our services

At Pasico, the first goal for us is to try to achieve customer satisfaction. Nothing makes us happier than when customers return to us for orders repeat . We always seek perfectionism and progress day by day, and we expect the same from our colleagues and partners in

About us

At the beginning of 2022, the idea of manufacturing and supplying medical and dental equipment under the PASICO brand was implemented and registered in the Nuremberg office of Gasico. In the first phase, we design and manufacture breathing and medical compressed air equipment, in cooperation with Alop and Pneumatic brand from Atlas Copco company, in the form of a complete package to medical and health centers. In the second phase of development, Pacico medical imaging equipment in cooperation with Siemens and Baer Germany will be available . Amad Soren International Physician Company as started its activity in the field of providing medical and dental equipment from the beginning of the year 2022 , relying on a decade of activity of Gasico Holding in the field of designing, manufacturing and supplying medical equipment.

Quality Control

Quality , is our driving force at PASICO. Production facilities in factories within the framework of an independent quality management system. OHSAS18001:2007 VS ISO 14001:2004 standards.
Complies with ISO 9001:2008 BS EN ISO 13485:2016 standards
Also, all products are designed and produced based on
Handmade products are a controlled program, where all specifications and details are checked and approved before delivery.

PASICO Medical Equipment

PASICO Medical Equipment

Medical Gas Equipment

Product catalogue

Brands

Atlas Copco

pneumatech medical gas solutions

ALUP Kompressoren

PASICO
Medical Equipment

Medical
Air

Our medical air plants provide customers ultra-clean medical air, required for medical and surgical applications. Systems are available from simplex up to hexaplex configurations. The Medical Air Plant is supplied as a fully modular assembly ensuring ease of onsite installation. Components are tested and verified within our factories and come fully certified. For complete peace of mind full system string tests are also optional upon request.

Oil-injected Screw Variable Speed Drive
Medical Air Systems

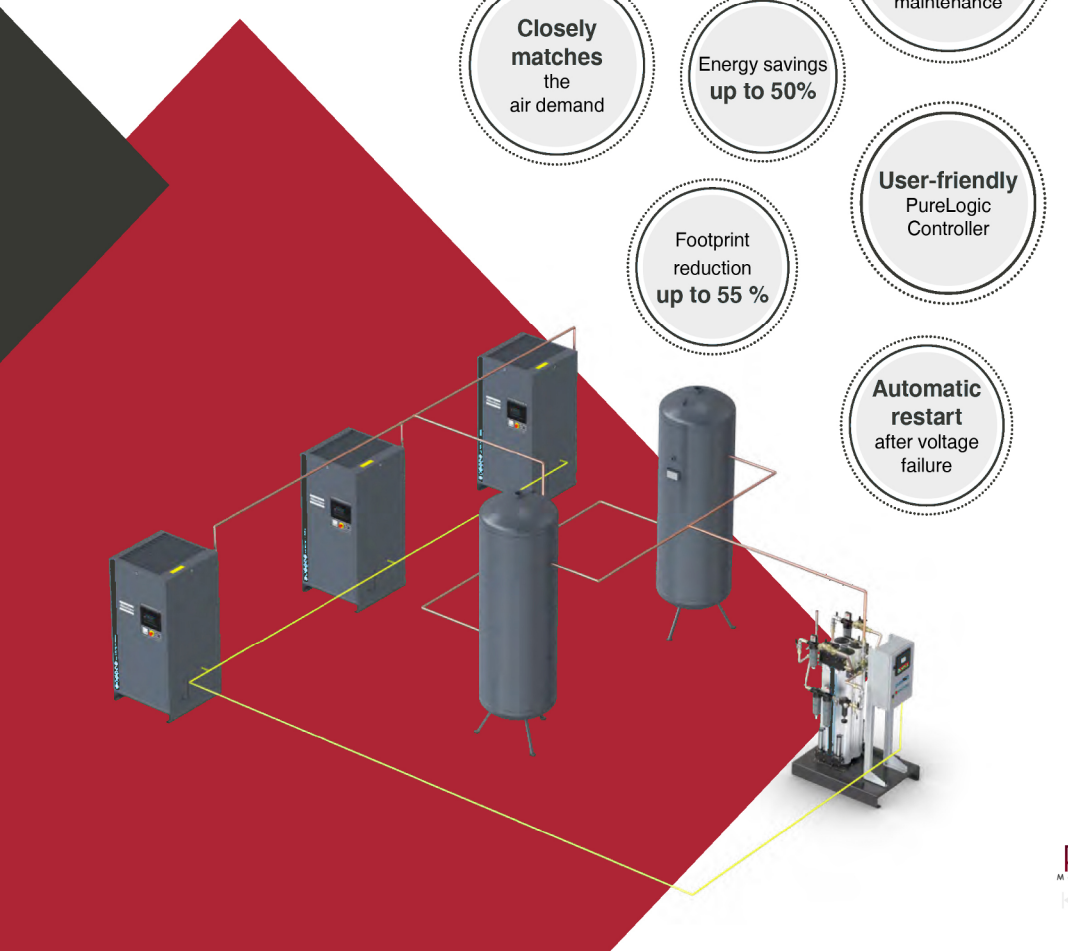
Ultimate energy and space savings

Medical Air Plants are intended to provide a continuous supply of medical quality air conforming to the European Pharmacopoeia medicinal air monograph (ref. 1238), for respiratory use in healthcare facilities. The GA VSD+ MED accomplishes this while taking energy efficiency to a higher level. The average energy savings up to 50% become a reality.

Technical Datasheets

Oil-injected Screw Medical Air Systems 50Hz

Oil-injected Screw Medical Air Systems 60Hz



General Specifications

- **Air system capacity:** 852-12,500 l/min @50Hz and 60Hz
- **Installed power:** 7-37 kW
- **Net weight compressors:** 208-396 kg
- **Net weight receivers:** 155-1,400 kg
- **Net weight purifiers:** 250-670 kg
- Contact our technical department for the standard heat dissipation formula
- GA VSD+ MED oil injected rotary screw compressors suitable for continuous and frequent start/stop operation
- Compressors with a block and fin style after cooler with a dedicated quiet running fan
- Minimum IE5 (IEC 60034) rated, IP66 class F electric motors
- iPM (Permanent Magnet) technology
- Phase sequence relay
- EMC - Electromagnetic Compatibility Certified

Services Used

MA4 Medical Air

SA7 Surgical Air

Code of Compliance and Guidance

- HTM 02-01
- HTM 2022
- ISO 7396-1
- C11
- EN 286-1
- EN 837-1
- EN 1012-1
- EN 1041
- EN 5169
- EN ISO 10993-1
- EN ISO 12021
- EN ISO 12100-1
- EN ISO 13348
- EN ISO 14971
- EN ISO 15001
- EN ISO 15223-1
- EN 60034
- EN 60204-1
- EN 61439-1
- EN 62304
- EN 60601-1-2
- EN 61000-6-2
- EN 61000-6-4

Options

OSC Oil Water Separator

Roto-Xtend duty oil

Tropical thermostatic sensors for countries with high humidity

Maintenance spares for this product are required annually.

See back of catalogue for recommended service schedule.

Oil-injected Screw Fixed Speed
Medical Air Systems

Premium solution offering outstanding performance

Medical Air Plants are intended to provide a continuous supply of medical quality air conforming to the European Pharmacopoeia medicinal air monograph (ref. 1238), for respiratory use in healthcare facilities. GA-MED compressors bring outstanding performance, flexible operation and high productivity, while minimizing the total cost of ownership.

Technical Datasheets

Oil-injected Screw Medical Air Systems 50Hz

Oil-injected Screw Medical Air Systems 60Hz

Lower capital cost

Improved **serviceability**

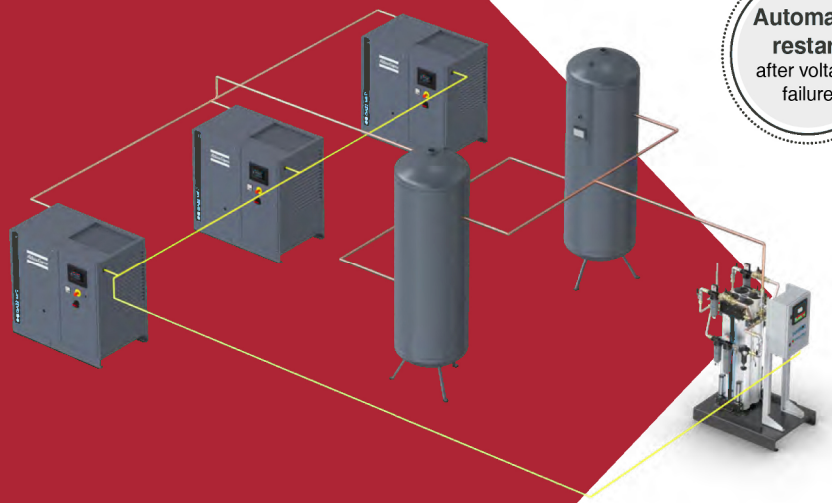
Medical Certified Compressors

Noise **reduction**

GA-MED compressors with additional **safety protections**

User-friendly PureLogic Controller

Automatic restart after voltage failure



General Specifications

- **Air system capacity:** 504-12,500 l/min @50Hz and 510-12500 l/min @60Hz
- **Installed power:** 5-26 kW
- **Net weight compressors:** 270-490 kg
- **Net weight receivers:** 155-1,400 kg
- **Net weight purifiers:** 250-670 kg
- Contact our technical department for the standard heat dissipation formula
- GA MED oil injected rotary screw compressors suitable for continuous and frequent start/stop operation
- Modular configuration
- Compressors with a block and fin style aftercooler with a dedicated quiet running fan
- Minimum IE3 (IEC 60034) rated, IP55 class F electric motors
- Compressor is provided with Star-Delta (Wye-Delta) motor starters and each motor is protected by a thermal overload relay
- EMC - Electromagnetic Compatibility Certified

Services Used

MA4 Medical Air

SA7 Surgical Air

Code of Compliance and Guidance

- HTM 02-01
- HTM 2022
- ISO 7396-1
- C11
- EN 286-1
- EN 837-1
- EN 1012-1
- EN 1041
- EN 5169
- EN ISO 10993-1
- EN ISO 12021
- EN ISO 12100-1
- EN ISO 13348
- EN ISO 14971
- EN ISO 15001
- EN ISO 15223-1
- EN 60034
- EN 60204-1
- EN 61439-1
- EN 62304
- EN 60601-1-2
- EN 61000-6-2
- EN 61000-6-4

Options

OSC Oil Water Separator

Roto-Xtend duty oil

Tropical thermostatic sensors for countries with high humidity

Maintenance spares for this product are required annually.

See back of catalogue for recommended service schedule.

Oil-free Rotary Tooth
Medical Air Systems

Provides reliable medical air supply

Medical Air Plants are intended to provide a continuous supply of medical quality air conforming to the European Pharmacopoeia medicinal air monograph (ref. 1238), for respiratory use in healthcare facilities. ZT-MED oil free rotary tooth compressors provide 100% certified (Class 0) oil-free air quality.

Technical Datasheets

Oil-free Rotary Tooth Medical Air Systems 50Hz

Oil-free Rotary Tooth Medical Air Systems 60Hz

Lower lifecycle cost

Reliable, centralised medical air supply

Class 0 **100% Oil-free air**

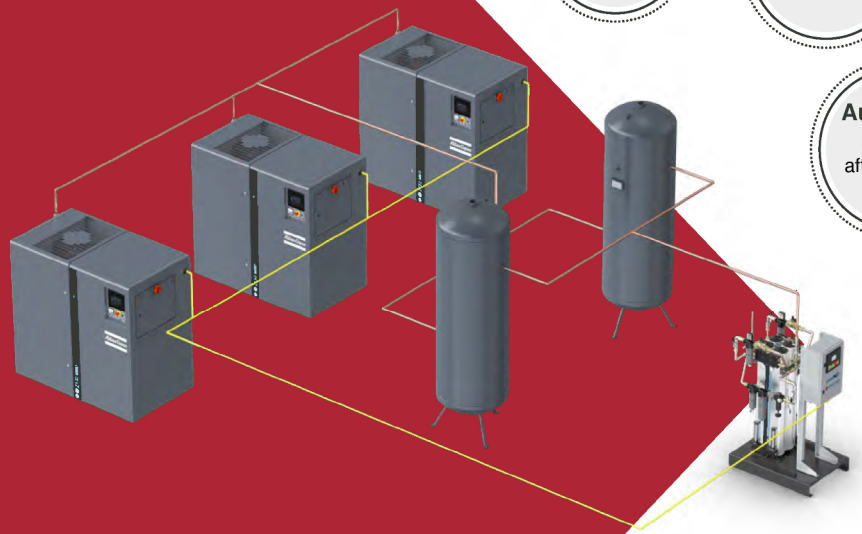
Fully **modular** assembly

High-definition colour display controller

Sound insulating canopy

Medical Certified Compressors

Automatic restart after voltage failure



General Specifications

- **Air system capacity:** 1806-8500 l/min @50Hz and 1842-8500 l/min @60Hz
- **Installed power:** 15-55kW
- **Net weight Fixed speed compressors:** 1060-1086 kg
- **Net weight VSD compressors:** 1,120-1,432 kg
- **Net weight receivers:** 155-1,400 kg
- **Net weight purifiers:** 250-670 kg
- Contact our technical department for the standard heat dissipation formula
- ZT-MED two-stage oil-free rotary tooth compressors are suitable for both continuous and frequent start/stop operation
- Stainless steel tooth element
- Minimum IE3/NEMA Premium electric motors
- EMC - Electromagnetic Compatibility Certified

Services Used

MA4 Medical Air

SA7 Surgical Air

Code of Compliance and Guidance

- HTM 02-01
- HTM 2022
- ISO 7396-1
- C11
- EN 286-1
- EN 837-1
- EN 1012-1
- EN 1041
- EN 5169
- EN ISO 10993-1
- EN ISO 12021
- EN ISO 12100-1
- EN ISO 13348
- EN ISO 14971
- EN ISO 15001
- EN ISO 15223-1
- EN 60034
- EN 60204-1
- EN 61439-1
- EN 62304
- EN 60601-1-2
- EN 61000-6-2
- EN 61000-6-4

Options

Variable Speed Drive (VSD) variant

Maintenance spares for this product are required annually.

See back of catalogue for recommended service schedule.

Oil-free Scroll
Medical Air Systems

A lower impact on the environment

Medical Air Plants are intended to provide a continuous supply of medical quality air conforming to the European Pharmacopoeia medicinal air monograph (ref. 1238), for respiratory use in healthcare facilities. SF-MED oil free scroll compressors provide 100% certified (Class 0) oil-free air quality.

Technical Datasheets

Oil-free Scroll Medical Air Systems 50Hz

Oil-free Scroll Medical Air Systems 60Hz

Lower lifecycle cost

Reliable, centralised medical air supply

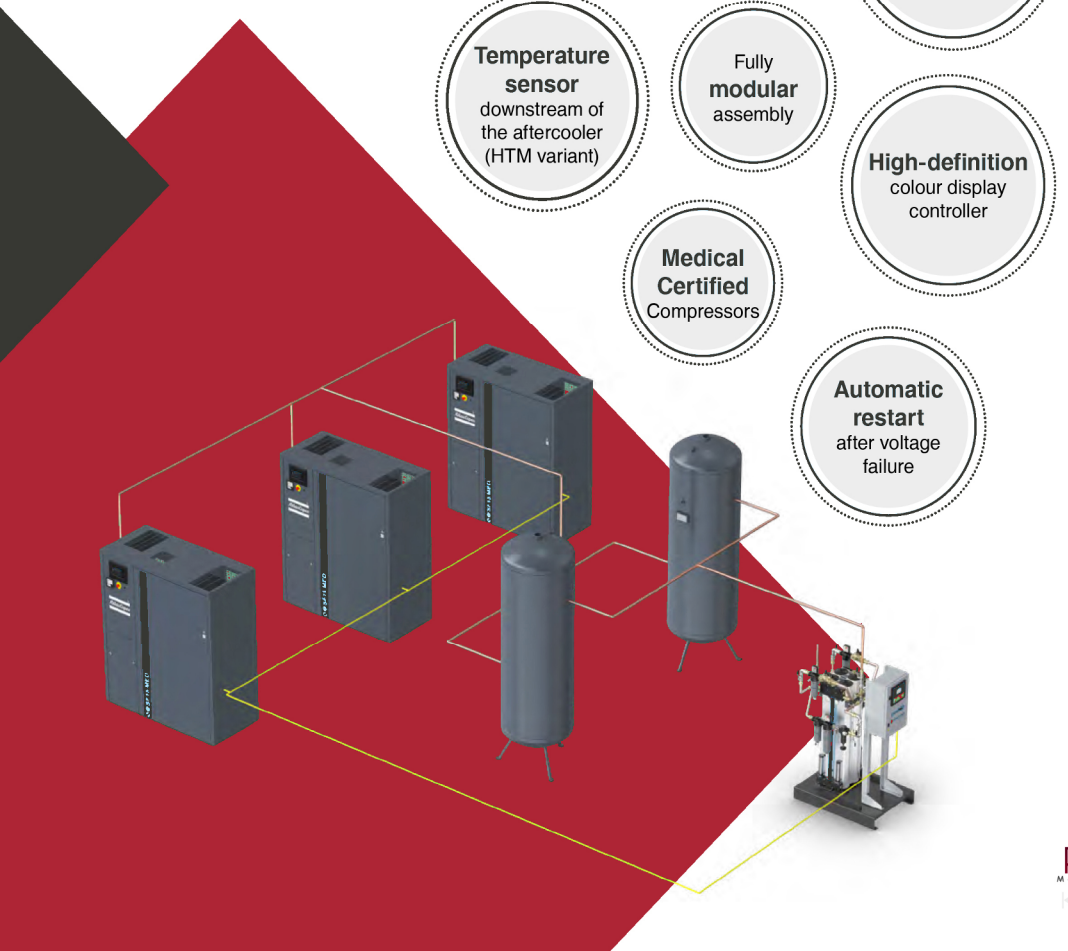
Temperature sensor downstream of the aftercooler (HTM variant)

Fully **modular** assembly

High-definition colour display controller

Medical Certified Compressors

Automatic restart after voltage failure



General **Specifications**

- **Air system capacity:** 678-8,500 l/min @ 50Hz and 60Hz
- **Installed power:** 8-22 kW
- **Net weight compressors:** 450-650 kg
- **Net weight receivers:** 155-1,400 kg
- **Net weight purifiers:** 250-670 kg
- Contact our technical department for the standard heat dissipation formula
- SF-MED single-stage oil-free rotary scroll compressors are suitable for both continuous and frequent start/stop operation
- Compressors with an aftercooler with a dedicated quiet running fan
- Totally enclosed air-cooled IP55 Class F electric motors
- EMC - Electromagnetic Compatibility Certified

Services **Used**

MA4 Medical Air

SA7 Surgical Air

Code of **Compliance and Guidance**

- HTM 02-01
- HTM 2022
- ISO 7396-1
- C11
- EN 286-1
- EN 837-1
- EN 1012-1
- EN 1041
- EN 5169
- EN ISO 10993-1
- EN ISO 12021
- EN ISO 12100-1
- EN ISO 13348
- EN ISO 14971
- EN ISO 15001
- EN ISO 15223-1
- EN 60034
- EN 60204-1
- EN 61439-1
- EN 62304
- EN 60601-1-2
- EN 61000-6-2
- EN 61000-6-4

Options

Electronic zero loss water drains

Maintenance spares for this product are required annually.

See back of catalogue for recommended service schedule.

PASICO Medical Equipment

Pressure Reducing Sets
Simplex & Duplex

Providing reliable pressure regulation

The Pressure Reducing Set (PRS) are often installed where medical and surgical quality air is generated by a common supply source. Both simplex and duplex variants come complete with pressure safety valves and pressure gauges indicating the delivered pressure.

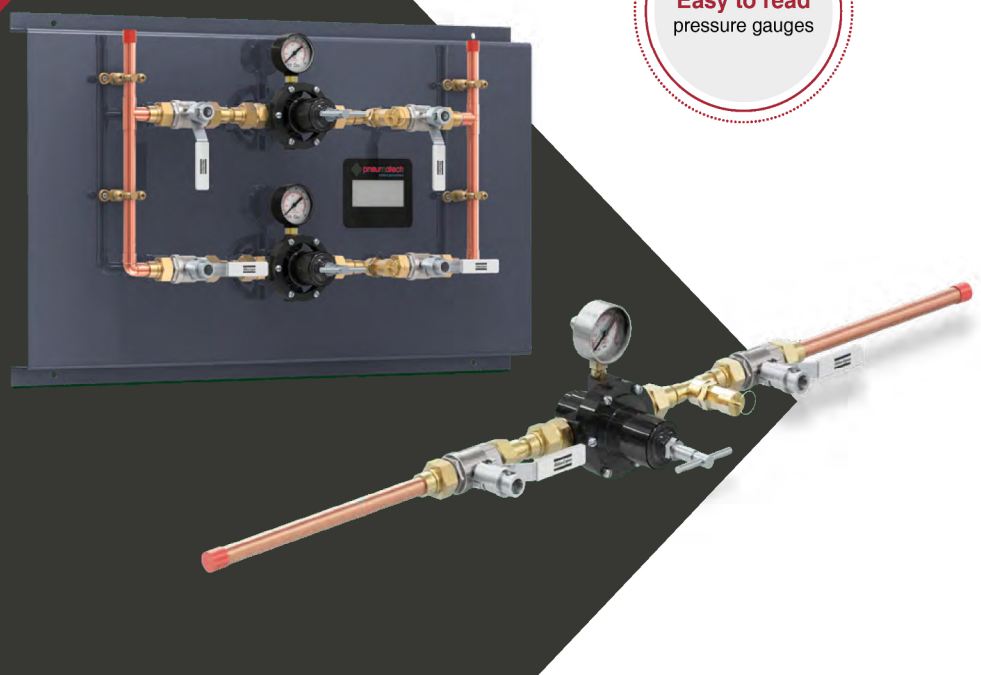
Technical Datasheet

Pressure Reducing Sets - Simplex and Duplex

Pressure relief valves fitted as standard

Quarter turn ball valves fitted as standard

Easy to read pressure gauges



General **Specifications**

- Simplex PRS comprises an in-line pressure regulator
- Simplex unit mounted via munsen rings
- Duplex PRS has two branches connected to the MGPS in parallel
- Duplex unit mounted in baseplate
- Supplied with copper stub pipes for ease of installing using inert gas jointing procedures

Services **Used**

O_2 Oxygen

MA4 Medical Air

SA7 Surgical Air

Code of **Compliance and Guidance**

- HTM 02-01
- HTM 2022
- ISO 7396-1
- C11
- EN 837
- EN 1041
- EN ISO 4123
- EN ISO 10993-1
- EN ISO 14971
- EN ISO 10524-2
- EN ISO 13348
- EN ISO 15001
- EN ISO 15223-1

Options

Padlocks

Maintenance spares for this product are required 5 yearly.

See back of catalogue for recommended service schedule.

Protect the environment – treat your condensate

As efficient as the process may be, a compressor inevitably produces more than compressed air alone. One of its by-products is a large volume of condensate, generally an emulsified combination of oil and water that poses a serious environmental risk. Only by treating this condensate in the right way, we can make sure it brings no harm to the environment. Depending on the location, severe penalties can be charged for dumping oily condensate in the sewerage system. The legal threshold of the maximum oil concentration in water varies strongly depending on continent, country and even local region. However, the maximum allowable oil content in drainage to the sewerage generally varies between 15 and 20 mg/l.

PASICO
Medical Equipment

Medical Oxygen

We can offer an extensive range of oxygen supply systems such as oxygen generators, bulk liquid oxygen tanks (VIEs) and manifold control panels suitable for your oxygen supply needs.

Oxygen Generator
Systems and Components

Offering economical and reliable supply of oxygen

The range of Oxygen Generator Systems is perfect for anyone who wants to produce oxygen on-site. Generators offer a flexible, reliable supply of oxygen and can be arranged in simplex or duplex configurations for emergency back up.

Technical Datasheet

Oxygen Generator Systems

Oxygen purity and flow logging in the controller

Pressure dew point sensor for better protection of zeolite

Oversized refrigeration dryer for better performance in hot climate

Low purity oxygen purge for guaranteed purity

Pressure Swing Adsorption (PSA) technology

Large capacity activated carbon towers for extended zeolite lifetime

PASICO Medical Equipment

General **Specifications**

- **Net weight oxygen generators:** 180-4,200 kg
- **Net weight fixed speed compressors:** 280-1,425 kg
- **Net weight high pressure booster compressors:** 91-839 kg
- **Net weight air receivers:** 125-800 kg
- **Net weight dryers:** 51-550 kg
- Contact our technical department for the standard heat dissipation formula
- Simplex or duplex configurations
- 90-95% oxygen purity production
- Touch screen controller with 4" high definition display
- Including: Zirconia oxygen sensor, Inlet dewpoint sensor, Outlet flow meter
- Safety purge function
- Outlet pressure regulator and filter
- Copper stub pipe connectors
- Silencer on exhaust
- EMC - Electromagnetic Compatibility Certified

Services **Used**

O_2

Oxygen

Code of **Compliance and Guidance**

- All related BS EN ISO standards
- ASME BPVC SECVIII Div 1:2015
  - Pressure Equipment Directive
- EN 13445-3:2009/A2:2013
- EN ISO 12100:2010
  - Machinery Directive
- EN 60204-11:2000/AC:2010
- EN 61000-6-2:2005
  - Electromagnetic Compatibility
- EN 61000-6-4:2007/A1:2011
- EN 60204-1:2006/AC: AC2010
  - Low Voltage Equipment
- EN 61439-1:2011
- EN ISO 13485:2016
  - Medical Devices
- EN ISO 14971:2007/C:2012
- EN ISO 7396-1 (AC2010)
- EN ISO 5359:2014
- EN ISO 15001:2012
- EN ISO 155223:2012
- EN ISO 60601-1:2006
- EN ISO 60601-2:2015
- EN ISO 60601-6:2010
- EN ISO 60601-8:2007
- EN ISO 62304:2008
- EN ISO 562366:2008

Options

Containerised solution

High pressure booster compressor

Filling ramp

Secondary air supply line

Maintenance spares for this product are required annually.

See back of catalogue for recommended service schedule.

Liquid Oxygen Systems

Bulk Liquid Oxygen tanks

Vessel cleaned for oxygen application

Vertical Liquid Oxygen storage vessels, with tank mounted or free standing vaporisers. Wall mounted VIE control panel for gas distribution. Low evaporation rate, ergonomic layout of instruments and controls for ease of use, carefully selected components and outstanding build quality ensure a high degree of reliability and economy in everyday use and guarantee the longevity of the vessel.

Technical Datasheets

Liquid Oxygen System - Bulk Liquid Oxygen tanks

VIE Control Panels

Local interconnecting piping for **better flexibility**

Two separate penetration plates to **avoid ice formation**

Stainless steel lifting lugs & foot plates to **avoid corrosion**

Pressure-building vaporisers made from aluminium fin tubes

Stainless steel piping for **strength & improved appearance**

Foot mounting point accessible from outside the tank, to **ensure ease of installation**

General Specifications

- CE Certified
- European Pressure Equipment Directive 97/23 CE (PED)
- Tanks are stationary, vacuum-insulated pressure vessels
- Bulk tanks consist of an inner and an outer vessel
  - Inner vessel, which is suspended concentrically in the outer vessel, is made of stainless steel and is used for storage of cryogenic liquefied gases
  - Outer vessel is made of carbon steel
  - The space between the vessels is filled with high quality perlite and evacuated
- The integrity of the welded joints is checked by leak-testing, using a helium mass spectrometer to ensure long-term vacuum maintenance
- A molecular sieve absorbs remaining molecules to improve and maintain the vacuum during the working life of the vessel
- These vessels can also be supplied to customer's design requirements or specifications
- 18.5 bar standard pressure supply
- Standard Twin alarm contents Gauge classed as Media 5k
- Coating - Blasted ground (to SA 1/2, DIN 559281), Epoxy Zinc primer, Finish in Polyurethane Quality

Services Used

O_2

Oxygen

Code of Compliance and Guidance

- HTM 02-01
- HTM 2022
- ISO 7396-1
- EN 298-1
- EN 299-1 +A1
- EN 288-2 + 1
- EN 288-3 + A1
- DIN EN 439
- EN 499
- EN 719
- EN 729-1
- EN 729-2
- EN 756
- DIN EN 760
- EN 910 + EN 970
- EN1011
- EN 1289
- EN 1435
- EN 1418
- DIN EN 1600
- EN 1708
- EN 10025
- EN 10028
- EN 10088
- EN 10113
- EN 10204
- EN 13445

Options

LCD digital contents gauge with alarms contacts

Stand alone or tank mounted vapouriser solutions

Higher Pressure rated Tanks Available on request

Tank mounted or floor mounted vapourisers available from 1,000 to 15,000 l/m

There is no recommended maintenance interval for this product.

PASICO Medical Equipment

VIE Control Panels

Vacuum Insulated Evaporator Control Panel

VIE Control Panels are designed to accept a supply of gaseous oxygen from the VIE at 1050 kPa (10.5 bar) or from the standby manifold at 850 kPa (8.5 bar) and to reduce the pressure to a nominal 420 kPa (4.2 bar) pipeline distribution system pressure. The VIE Control panel is available in a duplex configuration, with one standby and one duty regulator set.

Technical Datasheet

VIE Control Panels

High lift brass **safety relief valve**

Quarter turn ball valves die cast brass alloy body with **nitrile seals**

All components degreased for oxygen use

In line filtration

Gauge monitoring 0-11 bar with **bottom entry connection**

Non relieving **regulators 28 bar rated**

General **Specifications**

- Duplex configuration
- Designed to regulate line pressure
- Regulating unit is mounted onto a light weight mild steel zinc plated back plate
- Powder coated mild steel enclosure includes inlet and outlet pressure indication gauges

Services **Used**

O_2

Oxygen

Code of **Compliance and Guidance**

- HTM 02-01
- HTM 2022
- ISO 7396-1
- C11
- EN 837-1
- EN 1041
- EN 4126
- EN ISO 10993-1
- EN ISO 10524-2
- EN ISO 13348
- EN ISO 14971
- EN ISO 15001
- EN ISO 15223-1

Options

22mm and 28mm pipe option

Internal in line metal filtration for each line for both sizes

Maintenance spares for this product are required 5 yearly.

See back of catalogue for recommended service schedule.

PASICO Medical Equipment

The importance of the correct sizing for purity

Correct sizing for the desired purity of medical components using Pressure Swing Adsorption (PSA) technology is critical for oxygen generation. Appropriate correction factors must be used to take into account that a deviation of real conditions, such as high humidity, high ambient temperature and high altitude. All these factors are considered in the design of our oxygen systems and are verified over many running hours in hospital installations around the world.

PASICO
Medical Equipment

Medical Vacuum

Our medical vacuum systems are intended to provide a continuous supply of medical vacuum to a pipeline system in healthcare facilities. The centralised medical vacuum system is available with two to six vacuum pumps and can be configured as a packaged or modular system.

Lubricated Rotary Vane
Vacuum Systems

Modular and packaged solutions

Medical Vacuum Plants are intended to provide a continuous supply of medical vacuum to a pipeline system in healthcare facilities. It is a redundant to multiplex system such that the supply is maintained in single fault condition. Horizontal Medical Vacuum Plants are supplied pre-piped and fully tested.

Technical Datasheets

- *Lubricated Rotary Vane HTM 02-01 - 50 Hz*
- *Lubricated Rotary Vane HTM 02-01 - 60 Hz*
- *Lubricated Rotary Vane HTM 2022 - 50 Hz*
- *Lubricated Rotary Vane HTM 2022 - 60 Hz*

Tank mounted variant for smaller model sizes

Easy on-site installation

Oil-lubricated rotary vane vacuum pumps offer **high flow performance**

Ethernet connectivity as standard

Compact footprint vessel-mounted stand-alone assemblies

Vacuum pumps on anti-vibration mounts for **quiet operation**

Purelogic™ Central Controller user-friendly colour display: real-time status via hospital's LAN network

General Specifications

- Contact our technical department for the standard heat dissipation formula
- Oil lubricated rotary vane type suitable for both continuous and frequent start/stop operation
- Air-cooled vacuum pumps
- Each vacuum pump provided with an oil mist eliminator delivering virtually oil-free exhaust
- Each pump fitted with anti-vibration pads between pump foot and mounting frame
- Each pump fitted with its own drain flask
- Rotors driven by directly coupled totally enclosed fan-cooled electric motors
- Pump inlets include wire mesh filter and integral non-return valve to prevent oil suck back and pressure increases
- Pressure switch to indicate normal operation of the pump once it has been called into service
- Duplex and Quadruplex arrangements of bacteria service
- EMC - Electromagnetic Compatibility Certified

Services Used

MV

Medical Vacuum

Flow Rate Formula Calculation

- Using Boyle's Law where:
  P1 x V1 = P2 x V2
  - P1 = Pump operating vacuum pressure
  - V1 = Pump capacity (displacement) @ 50Hz in m^3/hr
  - P2 = Atmospheric pressure 1013mbar
  - V2 = Free air aspired in m^3/hr

Code of Compliance and Guidance

- HTM 02-01
- HTM 2022
- ISO 7396-1
- C11
- EN 286-1
- EN 837-1
- EN 1012-1
- EN 1012-2
- EN 1041
- EN ISO 2151
- EN 5169
- EN ISO 10993-1
- EN ISO 12100-1
- EN ISO 12100-2
- EN ISO 13348
- EN ISO 13857
- EN ISO 14971
- EN ISO 15223-1
- EN 60204-1
- EN 62304
- EN 61000-6-1
- EN 61000-6-2
- EN 61000-6-3
- EN 61000-6-4

Options

Reduced vessel sizes and dimensions to suit special room conditions

Maintenance spares for this product are required annually.

See back of catalogue for recommended service schedule.

PASICO Medical Equipment

Anaesthetic Gas
Scavenging Systems

Providing a safe and healthy workspace for medical personnel

A safe and healthy workspace is of primary importance in a hospital's operating department. Pneumatech Medical Gas Solutions' active Anaesthetic Gas Scavenging Systems (AGSS) are designed to safely remove exhaled anaesthetic agents from an operating department and dispose of them in the atmosphere, preventing contamination to safeguard employees and patients.

Technical Datasheets

Simplex AGSS

Duplex AGSS

Compact

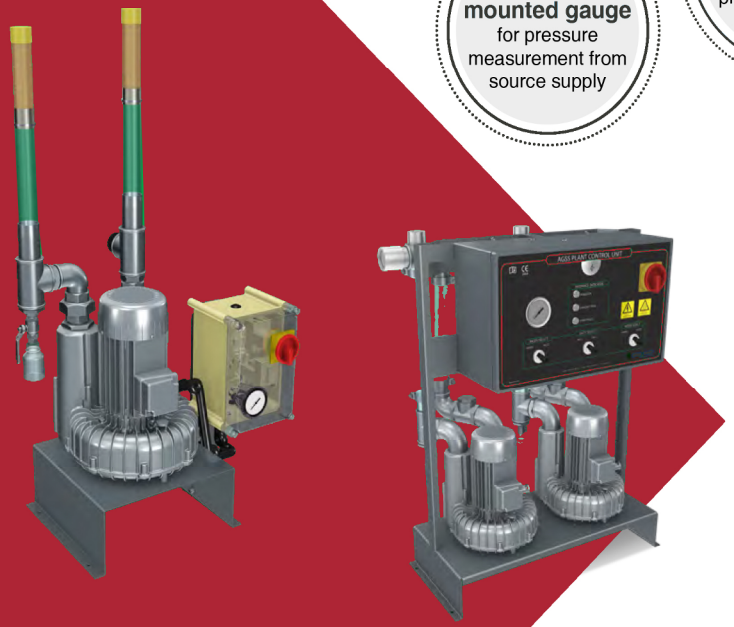
Wire mesh filter to prevent ingress of large particulates

Thermal Overload Relay with manually reset function

User-friendly

System mounted vacuum relief valve for pressure balancing

Panel mounted gauge for pressure measurement from source supply



General Specifications

- **Net weight simplex AGSS:** 21-33 kg
- **Net weight duplex AGSS:** 85-120 kg
- Contact our technical department for the standard heat dissipation formula
- Provide a continuous low-level vacuum supply to pipeline systems
- Removal of waste anaesthetic gases
- The stated volumetric flow rate of a simplex are delivered with one blower running
- The stated volumetric flow rate of a duplex are delivered with one blower on standby
- Fully assembled and skid mounted
- Oil-less and air-cooled side channel regenerative blower(s)
- Bearings are sealed and greased for life
- Plant Control Unit
- Gauge fitted for monitoring pressure and balancing of the system
- Regulated by a vacuum relief valve
- Remote start switches
- EMC - Electromagnetic Compatibility Certified

Services Used

AGSS

AGSS

Code of Compliance and Guidance

- HTM 02-01
- HTM 2022
- ISO 7396-1
- C11
- EN 1041
- EN 8532
- EN ISO 7396-2
- EN ISO 9170-2
- EN ISO 10993-1
- EN ISO 13348
- EN ISO 14971
- EN ISO 15001
- EN ISO 15223-1

Options

Building Management System (BMS) relay module (Simplex and Duplex versions)

Stubbed vacuum relief valves for piped system installation nearer to gas outlet

24 volt on/off remote controllers

There is no recommended maintenance interval for this product.

PASICO Medical Equipment

Electromagnetic Compatibility (EMC) Certified

To ensure a safe medical working environment, Pneumatech Medical Gas Solutions considers EMC a critical part of the testing program of our medical devices. Our medical gas equipment is tested according to the comprehensive medical device electromagnetic compatibility (EMC) certifications and are meeting regulatory requirements such as EN 61000-6-2/EN 61326-1 and HTM 02-01 section 2.42 and HTM 06-01 section 12.

PASICO
Medical Equipment

Pipeline
Components

Our Pipeline Components range consists of pipeline solutions to distribute medical gas services throughout the hospital, clinical or laboratory facility. The designs of Area Valve Service Units and Line Ball Valves allow individual parts of the central medical gas pipelines to be isolated locally in a safe manner.

Line Ball Valve Assemblies

HTM 02-01/HTM 2022

Line Ball Valve Assemblies for assured service

Line ball valve assemblies are designed to provide local isolation of individual parts of the central gas and vacuum piping system in hospitals, clinics, laboratory facilities, or anywhere there is piped medical gas.

Technical Datasheet

Line Ball Valve Assemblies

Internal ball valve design suitable for medical gas systems

Operates by manual operation of a **90 degree turn lever**

A set of white **"open"** and red **"closed"** spades

HTM 02-01

HTM 2022

General **Specifications**

- Copper stub pipes
- Two-piece full-bore design with brass body
- Coded and lockable NIST connectors with brass non-return valve (excluding vacuum unit)
- 15 to 54 mm - at-face connectors with O-ring seal
- 76 to 108 mm - stainless steel bolts, nuts and spring washers with 3 mm Viton® sealing gaskets
- Locking mechanism on the handle

Services **Used**

O_2	N_2O	O_2/N_2O	MA4	SA7	MV	N_2	CO_2
Oxygen	Nitrous Oxide	Entonox	Medical Air	Surgical Air	Medical Vacuum	Nitrogen	Carbon Dioxide

Code of **Compliance and Guidance**

- HTM 02-01
- HTM 2022
- ISO 7396-1
- C11
- EN ISO 10993-1
- EN ISO 14971
- EN ISO 10524-2
- EN ISO 13348
- EN ISO 15001
- EN ISO 15223-1
- EN 18082

Options

HTM 2022: 40mm locking device and keys for valve assemblies

HTM 02-01: Long shackle padlock and keys for NIST connections (individually per gas type)

Colour coded adhesive gas tape and directional arrows

Fluxless silver solder available for inert gas welding

There is no recommended maintenance interval for this product.

PASICO Medical Equipment

Zeus Area Valve
Service Units

Providing one point isolation of gases

The Zeus Area Valve Service Units (AVSUs) provide local gas isolation. Each AVSU is gas specific, and indicates the gas or vacuum via a colour coded gas identity label behind each valve handle.

Technical Datasheet

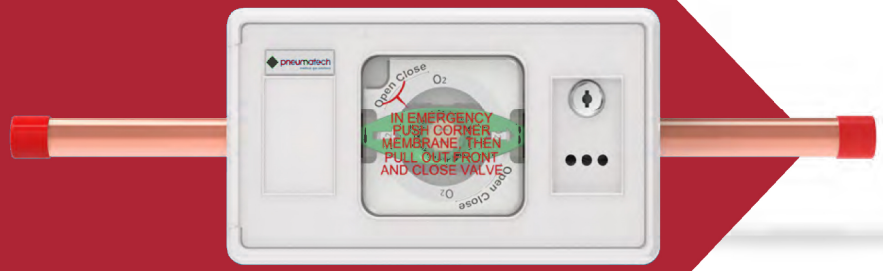
Zeus Area Valve Service Unit

Colour coded service ID

Nitrile Sealing Valves

Cost-effective

Emergency access: breakable pull out window



General Specifications

- Quick pull out window access
- Individual key access locks
- Moulded recessed front door for labelling areas
- Medical gas and vacuum gas-specific NIST connections
- Valves: chrome plated brass ball with PTFE seats
- Universal first fix back plate and injection moulded cover
- Universal kit for surface or flush fitting

Services Used

O_2	N_2O	O_2/N_2O	MA4	SA7	MV	N_2	CO_2
Oxygen	Nitrous Oxide	Entonox	Medical Air	Surgical Air	Medical Vacuum	Nitrogen	Carbon Dioxide

Code of Compliance and Guidance

- HTM 02-01
- HTM 2022
- ISO 7396-1
- C11
- EN 1041
- EN ISO 10993-1
- EN ISO 13348
- EN ISO 14971
- EN ISO 15001
- EN ISO 15223-1
- EN ISO 18082
- EN ISO 13348

Options

Wall mounted, surface or flush fitting

22mm and 28mm pipe sizes

There is no recommended maintenance interval for this product.

Area Valve Service Unit
Modules

Valves individually accessible via lockable doors with emergency access facilities

The Area Valve Service Unit Modules create an independent zone within the gas pipeline system, which can offer up to six different gases. AVSU Modules are pre-assembled wall mounted zone units with optional alarm, pressure switches and pipe work.

Technical Datasheet

Zeus AVSU Module

Emergency access: breakable pull out window

Cost-effective

Colour coded service ID

General Specifications

- Pre-assembled wall mounted zone units
- Surface, semi-flush or fully flush mounting options
- Internal pipework with stub pipes
- Quick pull out window access
- Individual key access locks
- Moulded recessed front door for labelling areas
- Medical gas and vacuum gas-specific NIST connections

Services Used

O_2	N_2O	O_2/N_2O	MA4	SA7	MV	N_2	CO_2
Oxygen	Nitrous Oxide	Entonox	Medical Air	Surgical Air	Medical Vacuum	Nitrogen	Carbon Dioxide

Code of Compliance and Guidance

- HTM 02-01
- HTM 2022
- ISO 7396-1
- C11
- EN 1041
- EN ISO 10993-1
- EN ISO 13348
- EN ISO 14971
- EN ISO 15001
- EN ISO 15223-1
- EN ISO 18082
- EN ISO 13348

Options

Local Area alarm

Remote mounted alarm panel

Hygromatic Pressure Switches

There is no recommended maintenance interval for this product.

Copper Tubes, Fittings, Fixtures and Accessories

To provide the connection between source equipment

The copper tubes and fittings are pipeline solutions for medical installations. BS EN 13348 Degreased Medical Grade Seamless Copper Tubes are specifically designed for medical gas and vacuum systems, recognising the special requirements of the medical gas market.

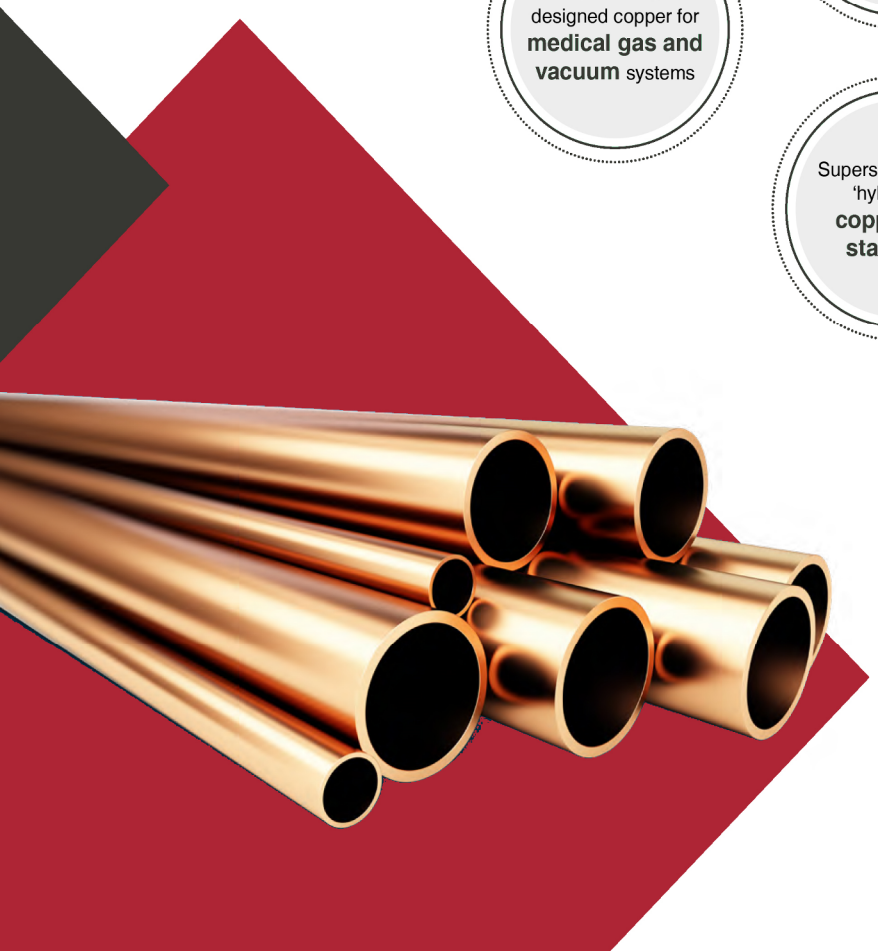
Technical Datasheet

Copper Pipes and Fittings

Specifically designed copper for **medical gas and vacuum** systems

Conforms to **HTM 02-01** & NHS engineering spec. **C11**

Superseding earlier 'hybridised' **copper tube standards**



General Specifications

- Material analysis
  - Material grade phosphorus deoxidised copper; Cu-DHP or CW024A
  - Minimum copper content 99.90% (including silver)
  - Phosphoris 0.015-0.040%
  - Total impurity maxima 0.060% (excluding phosphorus and silver)
  - Melting point of copper at 1083°C and has a density of 8.9 gm/cc
- Cleanliness
  - Maximum total carbon content 0.20 mg/dm²
  - Packaging
  - Each tube individually end capped, tube bundles polythene wrapped and sealed
- Sizes 12-108mm copper tubes are stamped with
  - Tube size
  - EN 13348
  - Manufacturer
  - Date & Batch Code 12mm to 28mm sizes are also inkjet marked with additional data to enable traceability
  - Kitemark
  - Temper

Services Used

O_2	N_2O	O_2/N_2O	MA4	SA7	MV	N_2	CO_2
Oxygen	Nitrous Oxide	Entonox	Medical Air	Surgical Air	Medical Vacuum	Nitrogen	Carbon Dioxide

He	Xe	Specific mixtures	AGSS
Helium	Xenon	Specific mixtures	AGSS

Code of Compliance and Guidance

- HTM 02-01
- HTM 2022
- C11
- EN 13348
- EN 1057
- BS EN 1254-1:1998 Part 1
- BS EN 1254-1:1998 Part 5
- Kite Marked Tube

Options

Straight and reducing couplings

Equal and reducing tees

Insert reducers

Copper tube wall or ceiling fixing components

Brass single or double munsen rings

Brass hospital brackets

Threaded studding

Screws and anchors

Gas identity tape

There is no recommended maintenance interval for this product.

The precision of gas identification

Managing a clear identity of each gas running through the medical gas pipelines up to the terminal units in a hospital is of the utmost importance. The safety of the patients, personnel and visitors in healthcare facilities depend on the specific gas identification labelling to help minimise hazards of any risks such as fire, explosion, and electricity. At Pneumatech Medical Gas Solutions we can support you with the required identification materials to be compliance with BS 1710:2014.

PASICO
Medical Equipment

Alarms
& Monitoring

The PureGUARD medical gas alarms provide safe and reliable monitoring of your medical gas pipeline systems. Whether you require a Local or Central Alarm System, you can easily accommodate the needs of your facility.

PureGUARD 15
Central Alarms

Provides safe and reliable monitoring of medical gas systems

The Digital PureGUARD 15 Central Alarm Panel is designed to monitor the status of up to six medical gas source equipment. The alarm panel comes with easy installation, carefree maintenance, security from unauthorized personnel access, and anti-microbial additives.

Technical Datasheet

Central Medical Gas Alarm Panel

Touch Screen
Easy on screen set-up

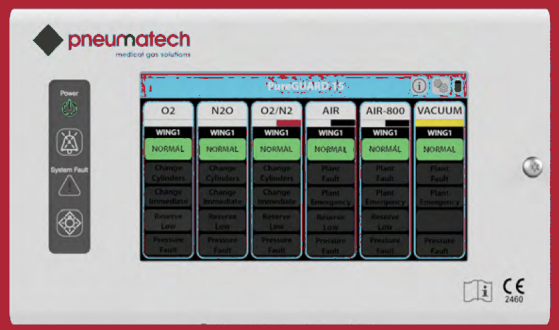
Anti-microbial additives
minimize cross infection

Unique **on-site configuration**

Safety from **anti-tamper screw**

Line continuity
monitors pipeline wiring

Conforms to **HTM02-01, HTM2022, C11** and **BS EN ISO standards**



General Specifications

- Factory tested.
- On-site expandability.
- Line continuity monitoring.
- All panels can be configured as master or repeaters.
- Touch proof boards.
- Protected access with anti-tamper screw.
- Mounting boxes include multiple knock out holes for easy cable entry.
- Trimming bezel for flush mounted installation.
- Surface mounted components.
- Digital pressure/vacuum transducers
- HTM02-01, HTM2022, C11 and all related BS EN ISO standards.
- Configuration and set-up can be performed on-site.

Services Used

O_2	N_2O	O_2/N_2O	MA4	SA7	MV
Oxygen	Nitrous Oxide	Entonox	Medical Air	Surgical Air	Medical Vacuum

Code of Compliance and Guidance

- HTM02-01
- HTM2022
- EN ISO 10993-1
- EN ISO 14971
- EN ISO 15001
- EN ISO 15223-1

Options

Indicator that alarm condition has been acknowledged and action is being taken

There is no recommended maintenance interval for this product.

PASICO Medical Equipment

PureGUARD 6
Local Alarms

Provides safe and reliable monitoring of medical gas systems

The Digital PureGUARD 6 Local Alarm System is designed to monitor the high and low pressure downstream of any Area Valve Service within a facility. The local alarm can provide real time pressure monitoring for up to six medical gas services. The alarm panel comes with easy installation, carefree maintenance, security from unauthorized personnel access, and anti-microbial additives.

Technical Datasheet

Local Medical Gas Alarm Panel

Touch Screen
Easy on screen set-up

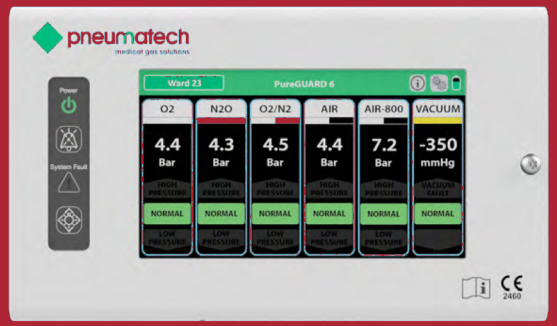
Anti-microbial additives
minimize cross infection

Unique **on-site configuration**

Safety from **anti-tamper screw**

Line continuity
monitors pipeline wiring

Conforms to **HTM02-01, HTM2022, C11** and **BS EN ISO standards**



General Specifications

- Factory tested.
- On-site expandability.
- Line continuity monitoring.
- All panels can be configured as master or repeaters.
- Touch proof boards.
- Protected access with anti-tamper screw.
- Mounting boxes include multiple knock out holes for easy cable entry.
- Trimming bezel for flush mounted installation.
- Surface mounted components.
- Digital pressure/vacuum transducers
- HTM02-01, HTM2022, C11 and all related BS EN ISO standards.
- Configuration and set-up can be performed on-site.

Services Used

O_2	N_2O	O_2/N_2O	MA4	SA7	MV
Oxygen	Nitrous Oxide	Entonox	Medical Air	Surgical Air	Medical Vacuum

Code of Compliance and Guidance

- HTM02-01
- HTM2022
- EN ISO 10993-1
- EN ISO 14971
- EN ISO 15001
- EN ISO 15223-1

Accessories

Remote audible device

Double line contact monitor module

Single line contact monitor module

Two pair screened pressure switch alarm cables

Pressure switches

Pressure sensor pipeline connectors 15 mm, 22 mm and 28 mm

There is no recommended maintenance interval for this product.

PASICO Medical Equipment

Pure protection

All our products undergo a rigorous and well controlled inspection program and testing to assure conformance to standards and regulations before being released for delivery. You can trust us to meet your specific demands in various medical applications.

PASICO
Medical Equipment

Terminal Units

Our Zeus SP and East SP medical gas terminal units are designed to accept medical gas probes to BS 5682:1998. They provide a safe and reliable means of supplying medical gases from the central gas and vacuum supply systems.

Zeus SP Medical Gas
Terminal Units

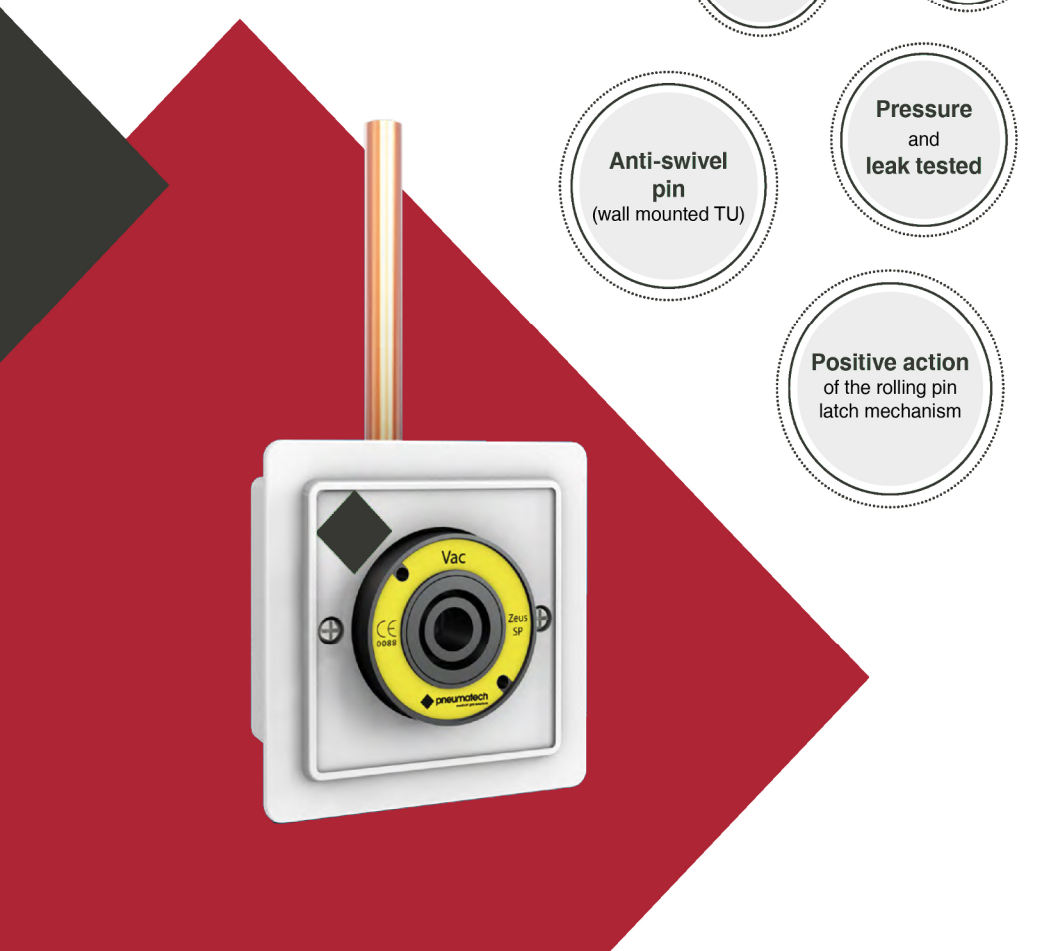
Combining ease and speed of installation

The Zeus SP economically designed terminal units are manufactured gas specific to prevent interchangeability between different types of gas services. The Zeus SP medical gas terminal units are attached permanently to the medical gas distribution pipeline system via copper tube or semipermanently via medical gas hose assembly.

Technical Datasheet

SP Medical Gas Terminal Unit

AGSS SP Medical Gas Terminal Units



Clear gas indication

MRI compatible

Anti-swivel pin (wall mounted TU)

Pressure and **leak tested**

Positive action of the rolling pin latch mechanism

General Specifications

- Machined brass construction first fix
- Injection moulded polymer with stainless steel Teflon™ coated rolling pins
- Enclosed in a white ABS decorative mounting box
- Integral check valves
- Brazed copper stub pipe 12 mm

Gas Specific Components

O_2	N_2O	O_2/N_2O	MA4	SA7	MV
Oxygen	Nitrous Oxide	Entonox	Medical Air	Surgical Air	Medical Vacuum

N_2	CO_2	AGSS
Nitrogen	Carbon Dioxide	AGSS

Code of Compliance and Guidance

- HTM 02-01
- HTM 2022
- ISO 7396-1
- C11
- EN 8532
- EN ISO 9170-1
- EN ISO 10993-1
- EN ISO 13348
- EN ISO 14971
- EN 15223-1
- EN 18082
- EN ISO 15001
- EN 1041
- EN 5682

Options

Plaster shield

Bedhead mount installation kit

Flush surround

Conversion terminal units available

Different mounting options

Different tailpipe options

Terminal unit probes

There is no recommended maintenance interval for this product.

PASICO Medical Equipment

East SP Medical Gas
Terminal Units

A safe means of supplying medical equipment with medical gases

The East SP all metal construction terminal units are manufactured gas specific to prevent interchangeability between different types of gas services. The East SP medical gas terminal units are attached permanently to the medical gas distribution pipeline system via copper tube or semipermanently via medical gas hose assembly.

Technical Datasheet

SP Medical Gas Terminal Unit

AGSS SP Medical Gas Terminal Units

Pressure and **leak tested**

MRI compatible

Clear gas indication

Anti rotational locking bar

Gas indexing pin

General Specifications

- All metal construction
- Machined brass construction first fix
- Zinc die-cast chrome collar with stainless steel rolling pins
- Black Teflon coated body
- Copper/zinc finished interlock ring
- Enclosed in a white ABS decorative mounting box
- Full metal to metal seal on maintenance check valves
- Integral check valves
- Brazed copper stub pipe 12mm

Gas Specific Components

O_2	N_2O	O_2/N_2O	MA4	SA7	MV
Oxygen	Nitrous Oxide	Entonox	Medical Air	Surgical Air	Medical Vacuum

N_2	CO_2	AGSS
Nitrogen	Carbon Dioxide	AGSS

Code of Compliance and Guidance

- HTM 02-01
- HTM 2022
- ISO 7396-1
- C11
- EN 8532
- EN ISO 9170-1
- EN ISO 10993-1
- EN ISO 13348
- EN ISO 14971
- EN 15223-1
- EN 18082
- EN ISO 15001
- EN 1041
- EN 5682

Options

Plaster shield

Bedhead mount installation kit

Flush surround

Conversion terminal units available

Different mounting options

Different tailpipe options

Terminal unit probes

There is no recommended maintenance interval for this product.

PASICO Medical Equipment

PASICO
Medical Equipment

Medical
Supply Units

The Medical Supply Units range provide our customers with the integrated medical gas and electrical services that is required for patient care throughout the facility, such as general care, high dependency care and surgical applications.

Bedhead
Trunking Systems

Medical Hose
Assemblies

Ceiling Columns

Intensive Care
Beam Systems

Articulated Arm
Pendant Systems

Portable electric suction controllers

Flow Meters
(Air and Oxygen)

Suction/Vacuum
Regulators

SOT
Therapy

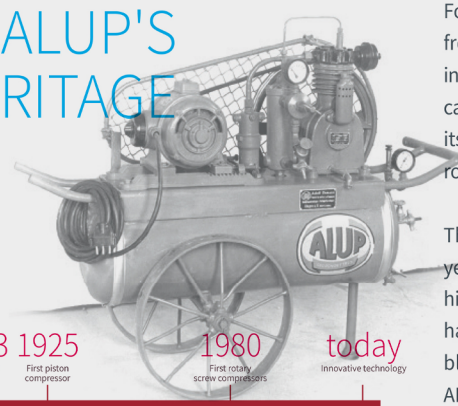
ALUP Kompressoren

Variable Speed Screw Compressors - Allegro

Fixed Speed Screw Compressors - Largo

Variable Speed Screw Compressors - Evoluto

ALUP'S HERITAGE



1923 Founded in Germany

1925 First piston compressor

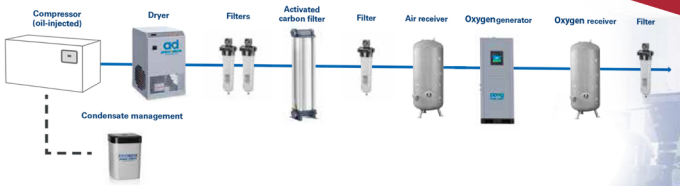
1980 First rotary screw compressors

today Innovative technology

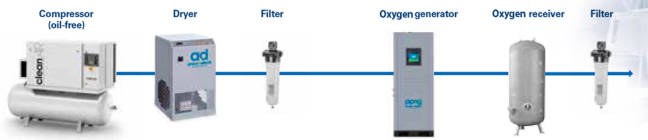
Founded in Germany in 1923, ALUP derives its name from the automotive products that were manufactured in the mechanical workshop in Köngen where the company came into existence: Auto-Luft-Pumpen. ALUP developed its first piston compressor just two years later. In 1980, rotary screw compressors were added to its product range.

The experience and expertise the company gained each year, coupled with a spirit of innovation, has led to today's high-quality product offer. The name ALUP Kompressoren has become synonymous with innovative technology blended with a strong sense of tradition. To this day, ALUP Kompressoren is operating out of the heart of Baden-Württemberg, where it all began nearly a century ago.

Traditional Oxygen generation system:



CleanAIR-powered Oxygen generation system:



CleanAIR Oil-free Compressors

Flexibility

- Full range with different power (7-10 hp) and pressure (4-10 bar) options.
- Base and tank mounted versions available.

Continuous operation

Lubricated compressors operate up to 20% of their running time in cool-down mode. Thanks to its oil-free technology and internal cooling fan system, the CleanAIR CNR can offer a 100% duty cycle for uninterrupted service.

Quality air

- ISO 8573-1 Class 0 pump produces TÜV-certified 100% clean air.
- High-efficiency filtration for safe operation.

Complete control

- Dual pressure set point.
- Remote control.
- Remote alarm.
- Integrated saver cycles.
- Integrated smart algorithm for cooling and duty cycle.
- Maintenance schedule.
- Pressure, temperature and lifetime monitoring.

Reliability

- Patented stainless steel inlet/outlet pump valves.
- Long lifetime of 16,000 hours.
- Unbeatable low maintenance costs.

Energy savings

- Direct drive technology offers major energy savings compared to belt-driven compressors.
- Start-stop technology eliminates waste during the unload cycle.
- One-bearing motor to reduce mechanical friction.

Oil free compressors

OF 75-220 HP SERIES

ALUP Compressor's OF 75-220Hp line of oil-free rotary compressors brings you outstanding sustainability, reliability and performance, while minimizing the total cost of ownership. Built to perform even in the harshest environments, these compressors keep your production running efficiently.

ONE RELIABLE SOURCE FOR ALL YOUR COMPRESSED AIR NEEDS

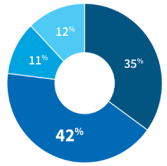
ALUP stands ready to meet all of your compressed air needs: From the compressor ①, itself and the dryer ②, to line filters ③, air receiver buffer storage ④, our own easy-to-install AIRnet piping system ⑤, and a central controller to manage the entire system ⑥. All of these products are available in the proven ALUP quality and each of them is built to last.

WHY EFFICIENCY MATTERS?

Energy costs represent about 70% of the total operating cost of your compressor over a 5-year period. Therefore, reducing the energy consumption of your compressed air installation should be a major focus to ensure the lowest cost of ownership.

HOW VSD HELPS YOU SAVE?

As a majority of customers have a fluctuating demand for compressed air, variable speed compressors have proven to be superior to fixed speed compressors when it comes to reducing the energy costs. By matching the air supply to the air demand, unload losses are avoided, and energy costs decrease on average by 35%.



ALUP Compressor Total Life Cycle Cost

- Energy savings with VSD
- Energy
- Investment
- Maintenance

CLR 15/25
CLR 20/25

- Open-frame
- 1,5 - 2,0 hp
- 25L vessel
- with or without dryer

CLR 15/50
CLR 20/50
CLR 25/50

- Open-frame
- 1,5 - 2,5 hp
- 50L vessel
- with or without dryer

CLR 15/30
CLR 20/30

- Silenced
- 1,5 - 2,0 hp
- 30L vessel
- with or without dryer