



Catalogue

of products and services

www.wiscontrol.sk

Treasure © - patent pending

Thank you

In the beginning we would like to thank everyone who has considered using our professional services and innovative technologies that have been positively changing our future.

We think ecologically

Currently, we are facing various environmental problems that have arisen as a result of the longterm uneven development of human activities and their approach to the use and impact on the natural environment. Strong ecological, economic and energy pressure have begun to affect our homes, health, business and overall condition.

Our company WIS CONTROL SK with its philosophy and activities have been striving to solve the existing global problems and the sustainability of a healthy planet. If our company, together with you, succeed in reducing CO₂ by 2030, we will protect our environment, we will no longer face fears of the future and a new world full of new opportunities will open up for us.

Motto:

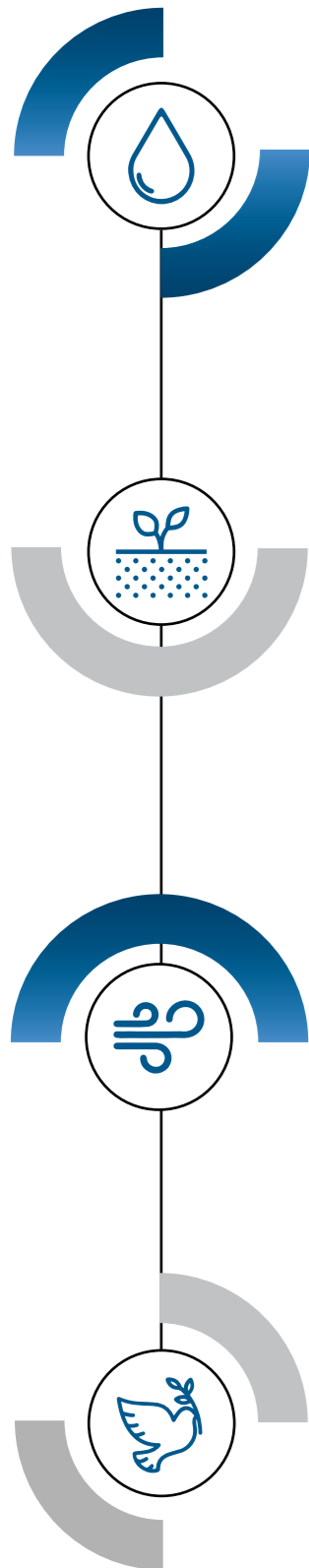
*"We think green, we think economically,
every saving means more time for our
planet and our Slovakia."*

Table of content

02-03	Introduction	30-31	Industry use
06-07	Environmental issues	
08-09	About us	32-33	Water vapour treatment
.....		34-35	Ice treatment
10-17	Treasure © Technology	36-37	Snow treatment
18	Treasure © Features	
19	Treasure © Installation	38-39	Geothermal water treatment
.....		40-42	Water treatment in agriculture
20-23	Drinking water treatment	43	Vegetable oil treatment
24-25	Domestic water treatment	44-45	Petroleum derivatives treatment
26	Liquid treatment in air conditioning	46-47	Hydrogen production and treatment
27	Water treatment for cooling towers	47	Gases treatment
.....		
28-29	Home use	48-49	Ordering procedures for our services

Environmental issues

Water, soil and air pollution



WATER

Waste waters from industry, agricultural production and cities are discharged in to water courses, causing water pollution. Pollutants include, for example, petroleum products, detergents, various sludge's, toxic substances, but also silage, slurry and other organic substances, which often transmit the germs of infections and parasites. In watercourses, the quality of water is monitored and, in particular, the oxygen regime, the basic chemical composition and the content of special substances are determined. Standards are set for each of these indicators and the result is scale classification of the watercourse's purity. Groundwater is polluted from overfertilized soil, oil accidents and the impact of polluted watercourses. Groundwater pollution is usually very long-term, lasting several decades to hundreds of years.

SOIL

Soil, together with air and water, forms an inseparable system. Therefore, any air and water pollution also threatens soil as well. Acid rain acidifies the soil, thus changing its properties, leaching more calcium, magnesium, potassium, destroying soil organisms and making soil less aerated. Some metals (vanadium, arsenic, lead, cadmium) and pesticides accumulate in the soil from emissions and cause toxicity. The threat to the soil are also oil pipelines, as the content can leak in to the soil during accidents. Overfertilization can occur when soil is enriched with industrial fertilisers. Industrial fertilizers alone cannot maintain soil fertility and their very large doses cause salinization.

AIR

Air pollutants have a negative impact on the human, plant and animal health. They cause a variety of diseases, as well as the death of organisms leading to a loss of natural biodiversity. Air pollution in agriculture is reflected in reduced livestock production, in industry it contributes significantly in accelerating corrosion, disintegration of building materials, damage to paints and so on.

FAUNA AND FLORA

The change in natural conditions in a certain area causes a change in the fauna and flora. If we compare the original representation of plants and animals before and after the negative impact of human activity on the area, we can observe a change in the representation of species. The restoration of water, soil and air to its original state can thus restore the original occurrence of flora and fauna that are characteristic to the zone.

We connect strength and experience

As the company WIS CONTROL SK s. r. o. we are aware of the whole society problems, that is why we take action and base them on our motto and mission. **"We think green, we think economically, every saving means more time for our planet and our Slovakia."**

We combine years of experience in the field of environment within creating economic efficiency. Over the time of our operation, we have **managed to link economic performance with environmental protection.**



We reduce emissions

Today, as part of EU policy, all **27 member states** have committed themselves to transforming the EU into the first **climate-neutral continent** by **2050**. To achieve this goal, countries need to **reduce** total emissions by **2030** for at least **55%** compared to levels in 1990.

Alongside the challenge, new opportunities for innovation, investment and jobs have been created.



About us

Our services and company idea

The company **WIS CONTROL SK s. r. o.** is engaged in the **treatment of water, vegetable oils, various gases, petroleum derivatives and the production of hydrogen.** In the case of water, the treatment is aimed at all its states, i.e. solid, liquid and gaseous.

Supramolecular treatment

Water treatment

Our goal is to achieve economic and energy savings in the range of 15 to 20% while ensuring unpolluted, safe water that is treated using the physical properties of water without the use of chemicals. Water treated with the Treasure © device has changed properties that accelerate its cooling or heating. Treated water is suitable for direct consumption and plant irrigation.

Vegetable oil treatment

By treating vegetable oils in the food industry, we change the viscosity of the oil (fluidity), adjust the PH, reduce the presence of phosphorus, separate water from the oil and at the same time recover the already contaminated oil for further use.

Petroleum derivatives treatment

One of the biggest challenges is the petroleum derivatives treatment and reduction of CO₂, as well as other unwanted substances that arise from the use of combustion engines. The modification is carried out by applying the device to the engine part of the car or by modifying the fuels directly in the fuel production processes. Treasure © achieves significant reduction of CO₂ emissions and other negative environmental impacts.

Hydrogen production

Using the Treasure © device, we provide water treatment within the hydrogen production, that practically means more efficient electrolysis cleavage into hydrogen and oxygen. This process generates lower energy costs.



Treatment without chemicals

The idea is to limit the use of chemicals

Our company offers innovative Treasure © device, which is in direct contrast to the use of chemicals and undesirable chemical processes due to its technological treatment process. During 30 years of hard work by scientists and the entire team, a unique technological process has been developed, which consists of a treatment (of water, etc.) that takes place at the supramolecular level using the physical properties (of water, etc.). As a result, the structures of the molecules are modified so that the liquid can perform the same role as the chemically modified one. The advantages of using the technology are: elimination of negative environmental impacts, improved water quality, cost savings associated with the purchase and application of chemicals, or other financial savings due to reduced energy consumption (individual examples are given in each chapter). With its multifunctionality, Treasure © technology helps a variety of industries and brings new possibilities in solving serious global problems.

The challenging task results in satisfied users

During the period of research and development, it was formed the team of people who overcame the conservative arguments emerging in the academic community. They were able to successfully refute the conservative and negative arguments at every point, and successfully apply the device with the expected results, today confirmed by satisfied users. The Treasure © device itself and the technological solution have gained satisfied users in multiple industries and countries. Users first restricted chemicals until they stopped using them. This fact activated an immediate positive response from other economic entities using primarily chemical preparations. However, overnight, chemical traders became hostile as we have struck directly into their trading territories. Nevertheless, we have withstood the negative attitudes and have not abandoned our idea, philosophy and lifestyle. We do not underestimate the importance of water, which affects basic human needs. The more water-friendly we are, the sooner we will restore the planet and achieve the health and well-being of its inhabitants.



Treasure[®]

technology

Type 1 (U)

installed on pipes
from DN 32 to DN 50

Material - **PPR** (polypropylene)
suitable for medium up to **130°C** and pressure **PN 16**

Construction

Mechanical part

- U-shaped polypropylene construction
- connecting flange with a fixed or transparent technical glass chamber

Electronic part

- source of pulses – frequencies with power supply (230V/12V)



DN 32
DN 40
DN 50

Treasure[©]

technology

Type 2 (U)

installed on pipes
from DN 32 to DN 50

Material - **STAINLESS
STEEL**

suitable for medium **above 100°C**

Construction

Mechanical part

- U - shaped stainless steel construction
- connecting flange with fixed or transparent technical glass chamber

Electronic part

- source of pulses – frequencies with power supply (230V/12V)



**DN 32
DN 40
DN 50**

Treasure[®]

technology

Type 1 (I)
installed on pipes of **DN 90**
diameter

Material - **PPR** (polypropylene)
suitable for medium up to **130°C** and pressure **PN 16**



DN 90
DN 110
DN 125



Construction

Mechanical part

- I-shaped polypropylene construction
- connecting flange with a fixed or transparent technical glass chamber

Electronic part

- source of pulses – frequencies with power supply (230V/12V)

Treasure[©]

technology

Type 2 (I)

Installed on pipes of **DN 90**
diameter

Material - **STAINLESS STEEL**

suitable for medium **over 130°C**



DN 90
DN 110
DN 125



Construction

Mechanical part

- I-shaped stainless steel construction
- connecting flange with a fixed or transparent technical glass chamber

Electronic part

- source of pulses – frequencies with power supply (230V/12V)

Treasure © Features

viscosity
(fluidity)
treatment

specific heat
treatment

reduction of
hypochlorite
content

liquid
clarification

removal
of harmful
microorganisms

surface
tension
change

preventing
limescale
formation

pH (acidity)
adjustment

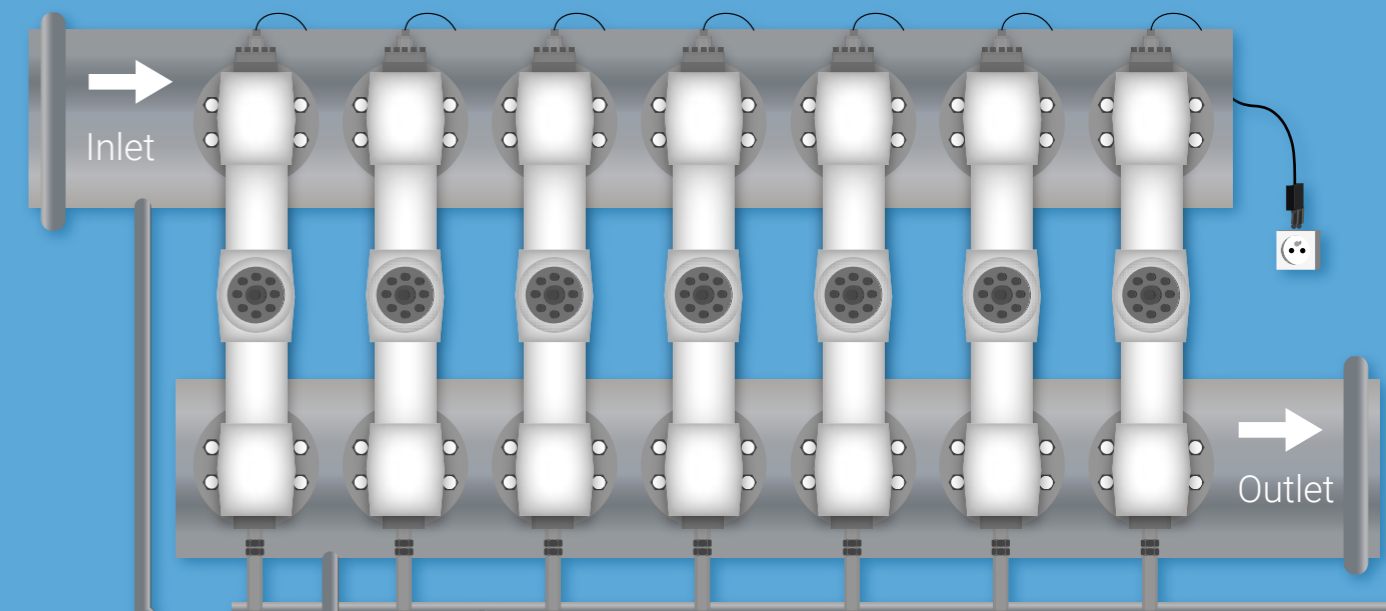
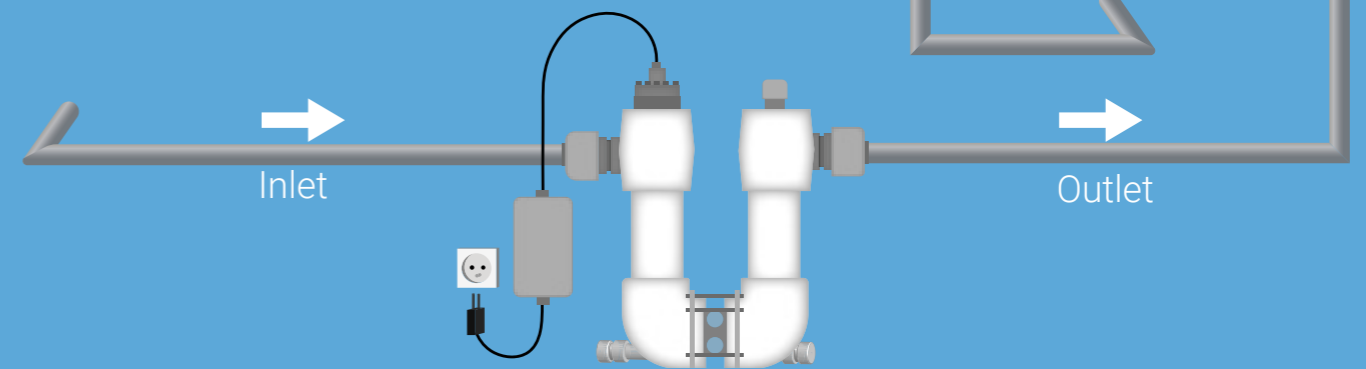
conductivity
change

change of
polarization
and ionization
energy

Treasure © Installation



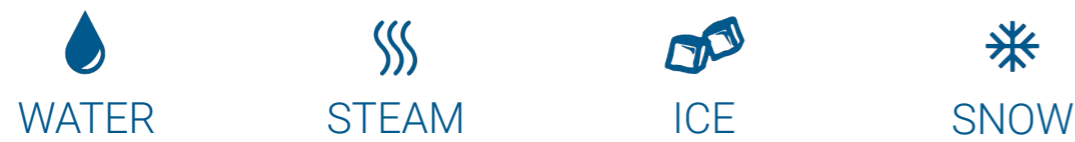
The Treasure © devices are installed on the piping system at the point where the liquid is treated, so before it enters the device used for heating, cooling or other use.



WATER

Treatment of water in all states

Water is an essential component of the ecosystem, an important element and the prerequisite for the life of humans, animals and plants on Earth. Without the water, no physiological processes essential for life could take place. It plays a key role in the climate regulation cycle, and therefore the protection of water resources, the ecosystems of salt and fresh water that we drink and use for various purposes, is one of the cornerstones of environmental protection in Europe. Among other things, it is necessary resource that drives the economies of countries. Our company provides equipment for water treatment in all its states (gaseous, liquid and solid), by a physical process without chemicals.



Drinking water treatment

Water used for drinking purposes in Slovakia, must comply with the conditions resulting from the "Regulation of the Government of the Slovak Republic no 354/2006 C. I. laying down requirement for water intended for human consumption and quality control of water intended for human consumption". The quality of drinking water is achieved in various ways, from chemical through magnetic to the so-called reverse treatment, where all minerals and elements are removed from the water, but water treated in this way

cannot be consumed or drunk in the long term. Its biological value is low. Chlorine and its modifications are used in practice to solve water polluted by bacteria. This treatment is not suitable for the piping system. From a health point of view, water-forming oxides are formed in water in living organisms and affects permeability of blood vessels and veins. There are cases when the water smells. Environmental access to the storage facilities, so from water-works through reservoirs to family houses.

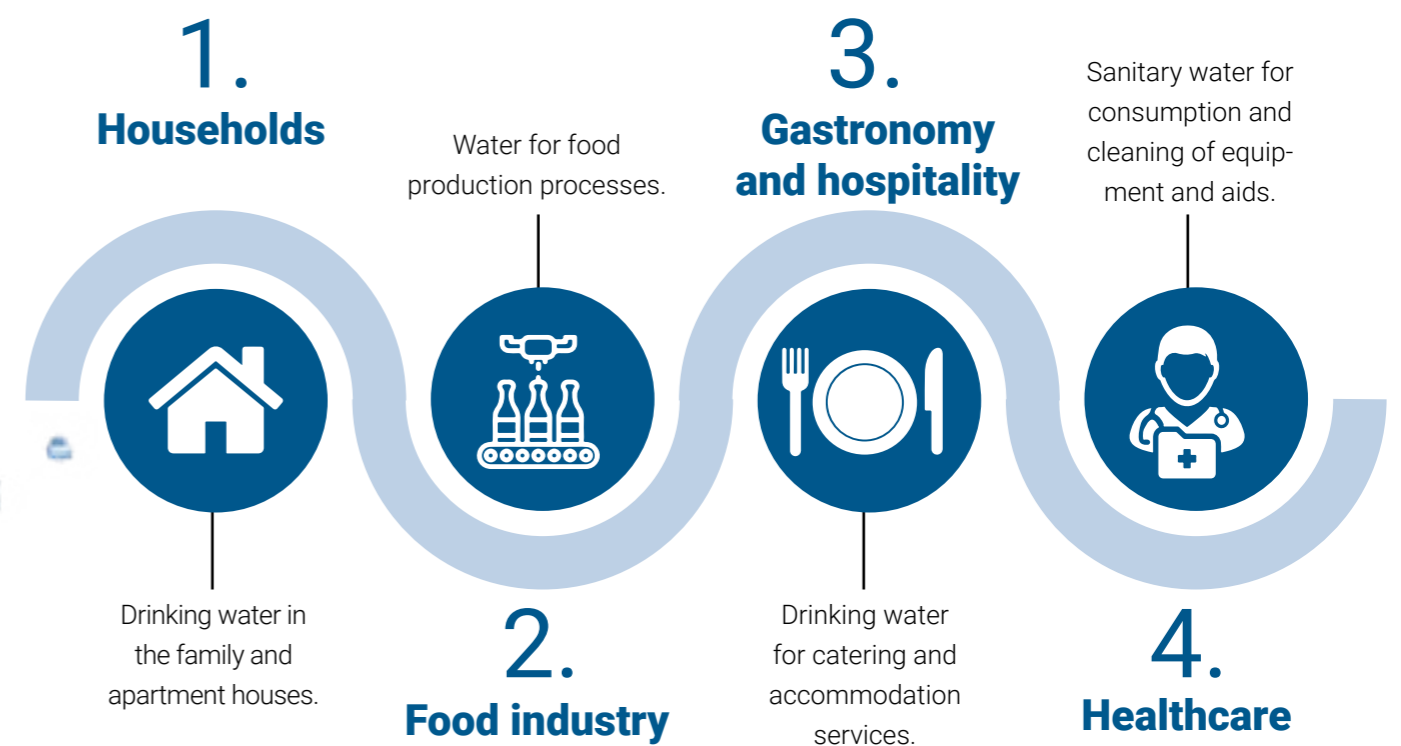


Troubleshooting drinking water problems with Treasure ©

The most common problems of standardly treated drinking water include high content of hypochlorites and reduced biological value of the water important for living organism. Regular consumption of reduced quality drinking water can affect both health and overall mental well-being. The Treasure © device can reduce hypochlorite content, reduce the oxygen content, treat turbid water to clear and increase its biological value. Regular consumption improves the overall functioning of the human body, e. g. regulates the permeability of blood vessels and veins, improves blood circulation or causes better hydration compared to ordinary drinking water. The device works exclusively on the physical principle of ionization and subsequent polarization of the molecular structures of water, thus creating a new supramolecular structure that is beneficial to all living organisms.



Possibilities of use Treasure © for drinking water treatment



Effects of treated drinking water on the human body

75 %

- Improves physical and mental health
- Accelerates the detoxification process
- Blood circulation
- Improves the functioning of organs
- Removes heavy metals from the body (Cd, Cl, Pb, Hg, Ar)
- Modifies the permeability of blood vessels and veins
- Helps fight bacteria and viruses
- Hydrates the body faster
- Has diuretic effects
- Deoxygenates the body (O₂)
- Removes kidney stones
- Adjusts pH, cholesterol also overall blood count
- Suitable for dietary purposes - breaks down fats
- Improves the binding of vitamins and minerals from food (A, C, B, D)



Domestic water treatment

Domestic water is often used in industry, agriculture, but also in households. In agriculture and industry, it is mainly used for irrigation and operation (e. g. in space heating systems or in cooling systems for food cooling). In the household, it is used for irrigation, flushing, washing, heating, cooling or in swimming pools. The source of domestic water can be lakes, rivers, rainwater harvesting or underground springs, that are not suitable for direct consumption. Despite the lower demands on the resulting water parameters for specific purposes compared to drinking water, it is often necessary to treat the water with certain chemicals and filtration devices. Chemical intervention can modify certain properties of water, but its use leads to various secondary problems. These problems become evident, e. g. in heating systems by clogging the pipes with limescale and other incrustations. As a result, the consumption of electricity for heating is gradually increasing. In agriculture, when crops are watered, chemicals seep into the soil, causing soil quality degradation. Water is often used in all production areas and sanitary facilities. The innovative Treasure © technology installed on the piping system, can treat water without chemical intervention to meet special requirements and maintain the required mineral content.



1. Domestic water heating

1. Equipment protection

The presence of iron and its compounds does not have a significant negative effect on our health, in this case it is mainly hygienic and technological disorders that chalybeate water can cause. Improving the quality of water by molecular treatment and its use in mechanical and technical equipment is directly related to protecting equipment from clogging of its internal parts by removing hypochlorites and other oxidizing substances from water.

2. Chalybeate water prevention

Water heating is a highly oxidative process that separates oxygen from water. The oxygen then interacts with the mineral elements present in the piping system (mainly iron and manganese), resulting in an undesirable brown to red colouring of the water and the formation of so-called chalybeate water. The problem is commonly found in households where it leaves visible marks in showers, sinks, bathtubs, toilets etc. Treasure © provides a treatment of the force bonds of individual elements in the water. Changing the water viscosity, surface tension and specific heat prevents the formation of incrustations and their release into the water, so the water remains clean.

3. Reduction of energy consumption

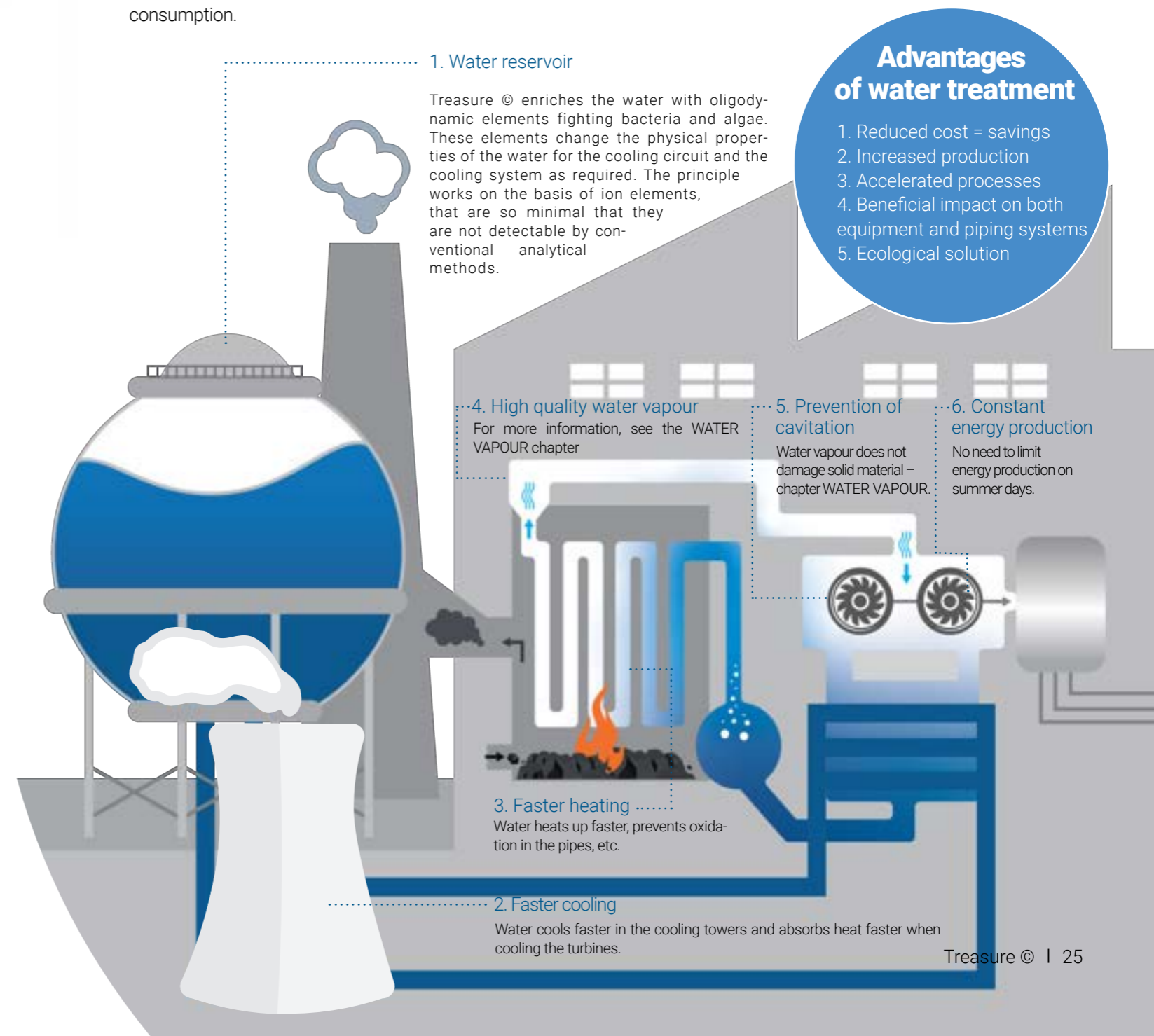
The larger the heating area, the greater the electricity consumption. The main problem is the large amount of expenditure on the water heating process of business entities. This is the reason we offer an economical and at the same ecological solution that guarantees its consumers a minimum saving of **15 - 20%** of the total expenditure on electricity consumption. The Treasure © device can reduce the high energy costs of water heating for central heating by changing the physical properties of the circulating water guarantying faster water heating in the heating device (boilers or solid and gaseous fuel boilers).

2. Domestic water cooling

In industry, the cooling process is performed at high flow rates, resulting in high energy consumption. Waterusing industries are diverse, but all have the same problem related to the huge water expenses. Our device can be used in any refrigeration and freezing system that contains at least some water or alcohol in the cooling medium. We guarantee that by using the Treasure © device, the user can save 15 – 20% on electricity consumption, and at the same time shorten the cooling process time.

How does Treasure © help with cooling in power plants?

The biggest difficulties arise especially in power plants, specifically with turbine cooling, because the water cannot effectively cool the turbine, and at the same time the presence of algae, bacteria and viruses remains in the water. During the summer, every manufacturer strives to reduce cooling capacity by up to 20%. As a result, electricity production drops to 70 – 80% of common production. When the Treasure © for high flow rates (up to 100 m³/hour) is installed in the circulation system, acts on the circulating water and changes the forces between the molecules. This helps to cool the water faster with lower energy consumption.



- Advantages of water treatment**
1. Reduced cost = savings
 2. Increased production
 3. Accelerated processes
 4. Beneficial impact on both equipment and piping systems
 5. Ecological solution

Liquid treatment in air conditioners

The energy-saving Treasure © device is suitable for office buildings using multisplit air conditioning units, where there is a large amount of electricity consumption due to the heating/cooling capacity of the space. The device is installed on a cooling circuit, where it molecularly treats the properties of the liquid. Due to the current legislation, device can help to reduce the energy class of building. In any case, the device is dimensioned and custom-made based on the measurements and consumer requirements.

Accelerated cooling and heating process

Supramolecular treatment of the specific heat, viscosity and other properties of the coolant circulating in the air conditioning system circuit will ensure faster cooling or heating of the liquid.



Office buildings

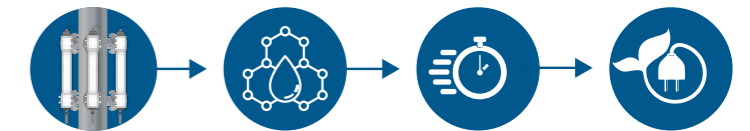


Energy saving

Faster cooling or heating of the liquid will save 15 – 20% of the current electricity consumption, and thus brings financial benefits for business entities.

Water treatment for cooling towers

Water cooling is the most common method of cooling power equipment (especially turbines in power plants). Water circulates in systems where cools equipment, which means water transfers cold and receives heat. After that travels to the cooling tower, where it cools down again. Do you wonder how can Treasure © help in this case? Treasure © for supramolecular liquid treatment changes the supramolecular structures of coolant, water in this case, which then acquires improved properties guaranteeing faster cooling compared to conventional water. Treasure © device (or several devices) is installed on the supply line and/or directly before spraying on the cooling towers. To increase efficiency, we also install the devices directly in the tank/pool below the tower in front of the pumps. The solution has the advantage of increasing the cooling water temperature difference and eliminating the formation of algae, microorganisms, bacteria and viruses, thereby increasing cooling efficiency and reducing maintenance costs.

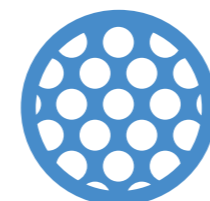


1. Installation of equipment on the piping system.
2. Supramolecular water treatment.
3. Faster cooling.
4. Guaranteed energy savings at least 15%.

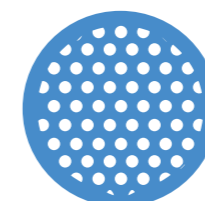
Water mist spray cooling

Considering that, in most cases, it is necessary to operate all cooling fans when set up correctly, then another technical solution that generates savings is the treatment of the water viscosity. The treated water is more fluid as a result and produces smaller droplets that cool faster during the nozzle cooling process.

Conventional water



Treated water



Cooling and heating using the temperature from the ground

In some cases, the temperature below the earth's surface is used to heat or cool a liquid. The reason is a relatively constant temperature at a depth of about 2-3 meters compared to the temperature above the earth's surface. Treasure © technology treats the water so that it can better absorb cold or heat. In practice, this means that the treated water is cooled or heated up to 5°C up or down compared to common water. At the same time, the water maintains the acquired temperature unchanged until it enters the heating or cooling media. Within refrigeration, the technology brings advantages in freezing and refrigeration, e. g. for food storage in factory and hall environment, where it can generate a minimum saving of 15% on cooling energy consumption.



Home use



Domestic breeding

Poultry, pigs, hares, etc.

Special water treatments help to maintain the physical and mental condition of the animals when consumed, support the immune system, detoxify and help to process food more easily. As a result, there is a natural increase in animal production and overall animal health.



Pools

Pools cleaning and healthy swimming without chemicals

Water treatment eliminates the presence of cyanobacteria, other bacteria and viruses that are harmful to the human body. It cleans turbid water together with particulate filters, thus ensuring crystal clear water. At the same time, it helps to heat swimming pools with improved water calorific value using heating media and thus saves energy consumption by at least 15%.



Washing, ironing and washing dishes

Care of textiles and furnishings

The water maintains the constant colour and quality of the fabric, while not clogging washing machines, irons or dishwashers with limescale. Improved evaporation of water makes the quality of ironing more efficient.



Irrigation

Growing fruits, vegetables, ornamental trees, plants and lawns

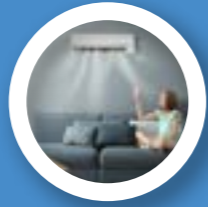
Treated water can release carbon dioxide from the soil, which isn't beneficial for crop growth and volume. Adjusted pH has a beneficial effect in the soil and builds plant immunity, by its properties hydrate more effectively even in times of drought, ensure soil porosity and deepening of the roots providing the plant with the necessary nutrients.



Heating

Heating the household with a boiler

Improved water calorific value results in faster water heating and thus reduction in electricity consumption for heating by at least 15%.



Cooling

Air conditioning and heat pumps

Supramolecular treatment of the coolant results in faster cooling and a reduction in electricity consumption by at least 15%.



Toiletries

Showering, washing, bathing, flushing

Water prevents oxidation of iron in the piping system, and thus leaves no unwanted discoloration of sanitary facilities such as sinks, baths, showers, toilets, etc.



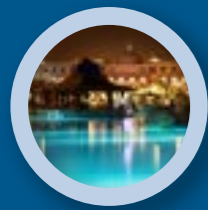
Washing

Washing of personal vehicles

The water is free of hypochlorites, and thus does not leave white spots on the surface of the vehicle (it behaves similarly to osmotic).



Use in industry



Accommodation facilities

It is mainly about building heating. As a result, the electricity consumption for circulating water heating is reduced by at least 15%.



Energy production

In the production of electricity in turbines.



Cooling systems

Physical treatment of coolant in air conditioning systems. Water treatment in cooling circuits in engineering, metallurgy and energy industry.



Reagent production

Special water treatment suitable for the production of reagent in production processes.



Heating plants

Faster water heating and reduction of emissions due to the loss of water heating resources.



Healthcare

Disinfection of medical supplies and equipment.



Mineral waters

Treatment of mineral and highly mineralized waters.



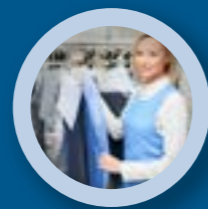
Spa

Chemical-free cleaning and water heating with faster water calorific value with savings in spas and wellness centres.



Waste water treatment plants

Chemical-free treatment of wastewater from sewers and cesspools and full reuse as domestic water.



Laundries/drycleaner

Water preserves the quality and colour of textiles, reduces the consumption of detergents, makes ironing more efficient and reduces electricity consumption for heating by at least 15%.



Business centres

Heating of office space, conference and other rooms.

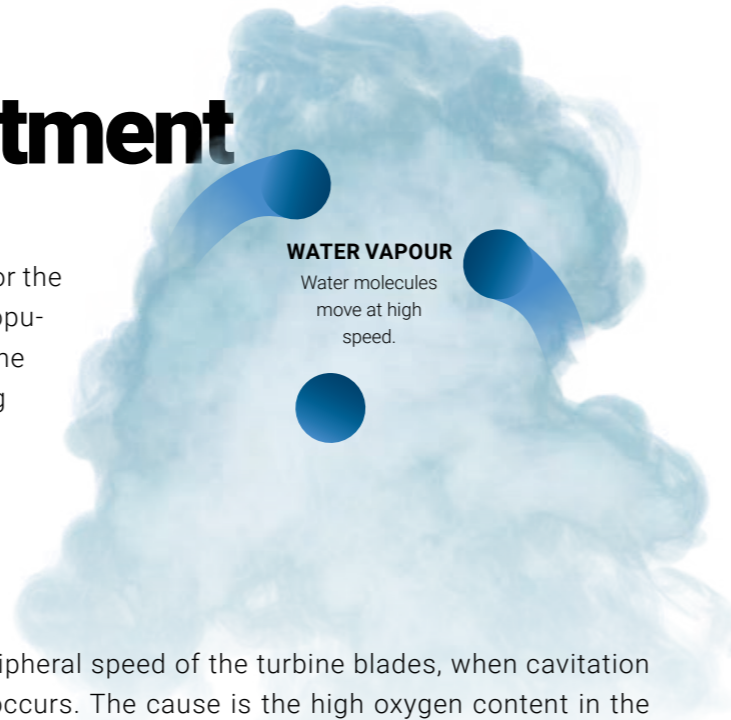


Water area protection

Protection of water areas and habitats, protection in mining and other waterworks.

Water vapour treatment

Water vapour is one of the most commonly used media for the supply of thermal energy for many reasons. Its use is popular in many industries, for various types of tasks, from the production of mechanical energy through space heating to process industry applications.



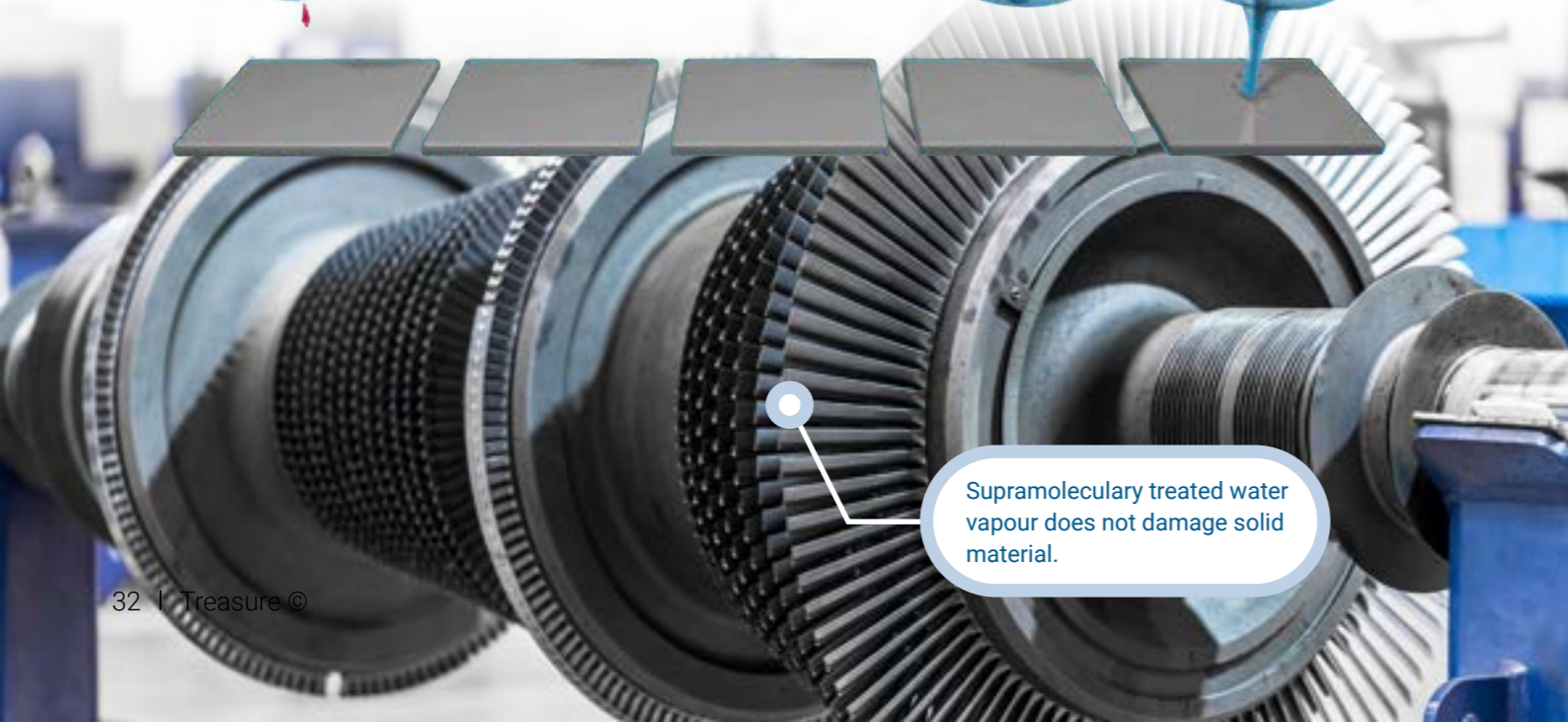
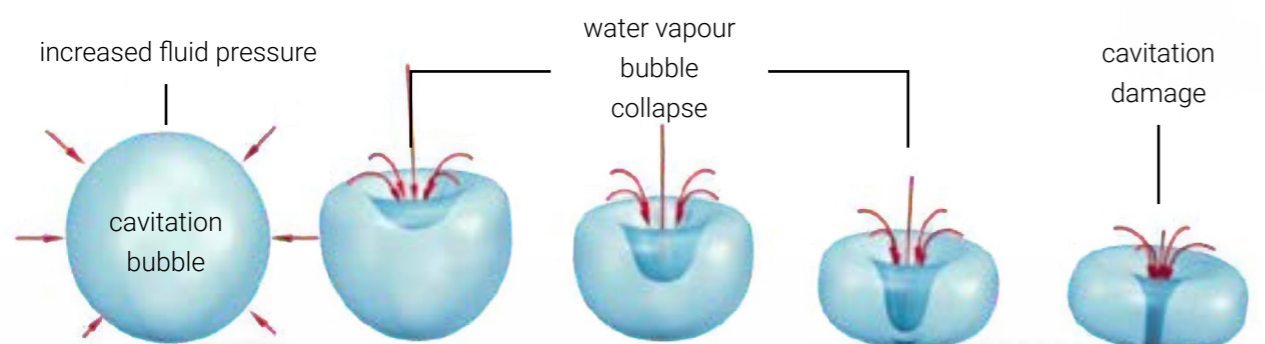
Water vapour problems

The main side effects of water vapour include damage to the piping system and internal parts of technical equipment due to cavitation and the formation of incrustations. Problems most often occur during the energy production in power plants, due to the peripheral speed of the turbine blades, when cavitation occurs.

The cause is the high oxygen content in the water. The formation is also affected by the value of surface tension and the viscosity of the water from which the water vapour is produced.

Cavitation

Cavitation increases the surface roughness by tearing out the material. This is how so-called cavitation wear is formed, causing the reduction of the equipment efficiency. It occurs especially in technical devices moving rapidly in a liquid, e.g. on turbine blades, high-pressure pumps, pipe bends, etc.



Water vapour treatment with Treasure ©

The Treasure © device can accelerate the degassing time of water vapour by molecular treatment of water (from which water vapour is produced) and produce so-called dry water vapour, which limits unwanted cavitation. This is due to an increase in viscosity and a decrease in surface tension of the water. Another advantage of molecular treatment is the faster heating of the water from which water vapour is produced. This generates an energy saving of at least 15 % for heating. At the same time, financial savings are generated by avoiding damage to stressed parts of the equipment, thus reducing repair costs and extending the life and efficiency of the equipment. In conclusion, we would like to point out that we can design the Treasure © device so it can change the physical properties of water for steam production according to the specific client requirements.



1. increase viscosity (fluidity) of water

2. decrease in surface tension of water

3. acceleration of water vapour degassing (oxygen separation)

Use in industry



Pharmaceutical industry

Disinfection of instruments in water vapour sterilizers used for medical purposes.



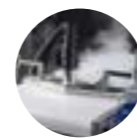
Energy industry

Heating plants producing heat/domestic hot water based on a water vapour system. Water vapour production for turbine drive in power plants.



Textile industry

Drycleaners, laundries, carpet and textile production, textile colouring, textile ironing, water heating in washing machines and others.

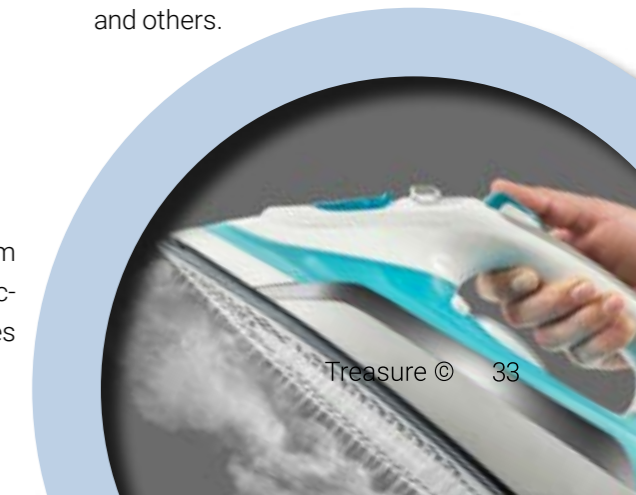


Food industry

Various processes requiring water vapour to maintain product quality (steaming, cleaning, cooking, pasteurization, distillation, stewing, baking, canning) or surface sterilization.

Other industries using water vapour

Paper industry - pulp drying, film production, polystyrene production, forming of electronic devices and so-called white goods.



Ice treatment

Ice represents a solid state of water. Water freezing and ice melting are affected by the particles present in the water. From a general user point of view, the problems are related to nucleation, so by converting the liquid state of water into solid (ice), and maintaining a solid structure at the appropriate quality for various uses such as hockey, figure skating, public skating, food and gastronomy.



1. Winter stadiums - ice rinks

In sports activities where the ice rink is groomed by ice resurfacer, there is a precisely defined period of time, approximately 12 minutes, which is used to cool and groom the rink. Despite the maximum output of the refrigeration compressors, which is 100 to 150 kW, the required ice quality is not achieved due to a short break in the game.

The **benefits** of making ice from treated water through **Treasure ©**



The ice rink made of modified water is colder on its surface, even while maintaining the standard temperature of the concrete slab and the standard thickness of the ice surface. The lower surface temperature of the ice rink along with the faster solidification of the water, is an advantage when treating the ice rink during breaks between hockey periods, prior to individual shootouts, or during operation in the warmer months, when it maintains the **proper ice quality**. In cases where the lower surface temperature of the ice rink is operationally unnecessary, from economical point it is possible to increase the temperature of the concrete below it, as the ice surface produced and treated with modified water warms more slowly. Treated water can extend the time between cooling cycles throughout the day.



2. Freezers and warehouses

Treatment of water or any coolant circulating in the cooling systems saves electricity consumption by at least 15-20%.

2. Gastronomy

The device can treat water in ice generator used to prepare cold drinks.



The result is quality and saving



Accelerated process

Treated water has the properties of a faster cooling and freezing process. Faster water cooling has a beneficial effect on cooling systems designed for ice production and freezing. The time of individual cooling cycles is shortened, thus reducing the consumption of operating hours and kWh of electric motors, as well as the depreciation of compressors, pumps and cooling tower fans.



Financial savings

We guarantee minimum economic savings of 15 to 20% of current costs associated with ice production or maintenance of the ice rink.



High quality ice

By high quality ice we mean the resistance of ice to higher temperatures, so its slower melting and evaporation. The ice remains solid longer.

Technical snow treatment



Treasure © Solution

The main task of the Treasure © device in snowmaking is to treat the viscosity of the water and change the group heat. The result is faster cooling and sustainability of snow consistency for up to 50% longer. With the device, you can achieve snow production at a temperature as low as +1.5°C. Compared to untreated water, the production of snow by snow cannons does not create a water fountain. The produced snow remains preserved even at temperatures of +8°C, which means a great advantage due to the possibility of quality snowing on slopes even at higher temperatures of the main season. It should be noted that to create a snow is sufficient even a smaller amount of water compared to standard ratio. No chemical or biological substance is needed to create snow, and snow can be preserved until the next season in storage under thermal layers (e.g. foil or chipboard).



Water treatment for the technical snow production with our Treasure © technology is patent-protected. The device works on the principle of water treatment using silicates and electrodes made of precious metals. By passing through the device, the water receives an endothermic impulse that changes the supramolecular structures (change of energy stresses in and between molecules). This improves the water properties and increases cold uptake by up to 80%.

Treasure © Installation



We recommend installing the device in front of high pressure lines. In ski resorts, we recommend installation in front of a cooling device, where the water is pre-cooled, as electricity consumption is also saved during cooling. Treasure © technology is installed on existing water mains in the form of bypasses with the possibility of its disconnection, either manually or automatically through its own automatic system. The technical principle makes it possible to set required or limit values for water flow, as well as other important data, according to the operator's specifications or the agreement with the manufacturer of the original technology and consumer's requirements.



Advantages of snow from treated water

2.

Longer durability

Snow maintains consistency up to 50% longer and is maintained up to +8°C. At the same time, water does not leak out even with higher layering.

4.

No chemistry

Natural production without added chemicals, which represents additional financial costs for operators.

3.

Smooth ski slope

When modified by tracked vehicles, no frozen so-called "manchester" is formed.

5.

It handles higher temperatures

At higher temperatures up to +8°C, the so-called "snow grits" is not created on ski slope.

1.

Dusty snow

The snow is dry and creates so-called "powder snow". The quality is close to natural snow.



Less re-snowmaking

The device can save 30 – 40% of electricity during technical snowmaking (depending on temperature and humidity) due to the possibility of increasing the water flow through the snow cannon. By setting the water flow correctly, the ideal quality of technical snow is achieved. As no ice is formed during the snowmaking and the snow melts later, further savings are made as frequent re-snowmaking is not necessary. We have verified these facts from the implementation of equipment directly in the natural conditions of ski resorts as well as in laboratory conditions.

Geothermal water treatment

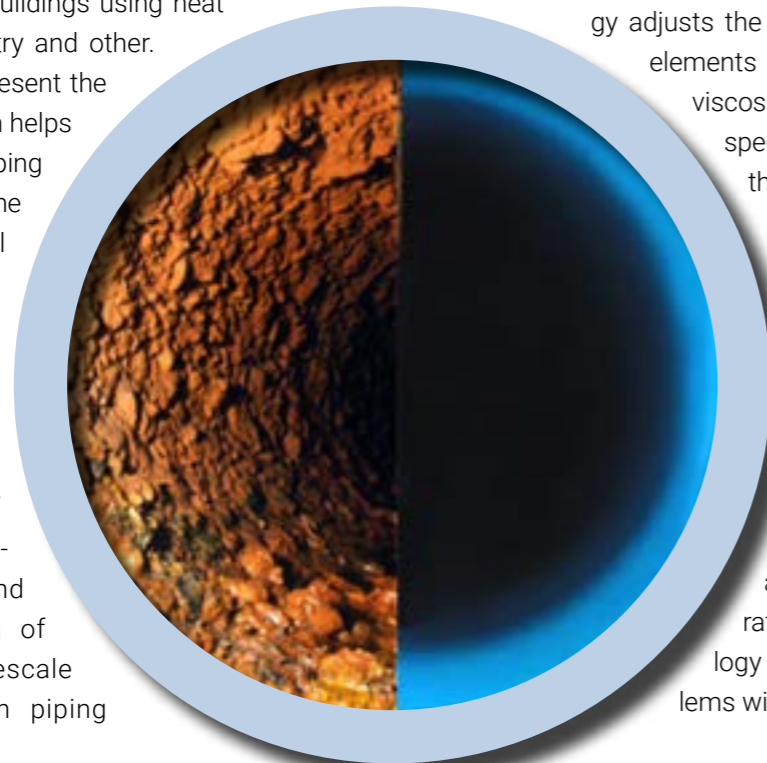
Benefits in energy industry and spa

The use of geothermal water has huge potential. Through deep wells, geothermal energy is brought to the surface and used in centralized heat supply systems. In our country, it is mainly used in spas (spa centres and aquaparks), in agriculture for heating buildings using heat pumps, in energy industry and other.

For these sectors, we present the Treasure © device, which helps to maintain a clean piping system and at the same time generates financial savings for the client in the form of maintenance.

Incrusts

High mineralization of geothermal water causes strong oxidation and subsequent formation of incrustations and limescale in systems, mainly in piping systems.



Effects of Treasure ©

The Treasure © device is one of the innovative technological solutions for the removal of clogged piping systems using geothermal water. The technology adjusts the force bonds of individual elements in water by changing the viscosity, surface tension and specific heat, thus preventing the formation of incrustation and limescale. Major problems occur especially in swimming pools and crop growers who use geothermal water. In the past, due to insufficient care several drilled well became clogged over time and thus went out of operation. We bring you technology that handles these problems without special care.

Routine maintenance

2x

Technical maintenance of the piping system is generally twice a year.



Maintenance is financially expensive.



Shutdown can take up to 30 days.

Treasure ©



Treasure © provides constant self-cleaning by the flow of treated water.



Does not involve any expenses.



Maintenance does not stop operation.

Possibilities to use technology

Agriculture - greenhouses

When heating farm buildings, we often encounter the problem of insufficient temperature obtained from the groundwater due to heat leakage during the time it takes for the groundwater to reach the heating medium. One of the factors is the depth of the deep well, which is not large enough in such cases. The closer the water is below the surface, the colder it is, so it is very important to prevent its heat from escaping. Treasure © can regulate heat leakage by molecular treating the water, specifically by changing the specific heat so that the water can maintain its temperature throughout the transport to the surface. As an example, we present a case where the groundwater reached a surface temperature of only 50°C, but the required temperature was 70°C. The heat loss was therefore up to 20°C. Treasure © was able to eliminate this temperature difference.

Spa

The Treasure © device brings great benefits in the spas. Spas and facilities that use heat from the depths of the earth commonly face the problem of pipeline clogging, that complicates the smooth running of the operation. Maintenance and shutdowns represent a significant expenditure, a loss of income and time. Treasure © prevents corrosion and damage to materials without chemical treatment throughout the year. Molecularly treated water does not have a corrosive effect, and at the same time it can release sediment in the piping system, even in the case of long-term shutdown of equipment, and thus restore operation.

Cities and municipalities

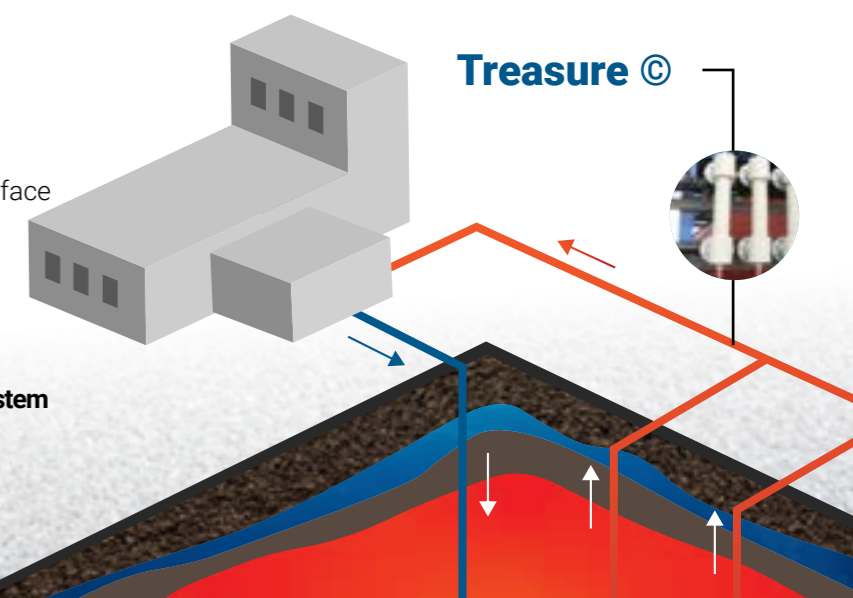
Within the energy industry, cities and municipalities, use geothermal water to heat domestic water for various uses. The heat is transferred to the secondary circuit distributions via heat exchanger stations. The problem arises over time, when groundwater becomes corrosive to long distribution routes and deep wells. Corrosion in the pipe causes clogging and reduction of the flow capacity, as well as damage to the material. Maintenance of wells and piping system represents increased costs for cities and municipalities. Treasure © eliminates the risk of corrosion. The cause of corrosion is high temperature in reaction with larger particles of mineral components of iron and manganese, that are trapped on the inner walls of the pipe and due to the temperature they act very aggressively. Treasure © can multiply reduce the particles of mineral components present in the water, thus prevent clogging of wells and the piping system. Another function of the device is the treatment of the specific heat of geothermal water. Changing the physical properties of water prevents the temperature from decreasing on its way to the earth's surface. As a result, the obtained water is able to transmit high temperature to secondary distribution pipes, which leads to faster heating of a larger domestic water capacity. The number of required water treatment devices is then dimensioned according to the flow volume.

Households and other objects

The device is recommended for households that use geothermal water as a renewable energy source for domestic water heating. Water treated with Treasure © does not corrode metal parts of the piping system and is equipment-friendly, thus extending the life of the heat pump. The entire system becomes maintenance-free, thus creating financial and time savings.

Advantages of water after treatment

- 1 reduces the heat loss of water towards the surface
- 2 saves equipment (e. g. heat pumps)
- 3 prolongs the life of equipment
- 4 does not corrode and does not clog the piping system
- 5 eliminates the risk of system failures



Water treatment in agriculture

Crop and animal production

The use of soil and water means being responsible towards the environment and oneself. With technology, we have been striving to solve the problem of whole Europe with securing the necessary amount of food with regard to its quality and safety. If we strive for healthy food that is not marked by chemicals or droughts, as well as quality arable soil, which results in sufficient and economically sustainable food production, it is time to use the available technologies and technical solutions to help achieve these goals. Healthy soil means a sufficient presence of natural nutrients without chemical contamination with preserved biodiversity. First of all, it is necessary to ensure quality water that does not pol-

lute the soil and at the same time has properties that naturally support the growing of crops and the rearing of livestock. We have such a solution for the entire agricultural production sector.

Biofarms

In general, it can be argued that regular consumption and watering with treated water builds the immune system of the living mechanism, thus plants and animals. Gradually, the technology is becoming maximally useful for building and rebuilding biofarms of various kinds.

Use of Treasure © in agriculture

The device is used in all places where water is used.



1. **Irrigation systems** - water treatment for watering fruits, vegetables, trees, etc.
2. **Buildings heating** - greenhouses, production, processing and office buildings.
3. **Primary production processing** - heat treatment, drying, milling or silage making.
4. **Drinking water treatment for livestock.**
5. **Restoration of polluted and contaminated water** - wastewater treatment plants.
6. **Aquaculture** - breeding of freshwater and marine fish and aquatic animals.

Water treatment specification and its results in agriculture



Natural competition of GMOs

Treasure © technology helps to increase the biological value of water, soil and plants. Wondering how it works and why does it compete with GMOs? Based on the increasing demand for food, a GMO treatment has been developed GMO that works on the principle of artificial genetic modification to accelerate growth and increase crop production. However, over time, a number of opponents of the modification began to emerge due to its undesirable side effects. Nevertheless, the increasing demand has not subsided. But we have come to the market with a much more acceptable form of modification with the same purpose. The most important difference and factor is the natural modification without any interference to the natural genetic carrier. The result of increased crop production is ensured by a purely natural physical treatment of the water taking place in the plant, which achieves a reduction in surface tension and water viscosity. The water treated in this way can release bound minerals or nutrients in the soil and more easily bind them to their structures, which it then passes on to the plants in the form of nutritional irrigation. This naturally supports faster growth and crop production. Treated water is also able to partially release carbon dioxide concentrated in the soil and devastating its biological conditions and components essential for proper growth, nutrition and plant resistance to pathogens.



Increasing soil porosity

When irrigating plants, the treated water is absorbed into the soil, which increases its porosity. **Porosity** supports deepening of the root zone and improves nutrient availability to plants.



Drought resistance of plants

During times of drought afflicting us in some places in our conditions, the plant is able to absorb moisture from the soil more easily due to the improved water fluidity. The plant is not depleted and at the same time accumulates the necessary nutrients, that ensure its resistance even in adverse conditions.



Defrosting

In agriculture, it can be used to remove spring frosts and in fruit growing sprays, because it absorbs cold and **frost**.





Elimination of pathogens and insects

Irrigation with treated water prevents the reproduction of unwanted pathogens in the soil that threaten plants. The main benefits of treatment include the reduction or complete elimination of using pesticides and insecticides representing a cost saving. At the same time, the quality of edible crops naturally increases, thereby increasing their purchase value.



pH neutralization

PH neutralizing water through the Treasure © device prevents the reproduction of pathogens, thus naturally helps to maintain healthy plants, trees, flowers and crops whose natural environment is pH neutral.



Limescale protection of equipment

The treated water flowing through the irrigation lines of the pipeline and other parts of the irrigation system, prevents the limescale formation and deposition incrustation in the pipeline, thus protecting and prolonging the life of the equipment. At the same time, it can clean already contaminated pipes by loosening sediments and then mechanically removing them.



Protecting animal health and improving productivity

In the context of livestock production, the required nutrient content of livestock is achieved through specially treated water. Consumption of water ensures improved absorption of nutrients from food into the organism. On the other hand, water has diuretic effects, that helps body to get rid of undesired substances. Livestock are thus kept in healthy condition, and so there is a natural increase in animal production (eggs, milk, meat, wool and others).



Protecting animal health and improving productivity

Physical water treatment is suitable for water surfaces where the law prohibits the use of chemicals. It involves a spraying the water surface with the same water of the water surface, but already physically treated. It suspends the formation of algae, bacteria or dangerous cyanobacteria. The original flora and fauna will gradually return to the water surface and its surroundings. It is necessary to take care of the original natural ecosystem, so the original animals and plants. Preferentially water inflows to water surfaces or lakes should be professionally assessed. The technology is also used in fishing and pond farming to multiply native food.

Supramolecular treatment of vegetable oils

Oilseeds and protein crops

The main oilseed in the EU is rapeseed (59%), followed by sunflower seeds and soya beans. There are no special support measures for oilseeds, while two thirds of the quantity consumed in Europe each year is produced in the EU. Meanwhile, EU import still represents about half of the oilseeds used annually in animal feed, with import duties set at a zero rate. Oilseeds are used for food, feed, fuel and industrial purposes. Oilseeds are pressed to obtain vegetable oils and scrap. Vegetable oil is generally used in the food industry or in the production of biodiesel, while oilseed scrap is an important component of animal feed.

Use of technology in industry

Edible oils

Treasure © device reduces and eliminates the presence of nitrogen, potassium and phosphorus. The purpose can be compared to the degumming process. At the same time, it adjusts the viscosity of the oil, pH, separates water in the oil and simultaneously can recover contaminated oil for further use.

- NPK** Reduction/removal of nitrogen, potassium, phosphorus in the oil
- pH** Adjusting the acidity or alkalinity of the oil.
- H₂O** Separation of water from the oil.



Main issues in vegetable oil processing

- 1 Growing crops requires quality water and soil.
- 2 Processing of oil crops, producing and refining of vegetable oils require a demanding filtration process that is energy and economically demanding.

Biofuels

Vegetable oils are also part of the bio-component of so-called biofuels and are obtained from rapeseed. The profitability of crops is increased by fertilization and NPK components, which bring these components into the final product, oil. In the case of biofuels as part of diesel, these components significantly affect the purchase price.



Modification of petroleum derivatives and better combustion of fossil fuels

Fossil fuels and air pollution problems

Reducing the carbon footprint of transport is a long-term and difficult process. Despite efforts, internal combustion engines are at the very top of technological possibilities today. These engines are widely represented in traffic, rail, air transport, but also shipping. New technically and economically available powertrains are the solutions to CO₂ problems. However, as long as these alternatives are applied to everyday life, we will be dependent on the types of fuels we use. But, we provide an ecological and economic alternative that can make a significant contribution to solving the problems today.

The most common problems of internal combustion engines

- 1 **High taxation** in the form of excise duties.
- 2 **Air pollution**, thus contributing to unwanted emissions.
- 3 **High operating costs**, minimal cost savings when using them.
- 4 **Strict legislation**, within the production and use of internal combustion engines.

Use of technology in transport and the petroleum industry

We provide a petroleum derivatives treatment specializing in CO₂ reduction and suppression greenhouse gases and other negative environmental impacts. The treated mass reduces maintenance costs by not clogging technical equipment such as pipes and machines. The treatment is done by applying the Treasure © device to the engine part of the car or by treating the fuel directly in the production factories. In principle, it is a transformation to the so-called green energy, where after treatment with Treasure ©, intermediates acquire new properties that do not create problems of the traditional technological process. The installation takes place directly at the fuel manufacturer such as refineries or at users such as incinerators, heating plants or vehicle owners. From a broad point of view, it can be argued that the treatment eliminates the current problems of electric vehicles (alternative solution), especially their demand for electricity or energy storage in lithium batteries, which pose a danger to the environment arising from both the production and the disposal. It is important to highlight the treatment of the combustion air for each fuel, whether in gensets or boilers for different fuels.



EMISSIONS

Measurement of emissions from internal combustion vehicles

In order to show you how the Treasure © device can eliminate air pollutants released into the air, we have prepared a demonstration of internal combustion engine measurements before and after the installing Treasure © in the engine part of both petrol and diesel engines. We have provided illustrative values from our measurements. However, the engine values depend on number of variables, e.g. type, age, depreciation and other.

Petrol engine

	Before %	After install %
CO	0.11 - 0.15	0.00
CO	0.11 - 0.15	0.00
HC	29 - 35	0
CO ₂	14.81	15.36
O ₂	0.05 - 0.03	0.01
Lam.	1.00	0.997

Diesel engine

	Before %	After install %
N _{smokiness}	0.58	0.00
K	0.50	0.00

HYDROGEN

Production, treatment and industrial use

Clean energy is the future

Hydrogen accounts for less than 2% of current energy consumption in Europe and is primarily used in the production of chemical products such as plastics and fertilizers. Of this hydrogen production, 96% is produced using natural gas, which emits a significant amount of CO₂ in the process. However, hydrogen can also be produced from renewable sources. Renewable hydrogen ("green" or "clean" hydrogen) is expected to play a key role in the decarbonisation sectors, such as transport and energy intensive industries, where other alternatives will not be possible or will be more expensive. Currently, hydrogen is an important element in technically complex welding and manufacturing processes. Its use is also in energy indu-

stry and is slowly coming to the fore in transport, where it is planned as a substitute for fossil fuels.

Current problems with hydrogen

- Energy-intensive production that does not guarantee the required quantity.
- Cannot be produced directly at the point of demand.
- Difficulty in transportation and storage.



1

Hydrogen propulsion Treasure © Improved hydrogen cleavage

The production process takes place directly in the engine part of the vehicle using an electrolyser that is powered by its own source. The car does not need hydrogen storage tanks. It is a low-voltage Treasure © electrolysis with its own control. Hydrogen is produced from molecularly treated water, which ensures its more efficient cleavage into hydrogen and oxygen. The design solution is suitable for both diesel and petrol powered cars. The advantage is reduced fossil fuel consumption. The automotive industry will appreciate the adaptability of the device, as it is still in the process of improving the technological solution.



2

Hydrogen production in industry Decarbonization

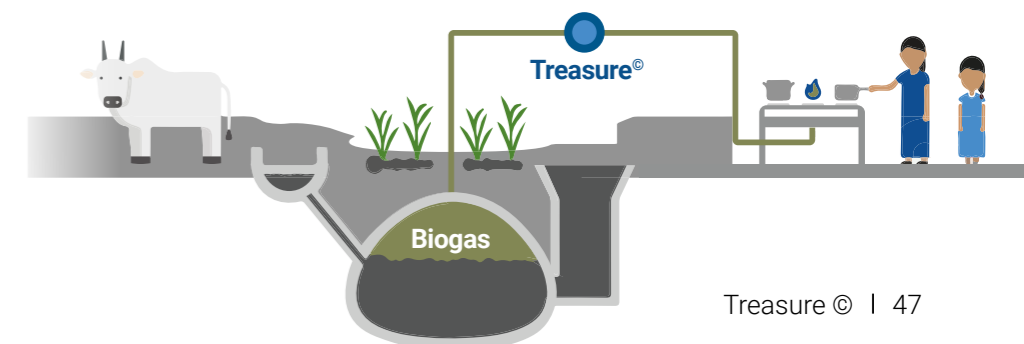


The reason why we are concerned in the hydrogen production and its use in industry is mainly due to the decarbonization of heavy industry, such as steel or aluminium production. We are concerned with the solution of the technological process for production of the so-called clean hydrogen, which would achieve low energy consumption. The aim is to achieve carbon neutrality in the EU by 2050. Currently, we have been able to develop the technological revolution Treasure ©, which is suitable for the hydrogen-powered industry, but also for energy units, e.g. heating plants, power plants or other industries using hydrogen in production processes. Treasure © is currently delivering positive results in the field of solving air problems, such as CO₂ emissions, but also in terms of overall ecology. At the same time, our special process for producing clean hydrogen generates lower energy costs.

Gas treatment

Oxygen Nitrogen Biogas Natural gas Water vapour and others

The Treasure © device can improve the properties of gaseous substances by supramolecular treatment. With our technology, it is possible to treat any gas without exception and obtain its improved properties, e.g. **higher calorific value or explosiveness**. Frequently used gases include hydrogen, oxygen, nitrogen, biogas, natural gas and also steam. Apart from the gaseous state of water, i.e. water vapour, the treatment of other gases is under experimentation (so far successful). Prototype devices are being tested in industrial applications. Currently, we have successfully installed Treasure © for biogas treatment in one of the biogas plants in Slovakia, which uses waste from wastewater treatment plants. The analysis shows a significantly higher calorific value.



Procedure for ordering our services



1 Project documentation

In the first step, we will ask you to:

1. submit existing project documentation (e.g. appliance, technical room, boiler room, etc.).
2. fill our spreadsheet with technical parameters,
3. attach the relevant photo documentation.

2 Drawing into the project

The second step of preparation focuses on determining the location of the Treasure © installation on the piping systems resulting from the project documentation.

3 Preparation of a price offer

Subsequently, we will calculate a preliminary price offer based on the documents and the proposed solution.

4 Agreeing the price offer

To proceed with the project preparation, it is necessary the price offer to be agreed by customer.

5 Inspection

Our staff will arrange an inspection of the building and systems, which is essential to create the final design for the equipment implementation.

6 Specification of the price offer

Based on the inspection and potential changes to the project, a final price offer will be prepared.

7 Proposal and conclusion of contracts

Once the price offer has been agreed, a detailed draft contract will be prepared and signed by both parties.

8 Placing the order

Placing an order by the customer.

9 Advance payment for equipment

After the advance payment is paid by customer, we start the implementation of the project.

10 Device(s) production

Start of the production of the Treasure © customized device(s).

11 Completion of payment for the device(s)

Payment of the remaining amount for the device(s).

12 Device(s) delivery

Transportation and delivery of the device(s) directly to the place of implementation.

13 Device(s) implementation

Installation, set-up and commissioning of the system (full use).

14 Final payment

Final payment for performed services.



Treasure in technology





Treasure
in Technology

www.wiscontrol.sk

Treasure © - patent pending

The social economy and our society

Just as we have a goal and vision to help our world by contributing to a green future, we have also decided to help people socially through our business partners in the Social Economy. Therefore, we help partners with integration and inclusion in the society. These are people who have the courage to work and acquire new job skills. However, our response is much stronger due to the current events, where we are facing a pandemic of COVID-19 disease, which has changed the economic situation since 2020 and has also negatively affected job opportunities. By purchasing our products, you will get green technology that will benefit you and our planet and in addition, you will support job opportunities for those who need it and have not lost the will to work.