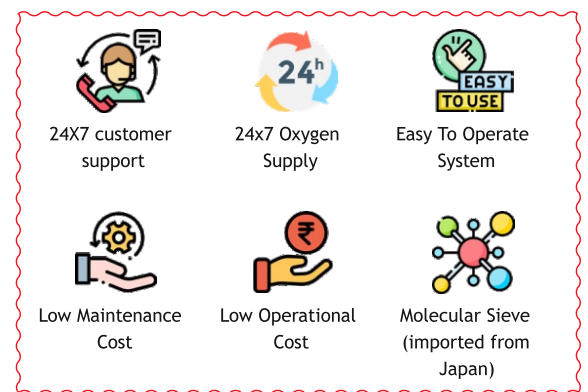


B. PSA Nitrogen Generation Plant

- Capacities available from 5 Nm³ to 300 Nm³
- Features:
 - Fully automatic (one switch) operation
 - IoT enabled
 - Easy maintenance
 - Highly reliable



- Benefits:
 - 24X7 high quality nitrogen availability
 - Low Nitrogen production cost
 - High nitrogen purity level of 99.9%
 - Easily customizable
 - Easy to use
- Accessories: Booster for Cylinder filling
- Applications: Food packaging, Chemical industry, Pharmaceuticals, Aerospace, Steel Plants, Rubber industry, Mining, Oil & Gas, Electronics, Manufacturing, etc.



Few of Our Esteemed Customers



C. Nitrogen Inflator

■ Features:

- Pure
- Nominal Price
- Varied Specifications:

■ Benefits

- Nitrogen/Sir - dual filling system
- In-built digital counter
- Inlet & outlet pressure Indicator
- On demand real time purity indicator
- High grade filter separation unit



D. Regenerative Air Dryer

■ In heavy-duty industrial operations, water vapour 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.



Division 04

Cooling Water System

Hydro - Cyclone Separator

In technical collaboration with Euro Consultants & Engineering, Netherlands

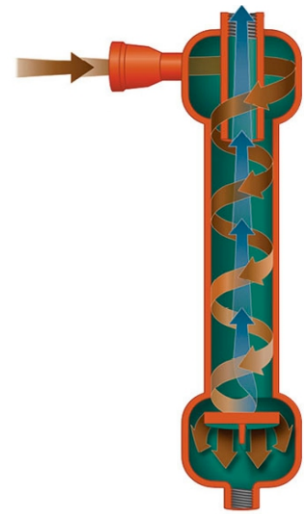
■ Features:

- Low pressure drop
- No moving parts
- Continuous filtering
- No filter media
- Environment friendly
- Easy installation
- Low maintenance cost
- High efficiency

■ Benefits

- Removes solids that clog spray nozzles and other small orifices
- Removes solid from liquid in industrial process and allow reuse of the liquid to prevent solids accumulation in sump and basins
- Improves efficiency and minimizes liquid loss for effective protection for heat exchangers against fouling.

■ Option: Automatic purging



Duplex Filter

Duplex type filter baskets are designed to be used in fluid handling systems where flow cannot be shutdown for cleaning such as cooling water, pumps, compressor, condenser, salt and fresh water systems, chemical process systems and positive suction head service.

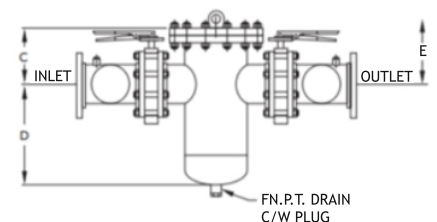
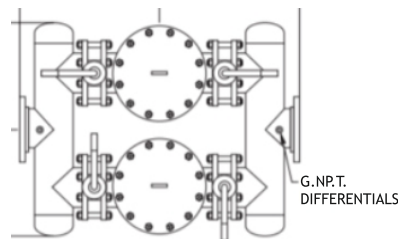
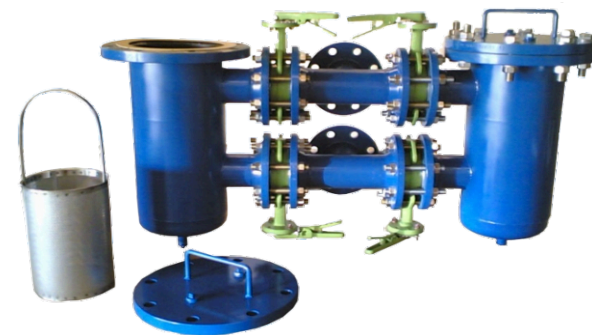
Duplex type filter basket has a single shaft drive to operate the flow diverter valves, baskets are gasketed and securely positioned to prevent particle by-pass. The large capacity basket provides generous open area ratio.

Material of construction :

CS/CI/SS 304/SS 316/216WCB

and tailor made as per customer need.

Sizes of Duplex Filter : 25NB - 600NB



Few of Our Esteemed Customers



Division 05

WASTE MANAGEMENT

Organic Waste Composting Machine

■ Processing Capacities: 25 kgs per day to 1000 kgs per day

■ Features

- Fully automatic
- Temperature controller and sensor
- Machine operation indicator

■ Optional

- PLC (Touch/Text) Control System
- Stainless Steel Shredder
- Water / Moisture Removal - Squeezer
- Conveyor System

■ Application area: Housing Society, Railway Stations, Hospitals, Educational Institutes, etc.



Shredder + Electrical Dehydration



Second Generation Continuous Composting Machine

VIP Toilet

The toilets are manufactured for remote locations for VIP personnel.

■ Features

- 1,2,4,6,8,10 seater options
- Air conditioned toilets
- Anti-skid tiles
- DRDO bio digester
- Ceramic wash basin
- Western auto flush seats



Stationary & Mobile Bio Toilet

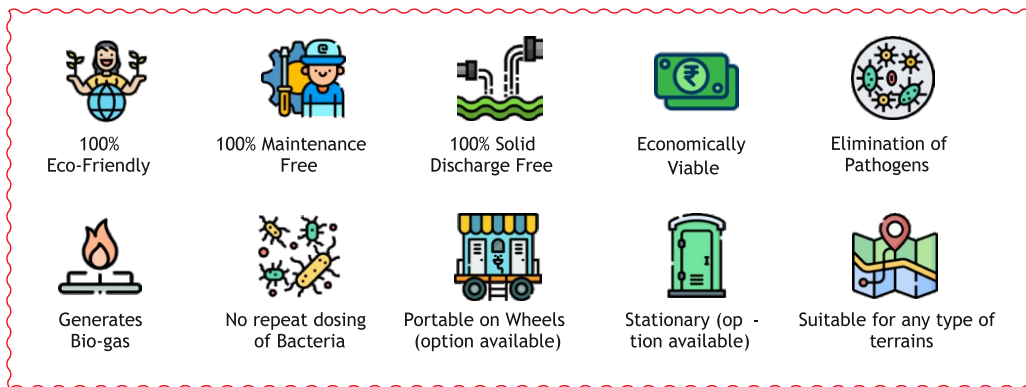
In technical association with “Defence Research & Development Organization” (DRDO) Ministry of Defence-Govt. of India

Highly Distinctive Advantages

- Disposes human waste in a 100% eco-friendly manner
- Generates colorless, odourless, inflammable biogas (methane) for cooking, water & room heating etc.
- 100% solid discharge free.

Models Available:

- Stationary Bio Toilet: 1 Pan to 10 Pan (customizable)
- Mobile Bio Toilet: 2 Pan to 16 Pan



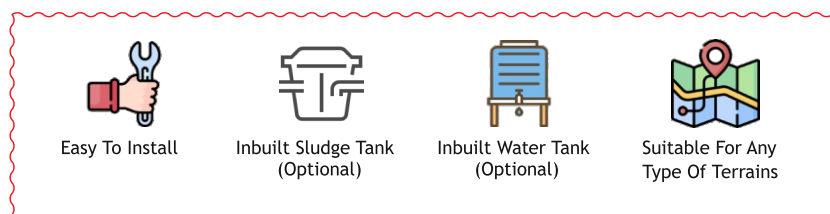
FRP / PUF Bio Toilets & Cabins

Highly distinctive advantages of FRP cabin

- Are made of good quality fiber reinforced plastic.
- Are easy to install
- Readymade option available in Single Pan
- Option available for inbuilt water and sludge tank

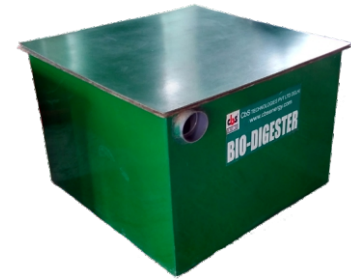
Highly distinctive advantages of PUF insulated cabin

- The walls of Bio-toilet are insulated with Polyurethane foam
- Suitable for hilly and cold regions
- Readymade option available in 4,2 and single pan



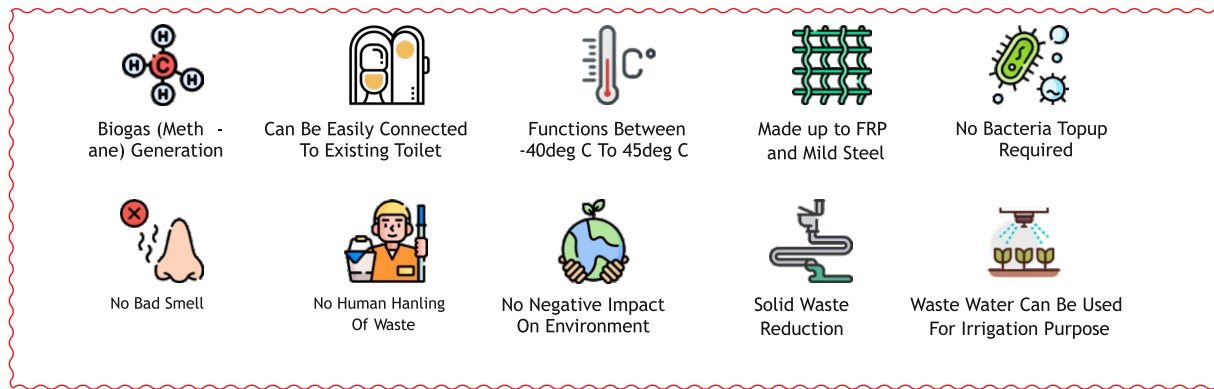
Bio Digester Tank

CBS with support of technology, developed and approved by DRDO Ministry of Defence has offered and 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, odourless, inflammable biogas containing 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. Temperature in these bio toilets is maintained between 5 to 30 °C.



Smart Toilet

■ Features:

- 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
- Dedicated Mobile / Web app for remote monitoring
- Stainless steel platform & closet (Indian / western)
- Automated interior light & exhaust fan
- Water low indication
- Power backup facility
- Self cleaning & washing mechanism

■ Applications: House, resorts, restaurants, railway, hotels, homestays, houseboats, camping sites, etc.

■ Options available:

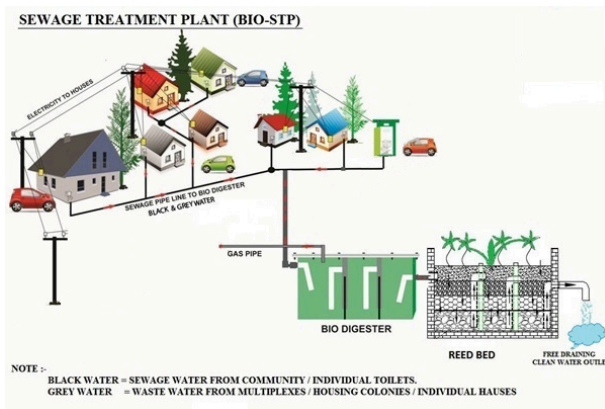
- Readymade option from 1 pan to 10 pan



Bio Sewage Treatment Plant

Technology behind Bio-STP & Feature:

- 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 and maintenance charges.



The technology has major three components:

- Low temperature active inoculums / AMI
- Bio-Digesters
- Reed-Bed

Saves / Conserves:

- Water, energy, space, environment and promotes hygiene

Comparison between Normal STP and Bio STP:

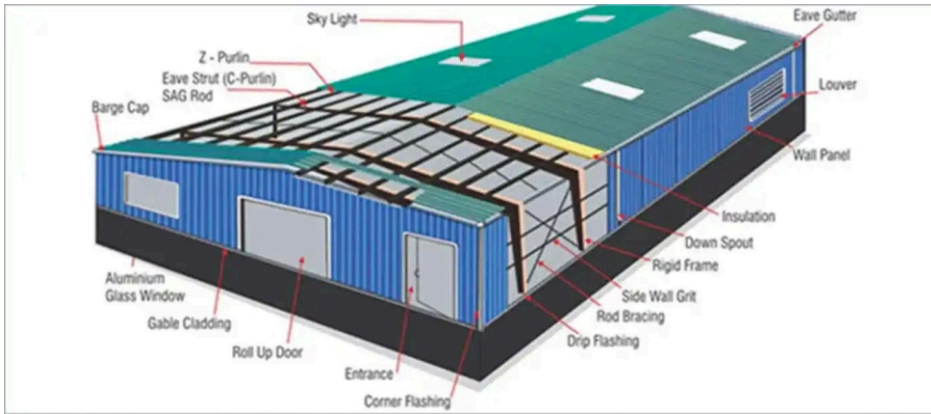
Particulars	Normal STP	Bio STP
Design	Design is complex	Very simple design & easy to work based on DRDO, Bio Digester Technology
Installation Cost	Very high	Far less
Maintenance Cost	Maintenance required. Additional running cost incurred in the form of man power & electricity	Maintenance not required. It recovers its cost within 10 years
Space Required	Larger space requirement. Above the ground construction	Very small space required due to underground construction
Hygiene	Hygienic but give bad smell	More hygienic than normal STPs
Diseases	Water borne diseases spread by the effluent sewage	All pathogens are eliminated inside the Bio Digester Tank
Suitability	Suitable for most terrain	Suitable for all terrain
By-products Generated	Lesser biogas in comparison the Bio STP	Relative large amount of Biogas & potable water. Biogas can be used in CNG generation
Power / Electricity	Required electricity	No electricity required (Saves lots of money)



Division 06

PEB/PRE-FAB STRUCTURE

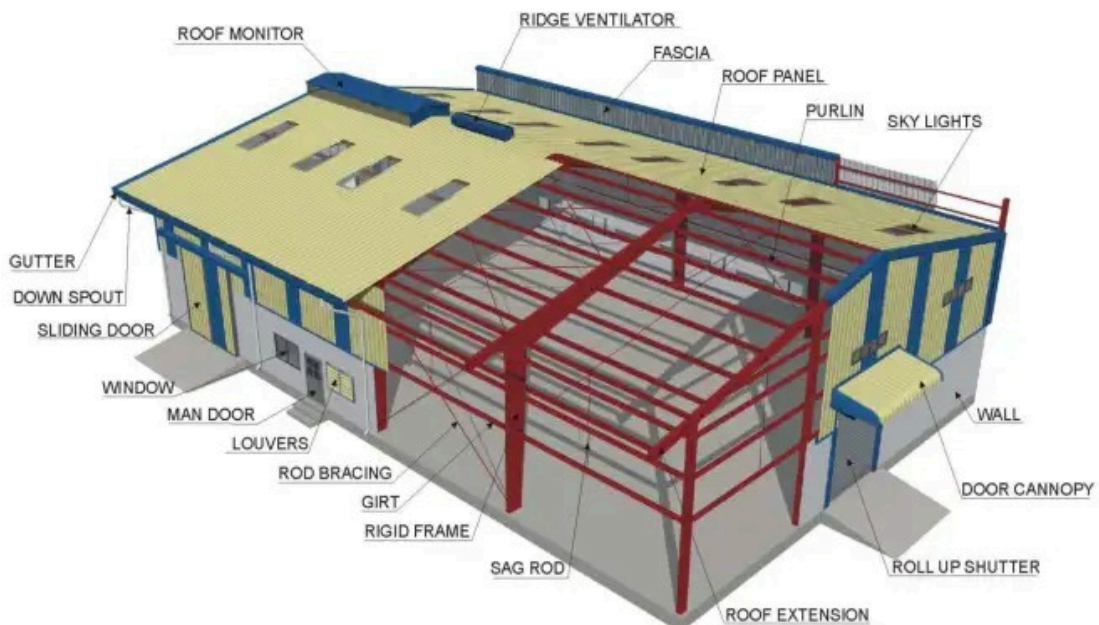
Pre-Fab Structure



■ Features

- Strong & light weight
- Exceptional thermal and sound insulation
- Consistent quality
- Quick to install
- Option of joint -less single panel
- Option of future expansion
- Option of colour range and design
- Fire resistant / retardant.
- Designed to suit varying climate
- Withstands extreme weather conditions
- Economical and cost effective
- Durable and re-locatable
- Versatility in design and fabrication
- Modular in nature
- Easy maintenance

Pre Engineered Buildings(PEB)





आत्म निर्भर भारत -आत्म बिस्वस्वत भारत

cbS
Technologies



Toll Free No.: 1800-212-4645

+91-120-2341166

✉ info@cbsenergy.com, cbsenergy@gmail.com

www www.cbsenergy.com

Manufacturing Unit : H-5/6, Site-5, UPSIDC Industrial Area, Kasna, Greater Noida, U.P. - 201310

Registered Office : 110-111, 1st floor Rishabh Ipex Mall, Opp. Max Hospital, I. P. Extension,
Patparganj Delhi, India Pin : 110092