The specialist for every environment
It’s all about time and space

Is there an anesthesia workstation out there that’s compact yet fully featured? One that can fit into our small ORs and still leaves enough space to work? What about our outpatient surgery center? Can a specialized workstation still be flexible enough to suit all our needs?
Take a closer look at the Dräger Fabius® Tiro

In the modern hospital environment, time is always precious. But there are also many places in a hospital where space comes at premium. Places like induction rooms, emergency departments or smaller operating rooms. Spaces like these present particular challenges – such as how to maintain the best possible patient access and still provide high-quality care. It was for environments like these that we designed the Dräger Fabius® Tiro.

The Dräger Fabius Tiro combines everything you need to provide high-quality ventilation in small spaces. Its compact design makes it a natural choice for applications where you need to get the most of the available room without having to compromise on features or flexibility. With a wide array of options to choose from, the Fabius Tiro can be customized to suit your needs and even be upgraded when those needs change.

PERFORMANCE FEATURES:
- Compact, space-saving design
- Highly maneuverable cart
- Optional wall mount
- Standardized Dräger user interface for easy and intuitive operation
- All major ventilation modes
- High-contrast display
- Intelligent safety features for enhanced patient protection
- CLIC absorber compatible
HIGH-PERFORMANCE VENTILATION
At its core, the Fabius Tiro features our powerful and accurate E-vent piston ventilator, which requires no drive gas and delivers ICU-like ventilation performance. This gives you the ability to handle a wide range of acuity levels. The accuracy of the electrically driven E-vent piston ventilator means that you can also treat pediatric patients with confidence. Optional pressure controlled and pressure support (PS) modes, including SIMV/PS, can expand your ventilation therapy repertoire even further. The combination of its high-precision ventilator and compact, heated breathing system makes the Fabius Tiro a natural choice for low-flow anesthesia.

In spite of its compact size, the Fabius Tiro comes complete with advanced features such as fresh gas decoupling, which maintains constant tidal volumes regardless of fresh gas flow changes. Dynamic compliance compensation and backup ventilation for PS modes let you ventilate with enhanced safety, confidence, and control. In emergency situations, the quick-start feature allows manual ventilation when the device is off, on, or in standby mode for rapid support. Even in the unlikely event of a gas supply failure, automatic ventilation can be temporarily continued.

KEEPING YOU INFORMED
The Fabius Tiro features an integrated, high-contrast monitor which displays relevant ventilation information as parameters and a pressure curve. Fresh gas flow is monitored via high-visibility digital displays as well as a single mechanical flow tube which shows total gas flow. It is also possible to export all parameters as data, e.g. for enhanced ventilation monitoring or further analysis.

If you’ve used a Dräger workstation before, then you’re familiar with Dräger’s standard user interface, which features our established select-adjust-confirm concept. This means you’ll be up and running on the Fabius Tiro in just a short time.

ENHANCED ERGONOMICS AND ECONOMICS
The Fabius Tiro was specifically designed for use in confined conditions. For example, you can choose from a wall-mounted version or a cart version which makes positioning both safe and simple. Up to three drawers provide storage space for additional equipment and consumables, and a stowaway table provides extra space for other instruments or documentation.
The external compact breathing system (COSY) features a simple design for easy disassembly and cleaning. Because the piston-driven E-Vent ventilator requires no drive gas, no additional medical-grade gases are required for operating/driving the ventilator.

The Fabius Tiro is compatible with our CLIC absorber which effectively prevents skin contact with soda lime. In addition, the CLIC absorber feature enables the clinician to quickly exchange soda lime during the operation, enabling you to get the most out of every soda lime canister. Overall consumption of sodalime can be reduced by nearly 60% versus conventional sodalime absorbent systems.

MODULAR AND UPGRADABLE
Your Fabius Tiro can be equipped with hemodynamic monitoring. In conjunction with Dräger Infinity patient monitors and the SCIO patient gas module, the Fabius workstation provides integrated gas monitoring as well as enhanced ventilation monitoring including spirometry of hemodynamic monitors. Due to its open interface architecture, the Fabius Tiro is ready for integration into your hospital information system (HIS) or Anesthesia Information Management System (AIMS). You’ll always have the option to customize the Fabius Tiro to suit your individual needs. Your Dräger representative will be glad to assist you in choosing the options that are right for you.
A wide array of options and accessories are available to choose from, giving you the possibility to tailor the Fabius® Tiro to create exactly the anesthesia solution you need:

**Options and accessories**

Now make the right choice for service: DrägerService®

DrägerService offers a wide range of flexible service options which you can select and combine to meet your individual needs – from technical support to complete, fixed-budget service contracts. Remote Service solutions offer additional potential to improve the uptime of devices.

Ask your Dräger representative about other members of the Fabius family:
### TECHNICAL DATA FABIUS® TIRO

#### BASE UNIT

**Dimensions**
- Cart version without COSY: Approx. 22.8 × 53.6 × 24.7 in (57.9 × 136.1 × 62.7 cm)
- Cart version (incl. COSY): Approx. 30.5 × 53.6 × 33.0 in (77.2 × 136.1 × 83.8 cm)
- Wall version (incl. mounting bracket and COSY): Approx. 28.4 × 21.9 × 30.5 in (72.1 × 55.6 × 77.5 cm)

**Weight and load**
- Fabius Tiro Cart (incl. COSY) without supplementary cylinders and vaporizers: 256 lb (116 kg)
- Wall mount (incl. mounting bracket): 105.5 lb (47.8 kg)

**Power and battery backup**
- Power input: 100 to 240 VAC, 50/60 Hz, 70 VA
- Operation time with fully charged batteries: Minimum 45 minutes (up to 120 minutes)

#### ANESTHESIA GAS SUPPLY MODULE

**Range of fresh gas flow indicators**
- 0.00 to 12.0 l/min

**Total fresh gas flow meter**
- 0 to 10 l/min, calibrated with 50% O₂ and 50% N₂O mixture

**O₂ flush**
- At 87 psi (6 bar): max. 75 l/min; at 41 psi (2.8 bar): min. 25 l/min

**Vaporizer mount**
- Single Dräger or Selectatec®; optional standby vaporizer parking holder

#### VENTILATOR OPERATING SPECIFICATIONS

**Ventilator E-vent®**
- Electronically controlled, electrically driven

**Operating modes**
- Standard:
  - Manual/spontaneous
  - Volume control (VC)
  - Option: pressure control (PC)
  - Option: pressure support (PS)
  - Option: synchronized volume control

**Control input ranges**
- Breathing frequency (rate): 4 to 60 bpm
- Positive end expiratory pressure (PEEP): 0 to 20 cm H₂O
- Inspiration/expiration ratio (Ti:Te): 4.1 to 1:4
- Pressure limit (Pmax): 15 to 70 cm H₂O
- Tidal volume (Vt): 20 to 1,400 ml in volume control; 20 to 1,100 ml in SIMV/PS
- Inspiration pause (Tip:Ti): 0 to 50%
- SIMV inspiratory time: 0.3 to 4.0 sec
- Inspiratory pressure (Pinsp): PEEP +6 to 65 cm H₂O
- Inspiratory flow (InspFlow): 10 to 75 l/min in volume and pressure control; 10 to 85 l/min in pressure support
- Pressure support level (PPS): PEEP +3 to 20 cm H₂O
- Min. frequency for apnea ventilation (freq. in min.): 3 to 20 bpm and “OFF”
- Trigger level: 2 to 15 l/min
**FABIUS® TIRO TECHNICAL DATA**

**Integrated safety functions**

- Sensitive oxygen ratio controller (S-ORC) guarantees a minimum O₂ concentration of 23% in an O₂/N₂O mixture. N₂O is cut off if the O₂ fresh gas valve is closed or if O₂ flow is less than 0.2 l/min. Audible and visual (flashing red LED) indications turn on in the event O₂ pressure drops below 20 psi (1.38 bar) ±4 psi (0.27 bar). In the event of electricity and battery failure, manual ventilation, gas delivery, and agent delivery are possible. Positive pressure relief valve opens at 75 ±5 cm H₂O. Negative pressure relief valve opens at –8 ±2 cm H₂O.

**Ventilator monitoring**

- Monitoring: Continuous monitoring of inspiratory O₂ concentration, breathing frequency, tidal volume expiratory, expiration, minute volume, peak airway pressure, PEEP, and selection of mean or plateau pressure. In addition, all fresh gas flow information is displayed as virtual flow tubes.

**Expiratory minute volume range**: 0 to 99 l/min

**Control screen**: 6.5 in (16.5 cm); black/amber (color mode option)

**BREATHING SYSTEM**

- Volume of entire compact breathing system: 1.7 l plus bag
- Volume of CO₂ absorber: 1.5 l (standard) [option: prefilled Dräger Sorb CLIC absorber with 1.2 l volume]

**GAS SUPPLY AND CONNECTION**

- Gas supply: O₂, N₂O, and air
- Cylinder yokes: O₂ and N₂O pin-indexed hanger yokes

**OTHER**

- Communication interface: 1 × RS232 (standard) [additional RS232 optional]
- Protocols: Vitalink and Medibus
- Data available for export: All alarms, pressure, O₂, volume and fresh gas flow data, ventilations settings, flow curve, and pressure curve
- Writing surfaces: Pull-out tray (standard)
- Additional accessories: Anesthetic gas scavenging system (AGSS), endotracheal suction unit, and integrated O₂ flow tube

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The quality management system at Dräger Medical GmbH is certified according to ISO 13485, ISO 9001 and Annex II.3 of Directive 93/42/EEC (Medical devices).