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#### JaiDurga Envirocare Private Limited

The JAIDURGA ENVIROCARE PRIVATE LIMITED (previously known as Ultrasafe Environment Services Pvt. Ltd.) is ISO 900l:2015 & ISO 1400l:2015 Certified company and gold medal award winner from M/s. RICHARDSON & CRUDDAS (1972) LIMITED (a government of India undertaking) and is one of the leading Global standard water purification, Industrial Effluent, Sewage treatment and re-cycling and Environmental Pollution Control Company in India. The Company was established in 2002 with an objective of providing total solution for Environmental pollution Controls. We have completed more than 500 projects all over India.

The Company entered into MOU with M/s. RICHARDSON & CRUDDAS (1972) LIMITED, (A Government of India undertaking) for Supply, Construction, Commissioning, Operation and Maintenance of Water Treatment Plant(WTP), Automatic & Semi-Automatic Effluent Treatment Plant (ETP), Automatic Zero Liquid Discharge ETP, Common ETP & STP, Automatic & Semi-Automatic Sewage Treatment Plant (STP), Automatic e-STP, Automatic Pre-Filtration System, Ultra Filtration System, Membrane Bio Re-actor (MBR), Industrial Reverse Osmosis System, Automatic De-ionization system, Automatic Multistage Thermal Evaporator with ATFD, Mechanical Vapour Re-compression Evaporation System (MVRE), Waste Water Evaporator, Electrical Evaporator, Pan Evaporator, Solar power waste water Evaporation System, Kettle Type Multistage Thermal Evaporator, Agitated Thin Film Dryer(ATFD) besides Environmental data generation monitoring and pollution control services.

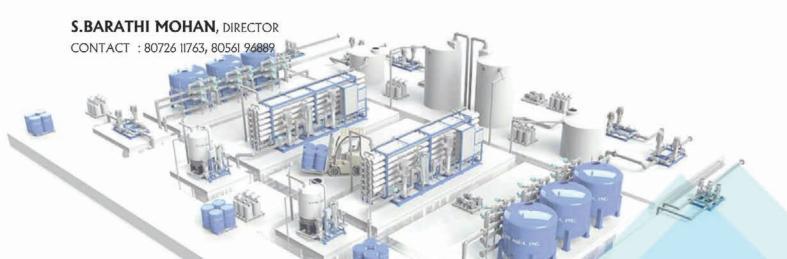
The Company is involved in obtaining consent to establish, consent to operate for the industrial category and commercial ventures. Also the company is competent to obtain approval from Pollution Control Board for e- waste and hazardous waste authorization etc., We also handle the issue of solid waste management.

The core activity of our company includes regular Environment Impact Assessment [EIA] and Environmental Management Plan (EMP) studies, We are pioneer in setting up advanced global system for MICRO ALGAE BASED ECO-FRIENDLY CHEMICAL FREE AND VERY LOW POWER CONSUMPTION ZERO LIQUID DISCHARGE SYSTEM FOR RE-CYCLING ETP WITH HIGH TDS WATER ECO-FRIENDLY MICRO-ALGAE BASED EVAPORATOR AND MICRO-ALGAE BASED STP, Industrial Effluent, Sewage and Water treatment plants like ZLD system, Automatic & Semi-Automatic Pre-Filtration system, Ultra Filtration system, Industrial Reverse Osmosis system, Electro De-ionization EDI system, Industrial De-Mineralization plant, Membrane Bio Re-actor, Moving Bed Bio-Film Re-actor, Sequencial Batch Re-actor (SBR), Fluidized Bed Bio Re-actor(FBBR) based Sewage Treatment Plant, Multistage Thermal Evaporator, Mechanical Vapour Recompression Evaporation System (MVRE), Waste Water Evaporator, Waste water Electrical Evaporator, Solar Power Evaporation System, Pan Evaporator, Solar Power Steam Evaporator, Agitated Thin Film Dryer, Accelerated Evaporation system, Online Effluent Monitoring System, Online Stack and Ambient Air quality monitoring system, Bio-Gas Fired Boiler with Evaporation system, Bio-Gas Fired Multi Stage Solid waste incinerator, Waste to Renewable Energy conversion projects etc.,

Our design and erection of plant will follow the different parameter as per design to maintain

Zero ppm and Zero Liquid Discharge which meet Environmental norms.

JAIDURGA ENVIROCARE PRIVATE LIMITED., offering globally available most advanced products and process supported by the world renowned technologies.



# #

### JaiDurga Envirocare Private Limited

#### DEFINITION OF ALGAE TECHNOLOGY

The effluent becomes raw material when using Algae to the effluent, so we now call the ETP as PRODUCTION UNIT-2 in our Industrial premises.

HOW THE POLLUTANTS IN THE EFFLUENT IS CONVERTED IN TO BENEFITICIAL RAW MATERIALS

By adding required amount of Algae to the effluent the pollutants are converted in to raw materials like Bio-Fertilizers, Aqua culture feed, Bio-Compost etc., and the water gets evaporated and there is no formation of sludge and now your premises becomes Zero Disposal company. We can also earn lot of money from this waste, that's why we call this Algae technology based ETP as Production unit-2 in our Industrial premises.

### ADVANTAGE OF ALGAE TECHNOLOGY

By using Algae Technology in ETP/STP,

- We did not produce any waste and so that no sludge is formed or stored in our premises, Now we are Solid Waste Storage free zone.
- Power consumption will be very less ( IKW power will be required for treating 5m3), instead we can also use solar panel so now it will become completely green environment.
- In leather and textile industry, the major problem is RO Reject where they have zero liquid discharge system for cleaning the waste water but when comes to re-cycling, the RO reject contains very high salt ie 30,000 to 40,000mg/l which is very toxic, So we normally use MEE (Multi-Effect Evaporator) recommended by Pollution Control Board, which is very expensive, highly energy intensive and it ends up with production of huge solid waste, that is very difficult to manage and in this case we can use this Algae technology we can easily convert this RO Reject as Zero Liquid Discharge System. By using this Algae technology we can minimize or reduce or completely avoid the sludge and we can evaporate the entire water and so we can manage the R.O reject easily without using MEE.
- We by using Algae technology we can now replace the MEE.
- Algae technology do not need much space compare with solar pond.
- Algae technology is very faster, they are robust, effective and highly adaptive.
- In summer, the Evaporation rate will be very high, in winter the evaporation rate will be moderate, eventhough the water will gets evaporated in atmosphere without LED light, it is optional, to increase the evaporation rate we can use Waterproof LED light inside the evaporation pond and we can run the evaporator for 24hours.
- If we compare the Algae technology with regular conversion technology, We can reduce 90% Of
  operation cost because we do not use those chemicals which we normally add to rise and reduce the pH
  and in every step we add chemicals, by using this algae technology we can avoid using all chemicals,
  correct the pH without chemical, remove the sludge without chemical and also remove the colour,
  odour, de-toxify and do everything without adding chemical. if we don't use chemical we can save lot of
  money.
- In Algae technology, the equipment is not highly sophisticated and it is cheap, the constructive material
  will also available locally and maintenance is very low.



# Can the conventional STPs be improved through algae intervention?

A sewage treatment plant ("STP") has to handle the designed quantity of sewage and deliver satisfactory quality of treated water, on a consistent, sustained basis over typically 10-15 years. This requires proper design and engineering; followed by proper operation and maintenance throughout its life. There are as many variations in the design and engineering of an STP as there are permutations and combinations of Builders / developers, architects, Utility Consultants, Vendors. Conceptually, the process is extremely simple: A small amount of microorganisms converts a large mass of polluted water into clean water. This process also produces a co-product: A vastly reduced, compact solid biomass (the excess microorganisms produced by growth and multiplication of the original population of microorganisms).

#### We need an STP that

- 1. Achieves the desired results on a consistent and sustained basis
- 2. Is robust and reliable, and lasts for at least 10-15 years without major repairs
- 3. Needs minimum amounts of money, energy and chemicals to achieve the desired treated water Quality
- 4. Is easy to operate and maintain.

#### Benefits of a well-run STP

#### The primary benefits of a well-run STP are

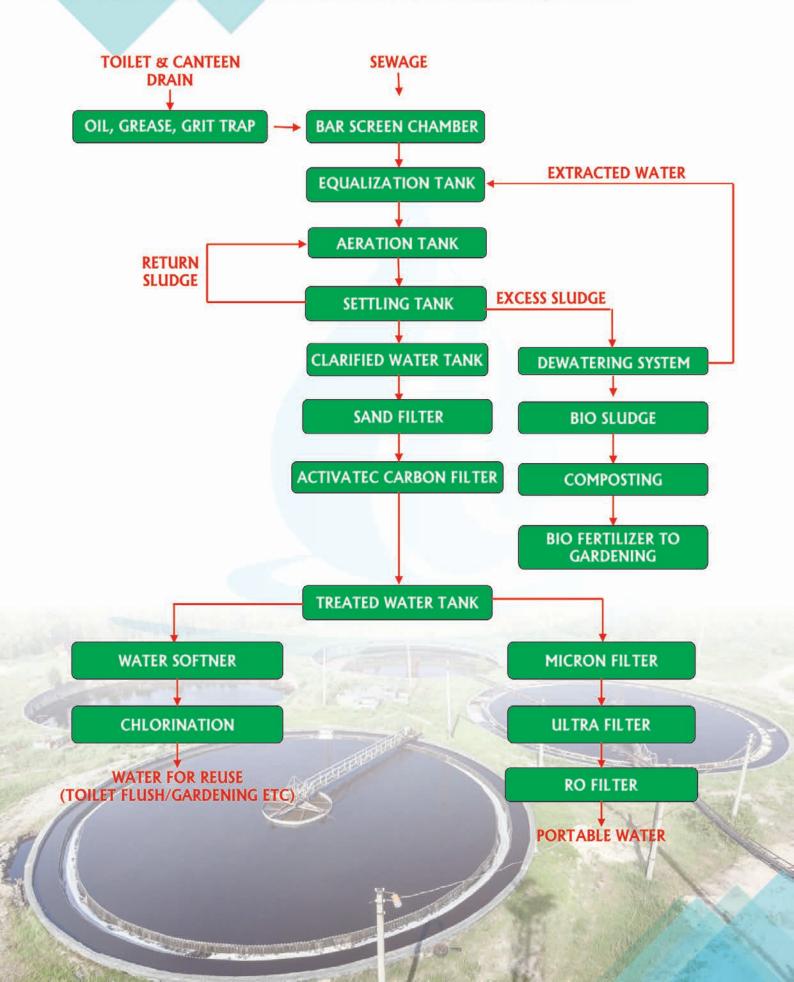
- 1. Assured availability of water for various secondary uses
- 2. Enormous savings in fresh water costs
- 3. Lesser Environmental Degradation
- 4. Improved public Health

#### **Parameters**

Odour, BOD, COD, N and P and coliform bacteria and other harmful chemicals are to be reduced to desirable limits.



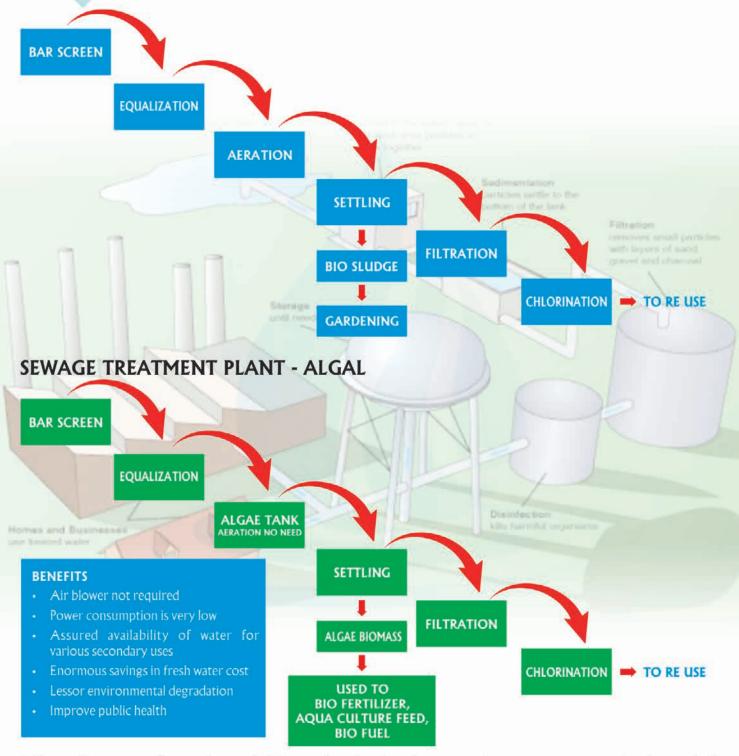
# A typical STP should have the following components:



# **Algae Intervention**

We can improve the performance of a conventional STP by intervening with micro algae at Aeration Tank

#### SEWAGE TREATMENT PLANT - CONVENTIONAL

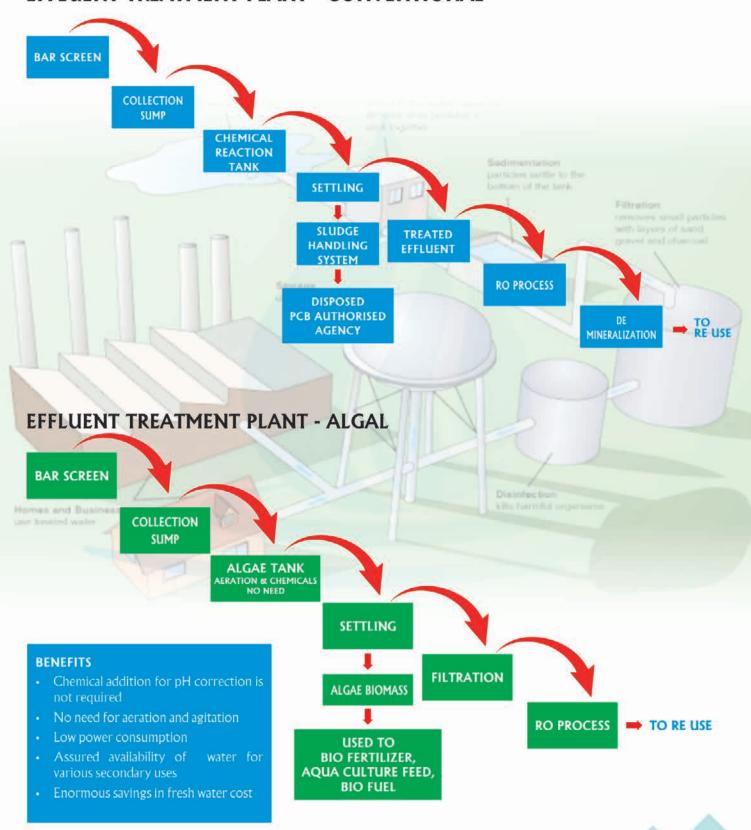


JaiDurga Envirocare Private Limited, Chennai has developed a micro algae intervention technology which works perfectly to enhance the performance of STP. Sewage treatment using micro algae has been extensively worked out by Oswald and others from 1960s (Oswald and Gotaas, 1957; Benemann et al 1980). There is a symbiotic association between micro algae and bacteria in degrading organic pollutants and further mineralization resulting in a significant reduction in the majority of critical parameters like odour, colour, total dissolved solids, biological oxygen demand, chemical oxygen demand and sludge.

# **Algae Intervention**

We can improve the performance of a conventional effluent by intervening with micro algae at reaction Tank

#### **EFFLUENT TREATMENT PLANT - CONVENTIONAL**







# MICRO ALGAE TECHNOLOGY

- Algae effluent treatment plant
- Algae sewage treatment plant
- Algae zero liquid discharge system
- Algae lake restoration
- Algae river restoration





# ALGAE ZERO LIQUID DISCHARGE SYSTEM

High TDS Water Natural Evaporation System

#### BENEFITS

- · Power consumption is low
- · No hazardous salt
- The evaporation unit will be convert into valuable bio product unit in our premises
- · Evaporation will be continue throughout the day
- No fuel required

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# ZERO LIQUID DISCHARGE [ FULL SCALE ] 30KLD

BEFORE	AFTER
<ul> <li>SOKL HIGHLY ACIDIC AND HIGHLY TDS EFFLUENT GENERATION</li> <li>EVAPORATION WITH 10300m² SOLAR POND AREA</li> <li>INFLUENT TDS: 30000 - 35000PPM</li> <li>SLUDGE GENERATION OF I - I.5 TONS DAILY MAINLY IN ORGANIC</li> <li>INFLENT p<sup>H</sup>: 1.5 -1.6</li> <li>SPENDING OF Rs.46 LAKHS PER ANNUM FOR NEUTRALIZATION OF ACIDIC EFFLUENT</li> </ul>	<ul> <li>USE OF ALGAE TECHNOLOGY FOR 50KL INLET EFFLUENT</li> <li>EVAPORATION AREA IS REDUCED TO 1875m<sup>2</sup></li> <li>TDS CONTROLS AND NEVER EXCEEDED OVER 6%</li> <li>COMPLETE REMOVAL OF IN-ORGANIC SLUDGE</li> <li>EFFLUENT IS NEUTRALIZED WITH ALGAE WITHOUT ADDING OF ANY CHEMICALS</li> <li>COST SAVING OF Rs.46 LAKHS PER ANNUM</li> <li>HARVESTED ALGAE CAN BE SOLD OUT AS A NUTRIENT AND FERTILIZER AND CAN GENERATE A PROFIT OF</li> <li>Rs.90 LAKHS PER ANNUM</li> <li>RAIN WATER HARVESTING AND ADDING SURPLUS WATER FOR 4 MONTH SUPPLY</li> </ul>

# **COMPARISON OF ALGAE VS MEE**

	ALGAE	MEE
CAPEX (EQUIPMENT + CIVIL)	Rs. 9 LAKH/m <sup>3</sup> (APPROX)	Rs.2.5 LAKH/m <sup>3</sup> (APPROX)
EVAPORATION	Rs.O.33LAKHS/m <sup>3</sup> /YEAR	RS.3.3LAKH/m <sup>3</sup> /YEAR
	@Rs.IOO/m <sup>3</sup> /DAY	@ Rs.1000/m <sup>3</sup> /DAY
LAND	60m <sup>2</sup> / m <sup>3</sup>	NOT APPLICABLE
MAINTENANCE	requires minor	REQUIRES REGULAR
	MAINTENANCE	MAINTENANCE
RAIN WATER HARVESTING	SIMULT ANEOUSLY RAIN	NOT APPLICABLE
@Im ANNUAL RAINFALL	WATER HARVESTING; TO	
	PROVIDE SOURCE FOR	
	0.25m <sup>3</sup> /m <sup>3</sup> OF EFFLUENT	
	EVAPORATED	
SLUDGE FORMED	ALGAL SLUDGE FORMED CAN	25.5 TONS OF SLUDGE FORMED
	GIVE SIGNIFICANT BENEFITS	PER m <sup>3</sup> PER ANNUM @ 35000PPM
	TO CLIENTS	AND 50% SOLID CONTENT
CARBON	CONSUMES - 0.5kWh PER m <sup>3</sup>	WILL CONSUME 30KwH/m <sup>3</sup>
	WILL SEQUESTER 7 TON OF	
	CARBON PER m <sup>3</sup> ANNUALLY	





**AUTOMATIC PRESSURE SAND AND ACTIVATED CARBON FILTER** 

#### **FEATURES**

- · Automatic / manual
- · Easy maintenance

#### MATERIAL

- · MS with rubber lining
- · MS with FRP lining
- FRP
- SS-304
- SS-316

#### **APPLICATION**

· RO pretreatment





# **ULTRA FILTRATION SYSTEM**

#### **FEATURES**

- Automatic
- · Easy maintenance

#### APPLICATION

• RO pretreatment





### **INDUSTRIAL REVERSE OSMOSIS SYSTEM**

#### **FEATURES**

- · Automatic / maual
- · Easy maintenance

#### APPLICATION

· Textile, Leather, Pharmaceuticals, Power, Chemical, Automotive Industries, etc.



# **DOMESTIC REVERSE OSMOSIS SYSTEM**

#### **FEATURES**

- · Automatic / mnaual
- · Easy maintenance

#### APPLICATION

 House and corporate buildings, Hotels, Food and Beverage, Hospitals, School, College and University, IT Comapnies, Theme Park, etc.





# **INDUSTRIAL DE-MINERALIZATION PLANT**

#### APPLICATION

· All metal finishing and other industries, etc.



# **MULTI EFFECT THERMAL EVAPORATOR**

#### OTHER AVAILABLE EVAPORATOR

- MVRE
- Electrical Evaporator
- · Kettle Evaporator
- Pan Evaporator

#### **APPLICATION**

- · High TDS water evaporation
- · ZLD





# **ACCELERATED EVAPORATION SYSTEM**

#### APPLICATION

• High TDS water evaporation system



# INDUSTRIAL STEAM BOILER

#### **APPLICATION**

Evaporator steam feed

#### **TYPES**

· Diesel, LPG, Furnace Oil, Wood, Coal Fired and Electrical Steam Boiler





# **CENTRIFUGE DECANTER**

#### **APPLICATION**

· Organic and inorganic sludge de-watering



# **SHREDDER**

#### **APPLICATION**

 Organic waste, In Organic Waste, Bio-Medical Waste, Textile Waste, Metal Shredding





# **BIOMEDICAL WASTE STERILIZER**

#### APPLICATION

· Bio-medical waste sterlization



# **INCINERATOR**

#### APPLICATION

- · Farm waste
- Vegetable Waste
- Bio-Medical Waste
- Industrial Waste
- · Chicken Waste Incineration





# **INDUSTRIAL OVEN**

#### TYPE

- · Industrial Electrical Oven
- · Curing Oven
- · Drying Oven
- Batch Oven
- Powder Curing Batch Oven
- Conveyor Oven
- Baking Oven



# **ORGANIC WASTE COMPOSTER**

#### APPLICATION

· Organic Waste Compositing





# **WET SCRUBBER**

#### APPLICATION

· Air Pollution Control



#### **APPLICATION**

· Air Pollution Control

**CHIMNEY STACK** 



### **HYDROLOGY**



Ground water level recorder







Drain monitoring device





# **METEROLOGY**

Weather Monitoring System

## **AIR**



Indoor Air Quality Monitor







Continuous Emission Monitoring System





Multi Gas Analyser





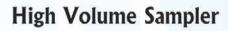


Fine Particulate Sampler





# **Gaseous Sampling Attachment**







Portable Dust Monitor





## Respirable Dust Sampler

# Stack Sampler





Ben Zene Sampler



## **OTHER INSTRUMENTS**

# **Noise Monitoring System**









## **ION EXCHANGE RESIN**

- Ranks among the world's leading brands of ion exchange resin technology
- More than 3 decades of manufacturing experience
- WQAGold Seal certified softening resins
- Resins with consistently great performance and long life
- Technical support by expert staff
- Polystyrene Di-vinyl Benzene
- Polyacrylic Di-vinyl Benzene
- Gel (Microporous)
- Macroporous
- Acrylic
- Inert
- Uniform Particle Size
- Food Grade
- Selective Ion Removal resins
- Mixed Bed resins Polyacrylic resins
- Chelating resins
- Black Cation resins
- Removal of Radioactive Isotopes from Aqueous Solutions
- ▶ Domestic & Industrial Water Softening
- Ultrapure- Semiconductor Industry
- Nitrate, Arsenic & Boron Removal
- Industrial Demineralization Condensate Polishing
- Organic Scavenger
- Brine Purification







### **ACTIVATED CARBON**

### • Ideal Pore Structure with high surface area

- High Adsorption Capacity
- Low Ash Content Consistent
- Quality Superior Physical Stability
- Optimum mesh size
- Excellent chlorine and organic removal capacity
- All Product Confirm to AWWA B604-96 Standard 61
- Virgin Coconut Shell
- Charcoal based
- Wood based
- ♦ Iodine number: 600-1200
- Mesh Size: 4 X 8 to 80 X 325 (4 mesh to 200 mesh)
- Powder carbon with mesh size: below 325 mesh
- Water Washed Grade
- Acid Washed Grade
- Silver Impregnated
- Color Removal in Bottled Water, Brewery, Juice & Soft Drink Industries
- Bacteriostatic (Bacteria Removal) Effluent
- Water Treatment
- ♦ Color & odour Removal
- Gas Treatment
- Gold Recovery
- Dechlorination





# JalDurga Envirocare Private Limited

### PROFESSIONAL INDUSTRIAL CARTRIDGE & BAG FILTER

#### • 100 % Virgin material

- Double O-ring
- Zero leak performance
- Filter with air release valve
- Back-washable filter with Polyester washable cartridge of 60 micron (included)
- Filter equipped with wall bracket
- Can be fitted with standard cartridge
- Housing: Polypropylene
- O-ring: NBR/Silicon
- Backwashble filter: SAN
- Head and ring: Polypropylena

- ♦ 10" x 2.5" Green Apple standard filter
- 20" x 2.5" Green Apple standard filter
- ♦ 10" x 4" Big Apple filter
- 20" x 4" Big Apple filter
- 10" x 4" Big Apple bag filter with/ without pressure gauge
- 20" x 4" Big Apple bag filter with/without pressure gauge
- Backwashable & bypass back washable filter
- Water treatment plants
- Reverse Osmosis System
- Ultra Filtration System
- Industrial Filtration







## **INDUSTRIAL FILTRATION SYSTEM**

- Corrosion resistant FRP material which is superior to SS products
- Housing for 5 nos. cartridge elements
- 20", 30" & 40" Cartridge length
- Suitable for 5 Nos. 2.5" Dia cartridge
- ◆ Connection size: 11/2" NPT thread

- Housing: Glass Reinforced Plastic (Fiber Glass)
- O-ring: NBR / Viton / Silicon
- End cap: PVC

- Flow capacity upto 20m3/hr
- 20" x 2.5" Dia Cartridge Housing
- ♦ 30" x 2.5" Dia Cartridge Housing
- ♦ 40" x 2.5" Dia Cartridge Housing
- Water treatment plants
- Reverse Osmosis System
- Ultra Filtration System
- Industrial Filtration







## LARGE FLOW LIQUID FILTRATION SYSTEM

### Modular design

- 100% Non metallic material of construction
- Easy cartridge replacement
- Smaller footprint Fine filtration
- High flow cartridges

Housing: PVC

Cartridge: PP Pleated Cartridge

• O-ring: EPDM / Silicon

Flow capacity: IO m<sup>3</sup>/hr to infinity [∞]

Housing/Cartridge: 10",20",40" & 60"

• Filter precision: 1/5/10/20/50/100μ

Maximum differential pressure: 2.5 bar

Maximum operating pressure: 7 bar

• Test pressure: 10.5 bar

- Sea water desalination system
- Water treatment system
- Sewage & Effluent treatment system
- Ultra filtration system
- Industrial filtration
- Aqua culture



# JaiDurga Envirocare Private Limited

## LARGE FLOW LIQUID FILTRATION SYSTEM

- Non corrosive solution
- Smaller footprint due to modular design
- Lesser or virtually no shutdown time
- High flow, High dirt holding capacity multilayer
- Polypropylene pleated cartridge
- Highly efficient PP pleated filter cartridges compare to conventional cartridges
- Easy cartridge replacement Leak less performance
- Ideal solution for sea water & highly brackish water application
- Housing: Glass Reinforced Plastic (Fiber Glass)
- Polypropylene Pleated filter cartridge
- Nylon washable filter cartridge
- ♦ O-ring: EPDM / NBR
- Flow capacity: 7m³/hr to infinity (∞)
- ♦ Housing dia: 4" (Bazooka Mini) & 8" (Bazooka)
- ♦ Cartridge: 20", 40" & 60" Nominal & Absolute
- Filter precision: 1 / 3 / 5 / 10 / 20 I 50 I70 / 100 μm
- Maximum differential pressure: 2.5 Bar
- Operating pressure: 0-7 bar
- Design pressure: 10 bar
- Test pressure: 15 bar
- Sea Water Desalination plant
- Water treatment system
- Sewage & Effluent treatment plants
- Ultra filtration systems
- Industrial filtration







## LIQUID FILTRATION SYSTEM

- Modular Design
- Corrosion resistant material
- Robust housing design
- Smaller footprint
- Leak less performance
- Easy cartridge replacement
- Lesser or virtually no shut down time
- High flow, High dirt holding capacity multilayer cartridges
- Housing: SS 304/SS 316L
- End cap: SS 304/SS 316L/Polypropylene
- Polypropylene Pleated filter cartridge
- Nylon washable filter cartridge
- O-ring: EPDM / Silicone
- Flow capacity: 7 m<sup>3</sup>/hr to infinity (00)
- Housing dia: 4" (Ultra Mini) & 8" (Ultra)
- ♦ Housing length: 20", 40" & 60" long
- ♦ Cartridge 20", 40" & 60" Nominal & Absolute
- End Connection: Tri-clover end/Retaining ring type
- Filter precision: 1/3/5/10/20/50/70/100 μm
- Maximum differential pressure: 2.5 bar
- Operating pressure: 0-7 bar
- Test pressure: 10.5 bar
- Ultrapure water purification system
- Pharmaceutical system
- ♦ Food & Beverages system
- Water treatment system
- Desalination system
- Industrial filtration system





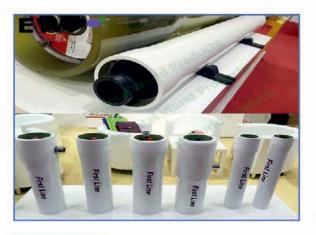


## PRESSURE VESSEL

- NSF approved vessels
- Manufactured with state of art machineries
- ♦ 100,000 cycle test without leakage
- Rugged & long lasting

- PE Lined Vessels
- FRP lined vessels

- Diameter: 8" to 80"
- Max. Operating pressure: 150 PSI Max.
- Max. Temperature: 40° C
- Color: Green
- Media Filters
- Carbon Filters
- Softeners
- DM plant





## **GLASS FIBER MEMBRANE PRESSURE VESSEL**

### Manufactured as perASME Specifications

- Side port, End port & Multiport design
- Test pressure 1.5 times of operating pressure
- Burst pressure 6 times of operating pressure
- Supplied with straps and saddles as standard
- Aesthetic finishing internal as well as external
- Fiber reinforced Plastic (FRP)
- Ports: SS316/ Duplex 2205

- Sizes: 2.5", 4" and 8"
- 1 to 8 elements
- Working pressure: 250,300,450,600,800,1000, 1200 Psi

- Reverse Osmosis plant
- Desalination plant
- Ultra-filtration





## STAINLESS STEEL MEMBRANE PRESSURE VESSEL

- Mirror polished surface
- Seamless tubes only
- Side port & end port available

- Ss304
- SS316L

- Size 2.5": up to 2 element
- Size 4": up to 4 element
- ♦ Size 8": up to 6 element
- Operating pressure: 300 PSI

- High purity water treatment plant
- Dairy processing
- Pharmaceutical industry
- Food & Beverage industry





# JalDurga Envirocare Private Limited

### **NEXUS SMART ELECTROMAGNETIC FLOWMETER**

#### Display Flow Rate as well as totalized flow

- Accuracy+/- 0.5% -1% RS
- ♦ Compact & remote installation
- Communication through RS485 or HART protocol
- GSM/GPRS remote transmitting, data analysis & logging etc.
- Protection IP65 or IP67

Body: CI/SS304/SS316

Liner: PTFE/PFA/PU/Rubber

• Electrode: SS 316L/HC/TI/TA/Pt

- Flowrate: Up tol00,000 m<sup>3</sup>/hr
- Working pressure: 0 .6 tol.6 MPa (Based on diameter)
- ♦ Line size: up to 2000 mm
- Medium conductivity: >5 μ Siem

- Water treatment industry
- Pharmaceutical industry
- Chemical industry







### SINGLE & MULTISTAGE CENTRIGUAL PUMP

#### Pumps designed for continuous duty condition

- High efficiency & Low noise
- TEFC motors IP-55 protection with Class F insulation
- Three phase motors, Single phase up to 2.2 KW
- Also available swimming pool pumps
- Semi-open SS pump can be given
- Casing: Cl / SS304/ SS316 L
   Impeller: Cl / SS304/ SS316L
   Shaft: SS 304/ SS 316/ SS420
- Mechanical Seal: Carbon/ Ceramic or Carbon/TC

- Flow up to 220 m<sup>3</sup>/hr
- Head up to 50 bar
- ◆ Temp up to 120° C
- ♦ Frequency 50 Hz/60 Hz
- ♦ Clean water application without any solids & fibers
- Reverse Osmosis plant
- Boiler feed pump
- ◆ Air conditioning & chiller
- Self priming pumps for Water & Waste Water application
- Swimming Pool Pumps Induction furnace
- Booster system







### DEWATERING & SEWAGE SUBMERSIBLE PUMP

### Designed with Semi-open, Single Vane or Double Vane impellers to handle waste water

- Pumps can handle solid size up to 100 mm
- Available with Grinder mechanism to handle leaves, plastics, cloth etc.
- Optional Quick Discharge Coupling available
- IP-68 Motor protectionwith Class F insulation
- Single phase & Three phase motor, Single phase with float switch

Casing: CI/SS 304/316

Impeller : CI/SS 304/ SS 316

Shaft : SS/CS 45#

Mechanical Seal: Sic vs Sic/Carbon vs Ceramic + NBR Elastomers

- Flow up to 4000 m<sup>4</sup>/hr
- Head up to 50 m
- Working pressure up to 8 Bar
- ♦ Solid Size up to 100 mm
- ♦ Frequency 50 Hz/60 Hz

- To transfer Sewage & effluent
- To transfer drainage Water
- To transfer sludge (45% solids)
- Dewatering pumps used in construction sites, basement.







## MEMBRANE ELEMENT

#### Spiral wound design

- Excellent membrane flux
- Excellent salt rejection
- Revolutionary high active membrane surface area
- Resistance to bacterial growth
- Easier cleaning NSF certified
- FD Aclearance for food processing
- Elements shipped wet or dry
- Poly amide thin film composite
- PVDF

- ◆ Size: 2.5", 4" & 8"
- Tap water element
- Brackish water element
- Sea water element
- ♦ Nano- Filtration element
- Ultra Filtration element
- Heat-Sanitizable (HSRO) element
- Semi Conductor grade RO element
- Process water treatment
- Ultra pure water
- Municipal Potable Water
- Domestic RO plant







### **DOSING PUMP**

- Electro magnetic & Electro mechanical (Diaphragm / Piston)
- Analogue or Digital with pH instrument or built in timer
- Wall mounting or Tank mounting
- PVDF head has unique life & compatibility with most chemicals
- PTFE Diaphragm Unique life expectancy and compatibility with most chemicals
- 100"" 240 Vac Power Supply suitable for power fluctuation
- IP65 protection degree in Electro magnetic series
- IP55 protection class in Electro mechanic series
- Pump head:PP / PVDF / SS316 / PVC
- Diaphragm: PTFE
- Valve seat: EPDM/FPM/PTFE/PP/316
- Ball: Ceramic/Pyrex

- Flow: 0 -1000 LPH
- Temperature: 0-90°C
- Pressure: up to 20 bar

- Water treatment plants
- Sewage treatment plants
- Pharmaceutical industry
- Chemical industry







### SUBMERSIBLE MIXERS

- Ideal for mixing & homogenization of liquid
- Propeller with self cleaning profile
- Mixer orientation system supplied with lifting mechanism
- Mixer available with gear mechanism to maintain lower speed rotation
- Slow blade rotation flow makers ideal for mixing & re-circulation
- Double mechanical seal. Humidity probes in few models to detect lower seal failure
- Motor have IP 68 protection
- Motor equipped with thermal protection

Propeller: SS316 / FRP

Body: C.1. / SS

Shaft: SS

- Power: 0.75- 18.5 KW
- ◆ Rotation speed ranging from 32 960 min
- Max fluid temperature up to 40°C
- Municipal water treatment plants
- Biogas plants for homogenization to release Methane
- Activated sludge treatment & disinfection tanks
- Anoxic / Nitrification / De-nitrification in ETP / STP'
- Sludge re-circulation pump









### SUBMERSIBLE AERATORS

- Versatile aerators range- Self Aspirating & Blower assisted
- High oxygen transfer rate specially for Blower assisted
- Revolving design which increase contact time & Zone of influence
- Suitable for all tank depths, especially deep tanks even up to 10m
- Humidity probes for detecting mechanical seal failure in few models
- Easy and quick installation without emptying the tank
- Double polarity of motor for continuous mixing
- Lifting mechanism for easy maintenance

Impeller: C.I / SS 304/SS316 (CI for Venturi jet aerators)

Diffuser: SS 304Channels: SS 304Motor housing: C.I.

Shaft: SS 420
 Cable: 10 m

- Blower assisted Radial submersible aerator
- Blower assisted Radial submersible aerator with extended expulsion channels
- Self aspirating radial submersible aerator
- Venturi jet aerator
- Power: 0.75-80 KW
- Rotation speed ranging from 42 -2800 min⁻
- Maximum submergence level: 10 m
- Biological treatment of waste water
- Lagooning system for aquaculture
- ♠ Equalization & homogenization
- Oxidation- nitrification stages
- Sludge stabilization





### DISC & TUBULAR TYPE DIFFUSER

## • Fine bubble (1-1.25 mm) diffuser

- Coarse bubble (4-5 mm) diffuser
- High standard oxygen transfer efficiency
- Membrane material with anti fouling microbial surface
- Tubular diffuser with two grooved design
- Disc diffuser with NRV (optional)
- Low head loss
- Tube & Tube Head: PP with 30% GF
- ◆ Disc: PP with 30% GF
- Membrane: EPDM, Silicon rubber or Poly-Urethene (PU)

- ◆ Disc diffuser: 9" to 12"
- ◆ Tubular Length: 1000mm, 750mm & 500mm
- ♦ Tubular Diameter: 63 mm & 90 mm
- Coarse bubble diffuser diameter: 105 mm
- End less tube diffuser (Fine Bubble) diameter: 75 mm (EPDM Material)

- Sewage treatment plants
- Effluent treatment plants



# TWIN LOBE AIR BLOWER



### APPLICATION

• Effluent and Sewage Treatment Application



# JAIDURGA ENVIROCARE SERVICING IN INDUSTRIAL MARKET

- 1. Leather Industries
- 2. Chemical and Textile Industries
- Pharmaceutical and Bio-Life Science
- 4. Industrial Waste Water Treatment and Recycling
- 5. Zero Liquid Discharge Treatment System
- 6. Municipal Drinking Water
- 7. Bottled Drinking Water Plant
- 8. Automotive Industries
- Oil and Gas
- 10. Power Plant
- II. Semi -Conductor and Micro-electronics
- 12. Municipal Waste Water Treatment
- Petrochemical Industries
- 14. Food and Beverages
- 15. Pulp and paper
- 16. Sugar Industries
- 17. Cement Industries
- 18. Metal Finishing Industries
- 19. Food products cold storage
- 20. Hotels and Resorts
- 21. Educational Institutions
- 22. Malls and Commercial Complex
- 23. SEZ Industrial Solid Waste Management Organization
- 24. Infrastructure and many others



### **OUR VALUABLE CLIENT**

































































