Evita® V300
ICU Ventilation and Respiratory Monitoring

The Evita® V300 is a scalable and versatile device which offers high ventilation quality. To meet and master the changing conditions and challenges of your everyday hospital work you need flexible equipment with versatile opportunities.
Benefits

**Versatile and scalable**
- Ventilation for adults, children and neonates: invasive, non-invasive and with O₂-therapy
- Volume- or pressure-controlled ventilation, spontaneous breathing
- Independence due to optional gas and power supply units: GS500 (compressed air), PS500 (power), TSU (gas)
- Flexible workstation integration by attaching to supply unit or trolley
- Individually adjustable configurations easily transferred via USB
- Context-sensitive help function facilitates setting the ventilation parameters and explains device functions

**High ventilation quality I**
- Automatic tube compensation (ATC) compensates for artificial airway resistance
- Automatic leak compensation with invasive and non-invasive ventilation
- AutoFlow® in volume-controlled ventilation provides the tidal volume at the lowest possible pressure
- PC-APRV with optional AutoRelease enables spontaneous breathing with continuous positive airway pressure and short-term pressure relief
- Breathing deeply and freely thanks to AutoFlow®, Volume Guarantee (VG) or SPN-CPAP

**High ventilation quality II**
- Various spontaneous breathing support, e.g.: VC-MMV, SPN-PPS, Volume Support (VS), Pressure Support (PS)
- Advanced analysis tools such as trends or CO₂ monitoring
- Automatic weaning with SmartCare®/PS
- Graphical representation of breathing resistance and elasticity with Smart Pulmonary View

The scope of functions offered by the Evita V300 is individually scalable with optional hardware and software components.
Related Products

**Dräger Evita® Infinity® V500 ventilator**
Combine fully-featured, high-performance ventilation with Infinity® Acute Care System™ integration to meet the challenges of today's health care environment.

**Dräger Savina® 300 Classic**
The Dräger Savina® 300 Classic (in this configuration) combines the independence and power of a turbine-driven ventilation system with a wide range of ventilation modes. The large color touch screen and intuitive operating system that concentrates on essential features make configuration and operation very simple.

**Dräger Carina®**
Designed for non-invasive ventilation: With its unique SyncPlus® technology and an extended NIV function, the user-friendly Dräger Carina® offers reliable and easy ventilation – and thanks to its compact design, this also applies when transporting patients.

**Dräger PulmoVista® 500**
Making ventilation visible. Put the power of Electrical Impedance Tomography (EIT) to work for you and your patients. With the PulmoVista® 500, you can visualise regional air distribution within the lungs - non-invasive, in real time and directly at bedside.
## Technical Data

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<th>Adults, pediatric patients, neonates</th>
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<td>- VC-SIMV</td>
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<td>- PC-CMV</td>
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<td>- PC-SIMV</td>
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<td>- PC-PSV</td>
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<td><strong>Ventilation mode</strong></td>
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<td>- SPN-CPAP</td>
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<td>- SPN-PPS</td>
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<td><strong>Enhancements</strong></td>
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<td>- AutoFlow™ / Volume Guarantee (VC-AC)</td>
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<td>- Smart Pulmonary View</td>
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<td>- Automatic Tube Compensation® (ATC)</td>
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<td>- Invasive ventilation (Tube)</td>
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<td>- Non-invasive ventilation (NIV)</td>
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<tr>
<td></td>
<td>- O₂-therapy</td>
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<tr>
<td><strong>Ventilation frequency (RR)</strong></td>
<td></td>
</tr>
<tr>
<td>Adults</td>
<td>0.5 to 98/min</td>
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<tr>
<td>Pediatric patients</td>
<td>0.5 to 150/min</td>
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<tr>
<td>Neonates</td>
<td>0.5 to 150/min</td>
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<tr>
<td><strong>Inspiration time (Ti)</strong></td>
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<tr>
<td>Adults</td>
<td>0.11 to 10 s</td>
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<tr>
<td>Pediatric patients</td>
<td>0.1 to 10 s</td>
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<tr>
<td>Neonates</td>
<td>0.1 to 10 s</td>
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<tr>
<td><strong>Tidal volume (VT)</strong></td>
<td></td>
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<tr>
<td>Adults</td>
<td>0.1 to 3.0 L</td>
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<tr>
<td>Pediatric patients</td>
<td>0.02 to 0.3 L</td>
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<tr>
<td>Neonates</td>
<td>0.002 to 0.1 L</td>
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<td><strong>Inspiratory flow (Flow)</strong></td>
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</tr>
<tr>
<td>Adults</td>
<td>2 to 120 L/min</td>
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<tr>
<td>Pediatric patients</td>
<td>2 to 30 L/min</td>
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<tr>
<td>Neonates</td>
<td>2 to 30 L/min</td>
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<tr>
<td><strong>Inspiratory pressure (Pinsp)</strong></td>
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<tr>
<td>Adults</td>
<td>1 to 95 mbar (or hPa or cmH₂O)</td>
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<tr>
<td>Pediatric patients</td>
<td>1 to 95 mbar (or hPa or cmH₂O)</td>
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<tr>
<td>Neonates</td>
<td>1 to 95 mbar (or hPa or cmH₂O)</td>
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<tr>
<td><strong>Inspiratory pressure limit (Pmax)</strong></td>
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<tr>
<td>Adults</td>
<td>2 to 100 mbar (or hPa or cmH₂O)</td>
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<td>Pediatric patients</td>
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<tr>
<td>Neonates</td>
<td>2 to 100 mbar (or hPa or cmH₂O)</td>
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<tr>
<td><strong>PEEP / intermittent PEEP (ΔintPEEP)</strong></td>
<td></td>
</tr>
<tr>
<td>Adults</td>
<td>0 to 50 mbar (or hPa or cmH₂O)</td>
</tr>
<tr>
<td>Pediatric patients</td>
<td>0 to 50 mbar (or hPa or cmH₂O)</td>
</tr>
<tr>
<td>Neonates</td>
<td>0 to 50 mbar (or hPa or cmH₂O)</td>
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<tr>
<td><strong>Pressure assist (Psupp)</strong></td>
<td></td>
</tr>
<tr>
<td>Adults</td>
<td>0 to 95 mbar (or hPa or cmH₂O)</td>
</tr>
<tr>
<td>Pediatric patients</td>
<td>0 to 95 mbar (or hPa or cmH₂O)</td>
</tr>
<tr>
<td>Neonates</td>
<td>0 to 95 mbar (or hPa or cmH₂O)</td>
</tr>
</tbody>
</table>
## Technical Data

### Rise time for pressure assist (Slope)
- **Adults, Pediatric patients**: 0 to 2 s
- **Neonates**: 0 to 1.5 s

### O₂ concentration (FiO₂)
- **Adults**: 21 to 100 Vol.%

### Trigger sensitivity (Flow trigger)
- 0.2 to 15 L/min

### Automatic Tube Compensation (ATC)
- **Endotracheal tube (ET)**
  - **Adults**: 5 to 12 mm (0.2 to 0.47 inch)
  - **Pediatric patients**: 2 to 8 mm (0.08 to 0.31 inch)
  - **Neonates**: 2 to 5 mm (0.08 to 0.2 inch)
- **Tracheostoma tube (Trach.)**
  - **Adults**: 5 to 12 mm (0.2 to 0.47 inch)
  - **Pediatric patients**: 2.5 to 8 mm (0.1 to 0.31 inch)
- **Degree of compensation**: 0 to 100 %

### Airway Pressure Release Ventilation (PC-APRV)
- **Inspiratory time (Thigh)**
  - **Adults**: 0.1 to 30 s
  - **Pediatric patients**: 0.05 to 30 s
- **Expiratory time (Tlow)**
  - **Adults**: 0.05 to 30 s
  - **Pediatric patients**: 0.05 to 30 s
- **Maximum time of low pressure level in APRV/PEF (Tlow max)**
  - **Adults**: 0.05 to 30 s
  - **Pediatric patients**: 0.05 to 30 s
- **Inspiratory pressure (Phigh)**
  - **Adults**: 1 to 95 mbar (or hPa or cmH₂O)
  - **Pediatric patients**: 0 to 50 mbar (or hPa or cmH₂O)
  - **Neonates**: 1 to 80 % (PEF)
- **Expiratory pressure (Plow)**
  - **Adults**: 0 to 50 mbar (or hPa or cmH₂O)
  - **Pediatric patients**: 1 to 80 % (PEF)

### Proportional Pressure Support (SPN-PPS)
- **Flow Assist (Flow Assist)**
  - **Adults**: 0 to 30 mbar/L/s (or hPa/L/s or cmH₂O/L/s)
  - **Pediatric patients**: 0 to 100 mbar/L/s (or hPa/L/s or cmH₂O/L/s)
  - **Neonates**: 0 to 300 mbar/L/s (or hPa/L/s or cmH₂O/L/s)
- **Volume Assist (Vol. Assist)**
  - **Adults**: 0 to 100 mbar/L (or hPa/L or cmH₂O/L)
  - **Pediatric patients**: 10,000 to 10 mL/mbar (or mL/hPa or mL/cmH₂O)
  - **Neonates**: 10,000 to 1 mL/mbar (or mL/hPa or mL/cmH₂O)

### O₂-therapy
- **Continuous Flow**: 2 to 50 L/min
- **O₂ concentration**: FiO₂ 21 to 100 Vol.%

### Leakage compensation
- **On/Off**
  - **On**: full compensation active
  - **Off**: only trigger compensation active

### Displayed measured values
- **Airway pressure measurement**
  - **Plateau pressure (Pplat)**
  - **Positive end-expiratory pressure (PEEP)**
  - **Peak inspiratory pressure (PIP)**
  - **Mean airway pressure (Pmean)**
  - **Minimum airway pressure (Pmin)**
  - **Range**: -60 to 120 mbar (or hPa or cmH₂O)

### Flow Measurement
- **Minute volume measurement**
  - **Expansory minute volume (MVe)**
  - **Inspiratory minute volume (MVi)**
  - **Mandatory expiratory minute volume (MVemand)**
  - **Spontaneous expiratory minute volume (MVespon)**
  - **Minute volume, leakage-compensated (MV)**
  - **Range**: 0 to 99 L/min BTPS
## Technical Data

### Tidal volume measurement

- **Tidal Volume (VT)**
  - Inspiratory tidal volume (not leakage compensated) of mandatory breaths (VTimand)
  - Expiratory tidal volume (not leakage compensated) of mandatory breaths (Vtemand)
  - Inspiratory tidal volume (not leakage compensated) of spontaneous breaths (VTispon)
  - Range: 0 to 5,500 mL BTPS

### Respiratory rate measurement

- **Breathing frequency (RR)**
  - Mandatory respiratory rate (RRmand)
  - Spontaneous breathing frequency (RRispon)
  - Range: 0/min to 300/min

### O₂ measurement (inspiratory side)

- **Inspiratory O₂ concentration (FiO₂)**
  - Range: 18 to 100 Vol%

### CO₂ measurement in mainstream

- **End-expiratory CO₂ concentration (etCO₂)**
  - Range: 0 to 100 mmHg

### Displayed calculated values

- **Compliance (C)**
  - Range: 0 to 650 mL/mbar (or mL/cmH₂O)

- **Resistance (R)**
  - Range: 0 to 1,000 mbar/ (L/s) (or cmH₂O / (L/s))

- **Leakage minute volume (MVleak)**
  - Range: 0 to 99 L/min BTPS

- **Rapid Shallow Breathing (RSB)**
  - Range: -80 mbar to 0 mbar (or hPa or cmH₂O)

- **Negative Inspiratory Force (NIF)**
  - Range: 0 to -25 mbar (or hPa or cmH₂O)

- **Occlusion pressure P0.1**
  - Airway pressure Paw (t) -30 to 100 mbar (or hPa or cmH₂O)
  - Flow (t) -180 to 180 L/min
  - Volume V (t) 2 to 3,000 mL
  - Exp. CO₂ concentration (etCO₂) 0 to 100 mmHg

### Alarms / Monitoring

- **Expiratory minute volume (MVₑ)**
  - High / Low

- **Airway pressure (Paw)**
  - High / Low

- **Insp. O₂ concentration (FiO₂)**
  - High / Low

- **End-expiratory CO concentration (etCO₂)**
  - High / Low

- **Tachypnoea monitoring (RR)**
  - High

- **Volume monitoring (VT)**
  - High / Low

- **Apnea alarm time (Tapn)**
  - 5 to 60 seconds

- **Disconnect alarm delay time (Tdisconnect)**
  - 0 to 60 seconds

### Performance data

- **Control principle**: time-cycled, volume-constant, pressure-controlled
- **Intermittent PEEP duration**: 1 to 20 expiratory cycles
- **Medicament nebulisation**: for 5, 10, 15, 30 minutes
- **Inspiratory flow (BTPS)**: max. 180 L/min
- **Base flow, adults**: 2 L/min
- **Base flow, pediatric patients**: 3 L/min
- **Base flow, neonates**: 6 L/min
- **Safety valve**: Opens if medical compressed air supply fails (supply gas flow is not sufficient to provide the inspiratory flow required), enables spontaneous breathing with ambient air.
## Technical Data

### Endotracheal suction
- Disconnection detection: automatic
- Reconnection detection: automatic
- Initial Oxygen enrichment: max. 3 minutes
- Active suction phase: max. 2 minutes
- Final oxygen enrichment: max. 2 minutes
- Factor for pediatric patients and neonates: 1 to 2
- Supply system for spontaneous breathing and Psupp: adaptive CPAP system with high initial flow

### Operating data
- **Mains power supply**
  - Mains power connection: 100 V to 240 V, 50/60 Hz
- **Current consumption**
  - at 230 V: max. 1.4 A
  - at 100 V: max. 3.0 A
  - Inrush current: approx. 8 to 24 A peak
    approx. 6 to 17 A quasi RMS
- **Power consumption**
  - maximum: 300 W
  - during ventilation, without charging the battery: approx. 100 W ventilation unit with Medical Cockpit
    approx. 180 W with GS500
- **Digital machine output**
  - Digital output and input via an RS232 C interface
  - Dräger MEDIBUS and MEDIBUS.X
- **Gas supply**
  - O₂ gauge pressure: 2.7 to 6.0 bar (or 270 to 600 kPa or 39 to 87 psi)
  - Air gauge pressure: 2.7 to 6.0 bar (or 270 to 600 kPa or 39 to 87 psi)
- **Physical Specifications**
  - Ventilation unit with lateral standard rail (without Infinity® C300): 361 mm x 320 mm x 410 mm
    (14.3 in x 12.6 in x 16.1 in)
  - Ventilation unit and Infinity® C300 on the trolley, carrier frame without bar: 577 mm x 1,405 mm x 687 mm
    (22.7 in x 55.3 in x 27.1 in)
  - Ventilation unit and Infinity® C300 on the trolley, carrier frame with bar: 577 mm x 1,405 mm x 700 mm
    (22.7 in x 55.3 in x 27.6 in)
- **Weight**
  - Evita® V300 and Infinity® C300: approx. 24 kg (52.9 lbs)
  - Evita® V300 and Infinity® C300 on trolley PS500: approx. 58 kg (127.9 lbs)
  - GS500: approx. 27 kg (59.5 lbs)
  - Mounting: Supporting frame: approx. 10.5 kg (23 lbs)
  - Adapter for 38 mm pole: 1,65 kg (3.64 lbs)
  - 2,35 kg (5.18 lbs)
- **Infinity® C300**
  - Diagonal screen size Infinity® C300: 15.4" TFT color touch screen
  - Input / Output ports (at Infinity® C300):
    - 2 external RS232 (9-pin) connectors
    - 3 USB ports for data collection
    - 1 DVI for digital video output
    - 1 LAN port
    - RJ 45 Ethernet connectors (for service purpose only)
Technical Data

\(^1\) BIPAP, trademark used under license. ATC\(^{®}\), trademarked by Dräger. AutoFlow\(^{®}\), trademarked by Dräger.

BTPS – Body Temperature Pressure Saturated. Measured values relating to the conditions of the patient lung (98.6 °F), steam-saturated gas, ambient pressure.

\(1 \text{ mbar} = 100 \text{ Pa}\)

Some functionalities are available as an option.

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