



Ellipse

Elegant design Air Curtain for visible horizontal installation

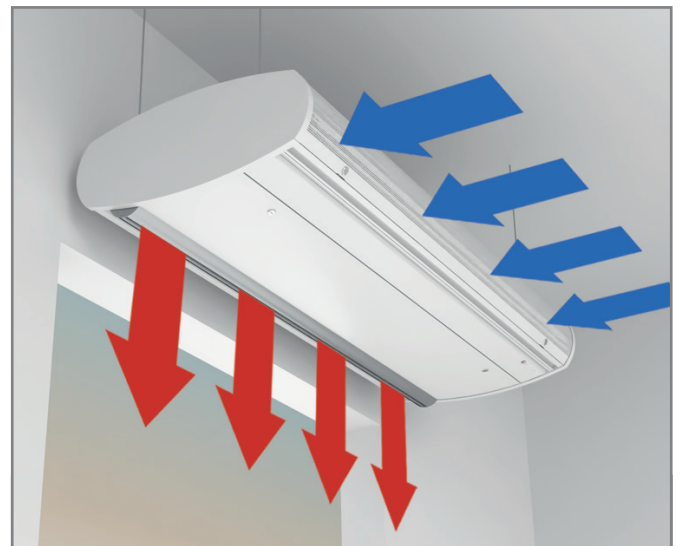
ELLIPSE design Air Curtains, equipped with the technology of the Teddington E-Series, offer maximum screening efficiency. They are characterized by a flat housing and, with their timelessly elegant design, they fit perfectly into any ambience. Individual paint finishes or the modern stainless steel look as well as special equipment – e.g. integrated LED spotlights – round off the functionality and design of the **ELLIPSE** units.

Application

The **ELLIPSE** Air Curtain is an elegant, classic solution for effective separation of indoor and outdoor air. With its frontal air intake, it can be installed either directly above the door or up to the maximum recommended installation height.

Teddington works

Crucial for the successful shielding of doors and gates is the interplay between air discharge speed and air volume. The **CONVERGO**® pressure chamber nozzle system developed and patented by Teddington has been optimized for this purpose and ensures maximum shielding across the entire door.



Ellipse

Horizontal visible installation,
air intake at the front.



VARIOUS OPTIONS

Heating modes



The Teddington ELLIPSE is available as an ambient unit without heating and can be heated in the versions LTHW (water) or electric.

Installation types



Depending on whether there is positive pressure or negative pressure inside the building two different types of installation of the Air Curtain are used: IDW (internally rotating air roll) or ADW (externally rotating air roll) installation.

3 power levels



The Teddington ELLIPSE is available in three power levels. This means that your Air Curtain is configured precisely for the respective requirement in order to guarantee optimum shielding and the lowest possible energy consumption.

Air Discharge range up to 4.4 m



Our powerful and fast-starting ELLIPSE fans, in conjunction with our patented CONVERGO® pressure chamber nozzle system allow a maximum installation height of up to 4.4 metres.

AC or EC fans



A distinction is made between two fan technologies: AC and EC. Teddington is one of the few Air Curtain manufacturers to offer both technologies. This allows us to respond flexibly to project requirements and offer the optimal unit.

AC: The fast-starting AC fans are particularly suitable for doors and gates that open and close quickly or are only open for a short time.

EC: The energy-saving and infinitely variable EC fans are particularly suitable for doors and gates that are open for long periods (e.g. open glass front of a shop).

TCX - Our most innovative control system

With the TCX controller generation, you can now control your Teddington Air Curtain system even more easily and clearly. Just a few steps are all it takes for reliable configuration according to your requirements. Whether for a single Air Curtain system or a complex system grouping. TCX – the perfect controller for your Air Curtain system.

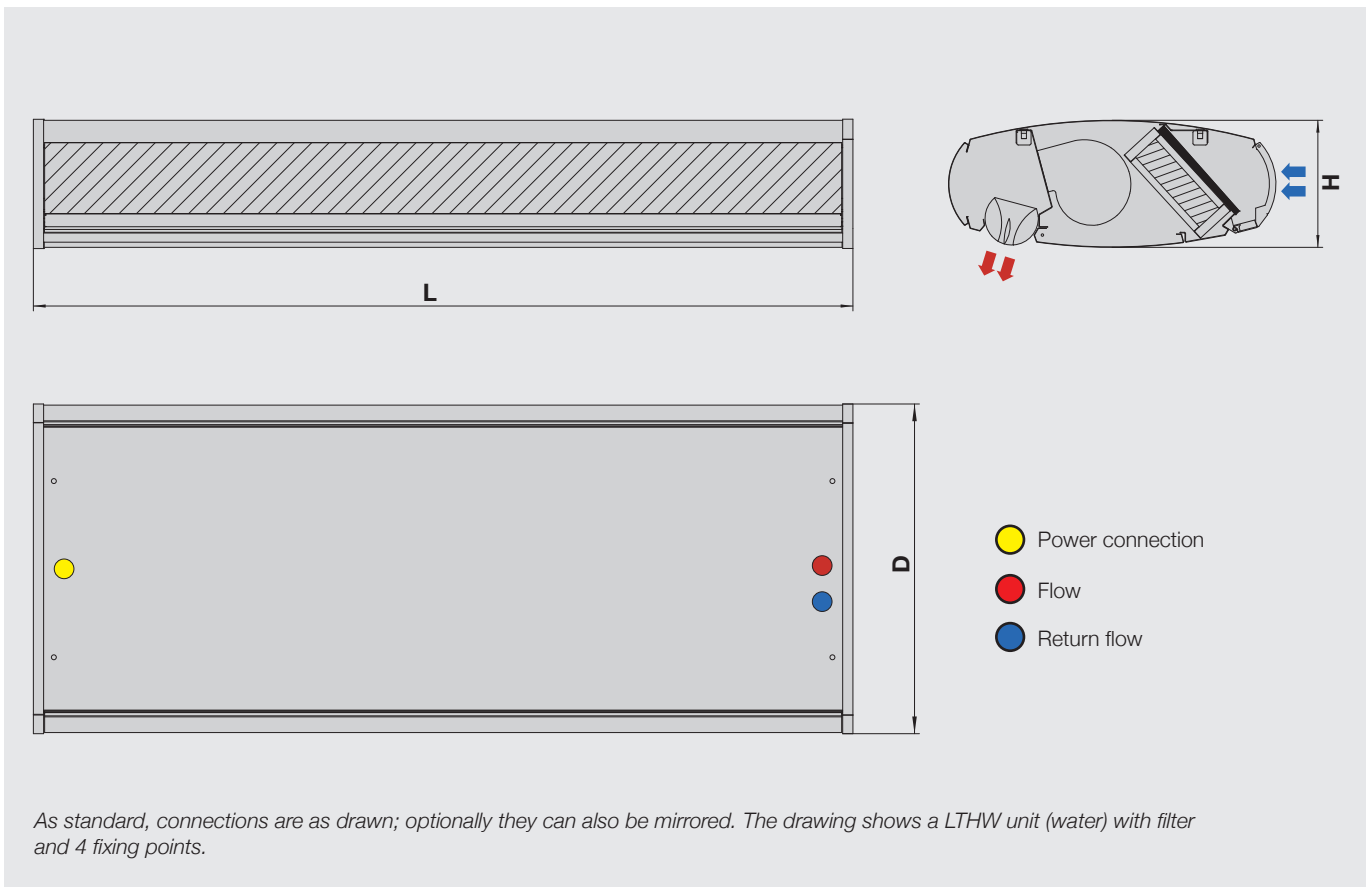




TECHNICAL DATA

	Power level	Ellipse 1					Ellipse 2					Ellipse 3				
	Length of the unit (cm)	100	150	200	250	300	100	150	200	250	300	100	150	200	250	300
Performance data																
Max. recommended installation height	[m]	2.90					3.40					4.40				
Max. nominal flow rate	[m³/h]	2100	3150	4200	5250	6300	2100	4200	5250	6300	7450	3800	5800	8500	11600	14500
Max. effective flow rate*	[m³/h]	1500	2400	3200	4000	4800	1600	3050	3800	4550	5300	2700	4300	6500	8600	11000
Average air discharge speed*	[m/s]	14.2					15.6					19.3				
Sound pressure level at a distance of 3 metres to the sound source (anechoic chamber)																
Max. operating level	[dB(A)]	57.0	59.0	61.0	63.0	64.0	58.4	60.4	62.4	64.4	66.4	60.0	62.0	63.0	64.0	65.0
Average operating level	[dB(A)]	46.6	48.6	50.6	52.6	53.6	49.1	51.1	53.1	55.1	57.1	56.4	58.4	59.4	60.4	61.4
Minimum operating level	[dB(A)]	21.3	23.3	25.3	27.3	28.3	24.1	26.1	28.1	30.1	32.1	28.0	30.0	31.0	32.0	33.0


*Data are based on measurements in accordance with ISO 27327 conducted by the Institute of Air Handling and Refrigeration (ILK) in Dresden




	Power level	Ellipse 1					Ellipse 2					Ellipse 3					
	Length of the unit (cm)	100	150	200	250	300	100	150	200	250	300	100	150	200	250	300	
Measurements																	
Length	L	[mm]	1000	1500	2000	2500	3000	1000	1500	2000	2500	3000	1000	1500	2000	2500	3000
Height	H	[mm]	316	316	316	316	316	316	316	316	316	316	456	456	456	456	456
Depth	D	[mm]	807	807	807	807	807	807	807	807	807	807	1137	1137	1137	1137	1137
Weight without heater battery		[kg]	42	61	71	83	107	48	73	95	111	135	130	160	194	225	249
Weight with heater battery		[kg]	50	72	86	102	130	56	84	110	130	158	140	185	215	250	280
Fixing Points		[pcs.]	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4




TECHNICAL DATA

	Power level	Ellipse 1					Ellipse 2					Ellipse 3				
	Length of the unit (cm)	100	150	200	250	300	100	150	200	250	300	100	150	200	250	300
Technical data of fans (230 V)																
AC technology																
Output	[kW]	0.46	0.69	0.92	1.15	1.38	0.46	0.92	1.15	1.38	1.61	0.86	1.12	1.69	2.25	2.81
Power consumption	[A]	2.00	3.00	4.00	5.00	6.00	2.00	4.00	5.00	6.00	7.00	3.76	4.88	7.33	9.77	12.21
EC technology																
Output	[kW]	0.34	0.51	0.68	0.85	1.01	0.34	0.68	0.85	1.01	1.18	0.50	1.00	1.50	2.00	2.50
Power consumption	[A]	2.40	3.60	4.80	6.00	7.20	2.40	4.80	6.00	7.20	8.40	2.20	4.40	6.60	8.80	11.00

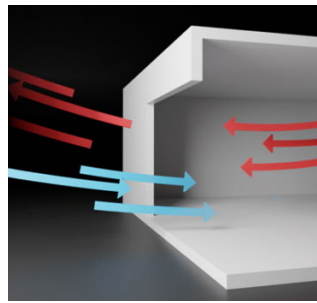
	Power level	Ellipse 1					Ellipse 2					Ellipse 3				
	Length of the unit (cm)	100	150	200	250	300	100	150	200	250	300	100	150	200	250	300
Technical data of LTHW heater battery																
Pipe connections																
Flow / Return flow	[inch]	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
LTHW 70/50 at an air intake temperature of 20°C and air discharge temperature of 32°C																
Heat output	[kW]	6.6	10.4	13.9	17.7	21.1	6.4	12.6	15.4	19.1	22.4	11.2	18.9	27.9	36.0	46.4
Flow rate	[m³/h]	0.30	0.50	0.60	0.80	0.90	0.30	0.50	0.70	0.80	1.00	0.50	0.80	1.20	1.60	2.00
Water resistance	[kPa]	1.22	0.58	0.96	1.07	1.10	1.13	0.81	1.16	1.23	1.23	1.06	1.51	1.58	1.22	1.90
LTHW 70/50 at an air intake temperature of 10°C and air discharge temperature of 32°C																
Heat output	[kW]	11.2	18.1	23.3	29.7	36.0	11.6	23.6	28.1	34.8	40.2	20.2	31.6	50.1	64.4	83.4
Flow rate	[m³/h]	0.50	0.80	1.00	1.30	1.60	0.50	1.00	1.20	1.50	1.80	0.90	1.40	2.20	2.80	3.60
Water resistance	[kPa]	3.06	1.54	2.41	2.66	2.84	3.30	2.47	3.36	3.53	3.44	3.02	3.75	4.45	3.40	5.36
LTHW 50/35 at an air intake temperature of 20°C and max. air discharge temperature																
Heat output	[kW]	7.3	12.4	16.6	21.2	25.8	7.8	14.6	18.7	23.4	27.7	11.3	19.3	28.7	42.8	48.2
Air discharge temperature	[°C]	34.4	35.0	35.1	35.5	35.7	34.0	34.0	34.4	35.0	35.3	32.2	33.0	33.0	35.0	32.8
Flow rate	[m³/h]	0.40	0.70	1.00	1.20	1.50	0.40	0.80	1.10	1.30	1.60	0.70	1.10	1.70	2.50	2.80
Water resistance	[kPa]	2.60	3.23	2.34	2.60	2.80	2.90	4.35	2.91	3.07	3.77	1.90	2.78	2.95	4.86	3.61

Ask our experts for data on your individual media temperatures.

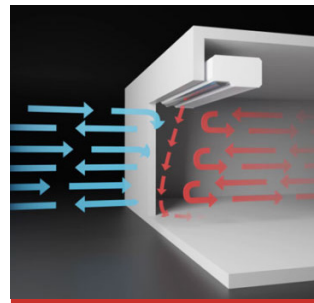
	Power level	Ellipse 1					Ellipse 2					Ellipse 3				
	Length of the unit (cm)	100	150	200	250	300	100**	150	200	250	300	100	150	200	250	300
Technical data electrical heater battery																
Electrical heater battery (three-stage, 400 V, 3 Ph, 50 Hz)																
Level 1	[kW]	3.0	4.5	6.0	6.0	9.0	3.0	6.0	6.0	12.0	12.0	6.0	9.0	12.0	12.0	12.0
Level 2	[kW]	6.0	9.0	12.0	18.0	18.0	9.0	12.0	18.0	18.0	24.0	12.0	18.0	24.0	24.0	24.0
Level 3	[kW]	9.0	13.5	18.0	24.0	27.0	12.0	18.0	24.0	30.0	36.0	18.0	27.0	36.0	36.0	36.0
Max dt.	[K]	17	15	16	17	16	21	17	18	18	19	19	18	16	12	10



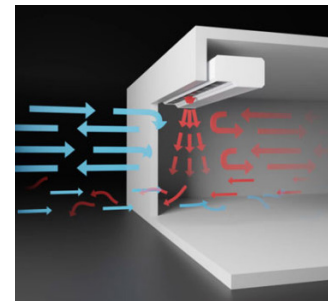
**Example:
Comparison
of energy
consumption**



**Door without
Air Curtain system**



**Door with
Teddington
Air Curtain system**



**Door with
conventional
Air Curtain system**

Energy consumption winter*: ~ 41.100 kWh

Energy consumption summer**: ~ 18.300 kWh

~ 16.800 kWh

~ 4.800 kWh

~ 23.400 kWh

~ 6.900 kWh

Energy savings with Teddington Air Curtain system compared to a door without Air Curtain system

Savings	Door without Air Curtain system	Door with Teddington Air Curtain system
Energy consumption winter*: 59%	~ 41.100 kWh	~ 16.800 kWh
Energy consumption summer**: 74%	~ 18.300 kWh	~ 4.800 kWh

Energy savings with Teddington Air Curtain system compared to a door with conventional Air Curtain system

Savings	Door with conventional Air Curtain system	Door with Teddington Air Curtain system
Energy consumption winter*: 28%	~ 23.400 kWh	~ 16.800 kWh
Energy consumption summer**: 30%	~ 6.900 kWh	~ 4.800 kWh

* heated inside

** cooled down inside

Assumptions on which the calculation is based:

- Door dimensions 2.5 x 2.5 m, installation height 2.5 m, door opening time 3 h per day.
- The system is in operation for 4 months in summer at a temperature difference (inside/outside) of 10 K.
- The system is in operation for 6 months in winter at a temperature difference (inside/outside) of 15 K.
- The system is out of operation for 2 months as the temperature difference between inside and outside is equalised.
- During operation in winter, a heat exchanger is used in the Air Curtain unit to heat the discharged air.

