# EUROKLAV®+

## The S-Class

Quality – made in Germany

MELAG

competence in hygiene

# The success of a family-led company – through innovation and quality

As an owner-run and operated family concern founded in 1951, we have a long history of successful specialization on hygiene products for practice-based use. As a medium-sized business, it is this specialization and our 60 person-strong expert development team which allows us to maintain and develop our product range so as to maintain our position as an international market-leader.

Our focus on quality, innovation and the highest of safety standards has established MELAG as the world's leading manufacturer in the area "hygiene products," selling over 450,000 devices to date. Our entire product range is produced exclusively in Germany (Berlin). Over 250 employees work on premises of c. 20,000 $m^2$.

We have consistently rejected outsourcing to low-wage third countries, as we did not want to risk a reduction in our world-beating quality. We have also ruled out emulating the trend towards an expansion of our product range to exceed provision in our area of core competence, practice hygiene. Today we are easily the world's largest specialist manufacturer of practice sterilizers and thermal disinfectors which concentrates exclusively on this area. We remain convinced that quality requires consistent specialization on a narrow range of high-quality products. You, our customer have a right to expect the best-quality products for your money.

You demand quality and reliability. With **„competence in hygiene"** and providing **„quality – made in Germany"** we guarantee that these demands will be met, enabling you to maintain the highest of quality standards in practice hygiene.

Quality – made in Germany

## Patients and medical staff must be protected by safe and reliable hygiene measures to do justice to the demands of medical due diligence. The industry sector in turn must supply suitable devices and methods to meet this demand.

Worldwide there are almost 100 companies that also manufacture autoclaves for medical practices. But MELAG is the only producer on the international scene who concentrates exclusively on this one single product line. This focus on core competence is the foundation of our international success, a success which must be continually tested and proven. Every MELAG employee works towards this end with the greatest commitment, since he realizes that if "his" autoclave isn't successful, then it endangers the success of the whole company. And that in turn affects every single employee.

The MELAG recipe for success:
Conscious concentration on core competency.

Manufacturers who produce autoclaves as one of many products can perhaps afford to go through a business slump in the field. But those who concentrate on only one product line do not enjoy that luxury.  always have to be better than the competition.

Our international sales success proves that our autoclaves are better not only because of their manufactured quality. They are also better due to innovations. We are the first manufacturer to implement autoclave innovations that are truly trend-setting.

A few examples:

- the one-way water system
- the automatic water feed
- the documentation via practice PC or network
- the fractionated pre- and post-vacuum for practice autoclaves etc.

As always, we produce our autoclaves exclusively in Germany. Because innovative quality products have to be manufactured by quality-conscious, well-trained employees. The labour costs advantage of production in low-wage countries cannot play a role here.

THE **S-CLASS**

# AUTOCLAVESWITHVACUUM

**The European Standard EN 13060 for small sterilizers describes the three methods/types of sterilization cycles: B, S and N. Autoclaves with B cycles must meet the most stringent requirements. They work with a fractionated pre-vacuum and their capacity can be compared to that of large hospital autoclaves. The medical practice operator stipulates in the risk analysis and specification of the preparation steps which method is applied to prepare the instruments used. In practices which do not use narrow-bore and simultaneously long hollow-bodied instruments, a "Class S" autoclave can be the right alternative to the "Class B" autoclave. "Class S" autoclaves do not operate with a fractionated vacuum, but with a simple pre- and post-vacuum. Autoclaves which only offer "Class N" cycles are not suited for sterilizing wrapped instruments.**

## One system – two autoclaves

To meet the different needs in sterilizing instruments, MELAG offers the Euroklav®+ in two sterilization chamber sizes. The diameter for both autoclaves is 25 cm, the length of the sterilization chamber of the Euroklav® 29 VS+ = 35 cm and Euroklav® 23 S+, 23 VS+ = 45 cm.

## The special process

To meet the stringent requirements of a "Class S" autoclave according to EN 13060, the air must be completely removed from the sterilization chamber, the interior of the instruments and the wrappings. The Euroklav®+ autoclaves meet this specification by an effective pre-vacuum in combination with a fractionated gravity system.

## Easily adjustable special functions

The operator herself can easily handle special options such as switching over an internal feed water supply from the integrated water storage tank to an external water treatment unit connected to the autoclave.
It is just as simple to select an output medium for the documentation, e.g. printer, MELA*flash* CF-Card-Printer or practice computer system.
That also saves time in operating the autoclave.

## Quick sterilization programs

The Euroklav®+ autoclaves are usually considerably faster than other devices on the market.
Using the quick program, unwrapped instruments can already be removed after 20 minutes, including pre-vacuum and vacuum quick drying.

THE **S-CLASS**

# QUICKINNOVATIVEFLEXIBLE

## Automate!

With the practice-friendly system: Automatic feed water supply with MELA*dem*®40/MELA*dem*®47.
All Euroklav autoclaves can be automated by connecting the feed water supply with demineralized water to a water treatment unit. The used water is also disposed of automatically if the autoclave is connected to a drain. The measuring of the water quality integrated in the autoclave ensures that only water of the best quality for sterilization is fed into the system, thus protecting the autoclave and the valuable instruments.

## We recommend:

- **MELA*dem*®40**: for small water requirements or only a few sterilizations per day. This water treatment system works on the ion exchange principle. The dual-chamber system of MELA*dem*®40 guarantees an optimal utilization of the mixed-bed-resin pellets. The MELA*dem*®40 can be mounted directly on the autoclave, on the wall or in a sub cabinet.

- **MELA*dem*®47**: for greater water requirements. This water treatment unit works on the particularly environmentally friendly principle of reverse osmosis. It is especially well suited for practices which conduct more than four sterilization runs per day. The minimum use of consumables with a maximum yield of high-quality water relieves the environment and saves costs. The scope of delivery includes the water storage tank and a separate tap for demineralized water.

**MELA*dem*®47** (1) installed in a sub cabinet with water tank (2) and tap (3).

## The design – functional and attractive

Not only the performance and production quality of the Euroklav®+ autoclaves underline MELAG's dominant position, their design makes these devices visually top class.

Operating the autoclaves should be both pleasurable and safe. The design fully supports this demand. It shows what's essential, and does its work efficiently. The large door lock is not only a design feature, but also ensures a safe and easy opening and closing of the door.

**MELA*dem*®40**
mounted on the Euroklav® 29 VS+

easy refill

The large integrated funnel-shaped opening of the water storage tank makes it easy to fill the tank with demineralized or distilled water in the Euroklav® 23 S+, 23 VS+ and 29 VS+. Alternatively, both autoclaves could be fed the required water supply from any external reserve vessel or even be connected to a water-treatment unit.

quick release connector

The regular draining of the used distilled or demineralized water from the water storage tank of stand-alone autoclaves is generally a cumbersome manual task for the practice team. The used demineralized or distilled water can quickly be removed from the water storage tank without effort via the quick release connector of the Euroklav® 23 S+, 23 VS+ and 29 VS+ autoclaves. If the installation conditions permit, it is also recommended to connect the stand-alone autoclaves to a drain. Then the used water is automatically drained from the autoclave storage tank.

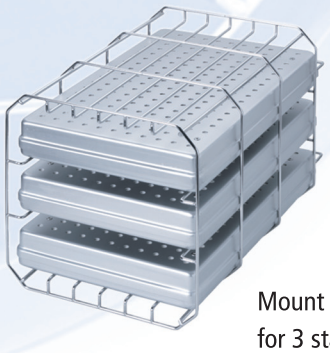
THE **S-CLASS**

## The optimum use of the sterilization compartment – you have the choice

The autoclaves are always delivered with a mounting for trays or cassettes, included in the price, with the standard Mount >A< (for 5 trays or 3 standard tray cassettes). The optional package holder allows the vertical sterilization of sealed items for optimal drying results.

foil holder

Mount >A<
for 5 trays



Mount >A< (rotated)
for 3 standard tray cassettes

## Sterilization containers

Several MELAG sterilization containers, available in different lengths and heights, can alternatively fit in the large sterilization chamber of the Euroklav®+ autoclaves. They are furnished with fasteners and cover seals and thus conform to EN 868.

# DOCUMENTATIONANDBATCHCONTROL

**Instrument treatment ends with documented release for storage and use. Release must be performed and documented by authorized and skilled personnel. The release procedure consists of the procedure release, batch release and sterilized equipment release steps.
Instruments used in doctors' and dental practices or other outpatient institutions, i.e. instruments that come into contact with blood or wounds, must be used in a "sterile" state. The person who releases the instrument as "sterile" after sterilization assumes responsibility for that.
A message output by a sterilizer at the end of the sterilization process (e.g. "Sterilization successfully completed – remove instruments") does not suffice. The sterilization "release" procedure is a hospital based hygiene procedure but required by more and more practice-based doctors.**

## Black on white

The connection of the MELA*print*®42 allows the traditional documentation of all cycle data on paper.

## Flexibility with CF-Card

The MELA*flash* CF-Card-Printer is a modern, paperless alternative to the printer.
All cycle data will be written automatically on the MELA*flash* CF-Card and can be read into any PC via the MELA*flash* CF-Card-Reader.

## Simple network connection

The MELA*net* Box connects the autoclaves of the S-Class to the practice network.
The cycle data can be transfered automatically to the practice server and be stored permanently.

## Perfection with MELA*soft*

1. thanks to automated electronic documentation and release of sterile instruments.

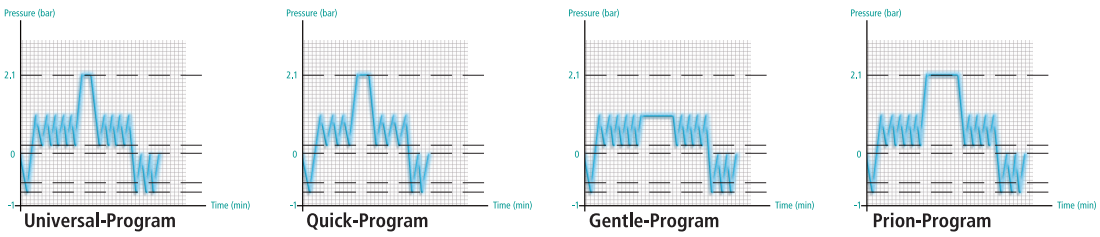
2. because of the barcode labels with possible tracing of used instruments is possible (when using the MELA*soft* Label-Printer)

THE **S-CLASS**

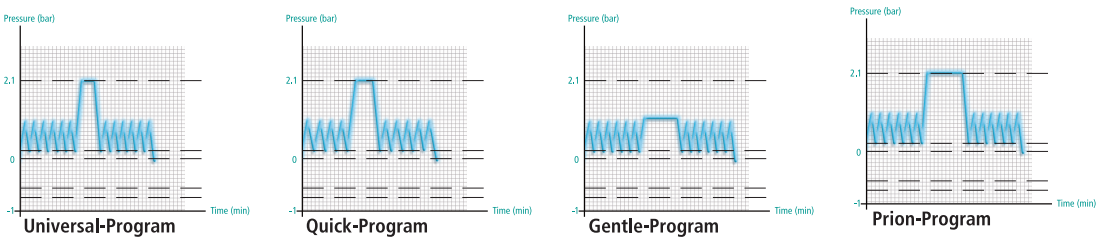
# PROGRAMSANDTIMES

**All autoclaves of the Class S offer four sterilization programs and two test programs. The test programs can check and document the function of the autoclave in the medical practice at any time. After selecting and starting the desired program, the modern microprocessor controls and monitors the entire process automatically.**

### Euroklav®23 VS+/Euroklav®29 VS+:




### Euroklav®23 S+:




## Programs:

| | Universal-Program | Quick-Program | Gentle-Program | Prion-Program |
|---|---|---|---|---|
| **Euroklav®23 VS+** | | | | |
| Warm start 0.5 kg instruments | 20 | 14 | 35 | 35 |
| Cold start 3 kg instruments | 28 | 20 | 42 | 43 |
| **Euroklav®29 VS+** | | | | |
| Warm start 0.5 kg instruments | 19 | 13 | 34 | 34 |
| Cold start 3 kg instruments | 28 | 18 | 40 | 43 |
| **Euroklav®23 S+** | | | | |
| Warm start 0.5 kg instruments | 20 | 15 | 36 | 34 |
| Cold start 3 kg instruments | 28 | 20 | 41 | 42 |
| Drying period | 25 | 10 | 25 | 25 |

All times in minutes

## We manufacture our autoclaves in conformance with the following guidelines and standards:

(93/42/EEC Medical devices, class IIb (European Directive For Medical Devices), 97/23/EC (Pressure Equipment Directive), 2006/42/EC (Machinery Directive); EN 13060 (small steam sterilizers), EN 61010-1/-2-040 (Safety Requirements For Electrical Equipment For Measurement, Control and Laboratory Use), EN 60601-1-2 (General Requirements For Safety Including Important Performance Characteristics–Supplementary Standard: Electromagnetic Compatibility–Requirements And Tests), ISO 9001 and ISO 13485 (Quality Management/Certification), EN1717 (Protection Of Drinking Water From Contamination)

EUROCAT®
Institute for Certification and Testing
CE 0535

## Technical data:

| | Euroklav®23 VS+ | Euroklav®29 VS+ | Euroklav®23 S+ |
|---|---|---|---|
| chamber size | 45 cm long x ø 25 cm dia | 35 cm long x ø 25 cm dia | 45 cm long x ø 25 cm dia |
| chamber volume | 22 litres | 17 litres | 22 litres |
| loading quantity | 4 kg instruments<br>1 kg textilies | 3 kg instruments<br>0.8 kg textilies | 4 kg instruments<br>0.6 kg textilies |
| dimensions (w x h x d) | 42.5 cm x 48.5 cm x 66 cm<br>feet of the unit fit on 60 cm tabletop | 42.5 cm x 48.5 cm x 57 cm<br>feet of the unit fit on 50 cm tabletop | 42.5 cm x 48.5 cm x 66 cm<br>feet of the unit fit on 60 cm tabletop |
| weight | 45 kg | | |
| power supply | 230 V, 50/60 Hz | | |
| power consumption | 2,600 Watt | 2,100 Watt | 2,600 Watt |

## "First aid" from the MELAG Service Center

Not every unexpected message from the autoclave indicates a technical defect. Often the problem only reflects an operating error or insufficient supply of operating resources, such as feed water. As contact partner for such problems which you can easily rectify yourself, you can consult the trained service personnel of your specialist dealer, the authorized MELAG Customer Service or the MELAG Service Center and ask for advice. In many cases a simple telephone call suffices to prevent the necessity of a service visit to your company.

**MELAG medical technology**

Geneststraße 6 - 10
D-10829 Berlin; Germany

Further information about our products and prevailing standards, laws and directives as well as current questions can be found at:

**www.melag.com**

MELAG
competence in hygiene

10.12.5GB-ANZ-Euro Rev.: 12/1646