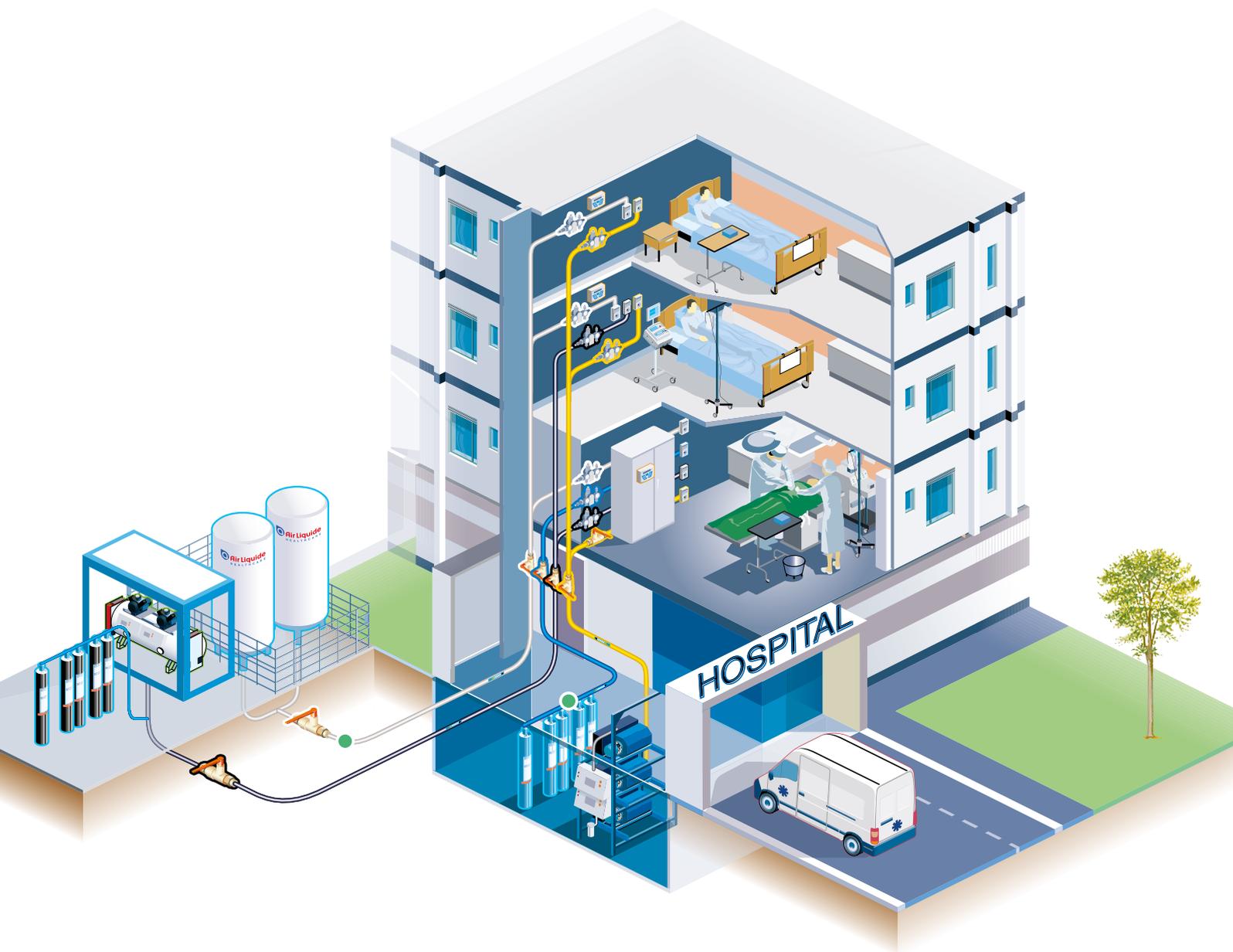


Medical Gas Pipeline System Solutions



Trusted Partner for your Piping Installation Solutions

Air Liquide Healthcare has over 25 years of experience in providing medical gases and related equipment to the Australian market. Our highly-qualified staff strives to serve all of our customers as professionally, effectively and efficiently as possible

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1. Our Portfolio

Large and small installations and upgrades in all types of medical facilities including:

- Hospitals
- Dental clinics
- Pathology laboratories
- Day Surgeries
- Medical Centres
- Research Clinical laboratories
- IVF Clinics
- Vets

2. Design and Consultancy

Air Liquide Healthcare (ALH) offers comprehensive design solutions for medical and clinical laboratory gas supply systems from the source of supply to the point of use. ALH design ensures:

- Compliance to the relevant Australian Standards
- Safety and reliability of the gas supply network
- Economically feasible and technical robust solution

Design scope covers from new installation to upgrade of existing supply system. The design of the gas supply system is extended to installation, testing and commissioning plans.

3. Installation Capability

- Turnkey solutions for all medical and clinical laboratory gases supply and installation
- Complete project includes design, supply and installation of the gas supply source, piping with associated equipment (i.e., manifold, valve boxes, gas monitor etc.), alarm and the point of use gas specific outlets
- Testing, commissioning and certification of the complete system
- Project management and on-site supervision



3.1 Complete cylinder supply system - medical gases*

- Applicable for all medical gases
- Preferred solution for small to medium sized facilities
- Sized and designed to meet customer's specific gas flow requirements

*Medical gases - oxygen, nitrous oxide, carbon dioxide, breathing air, surgical tool air

3.1.1 Gas supply system - auto changeover manifold

- Supply source contains two sides of supply with an emergency source
- Alarm system for operational safety
- Manifold and pipeline is sized to meet gas consumption demand
- Installation of the complete supply system (eg. manifold, piping, valve box, alarm panels etc.) including gas specific outlets
- Project management and delivery
- Testing, commissioning and certification



3.1.2 Gas supply system – non-manifolded

- Customized solution for low consumption and low criticality applications
- System is sized to meet gas consumption demand
- Installation of the complete supply system including gas specific outlets
- Project management and delivery
- Testing, commissioning and certification

3.2 Medical air supply system – compressor plant

- Turnkey solutions for all medical breathing air and surgical tool air supply system and installation
- Supply system is designed to meet customer demand through automatic operation
- Ensures user friendly operation through cost effective solution
- Complete installation project includes the gas supply source (medical breathing air grade compressors), piping with associated equipment (dryers, filters, gas receivers, pressure control panel etc.), alarm and the point of use gas specific outlets
- Ensures air quality requirement according to AS2568
- Project management and delivery
- Testing, commissioning and certification of the complete system.



3.3 Vacuum system and scavenging

- Turnkey solutions for all vacuum suction plant and scavenging system
- Supply system is designed to meet customer demand through automatic operation
- Ensures user friendly operation through cost effective solution
- Complete installation project includes the vacuum suction plant, piping with associated equipment, alarm and the point of use gas specific outlets
- Customer appropriate scavenging solution
- Project management and delivery
- Testing, commissioning and certification of the complete system.



3.4 Clinical laboratory gases**

- Turnkey solutions for all laboratory gases supply system and installation (eg. IVF clinics, medical research laboratories, clinical applications etc)
- Supply system is sized to meet gas consumption demand
- All equipment materials conform the requirement of human tissue contact
- Provision of point of use regulator for operational convenience
- Installation of the complete supply system (eg. manifold, piping, valve box, alarm panels, point of use regulators etc.)
- Project management and delivery
- Testing, commissioning and certification

** Laboratory gases - nitrogen, carbon dioxide, mixed gas etc.



3.5 Emergency oxygen supply system - service facility inlet



- Mandatory requirement for hospital with supply from bulk storage to comply with the requirement of AS 2896
- Customised design to suit customer's gas requirements
- Easy to use in the event of emergency

3.6 Pipeline pressure monitoring alarm system

- Customised alarm monitoring system for all medical and clinical laboratory gases supply system
- Installation and commissioning of both master and local alarm system
- Ability to interface with BMS (Building Management and/ or paging system)

3.7 Atmospheric gas monitoring system

- Essential tool for personnel safety when using non-respiratory gases in enclosed rooms
- Customised monitoring of all non-respiratory gases (typically carbon dioxide, nitrogen) used in healthcare facilities, clinical and laboratory environments
- Both local and Integrated alarm systems with BMS
- Both audio and visual alarm systems triggered at low and high level gas concentrations

3.8 Cryogenic supply system

- Turnkey solutions for all cryogenic supply system for healthcare facilities
- Design and installation of the plant as per customer requirement and Australian Standard
- Complete installation project includes the gas supply source, piping with associated equipment, alarm and the point of use gas specific outlets
- Installation, testing, commissioning and certification of the complete system
- Liquid Nitrogen, Liquid Carbon Dioxide, Liquid Oxygen, Liquid Argon etc

4. Compliance audit - medical gases supply system

- Includes investigation/auditing of existing medical gases supply system for compliance against Australian Standards
- Detailed report summarising non-compliances with risk categories on medical gases supply system
- Provide recommendations to address non-compliances
- Gas storage audit



5. Supporting Systems

5.1 Training on medical gas supply system

- In-service training for healthcare facility staff at all levels
- Training on the medical gas supply system
- Training on medical gas equipment use
- Training on medical gas alarm response protocol

5.2 Medical air quality testing

- Laboratory based analytical purity and contaminant testing of medical breathing air quality as per AS 2568
- NATA accredited laboratory based analysis and reporting
- Timely turnaround of laboratory results

5.3 Gas cylinder store design and signage

- Complies with the requirement of AS 4332
- Custom design and fabrication to suite customer's storage requirements
- Prefabricated constructed gas cylinder cages, ready to install

5.4 Equipment servicing

- Preventative maintenance for most medical gas equipment and piping system
- Complies to relevant Australian Standards and equipment supplier servicing and maintenance recommendations





Conveniently located
across Australia

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