

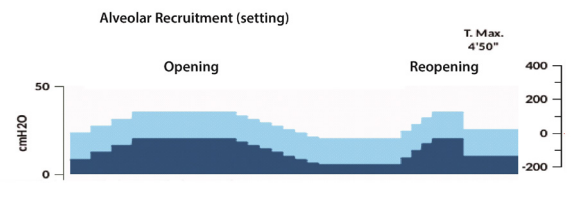
# genesis<sup>®</sup> by **HERSILL**



The anaesthesia workstation focused on you

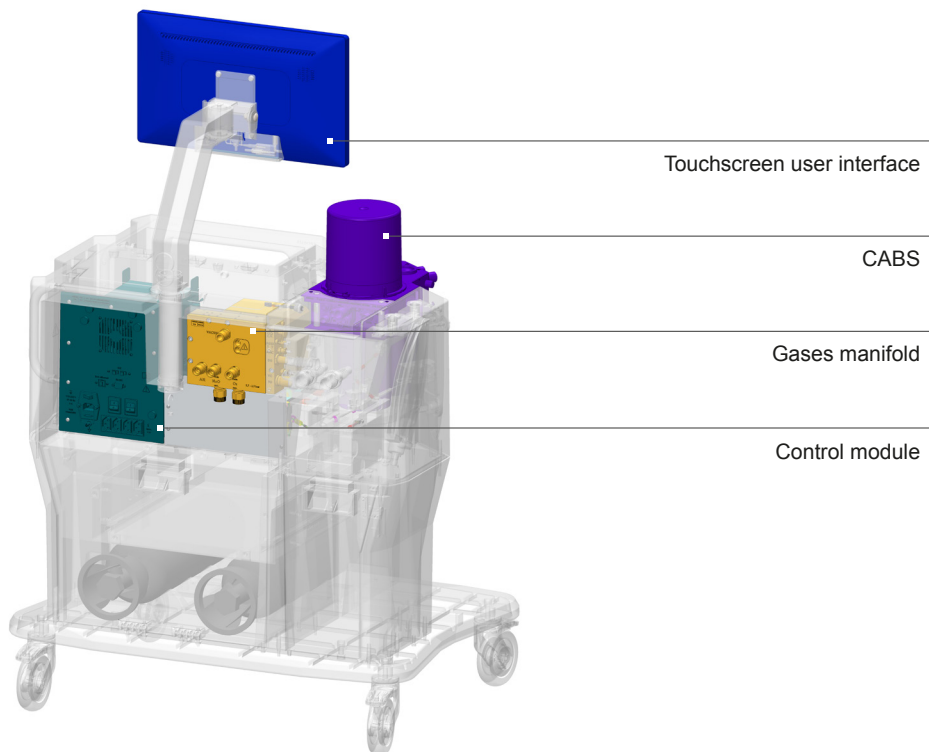
## Lung protective ventilation

- Equipped with the most advanced ventilation modes.
- Automatic recruitment maneuvers, with optimal PEEP calculation.
- Advanced volumetric capnography interface.



## Cost saving

- A new concept in modularity based on 4 functional kits, independently tested.
- Easy-to-follow procedures for installation, calibration, maintenance and services interchange.

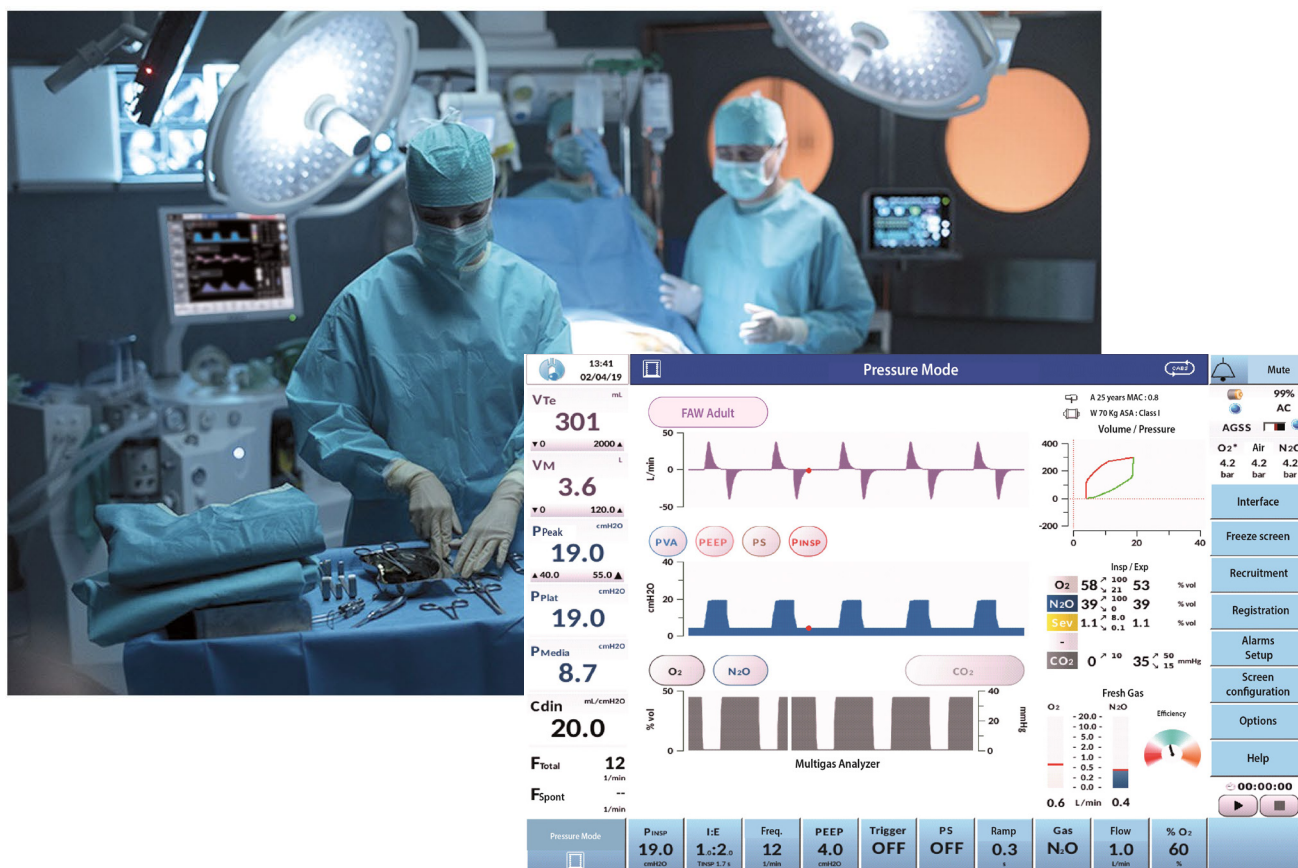


## Safety comes first

- The patient gases are confined in the entirely autoclavable Compact Anaesthesia Breathing System (CABS). Autoclavable at 134 °C.
- The performance of the hospital Anaesthetic Gas Scavenging System (AGSS) is displayed in the touchscreen, notifying on possible contamination in the operation room.

## Design and ergonomics

- Complete and intuitive interface with settings, ventilation monitoring, anaesthetic gases monitoring, graphics, trends, AGSS performance, alarms with troubleshooting guide, medication and events management.
- All the auxiliary devices currently demanded, are embedded in the anaesthesia machine.
- 18.5" (47 cm) projected capacitive touchscreen, supported on a 360° rotating and 2 axis tilting arm, including a LED lighting bar to illuminate the worksurface, controlled from the user interface.



## Versatility

- Beyond the new standard Compact Anaesthesia Breathing System (CABS), *genesis*<sup>®</sup> is ready to operate with any re-breathing, semi-closed and non-re-breathing circuit.
- The integration of Masimo<sup>®</sup> capnography and multigas anaesthesia main-stream and side-stream options, and real-time oxygen paramagnetic allows a complete ventilatory monitoring.
- Any ICU hemodynamic monitor and any infusion pump configuration can be added in 2 auxiliary arm stands.

Touchscreen user interface

360° rotating arm, 2 axis tilting and workplace illumination

Compact Anaesthesia Breathing System (CABS)

Auxiliary arm stands (2), for hemodynamic monitor and infusion pumps

Flow and Pressure patient monitoring

Galvanic O<sub>2</sub> sensor

Multigas anaesthesia monitor main-stream or side-stream

Fresh-gas control (CABS or front)

O<sub>2</sub> flow meter for oxygen therapy

Vacuum controller for suction

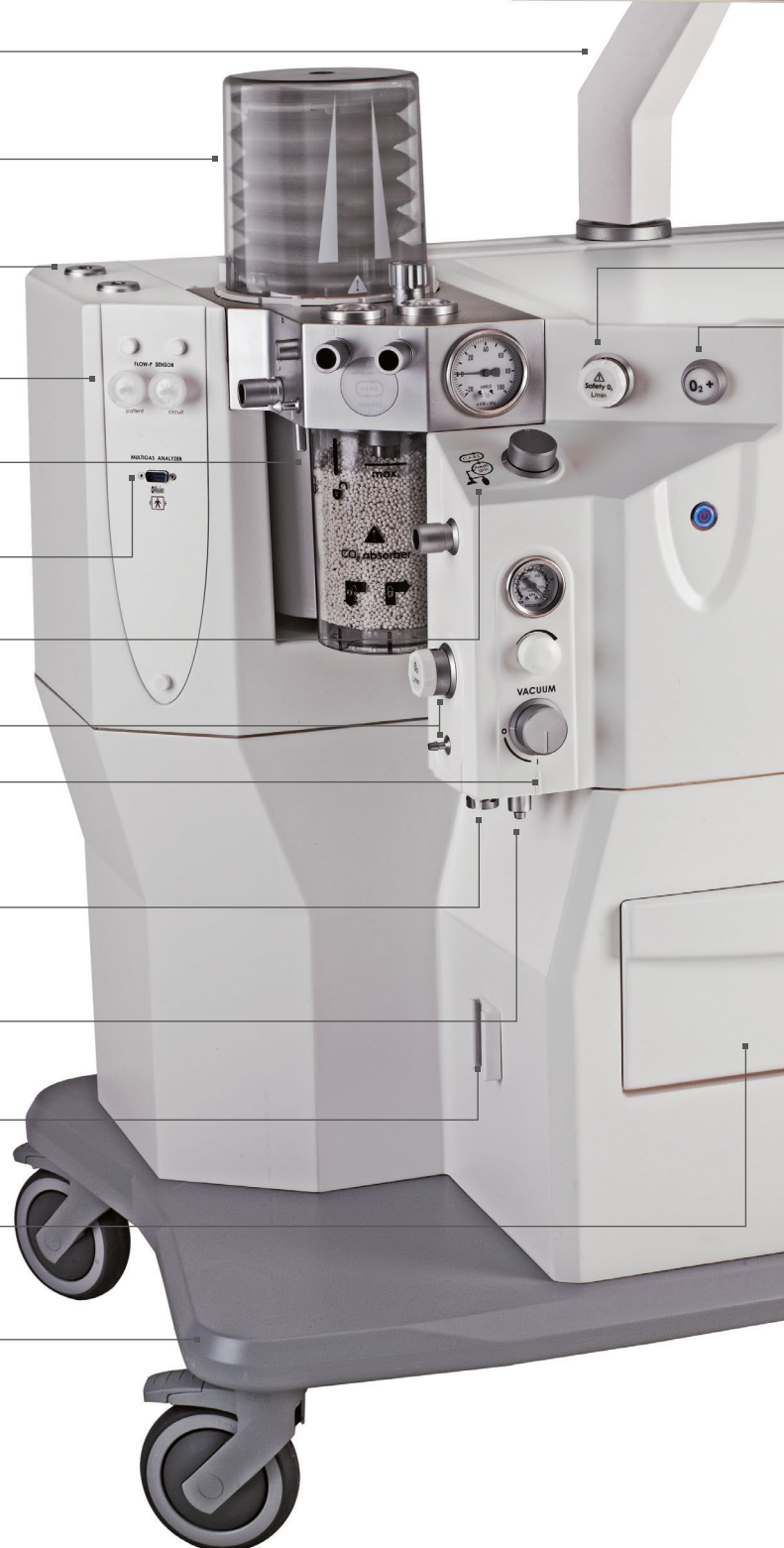
Auxiliary O<sub>2</sub> supply valve

Suction port

Collection jar holder  
EN ISO 9001:2015

Drawer

Compact frame and trolley







# Configurations and accessories

## MAIN-STREAM MULTIGAS MONITORING UNIT IRMA™



CO<sub>2</sub>, N<sub>2</sub>O and  
5 agents  
(HAL, ENF, ISO,  
SEV, DES) with  
Auto Agent ID



## SIDE-STREAM MULTIGAS MONITORING KIT ISA™



CO<sub>2</sub>, N<sub>2</sub>O, 5 agents  
(HAL, ENF, ISO, SEV, DES)  
with Auto Agent ID  
and paramagnetic O<sub>2</sub>



## COLLECTION JAR



## AUXILIARY ARM

Available kits for main  
hemodynamic monitor  
manufacturers



## ANAESTHETIC AGENT VAPORIZERS

- ▶ Halotane ▶ Isoflurane ▶ Enflurane
- ▶ Desflurane ▶ Sevoflurane

## HEMODYNAMIC MONITOR

Availability of supply from all the main manufacturers  
Please consult us about all the options available

# Ceiling pendant genesis®

The Ceiling Pendant genesis® model  
can be hung from any ceiling system



"The image of the ceiling system is only a simulation.  
It does not correspond to any accessory available".



# Technical specs

Operating data			
Weight		105 kg	
Dimensions		92 cm Wide x 68 cm Deep x 139 cm High (93 cm to the table surface)	
Packaging Dimensions		105 cm Wide x 75 cm Deep x 160 cm High	
Operating voltage supply		110 to 240 V~, 47 to 63 Hz (12 to 6 A)	
Power input		120 W typically (max. 1.2 kW with auxiliary outlets used)	
Battery autonomy		90 min typically	
Auxiliary power outlets		4, with automatic protection	
O <sub>2</sub> , N <sub>2</sub> O and Air supply		2.7 to 6.9 bar (39.1 to 100 psi)	
Screen		TFT 18.5" (47 cm) projected capacitive touchscreen	
Protection class		Class I, gas analyzer type BF defibrillation proof	
Classification		Class II b	
Storage		One front drawer with self-brake system and two back cabinets with door	
Lighting		LED bar below the screen controlled from the touchscreen	
Latex free			
Ambient conditions			
Operation / Storage Temperature		10 to 35 °C (50 to 95 °F) / -20 to 60 °C (-4 to 140 °F)	
Operation / Storage Atmospheric pressure		700 to 1060 mbar (10 to 15.3 psi) / 500 to 1100 mbar (7.2 to 15.9 psi) ~ 4000 m height	
Operation / Storage Relative humidity		25 to 85 % (no condensation) / 5 to 98 % (no condensation)	
Fresh gases (O <sub>2</sub> , N <sub>2</sub> O and Air, electronically controlled)			
Fresh gas flow		0 and 0.1 to 18 L/min O <sub>2</sub> / N <sub>2</sub> O / Air	
Accuracy		0.1 to 0.5 L/min = ±0.05 L/min; 0.5 to 18 L/min = ±10 %	
O <sub>2</sub> concentration		21 to 100% vol. with Air, 25 to 100% with N <sub>2</sub> O (minimum 200 ml/min O <sub>2</sub> )	
O <sub>2</sub> Safety fresh gas (backup)		0 – 0.2 – 0.4 – 0.7 – 1 – 1.5 – 2 – 3 – 4 – 6 – 8 – 10 – 12 – 15 L/min O <sub>2</sub>	
O <sub>2</sub> flush (+O <sub>2</sub> )		40 L/min standard (adjustable 25 - 75 L/min upon requirement)	
Breathing system (CABS)			
Autoclavable	134 °C	Vacuum safety valve	-0.3 hPa
Weight of breathing system	9.8 kg	Exp. resistance at 60L/min	5.80 hPa
CO <sub>2</sub> absorber volume	1.5 L	Insp. resistance at 60L/min	2.90 hPa
Leakage	< 150 mL/min (at 30 hPa)	Exp. resistance at 30L/min	3.55 hPa
Pressure limiting valve APL	0 to 70 hPa	Insp. resistance at 30L/min	0.89 hPa
Pressure relief valve	125 hPa	Internal Compliance at 30 hPa	15 mL
External fresh gas with non-re-breathing systems (software controlled)			
Connection		conical 22 mm male / 15 mm female	
Pressure relief valve		125 hPa	
Vacuum safety valve		-0.3 hPa	
Auxiliary integrated systems		Auxiliary O <sub>2</sub> flow meter (0-15 L/min), Auxiliary O <sub>2</sub> supply valve (NF standard) and Suction device	
Communication ports		1 x RS-232, 2 x USB 1 x LAN Ethernet	
Standards		ISO 13485, ISO 80601-2-13, IEC 60601-1, IEC 60601-1-2, IEC 60601-1-8, IEC 60601-1-6, IEC 62304 y IEC 62366	

## Ventilator (electronically controlled, pneumatically driven bellows ventilator)

### Operation / Ventilation modes

- ▶ Volume controlled (VC) modes:
  - Volume Controlled Ventilation (VCV)
  - VC Synchronized Intermittent Mandatory Ventilation (VC-SIMV)
  - VC-SIMV with Pressure Support (VC-SIMV-PS) \*
- ▶ Pressure controlled (PC) modes:
  - Pressure Controlled Ventilation (PCV)
  - PC Synchronized Intermittent Mandatory (PC-SIMV)
  - PC-SIMV with Pressure Support (PC-SIMV-PS) \*
- ▶ Adaptive Pressure with Volume Guaranteed (APVG) modes (other trade names: Autoflow, PCVR, PRVC, AVAPS, VC+)
  - Adaptive Pressure with Volume Guaranteed (APVG) \*
  - APVG Synchronized Intermittent Mandatory (APVG-SIMV) \*
  - APVG -SIMV with Pressure Support (APVG-SIMV-PS) \*
- ▶ Pressure Support Ventilation (PSV) \* (other trade names: PS, ASB, SPS, IPS)

\* Optional advanced ventilation modes.

### Non-mechanical Operation / Ventilation modes

- ▶ Manual ventilation through the CABS system (Auto/Manual software controlled)
- ▶ Spontaneous ventilation either through the bellows (auto mode) or through the bag (manual mode)
- ▶ Manual ventilation through the external fresh gas outlet for non-rebreathing systems (Bain, Mapleson, ...)

### Application field: neonates, children, adults

Tidal volume	5 to 1500 mL	Inspiratory flow	max. 150 L/min
Inspiratory pressure	0 to 68 hPa	PEEP	0 to 30 hPa
Ventilation frequency	3 to 120/min	Flow trigger	0.2 to 15 L/min
Inspiratory time	0.05 to 16.6 s	Pressure support	5 to 50 hPa
I:E ratio	5:1 to 1:8	Ramp time	0.1 to 2 s
Inspiratory pause	0 to 60 %	Maximum pressure	0 to 68 hPa

### Monitoring

- 18.5" (47 cm) projected capacitive touchscreen, supported on a 360° rotating and 2 axis tilting arm.
- Measurements displayed: Peak pressure; Plateau pressure; Mean pressure; Expiratory minute ventilation; Expiratory tidal volume; Inspiratory tidal volume; Expiratory volumeter; Breathing rate; Compliance and Resistance (in VC modes); Patient info (age, weight, MAC, Class ASA); Connected sensors; Battery status; Power supply status; Gases supply pressures for O<sub>2</sub>, N<sub>2</sub>O and Air; Inspiratory and expiratory concentration of O<sub>2</sub>, N<sub>2</sub>O, CO<sub>2</sub> and Anaesthetic gas\*.
- Parametres charted as curves (up to 3 simultaneously): Airway pressure; Expiratory flow; Inspiratory flow; Volume; Fresh gases (Rotstyle); Concentration of O<sub>2</sub>, N<sub>2</sub>O, CO<sub>2</sub> and Anaesthetic gas\*; Trends: Minute volume, MAC and gases (O<sub>2</sub>, N<sub>2</sub>O, CO<sub>2</sub> and Anaesthetic gas).
- Display for the performance of the hospital Anaesthetic Gas Scavenging System (AGSS).
- Configurable interface: bright / dark, multi-language.
- Loops (up to 2 simultaneously): Volume-Pressure, Flow-Volume, Pressure-Flow, CO<sub>2</sub>-Volume.
- Fresh gas virtual rotameters for O<sub>2</sub>, N<sub>2</sub>O, Air.

\* CO<sub>2</sub>, N<sub>2</sub>O and Anaesthetic gas monitoring with the accessory multigas analyzer main-stream or side-stream; O<sub>2</sub> real-time monitoring via paramagnetic sensor with the accessory multigas analyzer side-stream (galvanic sensor monitoring is shown when paramagnetic sensor is not installed or disconnected).



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