

**LEADING EDGE
REFRIGERATION
IN A RAPIDLY
CHANGING WORLD.**

SCANPAC

INNOVATIVE REFRIGERATION

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Scantec®
REFRIGERATION

ADVANCED
INDUSTRIAL AND
COMMERCIAL
PLANTS

SCANPAC

INNOVATIVE SOLUTIONS



Scantec[®]
REFRIGERATION

MARTYPH

SCANPAC SYSTEM

A ScanPAC is a small-scale packaged centralized low-charge ammonia refrigeration system that mostly suits a small to medium sized cold stores or around 30,000m³ or less. However multiple units are also suitable for larger facilities.

These innovative, advanced systems are extremely cost effective and you can expect significantly lower energy and maintenance bills.

Powered by natural refrigerant NH₃ using low charge ammonia technology, ScanPACs are HFC phase down ready. This means you won't have to upgrade any of your equipment down the track due to the phase out of HFC's.

As a small-scale packaged design, ScanPAC's are relocatable if necessary and as a long-term solution they retain their asset value as they are engineered to last.

At Scantec Refrigeration Technologies, we have a history of excellent energy performance results with annual energy consumption reduction values of 58% to 71% compared with industry standard HFC based systems.



KEY BENEFITS

WISE INVESTMENT

- Huge energy cost savings
- Low cost of maintenance
- Minimal life cycle costs
- Future proof
- Long life expectancy

EASY + EFFORTLESS

- True Plug and Play
- Remain open for business
- No need for a separate plant room
- Low maintenance
- Systems are relocatable

HFC PHASE-DOWN READY

- Uses natural refrigerant NH₃
- Contains 3-5 times less ammonia than conventional plants
- Compliant with future environmental legislation

SAFE AS HOUSES

- Low ammonia inventory = improved safety
- Freezer NH₃ inventory 0.01 to 0.02 kg per kW
- Non-corrosive materials
- Over 90% of NH₃ inventory contained within ScanPAC

NO NEED FOR A
SEPARATE PLANT
ROOM

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FUTURE PROOF HFC PHASE-DOWN READY

PLUG AND PLAY

Plug and Play Low Charge NH_3 Plants are adaptable to a large range of applications and site layouts. They feature a high degree of mobility and consume up to 2/3 less energy than industry standard HFC based systems. Finally, they are totally future proof.

A ScanPAC is the ultimate response to the challenges associated with the global HFC phase-down agreed in Kigali, Rwanda and Australia's ratification of the Paris Climate Treaty in October, 2016.

As well as reducing your environmental impact, a low charge NH_3 system, whether new plant or retrofitted, will usually pay for itself in 3 to 6 years based on energy and maintenance cost savings alone.

OTHER SIGNIFICANT ADVANTAGES

LOW CHARGE NH_3 SYSTEM

Documented annual energy performance improvements of up to 67% compared with single stage, multiplexed, air cooled HFC based systems with electric defrost.

Overall NH_3 inventory typically 0.7-1.2 kg of NH_3 per kW cooling capacity or 3-5 times lower than equivalent conventional NH_3 plants with liquid overfeed.

Automatic ambient air defrost, hot gas defrost or patented LOGAS defrost.

The use of 304SS interconnection NH_3 pipelines means no rust - no painting - ever!

IN HOUSE SCADA
CONTROL
SYSTEMS

SCANPAC

INNOVATIVE SOLUTIONS





CASE STUDY: A FOOD SERVICE FACILITY

The installation of a ScanPAC at a food service facility in Mackay was completed in August 2018. The recorded improvement in Specific Energy Consumption (SEC) during the first period after commissioning was considerable and even better than initially projected.

The energy consumption of the HFC 404A-based refrigeration systems for the same summer period during the years 2013/14 was recorded at 206 kWh per m³ per year, when corrected for the light and power reticulation included in the general kWh meter reading.

Following the conversion to ammonia, the specific energy consumption reduced to 59 kWh per m³ per year. This represented a recorded SEC reduction of 71 per cent.

OUTCOME

SPECIFIC ENERGY CONSUMPTION COMPARISON

SEC		
HFC	kWh	206
NH ₃	m ³ per year	59
= A Saving Of:		71%





ABOUT SCANTEC

Scantec Refrigeration Technologies has been in operation for more than 20 years with a large customer base including major Australian and international companies. As experts in the design and technology development within the industrial and commercial refrigeration sectors, our passion for environmentally friendly systems with low life cycle costs, predominantly employing environmentally benign natural refrigerants such as NH_3 and CO_2 is what sets us apart.

Using leading-edge technology, we are committed to designing, building, and installing, highly functional, energy-efficient, cost-effective systems. We are dedicated to industry leadership through innovation and leading-edge technology and through the design of advanced temperature regulated environments on an industrial scale.

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OUR TEAM

DESIGN, INSTALL AND SERVICE

At Scantec Refrigeration, we have an in-house team of design engineers and technicians who construct reliable, optimal solutions tailor-made to suit operations and positively impact your profitability.

We have designed and constructed thousands of systems to date, with several hundred embedding our in-house designed computerized control and monitoring (SCADA) systems and we also have an in-house 24/7 maintenance and service facility to fully support our customers by maintaining their refrigeration systems to the highest standard, and for many years into the future.

