

FlexSys™

Underfloor Air Distribution System

Owner, Investor, Tenant Benefits at Every Stage of the Building's Life

www.york.com/flexsys



The smarter move for the

Challenge:

Buildings must be “technology ready”

Information technology is advancing rapidly. More people need instant access to more information than ever before, and technical requirements are constantly changing.

In response, buildings must be “technology ready” to accommodate continually changing power, data and telecommunications requirements.

Challenge:

Buildings must allow rearrangement flexibility

Today’s buildings must also be highly flexible, allowing for easy rearrangement of people and technology. The typical office building experiences a 40% “churn,” or movement of occupancy annually. Churn rates in technology driven operations are often more than 100%.

To be competitive, today’s building must provide technology readiness and rearrangement flexibility, as well as the standard requirements of comfortable environment and competitive cost.

Solution:

The Building Technology Platform®

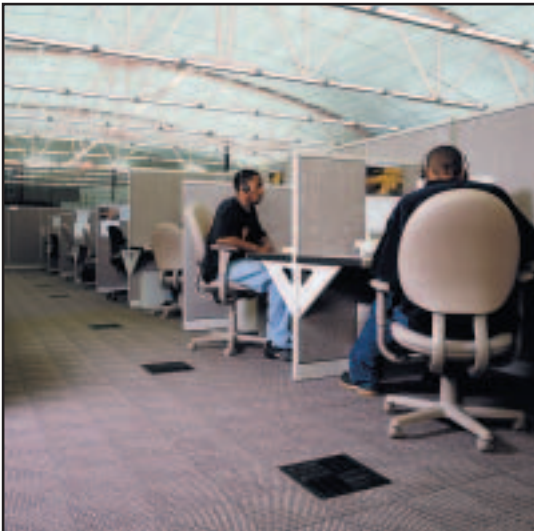
There is an exciting new approach to this complex set of building needs. It is the Building Technology Platform® and represents the combined expertise of Tate Access Floors, Inc., YORK® and Honeywell.

The centerpiece of the platform is an advanced raised floor system, which provides easy access. All power, data and telecommunications cabling runs under the raised floor and connects with modular connectors. The plenum beneath the raised floor is the ideal avenue to deliver conditioned air throughout the facility.

Internal Zone Cooling



...Owner, Investor, Tenant



Total System

Air Conditioning • Raised Access Floor • Cable and Wire Management

Benefits:

Reduced

- Construction
- Build time
- Operating cost
- Life cycle cost

Flexible

- Immediate & low cost churn

Comfort

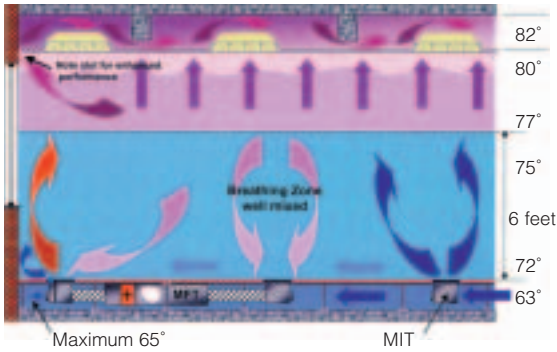
- Improved zonal air quality
- Improved occupier comfort
- Improved productivity, lower absenteeism

Environment

- Low energy usage gains LEEDS credits

most flexible facility

Perimeter Zone Heating and Internal Zone Cooling



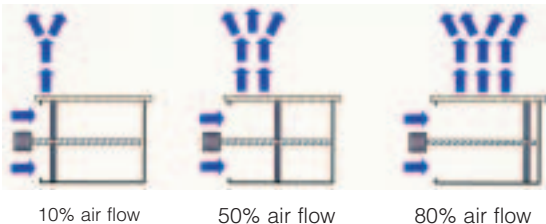
The ideal HVAC component: FlexSys™ underfloor air system

YORK®, the HVAC technology leader, has developed the ideal air conditioning component for the Building Technology Platform®. It is the FlexSys™ Underfloor Air System, the most flexible system available, and it features the patented Modular Integrated Terminal (MIT).

Because the entire volume under the floor becomes a pressurized plenum, FlexSys™ MIT units can be installed anywhere within the raised floor grid. When the layout changes, so can the location of any terminal. Control and power wiring are located under the floor, so they can be reconnected with the terminals via "Plug N Play" connectors. Terminals can be added or removed to meet changing loads, and control zones can also be added or rearranged.

The result is an HVAC system that can be reconfigured quickly and easily, without reconstruction or expensive outside labor. Essentially, your HVAC system can be as easy to rearrange as your furniture.

MIT Variable Air Volume Damper Operation



Reduced construction costs

Perhaps the most compelling feature of the FlexSys™ system is that it offers all these benefits at a cost that is competitive with traditional designs.

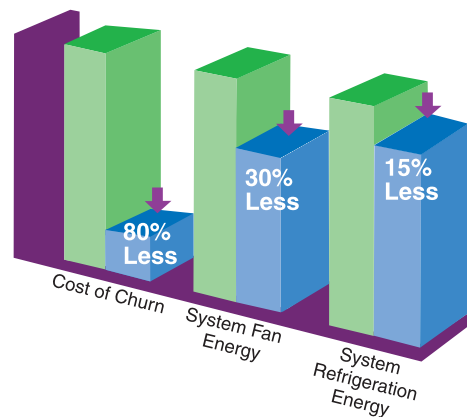
If you're planning a raised floor for data, power and telecommunications, the addition of underfloor HVAC will cost less than a traditional HVAC system, because it:

- eliminates overhead work
- may reduce building height, typically up to 1' per floor
- simplifies modifications to the air system – right up to occupant move in – which reduces labor costs and speeds occupancy

Reduced life-cycle costs

The FlexSys™ system really pays off when you consider life-cycle costs, because it:

- reduces the costs – and disruptions – caused by "churn"
- It's more energy-efficient than an overhead VAV system – fan energy is only 0.05-inch static pressure, instead of the 2-inch static pressure typically needed by overhead VAV systems.
- It delivers 60 to 65°F air, versus a conventional 55°F, which means outside-air free cooling can be used, typically 17% more often.
- It allows a faster depreciation schedule because most of the Building Technology Platform® components are considered equipment, rather than part of the building.



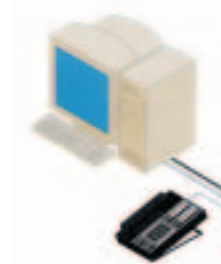
10" x 10" grille size
150 cfm all models
16 air flow patterns



10" x 5" grille size
100 cfm
3 air flow patterns



Round grilles available in various finishes



FlexSys™ Underfloor VAV Features and Benefits

Multiple Options on Plant

- Central chiller, Central Air Handling Unit (AHU)
- Packaged HVAC equipment
- Air handler per floor with chilled water or Direct Expansion (DX)

Lower Installed Cost

- Reduced overhead services required

Reduced Energy Consumption

- Only cool the Breathing Zone
- .05" Static Pressure in floor plenum reduces fan energy
- Variable Air Volume technology saves on fan energy
- Free reheat using "Side Stream" filtration
- Perimeter heating system heats room air (not underfloor cold air)

Commissioning

- One pressure controller per floor plate
- NO pipework and ductwork modifications
- Plug N Play electrical and control systems can be rearranged by maintenance staff

Better Indoor Air Quality

- First benefit of conditioned air to occupant
- Lower slab-to-slab building height (up to 1 foot per floor)
- False ceiling not required for system to function

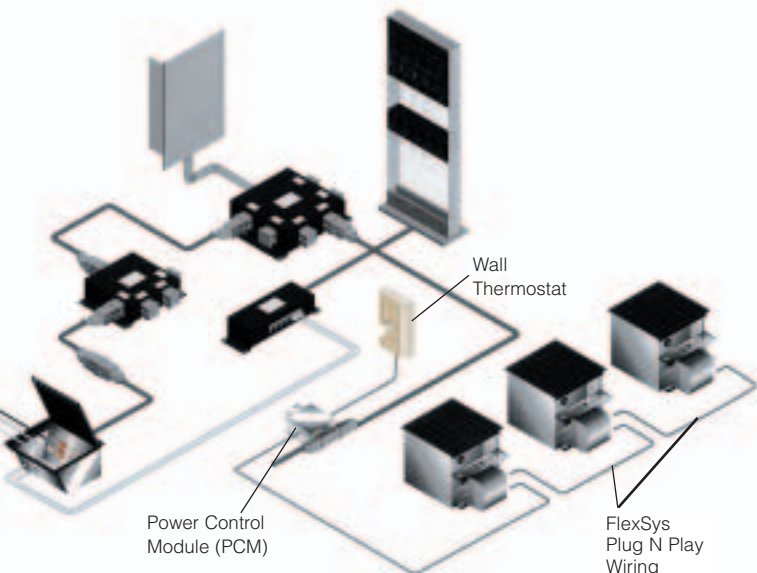
Lower Maintenance (in occupied space)

- Underfloor maintenance is minimal
- No refrigerant pipework (on centralized plant system)
- Occasional vacuuming of MIT floor boxes

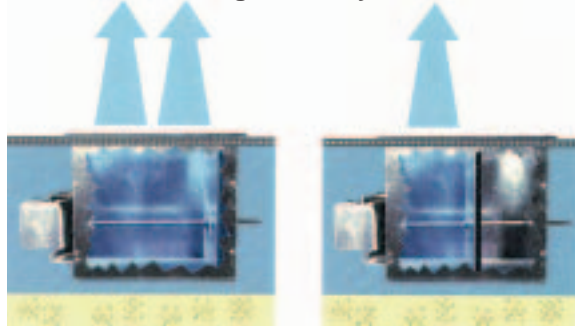
Developer Payback

- Possible tax advantages of VAV system and raised floor (depreciates over 7 years)

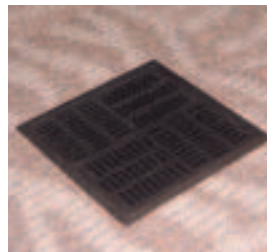
Air Conditioning, Power and Communications



Constant Discharge Velocity Variable Volume



- No drafts
- No puddling
- No stagnant air in space



Cast Aluminum Alloy Floor Grille



Floor Tile Support

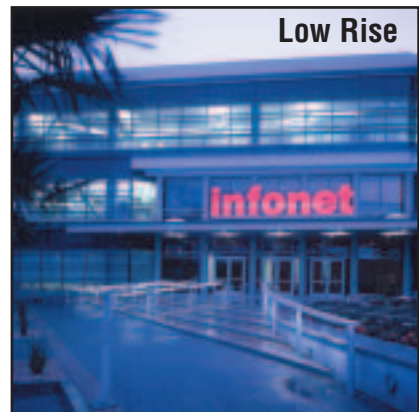
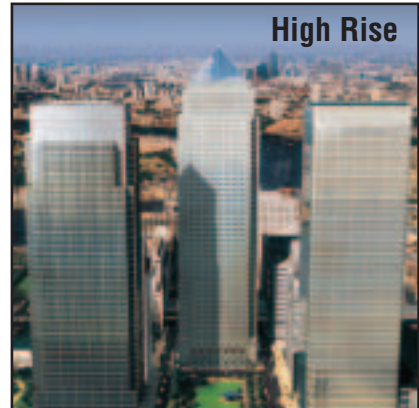


MIT Variable Air Volume Unit (with Plug and Play Cable Management)



Perimeter Heating MFT Fan Terminal

YORK FLEXSYS™ UNDERFLOOR AIR DISTRIBUTION SYSTEM



P.O. Box 1592
York, Pennsylvania 17405-1592
Telephone: 800-861-1001
www.york.com/flexsys