



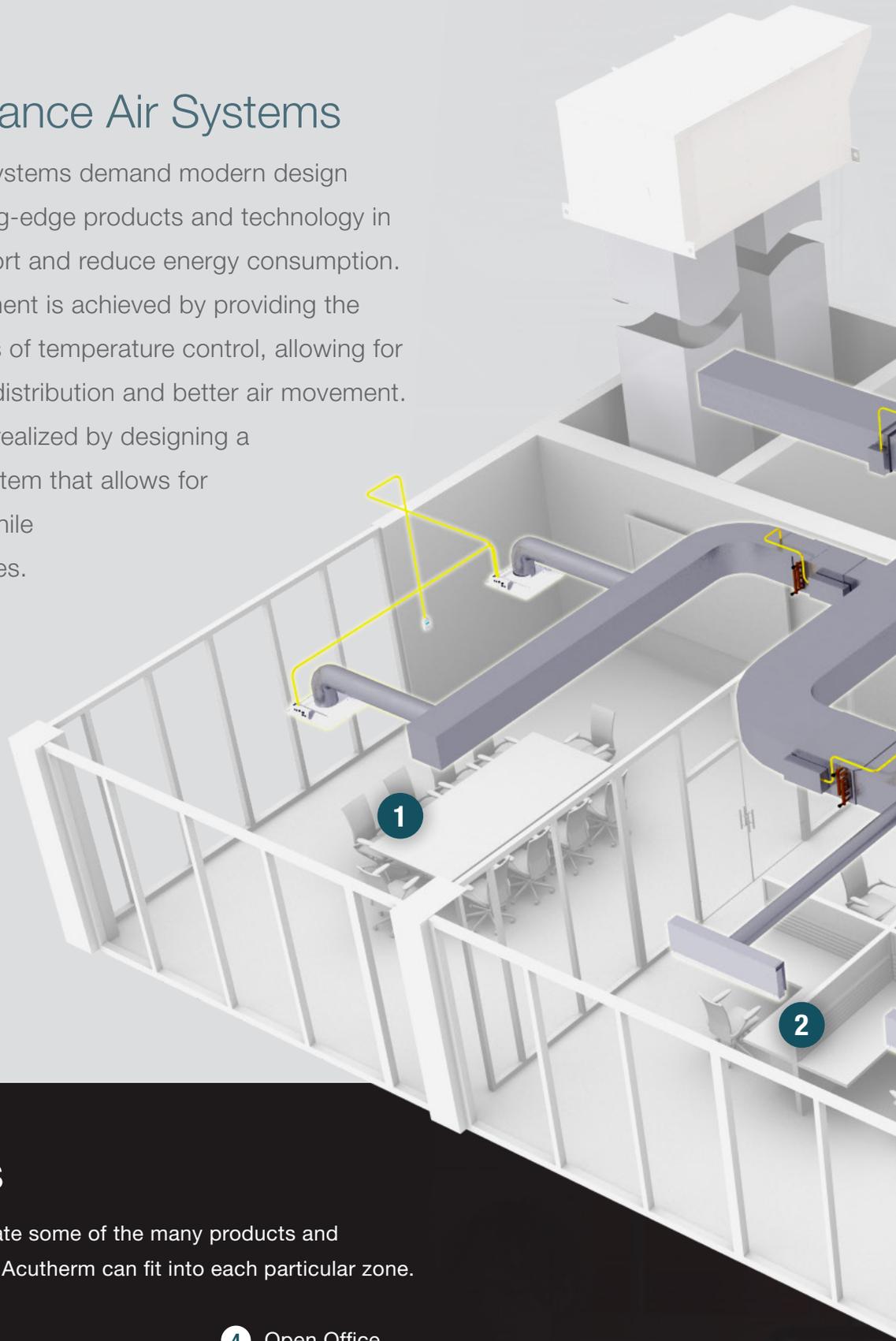
HIGH PERFORMANCE AIR SYSTEMS

THERMA-FUSER™ VARIABLE AIR VOLUME DIFFUSERS



High Performance Air Systems

High performance air systems demand modern design approaches with leading-edge products and technology in order to optimize comfort and reduce energy consumption. A comfortable environment is achieved by providing the smallest possible zones of temperature control, allowing for individual temperature distribution and better air movement. Reduction in energy is realized by designing a low-pressure HVAC system that allows for maximum turn-down while maintaining temperatures.



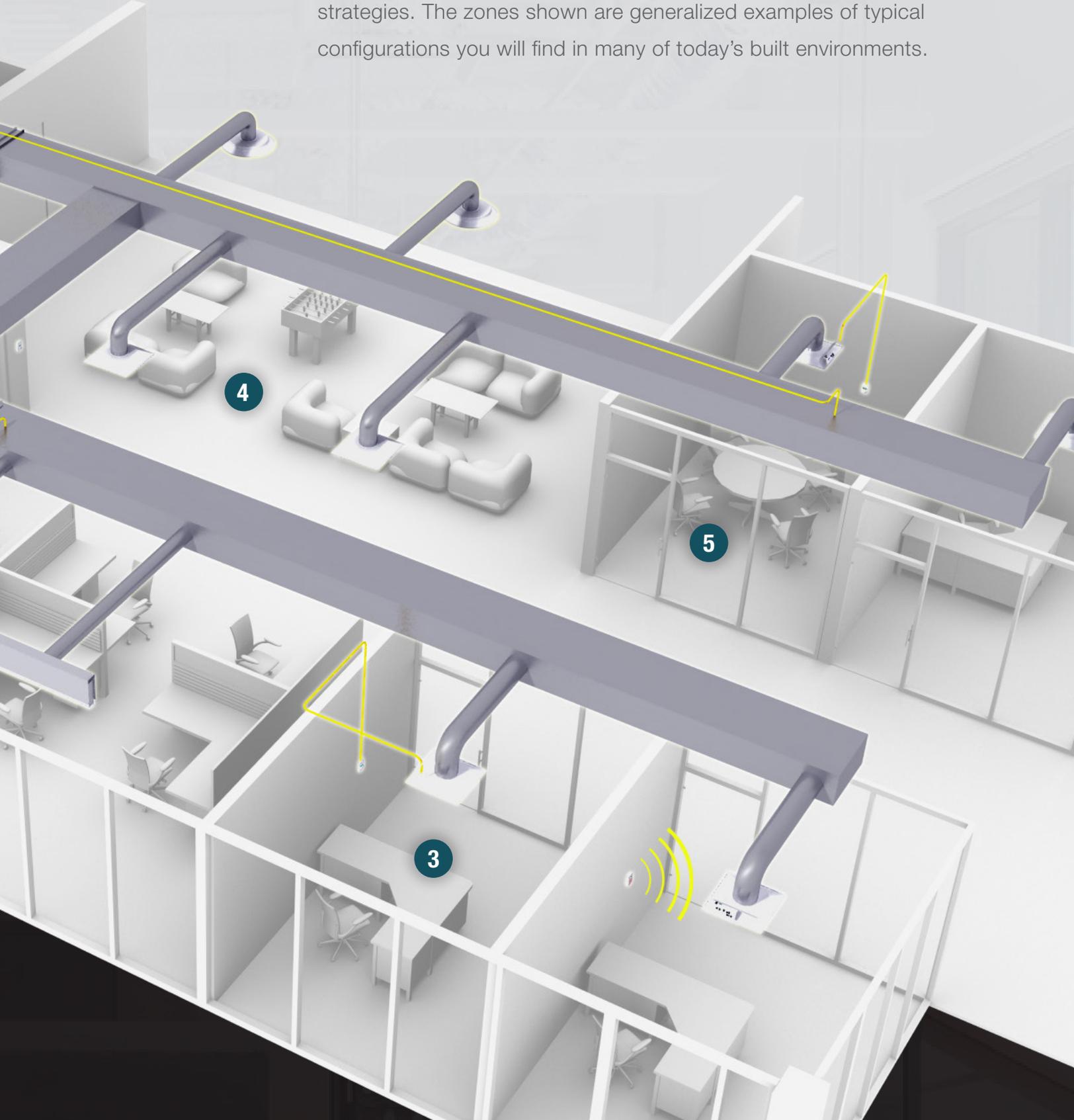
Typical Zones

These examples demonstrate some of the many products and options available, and how Acutherm can fit into each particular zone.

- 1 Large Meeting Room
- 2 Open Office with Perimeter
- 3 Small Office
- 4 Open Office
- 5 Small Meeting Room

Levels of Control

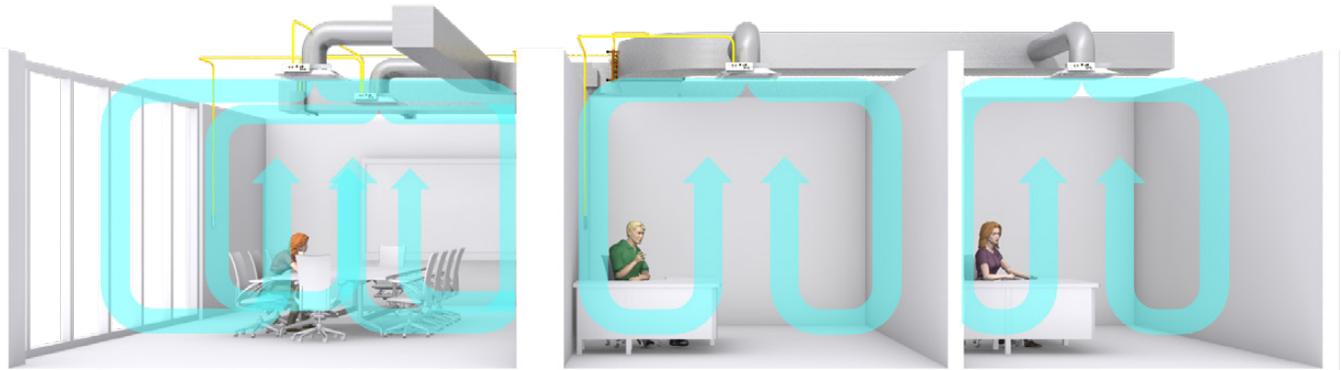
A comfortable environment can be provided with many different strategies. The zones shown are generalized examples of typical configurations you will find in many of today's built environments.



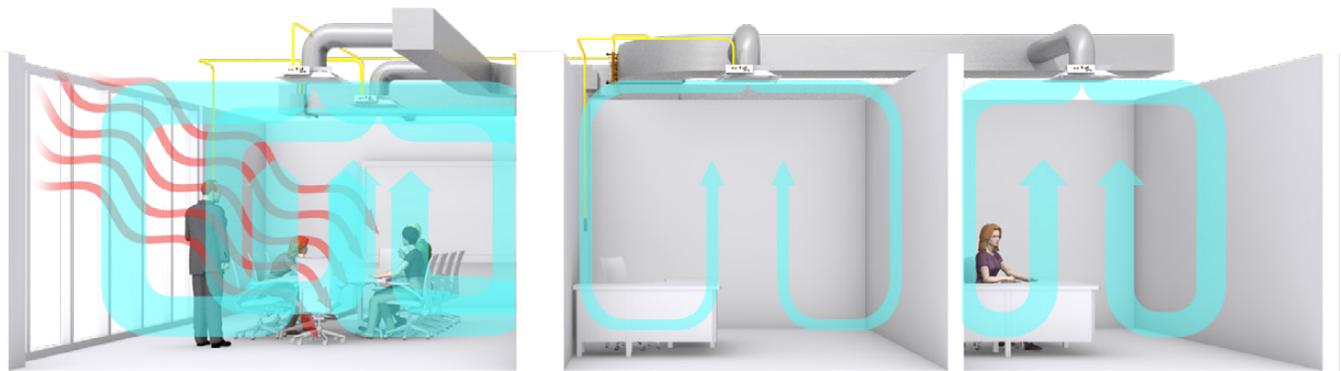
High Performance Air Systems

Comfort

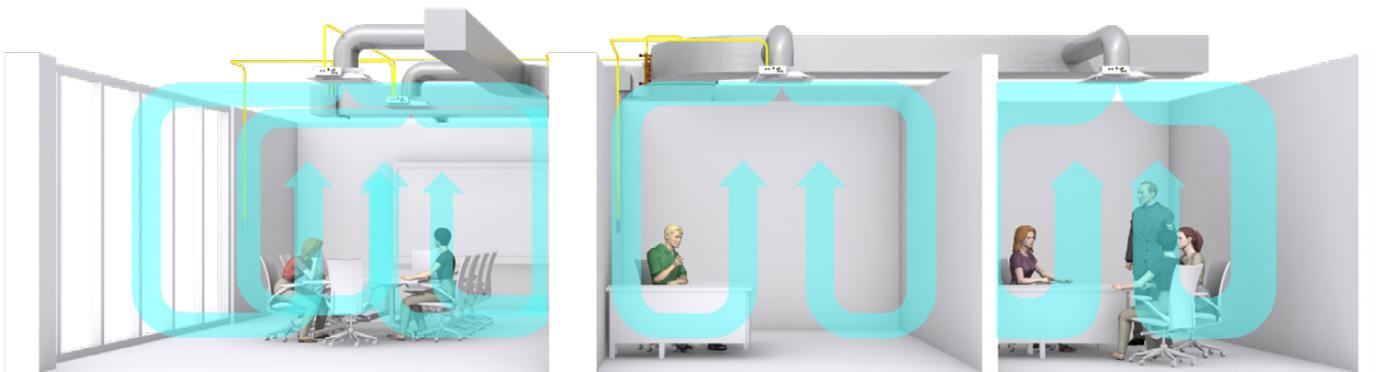
Occupant comfort and system efficiency stem from appropriately sized zones of control. Creating many small zones will provide exceptional levels of control, leading to outstanding occupant comfort. VAV diffusers are a cost-effective and practical way to provide this level of personalized control. Each VAV diffuser is supplied with an integrated thermostat and damper, allowing it to act as an individual VAV zone of control. The damper is continuously adjusted to vary the volume of airflow (warm or cold) into the room in response to room temperature and setpoint.



Each Therma-Fuser VAV diffuser has a built in thermostat.

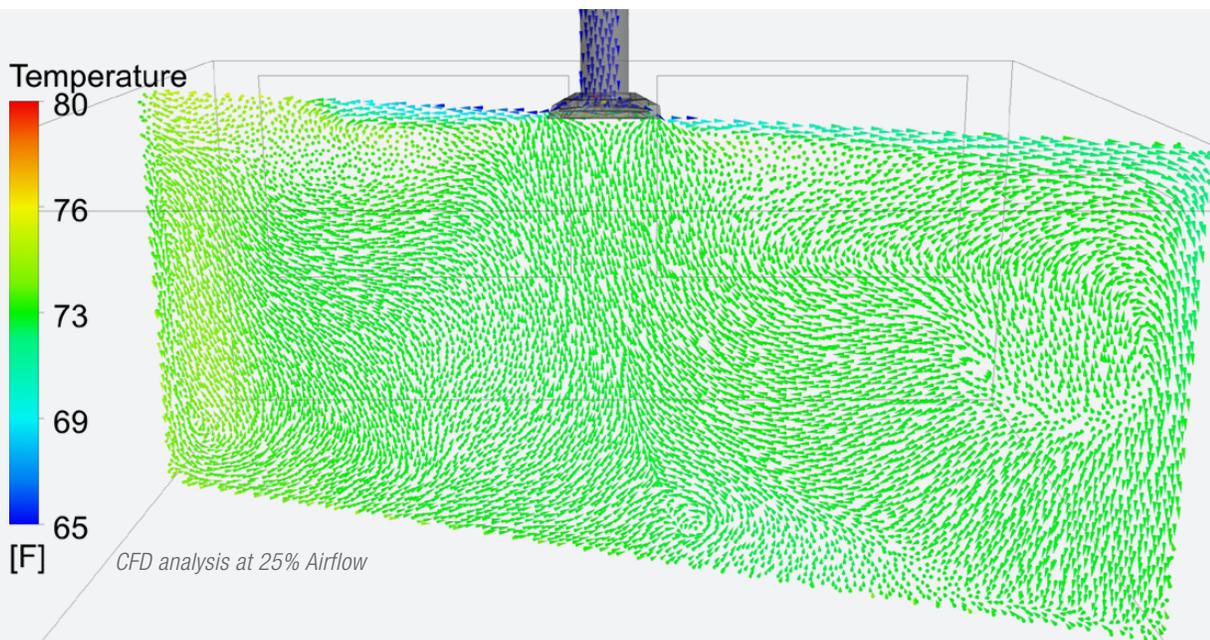
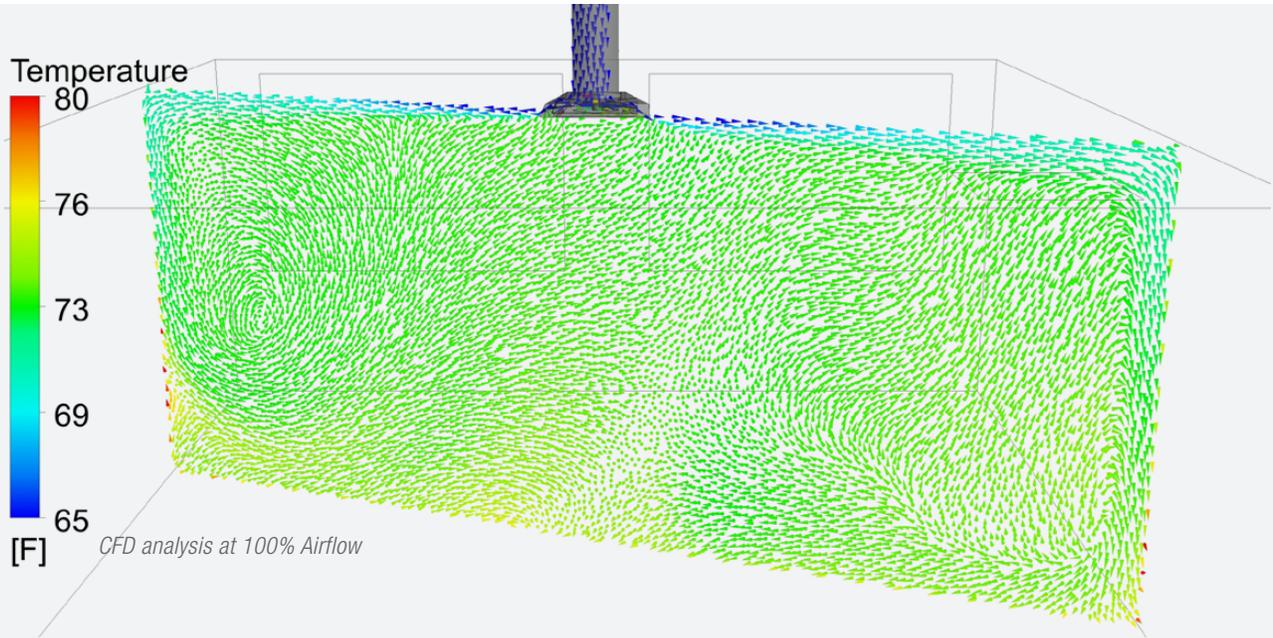


A thermostat in each space provides individual zones of control.



Each space has individual set points and independently adjusts to load changes.

In addition to small zones of control, VAV diffusers enhance occupant comfort with excellent throw, room air movement, and temperature distribution. VAV diffusers use an adjustable damper to provide a variable discharge area that maintains a constant, high discharge velocity even at low supply air volumes. High discharge velocity maintains Coanda, the ability of dense, cold supply air to cling to the ceiling, preventing dumping even at low flow rates. High velocity supply also promotes room air movement by causing large amounts of induced (or secondary) air to be drawn up and entrained into the primary air, mixing rapidly and reaching room temperature within a few feet of the diffuser and only a few inches of drop. Meanwhile, the occupied area is filled with gently moving air and no pockets of stagnation.



Comfort is maintained over full VAV range of operation from full flow through low flow turndown

Energy Savings

VAV Diffusers allow for low-pressure, low-energy consumption systems.

The energy savings of systems designed using VAV diffusers can be broken down into three main sources:

- + Small zones
- + Low turndown and pressure drop
- + Low system pressure

Many small zones provide individual temperature control to prevent over cooling or over heating when spaces are unoccupied.

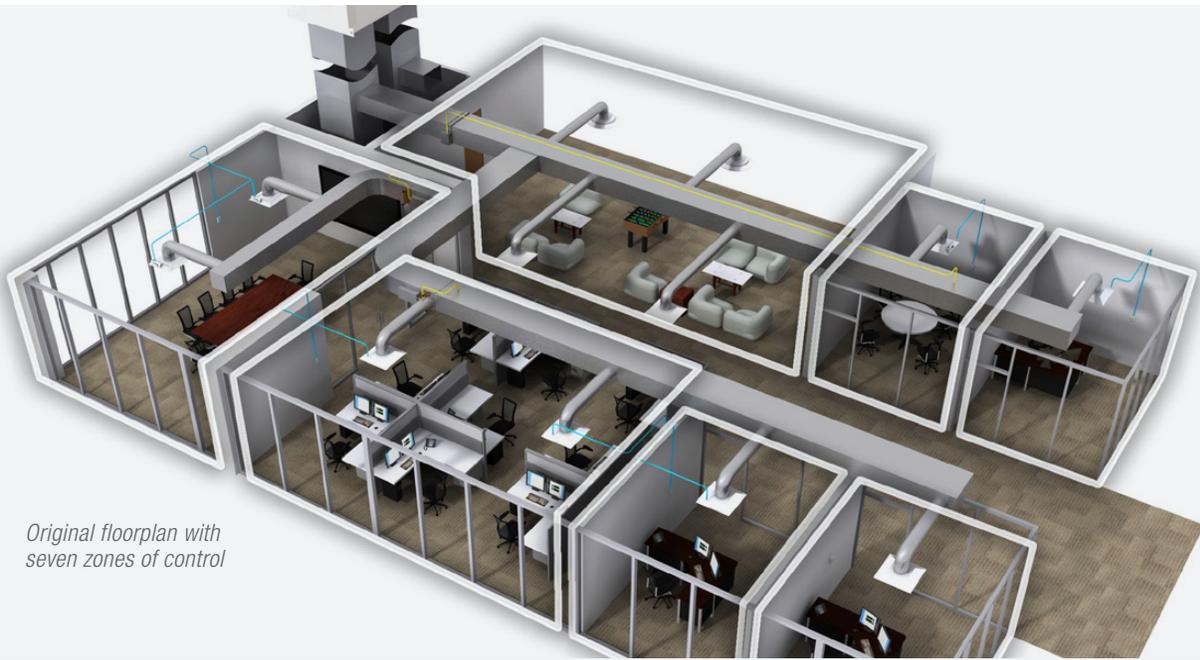
VAV diffuser systems do not have a velocity limitation because pressure independence is achieved by measuring only static pressure. The static pressure damper in a VAV diffuser system may be oversized to minimize pressure drop without the penalty of increasing minimum flow.

VAV diffuser systems require low duct pressure, which reduces the required fan horsepower, and in turn, the energy required to operate the system.



Sustainability

Acutherm VAV diffusers have a long lifespan and offer simple maintenance. Thermally powered units do not require any wiring and, aside from setpoint adjustment, are virtually maintenance free with 30+ years of proven operation. Motorized diffusers make use of long-life brushless motors to reduce maintenance requirements and provide near silent operation. VAV diffuser systems are exceptionally adaptable to office changes. The modular concept and flexibility provided by a VAV diffuser system means that any changes to the floor plan need not trigger expensive and disruptive changes to the HVAC system.

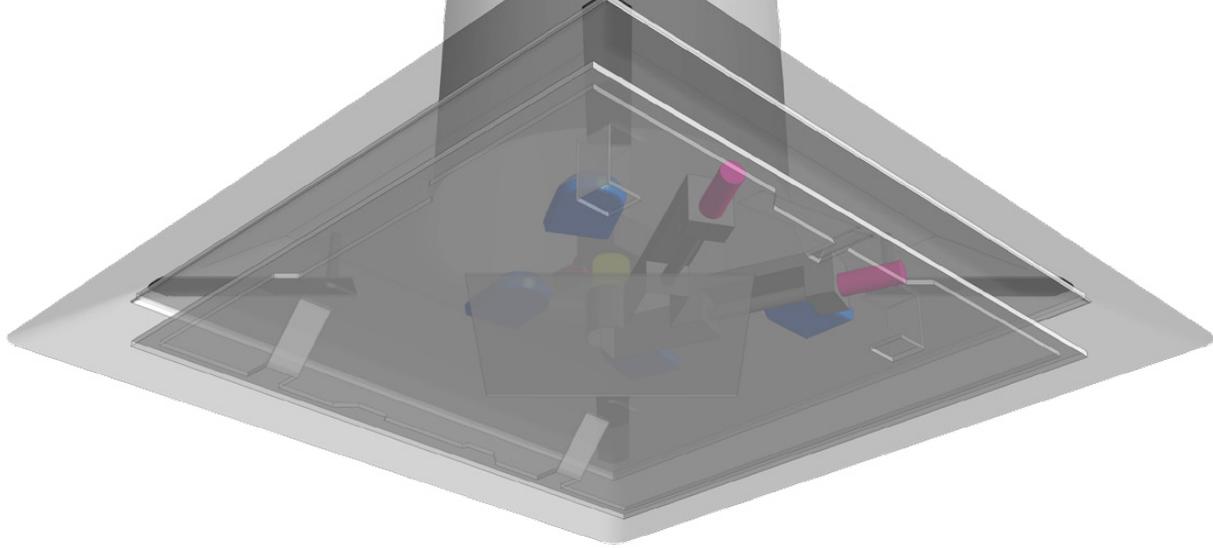


Original floorplan with seven zones of control



Modified floorplan with seven zones of control

Reconfiguration can occur without changes to the HVAC system



High Performance Engineering

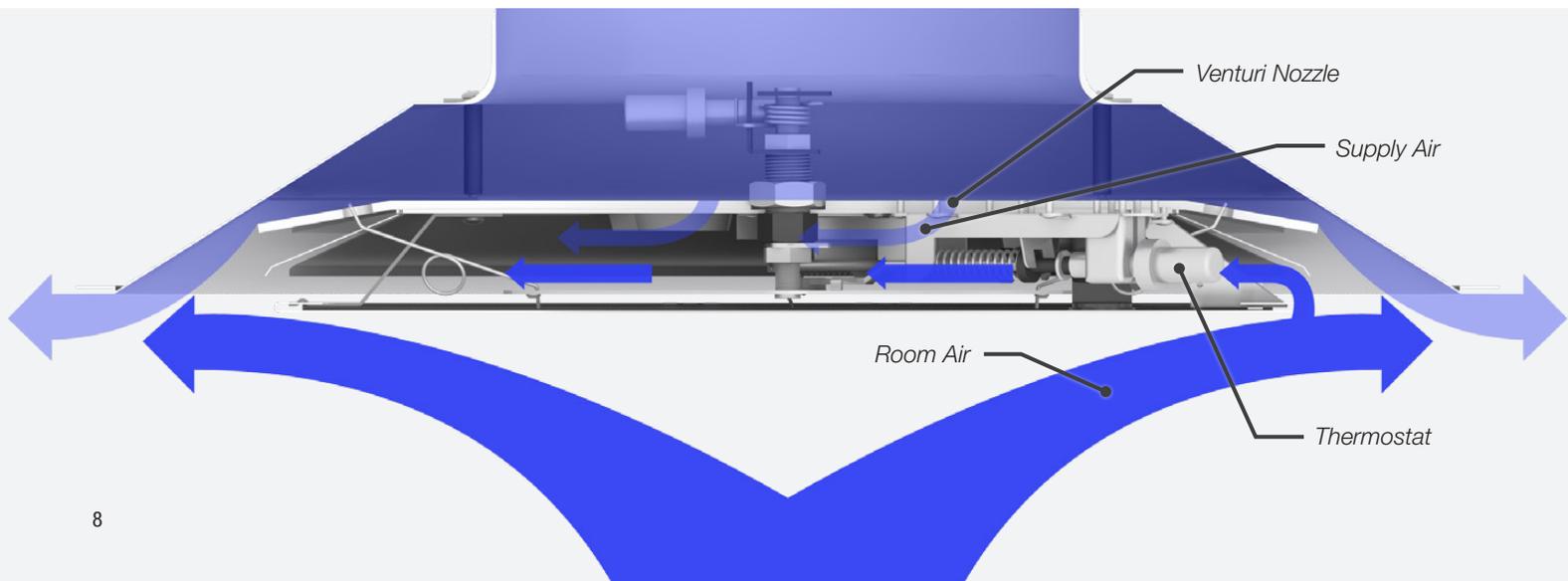
Each VAV diffuser is a ceiling diffuser with an **integrated thermostat and damper**, allowing it to act as an individual VAV zone of control. The damper is continuously adjusted to vary the volume of airflow (warm or cold) into the room in response to room temperature and setpoint. When supply air is warm, the VAV diffuser operates in heating mode and the damper opens in response to a drop in room temperature. When the supply air is cold, the VAV diffuser operates in cooling mode and the damper opens in response to a rise in room temperature.

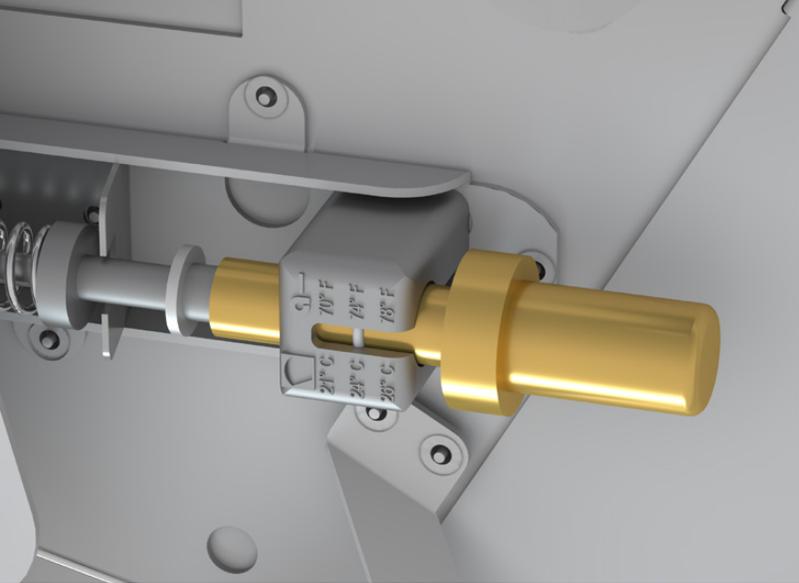
Separate room temperature setpoints for heating and cooling are individually adjustable and average temperature is maintained within 1½°F/0.9°C.

As with all diffusers, air circulates around the room in a circular motion. Secondary air rises under the diffuser, passes beneath the diffuser plaque and entrains with the primary air at the outside edge of the diffuser. This secondary air best represents average room temperature.

To monitor average room temperature, a continuous sample of secondary air is drawn around the plaque past the room thermostat(s). This is accomplished by feeding primary air through venturi nozzle(s). Primary air blowing through the nozzle(s) creates just enough vacuum to draw some secondary air around the plaque, over the thermostat(s) and out the other side.

Positive Induction Mechanism - a continuous sample of room air drawn over the built-in thermostats.





Thermostat and actuator - a copper cup containing a blend of petroleum distillate waxes. The waxes melt and expand, driving a piston with a precise movement per degree temperature change.



For electric diffusers, quiet, long life, brushless motors provide repeatable and reliable control.

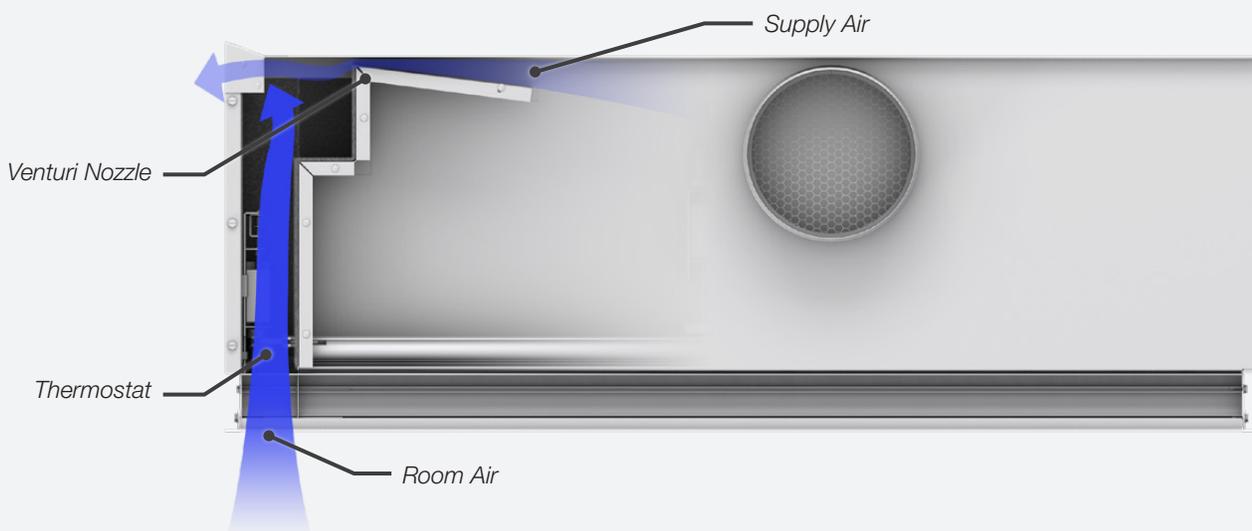
Performance Requirements

- + Cooling supply air temperature between 50°F/10°C and 68°F/20°C.
- + Heating supply air temperature between 80°F/26.5°C and 120°F/49°C.
- + Duct static pressure between 0.05 in. w.g./12 Pa and 0.25 in. w.g./62 Pa.
- + **Example:** If VAV diffusers are to deliver nominal volume at inlet static pressure of 0.15 in. w.g./37 Pa and if a maximum static pressure of 0.25 in. w.g./62 Pa is to be held for quiet operation, size the duct for a maximum pressure drop of 0.1 in. w.g./25 Pa between the first and last takeoff.

Installation

VAV diffusers control room temperature by sensing room air induced up under the diffuser. VAV diffusers will allow you to design for the lowest possible static pressure while providing ample air to each space.

- + Care should be taken not to disturb room air induction and entrainment
- + Location next to obstructions like walls or dropped lights results in the reflection of primary air back at the VAV diffuser. Relocate either the VAV diffuser or use directional blow baffles.
- + Manual balancing dampers should be used at the takeoff for each diffuser.





VAV Diffuser System Options

As energy costs continue to rise, the management of energy while balancing tenant comfort and operational costs is a significant challenge for commercial building owners and managers. A Building Automation System (BAS) is an option that provides monitoring of entire building systems with single source control and troubleshooting. Acutherm's VAV diffuser system is designed to work cooperatively with a wide range of BAS options. Whether you're looking for simple individual temperature control, with no energy required for operation, or full-scale networking for system scheduling, monitoring, reporting, troubleshooting and more, this guide will help you determine what is best for your building needs and budget.

Thermal VAV Diffusers

Therma-Fuser™ Series

This series of stand-alone diffusers are simple to install, thermally powered, require no maintenance or wiring, and come with a 10 year warranty while offering the lowest cost per zone of control.

Electric VAV Diffusers

Advantage Series

This series of electric motorized diffusers provide a greater range of operation and increased speed of response that is required on some projects.

Electric VAV Diffusers

Interoperable Series

This series of electric motorized diffusers are specifically designed for use with multi-vendor DDC building control networks that use the BACnet open communication protocol.

SYSTEM OPTIONS

FEATURES	Thermal		Electric		Hybrid	
	Therma-Fuser stand-alone thermally powered VAV Diffusers	Therma-Fuser diffusers + Wall Adjuster and Room Temperature Sensor	Advantage stand-alone electric motor VAV Diffusers	Interoperable BACnet building network VAV diffusers	Therma-Fuser diffusers +	Interoperable diffusers
Individual temperature control, superior air distribution, energy saving adaptable system	✓	✓	✓	✓	✓	✓
No diffuser maintenance	✓	✓			✓	
No diffuser wiring	✓					
BAS only monitors parts of system requiring periodic maintenance	✓					
Monitors room air temperature		✓	✓	✓		✓
Monitors and adjusts room temperature setpoints		✓	✓	✓		✓
Monitors diffuser supply air temperature			✓	✓		✓
Monitors diffuser supply air volume				✓		✓
Network Protocol		Analog	BACnet™	BACnet™		BACnet™
Other Network Functions			✓	✓		✓
Diffuser power	Thermal	Thermal	Electric Motor	Electric Motor	Thermal	Electric Motor
Installed cost	\$	\$\$	\$\$	\$\$\$	\$\$	\$\$
Warranty*	10 Year	10 Year	2 Year	2 Year	10 Year	2 Year

*Not applicable to options and accessories.

VAV Diffuser System Options

The example below demonstrates some of the many product options available. Selections should be based on individual project requirements.

1 SPECIAL ZONE – INTERMITTENT USE

Advantage with Occupancy Sensor

- + Balances comfort and energy
- + Changes temperature and minimum flow setpoint when space is unoccupied

2 SPECIAL ZONE – HIGH MAX CAPACITY AND INTERMITTENT USE

Advantage with CO₂ Sensor and Drone

- + Balances ventilation and energy
- + Reduces minimum flow rate when high occupancy areas are unoccupied

1 STATIC PRESSURE CONTROL

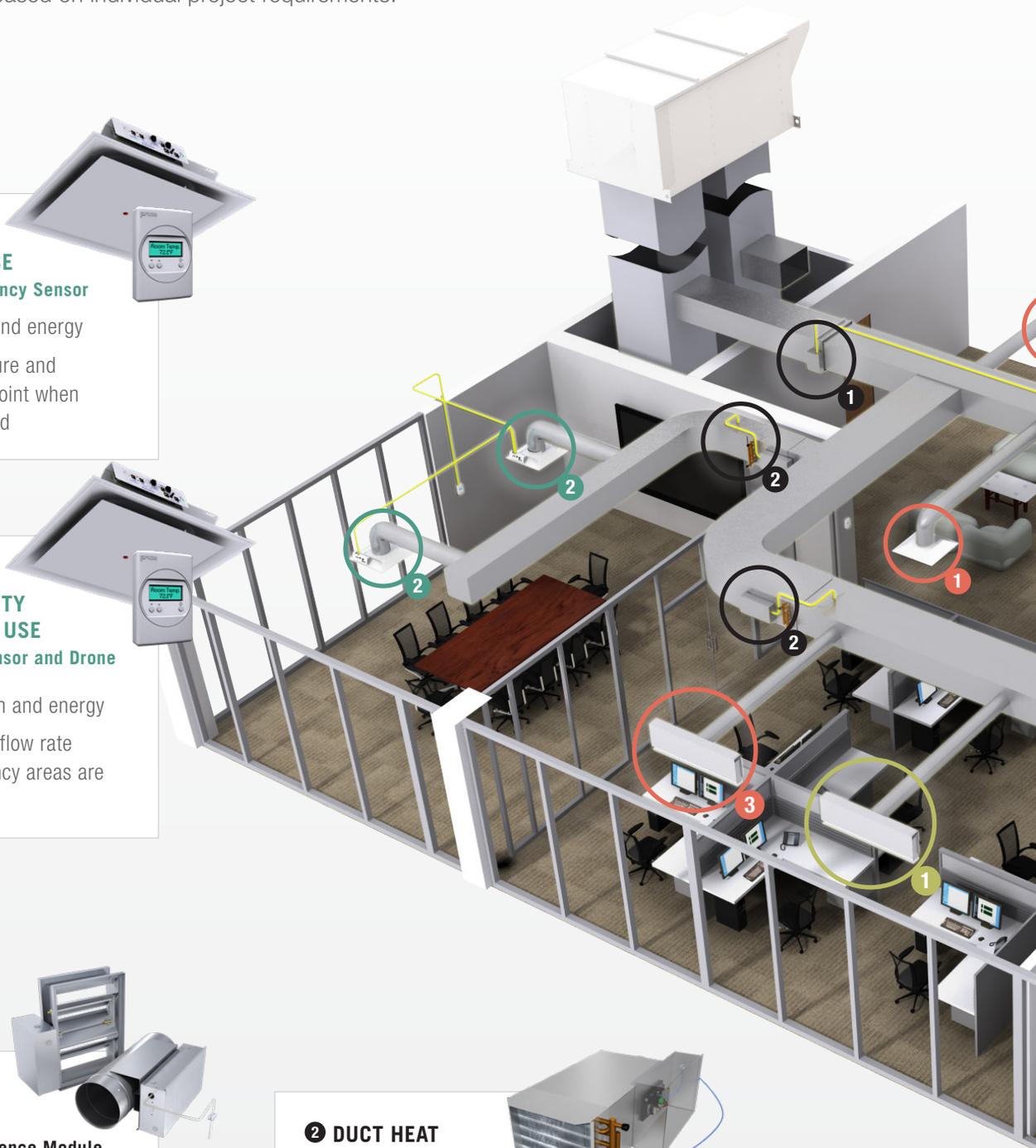
PIM Pressure Independence Module

- + Provides static pressure control as diffusers open and close
- + Systems with a constant volume fan may use the PIM as a bypass

2 DUCT HEAT

Acu-Zone Hot Water or Electric Duct Heaters

- + Provides constant supply air temperature at design and low airflow rates



1 TYPICAL ZONE – STAND-ALONE

TF or ST Square Plaque Diffusers

- + Provides comfort and energy savings of individual temperature control
- + Easy adaptability to office changes
- + Maintenance free operation



2 ARCHITECTURAL EXPOSED DUCT CEILING
STR Round Diffuser

- + Round shape blends with architectural features or exposed round duct work



3 ELEGANT LINEAR DESIGN

TL Linear Slot Diffuser

- + Ideal for ceiling or sidewall applications
- + Streamlined aluminum extrusions provide continuous, slim architectural appeal



4 SETPOINT CONTROL OPTION

ADJ-D Digital & ADJ-W Wireless Wall Adjuster

- + Allow the occupant to easily adjust the temperature setpoint
- + Available on all Therma-Fuser Series diffusers



1 TYPICAL ZONE – NETWORKED

EF and EL Interoperable Diffusers

- + BACnet Interoperability available for most models of diffusers and accessories



VAV Diffuser Products



2 x 2 ft. Square Diffuser with Blade Damper

(24 in. / 600 mm square)

Therma-Fuser™ Series - TF / Interoperable Series - EF

Four blade dampers provide superior throw with 66 linear inches of variable discharge area.

Inlet diameter	6 / 8 / 10 / 12 in.	150 / 200 / 250 / 300 mm
Pressure ranges	0.05 to 0.25 in. wg	12 to 62 Pa
Air volumes	100 to 720 CFM	45 to 340 l/s
Throw¹	6/4/3 to 17/14/12 ft.	1.7/1.2/0.9 to 5.1/4.2/3.6 m
Noise²	<15 to 34 NC	<15 to 34 NC



2 x 2 ft. Square Diffusers with Cone Damper

(24 in. / 600 mm square)

Advantage Series - ADV

Designed to provide a greater range of operation and increased speed of response required by some projects.

Inlet diameter	6 / 8 / 10 / 12 / 14 in.	150 / 200 / 250 / 300 / 350 mm
Pressure ranges	0.05 to 0.25 in. wg	12 to 62 Pa
Air volumes	80 to 734 CFM	37 to 346 l/s
Throw¹	2/1/<1 to 10/7/6 ft.	0.6/0.3<0.3 to 3.6/2.1/1.8 m
Noise²	<15 to 43 NC	<15 to 43 NC



2 x 2 ft. Square Diffusers with Disc Damper

(24 in. / 600 mm square)

Therma-Fuser™ Series - ST

Easy adjustment minimum flow dial. One stop lever for balancing.

Inlet diameter	6 / 8 / 10 / 12 in.	150 / 200 / 250 / 300 mm
Pressure ranges	0.05 to 0.25 in. wg	12 to 62 Pa
Air volumes	105 to 740 CFM	50 to 350 l/s
Throw¹	3/1/<1 to 13/11/9 ft.	0.9/0.3<0.3 to 4.0/3.4/2.7 m
Noise²	<15 to 38 NC	<15 to 38 NC



2 ft. Round Diffuser with Disc Damper

(24 in. / 600 mm round)

Therma-Fuser™ Series - STR

With all the performance and air distribution of the ST, the round model has been developed for aesthetic consideration.

Inlet diameter	6 / 8 / 10 / 12 in.	150 / 200 / 250 / 300 mm
Pressure ranges	0.05 to 0.25 in. wg	12 to 62 Pa
Air volumes	105 to 740 CFM	50 to 350 l/s
Throw¹	3/1/<1 to 13/11/9 ft.	0.9/0.3<0.3 to 4.0/3.4/2.7 m
Noise²	<15 to 38 NC	<15 to 38 NC

¹Throw for $\Delta 20^\circ\text{F} / 11^\circ\text{C}$ at $v_f = 50 / 100 / 150 \text{ FPM} / 0.25 / 0.50 / 0.75 \text{ m/s}$

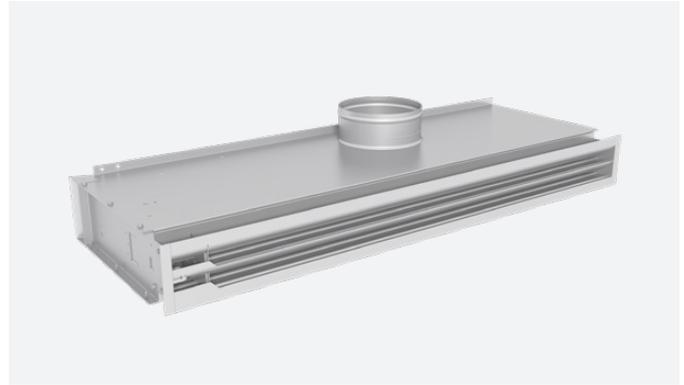
²Noise based on $L_w(10^{-12} \text{ watts reference})-10\text{db}$



Linear Ceiling Diffuser and Continuous Linear Ceiling Diffuser
Therma-Fuser™ Series - TL & TLC / **Interoperable Series** - EL & ELC

Elegant linear design for individual units or continuous linear slots.
 VAV diffusers with streamlined aluminum extrusions to provide a slim architectural shape.

Length	24 / 36 / 48 / 60 in.	600 / 900 / 1200 / 1500 mm
Slots	multiple slots and blow patterns available	
Pressure ranges	0.05 to 0.25 in. wg	12 to 62 Pa
Air volumes	45 to 960 CFM	20 to 455 l/s
Throw¹	4/3/2 to 40/33/25 ft.	1.2/0.9/0.6 to 12.2/10.0/7.6 m
Noise²	<15 to 42 NC	<15 to 42 NC



Linear Sidewall Diffuser and Continuous Linear Sidewall Diffuser
Therma-Fuser™ Series - TLW & TLWC / **Interoperable Series** - ELW & ELWC

Designed for installation just below the ceiling in a narrow soffit which is an excellent solution when there is little or no space above the ceiling.
 Elegant sidewall linear design for individual units or continuous linear slots.

Length	24 / 36 / 48 / 60 in.	600 / 900 / 1200 / 1500 mm
Slots	multiple slots and blow patterns available	
Pressure ranges	0.05 to 0.25 in. wg	12 to 62 Pa
Air volumes	45 to 960 CFM	20 to 455 l/s
Throw¹	4/3/2 to 40/33/25 ft.	1.2/0.9/0.6 to 12.2/10.0/7.6 m
Noise²	<15 to 42 NC	<15 to 42 NC



1 x 1 ft. Square Diffuser with Blade Damper

(12 5/8 in. / 320 mm square)

Therma-Fuser™ Series - TK

Specially designed for small task conditioning. Four-blade damper provides superior throw.

Inlet diameter	6 in.	150 mm
Pressure ranges	0.05 to 0.25 in. wg	12 to 62 Pa
Air volumes	115 to 265 CFM	55 to 125 l/s
Throw¹	8/6/4 to 13/10/8 ft.	2.5/1.7/1.2 to 4.0/3.0/2.5 m
Noise²	<15 to 37 NC	<15 to 37 NC

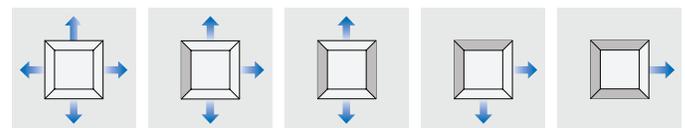
¹Throw for Δ 20°F / 11°C at v_f = 50 / 100 / 150 FPM / 0.25 / 0.50 / 0.75 m/s

²Noise based on L_w(10⁻¹² watts reference)-10db

VAV Diffuser Blow Patterns

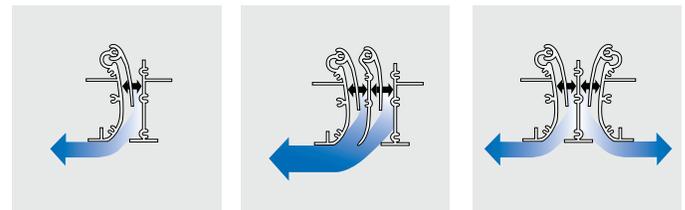
Custom air blow patterns are available for most models.
 Contact Acutherm for additional information.

Square Therma-Fuser Diffuser

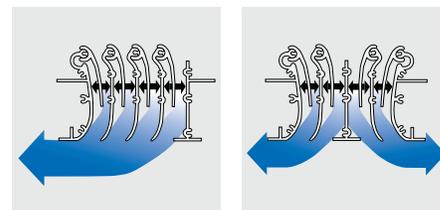


4-Way Blow D3 3-Way Blow D2 2-Way Blow Opposite D2C 2-Way Blow Corner D1 1-Way Blow

Linear Therma-Fuser Diffuser



1-Slot 1-Way 2-Slot 1-Way 2-Slot 2-Way



4-Slot 1-Way 4-Slot 2-Way

Options & Accessories



Wall Adjusters and Thermostats

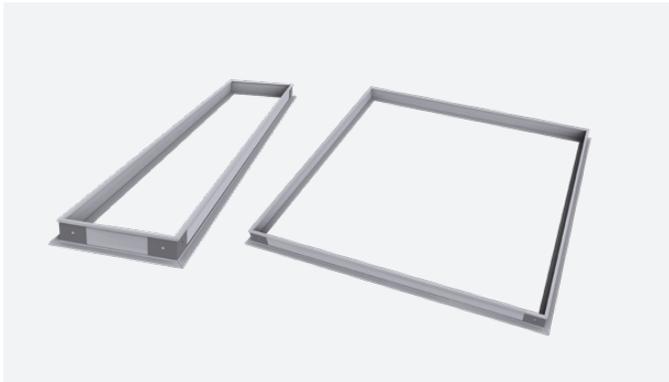
Therma-Fuser™ Series - ADJ-D & ADJ-W /

Advantage Series - TSTAT* / **Interoperable Series** - ADJ-B

Acutherm's wall adjusters for Therma-Fuser Series diffusers allow the occupant to easily adjust the temperature setpoint. The Wall Adjuster is available in a wired or wireless model. Wall Adjusters are easily integrated to BAS with a protocol independent interface.

Acutherm's thermostats for Advantage and Interoperable Series diffusers provide both room temperature and occupant adjustable room temperature setpoint.

**There are several options for the Advantage including LCD display, occupancy and CO₂ sensors.*



Ceiling Approaches

Therma-Fuser™ Series / **Advantage Series** / **Interoperable Series**

Acutherm offers a variety of ceiling frames to suit most ceiling types. Diffusers installed in special ceilings should be done such that obstacles are not below the plane of the diffuser casing extended. Breaking this plane risks breaking Coanda and could allow primary air to drop.



Acutherm Pressure Relief Collar and Relief Ring

Therma-Fuser™ Series / **Advantage Series** / **Interoperable Series**

The Acutherm Pressure Relief Collar and Relief Ring are both inexpensive solutions when duct pressures are higher than desired. When the diffuser reduces the air flow into the room these devices bypass the excess air into the plenum return system. Relief Rings are smaller but limited to 6, 8 and 10 in. inlets. Pressure Relief Collars are available up to 14 in. inlets.

	Inlet sizes	Height
Relief ring	6 / 8 / 10 in. 150 / 200 / 250 mm	3 1/4 in. 121 mm
Pressure relief collar	6 / 8 / 10 / 12 / 14 in. 150 / 200 / 250 / 300 / 350 mm	8 in. 203 mm



Static Pressure Control

Therma-Fuser™ Series - PIM / **Advantage Series** - PIM /

Interoperable Series - PIM

The Acutherm Pressure Independence Module (PIM) helps VAV diffuser to operate quietly at both full flow and turn down conditions by providing pressure independence as either a modulating bypass or zone damper. It can be supplied with or without a damper; square/rectangular opposed blade, or round damper with peripheral gasket, tested to ASHRAE 130 and AHRI 880.



Acu-Zone Electric Zone Heater

Therma-Fuser™ Series - AZON-I-E & AZON-II-E

The Acu-Zone™ electric zone heaters use a patented air flow sensor and the most advanced modulating SCR (Silicon Controlled Rectifier) proportional heat controller to vary the electrical power through the coil

Electric heating units available in round, square and rectangular sizes.

Control	SCR	SCR
Inlet/Outlet diameter	Round, rectangular or square	
Heating	Up to 21 kW/sq. ft.	up to 226 kW/m ²
Air volumes	Varies by size	
Power	Varies by size	



Acu-Zone Hot Water Zone Heater

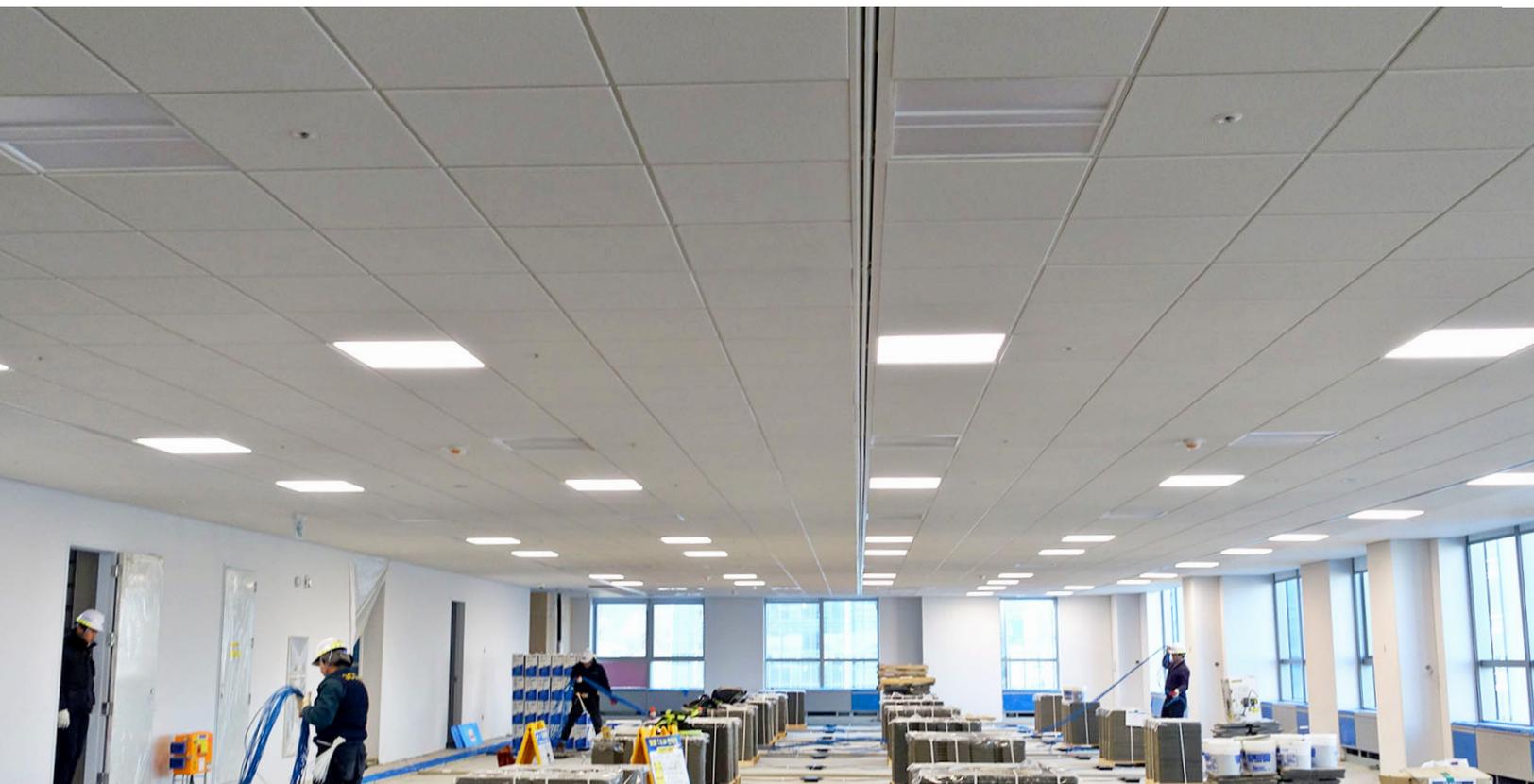
Therma-Fuser™ Series - AZON-II-W

The Acu-Zone hot water zone heaters use a modulating PI (proportional/integral) heat controller to vary the hot water through the coil and prevent excessive valve cycling.

Control	PID	PID
Valve¹	PICCV or CCV	PICCV or CCV
Coil inlet diameter²	6/8/10/12/14/16 in.	150/200/250/300/350/400 mm
Coil heating²	5.1 to 111.6 MBH	17.4 to 380.9 kW
Coil air volumes²	200 to 3300 cfm	94 to 1557 l/s

¹optional pressure independent, two way or three way valve

²optional one or two row coil



Therma-Fuser System Design

The Therma-Fuser diffuser is a simple stand-alone or networked device that provides VAV control when supplied with air in a suitable range of temperature and pressure.

Supply Air Temperature

When supplied with cool air, the Therma-Fuser dampers modulate open on a rise in room temperature. When supplied with warm air, the dampers open on a room temperature drop.

Cool air should be a constant temperature not less than 50°F/10°C for standard models and warm air at a constant temperature of not more than 120°F/49°C.

The constant discharge velocity of Therma-Fuser diffusers at varying air flow provides good room circulation which reduces stratification. Keeping heating supply air temperatures as low as possible will further reduce room air stratification to a negligible level.

Changeover from cooling to heating occurs as the supply air rises from 76°F/24.5°C to 80°F/26.5°C and change back from heating to cooling occurs when the supply air drops from 72°F/22°C to 68°F/20°C.

Static Pressure

Noise level at any air diffuser is influenced by air velocity through the diffuser which is, in turn, a function of static pressure in the neck of the diffuser. Noise level at a Therma-Fuser diffuser will not increase as it closes if the static pressure in the neck is held constant. As static pressure in the neck increases, sound level increases.

Static pressure at the inlet of the Therma-Fuser diffuser must be high enough (0.05"wg /12 Pa or more) to obtain the required air volume for room air induction. Static pressure above 0.25"wg/62 Pa may cause the sound level to become noticeable (NC35).

What It Needs:

Supply Air Temperature

- + Constant temperature. May be reset to another constant temperature.
- + Cooling between 50°F/10°C and 68°F/20°C.
- + Heating between 80°F/26.5°C and as low as possible but not to exceed 120°F/49°C.

Static Pressure

- + High enough for required air volume. No lower than 0.05 in.wg/12 Pa.
- + Below rated static pressure for design sound level. No higher than 0.25"wg/62Pa suggested.

Location

Because Therma-Fuser diffusers control room temperature by sensing room air induced up the center of the space, care should be taken not to disturb room air induction and entrainment. For example, location next to walls or dropped lights results in the reflection of primary air back at the Therma-Fuser diffuser. Relocate either the Therma-Fuser diffuser or use directional blow baffles.

Duct Design

The goal of a high performance duct design is to design for lowest possible static pressure while providing ample air to each space. Duct design example: if Therma-Fuser diffusers are to deliver nominal volume at inlet SP of 0.15"wg / 37Pa and if a maximum SP of 0.25"wg / 62Pa is to be held for quiet operation, size the duct for a maximum pressure drop of 0.1"wg /25 Pa between the first and last takeoff.

Manual balancing dampers should be used at the takeoff for each diffuser. Manual balancing dampers may not be required with ducts designed to Acutherm specifications.

System Design Checklist

Note: This is a general checklist. For detailed recommendations about specific systems visit www.acutherm.com

Job Name _____

1. THERMA-FUSER DIFFUSER SIZE AND LOCATION

- Air volume sufficient for room needs. Correct inlet sizing for available static pressure.
- All Therma-Fuser diffusers within two feet of wall equipped with three-way blow away from wall.
- Multiple Therma-Fuser diffusers in same room—space no less than two times the 150 fpm/.76 m/s throw, use three-way blow if closer.

2. SUPPLY AIR TEMPERATURE — Cooling Min. 50°F / 10°C Heating Max. 120°F / 49°C Changeover: To Heating 80°F / 26.5°C To Cooling 68°F / 20°C

• Source of cooling:

- Chilled water AHU
- DX

• Source of heating:

- AHU heat
- Duct heat
- Heat Pump
- Separate perimeter heat —
- Gas
- Hot Water
- Electric
- Steam
- Baseboard
- Radiant panels
- Separate duct

• Portions of building in one master zone:

- One exterior *Note: Separate master zones are preferred for the interior and each exposure*
- More than one exterior
- Interior
- Other _____

• Supply air fan:

- Fan runs continuously

• Location of thermostat (or BMS sensor) used to control the AHU water valves or DX compressor.

Note: Do not use a return air thermostat (sensor)

- System using some Therma-Fuser diffusers and some fixed opening diffusers
 - Room thermostat or sensor located in room of highest heating and cooling load. Fixed opening diffuser used in this room.
- Complete Therma-Fuser System
 - Preferred approach—Supply air control / room changeover
 - Supply air temperature controlled by discharge air thermostats (sensors)
 - Mode selected by changeover thermostat (sensor) in the room. Therma-Fuser diffuser with minimum flow stops in this room.

3. STATIC PRESSURE— Inlet Min. 0.05"wg / 12 Pa Or High Enough For Required Air Volume Inlet Max. 0.25"wg / 62Pa For NC 35 Or Less

• Control

- Less than 30% turndown of system air—Static pressure control usually not necessary.
- Over 30% turndown of system air.

Static Pressure Control With:

- Fan Control
 - Variable speed drive
 - Other _____
- Zone Control damper
- Bypass
 - Damper
 - R-Rings—Use only with ceiling plenum return
- Both fan and zone control

- Static pressure sensor located 2/3 or 3/4 of the equivalent duct length between control and end of duct.

• Duct Design

Supply:

- Static pressure no higher than 0.25"wg / 62Pa at the first takeoff downstream from the static pressure control.
- Sufficient static pressure at the last Therma-Fuser diffuser to obtain the required airflow. Size last Therma-Fuser diffusers larger to achieve required flow at lower static pressures.

Zone dampers are necessary where pressure losses in ducts are too high.

Manual balancing dampers should be used at the takeoff for each diffuser. Manual balancing dampers may not be required with ducts designed to Acutherm specifications.

Return:

- Ceiling plenum
 - Ducted
 - Other _____
- One return for each Therma-Fuser diffuser preferred. Minimum of one return per room.



CANI MERCHANDIZING PVT. LTD.
CANI MARKETING PVT. LTD.

CANI MERCHANDIZING PVT. LTD.

CANI MARKETING PVT. LTD.

GN-2, First Floor, Shivaji Enclave -110 027, New Delhi, India

Tel : +91-11-25107261, +91-11-25107266

Email : enquire@cani.co.in

Website : www.canic.co.in

Branches : Bangalore | Mumbai | Hyderabad | Chennai

Product Improvement is a continuing endeavour at Acutherm. Specifications are subject to change without notice. Consult your Acutherm Sales Representative for current specifications or more detailed information. Not all products may be available in all geographic areas. The complete product offering can be viewed online at acutherm.com.

© 2019 Acutherm. Form 010.101 Rev 1904 | v001

