

GLOBAL IFS®

Underfloor Air Distribution System

Perimeter Fan Terminal (PFT)



SYSTEM OVERVIEW

The Perimeter Fan Terminal (PFT) is a perimeter linear plenum with an integral fan to provide forced air through cooling or heating coils. With its low profile design the unit can be installed in slab applications as well as raised access floor plenums with minimal height clearances required. The PFT has the unique capability of providing a large amount of cooling or heating to a space while utilizing equipment that supplies more efficient design water temperatures (i.e. less than 120°F water for heating). Heavy duty linear bar grilles (LBG) can be ordered to install within the PFT unit providing a seamless look.

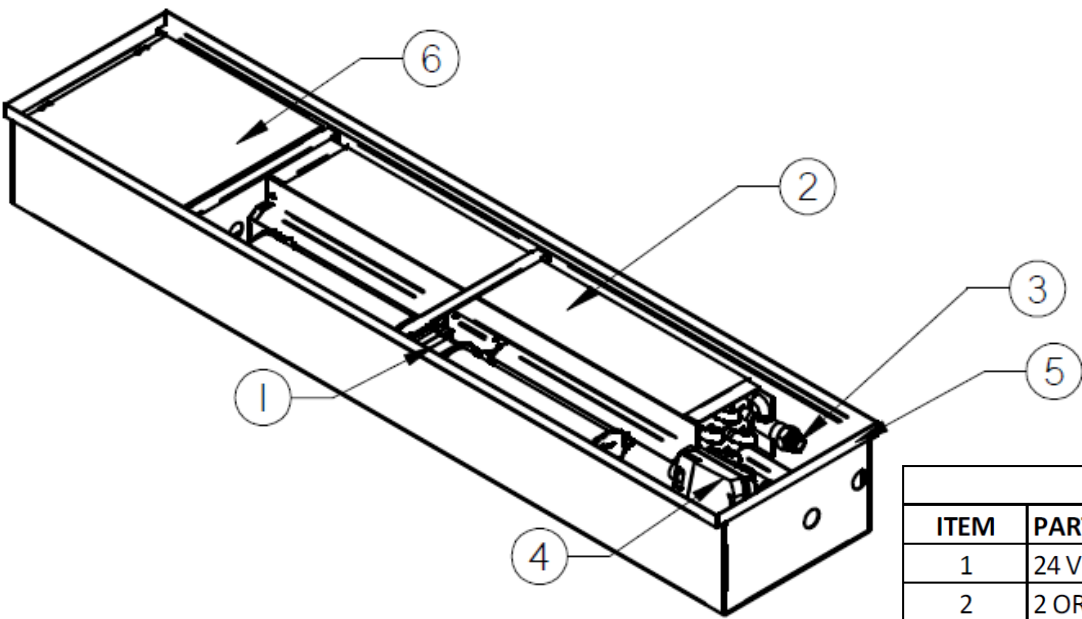
The fan has the capability for modulating based on the demand within the space and typically recirculates air from the room side. This allows the perimeter system to be decoupled from the pressurized underfloor plenum as well as removing the dependency of reheating already conditioned and cooled plenum air.

Features

- 4, 6 and 8 ft. lengths
- Painted black plenum
- Slab or Raised Floor support options
- Rigid heavy gauge design
- 2 Pipe coil configuration
- Supply and return connections on same side - standard
- Efficient 0-10VDC ECM low profile fans+ SS drip tray
- Water valve actuator option
- Removable end caps
- Adjustable leveling feet

PRODUCT APPLICATION

The PFT is designed as a low-profile unit for in slab applications including lobbies and atriums as well as raised access floor plenums. The short design also allows for very low raised access floor heights making it ideal for retrofitting existing raised floor systems that do not have underfloor air. In a lot of cases the limiting restriction on reducing the floor heights are the perimeter heating and cooling products. This can provide designers and owners an option to consider for underfloor air systems with lower than ever floor heights saving on construction costs.



PARTS LIST	
ITEM	PART NAME
1	24 VDC FAN
2	2 OR 4 PIPE WATER COIL
3	1/2" MNPT CONNECTION
4	24V VALVE/ACTUATOR (OPT)
5	REMOVABLE ENDCAP
6	CONTROLS ENCLOSURE

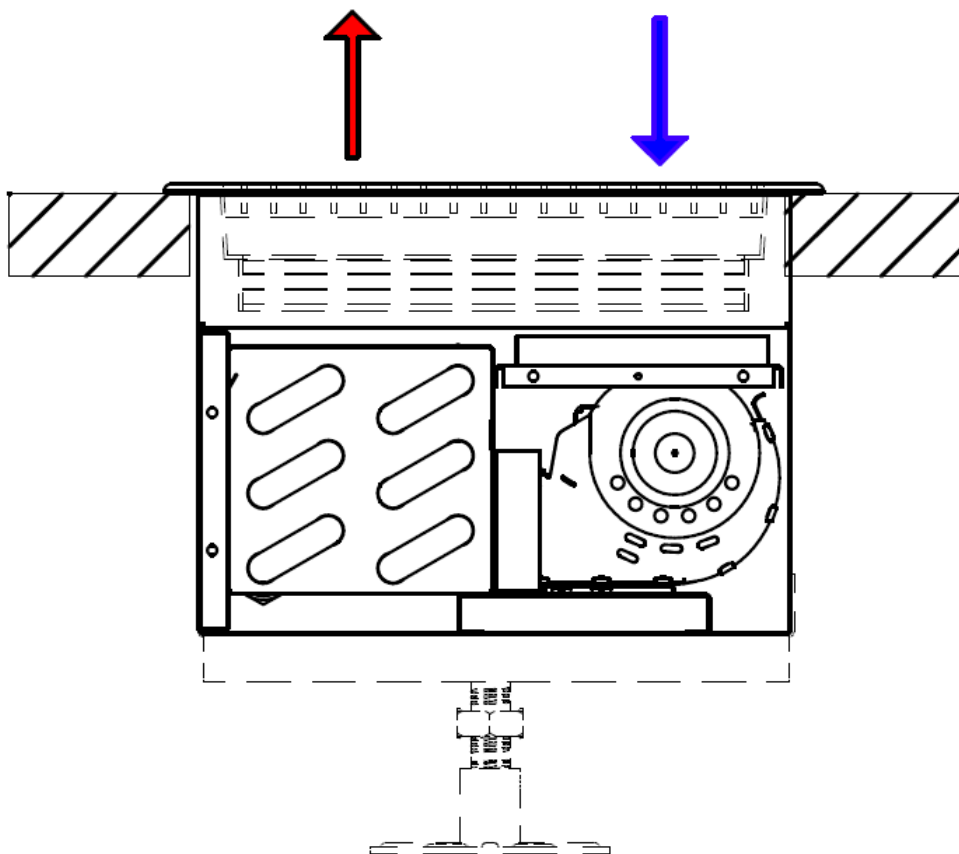
Perimeter Zones

These zones are typically more complex than interior zones. Perimeter zones generally have larger and more varying loads and often require auxiliary heat. Using the proper system helps control heating and cooling requirements for the space.

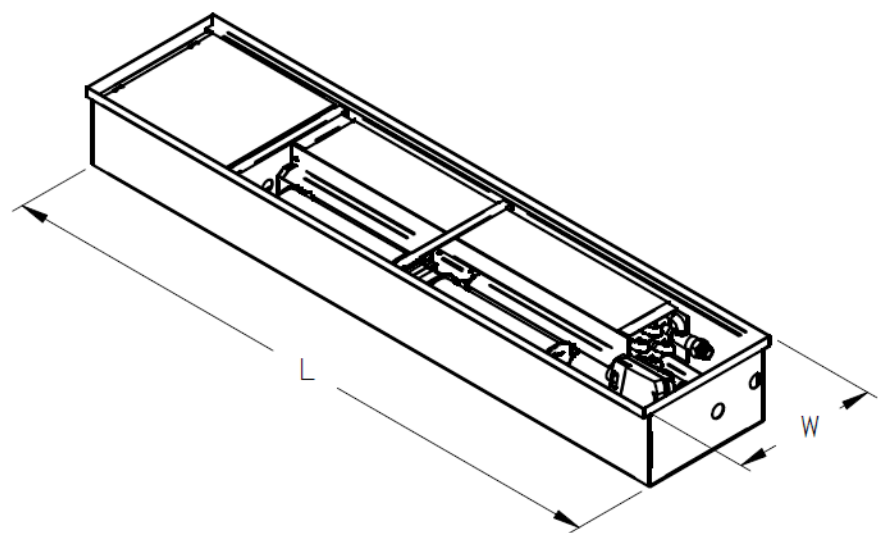
PRODUCT APPLICATION

Terminal Heating and Cooling

An efficient mode of conditioning perimeter zones is by placing drop-in plenum heaters within the perimeter grilles to heat and cool. These units efficiently provide a boost in cooling capacity at the perimeter based on demand. Initially the cooling valve is modulated to provide chilled water to the terminal then the fan ramps up and down to meet the cooling requirements. In heating mode the water valve will open and the fan will modulate to meet the space heating requirements. The PFT units can be easily daisy chained together through stranded plug and play cabling from the PCM power and control module. This allows for a very quick and easy installation that is robust for commercial applications. The Price thermostat is also connected to the PCM through the plug and play wiring which communicates the space temperature to the controller.

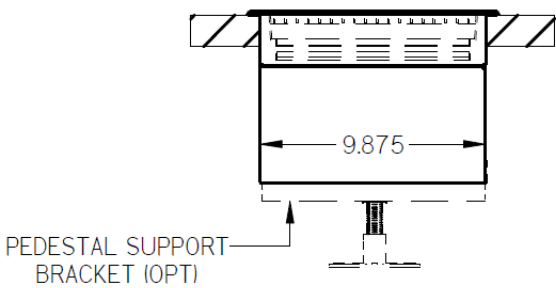


Perimeter Fan Terminal



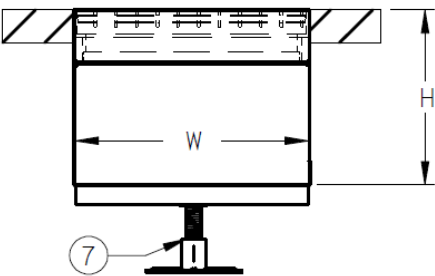
Floor Tile Support-Flanged Trough

(LBG Border 1000 Style)



Pedestal Support-Unflanged Trough

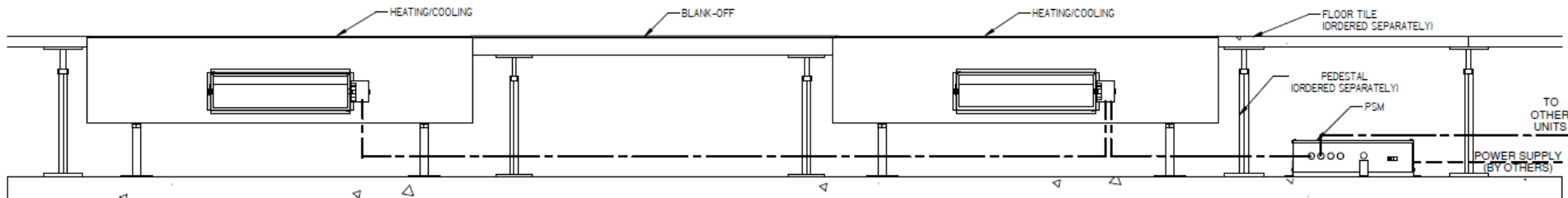
(LBG Border 125/187 Style)



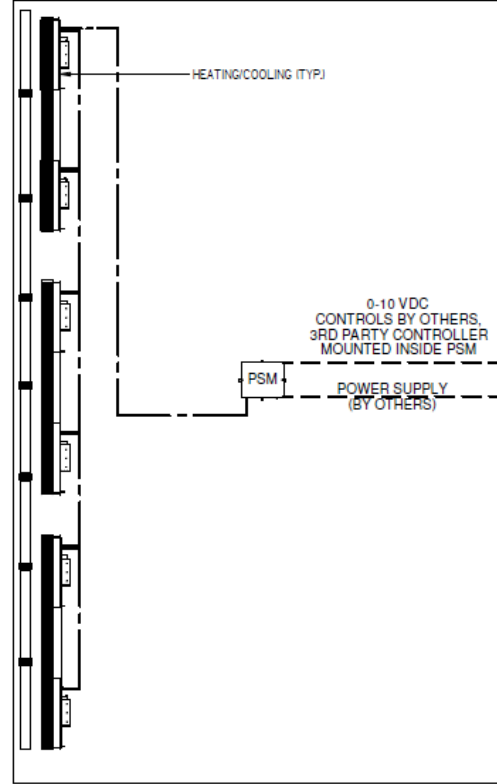
Plenum Nominal Dimensions				
Size	Height	Width	Length	Pedestal Brackets
30"	6.75" (171.5mm)	8" (203mm)	48 (1219mm), 72 (1829mm), 96 (2438mm)	2, 3, 4
40"		10" (254mm)		

TYPICAL PERIMETER ZONE DETAIL

PERIMETER ZONE



PERIMETER ZONE PLAN VIEW



- NOTES:**
1. VARIABLE AIR VOLUME UNITS DAISY CHAINED WITH M-CABLES
 2. ALL CABLES USED IN PLENUM MUST MEET PLENUM RATING REQUIREMENTS
 3. STANDARD CABLE LENGTH OF 25 FT (15 AND 35FT CABLES AVAILABLE AS NEEDED)
- POWER SUPPLY MODULE (PSM):**
- PLUG AND PLAY BOARD FOR USE WITH ZONE CONTROLLERS BY OTHERS
 - ZONE CONTROLLERS FIELD INSTALLED BY BAS CONTRACTOR
 - CONTROL DAMPER POSITION PROPORTIONALLY BASED ON 0-10 VDC INPUT SIGNAL
 - SEPARATE SIGNALS FOR COOLING ONLY AND HEAT/COOL UNITS
 - MAX 6 UNITS PER LINE
 - 6-PIN MTA CONNECTOR, ACCEPTS COMMON OR UNIQUE 0-10 VDC INPUT SIGNAL PER CONNECTOR
- OPTIONS:**
- ☐ 50VA TRANSFORMER, 2 MTA CONNECTORS (MAX 10 DEVICES)
 - ☐ 50VA TRANSFORMER, 1 MTA CONNECTOR (MAX 10 DEVICES)
- WIRING:**
- PLACE PSM UNDER TILE NEAR CENTER OF ZONE. COORDINATE LOCATION
 - AVOID PLACING UNDER FURNITURE
 - WIRE EACH PORT TO THE CLOSEST AVAILABLE UNIT, THEN
 - PROCEED WITH DAISY CHAINING ADDITIONAL UNITS
- PERIMETER UNIT:**
- ☐ PBT
 - ☐ PNT
 - ☐ PFT
 - ☐ HHT
- POWER SUPPLY:**
- ☐ 115V
 - ☐ 240V
 - ☐ 277V

WIRE LEGEND

- BY ELECTRICAL CONTRACTOR
- MODULAR PLUG & PLAY CABLES (BY GIFS)

