

Casino Gaming Environments

High Performance and Sustainable Service Distribution



SustainAbility
to the Power of **Tate**[®]



"A low flow air system contributes to improved indoor air quality in the casino. Fresh air is delivered at floor level, rises and is eventually vented at ceiling level. As a result, patrons are not exposed to the stale air that collects above them and is vented out of the building."

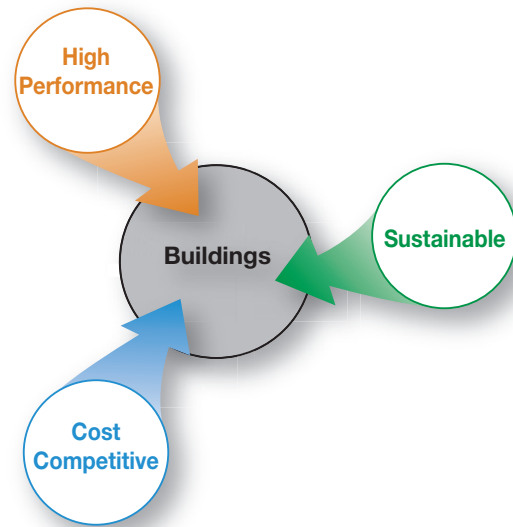
- Roy Mares, Assistant Director of Facilities at ARIA

High Performance & Sustainable Casino Environment

Buildings which incorporate strategies to conserve resources, operate efficiently and improve the overall indoor environment for occupants are becoming the standard. There are many high performance & sustainable strategies available to create an attractive gaming environment however, very few deliver both, and do it cost effectively. Tate access floors with underfloor service distribution should be considered as a standard design feature for all casinos because it provides numerous sustainable and high performance benefits in a cost competitive system.

High Performance Service Distribution

Tate Access Floors offers a fluid capacity to react and respond to your casino's need for change. Whether enhancing the gaming layout and experience, or adapting to new technologies and integrating the next generation of security tools, Tate provides easy and flexible solutions now, and in the future. The gaming environment is further improved with better indoor air quality and thermal comfort by using underfloor air distribution.



Sustainable Gaming Environments

Tate access floors provide significant sustainable advantages for the construction and operation of a casino. Tate's underfloor service distribution system can significantly reduce construction materials through the elimination of ducts and a reduction in wire and cable drop-down lengths.

The underfloor air system requires much lower pressure and warmer supply temperature than a traditional ducted overhead system. These features help improve energy efficiency through the downsizing of mechanical equipment and longer economizer hours. Reusing service supply materials such as wires, cables, outlets and diffusers during reconfiguration further improves the life-time sustainability of any tenant space.

Cost Control

Tate understands that even the most advanced technology needs to offer long-term value if it is to provide a positive return on your investment. That is why Tate access flooring for casinos has been designed to control costs through durability and long-term service, adaptability to future expansion and change, along with easy, low-cost maintenance requirements. Additional cost savings are also realized through easy installation as well as lower operating and system requirement costs for power and communication, and air services.

Creating the Perfect Gaming Environment

The perfect gaming environment must address a variety of needs. These needs include maintaining high-quality clean air, attenuating noise, responding to equipment layout and technological changes quickly and easily, and supporting the overall aesthetic value of the space - all while being cost-effective during construction and operation. With Tate's Underfloor Service Distribution solution, you'll be able to address all of these factors to create the perfect gaming environment.

Advantages

- Enhanced indoor environmental quality through superior IAQ, improved acoustics and increased floor to ceiling height.
- Maximum occupant comfort at design inception and throughout the life of the facility using Underfloor air with modular 'plug & play' VAV or passive diffusers.
- Energy efficiency through economizer operation, and less fan energy due to convection enhanced ventilation.
- Easily adapts to technological changes over the casino's life-cycle at low cost.
- Increase flexibility for changing space layout to quickly adapt to the latest gaming trends.
- Point-of-use services wherever you need them with complete flexibility, accessibility, and unlimited capacity.
- Reduced first cost and construction time due to significant reduction in HVAC ductwork and use of underfloor pre-fabricated 'plug & play' wire/cable services.
- Reduced operating costs and lower facility and maintenance costs through accessible, flexible, and adaptable services - accommodating any layout changes..

Air distribution through slot base provides increased energy efficiency thermal comfort and improved indoor air quality.



Tate ConCore access floor system - made from over 48% recycled content the welded steel floor panel is filled internally with light-weight cement for the ultimate in strength and acoustic performance.

Ceiling design freedom with services such as ductwork and data cables underfloor in an optimized fully accessible service distribution cavity.

'Plug & Play' modular power wiring and data cabling systems save valuable construction time and facilitates quick and easy gaming reconfigurations.



Tate Bolted Stringer understructure system provides positive panel positioning and exceptional lateral stability.

Underfloor service pathway accumulates any type of voice and data system approach, from homerun to passive or active zone cabling.

A full range of finishes available to satisfy all application requirements.



Casino Solutions: Starlight Casino Queensborough, BC, Canada

The British Columbia Lottery Corporation's vision for the casino marketplace is revitalization through fewer and better casinos. The Starlight Casino is a prime example of this strategy. They wanted the Starlight to offer much more than gaming entertainment. The BCLC wanted a casino with amenities such as increased hospitality services and show theatres, while providing a modern, comfortable, and sustainable facility.

The facility's first and largest phase is a 100,000 square foot casino with 852 slots and many other gaming opportunities. The Starlight also features a show lounge, a Kirin Chinese Restaurant and a 25,000 square foot interactive sports bar. The success of the design and construction of the Starlight Casino was most evident at the 2008 Royal City Builders Awards where the Starlight Casino picked up awards for sustainability, universal access, modern development and people's choice.

Tate Underfloor Service Distribution System:

The sustainability award, promotes cleaner and healthier communities by recognizing a facility that incorporates sustainable features and initiatives. Casinos require a fair amount of energy because of the type of business provided within. Starlight received the sustainability award because of the stems that have been included to allow the building to recover the energy from the casino and reinvest that energy back into the building. The building uses an underfloor air handling system that distributes the air in the building through the floor rather than overhead. This gives it a more comfortable environment for customers and allows less use of energy. A beautiful piece of architecture, the Starlight casino is not only pleasing to the eye but provides its patrons with a comfortable, modern and sustainable gaming environment.

A Healthy Gaming Environment

Tate Access Floors provide significant advantages in maintaining air quality and control of a facility's environment. Air quality, correct thermal and humidity conditioning, and proper acoustics all work together to create a comfortably maintained gaming environment. Tate's Underfloor Service Distribution system features high performance underfloor HVAC services that provide energy efficiency, improved indoor air quality, enhanced comfort control, floor to ceiling height optimization and improved acoustics.

keys to creating a healthier facility for patrons and staff

- Deliver fresh supply air at or near floor level to improve ventilation effectiveness and provide patrons with first benefit of clean air.
- Return air through ceiling to create a one directional airflow removing smoke and other impurities from the gaming floor.
- Locate air diffusers throughout facility for even and properly conditioned circulation of clean air.
- Increase floor to ceiling height through overall reduction in service distribution space.
- Provide diffusers with 'plug and play' placement flexibility to ensure maximum comfort control.
- Deliver floor supply air at low pressure to maximize acoustic performance, energy efficiency, and maintain clean air in occupied zone.



"This system will make the casino experience more enjoyable for patrons, and at the same time provide a much better working environment for the many staff and employees."



Casino Solutions: FireKeepers Casino Battlecreek, MI

Planning on the FireKeepers Casino began not just as a business venture but as a way to benefit the community. The owners made it a point to make sure they hired as many local workers as possible both in the construction phase and operation phase. They made a point to use Michigan vendors first when purchasing materials and incorporated as many green initiatives around the building as possible. The result is a Vegas-style casino with state of the art lighting, underfloor air, 2,680 slot machines, 78 gaming tables, a 120 seat poker room along with other amenities. The design features colorful lights simulating raindrops and flames. Like other 21st-century casinos, FireKeepers is an entertainment center with live acts nightly, five restaurants, a sports bar and opulence in every detail. The most noticeable attribute, however, is clean air!



Tate Underfloor Service Distribution System:

The Nottawaseppi Huron Band of the Potawatomi indian tribe put great emphasis on a clean air quality experience at FireKeepers. Using an underfloor air service distribution system, FireKeepers has a state-of-the-art facility in place that brings fresh air from outside. It ushers air underneath the gaming floor and comes up through vents in the floor that you can see throughout the casino. It's designed to take smoke to the ceiling instead of letting it loiter around the head and shoulders area of the patrons. It provides great air quality and comfort for smokers and non-smokers alike.

Easy Adaptation and Flexibility for Years of Low-Cost Service

The Tate Underfloor Service Distribution system has been designed to provide optimum value, flexibility, and trouble-free service now, and in the future. The modular design allows you to adapt to change easily and at a low cost. With Tate, adapting to ever-changing technologies and constant gaming shifts will no longer demand expensive facility investment and construction costs. Tate underfloor systems allow you to update your technical capabilities, floor plan, HVAC controls, and image, using your own effective and low-cost resources.

The Freedom of Flexibility

Spaces and equipment are constantly changing. To meet this demand for change, Tate's underfloor service distribution system is designed to afford interior design freedom and quick 'plug & play' access to all services.

- Flexible and accessible services allow you to plan your space around functional requirements rather than be limited by fixed, inflexible services.
- Simple service connections minimize the need for professional outside services.
- Power, voice, data, and heating and cooling services can all be quickly accessed and reconfigured to meet any layout.
- Service changes can be made with minimal disruption to the work environment.



“Access floor and underfloor modular plug and play services allow for quick and easy equipment and technology changes at low cost with minimal disruption”

Tate Underfloor Service Distribution

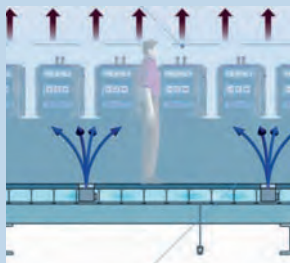
Avoid the Complaints

Conventional overhead HVAC systems do not provide optimum efficiency or comfort. With Tate's underfloor air system, consisting of modular 'plug & play' floor mounted diffusers, ultimate flexibility, energy efficiency, and personal comfort control can be assured.



Improved Comfort

With the entire space under the access floor used as an air distribution pathway, you can plug modular **Air»Connect** in anywhere, and when you make changes in your space, simply unplug and relocate in minutes!



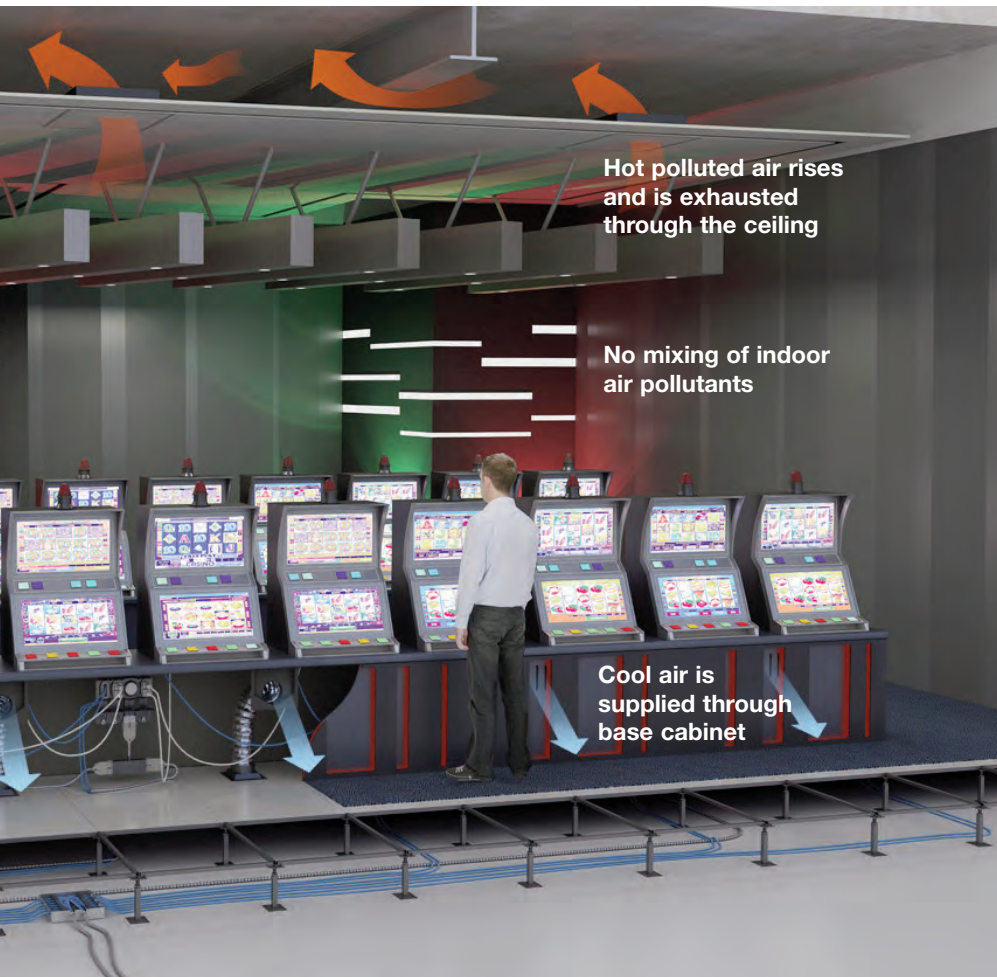
Improved Energy Efficiency

Save 30% of your HVAC energy cost using underfloor air. How? Significantly reduce fan energy requirements and only condition the occupied zone.



Improved Indoor Environment Quality

Underfloor air doesn't churn the smoke up. It efficiently and effectively removes the smoke and keeps it out of the occupied zone.



Hot polluted air rises and is exhausted through the ceiling

No mixing of indoor air pollutants

Cool air is supplied through base cabinet

Don't get Trapped!

Avoid the trap of using inflexible and expensive wire and cable systems in your facility. Tate's underfloor wire and cable management solution, consisting of a Tate Access Floor with modular 'plug & play' power wiring and zone cabling solutions will provide ultimate flexibility allowing you to respond to equipment layout and technology changes quickly, easily and cost effectively.



Complete flexibility and reconfiguration capability

An access floor with modular 'plug & play' power wiring and cabling components provides complete flexibility. As your casino's needs change so too can your service distribution system - quickly, easily and cost-effectively.



Reduce impact on base building

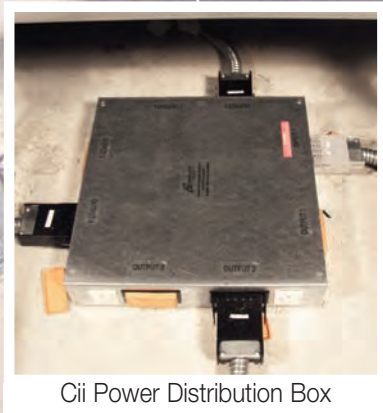
Access floors eliminate the need to embed wiring and cabling within concealed rigid structures such as walls, columns and concrete floors; thereby allowing you the freedom to access wiring and cabling quickly and easily.

Complete accessibility and unlimited capacity

An access floor provides you with access to your service pathway at any location on the floor plate, with finished floor heights that accommodate any capacity needs.

Point of use services wherever you need them

SlotLink with modular 'plug & play' connections or grommets access holes provide point of use delivery of power, voice, and data to any location on the floor plate.



Cii Power Distribution Box



SlotLink Power Termination Box



SlotLink Data Termination Box

Underfloor Power and Data Management

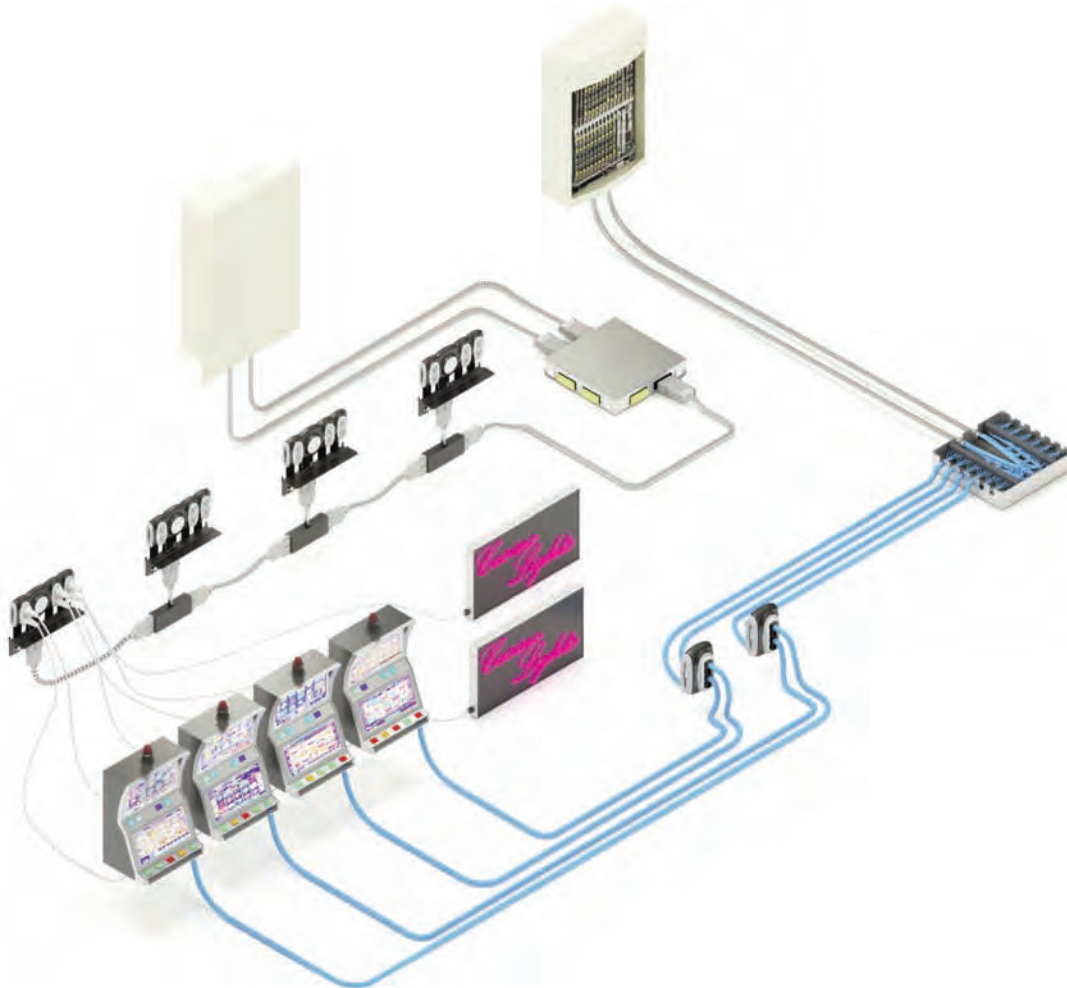
Tate's has partnered with Cii, the leading manufacturer of modular power and voice data systems to provide flexible solution for casino's. Cii offers superior quality and fast, flexible service with custom application capabilities.

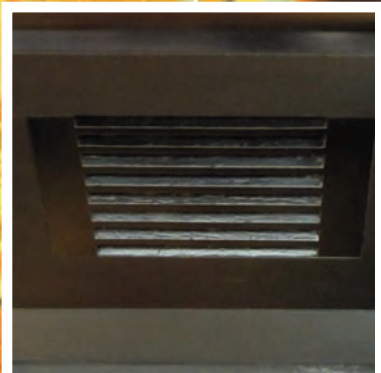
Cii's SlotLink™ is the modular answer to providing multiple power and data circuits to gaming machines in the casino. This plug-and-play system allows you to add new equipment or make moves, adds and changes very simply and quickly. The patented connector is UL listed and approved to connect and disconnect while energized, meaning the circuit breaker does not need to be locked and tagged-out to make changes. As easy as unplugging a lamp, the user can disconnect and move an entire cluster of machines with a minimal amount of disruption to the gaming floor.

Key features of SlotLink Power & Data Management

- Flexibility- with plug-and-play units, installing and reconfiguring gaming layouts is fast, easy and cost-effective.

- Capacity – multiple outlet units allow high capacity multi-circuit wiring configurations to be added for future equipment needs.
- Customization – the SlotLink™ can be customized to provide any power, voice or data service to any type of equipment.
- Better Management – Don't waste money backing up non-critical systems. Up to 4 dedicated circuits and custom duplex colors and labels help you manage critical power requirements, ensuring only critical systems reside on expensive UPS grid — potentially reducing the number of back-up generators.
- Life Cycle Costs – the SlotLink™ extends the life of your gaming floor by allowing you to add and change floor layout as often as you need, or relocate without having to reinvest in a new power system.
- Safety – all SlotLinks™ are UL and CSA approved. The power connectors have a “first make – last break” grounding and are keyed to ensure proper connection.





Designed to Fit Any Air Diffuser



Floor Mounted Grommet



Air»Connect Assembly in Slot Base

Casino Air»Connect

Creating A Healthy Gaming Environment

Tate's **Air»Connect** provides significant advantages in maintaining air quality, flexibility and the aesthetic integrity of a Casino's gaming environment. **Air»Connect** uses a flexible duct to tap into the pressurized plenum of an underfloor air distribution system. The air is then delivered at or near the floor through diffusers mounted in slot bases and other structures built on top of the raised floor. **Air»Connect** offers the same flexibility and improved indoor air quality of a typical floor mounted diffuser used in underfloor air distribution systems. However with **Air»Connect** the diffusers can be concealed out of sight from the gamers keeping a clean appealing aesthetic throughout the entire gaming floor.

key features of the Air»Connect Casino Diffuser

- Provides 67 CFM at .05" H2O static pressure when connected to a diffuser that has at least 12 sq.in. of open space.
- Easily mounts to any slot base cabinet or pit boss stand.
- Can be used with any air diffuser provide by a third party vendor or custom fabricated by the slot base manufacturer for a seamless integrated look.
- All components are quick connect for easy installation and removal during casino layout configuration changes
- **Air»Connect's** 'plug and play' placement flexibility ensure maximum comfort is maintained.
- Designed to deliver air near floor level to maximize acoustic performance, energy efficiency, and help eliminate smoke in the occupied zone.



Conventional Overhead System



Underfloor Air Distribution with Air»Connect

Tate®



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