Your Partner In Building with Sustainable Solutions
Mitsubishi Electric Heating and Cooling Canada

Established in 1979, Mitsubishi Electric Sales Canada Inc. provides an extensive line of commercial and residential products that includes heating and air conditioning, energy recovery and fresh air ventilators, water heating and cooling technology, and more.

Dominating in the manufacturing world, Mitsubishi Electric has been at the forefront of innovation for close to 100 years. With national recognition in Canada and global trailblazing status, Mitsubishi Electric continues to pioneer the market by specializing in industrial technology, marketing and sales of electrical and electronic equipment, energy and transportation and construction. No matter what you do, where you live, work or play, Mitsubishi Electric products are enhancing the quality of your life.

Vision
To be the most trusted industry leader in providing innovative heating, cooling and ventilation technology engineered specifically for Canadian climates.

Mission
To deliver quality comfort and value to all Canadians through leading-edge engineering, locally inspired design, and a dedication to superior service.
Mitsubishi Electric Heating and Cooling is dedicated to continually improving our technologies and services by applying creativity to all aspects of our business. From VRF technology to Energy Recovery Ventilators, all of our innovations are inspired by our Seven Guiding Principles.

1. Trust
   Establish relationships with society, customers, shareholders, employees, and business partners based on strong mutual trust and respect.

2. Quality
   Provide the best products and services with unsurpassed quality.

3. Technology
   Pioneer new markets by promoting research and development, and fostering technological innovation.

4. Citizenship
   As a global player, contribute to the development of communities and society as a whole.

5. Ethics and Compliance
   In all endeavours, conduct ourselves in compliance with applicable laws and high ethical standards.

6. Environment
   Respect nature, and strive to protect and improve the global environment.

7. Growth
   Assure fair earnings to build a foundation for future growth.
Environmental Vision 2050

The Environmental Sustainability Vision 2050 is the long-term environmental management vision of the Mitsubishi Electric Group. We are committed to solving various factors that lead to environmental issues and uniting the wishes of each and every person to strive to create new value for a sustainable future. Our environmental declaration states, we shall protect the air, land, and water with our heart and technologies to sustain a better future for all.

1. Apply diverse technologies in wide-ranging business areas to solve environmental issues
   - Climate Change Measures
   - Resource Circulation
   - Live in Harmony with Nature

2. Challenge to develop business innovations for future generations
   - Long-term Activities
   - Innovation
   - Nurturing Human Resources

3. Publicize and share new values and lifestyles
   - Understanding Needs
   - Co-create and Disseminate New Values
   - Live in Harmony with the Region
**Major Milestones**

1987  
Mitsubishi Electric opened the HVAC Division in Canada with the sale of its Mr. Slim® product line, notably being the first company to introduce ductless technology to the market.

1996  
Introduced the P-Series as the first -40°C product to provide low ambient cooling.

1998  
Introduced Lossnay and Renewaire into the product mix to focus on ventilation solutions.

1999  
First manufacturer to introduce VRF technology in the Canadian market.

2001  
First City Multi VRF system was sold.

2004  
Launch of City Multi Water Source Geo-thermal system.

2007  
Introduced Zuba Central, with Hyper Heat (H2i™) technology.

2008  
First shipment of Zuba Central, a whole home ducted solution.

2009  
Mitsubishi Electric British Columbia Branch opens, the first and only direct sales office for Mitsubishi Electric in North America.

2009  
Launch of City Multi PWFY (Hot Water).
Major Milestones (Continued)

2012
- Relocation of the BC Branch to a new larger and custom fit facility, growing from 2000 to 8000 square feet.
  - First project involving “TG2000 Energy consumption monitoring” was Place des Nations located in St-Laurent, Quebec.

2013
- Started to sell the ECODAN model, an air to water heat pump.
  - VRF technology - Solo Phase 2 - 55 Storeys.
    - First Net Zero Building to use heat pump technology using Zuba Central - Harmony House, BC
    - First Office Building in Ontario to receive LEED® Platinum status - used VRF as the only source of heating and cooling - Enermodal Office Building, Kitchener, ON.
    - Tallest Building in Canada to apply VRF technology - Discovery Green Office Building, BC.

2017
- Launch of the Climaveneta product line, introducing the reversible air source heat pump.

2018
- First Building in Canada to receive a Zero Carbon Building, a design certification by the CaGBC, using water-source VRF technology – evolv1, Waterloo, ON
  - Launch of the MLZ One-way ceiling cassette.

2019
- Continuing completion of Westman Village-
  - The largest operational development using P-Series product in North America.

- Continuation of the Sifton West 5 Development where the homes have been and will continue to be labelled under the CHBA Net Zero Home Program.
Pioneering HVAC Technology
Variable Refrigerant Flow (VRF) Technology

Mitsubishi Electric VRF technology is the cutting edge in commercial air-conditioning solutions and one of the only two-pipe simultaneous heating and cooling system in the world. The two-pipe design allows for system changeover from heating to cooling, ensuring that a constant indoor climate is maintained in all zones. This technology is not only more cost efficient to install, but is durable, reliable, energy efficient, all while providing superior levels of control accuracy.

Variable Compressor Speed Inverter (VCSi) Technology

Unlike conventional systems which only cycle between On and Off, VCSi systems detect changes in room temperature and readjust the compressor speed to provide high-speed heating and cooling as needed, resulting in energy and cost savings.

Hyper-Heat Inverter H2i™ Technology

Mitsubishi Electric’s Hyper-Heat Inverter (H2i™) technology takes heating to a whole new level. Perfect for the challenging Canadian climate, this efficient and exclusive technology provides excellent heating performance and keeps indoor temperatures at a comfortable and consistent level, even when temperatures drop to -30°C*.

*Includes tolerance. Units can operate in heating mode down to -30°C depending on model and conditions.
Mitsubishi Electric Products
City Multi Features & Benefits

An adaptable reliable system, City Multi offers a wide range of solutions that meet your specific needs — bringing ultimate comfort and efficiency to your business landscape. Now you can have it all - energy efficiency, sustainability, low sound preference.

City Multi Solutions
• City Multi Air Source
• City Multi Water Source
• City Multi 575V
• City Multi Indoor
• LEV Kits

Multiple Advantages
• Versatile configurations and flexible applications
• A single cooling and heating solution to fulfill your needs
• Ease of installation
• Perfect acoustical comfort
• Ability to retrofit current systems with LEV Kits in order to leverage efficiencies of VRF

Functioning Specifications
• Capacity Range: 36 Btu/hr - 432 Btu/hr
• Heating Operating Temperature: down to -30º C
• Cooling Operating Temperature: up to 46º C

*Includes tolerance. Units can operate in heating mode down to -30º C depending on model and conditions.
Extended Warranty

At Mitsubishi Electric, we stand behind every product that bears our name.

That’s why all City-Multi systems are backed by our standard 1-year parts and 7-year compressor warranty.

With the completion of our CM-01, Installation and Commissioning, contractors can receive a 5-year parts and 7-year compressor warranty. In addition, they will be recognized as a Registered Level Contractor.

Then we take that protection to a whole new level.

With the completion of CM-02, Service and Trouble Shooting, we will upgrade contractors to an extended 10-year parts and 10-year compressor warranty. Contractors will then be recognized as a Diamond Level Contractor.

That’s peace-of-mind, Mitsubishi Electric style.

For more information on training go to the link below:
Ventilation

Mitsubishi Electric ERVs
• LOSSNAY®
• RenewAire
• PremiSys® (Dedicated Outdoor Air System)
• PremiSys® Fusion (Dedicated Outdoor Air System)

A Higher Standard

For over 20 years, Mitsubishi Electric has been a pioneer in providing Energy Recovery Ventilator (ERV) solutions for high profile commercial and residential projects all across Canada.

Mitsubishi Electric’s advanced line of Energy Recovery Ventilators (ERVs) help buildings meet the growing demands for improved indoor air quality (IAQ), energy efficiency, and ultimately aid in the fulfillment of green initiatives and stringent LEED standards.

Our range of ERVs and Dedicated Outdoor Air Systems recover up to 80% of sensible and latent energy from conditioned air and provide effective ventilation to remove indoor air pollutants such as Carbon Dioxide (CO2), formaldehyde, ammonia and volatile organic compounds that are harmful to human’s health.

Benefits of Mitsubishi Electric ERVs
• Cleaner Air Supply
• Energy Recovery and Savings
• Free Cooling with Bypass Damper
• Added Occupant Comfort
• Flexible Installation
Equipped to Protect
For over 25 years, Mitsubishi Electric has an immaculate track record of cooling server rooms in outdoor temperatures as low as -40°C/F†. In fact, our systems come factory ready to operate at extreme temperatures where as others by pass safety controls in order to operate at -40°C†.

Hyper-Heat Inverter H2i™ Technology
Even when temperatures drop to -40°C† – a challenge for many competitive air-source heat pump systems – P-Series stays on the job, keeping the indoors at a comfortable and consistent level with ease.

One Series Fits All
P-Series is the perfect choice for an array of demanding commercial applications:

• Small Office Buildings
• Server/Equipment Room
• Large Open Residential Floor Plans
• Retail Shops
• Restaurant and kitchens
• Fitness Center
• Schools
• Critical service, high reliability locations
• Hotels
• Hospitals
• Warehouses

†Requires ME windscreen for operation below -5°C
*When installed by an Authorized HVAC (Heating, Ventilation, and Air Conditioning) Installer.
Available as single and multi-split systems, M-Series systems are compact, quiet and energy efficient, providing personalized comfort in a wide array of residential applications.

Ducted or ductless, you can trust the quality of Mr. Slim® M-Series systems to deliver years of reliable comfort and satisfaction.
Mr. Slim M-Series Features & Benefits

**Whisper Quiet Comfort**
The Mr. Slim® M-Series includes whisper-quiet fans and compressors that work so silently you won't even notice they're on. Indoor units operate as low as 19 dB(A) and our outdoor units are some of the quietest in the industry.

**Variable Compressor Speed Inverter (VCSi) Technology**
Unlike conventional systems which only cycle between On and Off, VCSi systems detect changes in room temperature and readjust the compressor speed to provide high-speed heating and cooling as needed, resulting in energy and cost savings.

**Hyper-Heat Inverter H2i™ Technology**
Even when temperatures drop to -30°C* – a challenge for many competitive air-source heat pump systems – M-Series stays on the job, keeping the indoors at a comfortable and consistent level with ease.

**Flexible Installation, Ducted or Ductless**
Mr. Slim® M-Series was designed to have a wide array of applications and configurations. Ducted configurations can easily be implemented into existing ductwork, while ductless configurations are perfect for century homes, cottages, schools, commercial facilities, and more.

**Single Zone and Multi-Zone Applications**
Available in both single-zone and multi-zone applications, the Mr. Slim® M-Series can target tricky areas or address the individual comfort needs of multiple rooms, all within a single system.

*Includes tolerance. Units can operate in heating mode down to -30° C depending on model and conditions.
Reversible Air Source Heat Pump

Focus on your vision. Not low-carbon constraints. You don’t need to compromise to meet the standards of the new low-carbon economy. With innovative solutions from Climaveneta®, a brand by Mitsubishi Electric, you’ll have the flexibility and energy efficiency to bring your vision to life, exactly as you imagine it.

Now you can have it all:
• 45 years of industry experience
• Low Carbon, High Efficiency
• Flexible Installation
• Sole heating and cooling solution
• Optimized for the Canadian climate
• Rapid Ambient Temperature Adapting Technology
• Warranty - 5-year Parts and 5-year Compressors*

*Conditions Apply. See details of warranty terms at www.Climaveneta.ca
Audiences
Developers

We empower developers and building owners to create the most comfortable, capable, and profitable buildings that reduce maintenance, maximize efficiency, and minimize service calls through the highest rated ductless and VRF support infrastructure in the industry.

Our high efficiency, low-environmental-impact technology, will help you achieve LEED certification and long-term cost savings.

Why Mitsubishi Electric?
- 2-pipe Heat Pump & Heat Recovery systems require less ceiling space, simplifying installation and significantly reducing construction time
- Comprehensive occupant system control options depending on the application
- Industry leading operation efficiency levels with minimal annual maintenance requirements
- Comprehensive regional network of design and installation processonals who can meet the expectations of your project

Maximize Building Efficiency
- Easy to use control systems
- Integration with current building controls
- Highly efficient equipment

Supreme Thermal Comfort
- Zone-by-zone temperature control
- Remote monitoring and management

Reduce Troubleshooting and Maintenance
- Onboard diagnostics capabilities
- Remote monitoring and management
- Advanced error and warning messages
- Online resources to research/diagnose problems
Architects

Unlike conventional HVAC systems that present design challenges with their bulky outdoor units and trunks of ductwork, Mitsubishi Electric’s HVAC systems protect the integrity of your design, so you can design based on your vision, not traditional HVAC system constraints.

Why Mitsubishi Electric?
• 2-pipe Heat Pump & Heat Recovery systems require less floor, roof or ceiling space, simplifying installation and reducing construction time
• Comprehensive occupant system control infrastructure which can be adapted to the building needs
• Low sound fan and compressor technology applied through the system
• Industry leading efficiency at part-load conditions making an ideal choice for high performance buildings

Design Friendly
• Design-friendly systems and software to minimize errors during design process.
• Design Tool: A layout and system selection tool for efficient and easy design assist support for all Mitsubishi Electric Heating and Cooling systems.

Supreme Thermal Comfort
• Zone-by-zone temperature control
• Remote monitoring and management

Reduce Troubleshooting and Maintenance
• Onboard diagnostics capabilities
• Remote monitoring and management
• Advanced error and warning messages
• Online resources to research/diagnose problems
Engineers

We help mechanical engineers maximize their billable hours by providing easy-to-design, and operationally efficient, HVAC systems that experience minimal after-installation issues through the highest rated ductless and VRF support infrastructure in the industry. With our high efficiency, low-environmental-impact technology, you’ll achieve LEED certification with ease.

Why Mitsubishi Electric?

- 2-pipe Heat Pump & Heat Recovery technology requires less ceiling space, simplifying installation and reducing construction time
- Heating and Cooling performance optimized for all Canadian climates
- Integrated systems
- Industry leading SEER/EER/HSPF ratings
- Excellent efficiency at part-load conditions

Maximize System Efficiency

- Easy to use controls system
- Integration with building controls
- Highly efficient equipment to achieve LEED certification

Reduce Troubleshooting and Maintenance

- Easy to use controls system
- Easy to understand operation
- Superior Reliability

Design Friendly

- Design-friendly systems and software to minimize errors during design process.
- Design Tool: A layout and system selection tool for efficient and easy design assist support for all Mitsubishi Electric Heating and Cooling systems.
Contractors

We help mechanical contractors maximize their profitability by providing easy-to-install energy efficient HVAC systems that minimize service calls. With the highest rated training and support infrastructure in the industry, you can feel confident recommending our products to your clients.

Why Mitsubishi Electric?
• 2-pipe VRF system requires less ceiling space, simplifying installation and reducing on-site time
• Seamless Control Integration (Building Management & Control System)
• Tiered classroom-based contractor training programs
• Post installation & commissioning support with dedicated in-house product support teams

Comprehensive Training & Support Infrastructure
• Extensive and graduated customer product training
• City Multi Contractor Certification Program provides the tools and knowledge to help increase sales and overall expertise.
• Online resources to research/diagnose problems; technical support escalations when necessary

Easy to install. Easy to recommend
• Two-refrigerant pipe design vs. ductwork
• Simple field connections and minimal mechanical components
• Less material costs, no on-site surprises

Minimize Troubleshooting and Maintenance
• Onboard diagnostics capabilities
• Remote monitoring and management
• Advanced error and warning messages
• Online resources to research/diagnose problems
We help company owners by providing a partnership with total HVAC solutions. With the highest rated training and support infrastructure in the industry and HVAC products tailored for the Canadian climate, you can feel confident recommending our products to your clients.

**Why Mitsubishi Electric?**
- Total HVAC Solutions Partner
- Leader in Commercial HVAC
- Pioneers in HVAC Products for the Canadian Climate
- Fulfillment on a local level
- Highly efficient equipment that will provide the desired comfort while saving energy

**Industry Leading Training and Support**
All installers are Mitsubishi Electric Quality (MEQ) trained technicians and are provided with the highest level of resources needed for installing our equipment.

**Cutting Edge Technology**
- 2-pipe Heat Pump & Heat Recovery technology requires less ceiling space, simplifying installation and reducing construction time
- Heating and Cooling performance optimized for all Canadian climates
- Integrated systems
- Industry leading SEER/EER/HSPF ratings
- Excellent efficiency at part-load conditions
National Accounts
National Accounts

Benefits

• **Total HVAC solutions partner**
  Beyond heating and cooling, we also offer ventilation solutions that can help improve IAQ while achieving energy savings at the same time. With our controls line-up, you can achieve flexibility and comfort for your occupants

• **Preferred Pricing**
  Receive savings on HVAC equipment and controls, with special considerations for any future new buildings, or on any expansions or retrofits to an existing site

• **Custom Training**
  We offer comprehensive product training tailored to meet the special requirements of a specific building to ensure our partners’ teams have a clear understanding their Mitsubishi Electric system
National Accounts

Benefits

• **Extensive Industry Experience**
  We provide HVAC solutions for hotels, condominiums, stores, institutional, office buildings, industrial and many more

• **National Support Capabilities**
  We have a widespread experienced staff support all across Canada to assist you when you need it

• **Intuitive, Energy-Efficient Systems**
  Our systems provide high energy performance capabilities and requiring minimum service

• **Tailored Solutions**
  Receive the best solution for your precise needs with our different control options
Case Studies
Wyndham Garden
Calgary, Alberta

A Sound Challenge
Featuring breathtaking views of the Rocky Mountains and the Calgary city landscape, the Wyndham Garden Calgary Airport is a new full-service addition to Calgary’s tourism and hospitality industry. While the hotel’s 3 km proximity to the airport is convenient for guests, it brings forth an unexpected design and engineering challenge — airplane noise reduction.

“It makes the room really quiet, which is best for the hotel’s guests.”
— Terry Tson, Certified Engineering Technologist
**Wyndham Garden**  
*Calgary, Alberta*

**Challenge**  
Nick Karas, the hotel’s owner, wanted to ensure his guests experience a peaceful stay and a good night’s rest, not noise issues that result in guest complaints and negative online reviews. One of the main concerns was the air conditioning and heating units for the rooms. Traditional Packaged Terminal Air Conditioners (PTACs) are window units that are placed in the wall and have a direct vent outside, bringing in outdoor noise from planes passing by.

**The Quiet Solution**  
Terry Tsan, the Certified Engineering Technologist working on the project, recommended the Mitsubishi Electric Wall-Mount indoor units that don’t have any vents or other components that extend outdoors. Instead of a vent facing outside, piping connects the units to exterior rooftop units to provide heating and cooling. As a bonus, the units are very quiet when running and offer longer-term operational cost-savings.

**No Noise. No Complaints.**  
After three years of operating wall-mount indoor units from Mitsubishi Electric, building owner, Nick Karas, is pleased to report that there have been no noise complaints from the guests. He views this engineering, design and construction decision as an investment made in the overall guest experience and ultimate satisfaction with their stay.
Trinity Glen
Newmarket, ON

The Challenge
Trinity Glen is a co-operative housing complex located in the town of Newmarket, Ontario. Built in the late 1980s, its original heating source was electric baseboard heating, which can be very costly. Trinity Glen needed a modern, energy-efficient heating solution that would be easy for residents to use daily and cost-effective to run and install.

“Exceeded expectations in savings on the heating side with a 50% reduction on average”
– Bob McKeraghan, President of Canco ClimateCare
Trinity Glen  
_Newmarket, ON_

Energy Saving Solution
After three companies submitted proposals, Canco ClimateCare came back with the best bid using Mitsubishi Electric products, including Zuba-Multi heat pumps that provide up to 80% of their rated capacity at -25°C, meaning residents would have little or no reason to turn on their baseboard heating, saving money from day one.

Individually metered. Seamlessly installed.
Not only do the new Mitsubishi Electric units blend seamlessly into the sightlines of the building, each system is individually metered, allowing for further savings versus the previous baseboard system. Still, the key benefit of the new install and heating system is the everyday savings it will bring to residents.

“Mitsubishi was chosen because the system performed the best at low temperatures efficiently generating a high amount of heat in temperatures as low as -27°C.”  
– Tom Melanson, of Mits AirConditioning Inc.
Westman Village
Calgary, Alberta

The Largest Operational Multi-Unit Residential Development Using P-Series Products in North America
Westman Village is a new development by Jayman BUILT located in the community of Mahogany in Calgary, Alberta. Redefining the way new homes are built, bought and lived in, the carefully designed community includes condominiums, townhomes, seniors’ residences and long-term leasing condos.

“\nThe Cadillac of heating and cooling units.\”
– Dennis Aucoin, Senior Development Manager/Senior Project Manager, Westman Village, Jayman BUILT
Westman Village
Calgary, Alberta

The Challenge
As many of the prospective new residents and homeowners would be downsizing, the units needed to be quiet and the building had to create a seamless transition with top-quality products that would meet high expectations. This includes everything from the finishes to the heating and air conditioning units. The heating and cooling units also had to be energy efficient, as Jayman BUILT prides itself on green construction, being the first builder in Alberta to have solar panels as standard on all their new homes.

The Solution
Mitsubishi Electric individual split and centralized VRF systems were chosen thanks to their efficiency, reputation and ease of maintenance. Their whisper-quiet sound was also a deciding factor, as the units emit about half the noise of a regular unit in a house. The slim, suitcase-style units were perfect for more compact living spaces.

Furthermore, the Mitsubishi Electric units are all about consumer comfort and use unique design and engineering solutions to deliver it. Typically, a normal air conditioning unit runs on full blast, cooling the entire space then shutting off. But these units are built to get to a certain temperature and maintain it, which allows for lower energy use and improved comfort.

The Results
Delivering energy efficiency while maintaining reliable, whisper quiet heating and cooling, reviews of the Mitsubishi Electric solutions have been highly positive, with the unique community development garnering media attention, including in the Calgary Herald.
Modello
Burnaby, BC

A Beacon For Luxury Living
This stunning 37-storey residential building is equipped with the Mitsubishi Electric City Multi VRF system to provide a cutting-edge combination of efficient heating and cooling, energy recovery, and ventilation for its 1, 2, and 3 bedroom suites. Powered by a state-of-the-art geothermal loop, residents enjoy the perfect temperature all year round and the benefits of individual thermal metering for utility cost control.

“We saw an opportunity to create something that was very elegant, and had the quality and excitement of a five-star hotel.”

— Chris Dikeakos, founding and Managing Principal of Chris Dikeakos Architects, Inc.
Modello
Burnaby, BC

Design Without Compromise
Without the restraints of conventional HVAC systems that present design challenges with their bulky outdoor units and trunks of ductwork, the elegant and dynamic vision for Modello was fully realized. Modello’s bedrooms are bright and generously sized, with a streamlined design that makes the most of the space, while also delivering state-of-the-art heating, cooling, and ventilation.

Geothermal/VRF Heating and Cooling
State-of-the-art geothermal heating and cooling provides the perfect temperature all year round with individual thermal metering of each home’s heating and cooling for utility cost control.

“*The building was designed from the core out. By doing so, we have created floor plans with no wasted space. Every square foot is being used to the max.*”
- Ben Amzaleg of Magnum Projects
Solo District
Burnaby, BC

Energy Savings From The Ground Up
SOLO District is one of the largest master planned mixed-use communities in Lower Mainland Vancouver and features four iconic residential towers boasting 1,400 new homes with spectacular views, great shops and services, and a modern twelve-storey office tower. It stands tall as an excellent example of what can be accomplished by incorporating energy-saving measures from the ground up. In fact, the Phase 2 condo currently holds the record for “World’s Tallest Building with City Multi.”

• Sustainable and Energy Efficient - SOLO District is equivalent LEED® Gold with features such as central air conditioning, state-of-the-art geo-exchange system and the most energy efficient heating and cooling system available.
• Water-source City Multi VRF Heat Recovery System, 575V installed floor by floor
• 2600 tons total nominal capacity, 570-800 tons per building
Solo District
Burnaby, BC

Energy Saving Measures Built Into Stratus And Altus Include:
• Increased roof and wall insulation
• High-efficiency window glazing
• Interior and exterior lighting controls
• A variable refrigerant flow (VRF) system

“…a VRF system can provide the ultimate in energy conservation. The energy-modeling study showed that the VRF alone will help Stratus save over one million kilowatt hours of energy over a year* over a conventional HVAC system.”
- Bojan Andjelkovic, BC Hydro Specialist Engineer

Predicted energy savings of just over 1.16 million kWh/year
That’s enough to power more than 105 single-family homes in B.C. for a year.

*As predicted by www.bcbusiness.ca/bosa-goes-big-on-energy-efficiency-with-burnaby-tower-at-solo-district
Rogers Place
Edmonton, Alberta

The Challenge
Rogers Place is a newly built indoor multi-use arena in Edmonton, Alberta and the home of the NHL® Edmonton Oilers. Owned by the City of Edmonton, the large-scale, high-profile project took over two years to build and cost over $600 million. There were several stakeholders in its construction, including the close gaze of the public. As such, the project demanded close attention to detail, and suppliers who could meet escalated timelines and provide energy-efficient products that could achieve LEED® Silver standards.

“...It’s nothing short of phenomenal...”
- Steve Van Moanen, Mechanical Designer and Contract Administrator
Rogers Place
Emmonton, Alberta

The Solution
Sercon Refrigeration selected Mitsubishi Electric City Multi VRF for the equipment. Rogers Place has a number of electrical and mechanical rooms that required cooling and the ductless split solution was the best fit for its needs. It allowed for easier installation and is more flexible than alternative solutions. Rather than alternating between ‘on’ and ‘off’ like traditional air conditioning systems, the Mitsubishi Electric models used for the Rogers Place arena never turn off completely. Instead, they are always running in the background, adjusting the compressor speed in real time. The result is a more comfortable indoor environment and improved energy efficiency. Less power is used because the system is only cooling to maintain, rather than achieve, the desired temperature.

The Results
The Mitsubishi Electric system has been working smoothly and efficiently since 2015 and Rogers Place has received numerous accolades, including being named one of the best stadiums of 2016 by Sports Management and receiving the Engineering News-Record Global Best Projects – Award of Merit, Sports/Entertainment. It has also triggered a boost in tourism and hospitality and is the main attraction of the Ice District – a mixed-use sports and entertainment district being developed around the arena.

“We’ve always liked Mitsubishi equipment and it’s always been high end. So on a project like this we didn’t want to gamble on a manufacturer. It’s worked out great.”
–Cory Somers, Managing Director, Sercon Refrigeration
London Normal School
Calgary, Alberta

The Challenge
This heritage building in the Wortley Village neighbourhood of London, Ontario is a mixture of Classical, Romanesque and Gothic revival architecture. When the City of London bought the building and land in 2014 with plans to restore it to house the YMCA of Western Ontario, they faced a unique challenge – completely overhaul the interior with minimal disruption to the building’s heritage status.

“...They’ve done a great job to ensure that any heritage restrictions were met while bringing the facilities up to modern standards.”
- Chris Wick, Regional Manager of Camps, YMCA of Western Ontario
London Normal School
Newmarket, Ontario

A Solution That Fits
Steve VanMaanen, the Mechanical Designer and Contract Administrator for the project, worked with the City of London and formed a large team of architects, mechanical engineers and contractors. The team researched options available and agreed that Mitsubishi Electric VRF systems were the best fit because they were the only ones in the market that met the space and installation limitations.

The Results
The London Normal School was able to maintain its heritage status even after major upgrades. The overall feedback from users has been that temperatures are well maintained throughout the building. Users also appreciate that different areas have independent control of their heating and cooling, rather than one uniform setting throughout the building.

“This was the best system design to provide today’s requirements for the fresh air, heating and cooling in an existing heritage building.”
– Vanderwesten & Rutherford Ltd. Engineering Consulting Firm
The Challenge
The Bruce County Housing Co-op is a government-owned social housing complex made up of sixteen similar townhouses, most of which were still using the original, inefficient electric furnaces that were installed in the 1980s. When the complex received a government grant to improve their infrastructure, they knew upgrading their heating would be a smart investment. Since AC would be an additional expense to the tenant, it was essential that the system be efficient in both heating and cooling. Other key factors to consider were a low initial capital cost, operating system cost, as well as a quick and simple retrofit.
The Solution
DEI & Associates Inc. specified Mitsubishi Electric's Zuba Central heat pumps because the equipment met every one of the client’s requirements. Performing best at low temperatures, it provides 80% of its rated heat at -25°C, meaning it operates superior to other central heat pumps. Thanks to this much heat being generated efficiently at low temperatures, the inefficient backup electric heaters will rarely be used, if at all.

The Results
Retrofit times were very quick, with each heat pump taking only one day to install. This helped keep initial capital costs in check and minimized disruption and inconvenience for the tenants. Since the installation was approximately 18 months ago and a larger time period is needed to gauge the long-term results, limited data is available.

“The existence of ductwork, combined with the costly electric furnace systems, made the Mitsubishi Electric Zuba Central Heat Pumps an attractive option.”
–Tom Melanson, Territory Manager, Mits AirConditioning Inc.
Le Sommet 3V Condominium
Québec City, Québec

Le Sommet 3V condominium is located at the entrance of Quebec City near two main bridges and Laval University. Newly built in 2018, the 14-storey condo was designed with innovative and sustainable green living in mind.

“Building apartments with small air conditioning units that make low noise is very important for condo owners.”

—Steve Fortin, Engineer for EBC inc. and Representative of Marc Loichant
Le Sommet 3V Condominium
Québec City, Québec

The Challenge
To attract future residents and investment buyers at the purchasing stage, developer Marc Lachance wanted to create a high-quality condo building with well-equipped units. To achieve this, he included design features such as glass facades and luxurious interior finishes, as well as resort-like amenities that include a pool, rooftop terraces and Tesla electric car-sharing services. It was important that everything in each unit was of superior quality and performance, including the air conditioning units.

The Solution
Working with Enertrak, the exclusive distributor for Quebec and Atlantic Canada of Mitsubishi Electric Sales Canada Inc., Mr. Lachance decided on Mitsubishi Electric air conditioning units for his project. Prioritizing the end-user experience, Enertrak was pleased with the units’ reliability and Mitsubishi Electric’s technical service and parts availability, offering peace of mind should anything go wrong. In addition, the low noise level of the units and the minimal space required to install the indoor unit were also attractive features. From an economical perspective, the pipe size of 1/4 and 3/8 also helped save money during the installation process.

The Results
Mitsubishi Electric’s Mr. Slim single-split units were able to meet the specifications and the needs of the customer. This included installing the indoor unit above the pantry door, as well as the option to choose an air conditioning-only system. With the Mitsubishi Electric air conditioning models, residents of Le Sommet 3V now enjoy more living space, low noise disruption and high-quality, high-performing energy-efficient air conditioning.
Victoria Common Condominium

Kitchener-Waterloo, Ontario

The Kitchener-Waterloo region in Ontario is an up-and-coming area for homeowners and investors looking to purchase property without the sky-high prices of Toronto. With many new-build houses and condos planned and on the market, new residential developments need to stand out to compete. One of these communities is Victoria Common, by Queensgate Developments (Kitchener) Inc. When complete, it will include five mid-rise condo buildings with over 990 residential suites. To remain competitive, the condos are contemporary in design with a brick, steel and glass façade. All units include patios, balconies or terraces.

Mitsubishi Electric provided a lot of time advising and reviewing documentation; it was like having a second check from a manufacturer.”

—Leon Demalter, President of DEI Consulting Engineers
The Challenge
To make their development stand out in such a competitive environment, Queensgate aspired to build a single geothermal system that would work for all five buildings to provide better energy efficiency and redundancy, ensuring that no one building could ever be without heating or cooling. Sam DeCaria, President of Anew Building Corp., explains that energy- and cost-savings for the developer and for end-users was essential and thus the option of using a geothermal district energy system, which offers 30% energy-savings when compared to other systems, was very attractive.

In order to fulfill their vision, Queensgate needed a high-efficiency HVAC system that could connect to the geothermal system and reliably carry heating and cooling to each suite with the highest level of comfort and control.
Victoria Common Condominium
Kitchener-Waterloo, Ontario

The Solution
Mitsubishi Electric Heating and Cooling stepped in with City Multi VRF (Variable Refrigerant Flow) Water-Source Heat Recovery systems, a solution that would allow Victoria Common buildings to use a geothermal district energy system without having to install a huge infrastructure before all the buildings are built. They suggested constructing each building on independent geothermal bore-fields, with multiple modular water-source VRF systems that provide redundancy, high energy efficiency and individual suite as well as whole-building digital controls. The VRF systems recover energy from zones on each floor of a building before drawing energy from the geothermal field. This means it can draw heat from a part of the building that needs cooling and transfer it to an area that needs heating.

There were other benefits to this solution, too. Unlike traditional systems, Mitsubishi Electric’s Water-Source VRF Heat Recovery Systems didn’t require water pipes or pumps throughout the building, which can lead to leaks and headaches for the developer, property management and residents. There are no compressors in occupied suites, so the system operates at very low sound levels, almost a whisper, even during the summer cooling season. The individually metered systems offer residents the convenience and flexibility of operating heating or cooling year-round, which is perfect for older residents who might want heat in the summer or people who run hot and need a cooler temperature to sleep well.

Mark Zwicker, Principal at Architecture Unfolded and Victoria Common architect, also appreciated the design flexibility of the in-suite air distribution units, as they were smaller and offered more placement options, meaning they are hidden in the ceiling freeing up additional floor and living space and not obstructing windows.
The Results
Everyone involved with the project was very pleased with the results. Mitsubishi Electric met budget constraints and worked with a third-party energy provider to provide individual suite monitoring and measuring for billing purposes. Trained contractors, factory oversight and their 10-year warranty ensured quality installation and the reliability the client required. Since geothermal energy is a newer technology, everyone involved was extremely appreciative of the experience and extra support provided by Mitsubishi Electric to ensure the project was a success.

“Variable refrigerant flow and geothermal energy are not the norms – there’s a lot at stake if it doesn’t work. There’s a big learning curve, the system has to work for all parties, and it takes time to find a comfort level. The Mitsubishi Electric brand was huge in giving us the confidence to use this technology because they’re a proven, reputable brand and company.”
– Sam DeCaria, President of Anew Building Corp., a partner of Queensgate Developments (Kitchener) Inc.
Located in a new commercial development near the major freeways of Québec City, Place de L'Escarpement is new A-class office building. All 145,000 square feet of its office space has been leased and is now occupied. This exceptional real estate complex borders the Parc de l'Escarpe and the Éco-promenade des Rivières.
The Challenge
In Canada and around the world, LEED is a proven and holistic path to addressing climate change, and to create buildings that are more resource-efficient, healthy and resilient. Addressing the new landscape of environmentally friendly developments, the designers of Place de L’Escarpeament wanted to achieve a LEED GOLD certification. To achieve these high expectations, the developer needed a reliable HVAC system that would optimize energy efficiency while providing their occupants advanced control over thermal comfort.

The Solution
By installing capacities of nearly 4 million Btu/h of City Multi Water-Source systems, the building now serves simultaneous heating and cooling using geothermal energy over its 148,000 sq. ft. of floor space.

The Results
From a combination of geothermal, heat recovery and lighting fixtures, this office building is designed to reduce energy consumption by more than 55 percent compared to the reference model building based on CMNEB standards. The amount of energy saved annually will be able to provide electricity to 110 standard single-family homes each year. Place de L’Escarpeament is currently the largest geothermal installation in Quebec City and is also one of the top 10 most efficient buildings in its class in Canada.
Nestled in one of the fastest-growing areas of downtown Vancouver, 510 Seymour is a boutique, multi-use office, retail and educational building that was completed in 2016. The commercial building is part of the eastward shift of the Vancouver business district and is conveniently located close to Simon Fraser University, the British Columbia Institute of Technology, the Skytrain, public amenities and shopping.

"The Mitsubishi Electric system [has] the ability to have energy billed floor per floor. Multiple tenants can be billed separately for a fairer distribution of energy costs."

—JS Tessier, Principal Engineer, Integral Group
510 Seymour
Vancouver, BC

The Challenge
Serracan Properties, the developer of the project, was searching for a cost-effective heating and cooling solution for the small, 10-storey building. The system needed to accommodate high ceilings and have features and functionality that fit with the classy space, including low noise that wouldn’t disrupt the acoustics.

The Solution
After exploring different mechanical systems and options for heating and cooling, Serracan Properties decided on the Mitsubishi Electric Citi Multi Air Source Heat Pump System. The cost-effective solution was ideal for this project because it allows for individual monitoring and billing of energy consumption by floor. This means that the landlord can bill each tenant separately, which is an attractive feature for tenants who want to control their energy costs.

Another important factor was the energy efficiency of the Mitsubishi Electric system. Adler University, one of the main tenants, is LEED Gold certified. In order to maintain the certification, the heating and cooling system it uses needs to meet the LEED standards, which the Mitsubishi Electric system does.

The Results
The 510 Seymour project was completed successfully and is now a part of Vancouver’s vibrant downtown community. In addition to Adler University’s Vancouver campus, tenants include a restaurant, retail shops and a rooftop event space complete with a weather-protected barbecue area.
Sifton Centre
London, Ontario

Sifton Centre is located in London, Ontario and is the cornerstone of Sifton Properties ‘West 5’ project that will include residential apartment buildings, townhomes, a retirement home, grocery store and medical offices. In total, there will be approximately 2000 residential units and 250,000 to 300,000 square feet of commercial construction. The entire master-planned community is projected to take about 10 years to complete.

“The Mitsubishi Electric system is the most cost-effective and energy-efficient solution you could put into a building of this size.”
—Neil Carter, Director of Commercial Construction, Sifton Properties
The Challenge
As the first building in the community and the developer’s main space, the Sifton Centre needed to model everything the
community was going to be – innovative, technologically advanced and energy-efficient. With net-zero energy consumption
as the goal, every aspect of the design was carefully considered, from solar panels to LED lighting to ultra-tight insulation.
For the heating and cooling system, Neil Carter, Director of Commercial Construction at Sifton, explains that energy-
efficiency, cost-effectiveness and the best payback period were the key considerations.

The Solution
Sifton Properties worked with Smith and Andersen Ltd., an engineering consulting firm, to conduct energy modelling to
determine the most efficient and cost-effective HVAC system. The results of the energy modelling revealed that an electric
air-source variable refrigerant flow (VRF) system was the best option. After accepting three bids, Sifton selected Mitsubishi
Electric’s City Multi Air Source system, as it met all their criteria the best.
The Results
After using their new office space for three years, Sifton Properties is incredibly pleased with their HVAC system. Carter reports that year-round, including throughout winter’s below-freezing temperatures and summer heat waves, everyone is quite comfortable in the building.

Even -20°C temperatures are no match for the fan coil and condensing units, which are able to completely provide all the heat required throughout the building. In terms of energy efficiency, Carter confirms the system is extremely efficient, “exactly as we modelled it.”

In fact, the system performs exceptionally well with the building’s other net-zero construction features that the building actually produces more energy than it consumes (is net positive) - Sifton even receives a credit on their monthly utility bills.
Built in 2018, the evolv1 office building in Waterloo, Ontario, is a green project leading the way in energy conservation. As the first office building to receive the Zero Carbon Building-Design Certification from the Canada Green Building Council, evolv1 is a landmark project for developer and owner, The Cora Group, who collaborated with Sustainable Waterloo Region, the David Johnston Research + Technology Park and anchor tenant EY to envision the building.

“...Our original vision was to design and build a building that was net positive energy at similar costs to conventional construction – and we were determined to prove it was possible.”

- Adrian Conrad, Chief Operating Officer, The Cora Group
evolv1

Waterloo, Ontario

The Challenge
evolv1 was designed to not just maximize energy efficiency, but to create more energy than it consumes. As part of this mandate, all components needed to be energy-efficient, including the HVAC system.

The Solution
Since the CaGBC standards for a Zero Carbon certification specifically mention the HVAC system, Mitsubishi Electric’s energy-efficient heating and cooling systems were a natural fit. Mitsubishi Electric’s City Multi Water-Source VRF Heat Recovery System was chosen because it not only regulates the flow of refrigerant to the fan coils, but it also changes the water flow rate to minimize the pumping energy. The Mitsubishi Electric heat pump system is also whisper-quiet, and is a great solution for office, commercial, education and residential applications.

It is the most efficient way of heating the building – the source of the heat is warmer because you have a geothermal system pulling heat from the ground instead of air, which is cooler and needs more energy to move the same amount.
The Results
evolv1 attained its Zero Carbon Building-Design certification from CaGBC and has become a model for future developments. MacDonald points out that zero carbon buildings are known to have energy, operational and maintenance costs savings. They also have a lower unoccupancy rate and more productivity, as the human experience is improved. In fact, MacDonald says the upfront capital costs add only between 4% and 10% to the total, but lifecycle costs over 25 years come out neutral or under. This means the upfront investment completely pays for itself or ends up making money.

“Mitsubishi Electric Heating and Cooling products were selected right from the get-go during the design phase.”
– Syed Abid, Sales Manager, HVAC Division of Mitsubishi Electric Sales Canada
Thank You
Contact us