



INFINITY ENERGY EUROPE



COMPANY PROFILE

WHO WE ARE

INFINITY ENERGY EUROPE collects 17 years of activity in the renewable energy sector by adding some activities marginally treated in past as biomass and water treatment. Termination of incentives, closure of companies or bankruptcies of giants in the photovoltaic sector, companies that have sold production plants in Europe, Investors who have abandoned the Italian market in favor of other nations that have higher esteem. In the midst of all this turmoil in the sector, **INFINITY ENERGY EUROPE** reacted by expanding its operations on foreign and Italian markets.

At the moment, the biggest buyers of modules are the Investment Funds that ask more and more often the realization of the modules "Turnkey" plants, this has forced many to forge closer relationships with their main suppliers and to make choices between giving a product to low cost or give a reliable product with a solid company behind it.

As far as we are concerned, we have always preferred to give products that can give certainty of reliability over time, even if this could mean a slightly higher cost, but certain that the higher cost would have been amply repaid by the first problem that arose verified with low quality modules.

In addition to this sector of primary importance for **INFINITY ENERGY EUROPE**, the construction of biomass plants has now been added incentives in Italy that can exploit various resources as fuel, from wood to industrial production waste, to pomace, in this we are currently carrying out several projects related to oil mills to which we provide another new service, that of water treatment, which is also extendable to all industrial and craft activities of a certain size and requiring large quantities of water dispose or recycle. the purpose is simple, on the one hand the energy is produced from material that would have been disposed of and would have entailed a cost for companies, in this way, on the other hand, profit is generated, there are no disposal costs and there are incentives, the same applies to water which for a large part the vaults constitute waste to be disposed of for a fee, with a purifier they can simply be disposed of as normal water or reuse for processing.

Street lighting, on the other hand, has always been one of the activities undertaken by most nations since the beginning of the activity, at the beginning of the 2000s they can exploit free solar energy, clean energy at no cost and more advanced Italian municipalities and foreign cities in their projects they know that street lighting and maintenance are an important part of the budget.

Solar led street lighting solves both, very low maintenance cost, high efficiency, zero electricity cost. Finally, thanks to the requests of some municipalities with which we are collaborating for solar LED lighting in Italy, we have added the columns of car recharging, some indications and a map of the recharging points on the dedicated page of our site.

PHOTOVOLTAIC MODULES

Our company began by distributing 72-cell 5 "mono photovoltaic modules with a power of 175 watts or 180 watts, at the time the top of the technology, while for the polycrystalline modules we talked about powers of 150 watts, to date the minimum power we distribute is 400 watts with 6 " cells for poly modules and powers between 400 and 640 watts for mono, PERC, Half Cell with 144 cells while the race for certified products and stable above 500 watts has already begun and the major manufacturers say they are ready to enter this market.

As far as we are concerned, we have chosen to distribute Tier1 modules or in some cases Tier2 modules that have in any case proven stability, Historical in sales and export to Europe as well as financial strength, transparency in sales and assistance.

All the companies we offer are certified ISO 9001, ISO 14001, OHSAS 18001, TUV which are the certificates that establish the quality of the production, several still have Factory Inspection and additional certificates such as Fog, Salt, Fire and Ammonia.

This is to be able to always give our customers the best service, which does not mean not being able to have problems at all but that if there were t here will be someone who solves the problem that has arisen and not, as often happens with new or low-profile companies, pretend nothing happened or worse yet no longer answer.

Seven of the brands distributed by us are in the top 10 places of the producers of photovoltaic modules in the world, another 4 in the top 20 in the world, this is allows you to operate with peace of mind and safety in the given Product and in the assistance we will receive if there are any problems.

We have decided to exclude those companies that, while giving their product a few cents of difference, then do not give us certainty about the times and on the quality of the product because it is good to remember that the life of a module must be more than 10 years (nowadays almost all give 12 years on defects and at least 25 on Energy Production) and many of these companies die after a few years, after selling low quality modules and leaving the shopper with problems to solve.

We are sure that saving something immediately and we are talking about a few tens of thousands of euros against plants costing millions is not a wise choice, what is saved is almost always lost over the years and sometimes even immediately.

The product must last over time and this can only be guaranteed by those who have chosen quality as their path.

MANUFACTURERS THAT WE DISTRIBUTE

JETION
SOLAR

HANERSUN



JA SOLAR



Trinasolar

VDS
POWER



Austa

SUNGROW

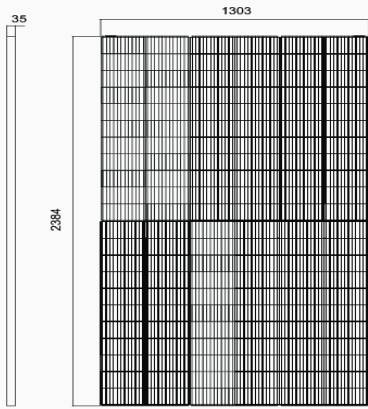


SiEL

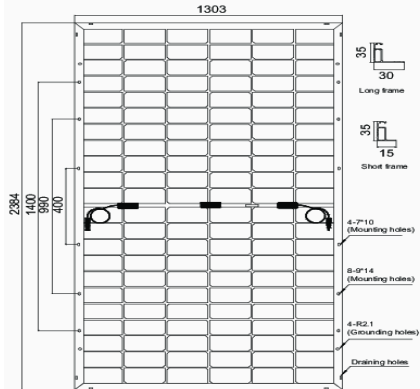
SAJI

THE TOP AVAILABLE

Dimensions (Unit: mm)



Front View



Back View

Electrical Characteristics

Module Type	CP21-66HT675W		CP21-66HT680W		CP21-66HT685W		CP21-66HT690W		CP21-66HT695W	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power (Pmax)	675	513	680	516	685	523	690	527	695	530
Maximum Power Voltage (Vmp)	39.40	37.10	39.60	37.10	39.80	37.30	40.00	37.50	40.20	37.70
Maximum Power Current (Imp)	17.14	13.92	17.18	13.92	17.22	14.01	17.25	14.04	17.29	14.07
Open-circuit Voltage (Voc)	47.20	44.90	47.40	44.90	47.60	45.10	47.80	45.30	48.00	45.50
Short-circuit Current (Isc)	18.14	14.65	18.18	14.65	18.22	14.68	18.26	14.71	18.30	14.74
Module Efficiency(%)	21.73%		21.89%		22.05%		22.21%		22.37%	

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5.

NMOT: Irradiance at 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s.

*Measuring tolerance: 0 ~ +5W

Electrical Characteristics with 10% Solar Irradiation Ratio

Module Type	CP21-66HT675W	CP21-66HT680W	CP21-66HT685W	CP21-66HT690W	CP21-66HT695W
Maximum Power (Pmax)	729	734	739	745	750
Maximum Power Voltage (Vmp)	39.40	39.60	39.80	40.00	40.20
Maximum Power Current (Imp)	18.51	18.55	18.59	18.63	18.67
Open-circuit Voltage (Voc)	47.20	47.40	47.60	47.80	48.00
Short-circuit Current (Isc)	19.59	19.63	19.67	19.72	19.76

THE INVERTERS

The inverters are the heart of the photovoltaic system, they are like the engine for the car, having a nice car or a sports car and then not having a high engine only serves to mortify the performance of the car.

The same goes for a photovoltaic system, making an accurate design, making an excellent installation with quality structures, cables and quality connections, modules with excellent performance and then buying unsuitable inverters means that what on paper is excellent Plant becomes a poor plant in performance.

The inverters, whether they are string or central, therefore from 1 kw to 2 mw or higher almost all have very similar performance performances by reading the sheet technique that the Manufacturer provides, in reality then a lot of other information must be added to that single data, the behavior of the inverter al vary in the temperature first of all, because the efficiency data is established with the best possible conditions, conditions that are Unlikely they will find in the environment in which the system will then be mounted.

So you need to understand the type of reaction to heat or cold, Italy has a rather different range of temperatures, just think of Sicily or to Sardinia and to the north of regions such as Valle d'Aosta or Trentino, where temperatures are reached in winter that are not possible in Sicily not even found in the temperature scale.

Then, to all the accessories that may or may not be standard in an inverter, such as the transformer, the disconnect or the fuse that often must be purchased separately in the cheaper inverters.

Many designers when designing a system have doubts whether to use a large central inverter or several medium power inverters, does not exist a right answer or a wrong answer, both solutions have advantages and disadvantages, starting with the cost, a power inverter higher costs almost always less, on the other hand smaller inverters give greater flexibility of use, but these are subjective choices. What is certain is that a good product is always better than a mediocre product even if the latter saves something, it is a difference that will then be counted in production and in all situations in which assistance will be needed, that's why we decided to distribute only market-leading products with assistance in Italy or in Europe such as Ingeteam, Sunway, Huawei, Kaco, ABB and others.

THE STORAGE SYSTEM

Storage systems are among the latest products introduced by our company, we have chosen for this sector some leading brands in the world market, K STAR, the world's largest inverter manufacturer and number 1 in China using CATL batteries, the world's largest battery manufacturer and supplying its products to Tesla and the Group Volkswagen, we are particularly proud to have reached this agreement as the quality of the inverters and batteries are certainly in the excellence of storage systems, Huawei which obviously needs no introduction and has excellent quality, Sola X one of the largest producers in the world of storage systems and finally Renac, a manufacturer still little known in the sector but which has an excellent history and an excellent price / quality ratio.

The need for several producers lies in the scarcity of material available for immediate delivery, a situation that should worsen during the year due to the increase in demand and the scarcity of chips and production that in the face of greater demand it remained stable on the numbers of previous years.

Thanks you have deposits that we have in the Netherlands, Germany and Italy we always have availability of storage systems and ours Advice for the best configuration of the systems is free

We are sure that we have taken the best products on the market with the best possible price, you just have to try them.

MONOAXIAL STRUCTURES



Tracking

Tracking Accuracy	$\leq 1^\circ$
Tracking Angle Range	$\pm 45^\circ$
Tracking Principle	Algorithm + Inclinometer

Structure

Material	Hot Galvanized Steel
Electronic Control Cabinet	IP65, Weather Proof, Junction Connected
Max. Operating Wind Load	22m/s
Max. Wind Load at Stow Position	34m/s
Working Temperature	-40°C-60°C
System Life	≥ 25 years

Motor

Motor Power	60w
Average Annual Power Consumption	≤ 26.5 kWh
Controller Power Input	AC110V/AC220V

Certifications and Warranties

Certifications	CE, ISO-9001
Material Parts:	10 years

THE BIOMASS

Gasification is a chemical process that allows you to convert carbon-rich material like all biomasses into carbon monoxide, hydrogen and other gaseous compounds.

The thermal degradation process occurs at high temperatures, the gaseous mixture resulting from gasification it constitutes what is called synthesis gas (syngas) and itself represents a fuel.

The syngas produced is used as a fuel directly in internal combustion engines.

An alternator is keyed to the engine; these transform the mechanical energy into electrical energy that can be put into the network.

Thermal energy must be used to support thermal needs (production cycles, civil or industrial heating, drying processes, etc ..)

The biomasses are accumulated in special silos and through screws reach the loading tank.

Through special hermetic seals, the biomass reaches the reactor which is the heart of the plant within which the biomass is transformed into gas through a thermo chemical process.

The gas coming from the gasified biomass, syngas, and the gasification residues, leave the reactor from the low wall at about 800 ° C.

Subsequent thermal exchanges cool the gas up to about 90 ° C after having also undergone mechanical filtration to reduce the presence of carbonaceous dust.

This synthesis gas is thus ready to become the fuel of the co generator equipped with an Otto cycle engine with controlled ignition.

A 49 kW co generator produces electricity for no less than 7,500 hours per year (approximately 375,000 kWh / year).

The residue of this process called Biochar can be used as an organic fertilizer.

We are able to provide the entire turnkey system by defining the type of system and its power based on the type of waste, then drawing up an ad hoc business plan for each possible customer.

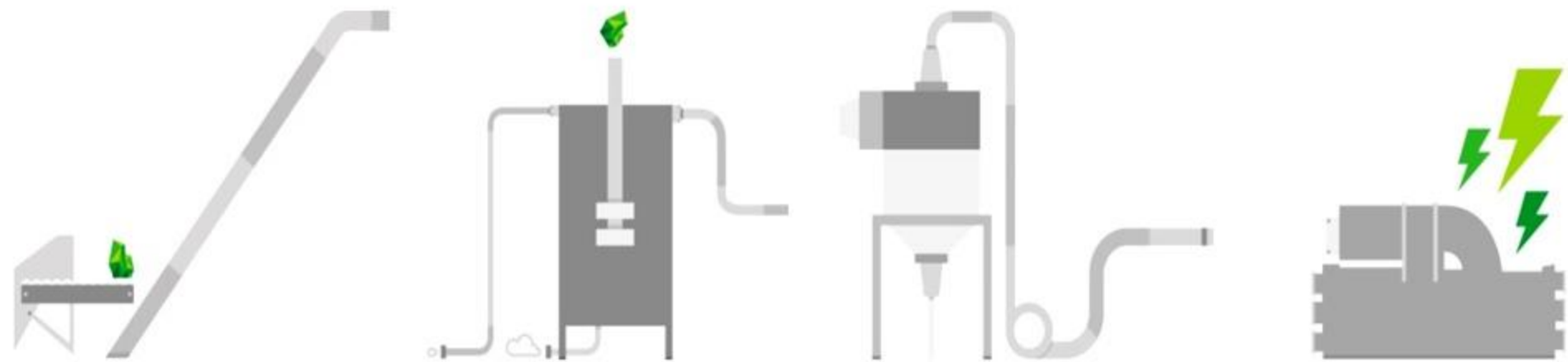
Plants up to 100kW, depending on the quantity of product, do not need to be registered in the authorization register but have a facilitated procedure being with low voltage connection.

For higher power plants, the project must be organized and then registered in the authorization register.

The next register is expected to open in June 2021.

To date, this type of self-producing electricity plants can be subject to a state incentive of € 0.233 / kWh produced (in Italy), although the times vary from region to region are between 4 and 6 months at most between authorizations and construction.

BIOMASS PLANT OPERATION DIAGRAM



Storage-Shredding-Loading

Reaction and dissociation

Cooling and filtering

Energy production

GEOTHERMY

Geothermal energy is an energy source available free of charge in nature and is an excellent solution for those who decide to heat, cool, produce domestic hot water and electricity in a sustainable way.

Geothermal energy is divided into low, medium and high enthalpy, based on the most common criterion for the classification of geothermal resources. The high enthalpy is characterized by temperatures above 150 ° C, it is ideal for the production of geo-thermoelectric energy; was born in Italy in 1904 in Larderello, where the first industrial production plant in the world of geothermal electricity was built.

Medium enthalpy geothermal with temperatures between 80 and 150 ° C is useful for the production of electricity and for district heating for small and medium-sized centers, companies or public buildings.

For private individuals, low enthalpy geothermal is the most interesting, with temperatures between 20 and 80 ° C.

The subsoil is used as a thermal reservoir for heating, taking heat in winter, and cooling it by releasing it in summer.

This energetic form does not require the need for probes at great depth and is practically usable anywhere.

A geothermal heat pump uses low enthalpy geothermal energy and is able to heat or cool an environment and also produce water domestic hot.

The heat pump is basically a refrigeration machine, it carries out a sort of heat exchange, transferring it from a colder source to a warmer one.

In the case of geothermal pumps, the source of energy is the heat contained in the ground which is "captured" by means of geothermal probes connected to the heat pump, the heat is distributed throughout the building, for example through radiant floor panels.

The ground temperature is constant all year round and, therefore, the system will work constantly, without experiencing sudden changes in external temperature and suffer efficiency losses.

Geothermal probes are generally made of polyethylene pipes and can be vertical or horizontal: in the first case they descend into depth in the ground (even 100/150 meters) and allow the circulation of a fluid inside them generally glycol water, which descends and it rises by exchanging heat with the subsoil following a "U" shape, in the second they are arranged horizontally and more on the surface.

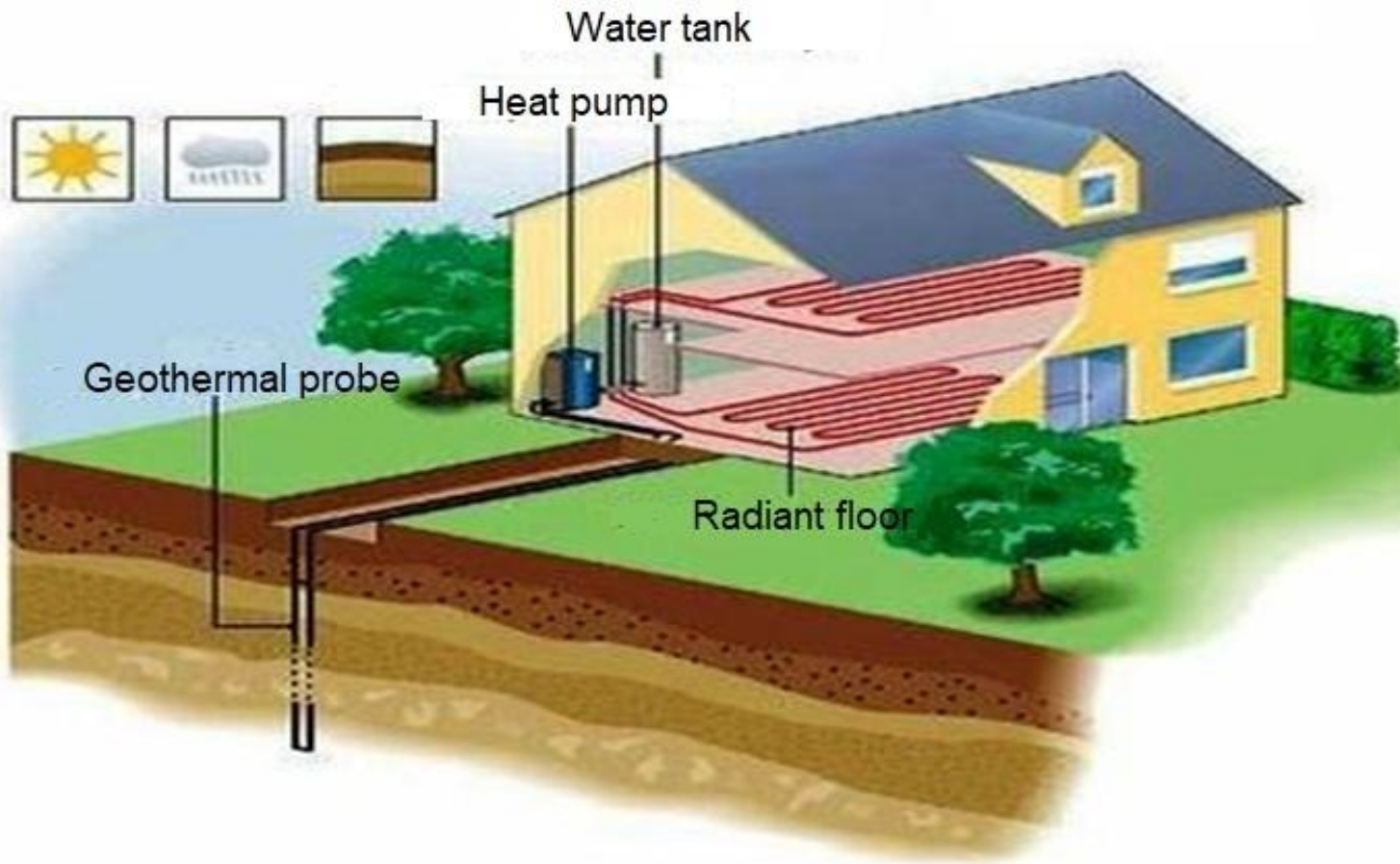
Even if in Italy geothermal heat pumps are still not very widespread, the advantages they offer are different, starting from their efficiency, in fact, this is greater than that of other plants and is between 33% and 50%, this ensures lower operating costs, from 50 to 70% less than a traditional methane, LPG or even more diesel system.

A heat pump can last 20 years; the probes are tens of years old, a geothermal system helps to raise the value of the property.

Geothermal heat pump systems are adaptable to any type of building, from residential to public and for buildings under construction. certainly presents an ideal solution while for existing buildings it is necessary to check the feasibility.

The cost of the system depends on several factors, the cost of the heat pump, the installation of the probes and the installation of the panels radiants to which any costs due to authorizations can also be added.

OPERATION DIAGRAM OF A GEOTHERMAL PLANT



WASTE WATER TREATMENT

Industrial water treatment is part of the regulatory obligations to protect the environment and water resources, as well as water quality intended for direct and indirect consumption. In fact, water is used as a component in industrial production processes, it can be an ingredient of the goods produced or it can be used in equipment and systems that operate or serve production (heating, cooling circuits, etc.).

During the production cycle, industrial wastewater is generated which can be contaminated and polluted to varying degrees. For both of these uses, water treatment and purification are required.

The reference legislation for industrial waters is contained in the consolidated act for the protection of the environment and water, the Legislative Decree n. 152/06 (for Italian market).

The water resulting from processing in companies and industries is transferred to surface water or sewers and sometimes it can be assimilated to urban waste water. The legislation governs the limits of pollutants that must be respected and which may therefore require different types of treatment: mechanical, chemical-physical, disinfection.

Industrial water treatment consists of a purification process to clean the water of sediments and pollutants.

These sediments and pollutants can be fats, oils, fibers, toxic substances, metals or more, purification serves to return the water cleaned to the sewers or to the surface waters of confinement, or once used, it can be treated to reintroduce it into the production cycle.

Thanks to a team of experts we are able to design and build filtration systems, oil separators, lamellar pack sedimenters, rotors biological discs, floaters, which are used in water treatment plants of all the main industrial sectors.

The consolidated experience of our team guarantees the correct sizing of the systems according to the needs of use, of the characteristics of the wastewater and the variability of the volumes of water used.

Treating water is not always and only a legal obligation, but it is an opportunity to save and rationalize resources.

It is the affirmation of values that qualify the company as responsible and virtuous.

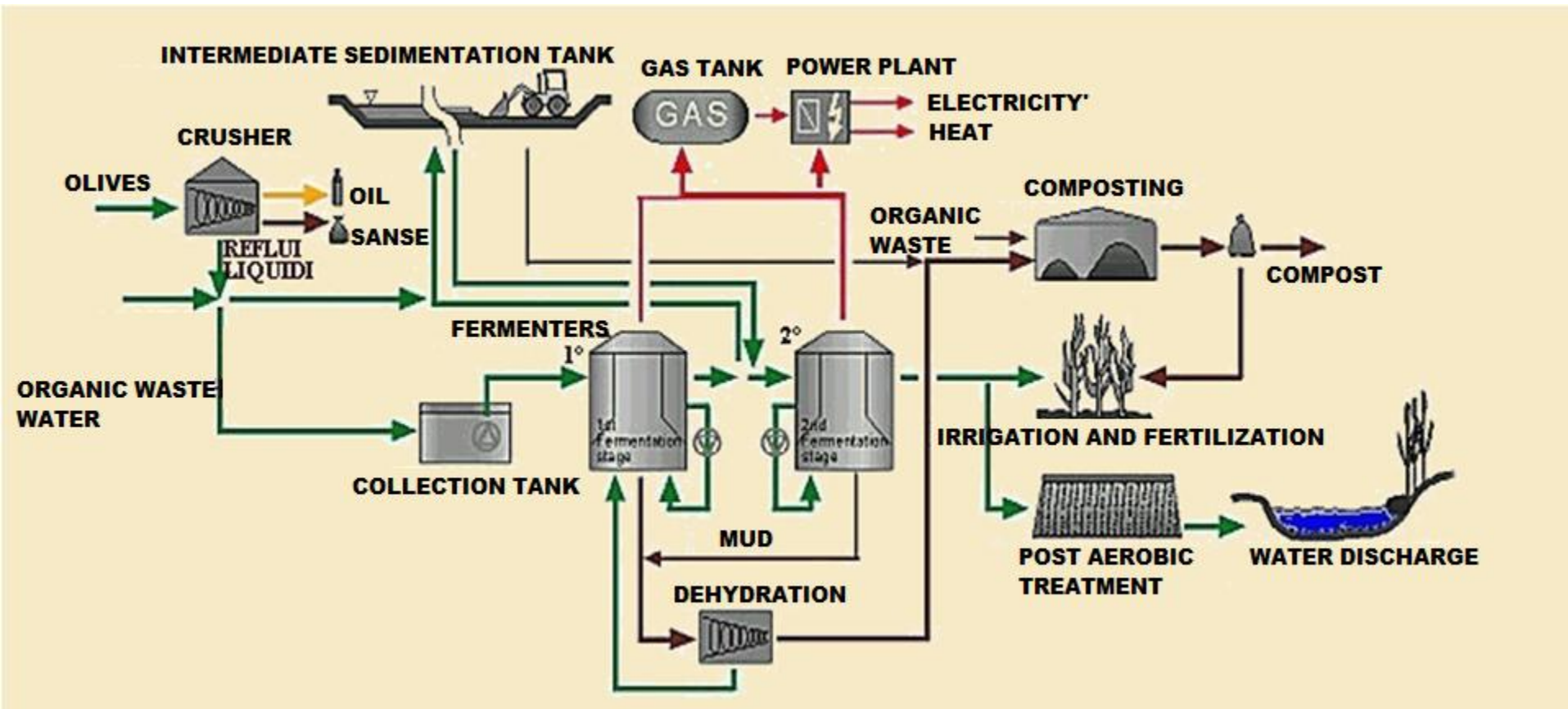
Saving water means saving energy and reducing fixed costs.

With water treatment, companies save precious and expensive water resources.

Environmental protection is an added value to be communicated to customers, suppliers, stakeholders.

Rely on our Company for a preliminary consultation, we will be able to tell you what to do and how to do it and you will understand how convenient this is.

WATER TREATMENT SYSTEM OPERATION



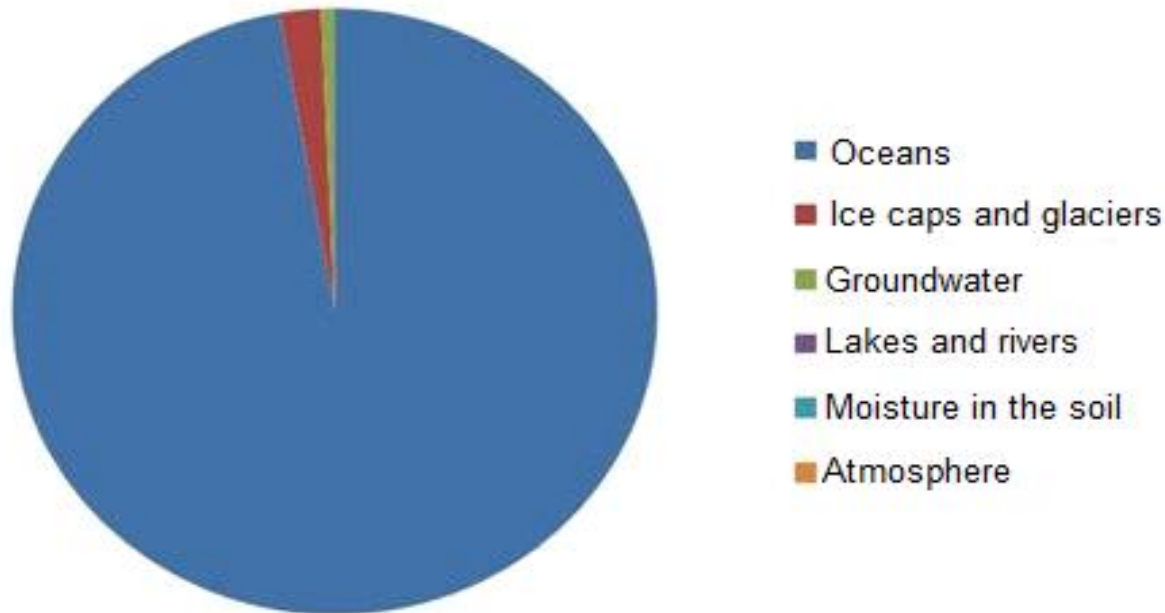
DESALINATION PLANTS

In this crazy modern world, the world is shaken by the fear of the end of traditional energy resources, peoples, engineers, scientists are all concerned with how to save the planet from the lack of oil and gas, indispensable for running the most industrialized nations and the race for the transformation of energy means and resources is now done.

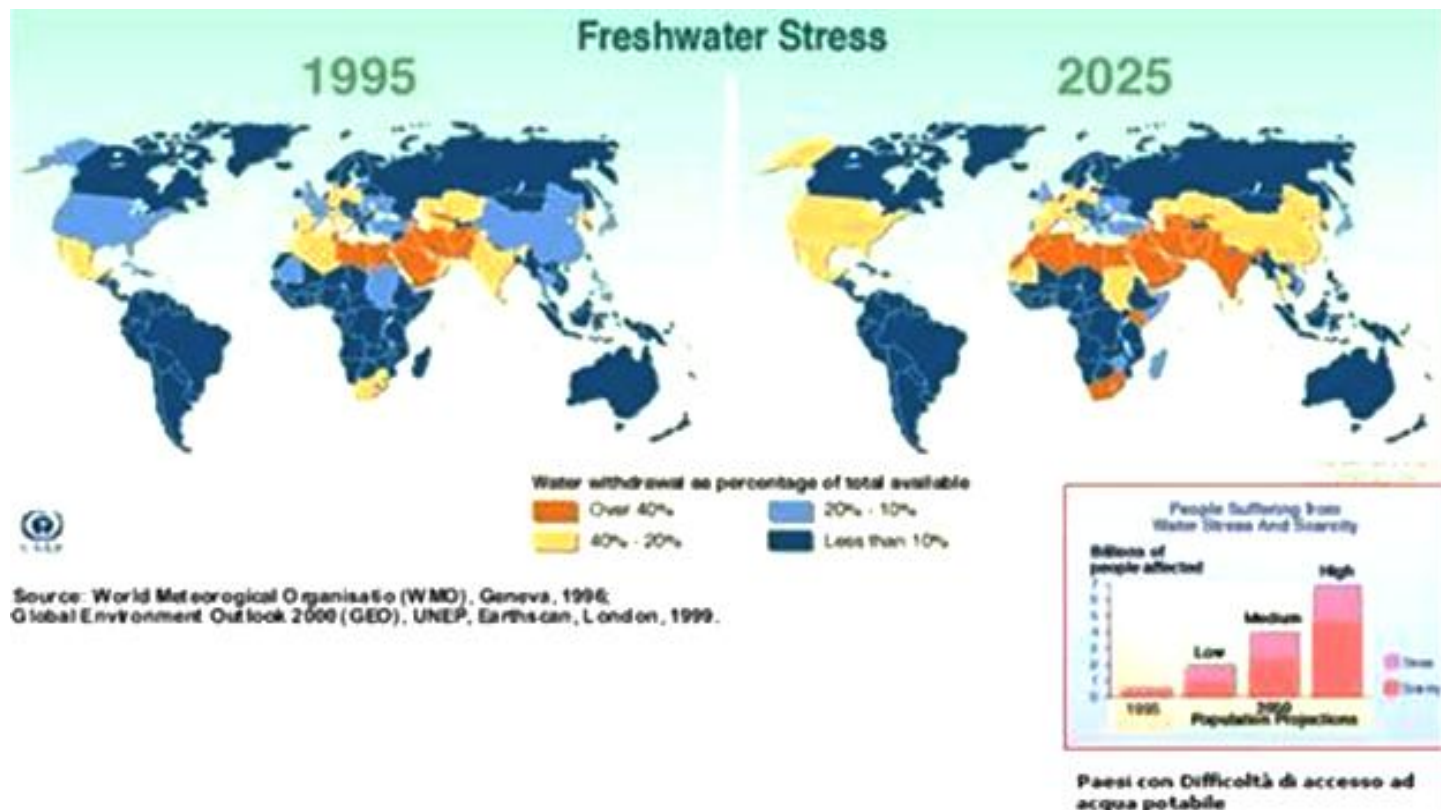
Let's be clear, I have been dealing with renewable energy for 18 years, so I can only be happy about it, but in this currency very few worry about another type of gold, if oil is black gold, drinking water is blue gold .

Our planet is made up of about 71% of water, the remaining part of land, but of this 71% of water that is on our planet only 2.5% is drinkable and access to this resource is very different from area to area, we ourselves are made up of about 80% water and for us water is life as it is for the plants and animals that populate our world.

Breakdown of water in our planet



Between droughts, natural disasters the great distribution of humidity is threatened by climate change, the need for new sources of drinking water grows with each passing day. Every year the world population is believed to be about 85 million people, the demand for fresh water grows at double the growth rate of the population, doubling every 20 years or so. Worldwide, our rarest and most important resource is under stress and not all nations have the same access to fresh water or the ability to access it.



So why not convert sea water into fresh water?

In reality this is possible and we can and must do it, people have been doing it since the time of the ancient Greeks and the basic procedure has remained the same ..

The idea of desalinators, to desalinate sea water or variously brackish water and make it available for human activities, is not new and today seems more and more a concrete and realistic solution to satisfy at least part of humanity's thirst for fresh water and there are strong interests (not only social and humanitarian) in optimizing desalination technologies and in reducing their costs for large-scale use, costs that are still too high for many of the countries that would need them most. The approximately 16,000 desalination plants scattered around the world are in fact mostly concentrated in the Middle East and North Africa, in economically developed and rich contexts.

A recent study (December 2018) commissioned by the UN reveals that the production capacity of more or less soft water of the desalination plants is approximately 95 million cubic meters per day, or approximately 95 billion liters per day.

In Italy the average per capita consumption is about 200 liters, on average a family of 5 people uses and consumes and often wastes about 1 cubic meter of water.

There are 628,000 liters of water a year for every single person on Earth engaged in producing food (about 70%), for every type of industrial or manufacturing production (about 20%), for all domestic, city, social and recreational activities. (about 10%).

This gives the idea of how much water the whole world can serve and why fresh water is in fact blue gold.

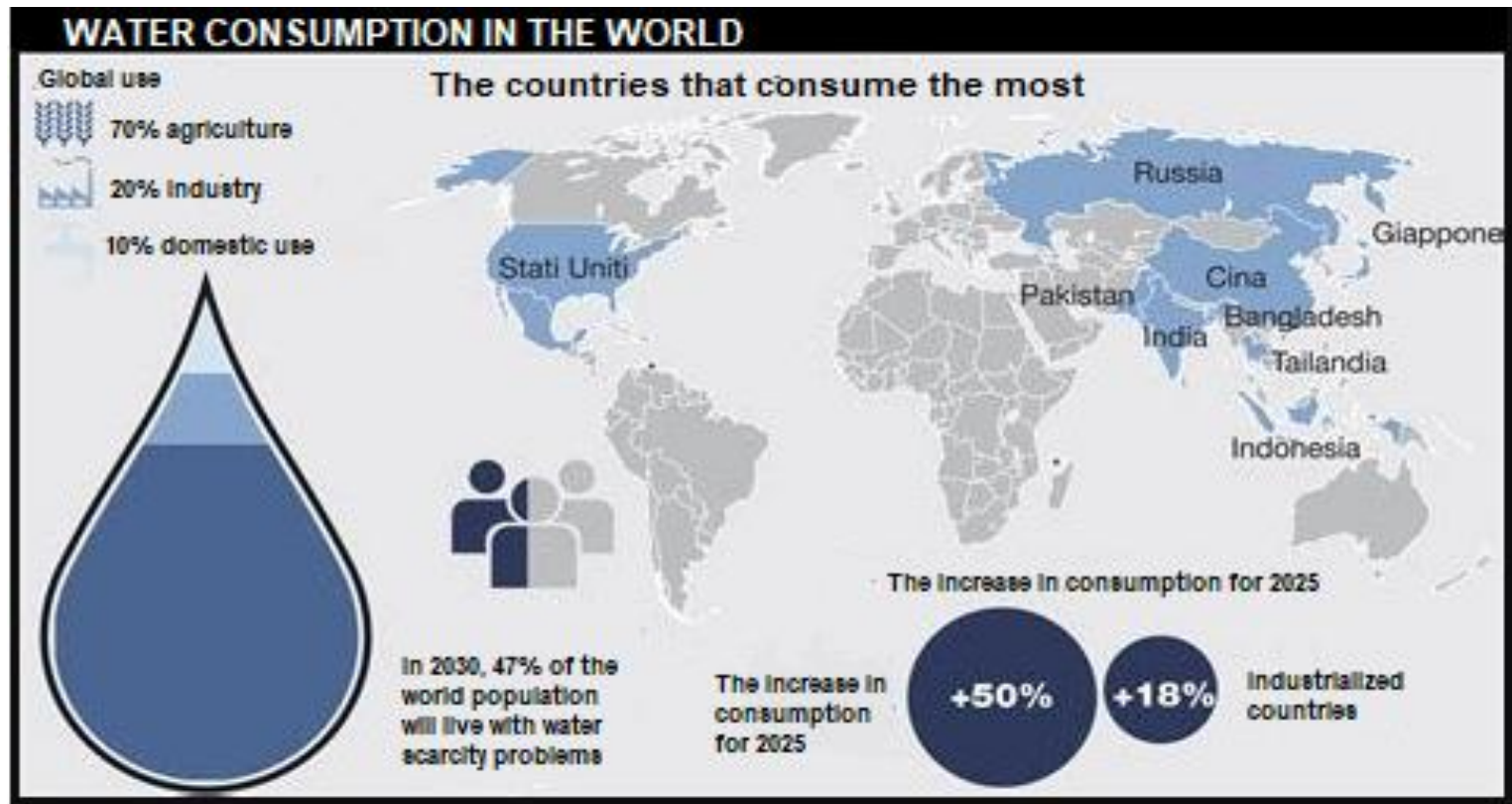
So how can we convert and which are the countries where this technology is most developed?

As mentioned, desalination was already known in the times of the Greeks when people boiled and collected the steam in the sponges to then store it, still today this principle is used in part, the water is heated and becomes water vapor leaving the salts and other impurities , then condenses as it cools and falls in the form of fresh water.

Improved distillation plants accelerate this process by artificially heating and cooling the steam but this method requires large amounts of energy

Currently the most widely used method is that of Reverse Osmosis (RO), this system uses pressure to force sea water through filters, separating the substances at the molecular level.

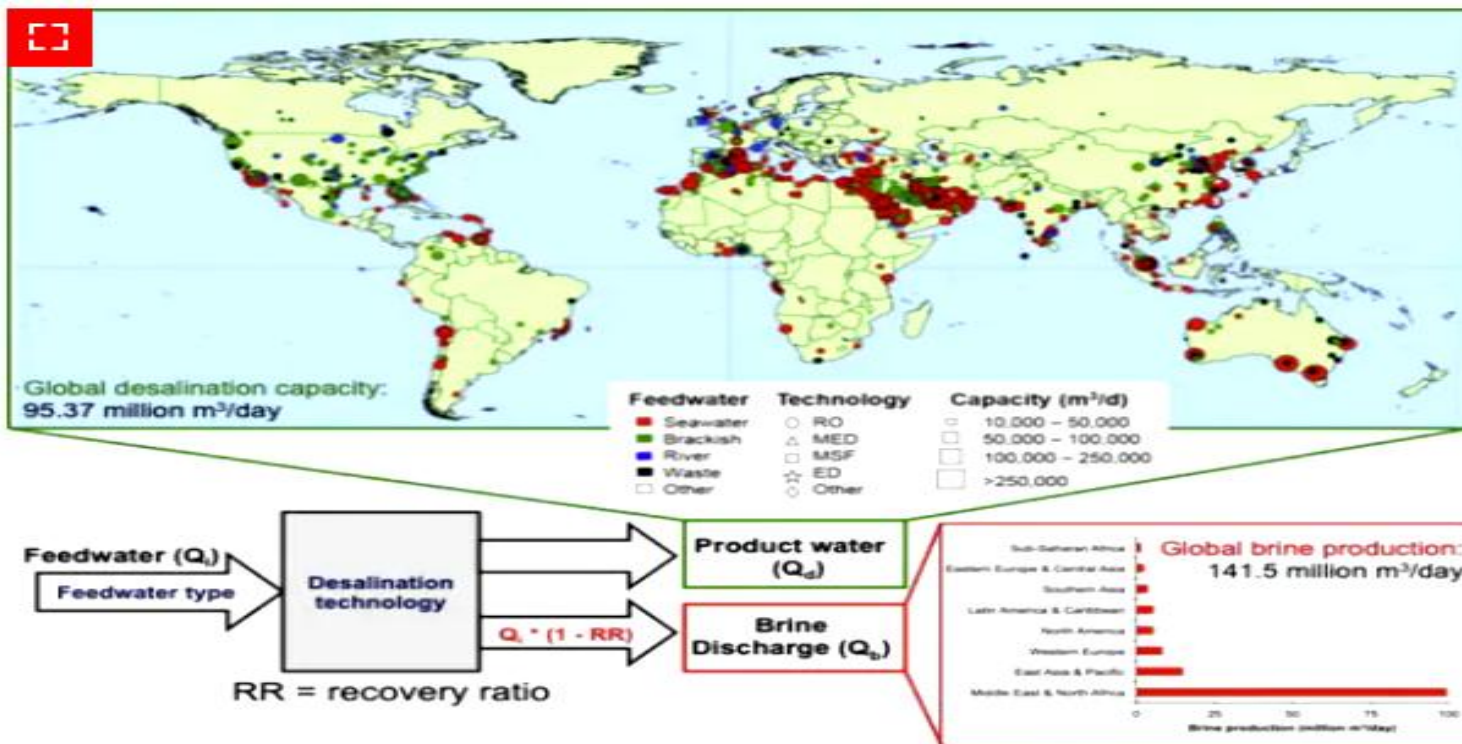
Developed in 1960, the process became feasible on a commercial scale ten years later and is the one most used today because it requires less energy to remove salt and other seawater compounds, producing water that is safe to drink (500ppm, while the limit in Italy is 1500 ppm) far higher than the standards relating to drinking water.



But which are the countries that make more use of desalination plants?

essentially everyone, including Italy, even if for obvious reasons the Arab countries are the ones that make the most of it, but also North Africa, Australia and New Zealand, the coastal part of China and the USA.

The following table will better clarify the words where they are used



Desalimators, an overview: at the top, the distribution of desalination plants worldwide, for a total of 95 million cubic meters per day (end of 2018). In this part of the graph the colors correspond to the primary water supply sources: sea water (red), brackish water (green), rivers (blue), recycling (black). Below the simplified flow of the process that currently ends with the brine, 140 million cubic meters per day.

But how does a water desalination plant work?

Osmosis is a natural phenomenon, of vital importance for animals and plants, which allows the cell pressure to be maintained and regulated thanks to the membrane that constitutes it, which is semipermeable, i.e. permeable to water but not to certain solutes such as dissolved salts, sugars and proteins.

So osmosis is a chemical-physical process that occurs whenever two aqueous solutions containing different saline concentrations are separated by a semipermeable membrane, in this situation the spontaneous passage of water from the most diluted solution to the most concentrated one takes place until the of the same salinity. The pressure that is generated is the so-called “osmotic pressure”: the greater the difference between the starting saline concentrations, the higher the osmotic pressure value.

What is reverse osmosis?

By exerting a counterpressure, higher than the osmotic one, the process can be reversed.

The operating pressures required to achieve reverse osmosis can be considerable: if it is sea water, the pressure that must be exerted is several tens of atmospheres, while for mains or weakly brackish water the osmotic pressure values are they hover around 10 bars.

This is the principle on which reverse osmosis is based: the passage of water through a semi-permeable membrane in the opposite direction to the natural one, with the generation of two solutions: one with a high salt concentration and the other very diluted.

Modern technologies offer the market a wide range of compact and very efficient reverse osmosis systems, which can be used to purify water with a high concentration of salts and pollutants, or to improve the quality of common mains water.



Undeniable advantages are offered by the reverse osmosis technology when the mains water, although drinkable, does not have excellent characteristics, such as some groundwater characterized by a high concentration of nitrates, herbicides or pesticides, or other pollutants that are difficult to remove with other technologies; vice versa, this technology offers an overabundant treatment for a large part of the mains water, which often only requires a refinement of the organoleptic characteristics.

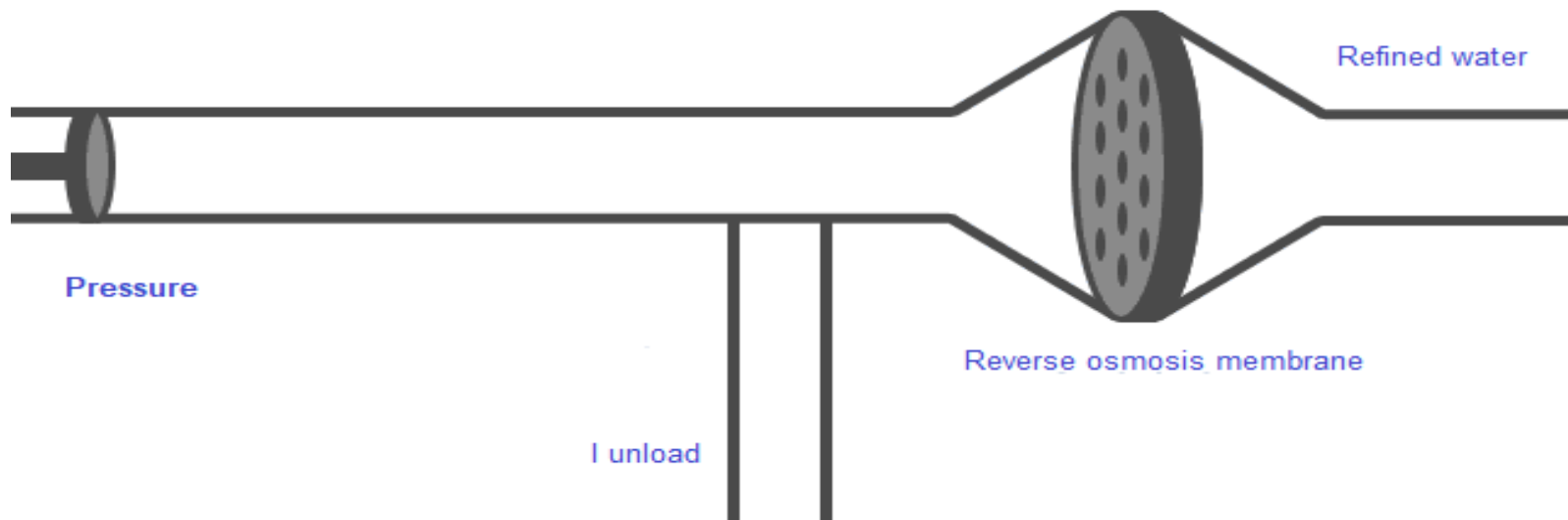
How reverse osmosis works?

HOW DOES REVERSE OSMOSIS WORK?

With reverse osmosis, the water to be treated is pushed into the membrane by a pump that exerts a pressure higher than the osmotic one, so as to obtain two outflows: the part of incoming water that crosses the membrane constitutes the permeate (poor in salts) that goes to use, while the remaining part constitutes the concentrate (rich in salts) that must be discarded.

Legend

-  Impurity
-  Water molecules



Reverse osmosis is a membrane process, which allows you to remove almost all of the substances present in it, both suspended and dissolved, from the water.

The action of an osmotic membrane is not only mechanical, separation occurs thanks to diffusion and dissolution mechanisms, which intervene to varying degrees and allow it to act up to the ionic level.

An osmotic membrane consists of a central core around which a semi-permeable synthetic material (eg polysulfone) is wound in a spiral. Membranes are generally classified according to dimensions according to standards generally expressed in inches (e.g. a 4040 membrane corresponds to a module 40 inches long and 4.0 wide), but also depending on the production capacity, generally indicated in GPD (gallons per day).

The water to be treated is pushed into the membrane by a pump, which exerts a pressure higher than the osmotic one, so as to obtain two outflows: the part of incoming water that crosses the membrane constitutes the permeate (poor in salts) that goes use, while the remaining part comes out with a high salt concentration, due to the accumulation of all the salts that have not crossed the membrane, it is the concentrate (rich in salts) that must be discarded.

The salt content of a water, also called Fixed Residue or TDS (Total Dissolved Solid), is measured in mg / L (or ppm).

An osmotic membrane produces an average of 20% of permeate compared to the incoming flow, but for larger systems, which require the use of several membranes in series, this value can exceed 75%.

The rejection of a membrane, or the ability to remove the solute present in the water, is influenced by various parameters such as the characteristics of the water itself, the operating pressure and temperature; in any case, the removal values for the vast amount of substances present in the water generally exceed 95%.

To date, a good reverse osmosis system is able to treat large quantities of sea water and transform them into fresh water with 500ppm (Italian legislation allows 1500ppm), obviously, as in all mechanical machines, maintenance is essential.

The machines are delivered in containers and can be powered by renewable sources such as photovoltaic, wind or biomass modules and cogeneration also supported with energy storage systems and the only works they need are the connection to the water network, a concrete base. on which to place the container and finally the pipe from which to suck sea water necessary for the transformation and in environments where conditions are extreme, so either very hot or very cold, maybe put the system under a canopy ..

and the water is served!

CHARGING SYSTEMS FOR ELECTRIC CARS

The sustainable mobility sector is increasingly in turmoil, until a year or two ago car manufacturers were reluctant to launch models on the market they used are batteries and many started producing alloys that were neither polluting nor ecological, hybrids to be precise.

The turning point was given by some nations who announced that from 2025 there will no longer be the possibility of registering diesel or petrol cars or with natural gases, let alone hybrids, Holland, Denmark, Norway and other nations have closed the way to cars that are not ecological nor environmentally friendly, last but not least Britain announced the closure of the internal market 5 years in advance shifting the date from 2030 to 2025 to diesel, petrol and hybrid vehicles.

The appearance of electric supercars has dispelled the story that they are environmentally friendly but are slower than the others and soon the other story will fall that everyone they have always told each other to postpone the passing of non-electric cars, the PATH, as much as possible.

Lighter and more performing batteries are on the market and under development, such as salt batteries and those that can be printed with a 3D machine ...

To date, the most used technology in electric mobility is that of lithium-ion batteries which represents the greatest incidence of cost in a electric car.

Electric mobility is the evolution of the world of transport, thanks to European and national policies that "look" at the development of source plants renewable by means of power plants spread throughout the area such as wind and photovoltaic plants.

E-mobility (electric mobility) is now necessary to drastically reduce CO2 emissions and other polluting gases.

INFINITY ENERGY EUROPE has ready a range of charging stations for all needs, from domestic to those with recharging quick, or with card or tokens, you will receive a free consultation and a technical data sheet of the best product for your use by contacting us by phone or by sending us an email or by downloading the data sheets directly with the button on our website regardless of the type of connector or cable you have on your vehicle

CHARGING CONNECTORS

For the recharging of electric vehicles in alternating current (AC) Mode2 and Mode3 there are 4 types of connectors: Type1, Type2, Type3A, Type 3C

Type1 is only found on the vehicle side

Type2 is located both on the top of the vehicle and on the column side

Type 3A and Type 3C are only found on the column side

for the recharging of Direct Current (DC) Mode4 electric vehicles, there are 2 standards: CHAdeMO and CCS COMBO2



TYPE1

Single-phase, 2 pilot contacts, max 32A 230v (7.4kw) only found on the vehicle (American and Japanese standard).



TYPE2

Single / three phase, 2 pilot contacts, max 32A (63A) 230v (400v) it is found both on vehicles and on columns.



TYPE3A

Single phase, 1 pilot contact, max 16A, 230v is used only for light vehicles, scooters and quadricycles.



TYPE3C

Single / three phase, 2 pilot contacts, max 32A (63A) 230v (400v) it is found only on the columns, it is now in disuse.



CHAdeMO

The CHAdeMO standard is the most widespread standard for fast direct current (DC) charging in the world, used and widespread for some years. Vehicles equipped with this standard have 2 connectors: CHAdeMO for Fast DC charging Connector for AC charging (normally Type1)



CCS COMBO2

the CCS (Combined Charging System) standard consists of a single charging connector on the electric vehicle, which allows both fast direct current (DC) charging and slow alternating current charging. In Europe the CCS is made starting from the Type2 connectors, for which the system is called COMBO2. This system is used by some German European houses.

SOME MODELS MARKETED



3 kW - 7,4 kW



2x7,4 kW o 2x22kW



50 kW



60 kW

SOLAR LED STREET LIGHTING

This page aims to present our products to the Mayors or technicians of Italian cities and towns, giving them the opportunity to break down the costs of electricity and maintenance of public lighting.

Precisely to facilitate the transition from a mains powered lamppost to a solar powered lamppost, **INFINITY ENERGY EUROPE** has an offer reserved for all administrations wishing to consider this very interesting form of saving. But for those unfamiliar with the product we want to make a small introduction.

Solar street lights or photovoltaic street lights successfully enter the energy saving market by exploiting sunlight to illuminate night the city streets giving a modern aspect to an object that has hundreds of years of life. Solar charging allows you to ensure rapid installation without the need to connect the appliance to the electricity grid, therefore they are ideal for lighting new roads because they do not need a cable duct or replace the old lighting bodies.

HOW DOES THE SOLAR LAMP WORK?

The solar street lamp to generate light uses the sun's rays which are transformed into electricity by the photovoltaic panel and stored then in the batteries that use it during the night.

The management of the lighting body is made up of circuits that are integrated within the body itself, as well as the batteries, the module (in most part of the products presented) and by the twilight that turns the lamp on and off according to the external light conditions. The performance of resistance and durability are very high, and maintenance interventions. almost absent.

HOW MUCH DOES A LAMP OR SOLAR LAMP COST?

The cost of a high solar street lamp in the past years at this time is particularly convenient, the price of the object must then be considered that upon installation the cost of electricity is immediately eliminated, a very consistent item both in small Italian municipalities and in large cities and the cost of maintenance is effectively zeroed too, allowing the administrations to make major cuts in their budgets and freeing up funds which can be used for the countless other needs that the Administrations have.

Certain that our presentation may be of interest to you, we are available for all administrations that want estimates, advice or information.

The majority of the street lamps we deal with are ALL IN TWO, i.e. they are all integrated into the lighting body except for the panel photovoltaic, although we have the availability of fully integrated models (ALL IN ONE) this solution allows you to have a photovoltaic module more performing and therefore make better use of solar lighting to charge the batteries and it is the solution that we recommend.

ALL IN TWO STREET LAMP

HYDRA 120W

SOLAR LIGHTING



SPECIFICHE TECNICHE

Model	Hydra 120W - 6,200 Lm
LED	2 circuits LED 120 LED of 3030 / 3000K-6000K
Lithium battery	2 BAT 3.2V Titanate 1800MAH c/u (Total 36000 MAH) 460.8 Wh
Solar panel	Dual panel 6V 35W + 35W (Total 70W) Mono-crystalline
Controller	2 integrated controllers
Height to install	7m to 10m (recommended)
IP protection degree	IP65
Solar charging times	6-8 Hrs. with sunlight
Download time	12 Hrs. continuous
Size	64*345*1005 mm.
Weight	12 kg
Certifications	CE/FCC/ROHS/BV/BSCI/ISO
Warranty	5 years

SOME PLANTS REALIZED







WHERE WE ARE PRESENT



WE ARE PRESENT in EUROPE, NORTH AFRICA, UKRAINA, SYRIA, TURKEY, INDIA, BRAZIL



THANK YOU FOR YOUR TIME

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