



waveco® next cooking generation

waveco® is the patented solution "Made in Italy" born to dealing and resolving issues related to the conservation and energy optimization during the food preparation process.

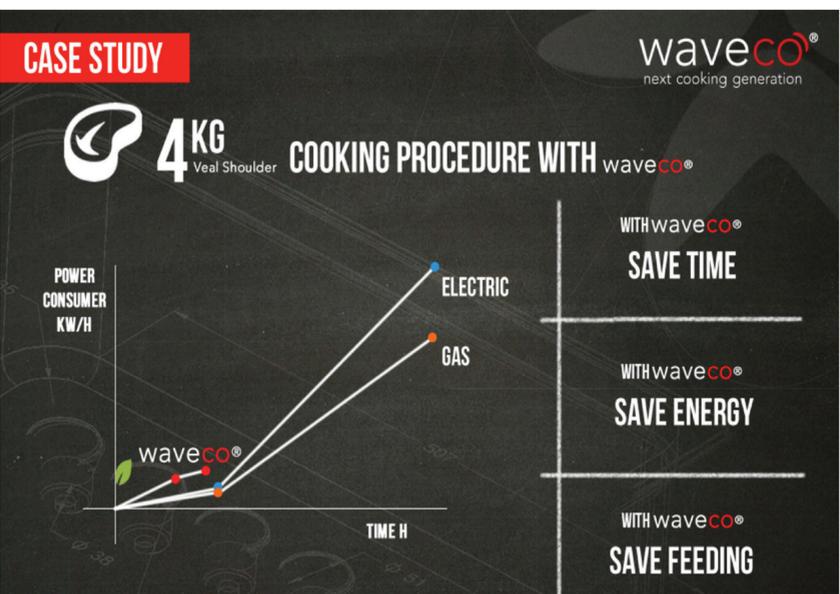
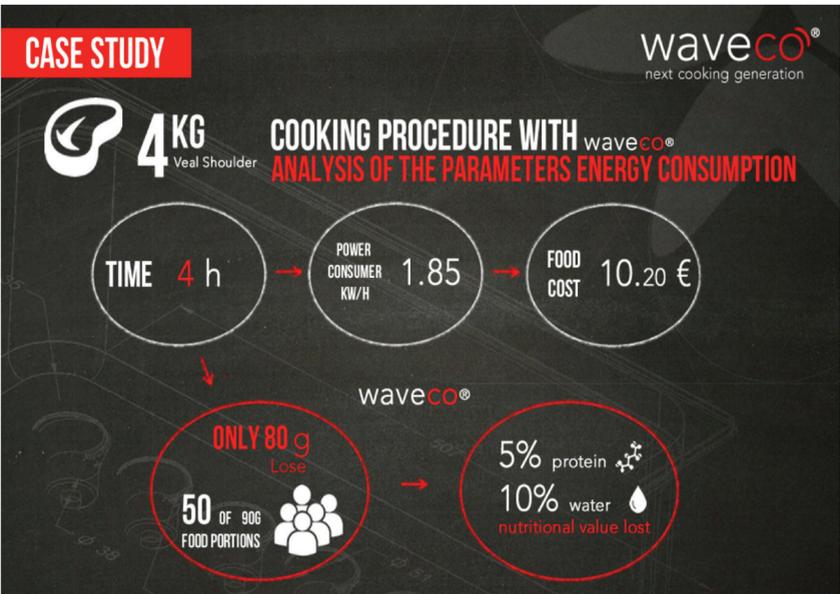
Using waveco® highly innovative technology, significantly decreases the cooking time of the foods drastically reducing the loss of weight, preserving the important nutritional values for human consumption.

waveco® is designed to standardize and make best possible replicable results, even when the amount of rations to be prepared are high.

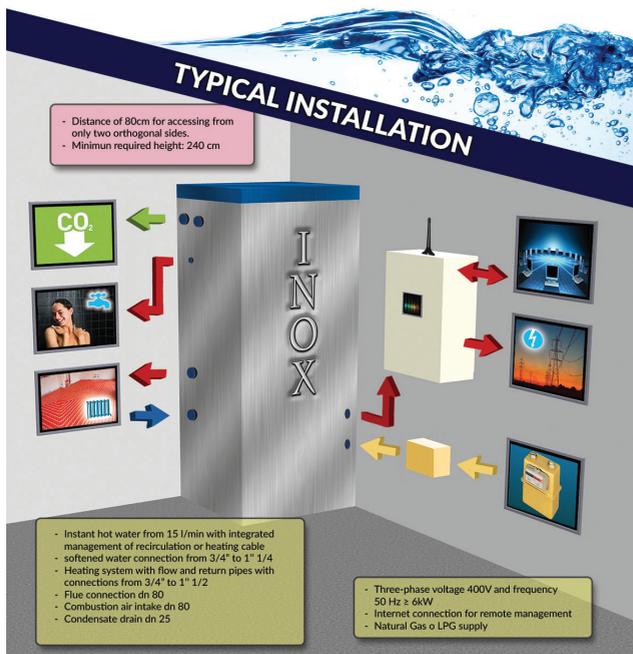
waveco® allows to use origin animal and plant materials typically not used in the preparation of dishes, saving considerably on food cost.

waveco® harnesses the power of the ultrasound waves, opportunely regularized and optimized, to obtain a softness to the palate easily replicated with traditional cooking techniques.

waveco® breaks down much of the bacteria responsible for the rapid deterioration of food by helping the staff work in the kitchen, even in precarious or emergency situations.



GOGOGEN



We are presenting the first co-generator. Its name is GoGo and it can carry out all functions of a heating system, operating both in residential and in industrial environments.

One single machine allows you to coordinate the production of power, heating, hot water and cooling systems.

The machine is basically composed of two units: a state-of-the-art ultimate conception power-board called Go-Brain, which has a sophisticated remote control and caters for all the needs of the machine and the devices connected to it. A real Energy Manager dedicated to the building shell.

The second unit instead consists of three components that have been designed to enable an on-site installation and therefore allow a more comfortable handling.

Thanks to this solution you will be able to install GoGo in environments that present an access of 80cm only. If necessary the maximum moveable height of the plant corresponds to 120Kg.

Unlike most co-generators needing maintenance access on all four sides, GoGo, due to its corner positioning, needs accessing only from two orthogonal sides.

Besides producing savings thanks to co-generation technology, which outclasses by far the best of traditional boilers or even condensation boilers; this plant finally perfectly meets the needs of a residential environment. This in fact presents constantly varying power and heating demands, which too often affect reliability and performances of conventional plants presently on the market.

APPLICATIONS

Owing to the peculiarities of the system, ideal installations resulting in a quick financial benefit are those situations where power and heat demands do not necessarily occur at the same time.

TERTIARY SECTOR/SERVICE INDUSTRY

Swimming pools, sport centres, hospitals, nursing homes, supermarket etc.

ENVIRONMENT

Breeding farms, mountain pastures, holiday farms, etc.

MANUFACTURING

Dairy plants, farms, factories

RESIDENTIAL ENVIRONMENT

It can be installed both in a detached house with a minimum 6KW power supply and in large blocks or compounds because GoGO allows a cascade connection and therefore has no power limits.

FOOD SAFETY

Thanks to a fast, immediate anti-build-up AISI 316 stainless steel heat exchanger, it is possible both to heat water and food industry fluids, thus eliminating the risk of contamination from the dangerous bacterium legionella.

MAINTENANCE

GoGo is designed to be reliable and long-lasting and it is made of the finest raw materials which can be easily recycled at the end of its life-cycle. Everything is conceived in order to keep maintenance to a minimum, resulting in remarkable cost reduction also thanks to the opportunity to have the plant serviced by a single operator.



We present our technological developments aimed at energy efficiency, high power energy transfer, and high power systems for energy storage, in particular for mobility applications, with special attention to military use.

In the course of its technological development, KiteGen has designed and realised modular and customisable systems for energy storage and transfer at very high power.

Key elements are:

- Cabinets of SuperCapacitors (SC), connected in series, with output voltage up to 1200V.
- BCMS (Battery of Caps Management System) for active balancing and remote diagnostics of each element.
- High efficiency, high power, and ultra-fast reactive system for energy transfer between different storage units.
- DC converter to match input and output energy flows (to be used also in connection with photovoltaic and micro-wind generators).
- Automated conductive multi-pin system for energy transfers between different vehicles or carriers (e.g. between an e-shelter and a forklift). Energy transfer time of the order of seconds.

SCs are well known in the automotive sector, where all the majors are designing combined storage systems SC/battery in order to tackle the energy/power issue for electric vehicles.

The main SC features that render these devices not only complementary but also competitive with respect to electrochemical batteries, and the sole solution for special high power applications, are:

- extended temperature operational range from -40 to +80 °C;
- low self-discharge and absence of any damage or performance decay when unused for long time, enabling ready-to-use systems in real time;
- hundreds of thousands to one million cycles lifetime;
- huge power density of the order of MW per MJ of stored energy.

The listed features can enable many applications, among which we cite the following:

- self-sustained energy unit, installed with different configurations on different tactical systems, self-propelled trailers, shelters;
- energetically autonomous E-shelter, able to perform hydraulic functions, with lifting jacks, openings and maneuvers, photoelectrics, and with bi-directional power outlet for connecting them in parallel, or for providing power to external loads, as starters, forklift, electric field kitchens.

The energy stored in each shelter can range from a few MJ, with SCs placed in residual spaces for occasional and limited services, to 100kWh (360MJ) for a 22 feet shelter entirely devoted to storage, with peak powers in the order of hundreds MW for pulsed loads as well as high energy ultra fast charging stations for electric vehicles.

If, in case of necessity, SCs in shelters have to be charged by photovoltaic panels, charging time from scratch with a single set of PV panels mounted on the shelter roof may vary from a few hours to 10 days for full sized (100kWh).

Once charged, restoring the charge level after use is easily ensured, thus providing a ready supply of energy.



Professional Technology: these simple words sum up our management strategy. Established 40 years ago, today we are an important Italian company using advanced water treatment techniques. We were conferred the UNI-EN ISO-9001 certification in 1997. An accurate selection of specialized technologies, ample experience and qualified staff make us the ideal partner for the design and construction of plants and for the provision of water treatment services.

We proudly design and manufacture plants and systems for primary and wastewater treatment, large reverse osmosis plants, as well as chemical-physical and biological units. We are present all over Italy and have agencies and branches in Europe, America, Africa and Asia.

Protecno was established in 1975 by Lorenzo Belbusti and it has always dealt with water treatment, at the beginning as a Sales Agency then as a Supplier of equipments, products and instruments for water treatment. After a few years, Andrea, Lorenzo's brother, joined the company and Protecno has expanded to include the building of plants for the treatment of primary and process waters and has become one of the most important Italian companies in the field.

This result has been achieved thanks to Protecno's reliability and professionalism and also to the usage of the most advanced technologies; the growing integration in the foreign market has largely contributed to the company's success, today present in many countries from Europe to Americas, from Asia to Africa where it has gained and executed prestigious orders of international level.

MAIN TECHNOLOGIES:

Ultrafiltration - Reverse Osmosis - Media Filtration - Ion Exchange - Biological - Physical - Chemical - Automation

CERTIFICATION:

- UNI EN ISO 9001:2008
- UNI EN ISO 14001:2004
- BS OHSAS 18001:2007
- Certificate of SOA qualification for participation in and execution of public works

ACTIVITY:

- Construction/ prefabrication in the workshop
- Engineering / planning
- After sale assistance / maintenance
- Construction / assembly in the construction site
- Inspection of suppliers
- Testing, evaluation and inspection of equipments in the workshop
- Testing, evaluation, inspection and equipments first start in the construction site
- Training and informing the client about managing equipments

ESPRESSO line is The innovative modular system of Protecno Srl.

ESPRESSO ALL-OVER line is one of the ESPRESSO line and it is a compact system for the treatment of all type of water: primary, brackish and surface. Designed to provide a quick solution at the same time is simple and efficient within the desalination and purification field.

ESPRESSO ALL-OVER line consists of a single transportable module, containing all the necessary equipment and know-how for maximum performance output.

CAPACITY:

- SEA WATER = 10 m³/h
- BRACKISH WATER = 16 m³/h
- SURFACE WATER = 20 m³/h

TREATMENT PROCESS:

UF Cartridge filtration - Ultrafiltration - R.O. Cartridge filtration - Reverse osmosis - Remineralization.

POWER SUPPLY: 440 V - 60 kW - 110 A



In the information technology era, competition takes place in unlimited space and in timeless time, in the ubiquity of the universe of information and communication, in which we are all close and interfering one another: states, nations, economic and cultural organizations, people.

Informatics revolution has deleted territorial boundaries by imposing a new conception of citizenship and, therefore of safety, worldwide.

Individual problems, contextual, contextualized and local, can be effectively addressed and resolved, hopefully prevented, only by vigilant attention and control on all different levels, increasing the amplitude and ratio, to the universal scale.

Agents territorial behaviour interacting with the environment produces changes and the emergency of new organizational characteristics in the whole system. This flow of things, to be fertile, has to happen in "safety".

Safety is a dynamic concept, flexible, open, adaptive, cooperative, cross-disciplinary and cross-cultural, of communication and understanding between languages and different realities, similar or opposite, of mutual synergy and integration between personal skills and competences and technologies, between public and private, which constitute a comprehensive set of information in a global and planetary dimension.

Each local change involves a change in the system, in different proportions and not always direct.



The State, an evolved living organism, is a highly intelligent complex system. However, that's how it should be.

All the parts constantly interact with each other, creating subsystems of varying complexity in need of collaboration between all the components, in terms of structure and function, to ensure protection, stability, development, balance of its form-state.

The values of the Italian Constitution and of civil society are based on safety culture: peace, solidarity, work, family, health, economic and cultural progress, territorial defence from internal and external enemies.

On this basis "Hut8 - Designing the Invisible" was born, an association of men and women performing service activities, social and business sponsorships in the strategic management consulting field finalized to assist in those subsidiary activities during the changing process, in services, training, communication, planning, research, technological innovation, organization and development of businesses and events, economic internationalization, management of complex systems in a new commercial and business logic, of mediation between institutions and citizens for projects and initiatives for security purposes in any application and civilian operational field regarding energy, environment, health, politics, military.

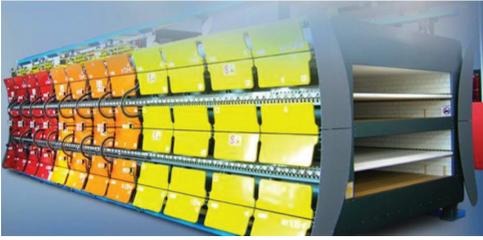


EFFICIENCY AND REDUCTION OF ELECTRICITY CONSUMPTION IN THE PROCESSES OF INDUSTRIAL HEAT PRODUCTION.

- The most energy-consuming industrial process is the heating by means of electric resistances.
- TTI Industrial is a technology that controls the supply of energy flows, and is able to reduce significantly the consumption.
- TTI Industrial controls the flow of energy that is used to feed in resistive systems without the latter come to "waste" energy in physical phenomena is not aimed at the production of thermal energy.
- TTI Industrial is able to identify the optimum working point of the resistors, working in a cyclic manner on the same point.
- TTI Industrial Modulates the timing of energy delivery, according to the type of material constituting the resistance.
- TTI Industrial allows reductions of energy consumption between 15% and 40% on the heating elements to which it is applied.
- This variation depends on the different types of resistors used in the processes.
- The system consists of an industrial PLC in which an algorithm covered by patent, controls the supply of energy for the achievement of process temperatures.

TTI INDUSTRIAL PULSE TRAIN TECHNOLOGY

- TTI Industrial is not a simple ON / OFF DUTY CYCLE, our technology anticipates the adaptation of the system with respect to the resistive material with which it communicates.
- TTI Industrial communicates with the resistive system and identifies the component material the



resistance, through a historical database of materials used, has the ability to optimize the energy process cycle.

- TTI Industrial, through various dynamic readings, independently it establishes the time intervals and the input of energy flows and or the not input.
- TTI Industrial, through periodic cycles of maximum efficiency, obtains a ratio of energy input and hence maximizing the efficiency of the energy transformation yield in the form of heat.

APPLICATIONS

INDUSTRIAL OVENS

TTI Industrial is installed in the batch production lines or in a continuous cycle, the resistors have the task of generating temperatures required by the production process.

EXTRUDERS INDUSTRIAL HOT

Such systems they process the raw material into the finished product, by means of a thermal process by means of electric resistors.

DRYING PLANT

Such systems are mainly used to remove a part of moisture from the product by means of electric resistances.

PACKAGING SYSTEMS WITH TERMORETRAIBILI

The production processes that pack a finished product, using heat-shrinkable plastic materials. These lines use resistors to complete the packaging process.

SUCH TECHNOLOGY can be applied in all situations with resistive loads for converting electrical energy into thermal energy.



Building Intelligence Group (BIG) is the leading company in the realization of microgrids and technological automation systems, BIG Studio, totally developed by BIG, is the innovative solution of BIG for the automation of a complex system.

BIG Studio is an integrated solution for the control of all kinds of technologies. Based on high performances, scalable and constantly evolved with most innovative solutions, modular and customizable, is rich of functional choices that can satisfy all demands.

BIG Studio is multi-protocol and multi-site and can manage every kind of standard automation system, but can control also handle proprietary solutions with open secure protocols.

BIG Studio is the perfect solution to control energy in all forms, from measurement of power, energy and all energetic parameters to the complete and optimized management of all the field elements.

Mainly where resources are limited, it's important to use only the energy that is really necessary for the system basing on people, goods and sources that are effectively available.

Commands are divided for roles and jobs, to allow an optimal control of activities on the base of competences and strategies. All operations on the system are traced to allow optimal control to high level responsibility users.

System can manage automations to optimize energy request, human presence, goods and energy sources.

An important factor that the system can use is the cost of energy provisioning to use energy where is really cheap and suitable.



The main parameters actually used by the system are:

- Security to prevent energy failures
- Electric Request
- Thermal Request
- Economic parameters
- Load priorities

It's really important to avert power leaks where there is a real need and delay load activation for loads that are not indispensables, these can be delayed for moments where there is major power availability.

The choice of energetic sources can be based on the contemporaneous need of electricity and heat, if there's a good availability of gas for example it can be useful to choose cogenerators to produce energy.

System is totally customizable, users can check energy consumption in the last period and the availability of sources and update management strategies on the base of these parameters.

BIG Studio is an advanced BMS (Building Management System) that can integrate all systems. Very important is the integration with CEM system. CEM system, distributed by BIG srl, is considered the most important and secure SMS (Security Management System) in the world.

CEM is the perfect product where the need of security is total and really critical. CEM is a producer of global and integrated solutions, hardware and software for access control and can integrate CCTV, fire security systems, antintrusion, technical alarms, and can satisfy all needs of safety and security.

The integration between BIG Studio and CEM system is the perfect solution for a very complex system.



Located in the south of Italy, Plasmapps is devoted to provide industries and research laboratories with solutions based on cold plasma technology. Customized industrial plasma processes for modifying the surface of materials and not-standard plasma-reactors (sale and service) are the main products of PLASMAPPS.

Plasmapps has industrialized many plasmochemical processes
Rubber/Plastic: modulation of friction coefficient, protection from chemical attacks, activation, anti-sticking and anti-limestone;
Metals/alloys: anticorrosion, wear resistance;
leather and Individual protection device: protection from stain, UV, abrasion.

R&D unit works for Biomedical field, by developing antibacterial coatings, unfouling processes, cells adherent/repulsive;
Anti-counterfeiting strategies for documents or labels and barrier coating for Packaging (Food and Pharmaceuticals).

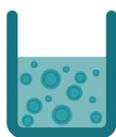
TECHNICAL SHEET

Plasma technology offers a valid alternative to conventional wet chemistry with many benefits due to its high eco-sustainability. It is a "dry and green" chemistry working without solvents and with minimal use of reagents. The PLASMA is an ionized gas rich of reactive species able to modify the surface properties of the materials exposed to it. It becomes possible to realize a customized "surface tailoring" of materials.

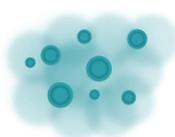
Plasmapps has optimized a protective **nano-coating which protects soldiers' uniforms** from chemical and biological hazards. Traditional protective uniforms used non-porous materials with little breathability and reduced mobility. For the first time it is possible to



SOLID



LIQUID



GAS



PLASMA

realize stain-resistant, free from PFOA and PFOS, flame retardant, haemorepellent and bacterial-barrier fabrics without altering the touch and the breathability of the fabrics natural and synthetic, resistant to washing machine and ironing. It is possible to treat the entire garments so that there are no weak points absorbing hazardous liquids.

Soldiers, with dry uniforms protected from chemical and biological risks, but with clothes still well transpiring, work with high efficiency, not stressed and with more comfort. Less frequent washings, less trips from the camp to the laundries, less consumption of gasoline.

Plasmapps has optimized a protective **nano-coating which protects military tents** from chemical and biological hazards. The coating provides the highest levels of liquid repellency, flame retardant and stop the bacteria penetration, on the entire surface of the tent. Less work for soldiers for washing the tents.

Plasmapps has optimized a protective **nano-coating which protects combat boots**. The highest level of protection from water and dirt, fastest drying effect, without having to sacrifice on the feel or the breathability. The coatings are anti-bacterial, haemo-repellent, flame-retardant.

Less work for soldiers for cleaning the boots. Plasmapps technology is completely dry, and consumes an absolute minimum of chemistry and energy. By using only 1 kg of Plasmapps coating you save the world from: 5 kg of DWR (Durable Water Resistant) coating-chemicals; more than 115 litre of waste water; almost 80 kg of CO²; crosslinking agents, chlorides, formaldehyde and other toxic products used in wet-chemical DWR.