

R448A

kicking goals at Perth stadium

HAVING ALREADY SECURED THE DISTRIBUTION OF R448A TO THE AUSTRALIAN AND NEW ZEALAND MARKET, HEATCRAFT AUSTRALIA IS NOW LOOKING TO SPECIFY THE NEW REFRIGERANT AS AN APPLICATION OPTION ACROSS ITS KIRBY CONDENSING UNIT AND REFRIGERATION EQUIPMENT RANGE.

THE NEW REFRIGERANT is already kicking goals, with WA contractor Goff's Refrigeration working with Heatcraft Australia to design, install and commission R448A refrigeration systems for the prestigious new Perth Stadium project.

The low temperature applications including special -40°C blast freezers are serviced by custom designed and built water-cooled basic condensing units, air-cooled condensing units and Kirby 9000 Series Evaporators - all operating on R448A.

It is little wonder the relatively new to market HFO blend is gaining traction, given the impressive energy efficiency and energy savings being experienced, when compared to R404A.

In low and medium temperature applications, manufacturer Honeywell reports R448A has been achieving gains of up to 7.5 per cent in refrigeration capacity and can achieve power consumption reductions of 3-4 per cent - a significant impact on carbon footprint and running costs for any business owner, large or small.

Heatcraft Australia is currently conducting field trials with one of its major customers in a commercial refrigeration application. The customer has reported preliminary performance results are exceeding expectations, providing further verification of equivalent system performance and suitability.

R448A has been designed to be easily retrofitted into existing R404A systems, requiring minimal component changes. No oil change (POE) is required or tube work changes. Minor adjustment of the TX valves is all that may be required.

R448A is safety classified A1: non-toxic and non-flammable. With around 25 per cent HFO content, the GWP has been lowered to 1387. This represents 2/3 reduction in comparison to R404A and gives R448A the lowest GWP of any A1 retrofit refrigerant for low temperature applications.

The refrigerant has been tested and endorsed by major compressor manufacturers and approved for use with Dorin H Series and Copeland compressors. It is also suitable to be used with leading control brands, including Danfoss, Emerson and Dixell.

Customers interested in a Kirby customised refrigeration solution, suited to R448A should speak to their Heatcraft consultant on 13 23 50. *



COST EFFECTIVE R22 REPLACEMENT

Heatcraft has commenced distribution of R422D - developed to replace R22 as a near 'drop in' solution. Ideal for users who wish to retain their existing equipment, it offers a distinct financial advantage over the alternate 'drop in' R438A, with up to a 40 per cent lower list price.

R422D is suited to low and medium temperature refrigeration systems and can be used with mineral oil (MO) or alkyl benzene (AB) in most commercial systems. However, changing to polyester lubricants (POE) is highly recommended and POE must be used for scroll compressors.

Worthy of noting is that the capacity and energy efficiency at low and medium temperature tends to be lower than R22. Heatcraft suggest that if the R22 system was running at maximum capacity, additional capacity may need to be achieved by upsizing the compressor.

The R422D mass flow is also higher than R22. Existing TX valves may be acceptable in many cases. However, if the existing valve was near capacity for the R22 system, a larger valve may be needed when retrofitting the R422D.

R422D is non-ozone depleting, A1 ASHRAE classified: low toxicity, non-flammable and with its lower discharge temperature than R22, may assist in extending compressor longevity. Applications include; supermarket display cases, food preservation and food processing, ice machines, unitary air conditioning and chillers without flooded heat exchangers.

Heatcraft Australia offer cylinders in 12kg and 60kg sizes.