



# State-of-the-art MRI anesthesia technology

Dameca MRI 508 anesthesia machine

**PHILIPS**  
sense and simplicity

# The closer, the safer - the better

Hospitals have long awaited an anesthesia machine that can be used close to their MRI scanner. The Dameca MRI 508 is it – the first in the world to perform reliably and accurately right next to diagnostic equipment with a strong magnetic field.

Our innovative machine takes patient safety to a new level of excellence. The benefits are many:

- Tested up to 2,000 Gauss
- 3.0 Tesla approved
- Intuitive and user-friendly interface
- Integrated breathing system
- Microprocessor-controlled ventilator with 8" high-resolution color display and advanced ventilation modes, including PRVT\*
- High-level safety features
- Space-saving design

## MRI compatibility

The Dameca MRI 508 has the unique ability to withstand up to 2,000 Gauss and is 3.0 Tesla approved. Tests in cooperation with leading MRI scanner suppliers have confirmed that diagnostic images and ventilator functions are undisturbed by nearby scanner operations. Reliable performance is guaranteed.

For patients and hospital staff, the machine improves safety and comfort and saves on time and space. Long tubing connections between the patient and anesthesia equipment are eliminated, minimising leakage risks and enabling 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 always equipped to satisfy the most demanding users.

Through our use of the most up-to-date, open standard technology, our electronic user interfaces are already prepared for the integration of healthcare equipment in hospital networks.

## User-friendly interface

No extra training is necessary to operate the Dameca MRI 508. We have given it the same user interface and breathing system as our well-known Siesta i Whispa and Siesta i TS, so operators can get to work straight away.

When not required in the scanner room, the Dameca MRI 508 can function as a conventional anesthesia machine in the operating theatre.

## High-level safety features

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

- Improved audible and visual LED alarm for easy monitoring from the MR operating room
- Hypoxic guard function, ensuring minimum 25% oxygen in the oxygen/nitrous oxide mix
- A slave regulator that cuts off nitrous oxide and gives an audible alarm in the event of a failed oxide supply
- A fresh gas switch between the breathing system and the auxiliary gas outlet
- An oxygen flow meter with separate outlet, including tube nipple, and integrated patient suction unit
- Automatic self-test at start up
- Built-in battery backup
- No drawers, eliminating the risk of magnetic materials being tucked away and forgotten

\* option



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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 analysis are displayed on the 8" color TFT screen.

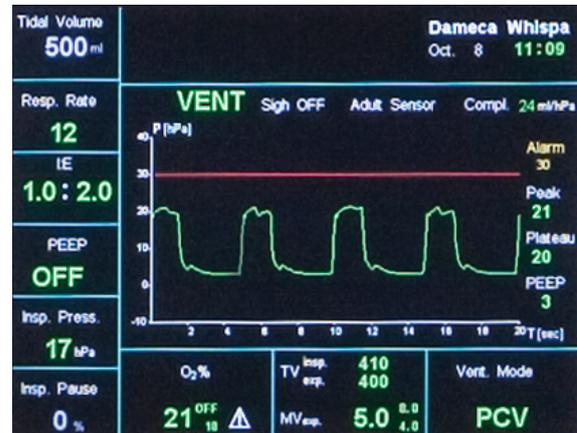
The seven ventilation modes are: VCV, PCV, SIMV, PSV, PRVT\*, manual and spontaneous.

## PRVT— Pressure Regulated Volume Target

PRVT is a lung-protective ventilation mode that combines the advantages of volume controlled ventilation (VCV) and pressure controlled ventilation (PCV).

Optimum ventilation is achieved through inspiratory flow control, maintaining inspiratory pressure while the patient is under anesthesia.

The required tidal volume set by the operator is achieved by automatic, breath-by-breath pressure regulation.



\* option

### Space-saving design

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

We have done our best to integrate all functions in the machine. 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 smart back bar for mounting Selectatec vaporizers and simple mounting of all types of patient monitors add to the flexibility that will take the Dameca MRI 508 into the future.

### Long lifetime at low cost

Look forward to the lowest total cost of ownership on the market. Minimum maintenance requirements and easy cleaning are all part of our design. Spare part orders are promptly handled

and dispatched. Ask about our tailored service packages.



# Integrated breathing system

Forget about time-consuming, multiple tubing connections between the anesthesia machine, patient system and patient. Our integrated breathing system (IBS) integrates an ascending bag-in-bottle, patient circuit and CO<sub>2</sub> absorber in one compact unit.

That means no tubings between the breathing system and the machine and only two tubings — for inspiration and expiration — between the breathing system and the patient. Manual bag connection is located under the manual respiration valve.

Setting up for an operation is faster, and cleaning easier. In less than a minute, the machine can be taken apart for cleaning, without any need of special tools. The foolproof design rules out the risk of reassembly errors after cleaning.

## Bag-in-bottle

Ascending bellows prevent air from being drawn into the breathing system in the event of a leakage. Capacity up to 1500 ml, suitable for adults, infants and neonates.

## Valves

Yellow valve flaps enable visual supervision of inspiration and expiration. A handy manual respiration valve is also integrated with pressure, closed and spontaneous modes.

## i-SORB absorber

Available in re-usable or disposable versions, the i-SORB eliminates waste of unused soda lime due to its flow-optimized design. A sensor detects when the absorber is mounted. The absorber can be replaced while the machine is in operation. Soda lime capacity is 900 g.



# Specifications

DAMECA MRI 508	
Dimensions (HxWxD)	1510 x 760 x 670 mm
Weight	140 kg
Hypoxic guard system	Total flow range 0-20 L/min
Vaporizers	Back bar for two Selectatec vaporizers (German or British standard) with interlock safety mechanism
Integrated breathing system (IBS)	Hanging Insp./Exp. valve flaps Tool-free disassembly in 30 seconds Fresh gas introduced after Insp. valve Autoclavable
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	10 to 11500 ml
Respiration rate	4 to 80 bpm
I:E ratio	3:1 to 1:9.9
Electronic PEEP	4 to 20 hPa
Inspiratory pressure	PCV 4 to 67 hPa PSV 4 to 50 hPa
AGSS	30 to 40 L/min
Ventilation measurements	Peak, Plateau, and PEEP pressure Patient compliance Tidal & minute volume Inspired O <sub>2</sub> %* Spirometry loop

\* option

The Dameca MRI 508 anesthesia machine was previously sold and marketed under the Dameca brand. As of March 2011 Dameca was acquired by Royal Philips Electronics



Philips Healthcare, Anesthesia Care  
Dameca a/s, Islevdalvej 211, DK-2610 Roedover, Denmark  
Phone +45 4450 9990, Fax +45 4450 9999  
info@dameca.com, www.dameca.com

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