





### AT A GLANCE



9.4% of annual turnove is invested in R&D



25% technical staff



> 60 clinical studies with Hänsler Medical products



> 25 distribution partners worldwide



> 10,000 customers in more than 50 countries



# HÄNSLER MEDICAL ONLY TRUST THE ORIGINAL

It was towards the end of the 1950s, when Dr. Joachim Hänsler developed the world's first medical ozone generator and thereby laid the foundations for modern ozone therapy. Ever since, Hänsler Medical has adopted the role of a pioneer in the industry, consequently focusing on scientific research and quality, developing pioneering standards and leaving its mark in the ozone therapy.

Today, Hänsler Medical thrives as a family-owned business and is led by the third generation. We are proud to take the lead in the industry and remain committed to further intensify our research and development efforts and to manufacturing excellence ,made in Germany.'

This allows us to satisfy the highest standards regarding safety, efficacy, quality, and to deliver on our service promise to our customers.

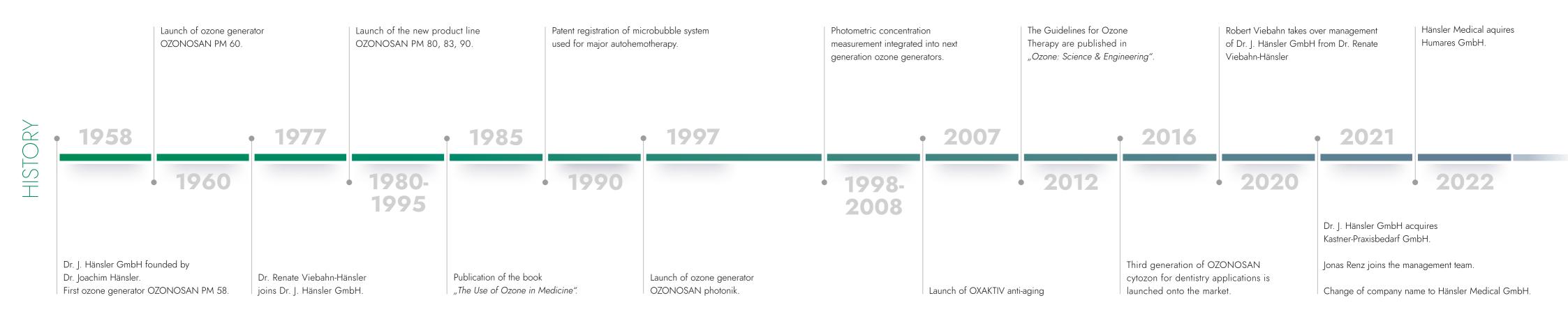
All our efforts are focussed on the patients' well-being

– for over 60 years.

Please allow us to introduce you to Hänsler Medical in this company overview — only trust the original.





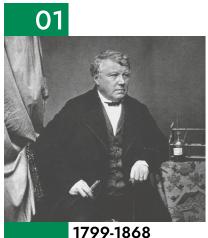


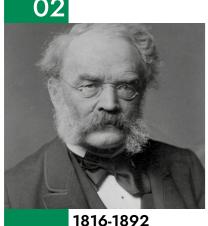


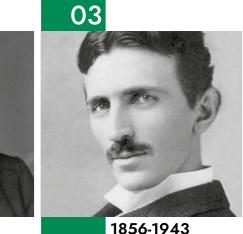
# MILESTONES OF OZONE

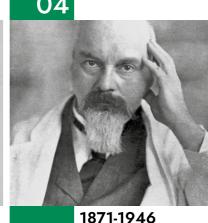
#### WERNER VON SIEMENS

In 1857 the first ozone tube was developed enabling improved drinking water quality.

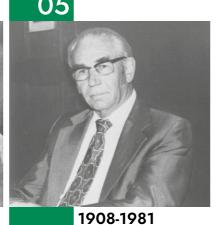








ERWIN PAYR



#### CHRISTIAN FRIEDRICH SCHÖNBEIN

1840 marks the year of the ozone discovery by Schönbein.

#### NIKOLA TESLA

In 1896, Nikola Tesla filed a patent for the first ozone generator.

#### JOACHIM HÄNSLER

In 1935, Payr published his comprehensive momograph

"Ozone Therapy in Surgery" marking the beginning of

widespread medical ozone treatments in Germany.

Our founder developed the first medical ozone generator enabling precise metering of the ozone/oxygen concentration. OZONOSAN laid the foundation for modern ozone therapy. In 1972, he founded the "Medical Association for Ozone Therapy" in cooperation with Hans Wolff.

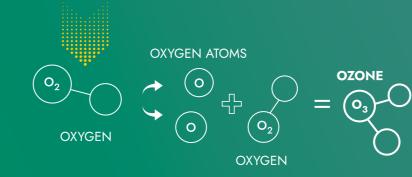
### MEDICAL OZONE

Ozone represents a triatomic modification of molecular oxygen and is a colourless gas at ambient temperature with a characteristic smell.

Today, ozone is used to purify drinking water and in a special medical ozone/oxygen mixture for medical purposes.

When applied as bioregulator or analgetically, medical ozone represents a validated treatment option in complementary medicine.

#### **UV RADIATION**



# DIRECT EFFECTS OF TOPICAL OZONE TREATMENT

Ozone has a bactericidal, fungicidal and virus inactivating effect which were first medically used in World War I in wound care.

Among the most predominant effects are:

- > wound cleaning
- > activation of cell metabolism
- > improved oxygen uptake

# INDIRECT EFFECTS OF SYSTEMIC OZONE TREATMENT

Within the low concentration range (up to a maximum of 40 µg/ml), ozone is applied for major autohemotherapy and rectal insufflation. For these purposes, it acts as bioregulator and has a cell metabolism activating effect.

Among the most predominant effects are:

- > activation of immunocompetent cells
- > cytokine regulation
- oxidative stress regulation
- > anti-inflammatory effect



# INNOVATION

Our research and development efforts allow us to continuously improve our therapy systems. Over 10,000 devices and over 10 million consumable sets supplied worlwide to date attest to our strengths.

Together with our unparalleled medical training we offer optimum systems ready for medical and hygiend ozone applications in medical practices and clinics of well as for research and practical therapy.

### OZONE THERAPY

#### INDICATIONS

- chronic inflammatory diseases
- prevention
- complementary oncology
- infections & virus-induced diseases
- poorly healing wounds
- pain therapy
- dentistry
- liver diseases
- vascular diseases
- immune modulation / allergies

#### THERAPY METHODS

- major autohemotherapy
- minor autohemotherapy
- rectal insufflation
- bag gassing
- low-pressure gas application with suction cup
- ozonized water
- intraarticular injection
- subcutaneous and intracutaneous injection
- intradiscal injection



### GENERATORS FOR OZONE THERAPY







For our OZONOSAN alphaplus and boardcase generators, Hänsler Medical relies on the photometric measurement, enabling continuous monitoring and adjustment of ozone concentrations if need be. Ozone concentration and decay largely depend on external parameters such as air pressure, temperature, or air humidity. Due to the natural variations of these variables, continuous measurement of the ozone/oxygen mixture results imperative for successful and safe treatment.



#### OZONOSAN alphaplus

With its integrated water ozonization unit, the OZONOSAN alphaplus is perfectly designed for the entire range of ozone therapy of clinics and practices. Thanks to its ability to photometrically measure ozone concentrations between 3 and ≤100 µg/ml, all common treatments such as local ozone/oxygen injections, ozonized water, minor and major autohemotherapy, rectal insufflation, bag gassing etc. can be conducted.



Highly mobile unit, especially suitable for home visits, pain relief therapy (also in the sports sector), or as a second device. Thanks to its photometrically monitored ozone concentrations, ranging from 1 up to ≤ 50 µg/ ml, the system is ideal for all systemic applications and topical injection techniques. Due to its great flexibility, the model is also very popular among veterinarians.



ALL OF OUR OZONE GENERATORS CAN BE OPERATED INDEPENDENTLY FROM THE PATIENT AND ARE APPROVED MEDICAL DEVICES.







#### OZONOSAN gamma

With the OZONOSAN gamma, the large touchscreen and semi-automated software programs significantly enhance the operating comfort of the device. The system allows for steplessly adjustable ozone concentrations systemic treatment forms.

#### OZOMED smartline

For numerous years, many physicians have relied on the OZOMED smartranging betweeen 1 und ≤ 80 µg/ml, hence allowing for all common therapy forms.

OZOMED smartline is only available in selected countries.

## ADDITIONAL PRODUCTS FROM HÄNSLER MEDICAL





### OZONOSAN cytozon

Being a compact table device, OZONOSAN cytozon is especially suitable for dentistry applications, producing ozonized water for disinfection and wound healing for implantology, periodontal and root canal treatments and professional teeth cleaning. It comes equipped with a handpiece that allows for the release of pure ozonized water, pure oxygen or ozonized water/oxygen spray. The additional bayonet fitting allows to withdraw ozonized water also by using ultrasonic and piezosurgery.

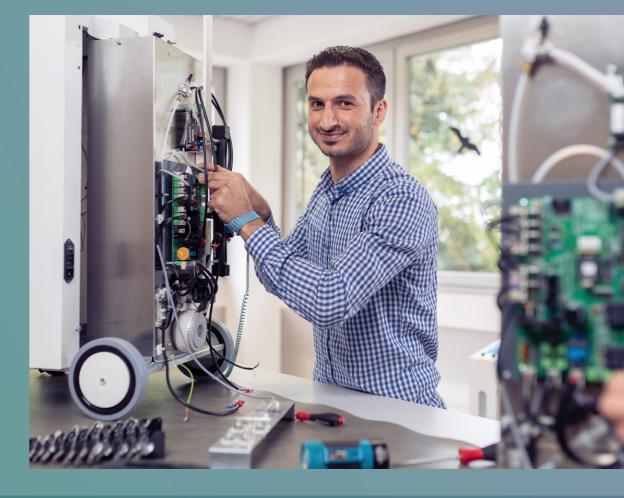
#### OZONOSAN water ozonization unit

Our accessory for water processing using ozone — compatible with all ozone generators. Our OZONOSAN water ozonization unit is available as accessory for our ozone generators and allows for simple and safe ozone water generation when connected to the take-off-nozzle. For this purpose, one liter of double distilled water is bubbled through with the ozone/oxygen mixture. Being equipped with its own catalyst system, excessive ozone quantities are oxidised safely.

# PRODUCTION

Expansion of our production to a second site located in Southern Germany in 2022.

For optimum implementation, our research developments are aimed at safe and efficient products.





### OZONOSAN VACUUM BOTTLES

WITH PATENTED MICROBUBBLE SYSTEM AND LATEX-FREE PLUG

The vacuum bottle is key in order to perform major autohemotherapy. It is a sterile medical disposable containing around 800 mbar of vacuum and is pre-filled with sodium citrate as anticoagulant. Moreover, it employs a latex-free plug, thereby avoiding latex-related allergic reactions. For an easy handling the plug carries clear markings.

The system is certified as a medical device class IIb / IIa.

The patented microbubble system enables improved uptake and evenly distributes the ozone over the entire blood content.

Instead of large, uncontrolled gas bubbles, a large number of small gas bubbles is generated and evenly distributed across the blood volume.

This spares sensitive leucocytes and stimulates them to produce and release interleukins. Also, the efficiency of the ozone/oxygen therapy is increased.



### CONSUMABLES FOR OZONE THERAPY

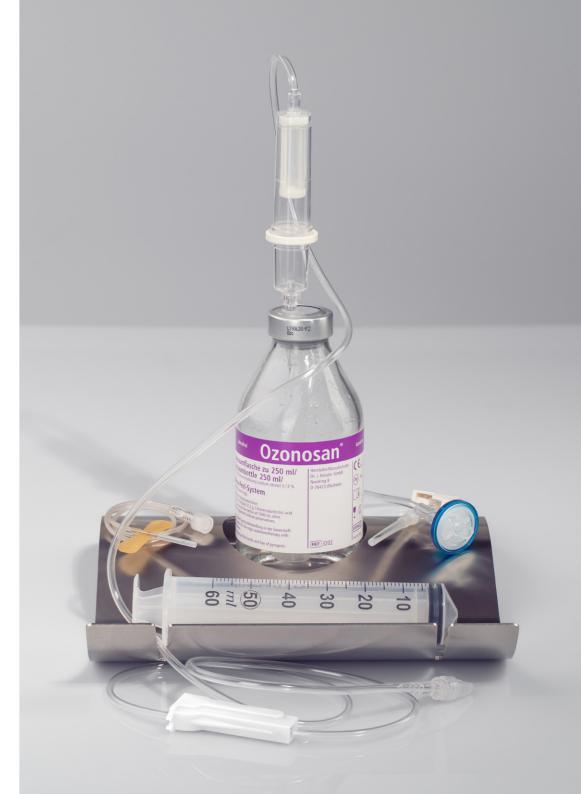
In addition to ozone generators, consumables are decisive for the success of ozone/oxygen treatments. All consumables by Hänsler Medical comply with relevant regulations and are exclusively manufactured from ozone-resistant materials, free from any allergic substances.

For enhanced application comfort, our therapy sets are pre-compiled prior to utilisation. The user thus receives a complete unit for every treatment which ensures safety and user-friendliness of the application.



#### OZOMED **ots**

A pre-packaged set designed for major autohemotherapy in closed systems. Bacterial filters and connections are already included and thus ensure easy handling. The robust set consists of special biocompatible medical polymers.





# QUALITY

n everything we do, our uncompromising tocus on quality has always been our main priority.

Reliability, excellent workmanship and unparalled service and customer education differentiate Hänsler Medical.



#### OXAKTIV care

The ideal complement for your ozone/oxygen thera

- > active oxygen supports tissue regeneration
- > stimulates wound healing
- > disinfecting effect

#### OXAKTIV anti-aging

Ideal as daily intensive care or to complement other cosmetic products. Suitable for sensitive or problematic skin. The gel is waterproof and prevents the skin against dehydration.

- its active oxygen complex stimulates cell metabolis
- > regenerates tissue
- > revitalizes skin
- > traps free radicals, eliminates stress factors, protects skin from aging processes

Hänsler Medical also offers customized manufacturing of ozonoized oils - please contact us.

- > Due to the bactericidal and fungicidal effects of ozone, no preservatives are required
- > Dermatologically tested for skin tolerance
- > Suitable for sensitive skin



# SERVICE

Hänsler Medical has the largest sales and service network in the industry. Our 25 global sales partners do not only benefit from our international field service, but also from the regular intensive training courses held in terms of sales and service as well a from invitations to initiation and continuing training events, both in Germany and abroad.

Within the D-A-CH (Germany (D), Austria (A), Switzerland (CH)) region, Hänsler Medical is the only manufacturer with specially trained medical product advisors for its field service, ready to assist our clients in the long-term in case of difficult concerns.



WORKSHOPS | SEMINARS | CONGRESSES



### HÄNSLER MEDICAL **ACADEMY**

The scientific competence of Hänsler Medical has been recognized for decades. The publications of our collaborators have become reference works for users and researchers active in the field of ozone therapy. With more than 60 clinical studies conducted with products by Hänsler Medical, we are recognized as leader within the industry's scientific excellence, and have become the preferred partner of numerous renowned clinics and practices.

Hänsler Medical Academy makes our knowledge accessible to a broad circle of customers and other interested parties and moreover provides the opportunity for comprehensive education and training by means of workshops, seminars and conferences, held both in Germany and abroad.

For the organisation of these events we closely collaborate with ozone expert associations, aiming at a sustained exchange of experiences between application and science.

