

PROCLASS

A *plus* in quality: Vacuklav®+



MELAG

Evidence Based Sterilization

QUALITY AND INNOVATION.

More than fifty years ago, MELAG began in Berlin to specialize in the manufacture of sterilization equipment. Quality consciousness, reliability, and innovative eagerness, plus the highest in safety standards, have by now made the family-run enterprise MELAG one of the world's leading producers of sterilization equipment.

The company's success is verified by the sale of more than 400,000 units. Decades of experience, state-of-the-art computer-controlled production technology, the application of high grade materials and an experienced and qualified workforce make MELAG devices easy-to-use quality products.

The company philosophy emphasizes the systematic focus on one restricted production program. With its highly specialised development team, it is thereby possible for MELAG to keep and further develop its product line market-driven and on international leading technical level.

The entire MELAG staff is proud to be making an important contribution to the protection of the health of patients and medical staff with the equipment and accessories it produces for the safe sterilization and storage of sterilized articles.





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.

**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 labor cost advantage of production in low-wage countries cannot play a role here.

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MORE TIME FOR PATIENTS

Only practices which relieve their medical assistance staff from unnecessary tasks can save personnel costs. The goal is to avoid unnecessary waiting or work time in the preparation and sterilization process, so that there's more time for the patients. In developing the Pro Class, our engineers therefore paid special attention to short operating times and simple operation of the autoclaves. After activating the mains switch, all programs can be selected with the program key. The desired program is then started by pressing the Start/Stop key. The entire sterilization procedure, including drying, then proceeds fully automatically.



Easily adjustable special functions

Special options such as switching over to an external feed water supply via a water treatment system connected to the autoclave, or the automatic prewarming of the vessel, as well as a good deal more can be easily self-adjusted by the autoclave operator.

It is just as simple to select an output medium for the documentation, e.g. printer, MELAflash CF Card Printer or practice computer system.

That also saves time in operating the autoclave.



Quick sterilization programs

The Pro Class autoclaves are not high-speed devices such as the autoclaves of the MELAG Premium Class. But nevertheless as a rule they are considerably faster than other devices on the market. In the quick program, unwrapped instruments such as dental handpieces and contra angles can already be removed after only 15 minutes, including fractionated pre-vacuum and vacuum-quick drying. Depending on the total load of the autoclave, wrapped instruments are again available for use after 26 to 50 minutes.



Two systems

1. "Stand-alone" devices

Vacuklav® 31 B+ and Vacuklav® 23 B+

These units feature an interated water storage tank and a patented air cooling system. They work with the extremely high-performance membrane pump technology which has proven its worth for decades. As a result of continued development work, the Vacuklav® 31 B+ and Vacuklav® 23 B+ represent two extremely high-performance autoclaves whose design simultaneously features the particularly economical use of resources. Both autoclaves require practically no installation work in your practice whatsoever, and can be operated independent of location. The noise suppression feature has also been improved.

- absolutely independent of location,
- only a power supply is needed
- minimum installation effort

2. Devices with fixed water connection

Vacuklav® 30 B+ and Vacuklav® 24 B+

These autoclaves are prepared for fixed installation and are connected to a water feed and drain via the water treatment systems MELAdem® 40 or MELAdem® 47. A part of the tap water is prepared and employed to generate steam, and another part is directly employed to cool the high-performance vacuum pump. The low-maintenance water ring pumps of the Vacuklav® 30 B+ and Vacuklav® 24 B+ autoclaves permit longer service intervals and are characterized by extremely slight heat emission.

- higher performance vacuum technology
- resulting in much faster program runs
- work and time saving due to automation of the water supply

QUICK INNOVATIVE FLEXIBLE

Automate!

The practice-friendly system: Automatic feed water supply with MELAdem® 40/MELAdem® 47.

All Vacuklav 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:

- MELAdem® 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 MELAdem® 40 guarantees an optimal utilization of the mixed-bed-resin pellets. The MELAdem® 40 can be mounted directly on the autoclave, on the wall or in a supporting cabinet.
- MELAdem® 47: for greater water requirements. This water treatment system 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.



MELAdem® 47 (1) installed in a sub cabinet with water tank (2) and additional tap (3).



The design – functional and attractive

Not only the performance and production quality of the Pro Class 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.



MELAdem[®]40
mounted on the Vacuklav[®] 31 B+



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 Vacuklav[®] 31 B+ and Vacuklav[®] 23 B+. Alternatively, both autoclaves could be fed the required water supply from any external reserve container 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 Vacuklav[®] 31 B+ and Vacuklav[®] 23 B+ 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.

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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. The delivery contains combined mounting "A" (for 5 trays or 3 standard tray cassettes) by default. Please indicate in your order if you would alternatively at no extra charge prefer the mounting "B" for 4 standard tray cassettes or mounting "D" for two high cassettes e.g. implant cassettes or container systems.



mounting „A“
for 5 trays



foil holder



mounting „B“ for
4 standard tray cassettes
(or for 4 trays)



mounting „A“ (rotated)
for 3 standard tray cassettes



mounting „D“ for 2 high cassettes
(i.e. implantology trays)



Sterilization containers

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

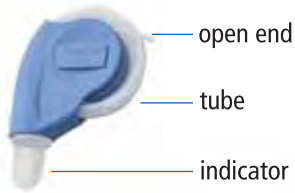


DOCUMENTATION AND BATCH CONTROL

The Medical Devices Operator Ordinance and the RKI (Robert Koch Institute) recommendations demand that the operator documents the instrument sterilization. This practice secures evidence in case of presumed infection in the dental and medical practice. In the context of public health department checks or medical practice inspections, proper documentation and batch control are also considered important criteria for the "release" of instruments by the medical assistant after sterilization.

Batch control with MELAcontrol®

The EN 867-5:2001 and EN 13060 defines a test specimen for "class B" autoclaves which simulates the most difficult demands for the sterilization of instruments with hollows. The MELAcontrol® system consists of a test specimen ("Helix") containing an indicator. The evaluation of the indicator is prerequisite for the release of the sterilized objects if "critical B" instruments have been sterilized.



Networked at last

By connecting the MELAnet Box to an autoclave of the Pro Class, this becomes a Web server whose status information can be displayed in any Internet browser. The MELAnet Box is an Ethernet adapter which can post the data coming from the autoclave transparently over TCP/IP into the network.



Mobile with CF card

All cycle data can be automatically written on the CF card and directly read into any PC (for instance over the MELAflash reading device) and stored electronically.



Black on white

The connection of the MELAprint® device lets you print out the traditional documentation of all cycle data on paper.



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Why a "class B" autoclave?

The European workgroup appointed by the EU Commission has passed the European Standard EN 13060 in the course of the harmonization of different national sterilization standards. The standard divides autoclaves into the classes "B", "S" and "N". "Class B" is the highest class conforming to the most stringent demands and therefore can be unrestrictedly used for the sterilization of all possible loads used in medical practices (also with hollow bodied instruments, handpieces and turbines) and for all kinds of sterilization packaging. A "class B" autoclave must in any case pass a Helix test with a test specimen as per EN 13060:2001. According to expert opinion, that can only be achieved with a fractionated pre-vacuum procedure. The autoclaves of the profi class conform to "class B" requirements and are therefore absolutely future-safe.

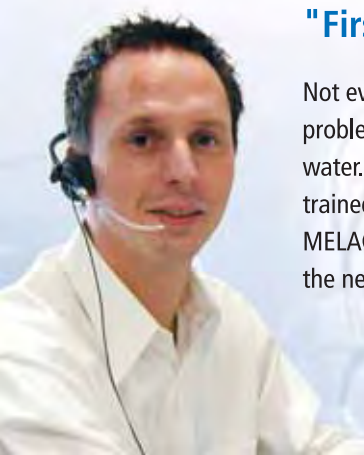


Technical data:

	Vacuklav®30 B+	Vacuklav®31 B+	Vacuklav®24 B+	Vacuklav®23 B+
	tap water connection	„stand-alone“	tap water connection	„stand-alone“
chamber size	35 cm long x ø 25 cm dia		45 cm long x ø 25 cm dia	
chamber volume	18 Litres		22 Litres	
loading quantity	5 kg instruments 2 kg textiles	5 kg instruments 1,8 kg textiles	7 kg instruments 2,5 kg textiles	5 kg instruments 1,8 kg textiles
dimensions (w x h x d)	42,5 cm x 48,5 cm x 57 cm feet of the unit fit on 50 cm tabletop		42,5 cm x 48,5 cm x 66 cm	42,5 cm x 48,5 cm x 72 cm feet of the unit fit on 60 cm tabletop
weight	44 kg	44 kg	49 kg	48 kg
power supply	230 V / 50 Hz		230 V / 50 Hz	
power consumption	2.500 Watt		2.500 Watt	

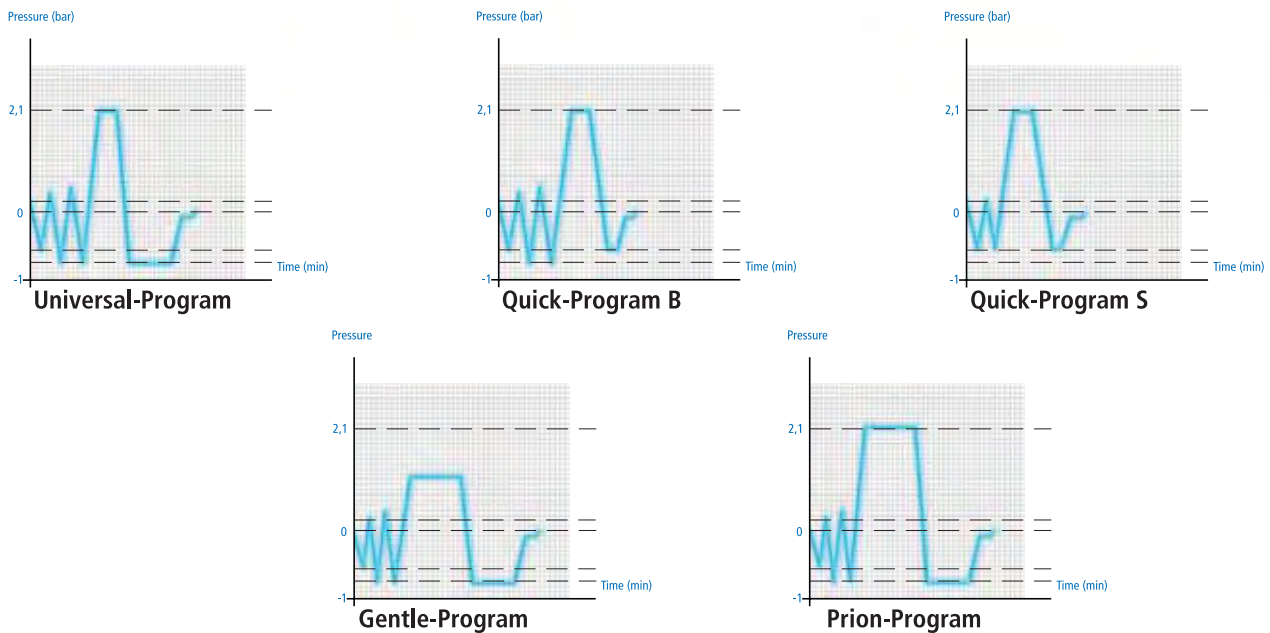
"First aid" from the MELAG Service Center

Not every unexpected message on the display of 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.



PROGRAMS AND TIMES

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



Programs:

	Universal-Program	Quick-Program B*	Quick-Program S**	Gentle-Program	Prion-Program
Vacuklav®30 B+					
Warm start 0,5 kg instruments	23	20	10	27	33
Cold start 5 kg instruments	29	-	19	42	45
Vacuklav®31 B+					
Warm start 0,5 kg instruments	27	23	12	39	40
Cold start 5 kg instruments	38	-	20	51	55
Vacuklav®24 B+					
Warm start 0,5 kg instruments	24	21	11	30	35
Cold start 7 kg instruments	30	-	20	45	46
Vacuklav®23 B+					
Warm start 0,5 kg instruments	30	24	17	46	47
Cold start 5 kg instruments	43	-	23	59	60
Drying period	15	6	10	15	15

*max. 0,5 kg wrapped **unwrapped

All times in minutes

Our autoclaves are manufactured in compliance with the following directives and standards:

93/42/EWG Medical device class IIa (European Guideline for Medical Devices), 97/23/EWG (Guideline for Pressure Devices), EN 13060 (Small Steam Sterilizers), EN 61010-1-2 (Safety Regulations for Electrical Measuring, Controlling and Laboratory Devices - Part 1 and Part 2), EN 50081-1 and EN 50082-1 (Regulations on Electromagnetic Compatibility), EN ISO 9001: 12.2000 and EN ISO 13485/ 11.2000 (Quality Management / Certification), EN 1717 (Protection of Drinking Water from Contamination)



CE 0124



MELAG oHG, medical technology

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

www.melag.com