

# The first of a new era. Hygoclave 90 with DuraSteam technology

Enhance your practice in terms of reliability, cost-effectiveness and safety



COMPRESSED AIR  
SUCTION  
IMAGING  
DENTAL CARE  
HYGIENE



# The pacesetter in the hygiene cycle. For smooth day-to-day practice.

**For more than 75 years, Dürr Dental has been synonymous with trend-setting developments in medical technology; innovation that has been pioneered in Germany.**

With the aspiration to continually perfect hygiene technology products, we have developed a small steam steriliser as a logical next step in the evolution of technology. With the help of the

Use

Manual disinfection  
and cleaning

Machine reprocessing  
in the washer-disinfector

Function test/check  
and instrument care

Parts for sterilisation  
with Hygopac Plus  
and Hygofol  
packaging



newly developed DuraSteam technology, the Hygoclave 90 will become the pacesetter in your hygiene cycle. During its development it was imperative to ensure high durability and maximum reliability, whilst maintaining the value of the instruments enclosed. Smooth day-to-day operation is a prerequisite for a perfectly synchronised hygiene system.

Steam sterilisation  
in the Hygoclave 90

Documentation

Storage



# A new era of sterilisation. DuraSteam technology.

**DuraSteam technology is synonymous with the use of high-quality materials, cleverly designed components and processing quality – all made in Germany.**

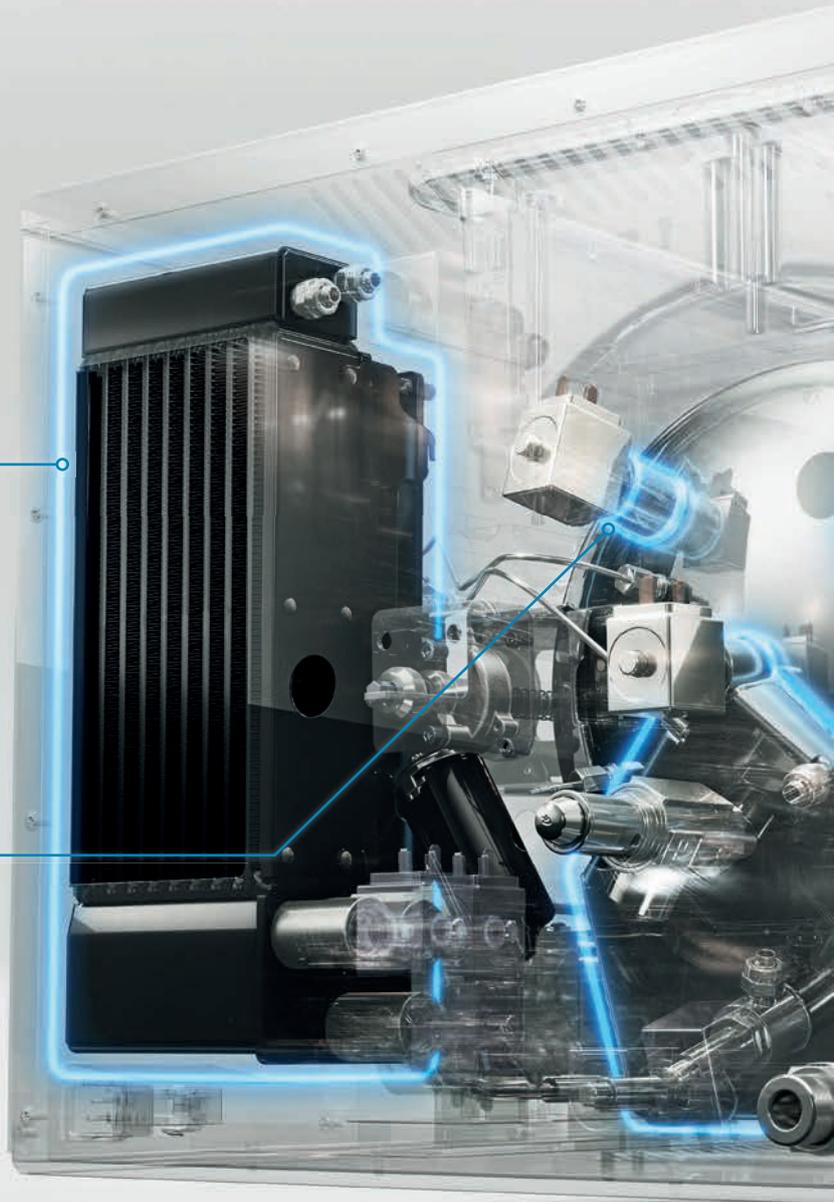
Its key features are reliability and impressively fast cycle times, combined with high energy efficiency. This is achieved by the perfect combination and precise interaction of a steam condenser, three-cylinder vacuum pump, heat pipe, welded valve seats and 2400 watt strong heating power.

## 1 **Steam condenser and three-cylinder vacuum pump**

The combination of a steam condenser and three-cylinder vacuum pump, specially developed for steam sterilisation, for the reliable and fast generation of a deep vacuum. The high venting capacity ensures very good sterilisation and drying results.

## 2 **Electromagnetic valves and valve body**

Made of stainless steel instead of brass. Fewer potential leak points since the valves are welded on. In addition, direct heating ensures less energy is lost. Designed for continuous operation (duty cycle 100%).

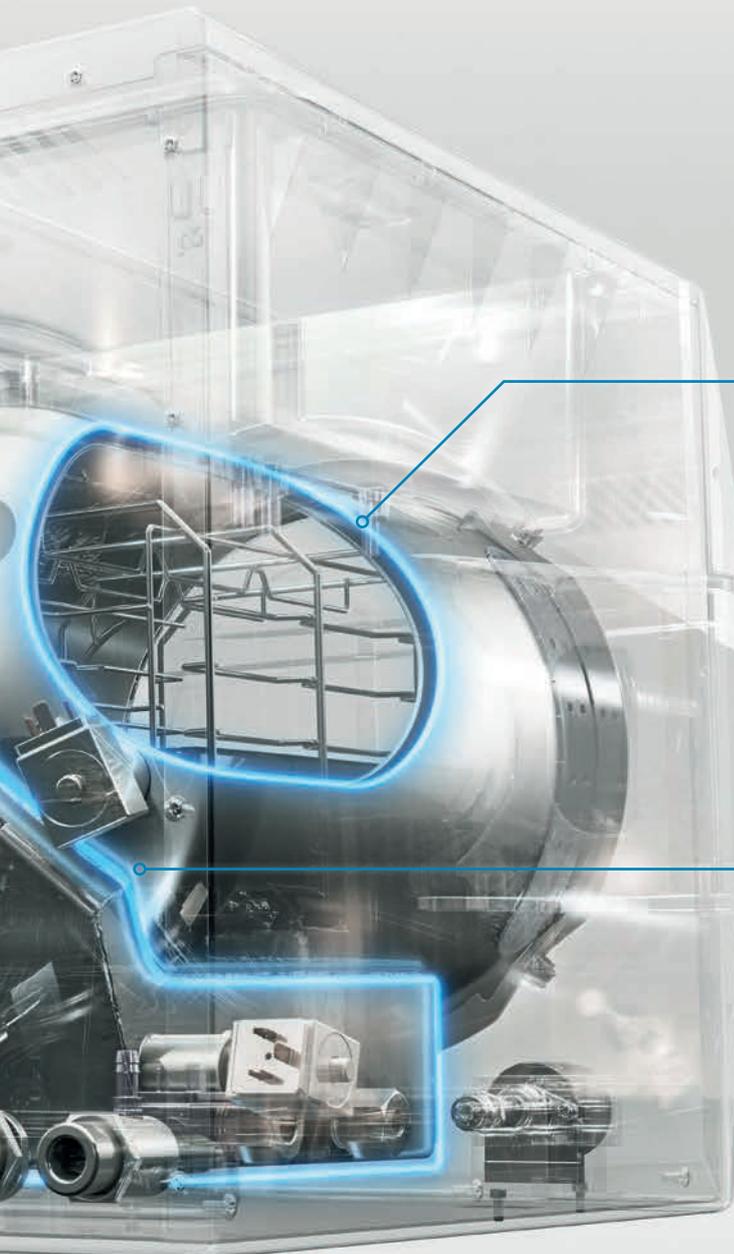


## The great stainless steel premiere. The first time for small steam sterilisers.

Directly adapted from large steam steriliser technology. The use of V4A stainless steel enables mono-material construction and thus a welded valve body which, in turn, are a prerequisite to consistently reduce leakage points. Specifically, that means two crucial screw connections less per valve.

### **Stainless steel. The solution to ion carryover.**

The combination of different raw materials, e.g. stainless steel with brass or aluminium can cause a chemical reaction that adversely affects the sterilisation process, with consequences such as corrosion, deposits and discoloration. That is why we consistently rely on the use of V4A stainless steel combined with plastic materials for the sterilisation process. This prevents highly corrosive demineralised water from extracting ions from the materials.



# 3

### **Heat pipe**

Thanks to a double-walled chamber, the innovative heat pipe principle\* enables uniform heating of the entire sterilisation chamber (incl. back wall) and all connected components.

# 4

### **High-performance steam generator**

Directly coupled to the heat pipe. Their unique combination enables fast process times and very good drying results.



**GERMAN  
DESIGN  
AWARD  
SPECIAL  
2018**

# The Hygoclave 90. A first. Even in demanding day-to-day practice.

## The Hygoclave 90 ensures momentum throughout your practice operations.

Outstanding strengths are required in all areas for sterilisation equipment to really make a difference in demanding day-to-day practice. That includes sterilisation safety, a high level of convenience, exceptional operational efficiency and high reliability. The new Hygoclave 90 combines all these aspects, just as you would expect from the first of a new era.



## Safety

### Excellent drying without overheating

- No negative impact on the parts for sterilisation
- No damage to the parts for sterilisation when touching the chamber

### Sterilisation safety

- Quick process thanks to high condensation speed and thus very good venting capacity
- Sterile air filter with a filter mesh size of 0.01  $\mu\text{m}$  exceeds the standard for even more protection from germs

### Documentation safety

- Internal protocol logger ensures more than 10,000 cycles. Can be additionally saved on the SD card included in the delivery
- All relevant release parameters are saved internally and directly as a PDF document. PC connection is not absolutely necessary

## Convenience

### No need for switching on manually

- Heating phase control down to-the-minute
- Plannable for the entire week

### Intuitive operation

- Intuitive colour touch screen with a context-related help function

### Network capable

- Informative logs can be printed without a computer
- Generate and save PDF logs on a network drive without additional software
- Tyscor Pulse software enables graphic progress monitoring of the process and further log processing

## Cost-effective

### Fast cycle times

- For example, the universal programme, 4.5 kg solid loading double packaging requires 34 minutes, incl. 16 minutes drying

### Low water consumption

- Reduced water consumption due to a perfectly coordinated system

### Fast maintenance

- Modular construction and easy accessibility enable fast maintenance



\*Tested with sterile containers made of aluminium and each with two permanent filters (one in the lid and one in the base tray). Weight includes sterile containers and accompanying inserts.

## Reliability

### Reliability

- Mono-material construction with welded valve bodies for fewer potential leakage points
- New standards in terms of fail-safe performance and reliability thanks to the patent pending DuraSteam technology

### Durability

- High level of durability due to high quality and specially selected material and components
- Even in continuous operation with heavy loads and over many cycles

### Specially developed for steam sterilisation

- Central to its development: day-to-day practice requirements and maintaining the value of the instrument
- Unique reliability enables a perfectly synchronised hygiene system in practice operations



# The Hygoclave 90. New ease of operation for more convenience in day-to-day practice.

**The Hygoclave 90 not only sets new standards of reliability** but also with regard to ease of use. For example, it has a down to-the-minute calendar function, continuous progress monitoring of the process with the Tyscor Pulse software and an optimum sterilisation result, thus ensuring time is always on your side. Process-orientated menu guidance with a context-related help function and convenient documentation options offer new ease in instrument reprocessing.





### Calendar function

Heating phase control down to-the-minute, plannable for the entire week. On 100% standby, the Hygoclave 90 is always ready when you need it.



### Log printer

Informative logs can be printed without a computer: a PostScript enabled printer in the network is sufficient.



### Monitoring via network

Monitoring of the Hygoclave 90 via the network with Tyscor Pulse. The individual process steps are graphically displayed.



### Large-format colour touch screen

Intuitive colour touch screen with a context-related help function.



### Documentation safety

Automatic storage of all data from completed cycles (> 10,000 cycles) in an internal memory. In addition, data can be saved via SD memory card, network storage, network printer, or by transfer to document software.



### Tyscor Pulse software

Tyscor Pulse software enables convenient log management as well as the direct display and saving of status messages.

# The Hygoclave 90: impressive solo performance. With accessories: exceptional team qualities in the system.

**The individual is only as strong as his/her team.** And the Hygoclave 90 is unbeatable.

This is due to the support from the perfectly coordinated Dürr Dental System, consisting of clever and proven hygiene accessory solutions such as Hygopac Plus, Hygasonic or Hygofol, valuable team training courses and, of course, the Dürr Dental Service, which provides a quick answer to all technical questions.



Hygoclave 90



## Carrier

The carrier can be loaded with up to 6 trays or, rotated by 90°, 3 standard tray cassettes or 2 standard tray cassettes and 1 sterile container (height 65 mm).



## Hygoprint Plus

An optional label printer allows immediate printing of programme-specific labels.



## Water treatment

Thanks to the Hygopure 90 (reverse osmosis system) and the Hygodem 90 (ion exchanger) water treatment system, water with optimum fresh water quality is produced for steam generation in the unit.



## Hygotest

Helix test bodies with 250 test strips for regular Helix tests.



#### Proven treatment system

With Hygopac Plus (validated rotary sealing device according to DIN EN ISO 11607-2), Hygasonic (efficient instrument ultrasonic cleaning) and Hygofol (rolled and bagged goods in different sizes).

#### Practical training courses

Worldwide more than 10,000 training courses at dental practices and for the specialist retailers. Experienced tutors and practical training ensure maximum benefit for day-to-day practice.

#### Service

After purchasing a Dür Dental product, that is when our service really starts. A large team of competent professionals are available to help you quickly and efficiently with any technical questions relating to our products. Passion for service – made by Dür Dental.

# Hygoclave 90 programme overview

Program	Process parameters/operating time	Drying	Load	Test	Type
<b>Universal</b> 	134°C, 5.5 min/12 – 21 min*	16 min	For 6 kg of instruments or 2 kg of textiles, in single and multiple packaging. For <b>10 kg</b> with container loading.**	Helix test	B
<b>Fast</b> 	134°C, 5.5 min/10.5 – 15 min*	10.5 min	For instruments up to 1.5 kg single packaging or 6 kg unpackaged.	Helix test	B
<b>Conservation</b> 	121°C, 20.5 min/26 – 39 min*	16 min	For 6 kg of instruments or 2 kg of textiles, in single and multiple packaging, especially for thermolabile sterilisation items.	Helix test	B
<b>Prions</b> 	134°C, 20 min/26 – 35 min*	16 min	For 6 kg of instruments or 2 kg of textiles, in single and multiple packaging, especially in cases of suspected infection with prions. For <b>10 kg</b> with container loading.**	Helix test	B

\* Without drying, minimum – maximum operating time in each case (without 10 kg container loading), depending on the load and installation conditions (e.g. mains voltage, room climate).

\*\* Tested with sterile containers made of aluminium and each with two permanent filters (one in the lid and one in the base tray). Weight includes sterile containers and accompanying inserts.

## Hygoclave 90 technical data

Hygoclave 90 technical data			
Voltage:	230 V 50 Hz	Maximum load solid:	6 kg (10 kg for containers)
Dimensions (H x W x D):	47.5 cm x 54 cm x 52 cm	Maximum load porous:	2 kg
Weight:	65 kg	Maximum load container 65 mm:	3
Chamber volume:	19 l	Noise level*:	<65 dB(A)
Internal dimensions, useable volume (ø x D):	26 cm x 35 cm	Fresh water and waste water tank volume:	4.5 l
Ambient operational temperature:	15 – 35°C	Meets the guidelines and standards:	93/42/EEC (Class IIb), EN 13060:2015, EN 61010-1, EN 61010-2-040, EN 61326-1
Maximum power consumption:	2600 W		
Maximum number of trays	6		

\*According to EN ISO 1680 (airborne noise emission); measured in noise-insulated room.