Dräger Globe-Trotter® GT5400
Neonatal Transport

The Globe-Trotter® GT5400 is the result of Dräger’s ongoing commitment to developing a safer and more stable neonatal transport system. This system meets global standards and moves seamlessly from vehicle to vehicle – by helicopter, airplane or land ambulance. (Configurations vary.)
Benefits

Controlled environment

The more controlled the environment, the safer it is for the baby. With the Globe-Trotter GT5400, all systems work together to create an environment where the infant can thrive. For example, stable thermoregulation protects the baby against sudden thermal changes and the mattress provides consistent warmth to all parts of the body. Flexible ventilation supports breathing, while an active humidity system reduces the risk of lung injury. Continuous monitoring provides the vigilance necessary to keep ahead of the baby’s needs while on transport. An optional infusion system includes 0, 2 or 4 integrated pumps and provides advanced delivery features in emergency situations.

User-centered concept

The ergonomic design of the Globe-Trotter 5400 puts all instruments at your fingertips, so you can make necessary adjustments quickly and easily. Components that are most frequently used are clustered in an easy-to-reach area and intuitive controls reduce the complexity of care. The baby compartment provides easy access to the infant if needed during transport. A built-in LED examination light lets you clearly see the infant inside poorly lit transport vehicles or during night transports. The result? The best care possible in unstable conditions.

Safety and connectivity

Built according to rigorous safety standards, the Globe-Trotter GT5400 protects the baby and transport team in unpredictable and potentially dangerous situations. An optional dampener system lessens the impact of vibration on the baby during transport. To reduce transport costs and simplify logistics, the Globe-Trotter GT5400 is designed for all types of transport – helicopters, fixed-wing aircraft, and ambulances. Seamless transition between air and ground vehicles reduces transport time, which supports better patient outcomes. The Globe-Trotter GT5400 meets or exceeds the following air and ground requirements:

- Federal Aviation Regulations (FAR) and Canadian Air Regulations (CAR): FAR 23/CAR 523 and FAR 29/CAR 529
- EN 1789:2007 Medical vehicles and their equipment - road ambulances
- EN ISO 10993-1:2009 Biological evaluation of medical devices
- Section 7 (Operational Shocks and Crash Safety) of RTCA DO 160 Environmental Conditions and Test Procedures

One-Stop Service

To simplify the ownership experience, the Dräger team is trained to inspect and maintain all components in the system. As a result, you only need to contact one person for all service requests.
Accessories

Neonatal Care Accessories

Dräger accessories for neonatal ventilation and thermotherapy ventilate gently and effectively, reduce stress and help promote the development of the newborn with a wide range of accessories designed specifically for use with the smallest of patients.

Related Products

Dräger Babylog® VN500

For generations to come. The Babylog® VN500 combines our years of experience with the latest technology. The result is a complete, integrated ventilation solution for the tiniest of patients. Move on toward new frontiers today and be prepared for the developments of tomorrow.

Caleo®

The Caleo® provides an ideal microenvironment for neonates by delivering advanced thermoregulation parameters. The Caleo® was designed to offer intelligent accessibility and the nurturing power of developmental care. It brings ease of use and practical benefits to infants, caregivers and parents.
# Technical Data

## TECHNICAL SPECIFICATIONS

### Physical specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal length</td>
<td>≤ 163.9 cm (64.5 in)</td>
</tr>
<tr>
<td>Nominal width</td>
<td>≤ 57.8 cm (22.75 in)</td>
</tr>
<tr>
<td>Nominal height (low hood, DIN mount with Bucher pins)</td>
<td>≤ 53.4 cm (21 in)</td>
</tr>
<tr>
<td>Nominal height (high hood, DIN mount with Bucher pins)</td>
<td>≤ 58.5 cm (23 in)</td>
</tr>
<tr>
<td>Weight range</td>
<td>80–116 kg (176–254 lbs)</td>
</tr>
<tr>
<td>Accessory deck weight limit (ground transport)</td>
<td>≤ 27.2 kg (60 lb)</td>
</tr>
<tr>
<td>Accessory deck weight limit (air transport)</td>
<td>≤ 13.6 kg (30 lb)</td>
</tr>
<tr>
<td>Chart/cell phone holder weight limit</td>
<td>≤ 0.9 kg (2 lb)</td>
</tr>
<tr>
<td>LSC monitor mounting bar weight limit</td>
<td>≤ 3.2 kg (7 lb)</td>
</tr>
<tr>
<td>Accessory pole weight limit</td>
<td>≤ 3.2 kg (7 lb)</td>
</tr>
<tr>
<td>Infant weight</td>
<td>10 kg (22 lb) maximum</td>
</tr>
</tbody>
</table>

### Environmental specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating temperature range (ambient, normal function)</td>
<td>10°C (50°F) to 30°C (86°F) The incubator set point must be at least 3.0°C (5.4°F) higher than the ambient temperature.</td>
</tr>
<tr>
<td>Operating temperature range (ambient, limited function)</td>
<td>10°C (50°F) to 30°C (86°F) At more extreme ambient temperatures, the incubator temperature may not be maintained.</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-20°C (−4°F) to +60°C (140°F) ambient</td>
</tr>
<tr>
<td>Relative humidity (RH) operating range</td>
<td>5% to 95% RH, non-condensing operating range: sea level to 3 km (1,000 ft), non-pressurised ambient</td>
</tr>
</tbody>
</table>

### Electrical specifications – GT5400 system

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>External power requirement</td>
<td>110 V/120 V AC, 50/60 Hz, 12 A maximum or 230 V AC, 50/60 Hz, 8 A maximum (Power consumption varies with system configuration)</td>
</tr>
<tr>
<td>Auxiliary power socket (110/120 V AC units)</td>
<td>6 NEMA 5-15 R- HG hospital-grade sockets; nominal 3.5 A limit, varies with system configuration</td>
</tr>
<tr>
<td>Auxiliary power socket 230 V AC units)</td>
<td>6 IEC 60320-1 C13 socket; nominal 2.5 A limit, varies with system configuration</td>
</tr>
<tr>
<td>Earth leakage current (AC)</td>
<td>≤5 mA (normal condition); ≤10 mA (Single fault condition)</td>
</tr>
<tr>
<td>Touch current (AC)</td>
<td>≤100 μA (normal condition); ≤500 μA (Single fault condition)</td>
</tr>
</tbody>
</table>

### Electrical specifications – incubator subsystem

<table>
<thead>
<tr>
<th>Specification</th>
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</tr>
</thead>
<tbody>
<tr>
<td>External power requirement</td>
<td>110 V/120 V AC, 50/60/400 Hz, 6 A maximum sine or square wave; or 230 V AC, 50/60/400 Hz, 4 A maximum sine or square wave; or 11 V DC to 13 V DC, 200 W maximum; or 26 V DC to 30 V DC, 200 W maximum (Note: the remainder of the GT5400 system is not specified for operation on 400 Hz mains power.)</td>
</tr>
<tr>
<td>Internal battery type</td>
<td>Lead acid, vented, rechargeable</td>
</tr>
<tr>
<td>Internal battery voltage</td>
<td>12 V DC nominal</td>
</tr>
<tr>
<td>Internal battery quantity</td>
<td>1 (Optional 2nd battery)</td>
</tr>
<tr>
<td>Internal battery capacity</td>
<td>Approximately 90 minutes per battery at full heater power</td>
</tr>
<tr>
<td>Internal battery charge time (single battery from full discharge)</td>
<td>Approximately 20 hours per battery (with AC power on and incubator controller in standby) (Note: charge time increases significantly if incubator controller is on and if digital pressure gauges, examination light and humidifier.)</td>
</tr>
</tbody>
</table>
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<tr>
<th><strong>Internal battery life expectancy</strong></th>
<th>Approximately 200 complete charge/discharge cycles</th>
</tr>
</thead>
</table>

**Incubator performance specifications**

- **Mattress air velocity (average airflow rate circulated within the mattress area defined by 5 points up to a height of 4 in above the mattress)**: <20 cm/s (39 ft/min)
- **Carbon dioxide (CO₂) level within the hood**: <0.5% when a 4% mixture of CO₂ in air is delivered at 750 ml (25 oz) per minute at a point 10 cm (4 in) above the centre of a mattress.
- **Noise level within the hood (without alarms)**: ≤60 dB with ambient levels to ≤ 50 dB
- **Correlation of the displayed incubator temperature to the actual incubator temperature at temperature equilibrium**: ≤1°C

**Incubator temperature specifications**

- **Operating parameters**: Maintains a differential of up to 25°C (45°F) between the ambient temperature and set point for 90 minutes per battery. Example: With a set point of 36°C (96.8°F) and ambient temperatures of 11°C (51.8°F), the operating time (full heater, all heaters, lights on) is 90 minutes for one battery, or 3 hours for 2 batteries.
- **Temperature set point range**: 21.5°C (70.7°F) ± 1.5°C to 38.0°C (100.4°F) in 0.1°C increments
- **Temperature display range**: 17.0°C (62.6°F) to 45.0°C (113°F) in 0.1°C increments
- **Temperature warm-up range**: Approximately 30 minutes nominal (depending on hood size)

**Gas delivery specifications**

- **Central gas supply connections**: NIST, DISS (male), DISS (female)
- **Central gas supply pressure**: 379 to 517 kPa (55 to 75 psi)
- **Gas cylinder connections (Air, O₂)**: DIN, PISS, UNI
- **Gas cylinder pressure**: 20,684 kPa (3000 psi)
- **Gas cylinder length**: 43.2 to 86.3 cm (17 to 34 in)
- **Gas cylinder diameter**: 8.9 to 11.9 cm (3.5 to 4.72)
- **Auxiliary flow control valve range**: 0 L/min to 15 L/min
  *optional

**Standards compliance**

- All configurations and mounting systems of the GT5400 comply with the following standards:
  - Requirements and Tests
Technical Data

The incubator portion of the GT5400 complies with the above standards and two additional standards:


The GT5400 air vehicle configuration with Bucher pin mounting system complies with the applicable sections of the following standards:

- EN 13718-1:2008 Medical Vehicles and Their Equipment – Air Ambulances Part 1: Requirements for Medical Devices Used in Air Ambulances
- EN 13718-2:2008 Medical Vehicles and Their Equipment – Air Ambulances Part 2: Operational and Technical Requirements of Air Ambulances
- RTCA DO 160 Section 7 (Operational Shocks and Crash Safety) Environmental Conditions and Test Procedures for Airbourne Equipment
- Federal Aviation Regulations (FAR) and Canadian Air Regulations (CAR) sections FAR 23/CAR 523 and FAR 29/CAR 529

The GT5400 ground vehicle configuration with DIN mounting system complies with the applicable sections of the following standards:

- EN 1789:2007 Medical vehicles and Their Equipment – Road Ambulances
- EN 13976-1:2003 Rescue Systems Transportation of Incubators Part 1: Interface Conditions

The GT5400 basic system includes the following components:

- Incubator
- Selection of low or high hood
- Battery: 1
- Vital signs monitor: Yes or No
- Ventilator with O₂ monitor
- Selection of infusion pumps: 0, 2 stacked with mounting rack
- 4 stacked with mounting rack
- Selection of CO₂ monitor: Yes or No
- Examination light, disposable breathing circuit: with humidification or without humidification
- Auxiliary power sockets
- Gas blender
Technical Data

Auxiliary O₂ flow control
Suction system including disposable canister
Humidifier system
Digital pressure gauges for gas cylinders
Accessory deck with mounting rails
Chart/cell phone holder
Resuscitation bag

² In addition to the components of the basic system, the GT5400 air vehicle configuration includes the following components:
Selection of second battery: No
Cylinder holders/regulators: 2/2, 3/2,
DIN connectivity: Yes with Bucher pins

² In addition to the components of the basic system, the GT5400 ground vehicle configuration includes the following components:
Selection of second battery: Yes
Cylinder holders/regulators: 2/2, 3/2, 4/2, or 4/4
DIN connectivity: Yes
Notes

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

As of August 2015
Dräger Medical GmbH changes to Drägerwerk AG & Co. KGaA

Locate your Regional Sales Representative at: www.draeger.com/contact