⊘GENTEC®

MEDICAL GAS SYSTEMS & DEVICES OVERVIEW

Solutions for Life

Company Overview

Genstar Technologies Company, Inc (**GENTEC**®), founded in 1969, is a world class manufacturer of high quality apparatus for high purity, medical and industrial markets. For the medical industry, **GENTEC**® provides high quality products such as medical gas flow control systems, regulators, terminal-units, architectural products, and gas alarm systems.

Quality Assurance

GENTEC® manufactures its products in an ISO 13485 listed 538,000 square foot manufacturing facility in order to ensure the highest quality.

Corporate Culture & Management, Training

GENTEC® strives to instill employee confidence, team spirit, enthusiasm, and self-improvement. The company culture enables employees to provide outstanding customer service, excellent product quality, and continuous technological innovation. Gentec believes in constant improvement to maintain its competitive edge. The company continues to invest considerable time and effort in developing comprehensive training programs to help its employees to fully realize their potential. All new employees take part in a series of training programs within the first two months of their employment.
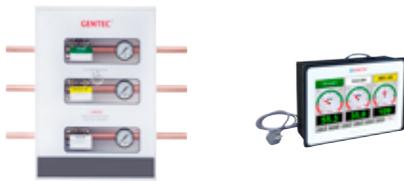
Core Competency

GENTEC®'s core competency is rooted in the research, development, and production of components, equipment, and systems. The researchand development team consists of professionals from various fields, such as chemical engineering, material science, mechanical engineering, electrical engineering, and software programming.

Advanced Laboratorial Testing Devices

The state-of-the-art laboratory features, flow rate measurement system, oxygen concentration monitor, micro-hardness tester, metallurgical microscope, spring testing machine, helium-leak detector, and profilometer. These high-end devices ensure product performance and quality.

MEDICAL GAS FLOW SOLUTIONS
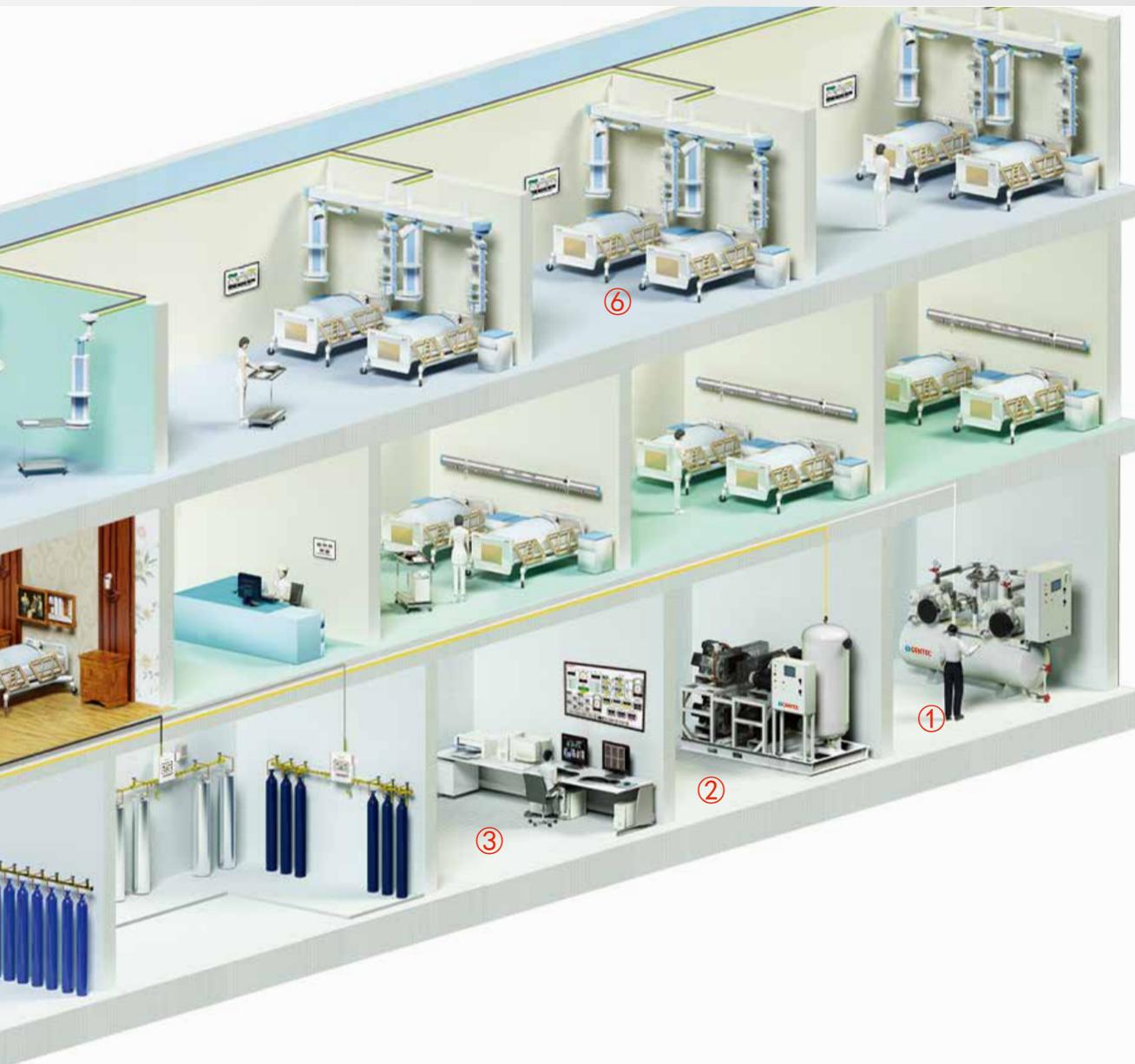

① Medical Vacuum Systems

GENTEC® Medical Vacuum System is designed to create a steady suction system to remove unwanted fluids or gases from hospital / laboratory work areas.

② Medical Air Systems

GENTEC® Medical Air System is designed to provide medical breathing air and instrument air for hospital and medical institutions.

③ Medical Alarm Systems

GENTEC® Medical Alarm System conducts network monitoring over all the gas source equipments and pipelines in the hospital through the intelligent network monitoring system and analyzes the gas usage in each area.

④ Medical Gas Manifold Systems

GENTEC® Medical Gas Manifold System is designed to supply an uninterrupted flow of medical gas from high pressure cylinders or liquid storage tanks.

⑤ Medical Pipline Distribution Systems

GENTEC® Medical Pipeline Distribution System delivers the medical gases to the gas use points in a clean, safe and reliable manner. The copper tubes used for the pipeline system comply with ASTM B819 standard.

⑥ Medical Gas Outlets

GENTEC® offers a complete line of medical gas outlets, including American, French, British, German, Australian, and Japanese standards etc. The medical gas outlets are UL and CE listed.

MEDICAL GAS
SOURCE EQUIPMENT

ENTEC

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AS1

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Gas Control Solutions for Reproductive Medicine

GENTEC® GMH Series High Purity Automatic Manifold System is designed specifically to deliver an uninterrupted supply of high purity gases for reproductive medicine laboratories. The GMH includes a touch screen LCD to monitor real time gas pressure, data trends, and alarm conditions.

Stainless Steel Terminal Gas Control Panels

GMH Series High Purity Automatic Manifold System

High Purity Stainless Steel Gas Outlets

High Purity Low Pressure Stainless Steel Adapters

GM2 Series Automatic Manifold System

GENTEC® GM2 series automatic changeover manifold provides continuous gas flow. The display includes LED lights to indicate working conditions and alarms. The manifold can changeover automatically, even in the event of a power failure. It is NFPA 99 and ISO 7396 compliant. This product is patented.

Other manifolds: GM2-A Series Semi-Automatic Manifold / GM2-D Series Automatic Digital Display Manifold
GM2-T Series Touch Screen Digital automatic Manifold / 5700A Series Automatic Cryogenic Manifold

Zone Valve Box

- Designed to house up to six shut-off valves, where each valve controls a different gas
- Gas Service is distinguished by label color
- Copper tubes are welded to prevent leakage
- Window may be detached for maintenance of shutoff valves
- Wall mount style
- Parts are cleaned according to CGA G-4.1, tubings are 100% tested for leakage
- NFPA 99 compliant

Pressure Control Panel

- Designed for surgical tools and equipments
- Diaphragm-sensed regulator ensures a consistent outlet pressure
- CGA specified inlet connection
- Gas Service: N2 , AIR 800 (Instrument Air)
- NFPA 99 compliant

Area Valve Service Unit

- Includes shut-off valve and check valve with NIST connection, easy to operate and maintain
- Steel enclosure for durability
- Pressure gauges included to provide accurate reading of pressure
- HTM 02-01 compliant

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AVBM Series Area Valve Service Unit

Area Valve Service Unit is installed in the hospital gas pipeline in order to control the opening and closing of the gas supply system in a certain area, which provide convenience for daily use and maintenance.
GENTEC® AVBM series European-style Area Valve Service Unit uses high-quality ball valves and pipe fittings, as well as equipped with Touch-screen Display Alarm System. Time monitoring can be integrated into the network system to realize remote real-time monitoring and e-Hospital management. The system is designed to meet the latest edition of ISO7396-1.

- Real-time display of the pressure of each gas using 10"
  Touch-screen Display Alarm system
- Comes with emergency gas supply connector to facilitate
  system maintenance
- Clean and clear electricity and gas separation for extra safety
- Gas service: Oxygen, Nitrogen, Air, Vacuum, and other
  medical gas
  Maximum operating pressure:
  Positive pressure: 200 psi; Negative Pressure : -8.7 psi
- Design Pressure:
  Positive pressure: 232 psi; Negative Pressure : -14.5 psi
- Upward vertical configuration for both inlet pipe and outlet pipe
- Each Area Valve Service Unit shall be cleaned for oxygen
  service in strict accordance with CGA G-4.1 and 100% factory
  tested for proper operation prior ro shipment

MONITORING, ALARM

& CONTROL SYSTEMS
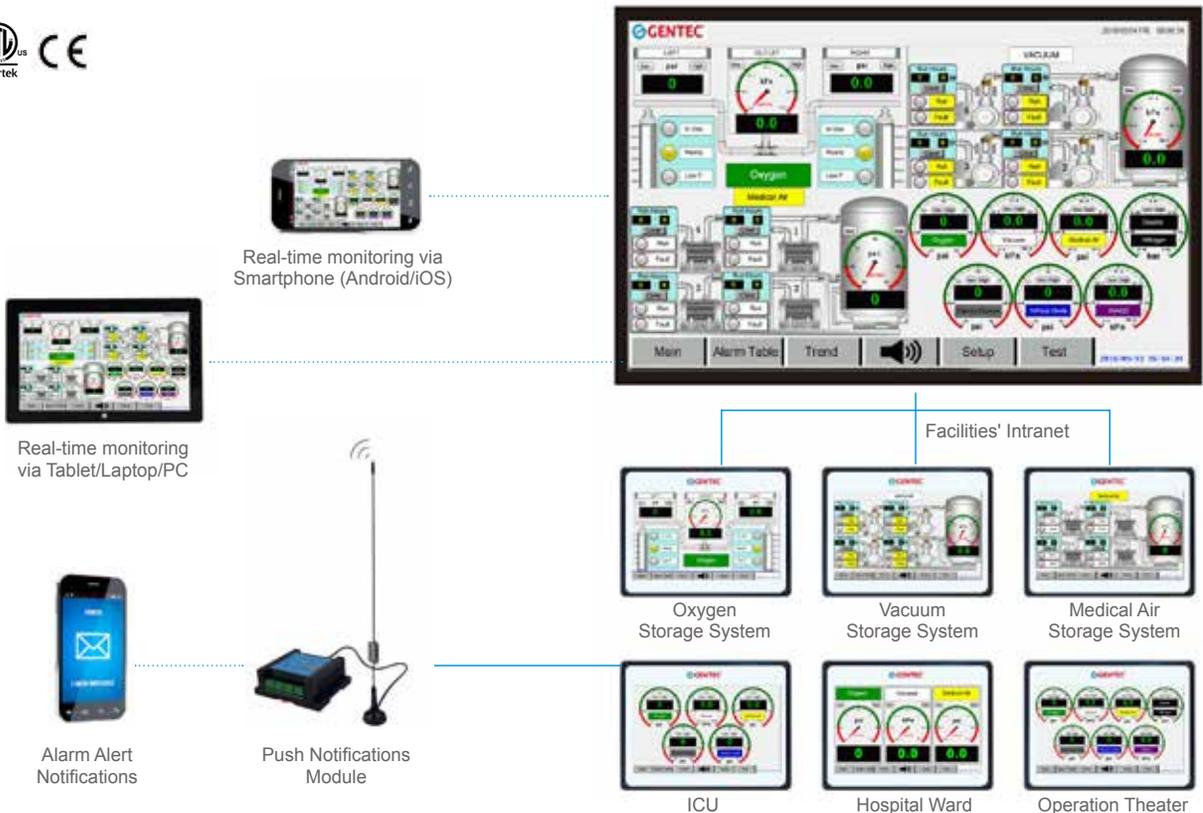
GM100M Series LCD Alarm System

The Atlas provides master, area, and combination alarm signals as required by the latest edition of NFPA99.

- The alarm is ETL listed to UL 1069 and CSA C22.2 No. 205 Signal Equipment.
- On-site customization without the use of a laptop, tablet, or mobile device.
- 10" (25.4cm) Touch Screen Display with Password protected interface.
- Full networking capabilities including Modbus RTU/TCP, UDP protocols.
- A Trend Log to view the pressure trends and forecast if maintenance or additional support is required.
- An Event Log allows for a view history of time-stamped alarm events.
- Built-in webpage for viewing alarm conditions.
- Can be connected via VNC apps for smartphone and tablets.
- 1-YEAR WARRANTY.

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GENTEC ATLAS PERFECT ALERT ALARM SYSTEM

- Atlas Alarm actively monitors your gas on a highly visible 10" (25.4cm) TFT LCD touch screen.
- Atlas comes with various communication protocols including RS 485, UDP and Ethernet.
- Alarm conditions can be viewed on a smart phone, tablet or computer connected to the facilities' intranet.
- Output channels allow for customized alerts such as sending an email, pager, external alarm signal, or even control functions.

Real-time monitoring via Smartphone (Android/iOS)

Real-time monitoring via Tablet/Laptop/PC

Facilities' Intranet

Oxygen Storage System

Vacuum Storage System

Medical Air Storage System

Alarm Alert Notifications

Push Notifications Module

ICU

Hospital Ward

Operation Theater

MEDICAL GAS OUTLETS
& BEDHEAD UNITS

Medical Gas Outlets

GENTEC® Medical Gas Outlets shall be UL Listed, cleaned for medical gas service, and compliant with the latest edition of NFPA 99. They shall accept only corresponding Ohmeda®, DISS, Chemetron®, or Puritan Bennett® style quick connect adapters. Outlets are designed with an universal rough-in assembly for interchangeability on different quick connects without removing the entire outlet. For outlets providing positive pressure gas, they shall have a primary and a secondary check valve, where the secondary check valve allows for servicing without isolating an entire zone.

Latch Valve Assembly (front)
The latch-valve assembly shall have gas specific index corresponding to the gas service on the rough-in assembly to prevent interchanging of gas service. Each latch-valve assembly shall be color coded for its specified gas service.

Rough-In Assembly (back)
The rough-in assembly shall be manufactured using (1/2" outside diameter) type "K" copper tubing, silverbrazed to the outlet body. The tubing allows 360 degree swivel on the outlet body for easy installation. Rough-in assembly is manufactured to accept only the specified gas service by use of indexes.

Console Rough-in

Console Complete

Latch Valve

Wall Trim Plate

Wall Rough-in

Wall Complete

American Standard
Medical Gas Outlets

French Standard
Medical Gas Outlets

Australian Standard
Medical Gas Outlets

American/ French /Australian Standard Outlets

- Accepts only Ohmeda, DISS, Chemetron, Puritan Bennett, Afnor, or SIS style gas specific adapters for respective standards
- Unique pin index for gases to prevent interchanging of gas service
- Universal rough-in assembly
- Color-coded for easy gas identification
- 360° swivel on the inlet pipe for easy installation
- 100% tested and individually packaged
- UL listed and complies with the latest edition of NFPA 99: 2005
- French Standard is UL listed, NF EN 737-1 compliant
- Australian Standard complies with NF EN 737-1 and AS 2896-1998

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German Standard
Medical Gas Outlets

British Standard
Medical Gas Outlets

Japanese Standard
Medical Gas Outlets

Australian Standard
Medical Gas Outlets

German/British/Japanese/Australian Standard Outlets

- Color-coded for easy gas identification according to ISO 32
- Pressure lid can be disassembled during maintenance
- Multiple assembly methods
- Built in maintenance valve
- 100% tested for gas leakage
- German Standard is CE listed and compliant with EN 737-1 and DIN 13620-2
- British Standard is CE listed and compliant with HTM 02-01, EN 737-1 and BS 5682-1998
- Japanese Standard is compliant with JIST 7101

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Art Wall Enclosure

- Designed for hospital rooms where design is emphasized, replaces traditional bedhead units
- The painting sits on a sliding mechanism which can hide the medical equipments while they are not in use
- The art piece and exterior design can be customized to meet or match a variety of design requirements
- A wide range of medical products & accessories can be custom-ordered
- Gas and electrical channels are insulated to ensure safety

Customized Painting

人物　　风景　　抽象

Bedhead Units

- Aluminum alloy, powder coated to protect against oxidation
- Single and dual trunks available
- Gas and electrical channels are separated by trunks to ensure safety
- Easy installation and maintenance
- Custom-ordered color available
- 100% tested for leakage

3826E-AGS

3816E-AGSS(1L)

3816E-AGS

3816E-AGSS(1H)

Anaesthetic Gas Scavenging System

- **GENTEC**® Anaesthetic Gas Scavenging System is used for the safe removal of excess anaesthetic gas and anaesthetic vapors

- Complies with ISO 7396-2, ISO 9170-2 TYPE 2L

- Color-coded for easy gas service identification according to ISO 32

- Flow: 25~50 l/min, 50~80 l/min (Pressure drop: 2~1 kPa)

- Air driving flow : 10~15 l/min (Pressure: 58 psi)

- Driving Pressure: 60, 120 psi

- 15 mm piping

- 100% tested and individually packaged

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SUCTION THERAPY

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Suction Regulator
(Counter-Clockwise)

Venturi Actuated
Suction Device

Suction Regulator
(Digital Gauge)

Suction Regulator
(Clockwise)

Venturi Suction
Regulator

Venturi
Vacuum
Modules

Suction
Tubings

Disposable
Bacteria
Filters

Vacuum Adapters

Suction Regulators

- 882VR Series continuous only suction regulator has three modes available: CONT, OFF, and FULL.
- 881VR Series continuous-intermittent combination suction regulator has three modes available: INT, OFF, and CONT.
- Large easy to read glow in the dark vacuum gauge
- Clockwise & Counterclockwise configurations available
- Vacuum trap prevents overflow of waste fluid from entering the suction regulator.
- Antimicrobial protected control knobs
- CE listed
- Patented
- NFPA and ISO 32 colors available

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Canister
Station

Reusable
Collection
Systems

Disposable
Bacteria Filters

Disposable
Collection
Systems

Suction
Tubings

❶ Canister Station

- Designed to support canister jars
- Stable 5-caster base with two locking casters
- Durable construction, easy to clean
- Includes suction trap for additional safety
- Shut-off valve and canister slides included
- Supports up to 4 canisters
- Base diameter: 560 mm
- Height: 640 mm
- Easy maintenance

❷ Slides

Holds canisters in place

❸ Canisters

- Designed to collect fluids
- Autoclave up to 121°C
- Ball float design prevents overflow
- Built-in bracket for easy installation
- Patented

OXYGEN THERAPY

Heliox / Oxygen Blenders, USA Color

Air / Oxygen Blenders, USA Color

Air / Oxygen Blenders, ISO 32 Color

Hose Assemblies

Air / Oxygen Mixer, ISO 32 Color

Air / Oxygen Blenders with flowmeters

Air / Oxygen Blender, Heliox / Oxygen Blender

- Suitable for use in Emergency Room and ICU where accurate oxygen concentration is required
- Double-ended proportioning valve enables easy adjustment of oxygen concentration from 21% to 100%
- Two-stage pressure-balancing mechanism is adopted to deliver steady oxygen concentration
- Two outlet ports and bleed valve allow a wide range of applications
- Internal bypass and alarm mechanism ensure safe use
- Available in US and ISO colors
- Available in hi-floe & low-flow
- Accuracy: ± 3% FS

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Medical Gas Regulator

Medical Gas Regulator

Refilling bridge

Cylinder Valves

Wrench

Cylinders

Medical Gas Regulators

- Suitable for emergency applications
- Chrome-plated brass body
- 1-1/2" diameter gauges
- Diaphragm-sensed or piston-sensed configurations
- Sintered inlet filter for longer service life
- Inlet cylinder connection: CGA, BS, DIN, JIS, GB

Aluminum & Carbon Composite Cylinders

- Three specifications available:1.1L, 3L, 5L

Flowmeters

Flowmeters with Humidifier & Nebulizers

Adapters

Flowmeters

- Slim body flowmeter
- Available in anodized aluminum (FM197A) or chrome-plated brass body (FM191, FM197B)
- Polycarbonate tubes for maximum durability
- Back-pressure compensated
- Flow range: 1 LPM, 3 LPM, 6 LPM,15 LPM, 30 LPM, 50 LPM, 70 LPM
- Calibrated at 50 psi*
- CE listed
- NFPA 99 and ISO 32 color coding available

* Optional calibration for 65 psi available.
  Please add "E" after liters per minute.
  Example: FM191-15LE-XX

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Oxygen Flowmeter with Humidifier

- Polycarbonate flow tube and outer cover are impact resistant for maximum durability and service life
- Inlet connection with filter
- Nasal cannula optional

Oxygen Humidifiers & Nebulizers

Oxygen Humidifiers:
- CGA 1240 standard connection
- External safety valve, pressure relief alarm

Nebulizers:
- Applicable to inhalation therapy
- With pressure relief alarm and medicine filling port
- Reusable

RESPIRATORY CARE
NEBULIZER, CIRCUITS, MASKS

NebuCare
In-line Electrical Nebulizer

NebuEz
In-line Electrical Nebulizer

NebuSmart
All-in-one Nebulizer

Nebu Series
Medical Spacer

Masks

Respiratory Nebulization System

Respiratory nebulization therapy includes in-line electrical nebulizer using mesh technology, disposable nebulizer, and therapy masks.

- Nebulizer particle size 2~4.8μm
- Ergonomic design
- Easy to clean and disinfect

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High Flow Oxygen Therapy

G-Smart Adult Test Lung

Breathing Circuits

G-Mask Series

High Flow Oxygen Therapy, Test Lung and Masks

- High-flow Oxygen Therapy (HFOT) provides a non-invasive respiratory treatment that delivers humidified and heated oxygen-enriched air to the patients
- The G-Smart Adult Test Lung is designed to provide accurate demonstrations and testing applications on mechanical adult ventilators
- G-mask series are designed ergonomically to ensure patient comfortability

EMS GAS FLOW

SOLUTIONS

Solutions for Life

EMS GAS FLOW SOLUTIONS

GENTEC® GMAP Series provides a complete gas flow solution for ambulances and emergency care vehicles. Gentec offers gas switchover systems, regulators, fittings, hose assemblies, gas outlets, gas alarms, outlets, flowmeters, suction devices, flowmeters, and EMS accessories. Customized solutions are also available.

Switchover Panel

Adapters and Fittings

Outlets

Click Style Flowmeter with Humidifiers

EMS Accessories

Regulators

Cylinders

Outlets

Hose Assemblies

Oxygen Flowmeter with Humidifiers

EMS Accessories

Medical Pipeline System

- Medical Gas Systems Total Solution
- Source Equipment
- Zone Valve Box & Area Valve Service Unit
- Monitoring Alarm & Control System
- Art Wall Enclosure
- Medical Console Units
- Medical Gas Outlets
- Anaeathetic Gas Scavenging System
- Oxygen Therapy
- Suction Therapy
- Oxygen Concentrator & Nebulizers
- Respiratory Care

oxygen & suction therapy

- Flowmeters with Humidifiers
- Medical Flowmeters
- Flowmeter Accessories
- Medical Flowmeters and Connectors
- Oxygen Flowmeter Regulators with Humidifier
- Suction Regulators
- Venturi Vacuum Regulators
- Suction Traps
- Suction Gauges & Venturi Vacuum Modules
- Venturi Vacuum System
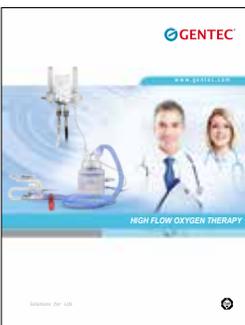- Disposable Collection Systems
- Reusable Collection Systems

Medical Manifold Systems

- Manifold Systems
- Manifold Changeover Cabinet
- Manifold Components

Anesthesia Ventilation Circuit System

- Adult Disposable Breathing Circuit
- Pediatric Disposable Breathing Circuit
- Neonate Disposable Breathing Circuit
- Adult Reusable Breathing Circuit
- Pediatric Reusable Breathing Circuit
- Neonate Reusable Breathing Circuit

High Flow Oxygen Therapy

- Air/Oxygen Blenders GMX Series
- Disposable Breathing Circuit System
- Humification Chamber
- High Flow Nasal Cannula

Medical Alarm System

- GUMACSTM Overview
- Medical Gas Area Alarm
- Medical Gas Master Alarm
- Medical Gas Combination Alarm
- Advanced Applications

Solutions for Life

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