

Muller Industries Australia



MULLER INDUSTRIES NEWS January 2011

GRANT HALL'S BLOG

GreenChill reveals US retailer commitment

Back in late November we were fortunate enough to be part of the GreenChill Webinar on Condenser Innovations for Commercial Refrigeration.

GreenChill is a partnership between the US EPA and food retailers with the objective of reducing refrigerant emissions and decreasing their impact on the ozone layer and climate change. GreenChill works to help food retailers transition to environmentally friendlier refrigerants, reduce refrigerant charge, eliminate leaks, and adopt green refrigeration technologies, strategies and practices.

It was refreshing to see the US industry communicating about these issues, and the major players contributing to the discussion openly and honestly. I believe forums such as GreenChill's webinars can only contribute positively towards finding solutions to the issues of our industry.

The real positive for Muller Industries is that this ongoing discussion has led to strong support for innovative technology, with our Hybrid Condenser receiving a lot of interest from retailers across North America.

While GreenChill has a particular focus on refrigerant reduction, the fact that our 3C technology not only dramatically reduces refrigerant charge but also offers the advantages of energy efficiency and reductions in water use is stimulating supermarket managers looking to reduce their environmental footprint.

If you haven't already, I strongly recommend viewing the Webinar on Condenser Innovations for Commercial Refrigeration

<https://meetingvisuals.webex.com/meetingvisuals/ldr.php?AT=pb&SP=MC&rID=59191997&rKey=adf5ccb68958e17d>

I would like to thank Keilly Whitman, GreenChill Project Manager for hosting these webinars for the benefit of our industry.

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BIG Y MAKES BIG SAVINGS

Muller Industries North America recently conducted a case study one of the SH09-DF2M units installed at Big Y's Southwick, Massachusetts store. The results of this study were found to be very positive, with the directors of Big Y considering more installations in the near future.



Muller 3C Hybrid Condenser mounted on structural steel.

Big Y Director of Facilities Tony Coppola points to the environmental benefits Big Y hopes to realize through the 3C. "In this age of heightened environmental awareness, Big Y is continuously striving to positively impact the planet. We were attracted to the 3C because of the promised energy savings and capacity increases. The Southwick installation validated those expectations. It is also of great importance, however, that the 3C allows us to reduce the amount of refrigerant in the system, and that the 3C can be recycled at the unit at the end of its useful life. Benefits like this can only help us to make a more positive impact in the communities we serve."

Muller North America V.P of Sales Paul Noreen believes that the Muller 3C Hybrid Condenser is a truly revolutionary product. "While in recent years there have been significant efficiency advancements in devices like lighting, motors, fans, and individual components within refrigeration and air conditioning systems, air-cooled condensers have remained relatively unchanged. The Muller 3C changes all of that. It is exactly what is needed as we face the unprecedented environmental challenges ahead."

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FAN ENERGY & WATER USAGE ESTIMATOR RELEASED

Muller Industries has always prided itself on its ability to supply not only technical data on its products, but accurate calculations on the environmental benefits of them as well. With this in mind we would like to announce the release of our new FEWUE calculator explained in detail below:

3C-FEWUE (Fan Energy & Water Usage Estimator) is a macro-enabled spreadsheet program developed for Muller 3C Cooler applications, designed to calculate accurately the fan energy and water usage of one or multiple 3C units for selected locations throughout Australia.

Program versatility allows heat rejection load data to be inputted by month; split into daytime & night time loads and also allows adjustments for the number of days per week and number of weeks per year the unit(s) will be operating.

The current program version uses the CSIRO ACADS-BSG hourly climate data for Brisbane, Sydney, Canberra, Melbourne, Adelaide and Perth and also uses the AIRAH Handbook Design Temperature Data – Critical Process 0800 – 1800 to establish default set-point conditions i.e. thermodynamic switch point temperature; for the calculation process. This process consists of a series of calculations for each hour of the year to match the 3C unit capacity to the instantaneous load and takes into account the ambient conditions to establish the 3C air flow; psychometric mass transfer for precooling and the resulting fan speed and power requirements.

This methodology provides an accurate determination of fan energy use (kWh) and water consumption (kL) with these outputs displayed as worst case 24 hours; monthly total usages and the annual total consumption.

Other features of the program include the following: -

- Calculation of the “Economic Switch Point Temperature” for a given load profile, 3C unit(s) selection and unit charges (for electricity and water) i.e. the temperature at which the 3C unit(s) transition from dry operation to precooling to give the lowest overall running cost
- Variable Condenser Leaving Water temperature for ARI Relief, which results in higher 3C fan energy consumption used to lower the condenser water temperature and consequently improve the part load COP of the prime mover i.e. chiller or compressor unit

We hope to release future versions of 3C-FEWUE for North American and European applications in the coming months.

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3C AND TRI-GEN AT TOYOTA PORT MELBOURNE

Muller Industries is pleased to have supplied a 3C unit to Toyota as part of their new trigeneration plant at the company's Port Melbourne headquarters.

The trigeneration plant is part of the company's plan to reduce energy levels by 40 percent on 2007/2008 levels, according to an article that featured in AIRAH's Ecolibrium in November.

The H08 3C unit is part of Toyota's new plant which also includes a Broad absorption chiller, and was selected due to its environmental advantages. While air cooled and water cooled were considered, each had the drawback of being too reliant on one resource, so the 3C proved the "ideal middle ground" for AG Coombs who oversaw the design and installation.

According to the article, the installation is expected to reduce the building's CO2 emissions by 210 tonnes.

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MULLER RETURNS TO AHR EXPO

Muller Industries will be returning to the AHR Expo in 2011 from January 31 to February 2 2011. We hope to lead on from the success of last year when our 3C condenser winning the AHR Expo Innovation Award for Refrigeration '2010'.

Over the past twelve months, the company has made significant inroads into the North American market, with business continuing to grow on both the east and west coasts of the US. We have received particularly strong interest from America's major food retailers, who see our hybrid condenser as a key player in their efforts to reduce their environmental footprints.

Muller Industries North America Inc. warmly invites you to attend the AHR Expo to be held for the first time at the Las Vegas Convention Center, Las Vegas Nevada. This year's expo will feature more than 1800 exhibitors and be visited by more than 50,000 attendees.

We hope you can find some time during your visit to drop by and see us at Booth N3162 where we will have both our 3C Fluid Cooler and 3C Condenser on display.

End.

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