

Industrial Ammonia Refrigeration Plant

Bitzer Australia offers a wide range of single & multiple compressor packages to suit both medium & low temperature applications, all packages come with factory wired electrical option.



Features Include:

- Capacities MT: 60kW 900kW @ -10°C SST 32°C SCT
- Capacities LT: 30kW 348kW @ -32°C SST 32°C SCT
- Dual capacity control with infinite or 4 stage capacity control (on 85 series only)
- Effective load profile matching & greater efficiencies at low load conditions compared to large single screws
- High efficiency rotor profile with further developed
- Robust tandem axial bearings with counter bearings
- · Automatic start unloading
- High quality shaft seal with metal bellows
- Coaleser oil separators
- · Water or thermosyphon oil cooling
- Local IP54 rated Stand alone electrical panel
- Allen Bradley PLC for local compressor control Ethernet & MODBUS network capability

R717 Reciprocating Compressor Packages

The Bitzer range of open drive reciprocating compressor packages offer a cost effective & energy efficient solution for many commercial & light industrial refrigeration applications.

- High efficiency oil separator
- Trax oil & solenoid valve fitted for oil return
- · Capacity control options include cylinder head loading/unloading (33%-66%-100%) or VSD
- Fully wired electrical option
- · Oil pressure, discharge temperature HP/LP safeties as standard
- Water cooled cylinder heads fitted as standard





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Plate Heat Exchangers

High heat transfer capacity Low charge Low fouling tendency High corrosion resistance Easy maintenance

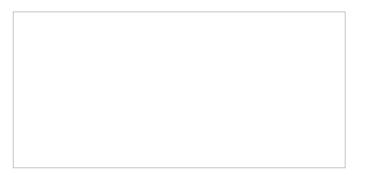


HS 85 Semi Hermetic Screw Compressor

Combination of approved HS technology with the innovative features of the CHS series

Optimized parallel compounding with space saving arrangement of all connections on one side, Slide valve control for infinite or stepped capacity control. Suitable for R134a, R404A, R507A, R407C & R22

Distributed By:



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Original manufactured equipment

NATURAL REFRIGERANT SOLUTIONS

Ammonia Chiller Packages







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Industrial Ammonia Refrigeration Systems

As the consumption of HCFC refrigerants in Australia is gradually phased out by 2016, four years before Australia's Montreal Protocol obligations, end users & contactors need reliable, environmentally friendly & high efficiency alternatives in order to meet the demand to replace HCFC refrigerants in particular R22 refrigeration & air conditioning plant & equipment.

Coupled with this, HFC's are coming under Increased scrutiny due to the increased environmental awareness of their negative impact on global warming (high GWP's) & their future carbon tax potential, this has lead to renewed interest in ammonia, as ammonia is a high efficiency refrigerant that is environmentally benign with zero ozone depletion potential (ODP)& zero global warming potential (GWP).

Bitzer Australia's new range of ammonia equipment is designed to meet the challenges facing the food processing, food distribution & the HVAC sectors as they offer a cost effective & environmentally friendly alternative to HFC refrigerants for low temperature, medium temperature & HVAC applications.

OSKA Compressors

At the heart of the Bitzer R717 Chiller Packages are Bitzer OS 53, 74 & 85 Series compressors. The OS screw compressors set the worldwide standard for technical innovation, versatility & efficiency.

A VSD fitted to the lead compressor ensures enhanced load profile matching & greater efficiency at low load Conditions







Features Include

- High efficiency rotor profile
- Efficient capacity control
- Econimiser operation
- Generously dimensioned bearings
- · High quality shaft seal with metal bellows



R717 Chiller Packages

Bitzer Australia's R717 chiller packages are designed to operate with a variety of secondary refrigerants such as CO₂, Glycol & water & can provide cooling both above & below 0°C.

This makes them ideal for the replacement of R22 HVAC chillers & for medium temperature process applications as they offer;

- High energy efficiency with higher COP's when compared to other alternatives
- Low environmental impact
- Zero exposure to future Carbon Pollution Reduction Scheme (CPRS)
- Flexible design options





Heat Reclaim

Plate Heat Exchanges

range of applications

oil coolina

Bitzer R717 Chillers packages come with the option of De-superheater & additional oil cooler to maximize heat recovery for water heating

Bitzer R717 Chillers utilize Thermowave Plate

Heat Exchanges for both secondary refrigerant &

Founded in Germany in 1992 Thermowave are

committed to develop & manufacture a new

generation of Plate Heat Exchanger which offer a

balanced price performance ratio along a wide



Features Include

High heat transfer capacity Low charge Low fouling tendency High corrosion resistance Easy maintenance





- Fully factory assembled pressure tested packages, complete with compressors, Plate Heat Exchanges & pre wired with factory mounted electrical control
- Bitzer R717 packages ensure reduced on site labour time & installation cost
- 100kW 612kW @-11°C SST 35°C SCT 200kW - 1280kW @ 7°C SST 35°C SCT

Features include:

- BITZER R717 chillers operate on a critical charge. minimizing the amount of ammonia required
- All vessels built to Australian Standard AS -1210
- Fully enclosed panel option available

LEVEL CONTROL

Accumulator level is measured by a highly accurate pressure differential sensor, which provides a scaled analogue input to the PLC, this in turn drives a Danfoss ICM modulating valve which ensures accurate trouble free level control & also ensures the chillers can operate on a minimal charge.



ELECTRICAL

Packages Come Pre Wired With Factory Mounted Electrical Control Panel

- Allen Bradley PLC Complete With HMI Operating With Bitzer Open Protocol Control Logic
- Ethernet & Modbus Capability With Remote Access Via Internet
- VSD Fitted To Lead Compressor For Enhanced Load Profile Matching & Greater Efficiency At Low Load Conditions
- R717 Detector With Shunt Trip Fitted As Standard

Ammonia Flooded Drum Evaporators

BITZER Australia now offers fully integrated R717 flooded drum evaporator packages for a variety of refrigeration applications including:

CO₂ Cascade High Side applications for the total NATURAL REFRIGERATION SOLUTION Cooling of Secondary Refrigerants for the FOOD PROCESSING & WINE INDUSTRIES



Features Include:

- All Vessels built to Australian Standard AS-1210
- Fully Integrated Package using Danfoss Control & Isolation Valves
- Thermowave-welded Plate & Frame Heat
- Thermal Insulation with metal clad finish
- Electronic Level Control and Monitoring

R717 Flooded Evaporator & Plate Heat Exchanger Packages

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