# Refrigeration (RF)

To compliment our range of Air Handling Units, Wozair supplies Chiller Units, Packaged Air Conditioning Units and Condenser Units.





# Refrigeration

These units are selected suitable for the operating conditions in which they are to be located. In particular, for our core market, Offshore Oil and Gas facilities, units of bespoke design are available manufactured in Stainless Steel and with safe area, zone 1 or zone 2 hazardous area electrical and instrumentation equipment.

Water/seawater cooled and air cooled Chiller Units are available with duties up to 3000kW and condenser units with duties up to 4000kW (larger bespoke sizes available). Compressors can be rotary type (scroll, screw, centrifugal) or reciprocating type (open drive, semi-hermetic, hermetic) depending on duty, design and application.

Packaged Air Conditioning Units are generally of the cabinet type configured for vertical upward or downward airflow. For harsh operating environments, the units can be manufactured in Stainless Steel but otherwise shall be painted or coated steel. Such units are fitted with panel filters and a direct expansion or a chilled water cooling coil.

In addition, heating and humidification requirements can be incorporated into the unit design. Units are either the split type or complete units with evaporator and condenser coils on a single skid. Units operate with non-ozone depleting refrigerants: R134A and R407C and other refrigerant alternatives available. Units are generally designed to be lifted and positioned as one complete assembly so as to minimise installation time.

#### **Technical Information**

#### **Standards**

For the European market, Wozair will ensure that Chiller Units, Packaged Air Conditioning Units and Air Cooled Condenser Units are supplied complying with EU Directives.

Units comply with Directives and any amending Directives:

- Machinery Directive 2006/42/EC
- Low Voltage Directive 2014/35/EU
- ATEX Directive 2014/34/EU
- EMC Directive 2014/30/EU
- Pressure Equipment Directive 2014/68/EU
- IECEx, NORSOK, UL, CSA Certifications available on request

#### **Testing**

All equipment is subjected to manufacturers routine test procedures. Pipe work, evaporators and coils shall be pressure tested. Chiller units can be supplied complete with the refrigerant charge. Packaged split units shall be supplied with refrigerant pipe work dehydrated and filled with a nitrogen holding charge. Performance and integrated testing can be considered.

### **Materials of Construction**

# **Casing and Flanges:**

#### **Materials**

Stainless Steel 304L/316L (1.4307/1.4404) White epoxy painted carbon steel

### **Condenser Fans**

Direct drive axial fans are used. Fans are driven by 3 phase LV motors which, on bespoke units, can be rated suitable for use in a Zone 1 or Zone 2 hazardous area. Fans operating with Zone 1 or Zone 2 motors shall incorporate spark minimising features.

# **Evaporating & Condenser Coils**

Coils use seamless copper tube expanded on to copper fins although aluminium fins are available. Copper fins may be pre-tinned or copper tube and fin coils electro-tinned after manufacture. Alternatively, with copper tube and aluminium fins an anti-corrosion treatment can be provided.

## **Water Cooled Condensers**

Water cooled condensers are of the multi-pass shell and tube type with mechanically serviceable tubes and removable headers.



# **Outstanding Products**

As a Wozair/Thermoplant customer you benefit from a total support package. From initial expert design, bespoke manufacturing, installation and commissioning through to a comprehensive and unrivalled after-sales provision.

Every installation is different and we provide a detailed, practical proposal for you based on needs, the available space and the environment.

We believe in total customer satisfaction and our outstanding aftersales support means you can rely on us to keep equipment running as well as it did the day it came out of the factory.

We can provide comprehensive spares and replacement parts and a 24 hour call out service (subject to conditions and geography), putting dedicated, highly trained engineers at your disposal for total peace of mind.

# Our standard range of HVAC equipment includes

- Split and Packaged A/C (heat pump) equipment for portable Accommodation/Office/Analyser Modules
- A standard range of industrial A/C equipment for high ambient, hostile environments (AC/DC applications)
- A range of Pressurisation Fans "ATEX" certified for use in a zone 1 or zone 2 environment.





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