

Hi-Velocity Systems™

Small Duct High Velocity Heating, Cooling and Indoor Air Quality Systems

Superior Heating, Cooling and Indoor Air Quality in a Small and Energy Efficient Package



Zoning-Ready HE-Z Series



- Quiet Operation
- Constant Air Circulation
- Easy Installation & Maintenance
- Space Saving Small Diameter Ducts
- Zoning Capable right out of the Box!
- Many Attractive Vent Plate Options
- Superior Heating, Cooling and IAQ
- Eliminate Hot and Cold Spots

Perfect for **Retrofit Applications**, the Hi-Velocity Small Diameter Duct System fits in confined areas with **no major remodelling!**



White Plastic



Stainless Steel



Silver Vein



Copper Vein



Black Wrinkle



Unfinished Maple



Unfinished Oak

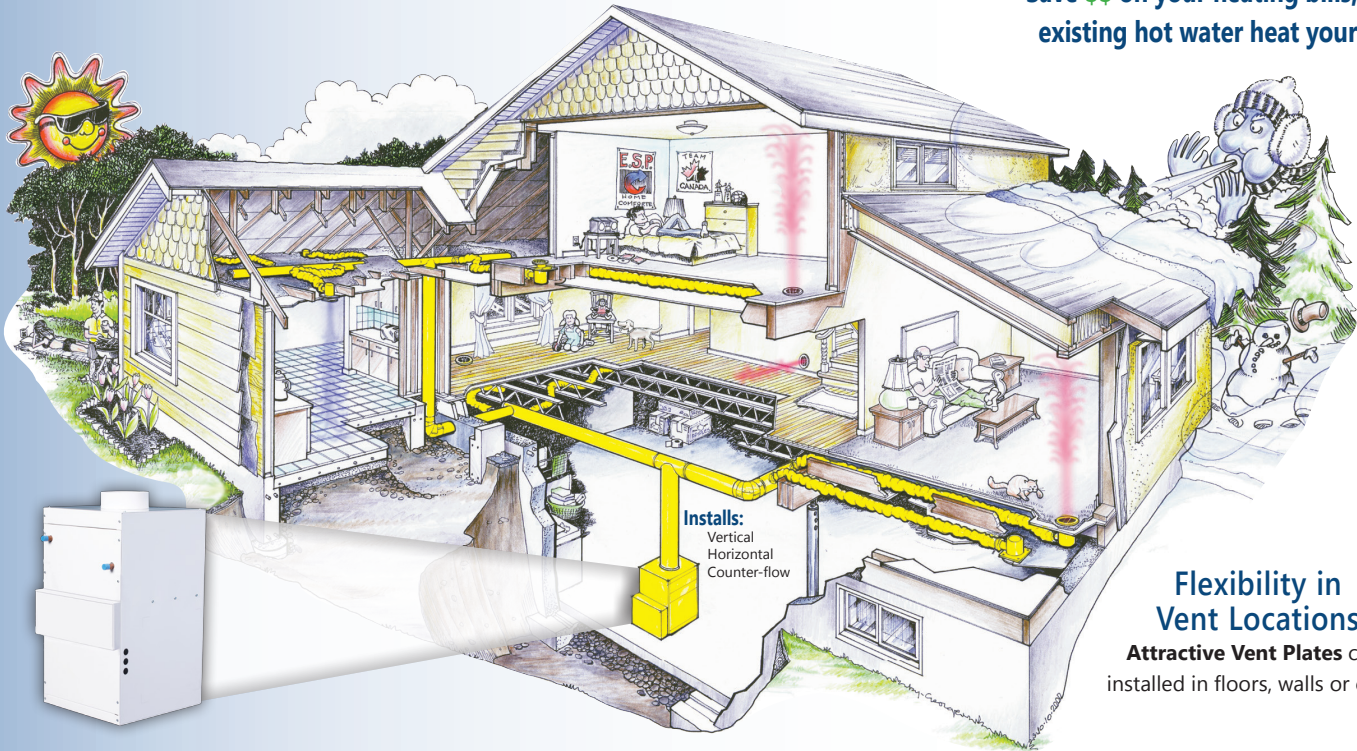
www.hi-velocity.com

Hi-Velocity Systems™

Small Duct High Velocity Heating, Cooling and Indoor Air Quality Systems

Comfort From Floor to Ceiling, Satisfaction From Room To Room. See what makes us *Different*.

Save \$\$ on your heating bills, let your existing hot water heat your house!



Installs:
Vertical
Horizontal
Counter-flow

Flexibility in Vent Locations

Attractive Vent Plates can be installed in floors, walls or ceilings.

Inverter Drive Technology

High Efficiency, **Reduce Operating Costs** up to 50%

- **3-Phase Motor** will supply 1.5 to 5 tons (5.3 to 17.6 Kw) air flow
- Comes standard with **Zoning Capabilities**
- **110v Supply** comes standard, with optional 220v
- 3 Independent Field Adjustable Speeds:
 - Cooling
 - Heating
 - Constant Air Flow
- Utilizing **Variable Frequency Drive (VFD)** technology
- Dual function **Pressure Sensing Board (PSB)** with direct control option

Single Side Access Fan Coils

- **Cooling Capacities** ranging from: 1.5 to 5 tons (5.3 to 17.6 Kw)
- **Heating Capacities** up to: 140,000 btuh (41 Kw)
- Optional **Heating Coil** simply slides in place
- Comes **Pre-Programmed** for Heating, Cooling and Ventilation

Improved Indoor Air Quality

- **Draft free** heating and cooling
- **Even temperatures** in every room
- Constant air circulation helps eliminate dust
- Cooling mode can remove 30% more moisture from the air!



Our Vent Plates can be stained, painted or even wallpapered to **match your decor!**

Third Party Components Easily Added

- Humidifiers
- HRV/ERVs



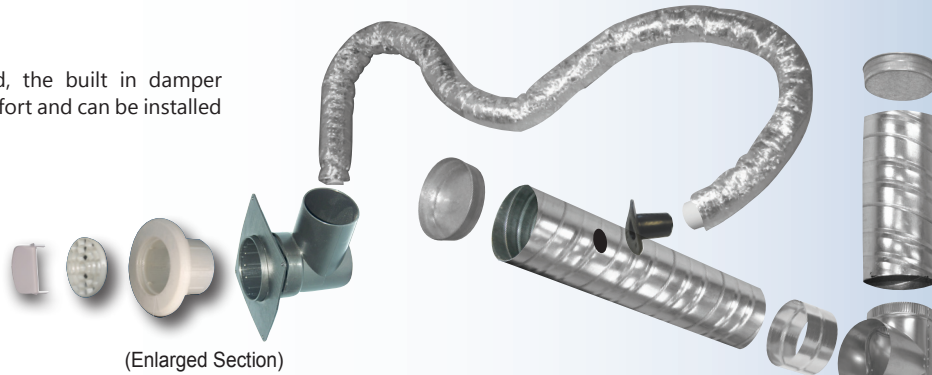
Manufactured by
Energy Saving
PRODUCTS LTD.

The Modern Solution for all of your Heating, Cooling and Indoor Air Quality Needs.

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Rough-In Boot

Is quickly and easily installed, the built in damper allows for individual room comfort and can be installed in the floor, ceiling or sidewall.



Damper Key

Designed to fit into the vent plate to allow for easy airflow adjustment.

(Enlarged Section)

Branch Take-Off

Shaped to fit the plenum making it easier to install and includes a gasket for an airtight seal.

Two Inch & HE Assembled Flexible Duct

The flexible duct can be installed along joists, in between walls or other space confined areas quickly and easily. Attached from the Branch Take-Off to the Rough-In Boot delivering the air quietly with a sound absorbing inner core.



HE PS

Pair with the HE PS Hi-Velocity Air Purification System for unsurpassed Indoor Air Quality. See our website for details!

Plenum

The typical 8" (200 mm) and 10" (250 mm) plenum used with the Hi-Velocity Systems makes for fast installations. This reduces over-all installation time compared to conventional systems and increases usable space of the structure.

Heating and Cooling Modules

Many coil options are available for the Hi-Velocity unit to meet the challenges of today's demands.

Heating

Can be supplied by: Dual Purpose Hot Water Heaters, Boiler, Heat Pump, Geothermal and Electric Strip Coil.

Cooling

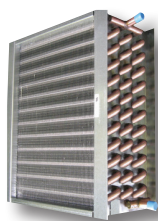
Can be supplied by: Refrigerant, Chilled Water, Heat Pump and Geothermal.

Zoning

Your system can be configured to select different temperatures for different parts of your home at different times as you desire.



Electric Strip Coils



Hot Water Coils



Chilled Water Modules



Refrigerant Modules



HE-Z Series Fan Coil

For All of your Heating, Cooling and IAQ Needs

	HE-Z-50/51	HE-Z-70/71	HE-Z-100/101
Hot Water Heating⁽¹⁾	2 Ton Airflow (7.0 kW)	3 Ton Airflow (10.6 kW)	5 Ton Airflow (17.6 kW)
Coil Type	6 Row/10 FPI	6 Row/10 FPI	6 Row/10 FPI
Max. BTUH @ 190°F E.W.T. (kW @ 88°C)	59,400 (17.4 kW)	89,200 (26.1 kW)	134,000 (39.3 kW)
Max. BTUH @ 180°F E.W.T. (kW @ 82°C)	54,500 (16.0 kW)	81,800 (24.0 kW)	122,900 (36.0 kW)
Max. BTUH @ 170°F E.W.T. (kW @ 77°C)	49,600 (14.5 kW)	74,400 (21.8 kW)	111,800 (32.8 kW)
Max. BTUH @ 160°F E.W.T. (kW @ 71°C)	44,600 (13.1 kW)	67,100 (19.7 kW)	100,700 (29.5 kW)
Max. BTUH @ 150°F E.W.T. (kW @ 66°C)	39,700 (11.6 kW)	59,700 (17.5 kW)	89,700 (26.3 kW)
Max. BTUH @ 140°F E.W.T. (kW @ 60°C)	34,700 (10.2 kW)	51,800 (15.2 kW)	78,400 (23.0 kW)
Max. BTUH @ 130°F E.W.T. (kW @ 54°C)	29,700 (8.7 kW)	44,700 (13.1 kW)	67,100 (19.7 kW)
Max. BTUH @ 120°F E.W.T. (kW @ 49°C)	24,800 (7.3 kW)	37,400 (11.0 kW)	56,200 (16.5 kW)
Max. BTUH @ 110°F E.W.T. (kW @ 43°C)	20,100 (5.9 kW)	30,300 (8.9 kW)	45,500 (13.3 kW)
GPM Flow Ratings (L/s Flow Ratings)	5 (0.32 L/s)	7 (0.44 L/s)	10 (0.63 L/s)
Pressure Drop in Ft. H ₂ O (Drop in KPa)	3 (8.96 KPa)	6.5 (19.4 KPa)	6.8 (20.3 KPa)
Chilled Water Cooling⁽¹⁾	WCM-50	WCM-70	WCM-100
Coil Type	6 Row/10 FPI	6 Row/10 FPI	6 Row/10 FPI
WCM Modules in Cooling Mode	Total	Sensible	Total
Max. BTUH @ 48°F E.W.T. (kW @ 8.9°C)	19,300 (5.7 kW)	13,700 (4.0 kW)	27,000 (7.9 kW)
Max. BTUH @ 46°F E.W.T. (kW @ 7.8°C)	20,900 (6.1 kW)	14,200 (4.2 kW)	29,400 (8.6 kW)
Max. BTUH @ 44°F E.W.T. (kW @ 6.7°C)	22,600 (6.6 kW)	14,900 (4.4 kW)	31,800 (9.3 kW)
Max. BTUH @ 42°F E.W.T. (kW @ 5.6°C)	24,200 (7.1 kW)	15,700 (4.6 kW)	34,000 (10.0 kW)
Max. BTUH @ 40°F E.W.T. (kW @ 4.4°C)	25,800 (7.6 kW)	16,300 (4.8 kW)	36,400 (10.7 kW)
WCM Modules in Heating Mode	Total	Total	Total
Max. BTUH @ 150°F E.W.T. (kW @ 66°C)	39,700 (11.6 kW)	59,700 (17.5 kW)	89,700 (26.3 kW)
Max. BTUH @ 140°F E.W.T. (kW @ 60°C)	34,700 (10.2 kW)	51,800 (15.2 kW)	78,400 (23.0 kW)
Max. BTUH @ 130°F E.W.T. (kW @ 54°C)	29,700 (8.7 kW)	44,700 (13.1 kW)	67,100 (19.7 kW)
Max. BTUH @ 120°F E.W.T. (kW @ 49°C)	24,800 (7.3 kW)	37,400 (11.0 kW)	56,200 (16.5 kW)
Max. BTUH @ 110°F E.W.T. (kW @ 43°C)	20,100 (5.9 kW)	30,300 (8.9 kW)	45,500 (13.3 kW)
GPM Flow Ratings (L/s Flow Ratings)	5 (0.32 L/s)	7 (0.44 L/s)	10 (0.63 L/s)
Pressure Drop in Ft. H ₂ O (Drop in KPa)	3 (8.97 KPa)	6.5 (19.4 KPa)	6.8 (20.3 KPa)
Refrigerant Cooling⁽¹⁾	RPM-E/RCM-50	RPM-E/RCM-70	RPM-E/RCM-100
RPM-E/RCM Modules BTUH Refrigerant TX Cooling	1.5 - 2.0 Tons (5.3-7.0 kWh)	2.5 - 3.0 Tons (8.8-10.6 kWh)	3.5 - 5.0 Tons (12.3-17.6 kWh)
Electrical Heating	HV-650 ESH	HV-750 ESH	HV-1100 ESH
Kilowatt Range (240v)	5 - 15 kW	5 - 18 kW	10 - 23 kW
Fan Coil Specifications	HE-Z-50/51	HE-Z-70/71	HE-Z-100/101
Max Rated CFM @ 1.2" E.S.P. (L/s @ 298 Pa)	500 (236 L/s)	750 (354 L/s)	1250 (590 L/s)
Voltage	115/230/1/50/60 F.L.A. 8 amp	115/230/1/50/60 F.L.A. 8 amp	115/230/1/50/60 F.L.A. 8 amp
Nominal Operating Amperage	4 Amps	6 Amps	8 Amps
Integral Surge and Fuse System	Yes	Yes	Yes
Horse Power/Watts	3/4hp - 310W	3/4hp - 530W	3/4hp - 720W
Motor RPM	Variable	Variable	Variable
Supply Air Size	8" round (203mm)	8" round (203mm)	10" round (254mm)
Supply Maximum Length ⁽²⁾	70' (21.3m)	80' (24.4m)	100' (30.5m)
Return Size Needed	12" (120 in ²) (305mm/774cm ²)	12" (120 in ²) (305mm/774cm ²)	14" (168 in ²) (356mm/1084cm ²)
Minimum Outlets ⁽³⁾	12 (2") 6 (HE)	20 (2") 10 (HE)	28 (2") 14 (HE)
Maximum Outlets	24 (2") 12 (HE)	32 (2") 16 (HE)	52 (2") 26 (HE)
Shipping Weight (no coil)	85 lbs (38.6 Kg)	97 lbs (44 Kg)	111 lbs (50.3 Kg)
Fan Coil Size	Length	32 5/16" (821mm)	32 5/16" (821mm)
	Width	14 1/2" (368mm)	19 1/2" (495mm)
	Height	18 1/4" (464mm)	18 1/4" (464mm)

⁽¹⁾ Heating specs are rated at 68°F E.A.T., Cooling specs are rated at 80°F/67°F dB/wB

⁽²⁾ Maximum length is from the unit to the supply run end cap. More than one run per unit is allowable.

⁽³⁾ Minimum of eight 2" outlets per ton of cooling needed. (HE Duct = Minimum four outlets per ton)

BTUH - British Thermal Units per Hour
E.W.T. - Entering Water Temperature
GPM - US Gallons per Minute
L/s - Litres per Second
CFM - Cubic Feet per Minute

F.L.A. - Full-Load Amperage
RPM - Revolutions per Minute
E.S.P. - External Static Pressure
E.A.T. - Entering Air Temperature
dB/wB - Dry Bulb/Wet Bulb



Call 1-888-652-2219

Visit Us At

www.hi-velocity.com