

The Dräger Apollo Anesthesia Machine combines a proven design concept with state-of-the-art technology to offer you a workflow-oriented anesthesia platform equipped to meet the clinical demands of today and tomorrow.

### Ease of Use

Apollo® plays an important role in optimizing your anesthesia workflow and reducing process costs with features such as the fully automatic self-test. Since no user interaction is required, you are free to get on with other jobs. In addition to providing you with invaluable assistance through best-in-class therapy, Apollo® also offers you an open-platform architecture - enabling it to be easily integrated into your overall workflow.

### Advanced ventilation

Apollo® has the ventilation technology to care for patients of any age and acuity. The E-Vent plus servo controlled high-speed piston ventilator works with great precision to supply a maximum peak flow far in excess of any bellows ventilator, resulting in the kind of performance previously only seen in the ICU. Additionally, unlike a bellows ventilator, it requires no drive gas. The very short response time has clear physiological benefits for your patients while the digital precision helps you make the most of the latest ventilation modes.

### Enhanced monitoring

Create your own custom-designed anesthesia workstation by adding our Infinity® Omega Solution and Innovian Anesthesia information management system. Infinity's Pick and Go® transport solution not only offers seamless monitoring during transport, its intelligent docking stations and clean cabling system minimize transition times while helping optimize data continuity and patient care.

### Unique low-flow wizard

Apollo® is designed to support the user in optimal low and minimal flow settings. The consistent use of low-flow anesthesia techniques can significantly reduce the cost of inhalational anesthetic agent. Reducing the fresh gas flow from 3L/min to 1L/min can result in anesthetic agent savings of up to 50%.

 Certified Refurbished



### User friendly ergonomics

The Apollo® has been designed in response to feedback from anesthesiologists and CRNAs from the United States. Dräger has developed a consistent and accepted user interface between Apollo® and its entire anesthesia delivery platform including the Fabius GS, Fabius GS premium and the Fabius Tiro. Apollo has many practical and ergonomically sound features:

- » All functional elements in easy reach of seated or standing user
- » Unique breathing bag arm design provides the ultimate in flexibility
- » Unique larger swivel writing surface
- » Integrated auxiliary O2 and pressure gauge where you need them
- » 2 deep drawers for storage (one lockable storage drawer)
- » Integrated footrest and centrally operated brake
- » Integrated and dimmable task lighting
- » Integrated power outlet for desflurane vaporizer
- » 2 or 3 vaporizer mount – Autoexclusion interlock system

### Automated startup

- Simple, straightforward start-up reduces the burden on the staff and provides complete information on device status
- Enhanced troubleshooting with clear text directions
- Integrated breathing system eliminates external hoses and clutter, reducing risk of misconnection and disconnection
- Automatic self test-fully automatic, lasts approximately three minutes, reflects the results to the user and the results are available to the user at any time.

### Piston vs bellows

The anesthesia ventilator has traditionally been based upon a bellows design. After many years of producing bellows type anesthesia ventilators, Dräger adopted the piston design as the platform for the future. The following summary highlights the key features of the piston design and the rationale for adopting this technology.



**Specifications:**

Weight (without vaporizers and gas cylinders)	365 lbs. (165 kg)
Dimensions (H x W x D)	59 x 33.5 x 31.5 inches (150 x 85 x 80 cm)
Power	200 W, typically
Operating voltage	100 to 127 VAC (- 15 % + 10 %) 45 – 65 Hz
Integrated power backup	At least 30 min, typically 90 min; Depending on ventilation parameters
Ventilator E-Vent® plus	Electrically driven and electronically controlled, fresh gas decoupled
Ventilation modes	Manual, spontaneous, Volume Mode, Pressure Mode Optional/Synchronization: Pressure Support (PS), Volume Mode Autoflow
Pressure limitation P <sub>MAX</sub> (in Volume Mode)	(PEEP + 10) up to 70 cmH <sub>2</sub> O
Pressure limitation P <sub>INSP</sub> (in Pressure Mode)	(PEEP + 5) up to 70 cmH <sub>2</sub> O
Trigger	0.3 – 15 L/min
Tidal volume V <sub>T</sub> (compliance compensated)	20 – 1400 mL
(in Volume Mode)	5 – 1400 mL (with advanced ventilation option)
Breathing frequency (freq.)	3 – 100 bpm
Inspiration time (T <sub>INSP</sub> )	0.2 – 6.7 s
Inspiration/Expiration time ratio (I:E)	max. 5:1
Plateau time (T <sub>IP</sub> :T <sub>INSP</sub> )	0 – 60 %
Inspiratory flow (in Pressure Mode)	max. 150 L/min
PEEP in Volume Mode	0 – 20 cmH <sub>2</sub> O (max. P <sub>MAX</sub> – 10 cmH <sub>2</sub> O)
PEEP in Pressure Mode	0 – 20 cmH <sub>2</sub> O (max. P <sub>insp</sub> – 5 cmH <sub>2</sub> O)
Fresh-gas flow	0 – 10 L/min for each gas (oxygen, air, nitrous oxide)
TSLOPE (in Pressure Mode and Pressure Support)	0 – 2 s
Total system leakage	< 150 mL/min at 30 cmH <sub>2</sub> O (automatic leak test)
O <sub>2</sub> flow control	Sensitive ORC function: at least 21 Vol.-% with N <sub>2</sub> O as carrier gas
O <sub>2</sub> flush	> 35 L/min
Monitoring	Inspiratory and expiratory concentration of O <sub>2</sub> , N <sub>2</sub> O, CO <sub>2</sub> as well as anesthetic agents (Halothane, Enflurane, Isoflurane, Sevoflurane, Desflurane); Minute volume (MV) and Tidal volume (V <sub>T</sub> ); Breathing frequency; Peak pressure, plateau pressure, mean pressure, PEEP; Patient compliance CPAT; Option: Functional oxygen saturation (SpO <sub>2</sub> ); The following parameters maybe displayed as waveforms: Concentration of CO <sub>2</sub> , O <sub>2</sub> , as well as anesthetic agents, airway pressure, inspiratory and expiratory flow; Option: Plethysmogram; Bar graph display of volumeter and tidal volume; Virtual flow tubes for O <sub>2</sub> , AIR, N <sub>2</sub> O; Display of graphical trends and numerical lists of measured values; AutoSet for alarm limits
Serial interface	2 x RS 232
Protocol	Medibus, Medibus X
Absorber volume	(reusable canister) 1.5 L