

Hirotec

technologies



Specialised environment conditioning equipment including, precision cooling, chillers and a variety of control technologies

why choose hirotec?

Hirotec has been supplying precision cooling equipment to the Australian market for over 15 years.

Our expertise in critical areas such as computer rooms, telephone exchanges, and data centres is second to none. Additionally, Hirotec have recently broadened our product range to include quality commercial and industrial chillers together with a variety of control systems and technologies.

At Hirotec we pride ourselves on offering a complete sales service to mechanical consultants, contractors, and equipment users. This includes advice during the selection process, determining application requirements, and levels of periodic maintenance during the warranty period.

Hirotec's sales coordination team project deliverable's from order acceptance to commissioning and beyond. This is achieved via integrated systems that incorporate product selection, order and delivery tracking, commissioning, and after sales warranty and service.

All equipment sold by Hirotec is tracked in our Computerised Maintenance Management System (CMMS) enabling:

- Site and Customer details
- Serial number tracking
- Warranty tracking
- Commissioning reporting
- Maintenance scheduling
- Breakdown benchmarking

A minimum quarterly warranty maintenance visitation is required on all Hirotec equipment during the 12 month warranty period. This ensures asset life and identifies potential issues that may affect equipment performance. Warranty and ongoing maintenance plans can be developed to suit customer requirements.

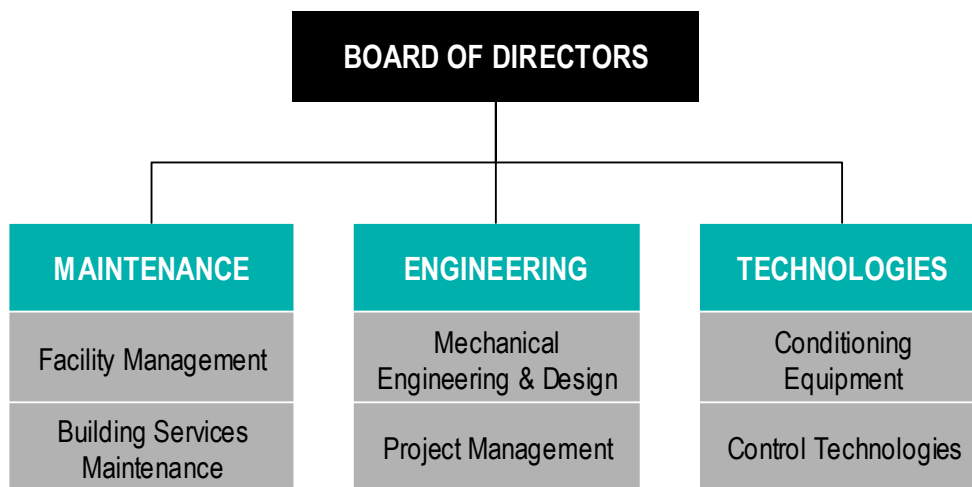
Hirotec is extremely confident in being able to supply all services required by our Customers and we understand that numerous criteria are reviewed in the selection of the most suitable equipment /service provider. As such, we list a summary of the benefits of selecting Hirotec:

- Proven track record in supplying air conditioning equipment;
- Value added services offered within our Group, allowing single point contact;
- Established Computerised Maintenance Management System (CMMS);
- Alliance approach to product selection – working with the Customer to achieve project objectives;
- Wholly owned Australian Company; and
- Successfully trading for over 25 years.

corporate overview



Hirotec solutions seek to harness the resources within the Group together with alliances formed with specialist service providers and service agents throughout Australia. At Hirotec, we pride ourselves on providing tailored solutions in all service areas, including, mechanical and building maintenance, facilities management, mechanical engineering, design and construct, and the supply of specialised environmental conditioning equipment.



Hirotec's experience has enabled the development of a Computerised Maintenance Management System (CMMS) that permits the complete tracking of assets from initial fault report through to invoicing. Our system allows efficient programming of maintenance schedules and effective allocation of trade staff. This ensures those who are knowledgeable in a Customer's requirement attend to site problems.

Hirotec's sales staff has extensive experience in the provision of air conditioning equipment including many years working within the HVAC industry. Service personnel are fully trained to carry out works to relevant Australian Standards with respect to the inspection, testing and maintenance of building engineering services.

projects

Hirotec has a sound track record of project delivery within agreed time and budget parameters. We have successfully undertaken numerous significant projects for government and private enterprise Customers. Hirotec is an experienced supplier of air conditioning equipment, in particular where facility requirements are outside the norm or of a specialised nature.

Facilities that currently utilise Hirotec air conditioning equipment include:

<p>New South Wales</p> <ul style="list-style-type: none"> ▪ University of NSW ▪ ATO Hurstville ▪ Bondi Icebergs ▪ Cisco Systems ▪ Cochlear ▪ COMindico Sydney, T1, and T3 (51 sites) ▪ Compuware ▪ GIO Hurstville ▪ Japan Travel ▪ Media Monitors ▪ Nortel Networks ▪ NSW Treasury ▪ Pacific Access ▪ Pacific Internet Exchange ▪ Reuters ▪ Sanitarium ▪ Sun Microsystems ▪ Swiss Credit ▪ Telstra ▪ Teletech ▪ UTS Fairfax ▪ University of Western Sydney 	<p>Canberra</p> <ul style="list-style-type: none"> ▪ ATO Canberra ▪ Advantra ▪ Ausaid ▪ Defence Services ▪ Department of Registered Transport ▪ Minter Ellison ▪ Parliament House ▪ RAAF Fairbairn <p>Victoria</p> <ul style="list-style-type: none"> ▪ 385 Bourke Street ▪ AGL Call Centre ▪ ANZ Melbourne ▪ COMindico Melbourne ▪ Pacific Access ▪ Qantas ▪ Telstra ▪ Woods Baggot <p>Queensland</p> <ul style="list-style-type: none"> ▪ AQIS / Brisbane Airport ▪ Townsville Hospital ▪ Crazy Clarkes
<p>Western Australia</p> <ul style="list-style-type: none"> ▪ COMindico T3 (8 sites) ▪ Environmental Protection Authority (EPA) 	<p>South Australia</p> <ul style="list-style-type: none"> ▪ COMindico T3 (7 sites) ▪ Flinders University ▪ JP Morgan ▪ SAAB ITS

The majority of projects incorporating Hirotec equipment involve a close working relationship with all key stakeholders in the supply chain. At Hirotec we make it our business to ensure the success of any project involving our equipment and are more than willing to provide ongoing advice and recommendations before, during and after installation ... this is a value added service to which we consistently strive to provide.





product range

Close Control

Hirotec Close Control equipment is designed with an aluminium profile chassis supported on a stiffened steel base. Panels are constructed from galvanised steel with the entire cabinet epoxy enamel powder coated. All panels are fully insulated with 25mm thick AS1530 rated insulation.

All components incorporated in DAT Air units are designed to international standards including:

- Copeland scroll compressors
- Nicotra forward curved centrifugal fans
- Alfa Laval stainless steel braised plate heat exchangers
- AEG contactors and circuit breakers (DIN rail mounted)
- Carel humidifiers and microprocessors

<p>MiniDat</p> 	<p>Small footprint over or under blow close control air conditioning unit from 5kW to 9kW capacity. The Minidat is ideal for environmental control in a variety of smaller applications such as small server and computer rooms, laboratories and medical facilities, telecommunications switching offices, and process cooling industrial applications. The unit is available in air cooled, water cooled or chilled water versions for facilities not requiring humidity control. Cooling only versions are also available.</p> <p>The Minidat also comes in a 'Constemp' version specifically designed to produce a high level of environmental control in temperature and humidity sensitive areas.</p>
<p>Modular</p> 	<p>Air Cooled, water cooled or chilled water units in either over or under blow Configuration from 10 kW to 100 kW capacity. The Modular units are well suited to both medium and large facilities and can operate either as a stand alone unit or as a network of units providing standby capacity in rooms requiring 100% uptime.</p> <p>Options available include over blow plenums, high static fans for duct applications, graphic controls with trend logging, water under floor detectors, hot gas capacity control, and auto-diallers for phone or GSM application.</p>
<p>BigDat</p> 	<p>Dual circuited air cooled or water cooled units for larger installations generally under blow units because of the high air volumes supplied by the units. The capacity of the Bigdat units starts at 24 kW and extends through to 90 kW.</p> <p>The largest of the Bigdat units incorporate a "V" coil that enables the units to supply the high design capacity whilst maintain a short footprint. The 42 kW to 65 kW models easily fit into a standard passenger elevator.</p> <p>Options include graphic controls with trend logging, water under floor detectors, high water pressure, refrigerant pressure regulating valves, high static air cooled condensers, and unit adjustable stands. Front only service access makes the Hirotec Bigdat unit suitable for even the tightest facility where space and access is a real problem.</p>
<p>DataLogic</p> 	<p>The Hirotec DAT'Air conditioners are available with two versions of Microprocessor Controller, the DATALogic and DATALogic Graphic.</p> <p>The DATALogic Graphic is enhanced with a 12cm X 6cm fluorescent display incorporating in-built security through the use of password settings within the controller's software. A range of dynamic icons detailing equipment operating status are featured within the DATALogic Graphic software including fan operation, cooling status, heating status, humidification, dehumidification, and alarms.</p>

Chillers

Hirotec Chillers are a high quality product available in a diverse range of configurations including air cooled and water cooled versions. Capacities range from 4kW through in excess of 1300kW.

Components incorporated in Hirotec Chillers include:

- Heavy gauge galvanised plate steel member frames, finished in powder enamel epoxy
- Copeland scroll, Bitzer reciprocating, or Refcomp screw compressors
- Stainless steel brazed plate evaporators
- Aluminium fin copper tube condensing coils
- AEG contactors and circuit breakers (DIN rail mounted) housed in IP56 weatherproof galvanised sheet steel
- Carel microprocessor with proprietary software

<p>Alfa</p> 	<p>The Alfa Chiller ranges from 4kW to 50kW capacity. It is an air cooled unit with axial or centrifugal fan configurations.</p> <p>Options include reverse cycle heating, storage tank and circulation pump, expansion tank, auto fill kit, coil passivation, RS485 or ES422 serial card, 20% heat recovery desuperheater, free cooling coils, and refrigerant in R22 or R407C.</p>
<p>Sigma</p> 	<p>The Sigma Chiller ranges from 42kW to 143kW capacity. It is a water cooled unit with connection into a condenser water system or condenser-less (where a remote condenser is required). The MU incorporates two compressor variations, either swing scroll or reciprocating with stainless steel brazed plate evaporators.</p> <p>Sigma Chillers can be suited to a variety of applications due to size (fit into standard passenger elevator) and low noise breakout. Options include reverse cycle heating, low noise version, water manifold, suction and discharge valves, remote terminal, gauges, RS422 serial card, and head pressure control.</p>
<p>Zeta</p> 	<p>The Zeta Chiller ranges from 37kW to 260kW capacity. It is an air cooled unit with axial sickle shaped impellor fans. The Zeta incorporates swing scroll compressors with stainless steel brazed plate evaporators.</p> <p>Options include reverse cycle heating, storage tank (ST) version including an expansion vessel and single or dual chilled water pumps with automatic changeover, low noise version, extra low noise version, head pressure control, coil passivation including cu/cu coils, heat recovery models, RMCS interface (RS485 serial board), and dual temperature set points.</p>
<p>Omega V</p> 	<p>The Omega Chiller ranges from 126kW to 350kW capacity. It is a water cooled unit with connection into a condenser water system or condenser-less (where a remote condenser is required). The omega incorporates semi-hermetic compressors with stainless steel brazed plate evaporators and condensers.</p> <p>Due to small size and ease of disassembly-reassembly suited to sites with limited access. Options include reverse cycle heating, low noise version, 20% heat recovery de-superheater, total heat recovery, 6 step capacity control, water manifold, suction and discharge valves, gauges, remote terminal, RS422 serial card, and head pressure control.</p>
<p>Kappa V 2001</p> 	<p>The Kappa V Chiller ranges from 150kW to 550kW capacity. It is an air cooled unit with axial sickle shaped blade external rotor motor 940rpm fans for quiet operation. The Kappa V incorporates screw semi-hermetic direct drive compressors with crankcase heaters, integral electronic motor protection, and star delta starting.</p> <p>Options include reverse cycle heating, storage tank (ST) version including an expansion vessel and single or dual chilled water pumps with automatic changeover, low and extra low noise versions, shell and tube evaporators, head pressure control, linear capacity control above 50% for each compressor, outlet water control, compressor suction valves (discharge standard), dual temperature set point, condenser coil passivation, copper condenser coils, BMCS interface (RS485 serial board), and condenser coil protection mesh with metallic filter.</p>

customer service



The Hirotec Group is Customer focused and has in place procedures to handle all areas of customer service, accompanied by regular training programs. All staff at Hirotec are required to contribute towards the positive service and commitment to our clients. It is our goal to maintain and fulfil our Customers' requirements and meet all expectations, while at the same time, sustaining profitability.

It is our philosophy to nurture an ongoing relationship with our clients ensuring both parties prosper, develop and profit.

Regardless of whether the employee involvement with Customer service is direct or supportive, each member of the team has an impact on the client's impression of our company.

Any and every contact a client has with our company – written or verbal – leaves an impression. We at Hirotec have a prime directive to ensure that each and every moment of contact is a positive one, thus upholding the organisations high standard of quality and service. It is the role of each employee, regardless of position, to make each moment of Customer service outstanding.

Every Customer will have their own expectations of the service they deserve. It is only by constantly exceeding these expectations that we can maintain the highest service possible.

The Hirotec Group operates a Customer Service Centre that provides operational staff with an effective means of customer and job management. The Centre ensures effective and efficient management of all requests for service.

The Customer Service Centre is available on 1300 654 664, on a 24-hour basis, with a 24-hour call out function of qualified personnel. The Customer Service Centre initiates Work Orders that are collated in our CMMS. This system tracks all faults against assets during the rectification process through to invoicing and KPI comparison.

This data is then utilised for analytical reporting purposes. The base reports available are dependent on the Customer data captured and recorded. Agreed reporting can be produced for Customers in the format of their choice.

It should be noted that the Hirotec Customer Service Centre is more than a job-logging centre in that our operators have technical backgrounds. This enables "over the phone" fault remediation, if appropriate, alleviating the need for dispatch of technicians, achieving real savings for Customers.

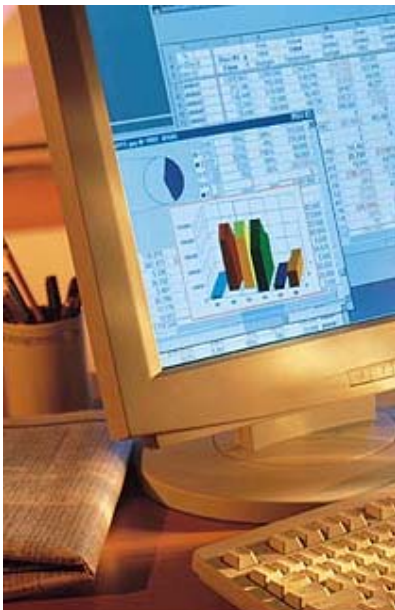
management information system

Hirotec has always looked to utilise technology to enhance customer service and operations. As a consequence, Hirotec has an integrated Management Information System (MIS) that incorporates the use of our Computerised Maintenance Management System (CMMS), Accounting Systems, Computer Aided Design (CAD) Systems and General Operating Software.

The continued integration of Hirotec's MIS allows comprehensive contracts management in all areas of our business, including:

- Maintenance Management and Scheduling
- Financial and Management Accounting
- Materials Supply, Warehousing and Distribution
- Activity Based Costing
- Engineering Design
- Project Management
- Contracts Management
- Customer Management

At Hirotec, we are constantly reviewing more efficient methods of operation in an attempt to streamline interface with Customers. Consequently, issues such as electronic data transfer, consolidation of invoicing processes and up front development of tailored analytical reports all add value to the underlying performance of our service.



All maintenance and repair services are managed through Hirotec's Computerised Maintenance Management System (CMMS), which has a full reporting system to ensure that all tasks are completed on schedule and within stipulated timeframes. The system enables Customers to audit all work and provides a framework for lifecycle costing. Hirotec's CMMS incorporates:

- Asset registration
- Maintenance programming
- Maintenance task description
- Component cataloguing
- Register of works completed
- Labour resource planning
- Breakdown register
- Essential services certification register

In order to ensure that all site activity is captured by our CMMS the Hirotec Customer Service Centre is utilised 24 hours a day to record all service calls. Hirotec's CMMS allows 'live' job logging against Customer sites and assets.

The 'live' update allows Hirotec Management to track the progress of Customer jobs so as to ensure priority requirements are attended to within performance parameters.

Hirotec's CMMS provides a full range of response reports for performance monitoring including:

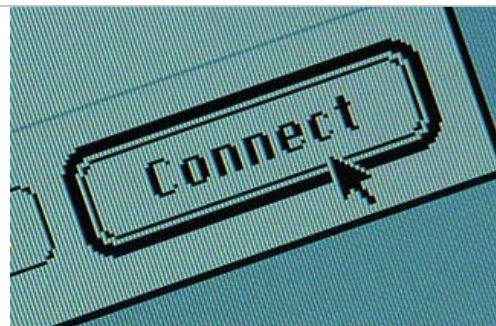
- Annual job plan
- Work status reports, including start and completion dates
- Detailed task descriptions
- Maintenance schedules
- Asset performance benchmarking
- Productivity reporting
- Response time reporting
- A variety of tailored reports

Hirotec's MIS can report, monitor and manage criteria that is deemed both important and necessary for undertaking large maintenance contracts over multiple sites including:

- Asset registration with hierarchal links
- Maintenance scheduling facilities
- Job control systems
- Inventory control and cataloguing facilities
- Cost to complete programming and calculations
- Integrated invoicing facilities
- Information analysis capabilities to aid decision making
- Performance monitoring against Key Performance Indicators (KPIs)

Continual integration of Internet facilities is seeing the development of Customer interface via Hirotec's website to log faults, view maintenance schedules and run predetermined analytical reports. This gives Customers access to information as and when required.

hirotec.com.au



commitment to quality, ohs & the environment

Hirotec is currently working towards accreditation to ISO 9001:2000, with expected accreditation by June 2002. To facilitate the achievement of accreditation the Group has engaged the services of a certified Quality Assurance Consultant. If required the Consultants contact details can be provided to allow an independent review on progress.

The Group currently has the basic Quality Assurance Manuals to comply with ISO 9001: 2000. Hirotec has documented processes and procedures in place and there is progress towards the appropriate accreditations. As part of Hirotec's accreditation process, the incorporation of Occupational Health and Safety and Environmental Management Systems is being undertaken so as to ensure our entire Management System is integrated and adopts the principles of the quality commitment.

The Board of Directors is committed to the principals and implementation of Quality Management. It is an accountability of our management team to achieve accreditation. Our basic principal of quality achievement is defined as "meeting Customer expectations, delivering promised service and getting it right the first time in a manner that considers occupational health and safety and environmental impacts".

All staff of Hirotec are responsible for ensuring the implementation of the Management System in accordance with the requirements of ISO 9001:2000 and ISO 14001:1996. Staff are expected to perform their respective duties in accordance with the system requirements as outlined in Policy Statements and relevant procedures, focusing on Customer requirements and satisfaction at all times.

The Management System is subject to regular reviews and audits with the object of rectifying problem areas and achieving continuous improvement in our Customer service. In order to achieve this, staff training is a specific part of Hirotec's Management System.

Hirotec's overall objective is continued improvement, maintenance of our existing customer base and the attainment of new customers by consistently providing the highest possible level of service by systematically identifying weaknesses and rectifying them to ensure long term success for our Customers, the company and its employees.

Hirotec considers Occupational Health and Safety an integral part of the Company's business and is committed to the reduction and control of accidents which can result in injuries to employees, contractors and customers.

Hirotec recognises and will work within the bounds of all relevant State and National Occupational Health and Safety, and Workers' Compensation regulations. The development, implementation and maintenance of Occupational Health and Safety systems, procedures and standards will achieve this.

To minimise work related injuries and illness Hirotec provide safe work facilities and equipment, including the resources and training necessary to assist in maintaining a safe and healthy work environment.

computer room design



What is a good facility?

Business today needs to be efficient in all aspects of its operation and the reliability of a computer facility is no different. A computer room requires the coming together of many facets of design to create an effective and efficient end result. Design considerations include architectural requirements, equipment layout, cable management, electrical power supply and backup, fire and safety issues, security and mechanical services.

Hiretec Technologies has over 20 years experience in the design of mechanical services in computer and IT facilities. As such, we are able to provide valuable information about equipment selection and application with the best solution for a particular facility.

Air conditioning equipment selection is critical to the success of overall room operation in particular the ability to maintain required environment conditioning within the facility. Incorrect selection of equipment type can make the installation process both difficult and costly, whilst incorrect selection of number and capacity of units will most certainly impact on room conditions achievable throughout the year.

Hiretec has developed a (10) point equipment selection check list for room design and application.

1. Determine proposed room size and shape plus raised floor and ceiling heights.
2. Determine electronic equipment layout and individual heat loads.
3. Determine future electronic equipment expansion plans.
4. Determine air intake locations and volume for each piece of equipment.
5. Determine proposed layouts and size of cable trays and pipes within the facility.
6. Determine room design temperature, humidity and allowable gradients.
7. Determine external heat considerations to the room.
8. Determine the vapour barrier treatment to the room components.
9. Determine possible locations for air conditioning equipment both inside and outside the room plus access for piping and wiring.
10. Determine required interfaces to BMCS' Vesda or other systems.

The above check list provides a basis for initial selection of system type, capacity, and number of units required to appropriately condition a particular facility whilst retaining a high level of reliability in underlying room design.