MITSUBISHI ELECTRIC TRANE HVAC US

VRF 101:
Top 6 Benefits of All-electric VRF Systems for Your Building

Whether you're a commercial building owner, facilities manager, engineer, or architect, all-electric variable refrigerant flow (VRF) technology can help you slash your building's carbon footprint and decrease energy costs significantly.

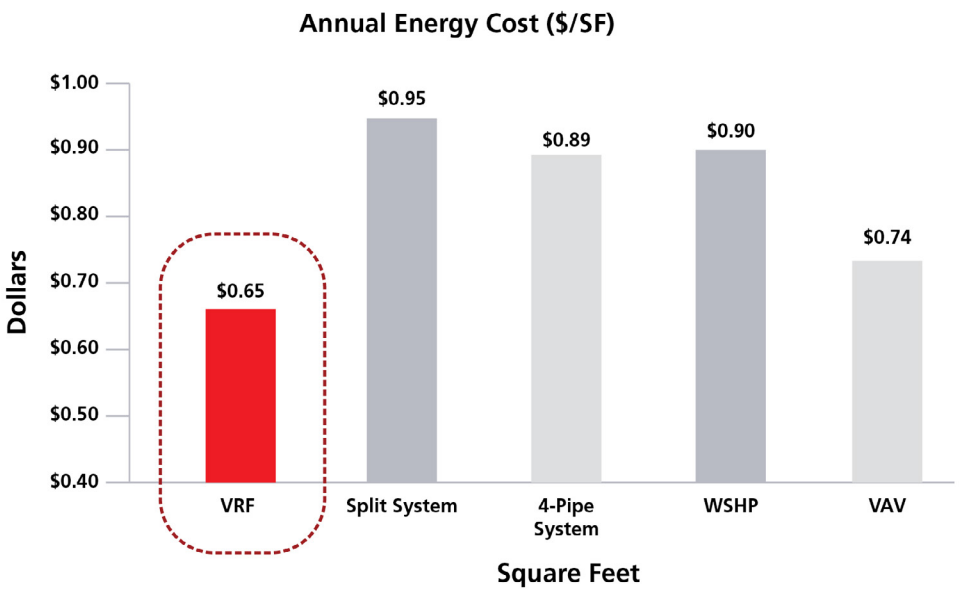
The benefits of outfitting buildings with all-climate VRF solutions, the fastest-growing segment of the commercial HVAC industry, are numerous – but here are six that make the choice easy:

1. Highly Efficient Operation, Reduced Energy Consumption, and Improved Sustainability
2. Smaller Footprint and Ultra-Quiet Operation
3. Customizable through Modular Design
4. Lower Overall Cost
5. Optimal for Smart Buildings
6. Improved Occupant Comfort

1. Highly Efficient Operation, Reduced Energy Consumption, and Improved Sustainability

These efficient systems can potentially save you more money compared to conventional fixed-capacity HVAC systems that turn on and off repeatedly.

With no need for fossil fuels, all-electric VRF systems empower building owners to reduce operating costs and improve occupant comfort while future-proofing their facilities for sustainability.

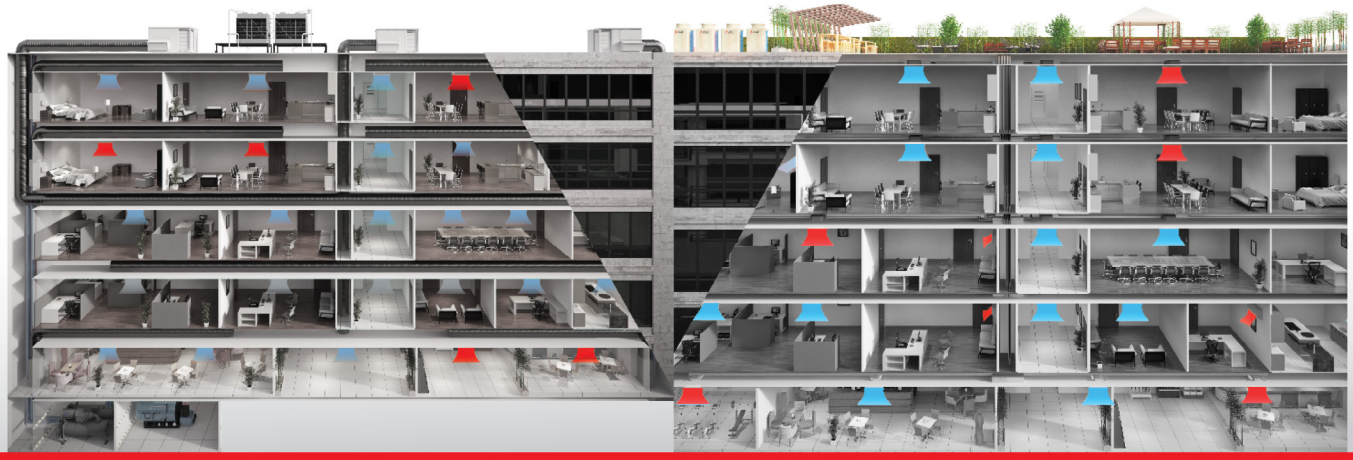


As much as **40%** of a building's operating costs are tied to HVAC and other mechanical systems.

2. Smaller Footprint and Ultra-Quiet Operation

VRF systems require less space than conventional HVAC solutions, making them an attractive choice for buildings with space constraints. Plus, low noise levels provide a more productive and enjoyable environment for building occupants and those outside the structure alike.

Additionally, VRF solutions are effortlessly managed by building operators through intuitive building controls. The small refrigerant piping in VRF technology reduces space requirements needed for an HVAC system. Plus, these systems are easy to reconfigure as tenants change.



Target Applications for VRF Technology

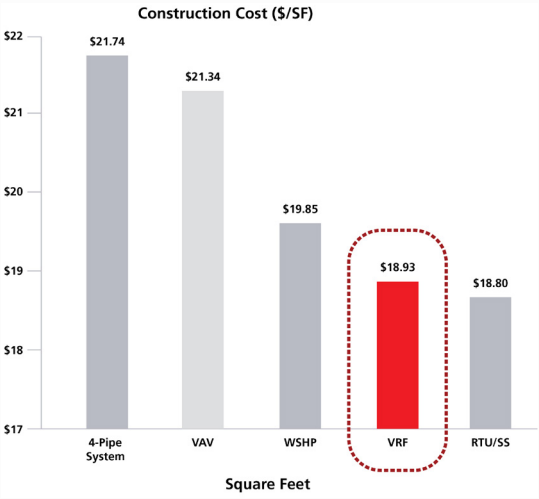
- Multi-tenant Facilities
- Religious Buildings
- K-12 Schools
- Colleges and Universities
- Senior Living Facilities
- Hotels and Hospitality
- Office Buildings

3. Customize through Modular Design

The modular design allows for easy customization and zoning so the system can be tailored to each area of a building. Modularity also enables contractors to install systems floor by floor so developers can defer portions of the total installation cost until tenants sign leases.

4. Lower Overall Cost

Construction costs are impacted by the HVAC system, and the selection of VRF will have positive impacts. Many features result in efficient installation, including the use of refrigerant piping instead of bulky ductwork and fewer building penetrations. This makes VRF the smart choice for keeping costs down.



5. Optimal for Smart Buildings

While occupants want personalized local comfort control, building owners and facility managers are demanding better-centralized handling of equipment through more sophisticated controllers and building management systems. VRF systems can integrate with building management systems.

6. Improved Occupant Comfort

With conventional HVAC systems, facility management staff often gets inundated with calls about occupants being too hot or too cold. VRF eliminates complaints because it includes a thermostat in each zone, empowering occupants to personalize temperature.

Go Electric with VRF Solutions

Interested in learning more about how all-climate, all-electric, VRF systems are the best heating and cooling choice for your next building project? As a leading supplier of VRF solutions, Mitsubishi Electric Trane HVAC US (METUS) can provide you with a more energy and cost efficient solution for your commercial building project, whether new or a retrofit.

Visit MitsubishiComfort.com to learn more.