

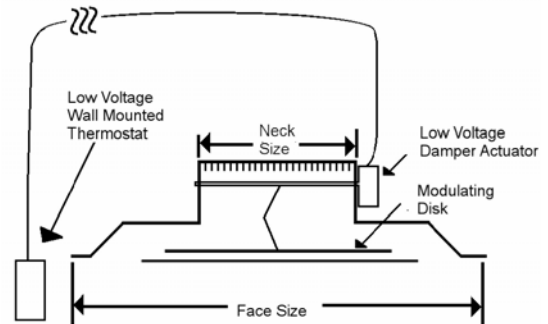
Comfort System™ VAV Diffuser

The Better, Lower Cost Alternative

The COMFORT SYSTEM™ VAV DIFFUSER is used to vary the supply air volume from a wall-mounted thermostat. This diffuser is designed to maintain coanda effect (draft free) of discharge air along the ceiling, providing a sustained discharge velocity throughout the volume range. *Operating the diffuser from an individual wall-mounted thermostat enables users to choose their own desired comfort level. The wall-mounted thermostat will give closer temperature control and eliminate the need for a step ladder to adjust the setpoint in the diffuser itself.*

FEATURES

- **Wall-mounted thermostatic control**
Temperature is controlled within an individual zone from a wall-mounted thermostat.
- **Powerful, low voltage actuator**
Floating –point actuators are standard. The diffuser is also available with Lon Works, pneumatics, or an interface to new or existing BAS systems.
- **True variable air volume (VAV) in heating and cooling modes**
The diffuser effectively regulates the amount of supply air into the space and uses a wall-mounted thermostat to achieve true VAV control in the heating mode, as well as the cooling mode. Automatic changeover from heating to cooling is standard.
- **Maximum air volume range is from 118 to 710 CFM**
- **Suitable for lay-in ceilings**
- **Adjustable minimum and maximum air flows**
- **Unitary stamped seamless backcone with removable face plate**
- **Steel construction with baked white enamel finish**
- **4-way discharge pattern**



OPERATION

Diffusers incorporate an integral modulating disk that continually regulates the volume of supply air in response to a wall-mounted thermostat

AVAILABLE SIZES & MODELS

- 6" to 12" neck sizes for nominal 24" x 24" face size
- 6" and 8" neck sizes for nominal 12" x 12" face size
- Surface-mount or perforated face

ENGINEERING AND TECHNICAL SUPPORT

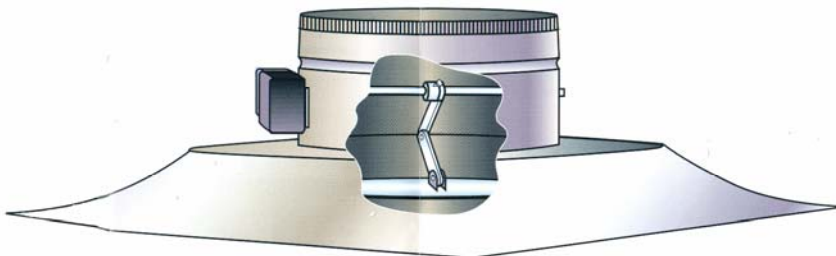
All of our products are supported with strong engineering and technical support.

DIFFUSER CONTROL OPTIONS

- Pneumatic actuator
- Electronic actuator
- Lon Works compatible
- Custom mounting of BAS controls
- Manually adjustable volume controller

AIR HANDLER CONTROL OPTIONS

- Master thermostat
- Standard VAV controller (55° discharge air)
- Changeover VAV controller (heating & cooling VAV)



COMFORT SYSTEM™ VAV DIFFUSER

PERFORMANCE DATA

SIZE	PERFORMANCE	STATIC PRESSURE AT DIFFUSER INLET (INCHES WG)				
		0.1	0.15	0.20	0.25	0.30
6	MAX CFM	118	135	160	170	180
	MAX NC	20	20	24	27	31
	THROW (FT.)	2.5/4.5	3/5	4/6	5/7.5	6.5/8.5
8	MAX CFM	220	260	280	310	340
	MAX NC	21	24	27	30	33
	THROW (FT.)	4/6	4.5/7	5.5/8	6.5/8.5	8/10
10	MAX CFM	350	420	470	520	570
	MAX NC	20	20	23	27	31
	THROW (FT.)	5/8.5	6.5/9.5	7/10.5	8/11.5	9.5/12.5
12	MAX CFM	480	550	610	660	710
	MAX NC	20	20	23	27	31
	THROW (FT.)	6/10	6.5/11	8.5/12	10/13	11/13.5

DATA BASE: Sea level conditions and 54F supply air temperature. **NC:** Based on ISO test procedures re 10^{-12} watt minus 8 db from each octave band. **THROW:** Values shown indicate maximum throw at maximum volume. Throw is the maximum distance from the unit to a point where the air stream is reduced to 100 FPM and 50 FPM. **HEATING:** Air Discharge temperatures in excess of 86°F may cause unacceptable stratification.

SUGGESTED SPECIFICATIONS

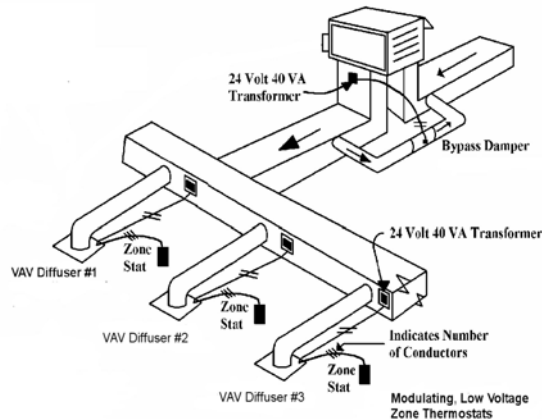
Comfort System™ VAV pneumatically or electrically driven thermostatically controlled variable air volume diffusers shall be as manufactured by Jackson Systems, LLC. Removable face plate shall be constructed of a minimum 18 gauge steel and attached to a unitary stamped seamless backbone. The face plate and backbone shall be coated with corrosion resistant baked enamel white paint. Diffusers shall incorporate an integral modulating disk that continually regulates the volume of supply air in response to a wall-mounted thermostat. Diffusers relying on integral induction air ceiling-located sensors or methods of set point adjustment other than from wall-mounted thermostats shall not be acceptable.

On electrically-driven units, the electric 24 Vac actuators shall be a drive-open, drive-closed motors to ensure finite control of temperature by modulation. Actuators that incorporate an expanding substance which only drives the unit open when subjected to heat-causing electrical current, necessitating a spring return mechanism to force the diffuser to a closed position, shall not be acceptable.

Electronic modulating wall-mounted thermostatic control shall be either a 2 to 10Vdc or floating-point. All field wiring, labor and materials shall be furnished and installed by others.

Pneumatically-driven diffusers shall be direct-acting and normally open. Pneumatic thermostats and actuators shall be supplied with the diffuser. Thermostat and pneumatic tubing shall be installed by others.

SYSTEM SCHEMATIC FOR CONTROL FROM MASTER THERMOSTAT



Jackson
SYSTEMS

5418 ELMWOOD AVE. INDIANAPOLIS, IN 46203

317.788.6800 FAX: 317.227.1034

www.jacksonsystems.com

info@jacksonsystems.com