

# ACREX India 2019

28 February - 2 March 2019  
Bombay Exhibition Centre, Mumbai



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# ACRO NEWS SHOW DAILY

DAY 3 - 2 MARCH 2019

## ISHRAE Speaks

### Day 2 of ACREX India 2019 with tremendous response and footfalls



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## Messages from our supporting organizations



**R**EHVA, founded in 1963, is the European professional umbrella organisation that joins national associations of building services engineers. Today REHVA represents more than 120.000 HVAC designers, engineers, technicians and experts from 27 countries.

REHVA provides its members a platform for international networking and knowledge exchange, contributes to technical and professional development, follows EU policy developments, and represents the interests of its members in Europe and in the world. REHVA's mission is to advocate health, comfort, productivity and energy efficiency in all buildings and communities, promoting high quality HVAC engineering practice.

To achieve this goal, REHVA contributes to the dissemination of knowledge and to the exchange of

technical information through its publications (REHVA Journal, REHVA Guidebooks), events (CLIMA - REHVA HVAC World Congress, REHVA Annual Conference, technical seminars), and online tools (REHVA online HVAC dictionary, REHVA App).

REHVA and ISHRAE cooperate since 2012, when the Associations signed an MoU. Knowledge sharing is pivotal purpose of this cooperation: therefore, REHVA and ISHRAE invite you to attend their ACREX India joint Seminar **"High Performance Educational Buildings and their Indoor Environmental Quality"**, on **28th of February 2019, 15.00-17.30 IST, International Lounge, Hall 1.**

*Come find REHVA at ACREX at stand A-46, Hall 1*

You will have the possibility to know more about our activity and our global network, to purchase REHVA

European Guidebooks and to get a free copy of the REHVA Journal ACREX Special issue featuring exclusive Eurovent Certita Certification contents.

*"ACREX India is an effective event at which REHVA Members can share research and technical information and promote the latest European HVAC sector updates. At the same time, the trade show is a unique opportunity for the European HVAC specialists to appreciate the latest developments of the Indian HVAC industry."*



**Mr. Frank Hovorka**  
REHVA President-elect

For more information about REHVA, visit [www.rehva.eu](http://www.rehva.eu).

### Innovations Galore @ACREX India'19

## Electronic hybrid mixing valve LEGIOMIX 2.0

**T**he LEGIOMIX, electronic hybrid mixing valve, combines the TMV and the electronic MV. It responds to any variation in temperature, pressure and inlet flow rate to quickly restore the water temperature value at the outlet and allows the water temperature control even for the Legionella prevention.



*More details can be found at <https://www.caleffi.com/international/en-int/catalogue/legiomixr-20-hybrid-electronic-mixing-valve-600045>*

See you in Delhi



**ACREX**  
**India 2020**

**27 - 29 February 2020**  
IEML • GREATER NOIDA • DELHI NCR

[www.acrex.in](http://www.acrex.in)

## Innovations Galore @ACREX India'19

### Sanhua's Innovations being displayed in ACREX India 2019

Going by the lines of **Thomas Edison: "There's a way to do it better-find it"**. In today's world, the globalization and technological advancements are taking bigger shapes & every day the dawn comes with some innovative technology, taking us all one step ahead into the digital world. We at Sanhua believe in getting involved deeper into the research and development of our respective businesses, developing more valued products for our customers **to create a better world for tomorrow.**

#### **Innovation 1: Sanhua SEC and LPF EEV Package**

We are aware that Electronic Expansion Valves (EEVs) are highly efficient compared to the conventional Expansion devices & are the future of HVAC & R industry. For a decade now, Sanhua is the leader in development and manufacturing of EEVs for HVAC & R industry.

Our newly designed LPF EEV is as tight as a solenoid valve once it is completely shutoff thus to prevent liquid refrigerant to evaporator or compressor. With the dream of bringing the cost of EEV Package similar to TXV systems, we at Sanhua had been making relentless efforts to develop the most Innovative, Efficient & Economical EEV package solution technology. Finally, with continued hard work, Sanhua is happy to launch the SEC & LPF EEV PACKAGE SOLUTION which offers the most efficient EEV solution at the best Economics.

The SEC60x controller is smart in itself & for most of the cases you don't need a professional technician to set up complicated PID

parameters. The SEC60x, the LPF series EEV and the pressure transmitter is providing a solution at a cost which is closest ever to the traditional mechanical solution (TXV + Solenoid Valve), therefore no surprise to hear a compliment from a renowned OEM design engineer "I have only been waiting 20 years for a cost-effective and affordable EEV and controller solution which I am overwhelmed to receive from Sanhua".

We are working to showcase a live solution to demonstrate the functioning of the same.

#### **Innovation 2: Sanhua VPF Series Large Capacity EEV**

Sanhua's VPF series large capacity EEVs adds new feathers to the EEV era, as it is the world's first large capacity EEV using full stainless steel and bi-metal connection & its V-shape flow channel realize real identical flow curve from both directions to ensure good performance for both cooling & heating mode. Moreover, it allows flexible installation position for easier piping design for customer's requirements (upside down for shutoff function free system).

We are working to showcase a live solution to demonstrate the functioning of the same.

#### **Innovation 3: Sanhua CO2 Micro Channel Condenser & Evaporator**

Life Cycle Climate Performance, or LCCP, the use of a low global warming potential refrigerant such as CO2 can make this effect negligible (CO2 has a GWP of 1, compared to ~4000 for a refrigerant like R404A). On the other hand, there are properties of CO2 which also help the system's

efficiency in food retail applications, including excellent volumetric efficiency (more than 6 times the cooling effect per volume as R22), low compression ratio (the ratio between inlet and outlet pressures at the compressor), and low viscosity (making it easier to pump).

Additionally, new technologies had been developed that takes advantage of the unique properties of CO2 to improve efficiency Sanhua have developed Micro channel heat exchangers (MCHE) to be used for CO2 refrigerant thus providing even more higher efficiency levels to CO2 refrigerant systems tested up to burst pressures of 36.6Mpa. Sanhua is working on the new technology with some renowned OEMs in Europe. With MCHE being already highly efficient & economical as compared to traditional copper condensers makes the CO2 refrigerant systems more viable & promoting more sustainability.

#### **Innovation 4: Sanhua New MDF Solenoid Coil For Screwdriver Free Installations**

Sanhua's New MDF solenoid Coil MQ-A11 inhibits special strength for quick and easy screw driver free installation. At the same time, the product offers outstanding product features and it fulfill additional installation requirements of a wide range of applications in the refrigeration, air conditioning and heat pump industry. Some of the features include:

- Quick installation via tool-less wire connection system
- Easy cable entry management due to jam screw cable tightening

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- Improved protection class
- Flexible and solid cables
- Reduced energy consumption

Sanhua's New MDF solenoid coil is a true marvel of innovation, making the installations too quick & convenient!

### Innovation 5: Sanhua Highly Efficient 4-Way Reversing Valves

Heat pumps are becoming more & more common & due to their high efficiency they are being promoted by several government bodies across the globe. Comfort Heat pumps use a

4-Way Reversing Valve for switching between efficient heating & cooling cycles & thus the 4-way valve plays an important role for defining the efficiency of a heat pump.

The traditional 4-Way Valve has a much higher internal leakage rate at low PD (0.2 MPa) than it at high PD (1 MPa). This reduce the amount of refrigerant involved in the refrigeration cycle, resulting in a reduction of system cooling capacity. At the same time, more refrigerant directly flow from the discharge side to the suction side to cause the compressor

power consumption rise significantly. Both aspects have a huge impact on the system energy efficiency.

To improve this situation, SANHUA has upgraded the 4-way valve (range covering the VRF/Inverter system) using special process to guarantee similar level of internal leakage rate at both high and low PD, making it possible for the systems to achieve an average energy efficiency improvement of 7%.

SANHUA is also the first company in the world to introduce a 4-way valve dedicated for inverter systems.

## Innovations Galore @ACREX India'19

### Hybrid Hi-Wall AC from Mitsubishi

Mitsubishi Heavy Duty AC for the first time in India launched – 4 Star Rated - Hybrid Hi-Wall AC (Non-Inverter) category in 2.0-ton capacity. None of the other competition brands have 4 Star Rated 2.0-ton capacity Non-

Inverter Hi-Wall AC in the Indian Aircon Industry.

Mitsubishi Heavy Industries – IAPL Group Pvt. Ltd. will be exhibiting the latest Technology Next advance Air Conditioning solutions in Hybrid &

Hyper Inverter Series, in Window, Hi-Wall Split AC / Cassette AC / Tower AC / Ductable AC & VRF - 5th Generation Systems in the below mentioned product range.

#### MITSUBISHI HEAVY DUTY AC - HI-WALL AC - NEW 2019 SERIES

| Technology     |              | Ref.  | Star Rating     | Capacity (Ton) | Turbo Jet Series |
|----------------|--------------|-------|-----------------|----------------|------------------|
| HYBRID AC      | Non Inverter | R32   | 3 Star          | 1.3 / 1.6      | CVV/CVS          |
| HYBRID AC      | Non Inverter | R410A | 3 Star / 4 Star | 2 / 2          | CW/CWX           |
| HYPER INVERTER | Inverter     | R32   | 5 Star          | 1.25/1.6/2.2   | YVS              |
| HYPER INVERTER | Inverter     | R32   | 4 Star/5 Star   | 1.5 / 2.0      | YW               |

Hybrid Window AC: 1.0 / 1.5 / 2.0 Ton

Commercial AC: Hybrid & Inverter Cassette / Tower / Ductable AC (R410A) – 1.5 / 2.2 / 3.0 / 4.0 ton

VRF – 5th Generation – 4HP to 60HP (Cooling only) and (Heat Pump)

VRF – 5th Generation with 17 types of indoor units with 92 models

Heavy Duty Airpurifier

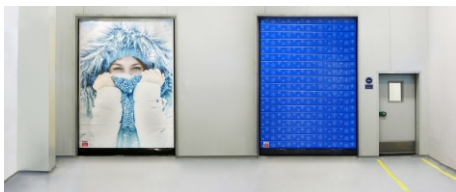
#### Genuine Spares & Service Center (GSSC)

The company has an excellent back up of spares and after sales service all India through 168 centers.

## Innovations Galore @ACREX India'19

### High speed freeze doors from Gandhi Automations

**G**andhi Automation's high-speed freezer doors enable energy and cost savings as well as optimized traffic flows, production and logistic activities. The existing Cold storage setups are horizontal in nature and thus create a lot of hassle in terms of the operational time as well as are not able to prevent higher loss of temperature and are unsafe as well-being forklift accident prone. The innovation here the technology that creates High Speed Vertical doors that are self-repairable, fast, safe, reliable and a perfect solution where cold storage with negative temperatures to as low as -22°F is required.



The high operating speed combined with an excellent seal optimizes the internal traffic flow and provide energy savings. Heavy duty motor: 415V three phase, opening speed up to 2.5 m/s with inverter system. It can be equipped with transparent PVC vision windows and is suitable for both positive and negative temperature, operating temperature range +5 to -350 C. Prime Freezer Duo Door has special double curtain construction with space in-between.

Prime Freezer Doors are designed and manufactured by Gandhi Automations are sturdy, dependable and are the ideal solution where temperature control is critical and safety concerns are at a premium. The doors are manufactured with European collaboration and technology with innovative and creative engineering.



High Speed Freezer Doors are the ideal solution for internal heating system provided within the guide prevents ice formatting even during intensive cooling and effectively operate in any situation, Innovative insulated curtain with high thermal efficiency is available optionally, for additional saving on energy costs.

High Speed Freezer Doors have revolutionary soft bottom edge and sensor combine to ensure operator safety at all times.

*More can be discovered at their stall G-29 in Hall 1.*

### Exhibitor Feature

### Visit Highly Electrical Appliances India's Booth K-68

**S**hanghai Highly (Group) Co. Ltd. was established in 1954 and successfully listed on the Shanghai Stock Exchange in 1992. Today Highly has grown into the world's leading research and development manufacturer of air conditioning compressors, electric motors, drive controls, and cooling and heating-related products.

The company owns nine enterprises and has formed four related industry sector businesses of Compressors, Electric motors, Drive controls, and Cooling and Heating-related products, with products extending to hundreds of millions of families in 165 countries and regions around the world, with the capacity of 20 million units.

It takes up a high and impressive

1/7th of the market share of the world and has five world-level green plants (east Shanghai, west Shanghai, Nanchang, Mianyang and India) and eight technical service centers (Shanghai, Nanchang, Guangdong, Milan, Delhi, Tokyo, Mianyang and Chicago) globally, providing global customers with localized products, quality service, and technical support.

Highly Electrical Appliances India Pvt. Ltd. (HIEC) is a 100% subsidiary of Shanghai Highly Group was established in 2013 with Installed production capacity of 2.0 Million Compressors in Ahmedabad, Gujarat.

The company has a national-level enterprise technical center and nationally recognized laboratory,

postdoctoral workstation, modern manufacturing technical center, and a technical equipment and intelligent manufacturing system on an advanced international level for its main business - Air conditioning Compressors. It is capable of producing various refrigerants and more than 2.0 Million efficient energy-saving compressors of four series with different voltages and frequencies.

With a mission of "Improving people's residential environment with protecting human beings living surroundings", Highly India focuses on emerging as an industry leader & becoming No.1 supplier of AC compressor.

*You can visit HIEC representatives at their booth K-68, in Hall 1, International Pavilion.*

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## Exhibitor Feature

# Embraco presents new solutions focused on energy efficiency and better food preservation

*The global company showcases an extended portfolio including options with natural refrigerants and with a wide voltage range*

From February 28 to March 2, Embraco will be attending ACREX India 2019, South Asia's biggest HVAC & R exhibition, to reinforce its position as one of the world's largest in the segment and to showcase an extended portfolio according to India's market needs, connecting with value to the end user. The global company will present solutions that are differentiated by natural refrigerants usage, low energy consumption and with wide voltage range (stabilizer free), for household and commercial segments.

Embraco has been positioning itself as a global specialist in its segment while presenting its new business approach – shifting from product to solution oriented. "Visitors will be able to get to know our portfolio in four different zones such as aftermarket, merchandisers, food services and food retail. We'll be therewith a team that understands the Indian market and demands, presenting our technologies focused on providing a complete platform that combines compressors and services", explains Esequias Pereira, Sales Sr. Manager for Asia-Pacific.

At booth #J-62, Embraco will be showcasing solutions with Inverter technology - FMX and FMF line-up; products for Merchandisers-EM2X and FFU; for Food retail-FMFD and NJX; for Food service-NE; and for After market - Condensing units and EM.



**Embraco inverter technology has longer life-span, as proven by VDE**

Embraco will present the next inverter-technology generation, such as the FMF line up, the most

efficient compressors for the commercial segment available in its capacity range, as well as FMX, a compact product for household refrigerators that allows natural refrigerant R600a (isobutane) usage. Moreover, Embraco FMX solution has been certified and approved by the VDE Institute with a 25-year lifetime.

*"Embraco compressors are designed for lifetime and FMX was certified by an international creditor. It is also a bugless solution, a very relevant feature in India. It handles wide voltage fluctuations (stabilizer free) and is designed to work reliably and safely maintaining refrigerators performance integrity despite energy fluctuations",* emphasizes Pereira.

Embraco's solutions are differentiated by low energy consumption, meeting all new regulatory requirements. The FMFD, from the FMF line-up, for example, has the potential to reduce energy consumption by up to 30 percent when compared to traditional solutions available in the market and is ideal for light commercial applications, such as reach-ins and supermarket islands.

Full-motion portfolio is present in markets all over the world, bringing more convenience to the consumer because, through variable speed technology, the ideal food and beverage temperatures are quickly attained, providing fresher food.

### Global company with local expertise

Embraco is a global refrigeration company that, through its local team and 47-year journey, has invested in developing innovative solutions with the aim of providing a better quality of life for society. The company

invests around 4% of its annual net revenues in research and development, in order to maintain a strong presence in the market.

*"Nowadays one of every five hermetic compressors sold in the world carries the Embraco brand. We understand that we can boost our presence with our efforts in India, since it has a huge refrigeration market potential, which increases 13% annually. To achieve our goals and win over the market, we've reinforced our business through a local Technical Support and Sales team, partnerships with local laboratories as well as providing training to customers about our innovations",* reinforces Pereira.

### Pioneering in natural refrigerants

For the past 25 years, the company has used natural refrigerants in its portfolio for both the commercial and household segments as an alternative to reduce the negative effects on the ozone layer, greenhouse effects and to improve the equipment's energy efficiency. The solutions that Embraco has been offering to the Indian market meet the increasing demand of the government and the Indian population for solutions capable of providing more quality of life. In this sense, the company believes that natural refrigerants are the most compliant way to fulfil the population's and customer's interests.

In addition to the new launches, Embraco is still one of the leaders of the R134a market, delivering reliable and robust solutions focused in India, including wide-voltage range compressors.

*Innovations Galore @ACREX India'19*

## Pre-Insulated Ducting System by Lloyd Insulations (India) Limited

Duct is a major component in air conditioning system. Ducts carry cold air from the Air Handling Unit to various chambers in a floor. Ducts are hung from the main ceiling with proper fastening system. Generally the ducts are made out of GI sheet in the form of square and rectangular boxes and subsequently provided with insulation on the external side. Since the entire system becomes very heavy hence the hanging system has to be very proper. Generally, subsequently false ceiling is provided below the ducts and not exposed to the general people. If the insulation is not done properly or inadequate thickness is applied, there is condensation formation and water droplets falls on the false ceiling creating marks. Metal ducts being heavier system, requires lot of time

for installation. There was also an issue of jointing of the two GI ducts to make it absolutely air tight. Hence, there is a requirement to develop lighter duct system, which can be manufactured and installed very fast.

“Preinsulated duct” is a ready to use product manufactured at the factory and brought to site in knock down condition. Energy efficient Polyisocyanurate Foam (PIR) slabs faced both side with thick aluminium foil and machine cut, to size shaped and joined to each other with a glue and aluminium tape to form the duct.

These prefabricated ducts are provided with suitable fixtures made from polymer plastic or extruded aluminium for proper snug fit jointing. This also makes easier fixing of accessories like grills. PIR

insulation material has got a very low thermal conductivity value of 0.019 W/mK at 10°C mean temperature and is fire safe with Class O rating as per BS:476 Parts 6 & 7.

Further PIR slab conforms to IS:12436 and ASTM C-591. The aluminium foil will have stucco embossed finish. The ducts are manufactured as per EN:13403. The product will have Smoke Development Index Class A as per ASTM E-84. The product is light weight and have noise reduction capability. The ducts can be tailor-made to size manufactured. The product will be absolutely dust free, lighter and very fast application.

The product is already being used in the country for the last 2 years.

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# Acrex Hall of Fame by Danfoss celebrates the evening applauding the achievers of the industry







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