



Partner Preview

Prevent ice formation in cold storages with Gandhi Automations' High-Speed Freezer Duo doors

GANDHI
Automations Pvt Ltd

The only struggle a cold storage facility faces is to maintain the desired temperature to preserve their valuable material for long. Cold storage facilities thus is always in search for a high-performance freezer door which helps them minimize convection and energy loss which occurs from operations of the high-speed freezer door.

High-Speed Freezer Duo doors curated by Gandhi Automations are sturdy, dependable and an ideal fit for maintaining temperature control. To prevent ice formation during intensive cooling Gandhi Automations' high-speed freezer duo doors have a functionality of partial and full opening.



Its intelligent dual curtain technology - simultaneous open and close operation has blower/dryer to maintain temperature balance. They are made of Galvanized steel guides with heating elements to reduce convection; stainless and aluminum guides are also available on request.

The high operating speed combined with an excellent seal optimizes the internal traffic flow

and provide energy savings. Heavy-duty motor of 400 V three phase, opening speed up to 2.5 m/s with inverter system. Suitable for both positive and negative temperature, operating temperature range +50 C to -350 C.

High-Speed Freezer Duo Doors have special double curtain construction with space in-between. They are self-repairing so its curtain resets in case it comes out of the guide due to an accident or when force opened by a forklift. If impacted, the curtain will release from the side guide and automatically reset on the next-door cycle as there are no metal parts within the curtain design.

The doors are manufactured with European collaboration and technology with innovative and creative engineering.

Gandhi Automations High-Speed Freezer Duo not only helps maintain temperature but also in human safety. High-Speed Freezer Doors have a revolutionary soft bottom edge and sensor combine to ensure operator safety at all times.

To understand why Gandhi Automation's high-speed freezer doors should be your ideal choice drop an enquiry at sales@geapl.co.in | or visit www.geapl.co.in



Exhibitor Insights

Making your plant room a value-generating asset



Typically hidden away in plant rooms, HVAC systems can be complex, challenging and are frequently overlooked.

- Chirayu Shah, General Manager, Conserve It

In commercial buildings, HVAC is by far the most energy intensive system, accounting for close to half of the total energy consumption.

For this reason every efficiency improvement in HVAC performance can significantly reduce the energy profile of the building, turning HVAC optimisation into a value-generating opportunity.

Typically hidden away in plant rooms, HVAC systems can be complex, challenging and are frequently overlooked. No wonder that energy saving opportunities are missed in this complex technical arena.

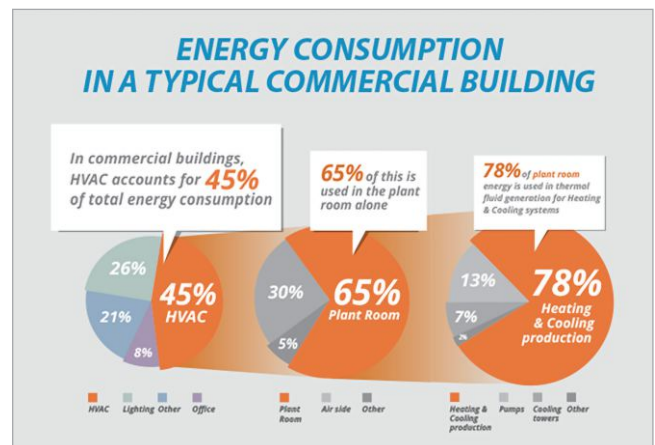
Dedicated, specialised control solutions are required to manage HVAC systems correctly and efficiently. By optimising the operation and maintenance of these systems, it is indeed possible to capture the true energy reduction potential available and to manage this over time.

The Plant Room

The plant room can be considered the heart of the HVAC systems within any building. It is typically where hot and cold water is created for distribution to other HVAC subsystems throughout the building.

Typical HVAC equipment in plant rooms include; chillers, heat pumps and boilers; heat rejection systems: air, water, ground source; and distribution equipment: pumps, valves and pipework.

Chillers and heat pumps are the heaviest energy using components, accounting for 78% of total plant room energy consumption. Optimisation of the energy used within the plant room is therefore critical to the overall building energy profile, and can only be effectively managed by suitably experienced technical experts.



Solutions

Excellent system design and the use of high quality components are essential. However, without accurate monitoring & verification along with continuous commissioning, even the best HVAC systems degrade over time.

Developed with an in-depth understanding of all thermodynamic variables involved in managing plant room HVAC equipment, Plant PRO is one such solution, enabling optimum control of every device with its integration into a single synergistic system.

Optimisation is not achieved by the use of a single algorithm designed to ensure the best efficiency, but is rather a continuous process articulated through different levels of smart software functions, which contribute to ensure the best result.

The optimisation process can be represented by a pyramid divided into several layers, the base of which corresponds to the initial design phase of HVAC systems by consultant Engineers.

Every project presents specific challenges. Designing the optimum system for each HVAC application and selecting the best plant room



equipment, is the essential starting point and is also the key responsibility of the M&E Engineering consultant.

In order to achieve and maintain the high level of efficiency as per original design, optimised management of the plant room is essential. Every single element of the system involved in the production and the distribution of the energy must therefore operate in perfect harmony.

For this reason it is essential to use a dedicated optimisation & control software system which includes high-end logic, to ensure real energy savings as well as delivering long term reliability.

Plant PRO® is award-winning Plant room optimisation and control software developed by Australian company Conserve It. For more information visit <https://www.conserveit.com.au>

Partner Feature

Delivering value for 25 years through innovative and path breaking HVAC solution



Kehems Technologies Pvt. Ltd. is an ISO 9001:2015 certified, professional Engineering Group manufactures a comprehensive range of HVAC products in India. Kehems offers a wide range of products like the KRISCOOL Air Cooled & Water Cooled Screw Chillers, Air Cooled Scroll Chillers, KRISTHERM Air to Air & Water to Water Heat Pumps, Air to Air Scroll Heat Pumps and Thermal Energy Storage system.

With a firm belief in the ethos of 'Energy Saving is Responsible and Rewarding', the company is singularly focused on serving the clients better. This translates into consistently sticking to its core values that infuse include:

Focus on relationships

Establishing and maintaining long-term relationships that goes beyond specific transaction.

Creating value for every single client

Balancing innovation and practicality in solutions to create value that exceed our clients' expectations.

Integrity

Unbiased advice through transparent processes

placing utmost importance to the clients' requirements.

Thought Leadership

Capitalizing on million-plus hours of advisory experience across industries, corporate situations & financial products.

World Class Products

Exemplary excellence in terms of design, performance, quality, customer satisfaction and value.

Energy Efficient Green Solutions

Energy Efficient Technology reduces energy use which reduces energy costs and results in a financial cost savings. Reducing energy use is also a solution to the problem of reducing Green House Gas emissions.

Service Excellence

After Sales Service makes sure products and services meet or surpass the expectations of the Customers. We give all the necessary support, help install, maintain or operate.



Exhibitor Updates

Meet Chemours during ACREX India 2019 (Feb. 28 – Mar. 2) at Hall 1, Booth D-102 at Mumbai Exhibition Centre



This ACREX, while introducing the long-established Freon™ product portfolio to the traditional refrigerant users, Chemours will also exhibit its low global warming potential (GWP), HFO based Opteon™ refrigerants that provide the optimal balance of performance, environmental sustainability, safety, and cost for users in different application markets, such as:

- Opteon™XP44 (R-452A) can be used to replace R-404A/ R-507 refrigerant by cutting 45% of GWP while maintaining the similar discharge temperature and offering great benefits for cryogenic systems and refrigeration transportation equipment. Opteon™ XP44 has been adopted by ThermoKing in transport refrigeration units, trailer refrigeration units and global marine transportation refrigeration units sold in Europe, and was selected by Tecumseh Products Company LLC to use in its compressors.
- As a non-flammable (A1) next generation refrigerant used in refrigeration systems, Opteon™XP40 (R-449A) offers 67% lower GWP

and up to 12% more energy efficient compared to R-404A and has been widely used globally since its commercialization. For supermarket owners that are searching for sustainable alternative refrigerants, Opteon™XP40 can be used to replace R-22 directly and easily. Based on its proven performance, thousands of commercial refrigeration systems around the world are operating on Opteon™XP40 as their refrigerant of choice.

As the inventor of fluorinated refrigerants and the pioneer of fluoro chemical industry, Chemours has maintained the leadership position in refrigerant industry for more than 85 years. With its outstanding innovation capabilities, Chemours is able to adapt to the increasingly stringent global regulatory requirements, and constantly provide sustainable refrigerant technologies to help their customers opt for better solutions. As the leading refrigerant supplier, Chemours has and will continue to invest in the development products that are overall better solutions to the environment.

Exhibitor Updates

New Generation Air Showers boast of safety and ease-of-use

The new generation air showers by SAM Products come with a lot of promise. Besides having all features as in the existing range of Sam Air Showers, the new product presents many user-friendly functions. These new hybrid air showers a.k.a. "Negex" have many built-in safety features to address the end user requirements.

The Negex range comes with industrial grade electromagnetic locks having single body and no

moving parts. Even the doors have strong & robust stainless-steel striker operating at static holding force of 1360kgs.



The durable doors are made of aluminum framed door assemblies with clear glass



As a strong safety measure, the Negex now have emergency buttons along with user lights on both sides of shower for all doors to be unlocked instantly. The main electrical breaker switches are mounted on inside the work zone for rapid shutdown of the system and all doors are immediately unlocked.

The new range are equipped with a time watch along with thermometer for instant display.

Additionally, they have electronic ballasted lights that ensure reduction of energy costs. They also come with permanently lubricated direct drive

Centrifugal Blowers. Interlocking of both Exit & Entry Doors ensures both Doors from being opened. All doors are unlocked automatically in case of power failure for safety reasons. Stainless Steel flooring ensures easy maintenance & cleaning.

Another great feature is a completely programmable duration of Air Shower. This also ensures that a continuous flow of air is available at lower speeds at standby mode, thereby reducing energy consumed & maintaining the chamber clean.

Exhibitor Preview

TROX type JFM Type Tunnel Ventilation Damper

TROX[®] TECHNIK
The art of handling air

TROX Malaysia was established over 20 years ago to manufacture and supply a complete range of TROX products within the Asia Pacific Region.

In 2018, the manufacturing facilities were extended to include a purpose-built plant for the manufacture of Industrial Dampers for the Tunnel and Oil and Gas markets. TROX supplies tunnel dampers for projects around the globe, from Australia through to Canada and Hong Kong through to the UK.

TROX Malaysia has unrivalled global experience that spans over 20 years and which has led to a wide range product test certification being accumulated to suit the differing specific needs of each market. TROX Malaysia has a team of experienced Project Engineers that handle each project from the tender stage through to final completion and commissioning on site. They are supported by a team of dedicated Design Engineers that have responsibility for this product range only. Wherever the project, TROX has the experience and the team to support it.

The JFM Fire and Smoke Damper has a 4-hour fire integrity rating in accordance with BS 476 Part 20 and AS 1530.4. In addition, the damper has a very

low smoke leakage rate which is almost half that required to meet the Class I rating detailed in UL 555S. This high level of performance is provided by the unique TROX sealing method.

Each damper blade is of double skin, airfoil design and has a V groove running along the entire length of both edges, which houses a compressible ceramic seal. This, in conjunction with the opposed blade closing action ensures that an impenetrable fire barrier and smoke barrier is created when the damper closes.

To ensure that this high level of performance is maintained after the installation of the damper, the blade landing angles are not welded in place, but are bolted. This enables the landing angle position to be adjusted on site to compensate for any twisting of the damper case caused by an uneven structural opening. The lifesaving performance of the product is therefore assured under such conditions.

Whilst all moving components of the JFM damper are manufactured from stainless steel, the damper case and blades can be manufactured from various grades of galvanized or stainless steel, which can also be painted if required. The damper case is a



rigid fully welded structure of minimum 2mm thick and maximum 9mm thick material. The blades are manufactured from a double skin of minimum 1.2mm and maximum 2.5mm for each skin. The blade shaft is 20mm. All welding is conducted by coded welders who are qualified to international and national standards that are widely recognized in the industry.

Actuator options include pneumatic, electric and electro-hydraulic which can be either double acting or failsafe, spring return. Actuators are capable of continuing to operate the damper when subjected to temperatures of up to 400 degrees Celsius for 2 hours. Electric actuators are provided with a thermal jacket or insulated enclosure for such applications to ensure that the dampers continue to operate for smoke control purposes until the tunnel is fully evacuated.

Every damper actuator is fully function tested whilst limit switches are checked to ensure that they provide the correct damper status indication. In addition to function testing, the dampers can also be subjected to pressure drop and closed blade leakage testing. These are normally conducted as part of the Factory Acceptance Tests that are completed on the first production batch.

Pressure drop testing is conducted in accordance with AMCA 500 with increasing airflow velocities, up to a maximum of 10m/s.

Damper blade leakage testing is conducted to demonstrate that the closed damper leakage rate is no greater than that detailed as Class I in UL 555S. This test can be conducted at ambient or elevated temperature and at air pressures of 1125, 2125 and 3125Pa.

The dampers are suitable for directly mounting to concrete or to steel duct work via the punched flanges provided. For installation on concrete clamp plates can be provided to simplify the installation process and ensure that the minimum edge distance for the installation of anchor bolts can be maintained.

TROX Project Engineers provide site support in the form of training, both prior to installation and commissioning. This includes both classroom activities as well as hands on assistance on site for up to 5 days for each activity. This ensures that the dampers are installed correctly and function in accordance with the project requirements. This is part of the TROX commitment to ensure total customer satisfaction.

Exhibitor Preview

Why the biggest potential for HVAC lies in energy efficiency?

Energy efficiency is no longer a fringe benefit or an option, with home/building owners now prioritizing reliable and energy efficient air conditioning systems. This could account to the fact that HVAC systems represent a significant portion of typical energy costs.

Typically, air conditioners account for almost 55% of the power bills, especially during the summer, hence, it has become imperative for HVAC manufacturers to invest heavily in designing and manufacturing energy efficient HVAC units.

Finpower is focused on creating products that are energy efficient, cost effective and aids in enhancing the comfort and quality of life. This is because a minimum level of thermal comfort is required to be productive and comfortable. And today, the number of Indians investing in air conditioning systems are gradually increasing, thanks to the rising incomes and rising temperatures. Hence, the company aims to create economies for them in terms of efficiencies and cost.

Special care is taken in ensuring that their products are designed keeping in mind quality as well as energy savings; Room Fan Coil Units (AHRI Certified) with EC motors and Air Handling Units (Eurovent Certified) with EC plug fans ensure energy economies. Moreover, the Package Units and Air Washer units, equipped with superior logic based HMI panels, not only warrants complete monitoring and control but prompts alert in case of fault diagnosis that enables an energy saving ecosystem.



"AHRI certified Fan Coil Unit".

And these require more efforts and collaboration from the design team and stepping away from a conventional approach, which we have been able to accomplish successfully.



Rajesh Shenoy,
Managing Director,
Finpower Aircon Systems Pvt Ltd

Moreover, today, people have become more aware and read into efficiency ratings when choosing air conditioning systems, and hence it has become a key differentiating and competent factor. Finpower air conditioning systems are in accordance with EER, SEER and have also been part of several large LEED certified projects (green buildings).

"As a leading HVAC manufacturer, we have always believed in taking an initiative with our products, trying to reduce the environmental impact with optimizing the energy usage of our systems." - Rajesh Shenoy, Managing Director, Finpower Aircon Systems Pvt Ltd

Today, with homes being smart, HVAC manufacturers need to become smarter!



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India 2019**

28 February - 2 March 2019
Bombay Exhibition Centre, Mumbai

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LARGEST EXHIBITION
ON AIR CONDITIONING,
HEATING, VENTILATION
AND INTELLIGENT
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FROM 30 COUNTRIES
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ACREX India 2019
NuernbergMesse
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Smita Dhall
Editor and Curator
ACRO News

NÜRNBERG MESSE

"German House", 2, Nyaya Marg, Chanakyapuri
New Delhi 110 021, INDIA • T: +91 (0) 11 47 16 88 88