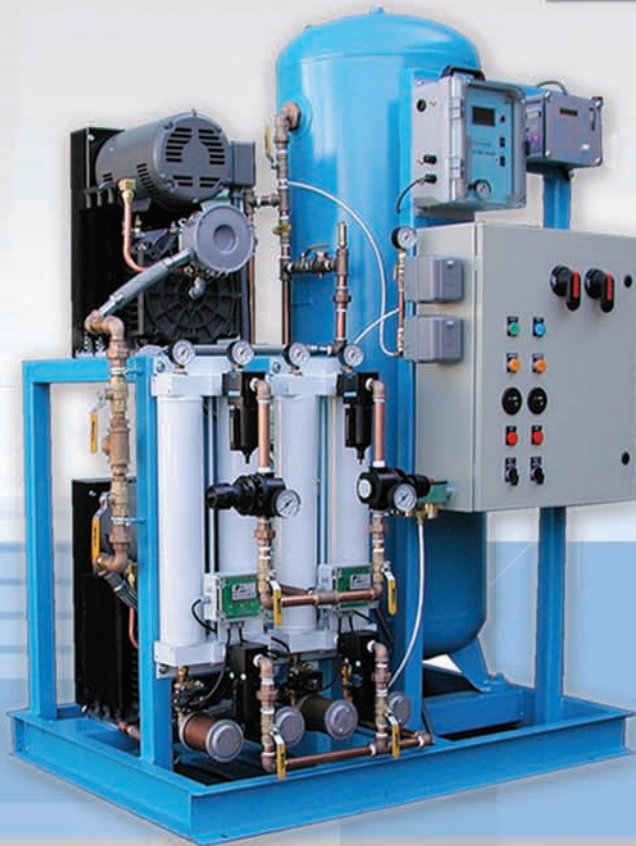




MEDICAL GAS CONSTRUCTION PRODUCTS



GENSTAR TECHNOLOGIES COMPANY, INC.



Company Overview

GENSTAR TECHNOLOGIES COMPANY, INC.(GENTEC), founded in 1969, is a global industrial leader in gas flow control systems manufacturing.

High quality products, competitive pricing, outstanding customer service and continuous technological innovation have fueled the company's rapid growth.

Gentec utilizes abundant global resources, skilled professionals, and robust ERP system to cooperate with maximum efficiency.

A wide distribution network extends to thousands of customers in over sixty countries around the world.



MEDICAL VACUUM PACKAGES

There are many technologies available for producing vacuum for health care facilities. Each has its own unique advantages and disadvantages. Any product that contains hydrocarbons in the air stream may not be suitable for dedicated WAGD. Also, certain requirements apply for medical-surgical vacuum systems that are also used for WAGD. We recommend that you consult with your authorized GENTEC distributor for assistance in designing a system to suit your specific needs.

OIL-SEALED ROTARY VANE PUMPS

Oil-sealed rotary vane vacuum pumps are the standard for the health care market. With a long history of reliability and performance, these pumps will provide the facility with many years of low maintenance operation.

All GENTEC systems are complete packages that are fully compliant with the requirements of NFPA99, when installed and operated as directed.

These vacuum pumps have a factory warranty extending 36 months from the date of start-up. The only regularly scheduled maintenance required is an oil change every 500 hours of operation.

Oil-sealed rotary vane pumps are available in 1, 1.5, 2, 3, 5, 7.5, 10, 15, 20 and 25 HP models. Oil-sealed rotary vane pumps are available in 1, 1.5, 2, 3, 5, 7.5, 10, 15, 20 and 25 HP models.

Standard configurations include simplex, duplex, triplex, and quadruplex packages in tank mount (vertical or horizontal), base mount, or stack mounted models.

With a size and configuration to suit every need, these pumps are well-deserving of their place as the number one pump technology for health care facilities.



DRY ROTARY VANE PUMPS

Dry rotary vane pumps offer the same reliable performance as their oil-lubricated brethren without the presence of oil; making these pumps compliant with the NFPA standard for dedicated WAGD vacuum sources.

The composite vanes are self-lubricating. These pumps are factory warranted for 12 months from the date of start-up.

Dry rotary vane vacuum pumps are available in 1, 1.5, 2, 3, 5, 7.5, and 10 HP sizes.

Standard configurations include simplex, duplex, triplex, and quadruplex packages in tank mount (vertical or horizontal), base mount, or stack mounted models.



LIQUID RING PUMPS

Liquid ring pumps can be oil or water sealed. This proven technology provides a very reliable and economical solution. Water-sealed liquid ring pumps are also safe to use for dedicated WAGD systems.

Water sealed liquid ring pumps are available in a variety of sizes from 1.5 to 40 HP. Oil-sealed liquid ring pumps are available in 15 and 20 HP sizes.

Standard configurations include simplex, duplex, triplex, and quadruplex packages in horizontal tank mount, base mount, or stack mounted models.

Full or partial recirculation is recommended for



DRY CLAW VACUUM PUMPS

Dry claw pumps offer the advantage of high performance with low maintenance; however, they are not recommended for high altitudes due to their inability to draw a vacuum greater than 25 inHg at sea level. No oil is used in the air flow path, so claw systems can be used as a dedicated WAGD source as well as for medical/surgical vacuum.



OTHER VACUUM PACKAGES

GENTEC offers a full range of laboratory and dental vacuum packages as well. Contact your authorized distributor for additional information or assistance in with the planning and design of your system.



VACUUM SYSTEM ACCESSORIES

GENTEC offers a full line of accessories for your medical vacuum system, including in-line bacterial filters, exhaust filters, flexible connectors, and butterfly valves. Contact your authorized GENTEC distributor for information.

MEDICAL AIR COMPRESSORS

GENTEC offers a full range of oil-less reciprocating, orbital scroll, and liquid ring medical air compressor packages. All air compressor packages are complete per NFPA99, and are designed to reduce the amount of field labor required for installation.

NFPA-compliant air treatment centers, in desiccant and refrigerated versions, are available as free-standing packages or integral to the air compressor packages.

Please contact your GENTEC authorized distributor for assistance in designing your medical air source.

OIL-LESS RECIPROCATING MEDICAL AIR COMPRESSORS

Oil-less reciprocating compressors are the workhorse for medical air systems. These systems operate without oil anywhere in the compressor.

Available in a full range of sizes from 1.0 HP to 30 HP, these packages are warranted for 12 months from the date of startup, or 18 months from the date of shipment occurs first. Standard configurations include simplex, duplex, triplex, and quadruplex packages, in tank, base, and stack mount arrangements.



ORBITAL SCROLL MEDICAL AIR COMPRESSORS

Orbital scroll air compressors are essential in cases where noise and vibration are unwanted. Unlike other manufacturers, our scroll packages include one motor for each compressor, so if you ever need to replace a motor, only one compressor is down. These quiet compressors are essentially vibration-free.

Available in 2.0 through 15 HP sizes, these compressors can be multiplexed to meet any design requirement in a single package, with each compressor independently controlled.

Very little maintenance is required, and the compressors are warranted for 12 months from start-up or 18 months from date of shipment, whichever occurs first.



LIQUID RING MEDICAL AIR COMPRESSORS

Liquid ring medical air compressors are available, please contact your GENTEC distributor for additional information or assistance with the planning and design of your system.



MEDICAL AIR TREATMENT CENTERS

GENTEC medical air treatment centers are complete, NFPA-compliant packages that require minimal field labor for installation.

DESICCANT AIR TREATMENT CENTERS

Desiccant air treatment centers are available in both full-size and compact twin-tower designs.

Desiccant dryers are very efficient at removing moisture from the medical air supply, and combining them with purge-saving technology reduces the amount of air used to purge, or dry, the desiccant beds.

NOTE: Desiccant dryers should not be used with liquid ring medical air compressors.



REFRIGERATED AIR TREATMENT CENTERS

Refrigerant air treatment centers are available as complete NFPA99 and NEC compliant assemblies featuring cycling or non-cycling refrigeration air dryers.

Consult your GENTEC distributor to see if this technology is right for your application.



INSTRUMENT AIR COMPRESSORS

Instrument air is a support gas used to operate surgical tools, ceiling booms, etc., in lieu of nitrogen. All instrument air compressor packages are complete per NFPA99, and are designed to reduce the amount of field labor required for installation.

Lubricated reciprocating compressors are NFPA-approved sources for the high pressure (200 PSI) air required for this support gas.

As with our medical air packages, the instrument air treatment center can be assembled as an integral part of the compressor package, or can be ordered as a separate, free-standing air treatment center.

NFPA-compliant instrumentair plants are warranted for 12 months from start-up or 18 months from date of shipment, whichever occurs first.

Please contact your GENTEC authorized distributor for assistance in designing your instrument air source.



HIGH PRESSURE MANIFOLDS

GENTEC offers fully automatic high-pressure manifolds for hospital use. Fully compliant with NFPA99, these manifolds require no additional work beyond the changing of the cylinders.

Liquid manifolds, as well as manifolds for high-purity and specialty gas applications, are also available. Contact your GENTEC distributor for assistance with these products.

Header bars (with pigtails) are ordered separately.



HEADER BARS & PIGTAILS

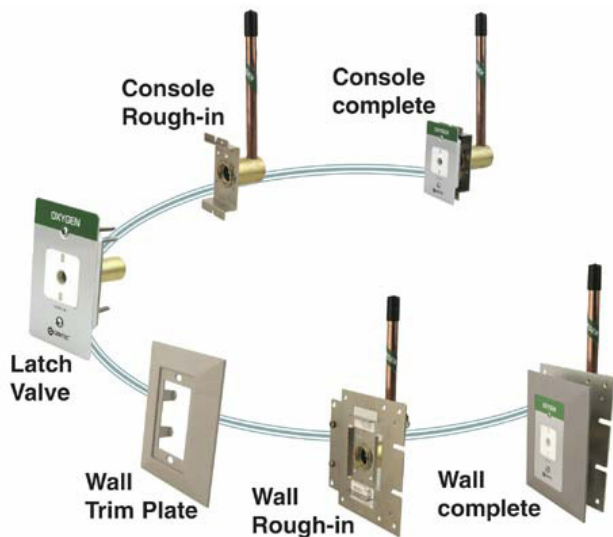
GENTEC header bars ship complete per NFPA99, in matching sets (equal number of cylinders for each bank).

Cross headers are available for compact installations, and straight headers for single-row cylinder arrangements.

All oxygen headers ship with copper pigtails per NFPA99, all other gases ship with braided stainless steel pigtails. All pigtails include check valves for safety.

Individual headers and pigtails are also available for expansion and repair of existing systems.

MEDICAL GAS OUTLETS



GENTEC offers a complete selection of medical gas outlets. From wall outlets to ceiling outlets, to console and EMS outlets, GENTEC can fill any need. We also offer a complete line of international outlets, including French, British, German, Australian, and Japanese standards, in addition to ISO 32 versions of the US-style outlets (Ohio, Chemetron, Puritan-Bennett, and DISS). Outlets are sold as complete kits, rough-in assemblies, and latch valve assemblies.

WALL OUTLETS

GENTEC wall outlets are designed with a inlet pigtail that swivels 360-degrees to allow the pipe to connect from any angle. All rough-in assemblies interlock to maintain a spacing of 5" on center, allowing full access to the patient care equipment.



CEILING OUTLETS

The ceiling outlets have a 180-degree inlet pigtail, and are designed for mounting in the ceiling of the operating room. Generally DISS connections, they can also be ordered with Ohio, Chemetron, or Puritan-Bennett connections for in-wall installations that require the piping to come in from directly behind the outlet.



CONSOLE OUTLETS

90-DEGREE & 180-DEGREE PIGTAIL INLET

The 90-degree pigtail inlet assemblies allow for mounting in a vertical assembly. The pigtail rotates 360-degrees, allowing the branch piping to come in at any angle.

The 180-degree pigtail inlets are designed for installation in the bottom of a fixed ceiling column, with the pigtail extending straight up for connection to the branch piping.



90-DEGREE & 180-DEGREE DISS INLET

DISS inlet assemblies are designed for use with hose assemblies, either in ambulances, retractable ceiling columns, or booms.

Each assembly has a CGA DISS inlet, either at 90 degrees (up) for vertical surfaces, or 180-degree (back) for horizontal surfaces.



Optional trim plate for console outlets, catalog #3900A-11



HOSE BARB INLET

Hose barb inlet assemblies are designed for installations that require a permanent, crimped connection of the medical gas hose to the rough-in assembly. The hose barb extends 90 degrees (up), and can be rotated within the mounting strap to allow the medical gas hose to come in from any angle.



ALARM PANELS



Gentec Universal Process Monitoring, Alarm, and Control System™ is highly modular. Its building blocks are designed with the most advanced technologies in electronics and software. With these versatile modules, we can implement essentially unlimited possible configurations to meet different monitoring/control needs. Furthermore, we can set up a basic system to meet a customer's immediate need and, as the customer's organization grows, expand it upward, downward, and laterally with ease.

Inexpensive, NFPA-99 conforming basic medical gas area alarms can be set up using our g-Smart Data Display Enhanced™ modules. These modules have built-in networking capability and, hence, the alarms so implemented can be integrated into any standard RS-485 network.

Note that, as the g-Smart Data Display Enhanced™ can accept a great variety of signal types and input ranges, the potential applications of the alarm systems are certainly not limited to medical gas and vacuum systems.

KEY FEATURES

- Two input channels per g-Smart Data Display Enhanced™ module. The alarm can have a virtually unlimited number of data channels.
- Compact size (4 cm high, 30 cm wide, and 9.5 cm beneath the wall per module) with large four-digit LED numerical displays.
- Independent LED indicators for system status, abnormally high, and abnormally low for each data channel.
- One buzzer TEST/SUSPEND button per module.
- One contact switch output per data channel.
- One built-in RS-485 communication port per module.
- Accept 4-20 mA current inputs and single-ended voltage signals.
- Quick setup using dipswitches for common, standard pressure sensors.
- Professional setup for other linear or non-linear sensing devices, using a built-in miniature serial communication port and our easy-to-use, PC-based setup program, Gentec g-Prog™.
- Standard or custom design labels.

ZONE VALVE BOXES



GENTEC zone valve boxes are NFPA-compliant, and include dual-port ball valves for convenience.

Boxes are available for 1 to 6 valves in a single box. All boxes are factory-assembled with the smallest valve on top, largest on bottom. 1-valve boxes (1/2" through 2") and 5-valve boxes ship with the top valve slot open for future expansion.

1-valve boxes for 2-1/2", 3", and 4" valves are 1-valve boxes, with no expansion.

DUAL PORT BALL VALVES



Our dual-port ball valves are full-port, double seal, ball-type three-piece design with forged bronze/brass body and chrome-plated brass ball. Only 1/4 turn of the handle is required to operate the valve from the fully open to the fully closed position. All valves are serviceable in line and supplied clean and prepared for oxygen service in accordance with CGA G-4.1. Valves are capped and packaged in a sealed polyethylene bag to maintain cleanliness.

CHECK VALVES WITH COPPER EXTENSIONS

Check valves are designed for working pressures up to 300 psig. The body is field removable for servicing without cutting the pipeline. All valves include Type-K copper extensions and dual purge/gauge ports. The unique sealing mechanism provides optimum flow and sealing, unlike traditional ball and cone check valves. All valves are supplied clean and prepared for oxygen service in accordance with CGA G-4.1. Valves are capped and packaged in a sealed polyethylene bag to maintain cleanliness.



PRESSURE CONTROL PANELS

GENTEC pressure control panels are available with either Nitrogen or Instrument Air DISS fittings on the face of the panel. A regulator on the face of the panel adjusts the service pressure at the DISS fitting in the panel, and at the remote connection,



EMERGENCY OXYGEN CONNECTIONS

Emergency low pressure oxygen connection boxes are required by NFPA99 for most bulk oxygen installations. The GENTEC emergency oxygen connection is available in surface or recessed mount versions, with either a 3/4" or a 1-1/4" connection. Order check valves, pressure relief valves, and pipe-away adapters separately.



PATIENT CARE PRODUCTS

GENTEC also offers a full line of patient-care related products, including suction regulators, flowmeters, click-style oxygen regulators, and medical gas adapters.

SUCTION REGULATORS

GENTEC suction regulators are available in 0-160 mmHg and 0-300 mmHg ranges for continuous/intermittent versions; and in 0-300 mmHg and 0-760 mmHg ranges for continuous only versions.

These regulators feature a large, color-coded, glow-in-the-dark gauge, and easy-to-use controls.

A complete selection of US and international adapters are available, as well as reusable vacuum trap assemblies. Trap assemblies are also available for individual purchase.



FLOWMETERS

GENTEC offers flowmeters for use with oxygen and medical air, with brass or aluminum bodies. 0-15 LPM Thorpe tube versions are available, and click-style flowmeters are available in 0-2, 4, 8, 12, 15, and 25 LPM flows.

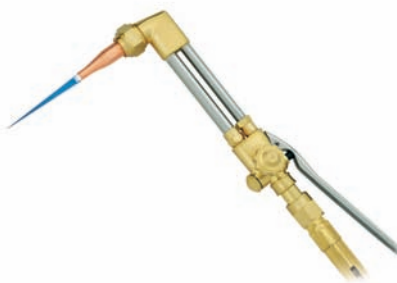


CLICK-STYLE OXYGEN REGULATORS

GENTEC offers click-style oxygen regulators in both aluminum body (brass core) and solid brass designs, with flow ranges to 8, 15, and 25 LPM. All regulators include a single hose barb as standard, one or two DISS power take-offs are also available.



WELDING AND SPECIALTY GAS PRODUCTS



GENTEC offers a complete line of products for the welding and specialty gas industries. Please visit www.genstartech.com for information.



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