



we need lot of **BLUE**  
to remain **GREEN.**



## Crystal Green India

"Transforming water into  
energized water, benefitting soil,  
plants, animals home & people"

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## INTRODUCTION

Crystal Green India has become a dynamic and fast-moving company in Water treatment supply and has proven itself to be one of the market leaders. Established in 2015, we have quickly expanded our operations globally and served customers across india and majorly worked on export for United states of america, Belgium, Kenya, Bangladesh, South Aftica. We strive to provide you with the best solutions to your water system needs. As our client, we place great emphasis and focus on your problems and goals & develop solutions that best fits your needs. We think of ourselves as your long term partner. As partners, we will ensure your needs evaluated and will decide the best methods resolve water body need and develop a strong and effective solution for your business that will have an enduring impact. At crystal Green India, we have quality minded-staff, who have the abilities and experience to create successful solutions for your needs. We are confident that you will be satisfied with our quality service.



## OUR VISION & MISSION

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- To offer our customers affordable and world-class structured water units that enhance overall health and wellness by offering healthy and energized structured water at all times.
- To help agriculturists and farmers improve their yield and increase production per drop of water.
- To ensure that dairy and poultry farmers benefit with better yield and produce.
- To improve the quality of water in households and thus contribute to a healthy society

Inspired by nature, Crystal Green has researched and taken an initiative in mimicking the nature's way of energizing, refreshing and purifying water through the use of a process called structuring. All in all, Crystal green plays with the structure of the atoms and places them carefully to give structured water. The Crystal green Water Structuring Unit's unique design achieves the natural spiraling motions and hydrologic cycles of water, creating a measurable increase in water's ability to hydrate and nourish plant and animal tissues, increase nutrients in soil and conserve. Structured water ensures healthier plants, animals and human beings. The units can create soft water without taking the life-enhancing minerals like calcium and magnesium out of the water. Crystal green uses bio nutrients like rare earth minerals and quartz compression to produce radiant energy frequencies that effectively reduce the surface tension and cluster size of water. This is what makes Crystal green unique from other structuring units.



# Our Products



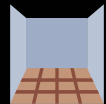
## How **Hard Water** Effects your home and health?

- ◆ **Pipes** can become clogged with scale that reduces water flow and ultimately requires pipe replacement. Limescale has been known to increase energy bills by upto 25%
- ◆ **Washing Dishes** with hard water may cause spotting and filming on your crockery.
- ◆ **Solar heating / water heaters**, often used for heating water is prone to limescale buildup, which can reduce the efficiency and increase the maintenance.
- ◆ **Hair** can turn rough, dry, unmanageable and frizzy, even by washing your hair with soap leads to possibility of hairfall & Scalp.
- ◆ Unregulated Calcium and magnesium salts in the water can cause your **skin dry** and blis tery, and can cause irritation.
- ◆ **Clothes** washed in hard water often look dingy and feel harsh and scratchy. Continuous laundering in hard water can damage fibers and shorten the life of clothes by upto 40%.

## Make your home free \_\_\_\_\_ from **hard water**



Soft water makes  
Skin & hair healthy



Stain free & sparkle  
Bathroom & floors



reduces soap &  
shampoo  
consumption

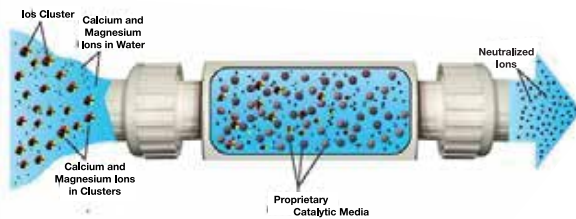


Prevents repair &  
replacement of  
heaters

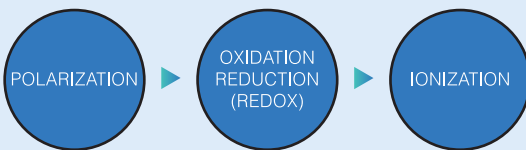




Enviro unit is an encapsulation of inner copper which is filled with special formulated crystal media and installed with flow modulator at each end and then locked making Enviro instant ready for installation and use



### 3 STEP PROCESS



  
**Agricultural Use**



  
**Residential Use**



  
**Commercial Use**



We Are The **Best**  
For All Your Needs



**AIR SOURCE HEAT PUMP**

**Get renewable  
hot water  
365 days a year.**

- ✓ Energy-efficient
- ✓ Quiet Operation
- ✓ Reliable Hot Water

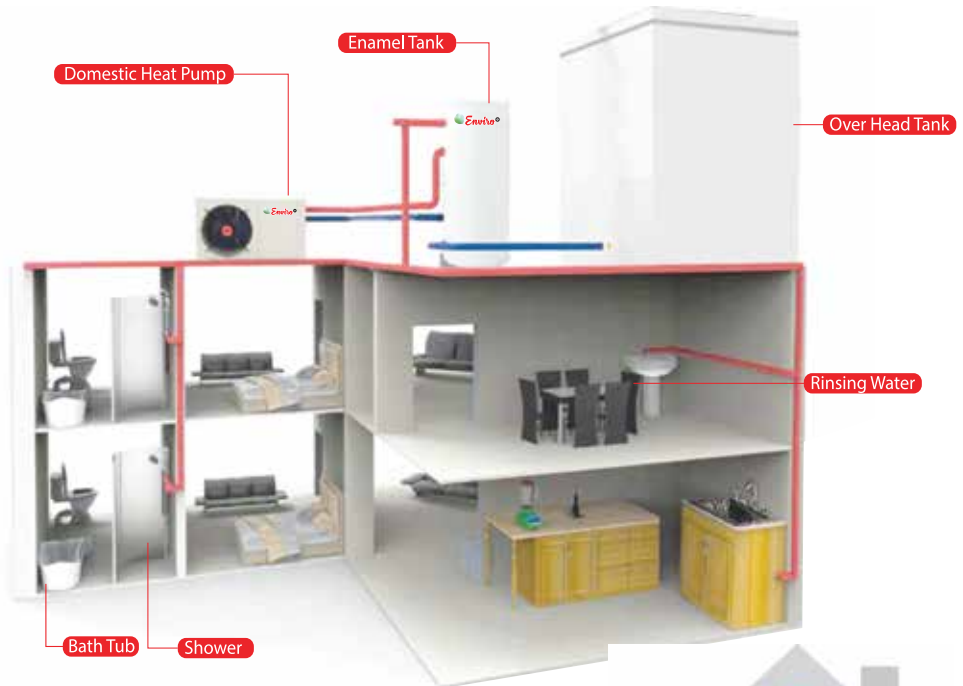


Round the clock hot water  
at the **lowest cost**

[www.envirowsu.com](http://www.envirowsu.com)

# What is Heat Pump

Ambient air is drawn in by the fan and passed over the evaporator. The evaporator cools the air, i.e. it extracts the heat it contains. In the evaporator, the heat removed is transferred to the working fluid (refrigerant). With the aid heat it contains. In the evaporator, the heat removed is transferred to the working fluid (refrigerant). With the aid of an electrically driven compressor, the absorbed heat is "pumped" to a higher temperature level through an increase in pressure and given off to the heating water via the condenser (heat exchanger).



## Features



Weather Proof Enclosure



Environment Friendly



Complete Electrical Protection



Schedule your Heat Pump Daily



5 days  
24/7 36 Water  
55°C Hotble  
Availa



High Energy Efficiency- COP of 4.2



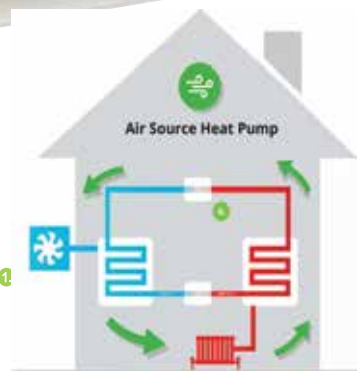
Split system for flexible installation



Water circulation technology



Low operating cost  
more savings





# Air Source Heat Pumps

Delivering Sustainable Heating





## Schematic Drawing



### High Efficiency

25% higher efficiency by  $\Phi 9$  mm evaporator & Hydrophilic coating on fins to prevent rusting.



### High COP Above 3.6

The COP is as high as 3.8 which is even higher than the first class energy level.



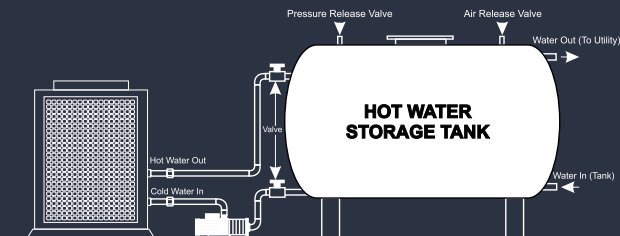
### Special Compressor

Heat Pump dedicated Scroll compressor is adopted for high class performance.



### Patented Heat Exchanger

Specially designed heat exchanger with large heat exchanging area and compact size.



## Technical Specifications

MODEL	HXHP-C-30	HXHP-C-50	HXHP-C-100	HXHP-C-200
Power Supply	380V 3N ~ 50Hz	380V 3N ~ 50Hz	380V 3N ~ 50Hz	380V 3N ~ 50Hz
Voltage Range	380V +/- 10%	380V +/- 10%	380V +/- 10%	380V +/- 10%
Rated Heating Capacity(i)	12.5kW	20kW	39kW	76kW
Rated Water Flow(i)	2000 LPH	3600 LPH	6800 LPH	12500 LPH
Hot Water Production	300 LPH	500 LPH	980 LPH	1920 LPH
Rated Power Input(i)	3.2kW	5.2kW	10.20kW	19.73kW
Rated Operation Current(i)	5.0A	11.0A	19.0A	38.0A
Maximum Power Input	4.15kW	6.8kW	13.2kW	22.4kW
Maximum Operation Current	9.0 A	13.1 A	23.3 A	45.3 A
Operation Noise (ii)	70dB	70dB	70dB	70dB
Refrigerant / Quantity	R417a/1.8Kg	R417a/2.8Kg	R417a/2.8Kg x 2	R417a/2.8Kg x 4
Refrigerant Pressure High Side	4.2Mpa	4.2Mpa	4.2Mpa	4.2Mpa
Design Pressure Low Side	3.1Mpa	3.1Mpa	3.1Mpa	3.1Mpa
Water Side Design Pressure	1.0Mpa	1.0Mpa	1.0Mpa	1.0Mpa
Water Side Pressure Drop(iii)	45 kPa	45 kPa	45 kPa	45 kPa
Water Connection Size	1" (25mm)	1" (25mm)	1 1/2" (40mm)	2" (50mm)
Waterproof Class	IPX4	IPX4	IPX4	IPX4
Net Weight	120Kg	172Kg	300Kg	560Kg
Dimensions (LxBxH) (mm)	1120 x 430 x 720	900 x 900 x 1020	1580 x 900 x 1120	1950 x 1200 x 2250

Note:

(1) Rated condition: Ambient temperature 20/15°C (dry/wet bulb), water temperature 47/52°C (inlet/outlet).

(2) Sound pressure value at one meter. | (3) Measured at the rated water flow.

Commercial: Restaurant/Kitchens

Residential: Villas, Apartments, Guesthouses

Institutional: Hospitals, Hotels, Schools, Hostels, Resorts

Industrial: Factories, Laundries

## Common Applications

# Energy Efficient Smart Heating Solution



## High Efficiency

25% higher efficiency by  $\Phi 9$  mm evaporator & Hydrophilic coating on fins to prevent rusting.



## International Design

We adopt the International design to renew the product internal structure.



## High COP Above 3.6

The COP is as high as 3.8 which is even higher than the first class energy level.



## Special Compressor

Heat Pump dedicated Rotary compressor is adopted for high class performance.



## Ultra-quiet Operation

With an improved evaporator with field design, the unit is of ultra-quiet operation in commercial building places.



## Patented Heat Exchanger

Specially designed heat exchanger with large heat exchanging area and compact size.



## Hot Water Storage Tank

4mm-5mm Pressurized tank internally coated Liquid Glass Enamelled with 50mm PUF and outer pre-coated Tank Cover.



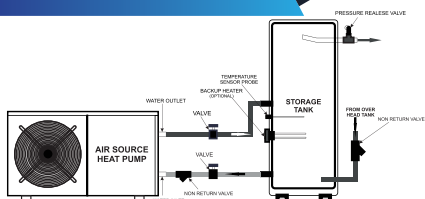
ANY TIME HOT



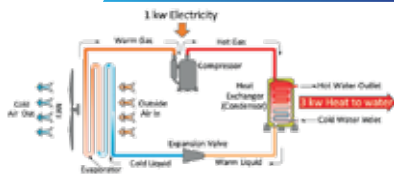
Model	HX-R-10	HX-R-20	HX-R-25
Rated Heating Capacity	4 KW	7 KW	10 KW
Rated Input Power	1.05KW	1.84KW	2.62KW
COP	3.7	3.8	3.8
Rated Hot Water Production	100LPH	200LPH	300LPH
Working Ambient Temperature	5°C - 45°C	5°C - 45°C	5°C - 45°C
Max. Outlet Temperature	60°C	60°C	60°C
Power Supply	230V/50Hz/1Ph.	230V/50Hz/1Ph.	230V/50Hz/1Ph.
Rated Current	6A	10A	14A
Water Tank Capacity (Suitable)	200L/300L	500L/750L	750L/1000L
Refrigerant	R417A(800gm)	R417A(1100gm)	R417A(1500gm)
Compressor	Rotary	Rotary	Rotary
Net Weight	48kg	58kg	72kg
Size	970x300x500 (mm)	970x350x500 (mm)	1050x350x550 (mm)

All Parameters are at ambient DB20°C/WB15°C to heat water from 20°C to 55°C. | Product proudly manufactured in India.

### Installation Diagram



### Working Principle



## Why Choose Enviro?



We focus on overall installation performance, not just the performance of individual components.



"Make in INDIA, Made for INDIA" Trusted Indian brand with almost 5000+ Chillers installed across INDIA.



Every single heat pump unit is individually and thoroughly tested before installation.



In-house customer support with a guaranteed 24 hour response time.



Optional extended warranty available for up to 6 years (1Year Standard + 5Year Extended)



Installation support is always available for clients



## Next-Gen, **High-Efficiency** Swimming Pool **Heat Pump**.



MODEL	SPHP	SP-18	SP-27	SP-35	SP-45	SP-54	SP-70	SP-90
Heating Capacity	kW	18	27	35	45	54	70	90
Rated Power Input	kW	4.5	6.25	8.33	10.72	12.85	16.4	19.7
Rated Current	A	7.5	10.8	14.8	18.3	20.7	27.5	31.2
Ambient Temp.	C°	+5C° to +43C°						
Max. Hot Water Temp.	C°	32	32	32	32	32	32	32
COP	w/w	5.10	5.10	5.10	5.12	5.11	5.12	5.12
Power Supply	V	415V   3Ph.   50Hz						
Compressor Quantity	Nos.	01	01	01	01	02	02	02
Compressor Type	/	High Efficiency Scroll						
Compressor Brand	/	Panasonic/Emerson						
Expansion Method	/	Thermal Expansion Valve						
Condenser	/	Titanium tube in shell heat exchanger						
Evaporator	/	Aluminum foil and inner grooved copper tube heat exchanger						
Working Mode	/	Hot Water						
Cabinet	/	Galvanized sheet metal with powder coating						
Inlet Pipe Size	mm	40	40	40	40	50	50	65
Outlet Pipe Size	mm	40	40	40	40	50	50	65
Min. Water Flow	LPH	8000	12000	16000	20000	24000	31000	38000
Refrigerant	/	R417A/R407C/R410A/R22						

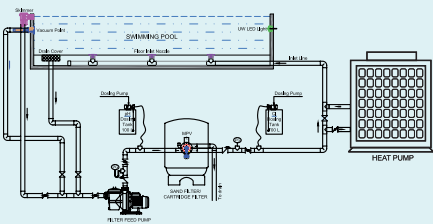
**Working condition:** dry-bulb/wet-bulb temp: 20°C/15°C, Inlet water temp: 26°C, Outlet water temp: 28°C.

Product Attributes

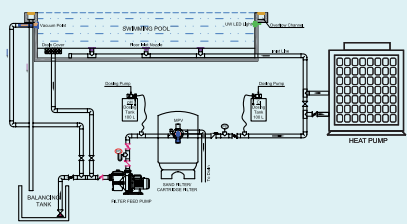
- Max. pool water output temperature: 35°C
- Automatic startup and shutdown
- Automatic defrosting
- High efficiency Scroll compressor
- Easy for plumber installation
- Titanium tube in shell heat exchanger
- Smart digital controller
- Made in India, Made for India

Installation Diagram

Skimmer Type



Overflow Type







# High Temperature Heat Pumps



Delivering Sustainable Heating



## Schematic Drawing



### High Efficiency

25% higher efficiency by Ø9 mm evaporator & Hydrophilic coating on fins to prevent rusting.



### High COP Above 2.0

The COP is as high as 2.0 which is even higher than the first class energy level.



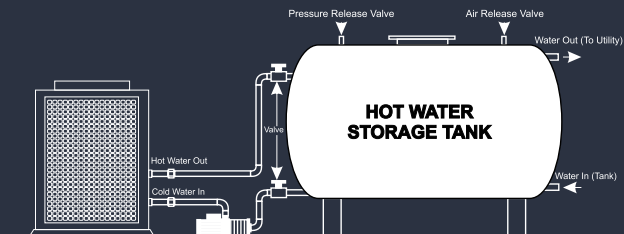
### Special Compressor

High Temp. Heat Pump dedicated Scroll compressor is adopted for high class performance.



### Patented Heat Exchanger

Specially designed heat exchanger with large heat exchanging area and compact size.



## Technical Specifications

MODEL	HXHP-HT-14	HXHP-HT-27.5	HXHP-HT-55
Power Supply	380V 3N ~ 50Hz	380V 3N ~ 50Hz	380V 3N ~ 50Hz
Voltage Range	380V +/- 10%	380V +/- 10%	380V +/- 10%
Rated Heating Capacity(I)	14kW	27.5kW	55kW
Rated Water Flow(I)	3600 LPH	6800 LPH	12500 LPH
Hot Water Production	300 LPH	600 LPH	1220 LPH
Rated Power Input(I)	5.21kW	10.20kW	19.73kW
Rated Operation Current(I)	11.0A	19.0A	38.0A
Maximum Power Input	6.8kW	13.2kW	22.4kW
Maximum Operation Current	13.1 A	23.3 A	45.3 A
Operation Noise (II)	70dB	76dB	80dB
Refrigerant / Quantity	R134a/3.1Kg	R134a/3.1Kg x 2	R134a/3.1Kg x 4
Refrigerant Pressure High Side	4.2Mpa	4.2Mpa	4.2Mpa
Design Pressure Low Side	3.1Mpa	3.1Mpa	3.1Mpa
Water Side Design Pressure	1.0Mpa	1.0Mpa	1.0Mpa
Water Side Pressure Drop(III)	45 kPa	45 kPa	45 kPa
Water Connection Size	1" (25mm)	1 1/2" (40mm)	2" (50mm)
Waterproof Class	IPX4	IPX4	IPX4
Net Weight	172Kg	300Kg	560Kg
Dimensions (LxBxH) (mm)	900 x 900 x 1020	1580 x 900 x 1120	1950 x 1200 x 2250

Testing condition: Heating: Ambient temp. (DB/WB): 20°C/15°C, water temp. (input/output): 15°C/75°C.

- Food Processing
- Textile Industries

- Dying Process
- Plastic Industries

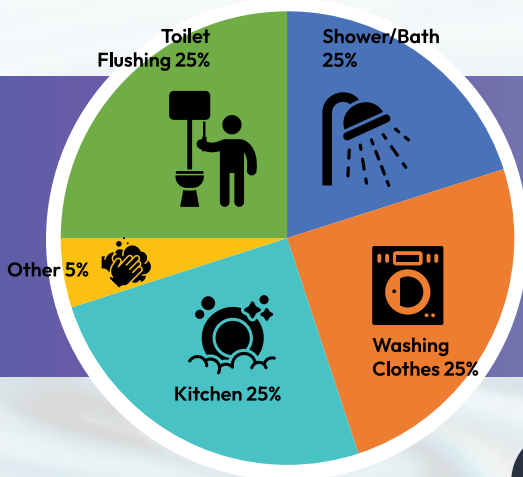
- Dairy Processing
- Chemical Industries

## Common Applications

# What Is Greywater?

Greywater is a lightly-polluted wastewater generated from activities such as taking shower, washing clothes, washing hands, washing kitchen utensils, etc. This wastewater largely contains suspended solids, dissolved soap and negligible percentage of bacteria.

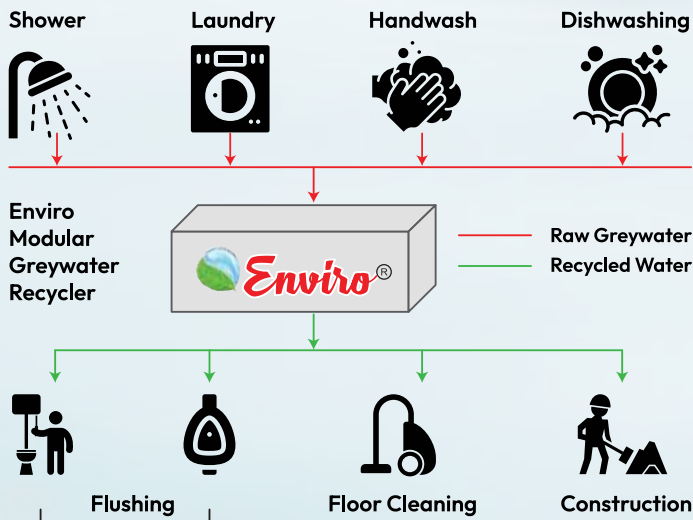
## Breakup of Daily Water Use



A typical urban resident of India receives approximately 200 litres of water per day. Greywater comprises up to **70%** of daily household wastewater.

## Why Recycle Greywater?

- On-site recycling of greywater and reuse of treated water is Economical and sustainable.



- Conservation of 30-35% freshwater by using treated water for toilet flushing, gardening, floor cleaning.
- Improvement of Hygiene and Sanitation in common facilities such as public toilets and urinals.
- Reduced impact on environment and water bodies because of reduction in sewage generation.



## Potential Beneficiaries

### Residential

- Individual homes
- Apartment complexes
- Affordable housing
- Academic hostels

### Commercial

- Public toilets
- Restaurants
- Resorts and hotels
- Office canteens

## Recent Projects





# SEWAGE TREATMENT PLANTS

Enviro Water Solutions, one of the leading Specialist in Water treatment Industry providing State-Of-the-Art technology solutions for Water & Wastewater treatment by adapting the most comprehensive, cost-effective and reliable treatment systems and services.

Enviro Water Solutions offers Design, Engineering, Erection and Commissioning of sewage and effluent Treatment Plants on Turnkey basis which are specifically designed to meet individual site requirements. Combining versatility, efficient processing, reliability and a robust design, which involve Physio-chemical, Biological, Membrane and Filtration Process treated for reduction of BOD, COD & TSS in order to comply with the discharge norms and regulations of the Pollution Control Board.

Enviro Water Solutions manufactures and supplies a wide range of sewage treatment plants, from compact package plants to large scale modular sewage treatment systems. Our cutting-edge, 'off-the-shelf' package plants offer environmentally-friendly, legislation-compliant solutions that are simple to install, easy to live with and economical to maintain, while our bespoke solutions are tailored to your exact requirements and will effortlessly deal with all your sewage treatment demands.

Optimal For

- Residential Apartments
- Housing Colonies
- Amusement Parks
- Industrial Establishments
- Hospitals
- Hotels and Restaurants
- Educational Institutions
- Special Economic Zones etc.



## Technologies We Offer

- Extend Aeration Based STP
- Moving Bed Bio Reactor (MBBR) / Fluidized Aerobic Bio-Reactor (FAB)
- Sequencing Batch Reactor (SBR)
- Membrane Bio Reactor (MBR)

## Designed For Performance

- Assured availability of water for various secondary uses.
- Enormous savings in fresh water costs.
- Lesser Environmental Degradation.
- Improved public Health.
- Bespoke designs to meet each site's specific requirements.
- Will attain a treatment quality up to: BOD 10 mg/l: SS 1 Omg/l: Amm. Nitrogen 2mg/l (with tertiary treatment).
- Copes with variable flows and loads with unique flow balancing in primary tank.
- Reliable operation and stand-by facility.
- Segmented biological treatment module, No internal mechanical moving parts.
- Safe, clean accessible air diffuser system with large access lids for easy maintenance.
- No emptying of tank required during maintenance on the air distribution system.
- Humus and primary sludge are stored in one place for simple tank operation.
- Small installation footprint, low installation costs, minimal visual impact.
- A complete in-house design and specification service.

Standard or custom designs | Commercial and industrial applications | Professional service and installation  
In-house technical support | Startup support | Water & Wastewater Solutions under One Roof  
Optimum Operation and Maintenance Charges



## Types of Sewage Water Treatment Plant



# EFFLUENT TREATMENT PLANT



We Design, Manufacture, Supply, Erection and Commissioning Effluent Treatment Plant (ETP) on Turnkey basis for various types and natures of wasteWaters, effluents which combines advanced physico-chemical treatment processes with tertiary polishing system for the removal of organic, inorganic, oil and grease, heavy metals & suspended solids.

## Technology

- Chemical
- Biological
- Ulfiltration
- Physical



## Our Strength



### QUALITY CHECK

Its is quality rather than Quantity that matters



### TECHNICAL DEPTH

We develop in depth knowledge, it enable is to give our best



### TEAMWORK

We will work together because we know that a strong team will always outperform strong individuals



### ASPIRATION

We will aspire to be the best we can be, We will recognise and celebrate success

# Our Methodology

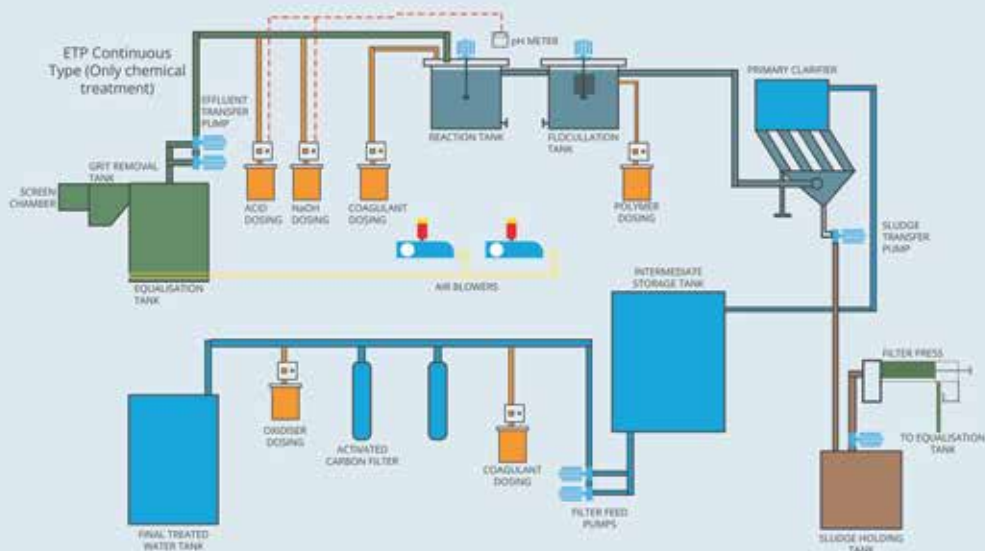
We analyze the effluent samples for different effluent parameters as per nature and compositions, carry out the treatability studies by using different methods checking techno-commercial Feasibility and then designed treatment schemes, processes accordingly to suit the purpose and need.



## Chemicals used in ETP

- For pH neutralization: Acids (HCl) and base (NaOH).
- Coagulant / Settling Aids: Aluminium Sulphate, Ferric Aluminium Sulphate, Ferric Sulphate, Ferric Chloride, these may be independent or in combination with Poly Electrolytes (Polymers).
- Nutrients: Urea, Di-ammonium Phosphate.
- Disinfectant: Chlorine, Bleaching Powder (Sodium Hypo-chlorite), Ozone.
- Adsorption / Absorption: Activated Carbon.

## Flow sheet diagram of Effluent Treatment Plant





# Reverse Osmosis Plants

Reverse osmosis (RO) is a membrane-technology filtration method that removes many types of large molecules and ions from solutions by applying pressure to the solution, when it is on one side of a selective membrane. The result is that the solute is retained on the pressurized side of the membrane and the pure solvent is allowed to pass to the other side. To be "selective," this membrane should not allow large molecules or ions through the pores (holes), but should allow smaller components of the solution (such as the solvent) to pass freely. Reverse osmosis is used to purify Water and remove salts and other impurities in order to improve the color, taste or properties of the fluid.



## Demineralization ( DM ) Water Treatment Plants

Demineralization is the process of removing mineral salts from Water by using the ion exchange process.

Demineralised Water is Water completely free ( or almost ) of dissolved minerals as a result of one of the following processes:

- Distillation
- Deionization
- Electrodialysis
- Membrane filtration (reverse osmosis or nanofiltration)
- Or other technologies

Demineralized Water also known as Deionized Water, Water that has had its mineral ions removed. Mineral ions such as cations of sodium, calcium, iron, copper, etc and anions such as chloride, sulphate, nitrate, etc are common ions present in Water. Deionization is a physical process which uses specially-manufactured ion exchange resins which provides ion exchange site for the replacement of the mineral salts in Water with Water forming  $H^+$  and  $OH^-$  ions. Because the majority of Water impurities are dissolved salts, deionization produces a high purity Water that is generally similar to distilled Water, and this process is quick and without scale buildup. De-mineralization technology is the proven process for treatment of Water. A DM Water System produces mineral free Water by operating on the principles of ion exchange, Degasification, and polishing. Demineralized Water System finds wide application in the field of steam, power, process, and cooling.

## OUR SERVICE AREA



**Residential**



**Commercial**



**Industry**



**Hotel**



**Hospital**



**Sewage ETP**



**Agriculture**



**Dairy**



**Poultry**



**Horticulture**



**Fishery**



**Resort**



our

Clientele



NEXA

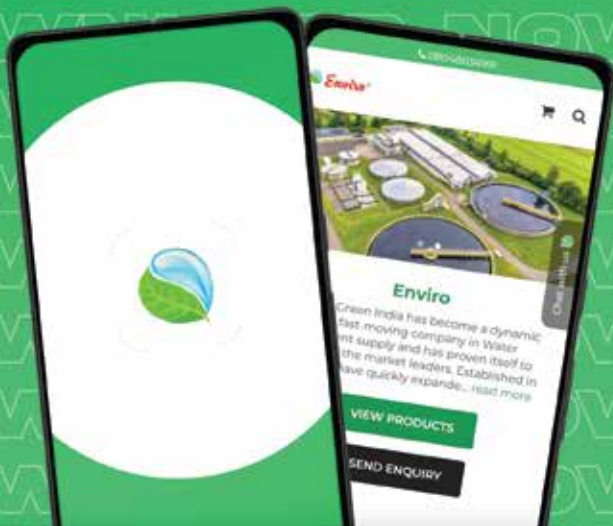


Namdhari's Fresh



Download our android app

# Enviro



Scan QR code  
using your android  
smartphone



or visit: [tinyurl.com/EnviroWater](http://tinyurl.com/EnviroWater)

Once APK is downloaded, Open Files App > Tap APK > Enable "Install unknown apps" for Files.

\*App installation steps can change depending on your device model and Android version. Ask us for video instruction for your smartphone brand.



### Head Office :

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[www.envirowatertreatments.com](http://www.envirowatertreatments.com)

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