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 | Antique Brass | Silver Vein | Copper Vein | Black Wrinkle | Unfinished Maple | Unfinished Oak

www.hi–velocity.com

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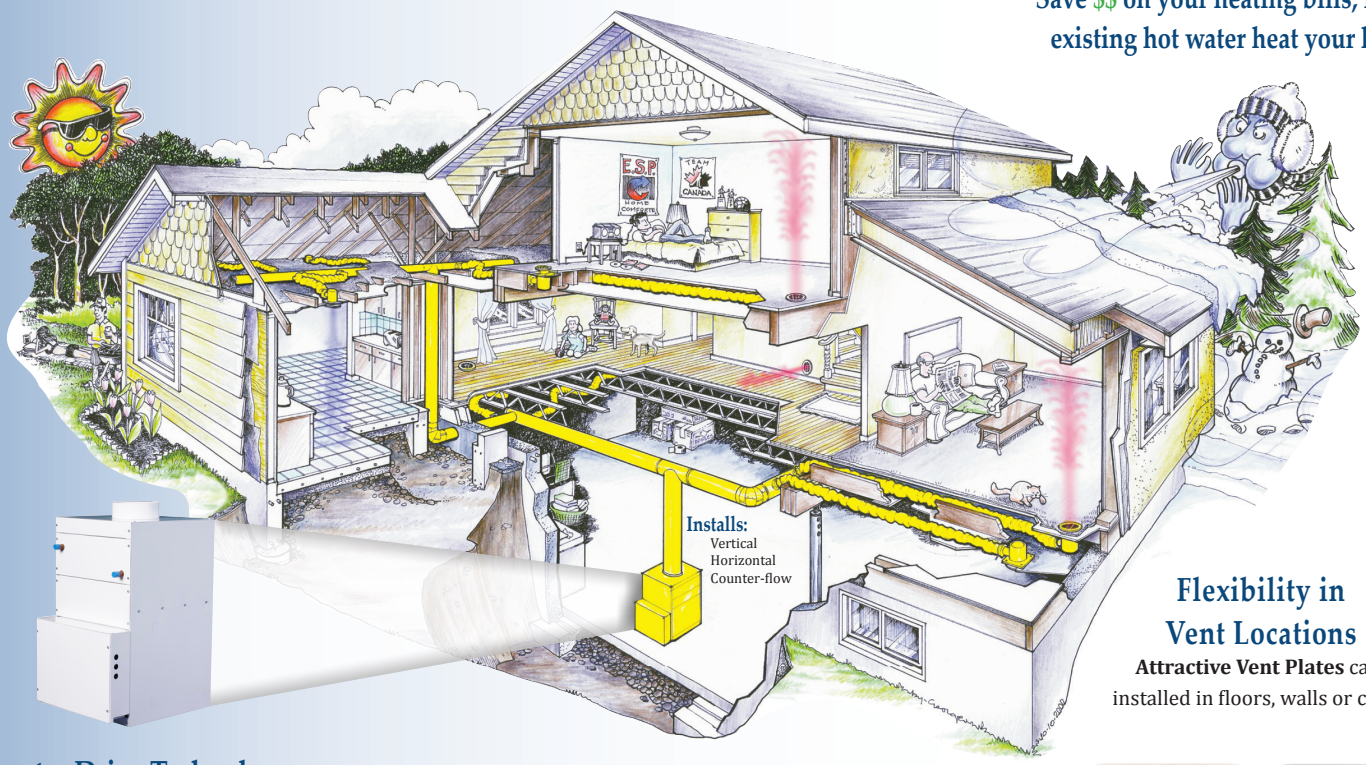
Small Duct High Velocity Heating, Cooling and Indoor Air Quality Systems

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!



Flexibility in Vent Locations

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

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

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 Capabilites**
- **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

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!

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

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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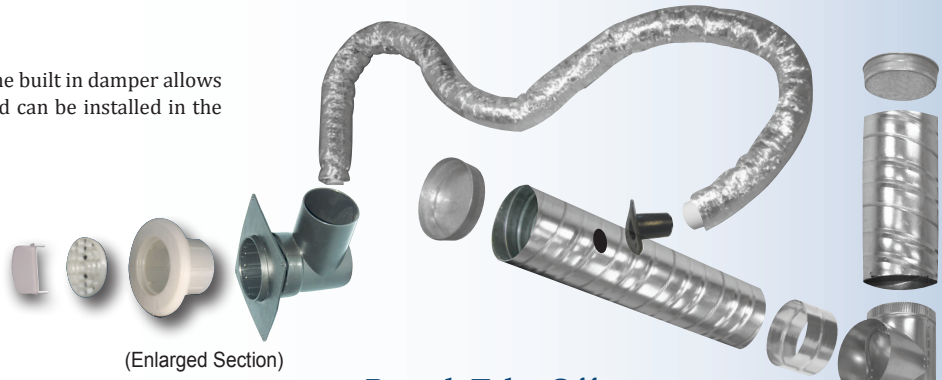
Rough-In Boot

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



(Enlarged Section)

Damper Key

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

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.

Zoning

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

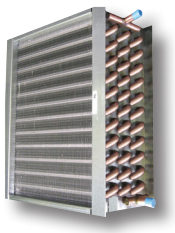
Heating

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.

Electric Strip Coils



Hot Water Coils

Chilled Water Modules

Refrigerant Modules

HE-Z Series Fan Coil

www.hi–velocity.com

Products may not be exactly as illustrated

For All of your Heating, Cooling and IAQ Needs

Model	HE-Z-50/51	HE-Z-70/71	HE-Z-100/101
Hot Water Heating	**2 Ton Airflow (7.0 kW)**	**3 Ton Airflow (10.6 kW)**	**5 Ton Airflow (17.5 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)	5 (0.32 L/s)	7 (0.44 L/s)	10 (0.63 L/s)
Pressure Drop in FT. (m) H_2O	3 (9.15 KPa)	6.5 (19.8 KPa)	6.8 (20.7 KPa)
CFM @ 68°F E.A.T. (L/s @ 20°C E.A.T.)	470 (221 L/s)	700 (300 L/s)	1120 (528 L/s)

Chilled Water Cooling	**2 Ton Airflow (7.0 kW)**		**3 Ton Airflow (10.6kW)**		**5 Ton Airflow (17.5 kW)**	
Coil Type	6 Row/10 FPI		6 Row/10 FPI		6 Row/10 FPI	
(WCM Modules in Cooling Mode)	Total	Sensible	Total	Sensible	Total	Sensible
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)	19,200 (5.6 kW)	42,100 (12.3 kW)	30,300 (8.9 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)	20,000 (5.9 kW)	45,800 (13.4 kW)	32,100 (9.4 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)	21,000 (6.2 kW)	49,500 (14.5 kW)	33,700 (9.9 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)	21,800 (6.4 kW)	53,200 (15.6 kW)	35,100 (10.3 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)	23,000 (6.7 kW)	56,800 (16.6 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)	5 (0.32 L/s)		7 (0.44 L/s)		10 (0.63 L/s)	
Pressure Drop in Ft. (m) H_2O	3 (9.15 KPa)		6.5 (19.8 KPa)		6.8 (20.7 KPa)	

Refrigerant Cooling			
RPM Modules BTUH Refrigerant TX Cooling	1.5 - 2.0 Tons (3.5-6.4 kWh)	2.5 - 3.0 Tons (8.8-10.5 kWh)	3.5 - 5.0 Tons (12.3-17.5 kWh)

Electrical Heating			
Kilowatt Range (240v)	5 - 15 kW	5 - 18 kW	5 - 23 kW

Fan Coil Specifications				
Voltage		115/230/1/50/60 F.L.A. 8 amp		
Max Rated C.F.M. (L/s)		520 (245 L/s)	770 (363 L/s)	1260 (595 L/s)
Horse Power/Watts		3/4 - 310	3/4 - 530	3/4 - 720
R.P.M.		Variable	Variable	Variable
Integral Surge and Fuse System		Yes	Yes	Yes
Supply Air Size		8" round (203mm)	8" round (203mm)	10" round (254mm)
Supply Maximum Length[1]		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[2]		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		85 lbs (38.6 Kg)	97 lbs (44 Kg)	111 lbs (50.3 Kg)
Fan Coil Size	Length	32" (813mm)	32" (813mm)	32" (813mm)
	Width	14" (356mm)	19" (483mm)	25" (635mm)
	Height	18" (457mm)	18" (457mm)	18" (457mm)

[1] Maximum length is from the unit to the supply end run cap. More than one run per unit is allowable.
[2] Minimum of **eight 2" outlets** per ton of cooling needed. (HE Duct = Minimum **four outlets** per ton)

Manufactured by Energy Saving Products Ltd

Call 1-888-652-2219

Visit Us At

www.hi–velocity.com