



State-of-the-art anaesthesia technology

Dameca MRI 508 anaesthesia system



Get closer to the MRI scanner



The benefits
are many

Superb certified performance in close proximity to strong magnetic fields. Our innovative machine provides benefits in support of patient safety.

MRI compatibility

The Dameca MRI 508 has the unique ability to withstand up to 1000 Gauss and is 3.0 Tesla approved. Tests in cooperation with leading MRI scanner suppliers have confirmed that diagnostic images are undisturbed by the functioning anaesthesia machine, and the machine is not affected by the MRI operation. This saves time and space, and allows the operator to respond more quickly to patient needs.

Continuous platform development

Our commitment to ongoing innovation ensures our technological platform is continuously improved and aims to satisfy even the most demanding users.

User-friendly interface

When not required in the scanner room, the Dameca MRI 508 can function as a conventional anaesthesia machine in the operating theater. We have given it the same user interface and breathing system as our well-known Siesta i Whispa. Thus, no extra training is necessary to operate the Dameca MRI 508 so the operators can get to work right away.

High-level safety features

The Dameca MRI 508 has a number of built-in safety features, including:

- Improved audible and visual LED alarms for easy monitoring from the MR operating room
- Hypoxic guard function, ensuring at least 25% oxygen in the oxygen/nitrous oxide mix
- A slave regulator that cuts off nitrous oxide in the event of low oxygen flow
- A separate visual alarm will quickly alert the operator in the event of a failed oxygen supply
- A fresh gas switch between the breathing system and the auxiliary gas outlet
- An oxygen flow meter with separate outlet, including tube nipple
- Adjustable integrated patient suction unit
- Semi-automatic self-test at start-up. In case of an emergency, the self-test can easily be bypassed
- Built-in battery backup (90 minutes)
- No drawers, eliminating the risk of magnetic materials being drawn away and forgotten

- Tested up to 1000 Gauss
- 3.0 Tesla approved
- Intuitive and user-friendly interface
- Integrated breathing system
- Microprocessor-controlled ventilator with seven advanced ventilation modes, including PRVT*
- 8" high-resolution colour display
- High-level safety features
- Space-saving design

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Microprocessor-controlled ventilator

Our ventilator compensates for changes in the fresh gas flow and compliance in the breathing system.

Pressure, spirometry data, and oxygen concentration are displayed on the 8" colour TFT screen.

Supports seven ventilation modes: VCV, PCV, SIMV, PSV, PRVT*, manual, and spontaneous.

PRVT* – Pressure Regulated Volume Target

PRVT*, a lung-protective ventilation mode that combines the advantages of Volume Controlled Ventilation (VCV) and Pressure Controlled Ventilation (PCV). PRVT* continuously adjusts the inspiratory pressure based on the compliance and resistance of the patient's lungs and airways, to maintain pressure at the lowest possible level while providing the preset tidal volume.

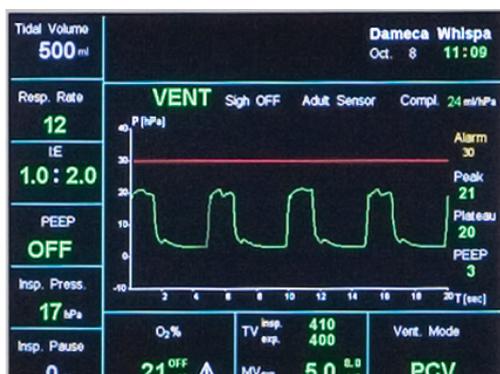
This provides optimum gas exchange and subsequent oxygenation during surgery.

Space-saving design

The slim, modular Dameca MRI 508 is a compact choice for all MRI suites, occupying a minimum of space. Twin wheels allow the machine to be moved around smoothly and easily.

We have done our best to integrate all the key functions into the machine as standard. Even the AGSS for gas evacuation is among the core functions, eliminating the need for a separate system on the machine's side or rear.

A backbar for mounting Selectatec vaporisers and simple mounting of all types of patient monitors adds to the flexibility of the the Dameca MRI 508.





Integrated breathing system

Forget about time-consuming, multiple-tube connections between the anaesthesia machine, breathing system, and patient. Our integrated breathing system (IBS) integrates an ascending bag-in-bottle, patient circuit, and CO₂ absorber in one compact unit. That means no tubing between the breathing system and machine.

Setting up for a procedure is fast, and cleaning is easy. In less than sixty seconds the breathing system can be taken apart for cleaning, without any need of special tools. The foolproof design prevents reassembly errors after cleaning.

Bag-in-bottle

The ascending bellows is designed to prevent air from being drawn into the breathing system in the event of a leakage. The capacity is up to 1500 mL, making it suitable for adults, paediatrics, and neonates.

Valves

Vertical yellow valve flaps allow visual supervision of inspiration and expiration. An APL valve is also integrated and used in the manual and spontaneous modes.

i-SORB absorber

Available in reusable or disposable versions, i-SORB minimises the waste of unused soda lime thanks to its flow-optimised design. Soda lime capacity is 900 g. The absorber can be replaced while the machine is in operation.





Technical specifications

Dimensions (H x W x D)	1510 x 760 x 670 mm
Weight	110 kg
Hypoxic guard system	Total flow range: 0–20 L/min
Vaporisers	Backbar for two Selectatec vaporisers (German or British standard) with interlock safety mechanism
Integrated breathing system (IBS)	Vertical Insp/Exp valve flaps Tool-free disassembly in less than sixty seconds Fresh gas introduced after Insp valve
Absorber capacity	900 g
Ventilation modes	VCV (volume-controlled ventilation) PCV (pressure-controlled ventilation) SIMV (synchronised intermittent mandatory ventilation) PSV (pressure support ventilation) PRVT* (pressure-regulated volume target) Manual, spontaneous
Tidal volume	20 to 1500 mL
Respiration rate	4 to 80 bpm
I:E ratio	3:1 to 1:9,9
Electronic PEEP	4 to 20 hPa / cmH ₂ O / mbar
Inspiratory pressure	PCV 4 to 67 hPa / cmH ₂ O / mbar PSV 4 to 50 hPa / cmH ₂ O / mbar
AGS System	30 to 40 L/min
Ventilation measurements	Peak, Plateau, and PEEP Pressure Patient compliance Tidal & minute volume Inspired O ₂ %* Spirometry loop* incl. pressure waveform

Dameca A/S develops, manufactures and sells innovative anaesthesia machines to the world market and is found in more than 100 countries. Our product portfolio also includes flow meters, suction units, wall panels and other OR/ICU and ward supplies.

Dameca is a company of the Löwenstein Group.

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