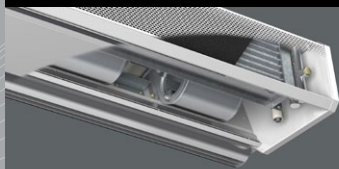


SAVINGS BOOK

A new experience for your entrance.



SAVE ENERGY



REDUCE COSTS



IMPROVE THE CLIMATE

Sample applications in practice



A huge amount of energy is lost through unprotected doors and gateways. There are enormous savings possible here.

Why Air Curtain Systems?



Warm air rises.

This opens the floodgates for heat loss. These unpleasant consequences of the thermal lift and the invasion of cold air are counteracted by an air curtain system.

This reduces energy costs and creates a pleasant indoor climate.

Energy Saving

80% savings in comparison to unprotected entrances are not rare.

Better Sales Psychology

In a well-tempered shop, the readiness to stay and the inclination to make purchases increase.

Environment Protection

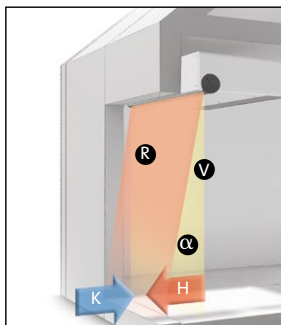
Unnecessary energy does not have to be produced. Air curtain systems are tried-and-tested environmental protection.

Good Climate

Shielding from unpleasant odours, reduction of dust formation, lower number of staff off sick.



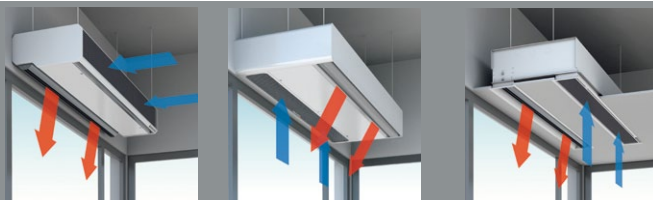
No Trick – just Physics.



With an EVOLVENT® and/or CONVERGO® air curtain system, the air-discharge angle α , volume flow R and air speed V may be controlled precisely. This creates the counter flow (H) as a counter-impulse to the invasion of cold air (K).

So that an air curtain system has an optimal effect and achieves the desired energy saving effect, many individual factors are taken into account.

Depending on the situation and customer requests, air curtain systems are produced in various designs.



In any heavily-frequented building, physics exercise the right to ensure equilibrium of air masses.

What has been previously heated expensively leaks out of doors and gateways.

The job of an air curtain system is to counteract the unpleasant invasion of cold air with a counter-current.

We have perfected the principle of air curtain technology and developed many applications as a result.

Energy-saving air curtain systems are used today in

**Shops and stores,
Public buildings,
Shopping centres,
Factory buildings and logistics centres,
Banks and administrative buildings**



Why Teddington?



The nozzle makes the difference!

In the 18th century, Giovanni Battista **Venturi** discovered that the flow rate in a pipe is at its maximum where the pipe is narrowest. Nowadays, we use this „**Venturi Principle**“ in many technical sectors.

Our patented EVOLVENT® Pressure-Chamber-Nozzle-System using the Venturi principle is far superior to conventional systems which guide the airflow using lamellas.

With the EVOLVENT® system, the air flow is compressed by the nozzle in the pressure chamber and distributed evenly over the total air-discharge width. Using the convex nozzle shape, the airflow is accelerated in such a way that a concentrated, low-induction air curtain is formed with a high depth of penetration.

By turning the nozzle, the air-discharge direction can be positioned exactly. Compared with a conventional system, this requires considerably **less air** and, consequently, **less energy**.

EVOLVENT
Pressure-Chamber-Nozzle-System



With an identical shielding capacity, EVOLVENT® saves up to 40 % energy in comparison with conventional air curtain systems.

The energy-saving Pressure-Chamber-Nozzle-System is only available in air curtain systems by TEDDINGTON.



Practical anywhere.

Shop & Business

With a multitude of models, which are designed especially for operation in buildings with a high demand for comfort.

**Extremely quiet, discreet and effective.
And attractive in their design.**

Design

For the highest optical demands in exclusive designs. And if our standards don't meet your requirements? We will develop an individual solution for you – TEDDINGTON MANUFACTURING.

Sophisticated surfaces, high-quality materials, the highest level of workmanship.

Industries

With a maximum capacity, with fast reactions and adapted to specific demands.

Extremely robust in their structure, with a high level of potential, with an optimal energy balance.



The Figure shows the „E“ Series, „Z“ model as an example

City Centre Textile Shop



Starting Situation

Door dimensions	2.5 x 2.4 m (open all day)
Outside temperature	up to -5 °C
Heating period	178 days (approx. 150 working days)
Operating time	80 days of 10 hours (+7 °C / -5 °C) 70 days of 6 hours (+10 °C / +7 °C)
Total	1,220 hours

	With the E-2-S-250 N air curtain system			Without air curtain through air exchange on the door		
Operating time	Hours	kW	kWh	Inflow	kW	kWh
Of which in level 4	200	25.2	5,040	1.0 m/s	77.0	15,400
Of which in level 2	400	17.5	7,000	0.5 m/s	20.6	8,240
Of which in level 3	620	22.4	13,888	0.8 m/s	54.0	33,480
Loss of efficiency	15 %		8,568			
Energy input	34,496			57,120		

Difference

22,624 kWh
(0.08 € / kWh)

Energy saved
Costs reduced
Climate improved

Teddington E 2
saves annually
1,809.92 €
With an upward trend.

The Figure shows the „A“ Series, „U“ model as an example

City Centre Textile Shop



Starting Situation

Door dimensions	2.5 x 2.4 m (open all day)
Outside temperature	up to -5 °C
Heating period	178 days (approx. 150 working days)
Operating time	80 days of 10 hours (+7 °C / -5 °C) 70 days of 6 hours (+10 °C / +7 °C)
Total	1,220 hours

	With the A-3-250 air curtain system			Without air curtain through air exchange on the door		
Operating time	Hours	kW	kWh	Inflow	kW	kWh
Of which in level 4	200	31.8	6,360	1.0 m/s	77.0	15,400
Of which in level 2	400	22.1	8,840	0.5 m/s	20.6	8,240
Of which in level 3	620	28.3	17,546	0.8 m/s	54.0	33,480
Loss of efficiency	20 %		11,424			
Energy input	44,170			57,120		

Difference

12,950 kWh
(0.08 € / kWh)

Energy saved
Costs reduced
Climate improved

Teddington A 3
saves annually
1,036.- €
With an upward trend.



The Figure shows the „E“ Series, „UDB“ model as an example

Chemist

Starting Situation

Door dimensions	2.2 x 2.0 m (automatic operation)
Heating period	178 days (approx. 150 working days)
Operating time	100 days of 10 hours 4 hours of door opening
Total	1,000 hours

	With the E-1-S-200 N air curtain system			Without air curtain through air exchange on the door		
Operating time	Hours	kW	kWh	Inflow	kW	kWh
Door open at step 4	400	15.1	6,040	1.5 m/s	85.0	34,000
Door closed at step 1	600	7.9	4,740	0.02 m/s	1.14	681
Loss of efficiency	20 %		6,936			
Energy input	17,716			34,681		
<div>Difference</div> <div>↓</div> <div>16,965 kWh (0.08 € / kWh)</div>						
Energy saved	<div>Teddington E 1 saves annually 1,357.20 € With an upward trend.</div>					
Costs reduced						
Climate improved						

The Figure shows the „A“ Series, „U“ model as an example

Chemist



Starting Situation

Door dimensions	2.2 x 2.0 m (automatic operation)
Heating period	178 days (approx. 150 working days)
Operating time	100 days of 10 hours 4 hours of door opening
Total	1,000 hours

	With the A-2-S-200 N air curtain system			Without air curtain through air exchange on the door		
Operating time	Hours	kW	kWh	Inflow	kW	kWh
Door open at step 4	400	19.0	7,600	1.5 m/s	85.0	34,000
Door closed at step 1	600	10.0	6,000	0.02 m/s	1.14	681
Loss of efficiency	30 %		10,404			
Energy input	24,004			34,681		
				Difference		
				↓		
				10,677 kWh (0.08 € / kWh)		
Energy saved Costs reduced Climate improved				Teddington A 2 saves annually 854.16 € With an upward trend.		

Industrial Gateway with Heating



The Figure shows a Ratiovent model with single-nozzle-discharge-system as an example

Starting Situation

Door dimensions 4.5 x 4.0 m (gate opened several times a day approx. 60 x 3 min. forklift truck traffic, manual transportation)

Heating period 178 days, of which 110 days:

Operating time 15 days of 3 hours (< 0 °C)
70 days of 3 hours (> 0 °C and < +5 °C)
25 days of 3 hours (> +5 °C and < +10 °C)

Total

330 hours

Operating time

Of which in level 5
Of which in level 4
Of which in level 3

Loss of efficiency

With the Ratiovent SW 420 N air curtain system

Hours	kW	kWh
45	78	3,510
210	61	12,810
75	54	4,050
15 %		14,034

Energy input

Without air curtain through air exchange on the gate

Inflow	kW	kWh
2.0 m/s	464	20,880
1.5 m/s	302	63,391
1.0 m/s	124	9,288

93,559

Difference

59,155 kWh
(0.08 € / kWh)

Energy saved
Costs reduced
Climate improved

Teddington Ratiovent SW 420 N saves annually
4,732.40 €
With an upward trend.

The Figure shows a Ratiovent model with double-nozzle-discharge-system as an example

Industrial Gateway without Heating



Starting Situation

Door dimensions 4.5 x 4.0 m (gate opened several times a day approx. 12 x 10 min. entry of vans)

Heating period 178 days, of which 110 days:

Operating time 15 days of 2 hours ($< 0^{\circ}\text{C}$)
70 days of 2 hours ($> 0^{\circ}\text{C}$ and $< +5^{\circ}\text{C}$)
25 days of 2 hours ($> +5^{\circ}\text{C}$ and $< +10^{\circ}\text{C}$)

Total

220 hours

	With the Ratiovent SW 420 K air curtain system			Without air curtain through air exchange on the gate		
	Hours	kW	kWh	Inflow	kW	kWh
Operating time						
Of which in level 5	30	5	150	2.0 m/s	464	13,920
Of which in level 4	140	4	560	1.5 m/s	302	42,280
Of which in level 3	50	3	150	1.0 m/s	124	6,200
Loss of efficiency	25 %		15,600			
Energy input			16,460			62,400

Difference

45,940 kWh
(0.08 € / kWh)

Energy saved
Costs reduced
Climate improved

Teddington
Ratiovent SW 420 K
saves annually
3,675.20 €
With an upward trend.

Industrial Gateway with Heating



The Figure shows
a vertical installation
of a Ratiovent model
as an example



Starting Situation

Door dimensions 5.0 x 5.0 m (gate opened several times a day approx. 10 x 15 min. HGV / forklift truck traffic)

Heating period 178 days, of which 110 days:

Operating time 15 days of 2,5 hours ($< 0^{\circ}\text{C}$)
70 days of 2,5 hours ($> 0^{\circ}\text{C}$ and $< +5^{\circ}\text{C}$)
25 days of 2,5 hours ($> +5^{\circ}\text{C}$ and $< +10^{\circ}\text{C}$)

Total

275 hours

	With the Ratiovent SW 480 NK air curtain system			Without air curtain through air exchange on the gate		
	Hours	kW	kWh	Inflow	kW	kWh
Operating time						
Of which in level 5	37.5	175	6,562.5	2.0 m/s	774	29,025
Of which in level 4	175.0	136	23,800.0	1.5 m/s	419	73,369
Of which in level 3	62.5	120	7,500.0	1.0 m/s	172	10,750
Loss of efficiency	20 %		22,629.0			
Energy input			60,491.5			113,144

Difference

52,652.5 kWh
(0.08 € / kWh)

Energy saved
Costs reduced
Climate improved

**Teddington
Ratiovent SW 480 NK
saves annually
4,212.20 €
With an upward trend.**

The new Dimension for Energy Efficiency.



Teddington GREENtec air curtain systems have an efficiency which is currently unrivalled. All components have been optimised taking into account the aspect of energy saving:

- **Refined CONVERGO® Pressure-Chamber-Nozzle-System**
- **Energy-saving EC motors from ebm-pabst**
- **Low temperature heat exchanger**
- **Flexible, intelligent control**

The Result: Pure Energy Efficiency.

As a result, GREENtec systems achieve a significantly increased energy-saving, with an equally high shielding efficiency and the maximum level of comfort.

This is worth it. As a GREENtec system by Teddington pays for itself. And then earns you money.



The great Energy-Saving Formula.



VRFtec (Variable Refrigerant Flow) is the new series of highly efficient air curtain systems. With these units, the refrigerant flow is continually regulated, subject to the required capacity, using a heat pump as an external unit.

The inverter regulation enables a constant adjustment of capacity to the current requirement – even in partial load operation with an ultimate degree of efficiency.

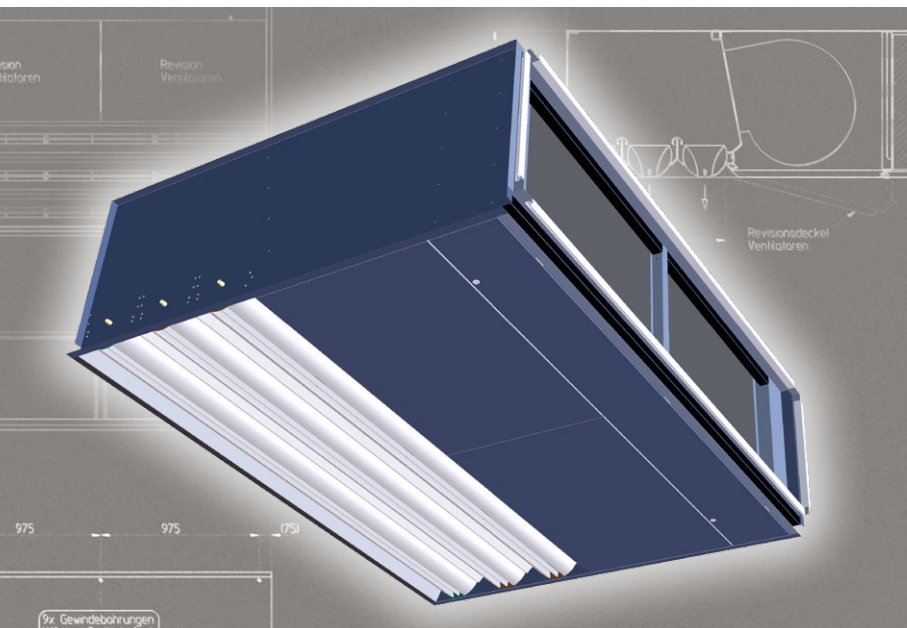
- **Refrigerant R410a with the maximum volumetric refrigeration capacity**
- **Low pipe cross-sections and compact internal units**

Even if the unit is installed subsequently, there are many options to adapt it with only slight interventions into the building substance.

With a system pipe length of up to 1000 m, with a vertical height of up to 110 m, the climate control of floors and entire buildings is particularly economic.



Leading through Innovation.



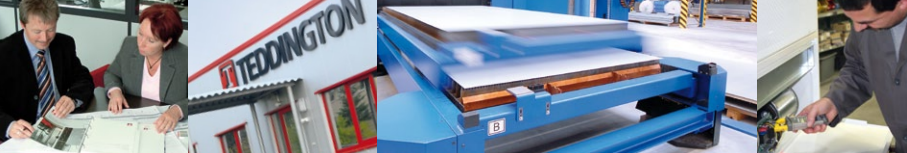
It is definitely not easy to be a forward thinker and pioneer, to bravely implement visions and ideas.

A corporate readiness to take risks and responsibility for our clients and employees must be in a balanced ratio.

For this reason, we are particularly proud of having set standards in Air Curtain Technology with our innovations. As a result, we offer our clients both comfortable solutions and, above all, the opportunity to save a lot of energy and money.

In addition, Teddington air curtain systems make a significant contribution to protecting our environment.





Competence and Benchmark.



The extensive range of equipment and controls, the decades of knowledge, the consultation and planning service – all this has made us the benchmark in Air Curtain Technology.

We distribute our products in more than 30 countries. Our clients include industrial plants, chains of stores, banks, airports, train stations, shopping centres, sports centres, exhibition corporations and also small retail shops.

Our today's range includes the energy-saving air curtain systems, particularly quiet designs, air curtain systems for automatic sliding doors in straight or curved designs, revolving doors and space-saving doors...

No matter which Teddington unit you decide on – you have the certainty of having selected a high-quality branded product built with the state-of-the-art technology.

Trust a good reputation.

Innovative technology

Highest economy

Trendsetting design

Top quality

Perfect service

...that's Teddington.



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