Fabius Tiro™

Designed for your environment

Emergency Care · Perioperative Care · Critical Care · Perinatal Care · Home Care
Traditional hospital ORs have their needs ...

With more surgical procedures being performed outside of the traditional OR setting each year, Dräger Medical recognized the need to recruit a specially designed system into our CareArea™ Perioperative Care portfolio. Fabius Tiro™ represents our commitment to meet the unique and changing needs of non-traditional locations, by making the latest technology available at a fraction of the cost:

- Same technology and performance as our other popular systems in a compact design
- Intuitive operation and layout ensures ease of use and a short learning curve
- Ample illuminated workspace
- Communication with automated record keeping systems like the Dräger Medical Innovian™ Perioperative Care for enhanced patient throughput
- Convenient compact breathing system (COSY):
  - Fresh gas decoupled for tidal volume delivery unaffected by fresh gas flow adjustments
  - Simplified design allows easy disassembly for sterilization of all components in contact with patient gas
  - Pivot and height adjustment allow optimized positioning of breathing system
- Dräger Medical E-Vent® piston-based ventilator is the latest in precision anesthesia ventilation technology. Electronically driven and controlled, the E-Vent® provides significant advantages for you and your patient:
  - Ventilates any patient – even as your needs change to accommodate sicker patients with more complex procedures
  - Consumes no drive gas, allowing dramatically increased ventilation time when running on cylinders
  - Precision volume ventilation for pediatric and other applications where accuracy is critical
  - Pressure controlled ventilation, PS and SIMV/PS are available as options
- Fabius Tiro™ – electronically measures and displays fresh gas flows, allowing this important information to be recorded and utilized for cost savings and quality control

uniquely tailored

*SurgiCenter*

*The Latin word tiro (tirō), means “Young Recruit.”*
... we recognize that yours are different.
Until now, you may have been faced with a choice between either a traditional stand-alone anesthesia machine or an IT-ready anesthesia system.

If cost and quality have been difficult to balance...
Dräger Medical gives you the best of both worlds with Fabius Tiro™ – the anesthesia workstation that combines the ease-of-use of traditional machines with the latest technology.

... Fabius Tiro is your solution.

A sound business investment:
- Advanced ventilation technology meets your needs today and tomorrow
- Modular design – easy to upgrade as your needs change and new features become available, e.g. additional ventilation modes
- Affordable initial cost and low lifetime costs

And that’s just the beginning – Fabius Tiro™ is also offered as part of our CareArea™ solution, a complete workstation including our leading-edge Infinity Patient Monitoring System™:
- Flexible vital signs monitoring
- Intuitive operation
- ESU interference suppression
- Solid state multigas monitoring
- Infinity network interface for communication with data management systems
- Integrated patient gas module
Ideal for office-based surgery ...

flexible
In the design process of Fabius Tiro™ special attention was paid to meeting the mobility and flexibility requirements outside the main OR:

- Maneuverability allows sharing of systems among areas not constantly in use, leading to better asset management
- Extended operation time with cylinders, since E-vent® electronic ventilator consumes no drive gas

- Advanced safety features provide additional protection:
  - 45-minute battery backup with full operation
  - Fresh gas delivery and manual ventilation are possible even during power failures
  - Self-diagnostics and leak/compliance tests ensure system functionality

... and remote anesthetizing locations in the hospital.
# Technical data

## Fabius Tiro

### Weight (base unit without vaporizers or cylinders)
- **Trolley Mount (cart):** 245 lbs. (111 kg)
- **Wall Mount (with mounting bracket):** 106 lbs. (48 kg)

### Dimensions
- **Trolley Mount (cart):** (W) 22.8” x (H) 53.6” x (D) 24.7”
  - 57.9 cm x 136.1 cm x 62.7 cm
- **Wall Mount:** (W) 20.8” x (H) 21.9” x (D) 17.4”
  - 52.8 cm x 55.6 cm x 44.2 cm

### Maximum load on 12” mounting arm
- 18 lbs. (8.17 kg)

### Power supply
- 100 - 240 VAC, 50/60 Hz., 2.3 A max.

### Battery (supports ventilator and monitor)
- up to 120 minutes, minimum 45 minutes

### Ventilator Event
- Electronically controlled, electrically driven.

### Operating Modes
- **Standard:** Manual / Spontaneous
  - **Volume Control (Volume):**
  - **Options:**
    - Pressure Control (Pressure)
    - Pressure Support (PS)
    - Synchronized Volume
    - Controlled Ventilation w/PS (SIMV/PS)
- **Breathing frequency:** 4 to 60 1/min
- **Max. Minute volume (MV):** 99 L/min

### Positive end-expiratory pressure (PEEP)
- 0 - 20 cmH2O

### Inspiration / Expiration ratio (Ti:Te)
- 4 : 1 to 1 : 4

### Pressure limiting (Pmax)
- 15 - 70 cmH2O

### Tidal Volume (Vt)
- 20 - 1400 mL in Volume Control
- 20 - 1100 mL in SIMV/PS

### Inspiratory pause (Tip:Ti)
- 0 - 50 %

### SIMV Inspiratory time (Tinsp)
- 0.3 - 4.0 sec

### Inspiratory pressure (Pinsp)
- PEEP + 5 to 65 cmH2O

### Inspiratory flow (InspFlow)
- 10 - 75 L/min in Volume and Pressure Control
- 10 - 85 L/min in Pressure Support

### Pressure Support Level (D PPS)
- PEEP + 3 to 20 cmH2O

### Min. Frequency for Apnea-Ventilation (Freq. Min.)
- 3 - 20 1/min and “OFF”

### Trigger
- 2 - 15 L/min

### Integrated safety functions
- Sensitive Oxygen Ratio Controller (S-ORC) guarantees a minimum O2 concentration of 23% in an O2/N2O mixture.
- N2O cut-off if O2 fresh gas valve is closed or if O2 flow is less than 0.2 L/min. Audible and visual (flashing red LED) indication in case O2 pressure drops below 20 psi (1.38 bar) ± 4 psi (0.27 bar).
- In case of electricity and battery failure, manual ventilation, gas delivery and agent delivery are possible.
- Negative pressure relief valve opens at -7.5 to -9 cmH2O

### 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 a mixture of 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 off-line vaporizer parking position.

### Control Screen
- 6.5” (16.5 cm) black/amber

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

### Serial interface
- 1 x RS 232 (standard)
- 2nd RS 232 port (option)

### Protocols
- Vitalink and Medibus

### Data available for export
- All fresh gas flow, ventilation and O2 data

### Volume of CO2 absorber
- 1.5 Liter, Option: Dräger Medical’s prefilled CLIC absorber (1,2 l)

### Gas Supply
- O2, N2O & Air

### Cylinder yokes
- O2, N2O, Air, pin index yokes

### Additional accessories
- Gas scavenging, patient suction, power outlet strip, additional O2 flow tube

### Volume of entire compact breathing system
- 1.7 Liter + bag

### Writing surfaces
- Trolley: Pull-out tray standard, flip-up side tray accessory
- Wall mount: Pull-out tray optional

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**Selectatec®** is a registered trademark of GE - Datex-Ohmeda

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**Manufacturer:**
- Dräger Medical AG & Co. KG
- 23542 Lübeck, Germany

Dräger Medical AG & Co. KG is certified according to ISO 13485, ISO 9001 and Annex II.3 of Directive 93/42/EEC (Medical devices).