**30th April & 1st May 2017**

# VRF Summit 2017

**Riyadh, Saudi Arabia.**

As a result of it's increasing population and a rise in the number of buildings being constructed, Saudi Arabia's demand for electricity is growing rapidly. She now finds need for a greater focus on the construction of new buildings within her kingdom. While adopting methods like using of appropriate construction materials for external walls and thermal insulation for the interiors of it's building's, the VRF summit will show you how VRF air conditioning systems can support in reducing energy consumption from your building owner's end. At this conference, Tarek Al Sitt of the GCC Standardization Organization (GSO) will also be releasing their VRF specific regulations.

an event organised by :

BizWingz
Production House

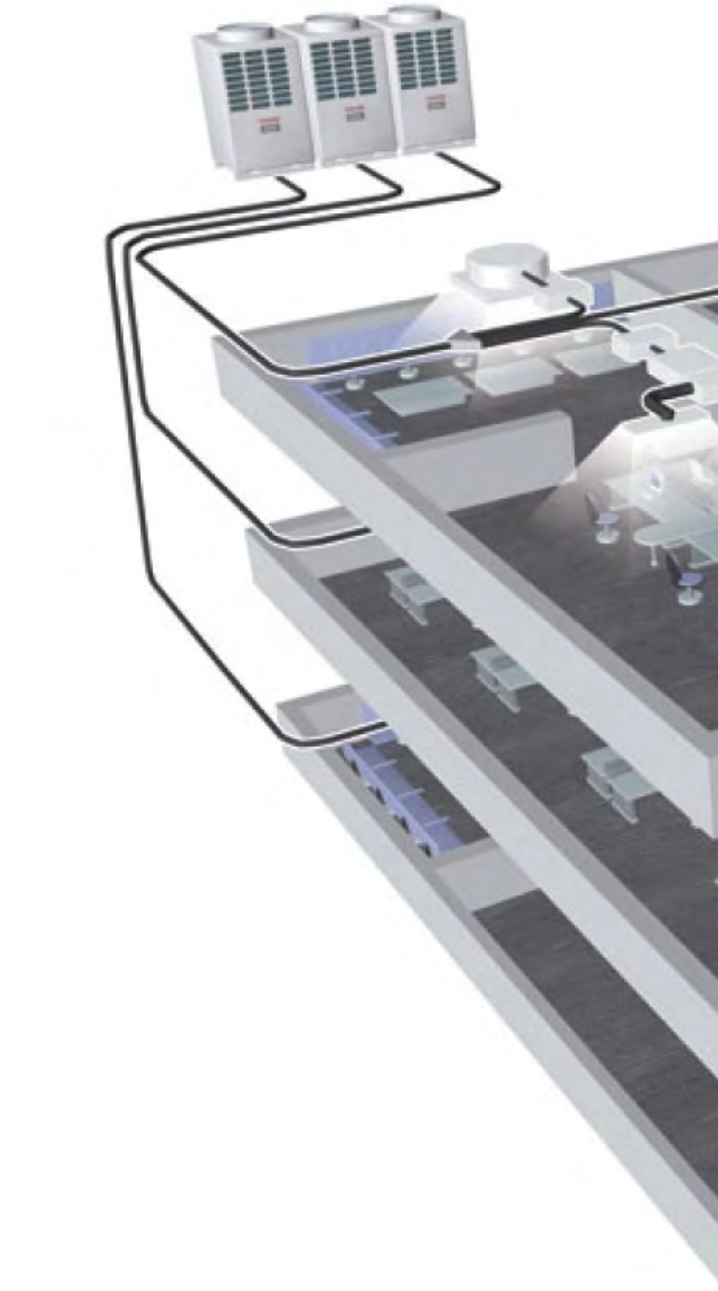
**So what is VRF ?**

Variable Refrigerant Flow (VRF) is a system used for the heating ventilating and air conditioning (in both residential and commercial buildings).

Initially developed by Daikin Industries in Japan, under the trade name 'variable refrigerant volume' (VRV), it is today more commonly known as, 'variable refrigerant flow' (VRF). Today, VRF systems are becoming increasingly more popular as they can be more efficient, more compact and offer greater flexibility when compared to HVAC systems.

VRF systems are built on the flow of refrigerant between an external condensing unit and multiple internal evaporators (typically fan coil units).

Each internal evaporator serves a different thermal zone within the building, and the flow of refrigerant to each evaporator is adjusted depending on its local requirement. This allows a great deal of flexibility. As the output of the outdoor condenser adjusts to match the total internal demand, it allows the systems as a whole to operate at optimum efficiency.



**Types of VRF Systems :**

Two-pipe and three pipe VRF systems:

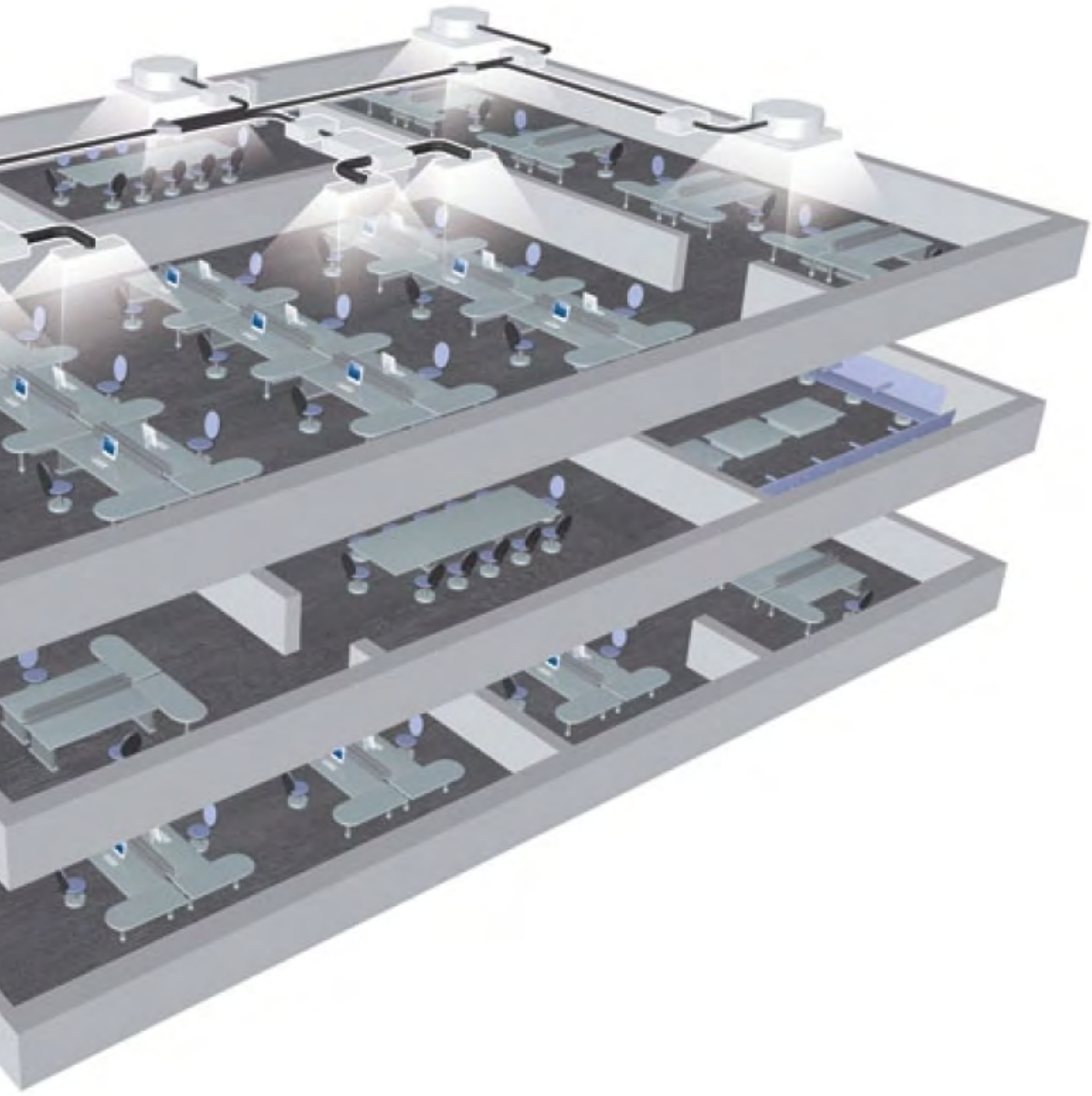
Two pipe systems can provide either cooling or heating (heat pump systems) to all of the zones. Three pipe systems, can provide heating and cooling simultaneously, heating some zones and cooling others, with heat recovery enabling heat from zones requiring cooling to be used to heat zones that require heating. Whilst this has a greater capital cost, the heat recovery allows very efficient operation and so lower operating costs.

VRF systems are best suited for installation at buildings with multiple spaces, varying heating and cooling demand and the need for good local control, such as hotels, where some rooms may be unoccupied whilst others have a very high thermal demand.

Because of their limited space requirements (depending on how ventilation is provided) compared to some other systems, VRF systems may also be suited to retrofitting older buildings.

## 7 reasons why building owners love VRF systems :

- they lower energy bills
- are quieter when opperated
- can heat & cool simultaneously
- provide consistent comfort
- have minimal down times
- require much lesser space
- come with modern controls

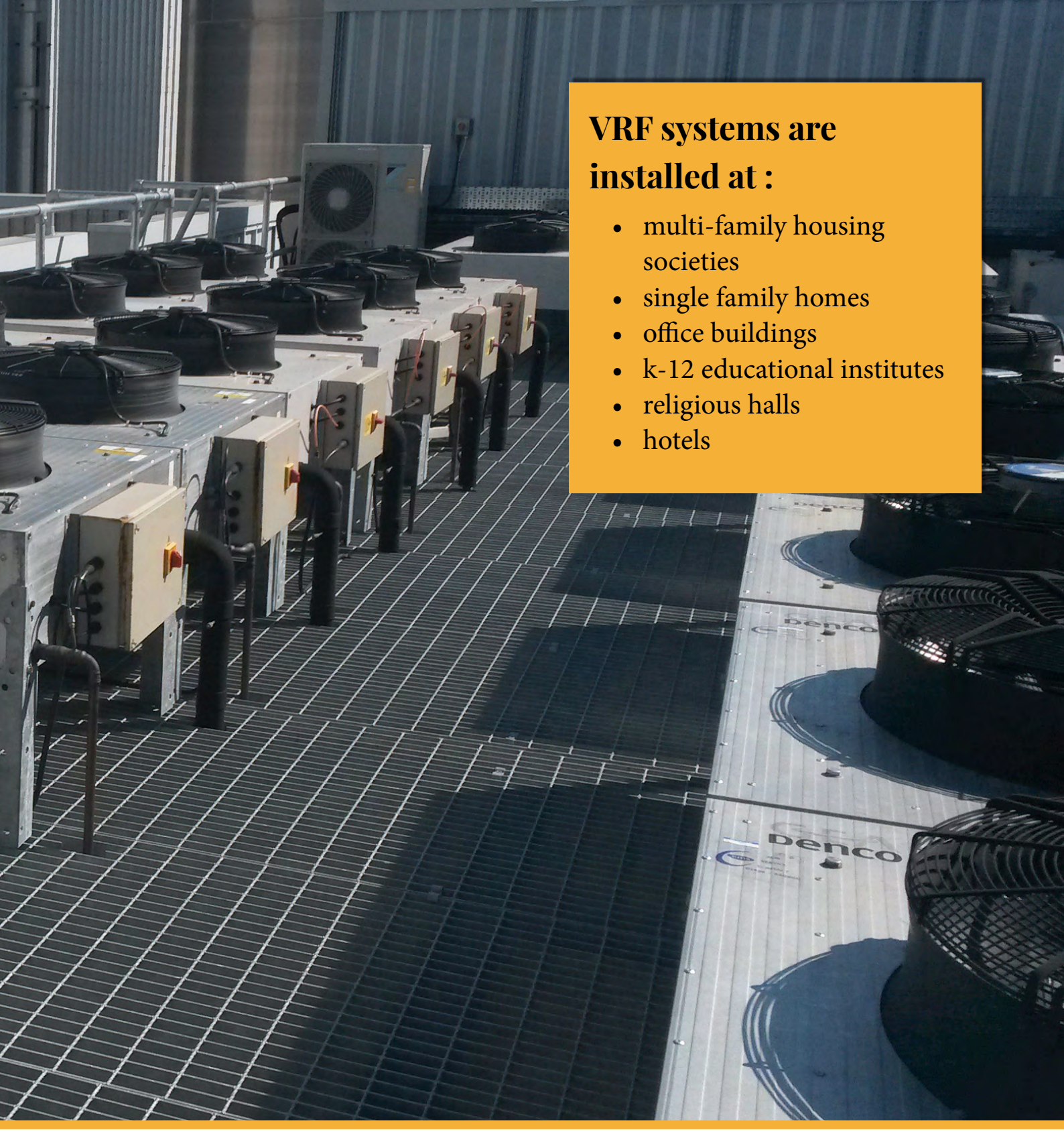


# VRF Summit 2017

**30th April & 1st May 2017 - Riyadh, Kingdom of Saudi Arabia**


The Variable Refrigeration Flow Summit is the one event where you can learn and network with the best and the brightest in the HVAC (heating, ventilating and airconditiong) industry.

You will leave this summit with all the materials you need, to take an energy effecient plan back to your team – and – to implement within your exisiting or new cosntruction projects. Using energy efficient consturction materials and technology will grow your business and inspire your clientele.




## VRF systems are installed at :

- multi-family housing societies
- single family homes
- office buildings
- k-12 educational institutes
- religious halls
- hotels

## What we want for you:

We want to inspire you to do your own epic VRF installations and network with some of the brightest in the business!

## Who you will see:

Over 20 sessions and workshops presented by the leading energy efficiency brands from around the world covering energy effieciency strategy, integration, measurement, and more new ideas than you can put a building.

## What to expect:

More than 100 energy efficient technocrats, and mega constructors from different countries ! You can expect more brands, more breakouts, more hands-on demos, networking sessions and lots more.

# Day 1

08:00 **Registration & Complimentary breakfast**

08:45 **Chairman's inauguration and official address**

09:00 **A key note address**

09:30 **The plenary address**

- Get a download on the latest environmental policies that govern it's regulations and
- Understand what it takes to get approvals for VRF installations within the Kingdom of Saudi Arabia

10:00 **An industry Insider's perspective**

- Take a look at how the emergence of VRF systems can increase energy efficieny
- Understand it's key drivers for growth like COP, modularity, first cost, lifecycle costs and ease of installation
- Learn how you can overcome occupancy concerns and by-pass large water strorage requirements

10:30 **A developers perspective**

- Explore how VRF systems are being implemented in upcoming large scale developments
- See what you as a developer could also expect by installing a VRF systems

11:00 **Networking Coffee Break**

11:20 **Keynote by the Ministry of Housing**

- Get the minister's perspective on energy efficient cooling solutions
- Take note of the ministry's requirement for VRF systems at ongoing housing projects

11:50 **Understand the net-zero-energy revolution**

- Review a case uses a net-zero-energy model for it's villa as a pilot project at the Masdar Institute of Science and Technology

12:20 **Panel Discussion**

- Learn or refresh your memory with terms like COP, kWH tonne-hour in the VRF context
- See how VRF technologies is raising the bar on reducing carbon emissions

13:00 **Prayer & Lunch Break**

14:00 **Retrofitting or rennovating old buildings**

- Look at retrofitting or rennovating opportunities and solutions for within the Kingdom of Saudi Arabia

14:30 **Case Study**

- Take a look at some of the old buildings that have successfully installed and deployed VRF systems
- The benefits of using VRF systems
- Maintenance costs

15:00 **Technical Presentation**

- See how VRF systems help in coping with high-ambient and the hotter weather conditions

15:30 **Technical Presentation**

- Take a dive into the cost factor among VRF systems
- See how the cost per tonne on a VRF system makes it; it's key differentiator.

16:00 **End of Conference Day 1**

# Day 2

08:00 **Registration & Complimentary Coffee**

08:45 **Charimen's opening remarks**

09:00 **Case study**

- The certifications applicable for the manufactured VRF systems

09:30 **Technical Presentation on water-cooled VRF systems**

- Understand it's advantages and applications
- See how a water-cooled system can offer heating and cooling solutions

10:00 **Technical Presentation**

- Get an overview of the global VRF trends
- See what makes the VRF technology tick and why a number of building owners are making that shift.

10:30 **Technical Presentation**

- How VRF Systems add-up as a Green Building Energy Solution

11:00 **Networking Coffee Break**

11:20 **Case Study - Abu Dhabi**

11:50 **Case Study -Doha**

12:20 **Panel Discussion**

- Whether VRF systems are energy efficient
- How VRF systems compare to standalone chilled-water systems
- Benefits of VRF systems for it's end-users

13:00 **Prayer & Lunch Break**

14:00 **Technical Presentation**

- VRF Regulatory standards in the United States and Europe
- Key takeaways for the Middle East region

14:30 **Panel Discussion**

- Diversity of applications most suited for VRF systems, including in commercial projects, healthcare, hospitality, Educational Institutions.
- Addressing critical concerns of consultants and end-users on installation protocols and procedures, maintenance approaches and strategies, etc.
- Working with architects in incorporating design features that will enable the use of VRF systems in high-rise buildings, with a view to overcome the issue of long piping.
- Working with consultants from the early stages of a project, to enable the drafting of designs that are compatible with VRFs (provision of shafts, etc.).
- Billing and metering systems: Can we find a way for utilities to accept the readings generated by VRF systems and to integrate them in their billing systems.
- SEER and IEER- Assessing the performance of VRF systems on the basis of SEER, IEER

15:30 **End of Conference**