

Common Parts*



Cooling Options



RPM-E Pre-Piped Cooling Module



Water Coil Module

Heating Options



Hot Water Coil



Electric Strip Coil

Other Options



PWM Zoning Controller



Hi-Velocity Air Purification System



HE Fancoil
*Example Configuration Only

HI-VELOCITY HE SERIES INSTALLATION MANUAL

THANK YOU FOR PURCHASING THE FINEST IN INDOOR AIR QUALITY SYSTEMS.

The Hi-Velocity System is an energy efficient high pressure air delivery system that can be designed to provide heating, cooling, filtration, ventilation, humidification and dehumidification.

EASE OF INSTALLATION

The Hi-Velocity System can be installed in 25 per cent less time than a traditional heating system and is equally suitable for commercial and residential, in both new construction and retrofit applications. For residential applications where every cubic foot of area is critical, the Hi-Velocity System is the solution to your heating and cooling needs. Being able to run duct work into places where standard duct work would not fit, allows heating, cooling and ventilation to be installed in applications where the options are very limited.

The Hi-Velocity System works on the principle of pressure rather than air velocity. It is quite different than a conventional furnace, the main difference being that the supply duct work is all "small diameter" or "mini duct".

With a pressurized small diameter duct we condition the air differently than conventional forced air systems. With the use of a high pressure area to low pressure area, we continuously mix the room air, creating even temperatures from floor to ceiling. Because the plenum duct is pressurized, dust build-up within the duct work is eliminated. With continuous air circulation from the constant fan, airborne dust and other allergens can be easily filtered out of the air, and conditions that promote the growth of mold and mildew are reduced.

Our innovative fan coil and unique cooling module technology helps create a healthier and more enjoyable indoor living environment for the end-user, while saving money on monthly operating costs.

Powered by a variable-speed EPC motor, the Hi-Velocity System can be used for heating, cooling, or a combination of both. The EPC motor quietly drives the system's fan continuously, limiting wear and tear and increasing the lifespan of the system.

We are confident that you will enjoy years of trouble-free service from your Hi-Velocity System. As with any product that requires installation and assembly, a good understanding of ALL the components and the final product is necessary to achieve the optimum result. This manual has been designed to be as concise and straightforward as possible.

**PLEASE READ THE ENTIRE
MANUAL BEFORE BEGINNING
INSTALLATION AS THIS WILL HELP
AVOID MISTAKES THAT MAY COST
TIME AND MONEY.**

PRIMARY APPLICATIONS: HEATING UP

To provide heating, the system can be used in conjunction with any water source (hot water tank, boiler or geothermal). Unlike traditional heating and air conditioning systems, it does not depend on the natural laws of convection. A network of smaller, flexible ducts operate under high pressure to continuously circulate air and ensure even heat distribution. When using a hot water tank, after going through the heating system, the hot water is recycled for household use. With a proper tank, the Hi-Velocity System can reduce energy requirements by up to 50 per cent.

COOLING DOWN

For air conditioning, a cooling module, condensing unit, chiller, heat pump or geothermal system can all be used. The high pressure distribution network cools each level of the structure evenly. Use of a lower CFM across the cooling coil means that the Hi-Velocity System can remove up to 30% more moisture from the air than conventional systems, leaving a constant and comfortable temperature on the skin surface.

BREATHING RIGHT

IAQ is integral to the comfort and health of a building's occupants. The optional Hi-Velocity Air Purification System (HE PS) was designed to complement the heating and cooling system. It contains three powerful technologies. First, an electrostatic MERV-11 filter removes allergens. Photo-catalytic oxidation is then used to destroy toxic chemicals and eliminate odours. Finally, Ultraviolet Light is used to kill germs on contact. The result is clean, purified air, and unsurpassed Indoor Air Quality for your home or office.

For all of your heating, cooling, and Indoor Air Quality needs, the Hi-Velocity System is the right choice for you!

QUALITY ASSURANCE

Fan coil units shall be a total indoor air quality system complete with heating, cooling, air filtration, and possibility of humidity control and fresh air make up. The fan coil must be factory manufactured, assembled and tested.

All equipment furnished under this specification shall comply with the following standards:

ASHRAE American Society of Heating, Refrigerating and Air-Conditioning Engineers

AHRI Air-Conditioning, Heating, and Refrigeration Institute

CSA Canadian Standards Association

CE European Conformity

DOE Department of Energy

UL Underwriters Laboratories

Refer to **Module SPC - Specifications and Sizing** for system specifications, measurements, etc. For more detailed specification pages please see our website, www.hi-velocity.com.

Also available on our Website:

- **Installation Videos**
- **Promotional Video**
- **Engineering Specifications**
- **Applications**
- **Downloadable Installation Modules**
- **Performance Graphs**
- **Brochures and Marketing Tools**
- **Complete Parts List**
- **Complete list of Agents/Distributors**
- **News and Newsletters**
- **Case Studies**

THE HI-VELOCITY SYSTEM IS NOT TO BE USED AS TEMPORARY HEATING/COOLING DURING THE CONSTRUCTION OF THE STRUCTURE. IF USED IN THIS CAPACITY ALL WARRANTIES WILL BE NULL AND VOID.

WARRANTY

One year limited warranty. The heat exchanger and blower are free from defects in workmanship for one year from date of purchase.

Three year limited warranty. The EPC Motor, EPC Controller, EPC Circuit Board and PWM Controller are free from defects in workmanship for three years from date of purchase.

Two year limited warranty. The electrical strip heater is free from defects in workmanship for two years from date of purchase.

This warranty applies only to the fan coil unit and does not include connections, attachments, and other products or materials furnished by the installer. This warranty applies only to the first purchaser at retail and excludes any damages caused by changes, relocation to, or installation in a new site. This warranty does not cover any defects caused by failure to follow the installation and operating instructions furnished with the fan coil, local building codes, and good industry standards. Failure to correctly install the fan coil, or material related to the unit, may result in improper system performance and/or damages and will void this warranty.

TERMS AND CONDITIONS

- Any repair performed under warranty must be approved by Energy Saving Products Ltd. for this warranty to be valid.
- The manufacturer is not liable for any other damages, personal injury, or any other losses of any nature.
- The liability of the manufacturer is limited to and shall not exceed the cost of replacement parts and shall not include transportation to and from the factory, and field labour.
- Inoperative parts must be returned with serial number, purchase date, and a detailed description of the entire problem with an ESP RMA Form.
- This warranty replaces all other warranties expressed or implied.

DISCLAIMER

Energy Saving Products Ltd. reserves the right to discontinue, make changes to, and add improvements upon its products at any time without public notice or obligation. The descriptions and specifications contained in this manual were in effect at printing. Some illustrations may not be applicable to your unit.