



**TEDDINGTON**  
AIR CURTAIN SYSTEMS



AIR CURTAIN SYSTEMS FOR THE MOST  
DISCERNING REQUIREMENTS

 Design

DOORS  
MADE OF **AIR**





Design

### **Increase comfort and save energy.**

Air curtain systems are in use almost everywhere that the frequent opening of doors results in a constant exchange of indoor and outdoor air.

Air curtain systems screen door openings from this exchange.

They prevent unpleasant draughts and stop expensively air conditioned indoor air from escaping.

#### **The advantages are clear:**

- There is a significant increase in the quality of the indoor air and comfort.
- Customers, visitors and employees feel much more comfortable.
- The energy costs for heating and for air conditioning the indoor air are minimised. Less energy consumption means both lower emissions and greater climate protection.

### **Top design to suit any environment.**

It is not always possible for an air curtain to be integrated invisibly in the ceiling. For example this applies to high entrances, an open plan interior design and to revolving and curved sliding doors.

Here the visible air curtain system must be integrated harmoniously in its surroundings.

Teddington offers exclusively designed devices which have elegant surfaces and coatings according to customer specifications.

Quality materials, the finest workmanship and minimal noise generation are a matter of course.

An investment that pays for itself quickly and which makes an important contribution to environmental protection.



# It all depends on the situation.

## Swing doors

### Swing doors

Swing doors or door systems have door elements which swing inwards and/or outwards and which are opened manually or automatically.

The swing movement of the door elements usually makes the vertical arrangement of the air curtain devices at the sides of doors difficult or even impossible, because the air curtain would be blocked when the door is open. For this reason, only devices with horizontal installation are offered as standard for swing doors, whereby the devices are mounted above the door so that the air curtain can be discharged downwards.

However exceptions are possible at the request of the customer, for example if the swing doors only swing outwards. In such cases the vertical design models can also be deployed for swing doors.

## Automatic sliding doors

### Automatic sliding doors

These include all doors and door systems whose door elements slide sideways automatically due to motion detectors and light barriers.

In these cases the air curtain devices can be positioned above the doors with horizontal installation. The air curtain is then discharged downwards.

If installation above the doors is not possible or practical – for example in the case of doors with a height of over 4 metres – automatic sliding doors can also be screened easily using air curtains with vertical installation. In these cases, slim column-mounted devices with a sophisticated design are positioned to the side of the doors, and discharge the air curtain to the side.

## Curved sliding doors

### Curved sliding doors

As with revolving doors, curved sliding doors are based on a circular double door (flow control) function. Instead of rotating wings, however, the curved sliding doors have sliding door elements at the entrance and exit which are adapted to the radius and which automatically open sideways. The screening here can be achieved simply inside or outside the double door system using devices with vertical or horizontal installation.

## Revolving doors

### Revolving doors

The wings of a revolving door function as a paddle which conveys unconditioned outdoor air inwards. This produces an unpleasant “cold spot” in the entrance area.

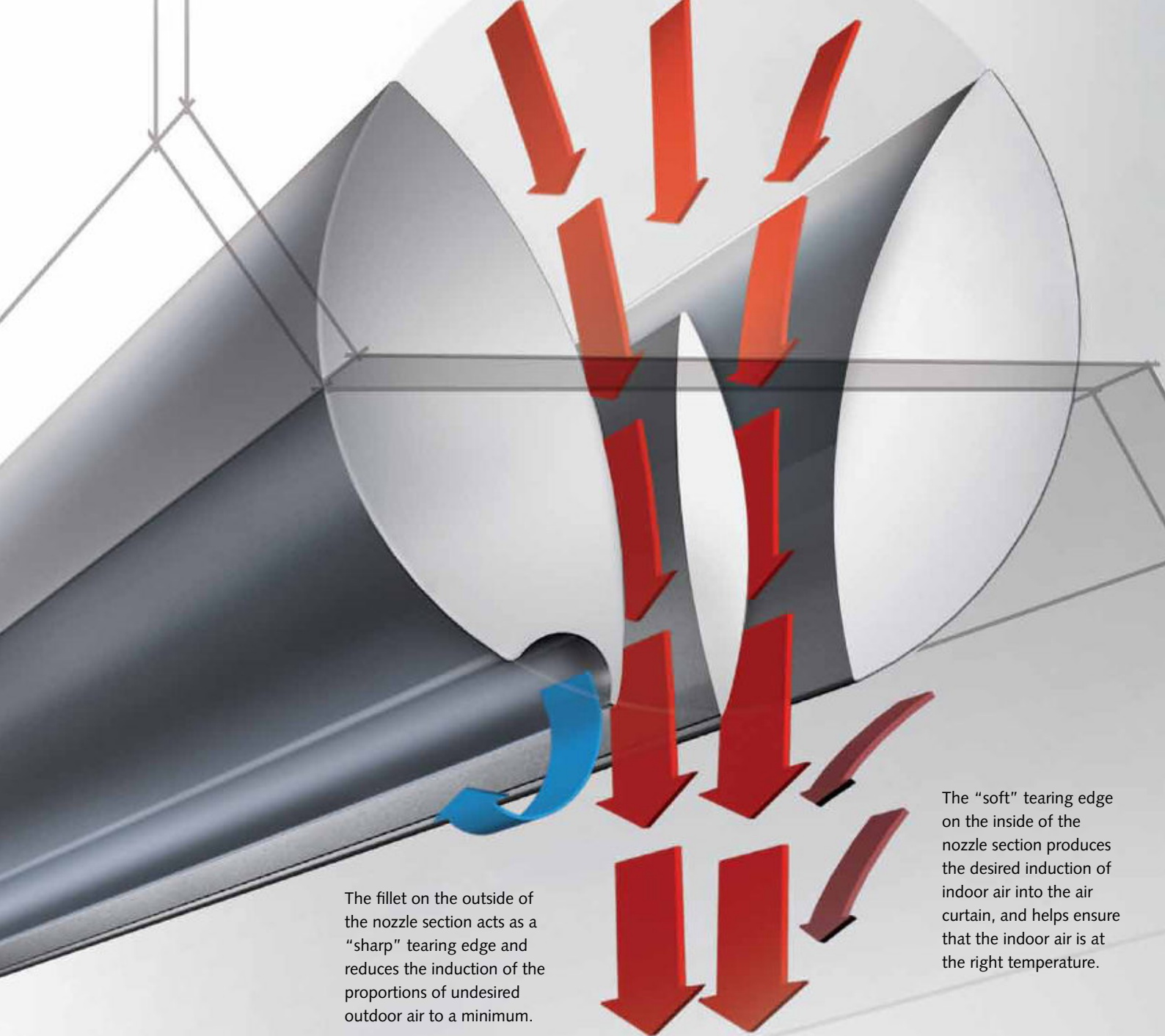
In order to screen a revolving door effectively, air curtain devices can be installed vertically next to the door.

Horizontal installation is also possible. In this case the air curtain system – adapted to the radius - is integrated into the “roof” of the revolving door. For design-related reasons, it is not possible to use a **CONVERGO®** nozzle with this type of installation.



# Overview

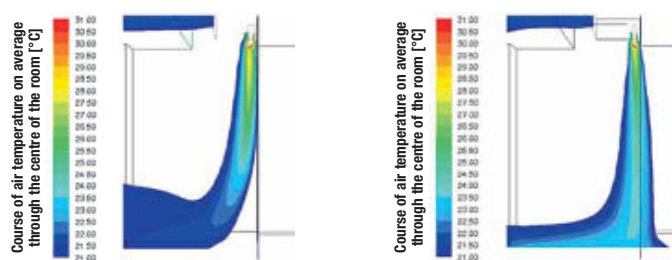
DOOR SITUATION	INSTALLATION	DEVICE SERIES	
Swing doors	horizontal	DELTA	8-11
		ELLIPSE	12-15
		TUBUS	16-17
Automatic sliding doors	horizontal	DELTA	8-11
		ELLIPSE	12-15
		TUBUS	16-17
	vertical	TUBUS	16-17
		CHARISMA	18-21
		TOPAS	22-23
		SINTRA	24-25
Curved sliding doors	vertical	SINTRA	24-25
		SAPHIR	26-29
Revolving doors	vertical	SAPHIR	26-29
	horizontal	RONDO	30-31



# CONVERGO®

## The perfect nozzle.

The aerofoil shaped profile divides the jet of air into a sharp core jet and an inductive support jet before finally converging it together again.



In the diploma thesis cited above, a direct system comparison was also made between a conventional device with lamella technology in the air discharge area and a device with a pressure chamber nozzle system.

The illustrations of the temperature comparison clearly show that the bottom area of the air roll of the lamella device is pushed inwards from the outside by the draught.



The air flow is accelerated using convex nozzle sides to create a concentrated, low induction air curtain directed against the outdoor air.

# The nozzle makes the difference.

In the 18th Century, the Italian physicist Giovanni Battista Venturi discovered that flow velocity could be increased by narrowing the cross-section.

At the start of the 1990s we applied this principle to air curtain technology when developing the **EVOLVENT**® pressure chamber nozzle system for our air curtains, and registered a patent for it.

*Grazie,  
Seniore Venturi.*

## The EVolution continues.

Nozzle technology is experiencing another real advance in innovation with the new, energy-saving **CONVERGO**® pressure chamber nozzle system - even greater efficiency with further increases in energy savings.

In view of today's energy costs and foreseeable price increases, this is a key advantage.

The patented **CONVERGO**® pressure chamber nozzle system is only available in air curtain systems from Teddington.



LESS ENERGY  
**GREATER EFFICIENCY**

DELTA

# DELTA

Design devices for horizontal installation





Swing  
doors

Automatic  
sliding doors

## Modern, dynamic, efficient.

With their aerodynamically shaped housing, the Teddington design devices from the DELTA series make a modern impression at all application sites with high aesthetic demands.

The devices for horizontal installation can be used above swing doors and above automatic sliding doors in overall lengths of between 100 cm and 300 cm.

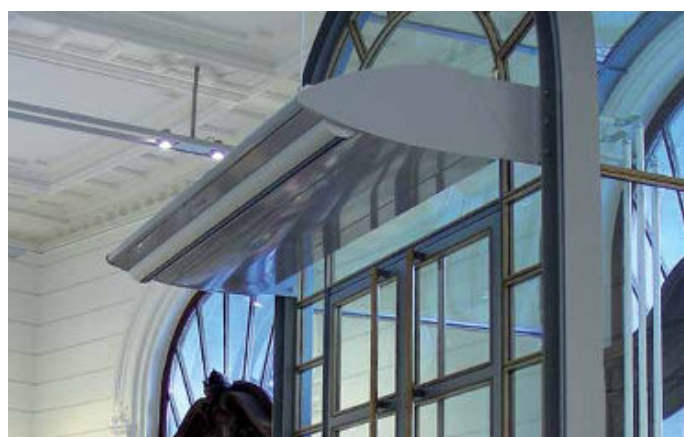
With three performance categories and the tried and tested **CONVERGO®** nozzle technology, devices from the DELTA series also set benchmarks in terms of efficiency.





DELTA adapts to any atmosphere – with a modern stainless steel finish or coating in the colour of your choice.

Thanks to a special installation bracket, the DELTA device blends in with the venerable swing door at the Museum for Communication in Berlin.





DELTA adapts to any atmosphere. Whether in a modern stainless steel finish or stove enamelling in the colour of your choice; whether as a single device or installed in series.

With a suspended panel at the front, the DELTA additionally serves as an information medium in an architecture defined by glass surfaces.



DELTA offers the right solution for every installation situation – space-saving with ceiling suspension.





ELLIPSE

# ELLIPSE

Design devices for horizontal installation

Swing  
doors

Automatic  
sliding doors

**TEDDINGTON**  
AIR CURTAIN SYSTEMS



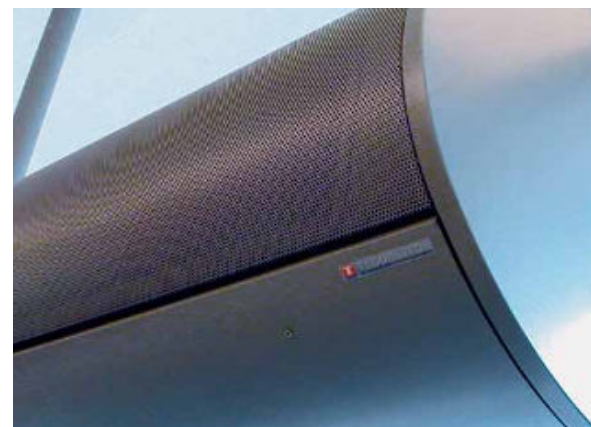
## Gentle curves, strong technology.

The design air curtains from the ELLIPSE series are available with an oval or flat elliptical shape.

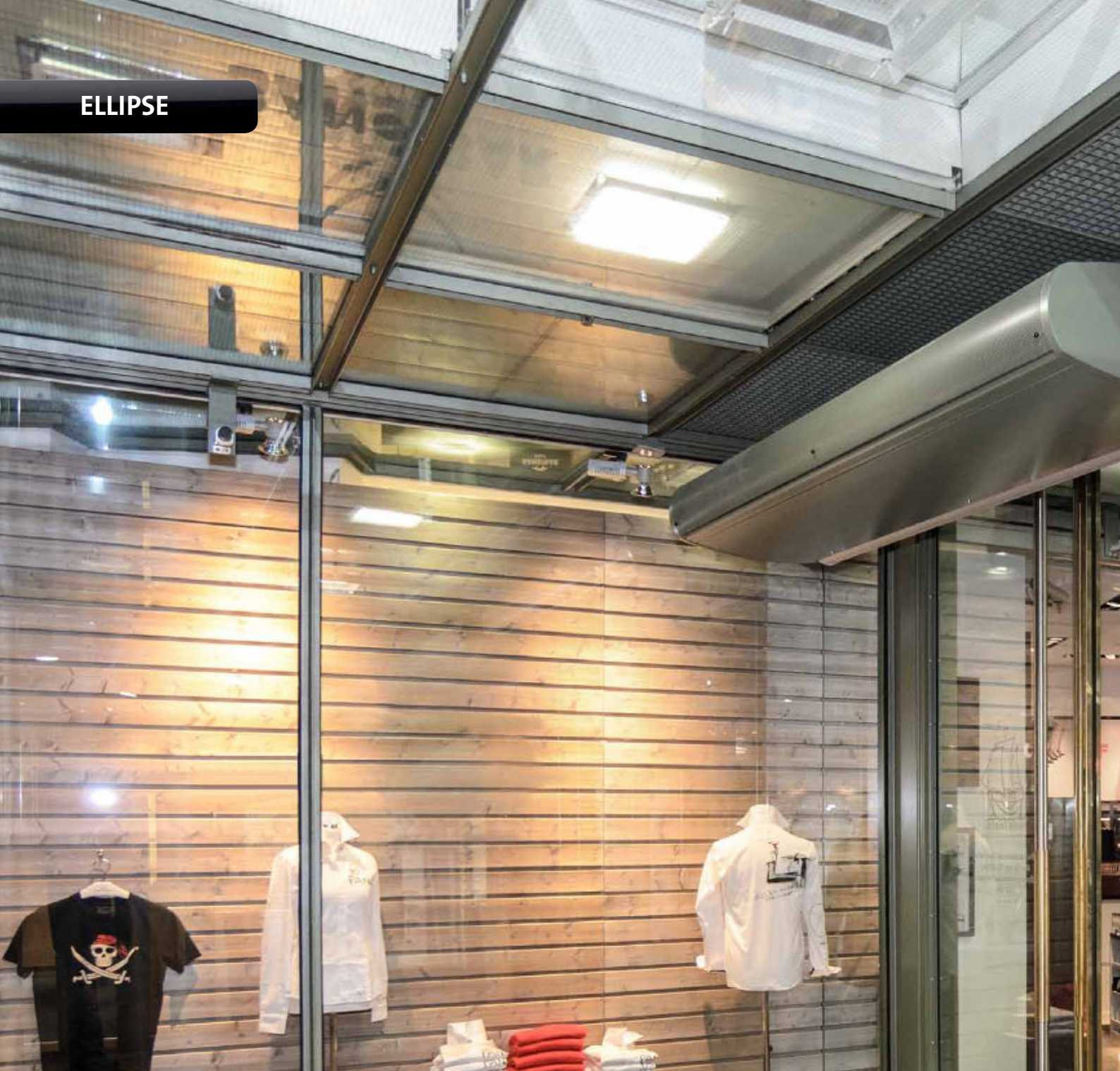
With their gentle curves, both housing shapes offer a timeless design that blends harmoniously into any atmosphere. These devices for horizontal installation can also be used above swing doors and automatic sliding doors in overall lengths of between 100 cm and 300 cm.

There are three performance categories for the oval model ELLIPSE-O and two performance categories for the flat ELLIPSE-F model.

Individual coatings or the modern stainless steel finish, as well as optional equipment such as integrated LED spots rounds off the functions and design of the ELLIPSE series.



## ELLIPSE



The media connections and suspension points are perfectly concealed by the matching cladding.



With its white coating, the ELLIPSE device blends in well with the bright setting.





The architecture in this shopping arcade is defined by glass and steel. Two Ellipse-F air curtain devices with precisely matching stove enamelling screen the store entrance.

Integrated spots complement the lighting.



The Ellipse device with accurately dimensioned add-on section is suspended – in keeping with the technical look of the architecture.



# TUBUS

Design for horizontal and  
vertical installation



Swing  
doors

Automatic  
sliding doors

**TEDDINGTON**  
AIR CURTAIN SYSTEMS



## Energy-saving technology in an elegant casing.

In a sophisticated environment, nothing must be allowed to spoil the elegant appearance. Here air curtain systems must satisfy the highest design requirements.

The TUBUS air curtain system from Teddington is stylish, unobtrusive and powerful all at the same time. The perfect symbiosis between design and technology.

## TUBUS with the CORRIGO® air discharge system

The TUBUS is fitted with the **CORRIGO®** air discharge system. This means you can adapt the air curtain to suit your individual entrance situation. Compared to conventional air curtain systems, this enables you to achieve much greater energy efficiency and in the process to noticeably improve the comfort of your customers.



CHARISMA

# CHARISMA

Design devices for vertical installation



Automatic  
sliding doors

## Design air curtains for application sites with high aesthetic demands.

You are sending a clear message of style with an CHARISMA column-mounted air curtain device in the foyer. The clean structure makes the device a monolith of modern interior design in the entrance area.

One column to the left or right of the door may produce sufficient screening for narrower doors.

In the case of larger entrance areas which present greater demands in terms of air flows, it is advisable to screen the entrance using two devices on the left and right hand side of the door.

The overall height of the devices is adapted to the height of the entrance area. It is possible to select either a straight or slanted cover panel.

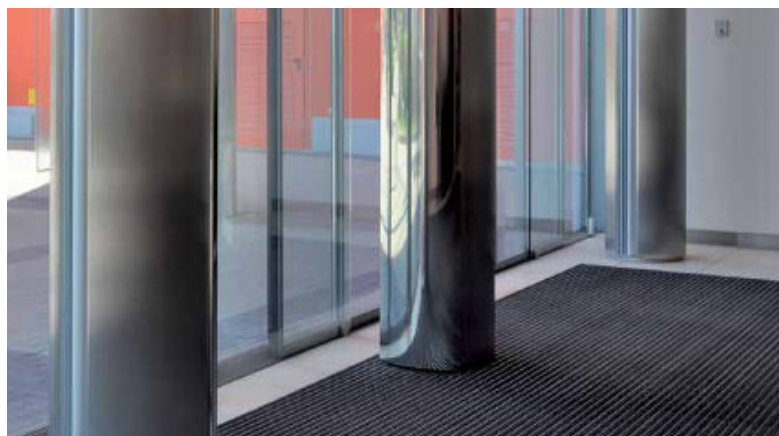


## CHARISMA



The CHARISMA column-mounted devices send a clear design message in a sophisticated atmosphere.

Two CHARISMA devices on the left and right hand of the door effectively screen the elegant entrance area.



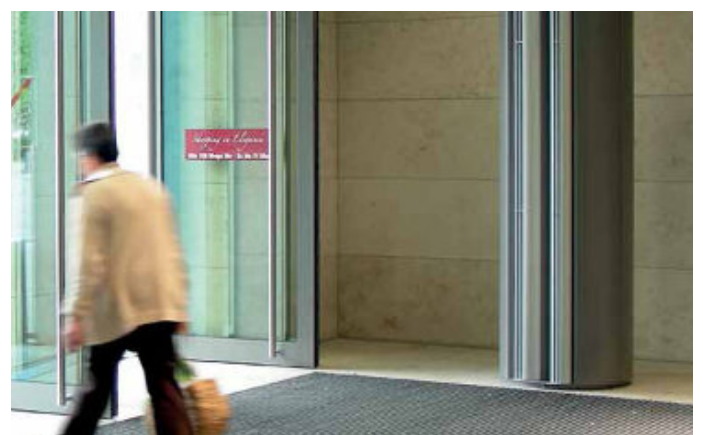


The pillar-shaped CHARISMA air curtain devices refer back to the columns of the exterior design.

CHARISMA on the automatic sliding door of a car showroom.



Special solution for twice the power in the smallest of areas: two CHARISMA air curtain devices are integrated in one housing in this covered entrance.





TOPAS

TOPAS

Design devices for  
vertical installation



Automatic  
sliding doors

## Design air curtains specifically for automatic sliding doors.

If the entrance area offers little space, then the flat, vertical TOPAS design air curtain is the right choice.

The space-saving column-mounted device nestles against the side of the door and stays discreetly in the background. This enables it to form a harmonious unit with the sliding door system without taking up much space.

The TOPAS devices are available in three performance categories for door systems ranging from small to large.





SINTRA

SINTRA

Design devices for vertical installation

Automatic  
sliding doors

Curved  
sliding doors

**TEDDINGTON**  
AIR CURTAIN SYSTEMS



## Design air curtains specifically for automatic sliding doors.

In principle SINTRA design air curtains are identical to TOPAS. The difference lies in the 90° air discharge angle of the nozzle.

As a result, the flat devices can be used wherever space at the side of the doors is restricted – for example in corners.

This design also makes the devices ideal for use with curved sliding doors, where they can be erected in a space-saving manner inside the curved double door system and screen the entire entrance area at a 90° angle.





SAPHIR

SAPHIR

Design devices for  
vertical installation

Curved  
sliding doors

Revolving  
doors

**TEDDINGTON**  
AIR CURTAIN SYSTEMS



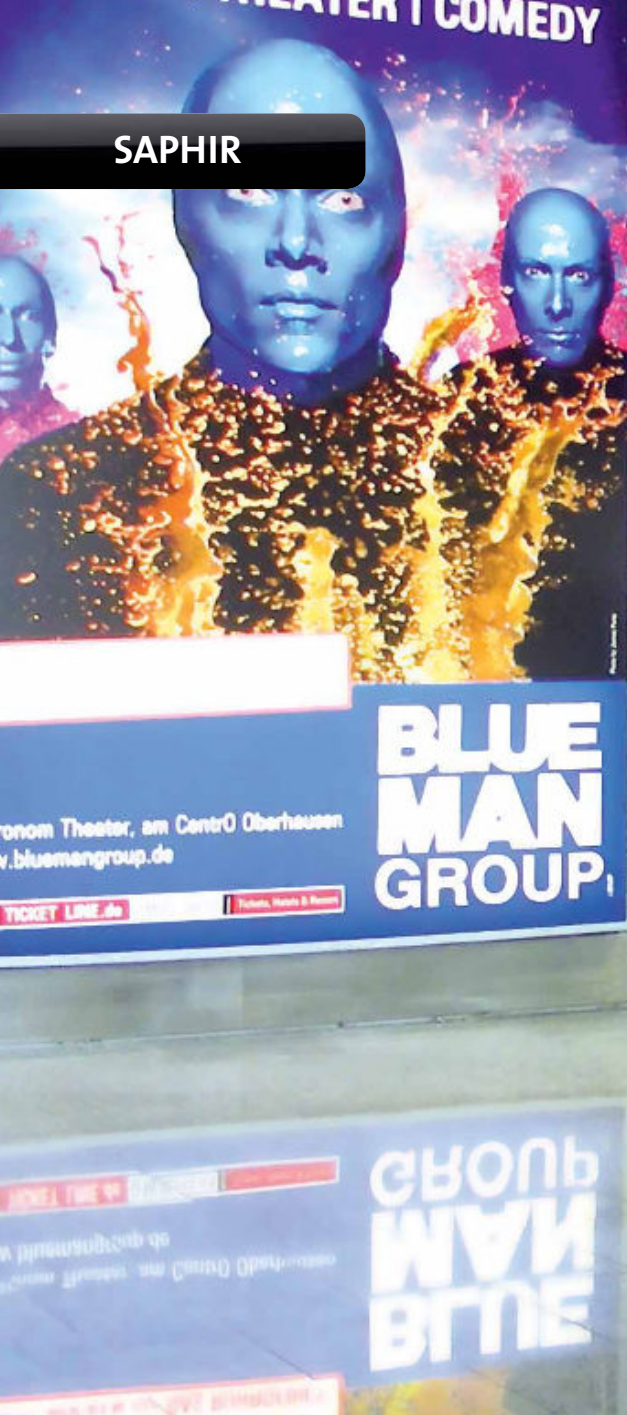
## Just the turn for greater comfort.

The slim SAPHIR column-mounted air curtains have been specially designed to be placed at the sides of revolving doors and curved sliding doors.

The housing of the devices is adapted to the shape of the curved double door system so that the SAPHIR air curtains nestle discreetly against the door system in a space-saving manner.

In the case of revolving doors and curved sliding doors, the air exchange that needs to be prevented predominantly occurs in the lower area. For this reason, the air is discharged from SAPHIR devices at greater speeds close to the floor than is the case higher up.





One vertical SAPHIR air curtain device for each revolving door is adequate to screen this foyer.

The SAPHIR device is adapted to the shape of the curved double door system and nestles against the door system in a space-saving manner.





The generously sized revolving door is screened against unpleasant draughts using the slim column-mounted device from the SAPHIR range.

A precise colour match to the door system: SAPHIR coated in the colour of the customer's choice.



Brilliant solution: the stainless steel version of the SAPHIR device highlights the elegant appearance of the door system.





RONDO

RONDO

Design devices for horizontal installation



**Revolving  
doors**

## A well-rounded product.

The RONDO air curtain is specifically designed for horizontal installation above revolving doors and is available in three tried and tested models.

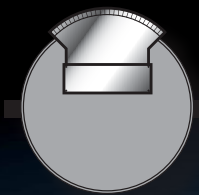
RONDO can be installed in a suspended ceiling in front of the door or alternatively directly in the ceiling of the revolving door. In the latter case, there is one model each for air discharge outside or inside the curved double door system.

The device remains practically invisible with all three models, and the radius of the air discharge unit is precisely tailored to the revolving door.

Although the round design does not permit use of Teddington's **CONVERGO**® nozzle technology, the RONDO devices operate extremely effectively and reliably.



**Type ZDE**  
Is fitted in the suspended ceiling outside the door system and distributes airflow evenly along the door opening.



**Type SDA**  
Is fitted on top of the revolving door and distributes airflow evenly along the door opening.



**Type SDE**  
Is fitted into the canopy of the revolving door and distributes airflow evenly along the door opening.

# TLC 700

## The intelligent controller for complex systems



**With the TLC 700 controller you can precisely adapt your Teddington air curtain system to suit the most diverse requirements.**

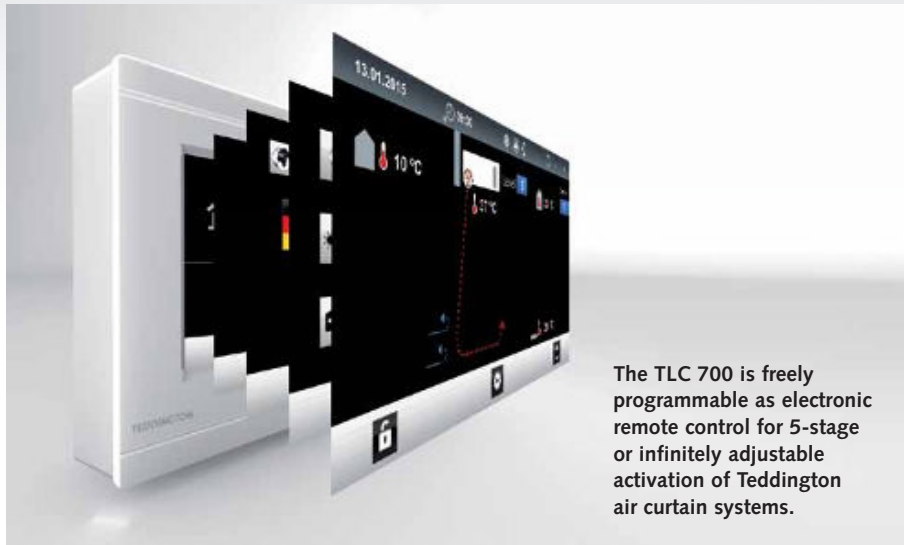
You can see your system with actual status in real time on the touch display and have all functions and parameters clearly in view.

This makes the programming and setting of the wide-ranging functions and options extremely simple and intuitive.

An installation assistant guides you through the menu and supports you with commissioning. An information button is available for every function so that you can access all information quickly.



*Sophisticated technology  
and user-friendly  
intelligence*

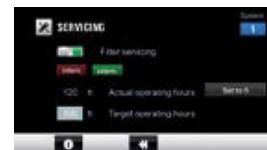


The TLC 700 is freely programmable as electronic remote control for 5-stage or infinitely adjustable activation of Teddington air curtain systems.

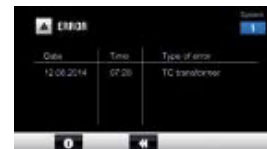
## Each function – perfectly thought through



Integrated room temperature sensor to control the heating function and display the current room temperature.



Integrated filter monitoring which can easily be adapted on site to suit operating conditions.



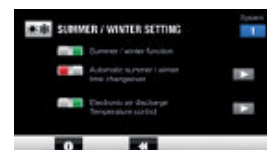
Retrieval of error messages by means of an error memory with battery back-up for remote diagnosis.



Integrated clock with freely selectable programming of switching times for enabling or automatic mode and date display.



Key lock with adjustable code can be activated.

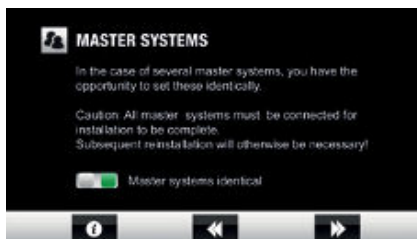


Summer/winter function, activation of solenoid valve and/or pump. Automatic summer/winter changeover by means of outside temperature sensor and electronic air discharge temperature control.

## Multifunctional

With its multi-device capability, the TLC 700 as central controller can regulate up to 9 units in parallel or individually.

All using a single control unit with touchscreen. This avoids the need to procure and install several control units, saving time and money.



Every Master unit can be differently and individually programmed using the controller. Setting can also be assumed for all Master units. This means a multitude of configurations can be realised, which can be precisely adapted to building requirements.

## Simple to program

The devices can be adjusted quickly and safely using the touchscreen with intuitive user guidance.

## High process reliability

The climate in buildings is subject to dynamic processes. Several factors, from the outdoor temperature or wind pressure, through to the impact of heat emitted by lighting and technical equipment, have an influence on the temperatures inside buildings.

The TLC 700 controller regularly polls a system of sensors and automatically regulates the air curtain systems accordingly.

## Perfect integration

The new TLC 700 controller can be integrated in all building management systems via coupling modules. It is therefore possible to incorporate the air curtain devices in the overall concept for the heating and air conditioning technology and the fire protection and safety technology.

# Devices for all applications.



Shop &  
Business



Design



Industries

We have perfected the principle of “air doors” and in doing so have developed a wide range of applications.

Energy-saving air curtain systems can be used in the following areas:

- **Shops & stores**
- **Public buildings**
- **Shopping malls**
- **Industrial buildings & logistics centres**
- **Banks & office buildings**

We are especially proud of having set new benchmarks through our innovations in air curtain technology. This enables us to offer our customers not only convenient solutions but also first and foremost the opportunity to save a great deal of energy and money.

Moreover Teddington air curtain systems make an important contribution to the protection of our valuable environment.





# Always the right system.

You will always find the right solution in our range of devices – from the smart entry model through to the high-end model to satisfy the most demanding requirements.

If you need something that is specific to your particular needs, we can develop a customised solution with you –

**TEDDINGTON  
MANUFACTURING.**



## SHOP & BUSINESS

With a wide range of device models specially designed for operation in buildings with high demands on comfort.



## DESIGN

For the greatest visual demands and precisely adapted to suit various door situations.



## INDUSTRIES

With maximum output, fast reaction and adapted to suit specific requirements.

### GREENtec®

The green technology for energy efficiency with EC technology and the **CONVERGO®** pressure chamber nozzle technology



#### E-Series

#### E-Series SILENT

#### C-Series

#### ELLIPSE

#### CHARISMA

#### DELTA

#### SAPHIR

#### TOPAS

#### SINTRA

#### RATIOVENT

#### INDUVENT

#### FRIGUVENT

### SMARTtec®

The smart devices with the **CORRIGO®** air discharge system



#### A-Series

#### P-Series

#### L-Series

#### RONDO

#### TUBUS

#### ROBUVENT

### VRFtec®

Variable Refrigerant Flow. The efficient devices for refrigerant operation.

#### E-Series

#### C-Series

#### A-Series



**TEDDINGTON**  
AIR CURTAIN SYSTEMS

Our innovations have set new benchmarks in air curtain technology and offer our customers not only convenient solutions, but also first and foremost the opportunity to save a great deal of energy and money.

In doing so we also make a substantial contribution to environmental protection.

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