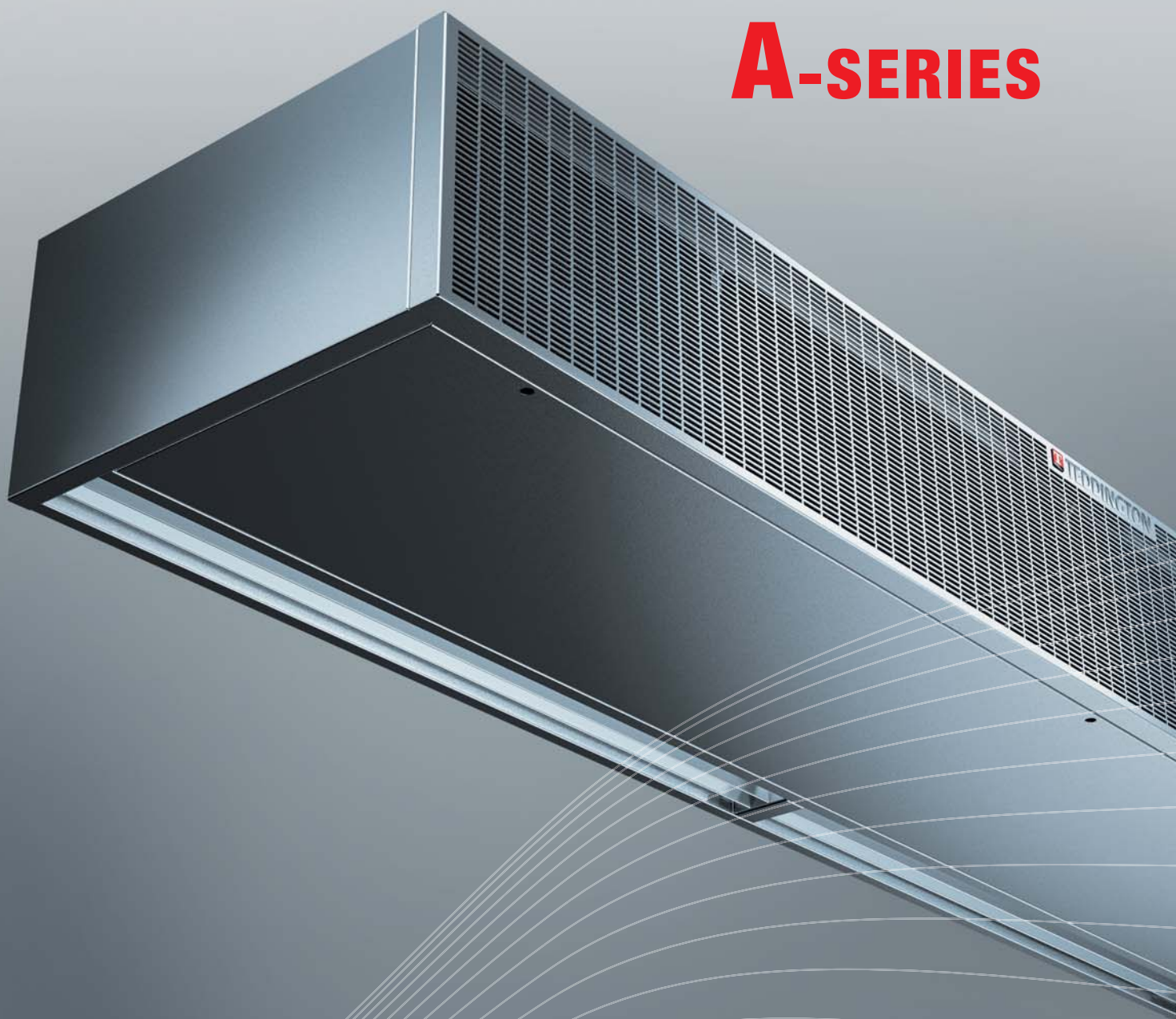




SHOP & BUSINESS

A-SERIES



TEDDINGTON



Reliable, adaptable Technology.

Nicely shaped air take in grid with rectangular perforation, self centering suspension. Removable without tools.



Very simple filter maintenance.

Housings in individual colors available.

Individually adjustable blow out lamellas.



The optimum solution for shopping & business areas.

Compact and highly flexible with power, the dimensions and with the equipment:

The A Series from Teddington sets new standards in the field of price/performance ratio for all shop & business applications.

These high performance devices with conventional lamella technology adapt perfectly to the conditions at site and will assist you in saving energy efficiently and reliably, and will help to protect the environment.



Fields of Application

Multi purpose usage, ready to mount device in 4 power classes and 3 types.

For free hanging mounting in visible areas with air take-in grids at face or bottom as type S or U, or for mounting into the inserted ceiling as type U or Z.



Design

CNC manufactured sheet steel housing with modern design, powder coated in the color RAL 9016 (white). Individual colors are possible on request. Efficient air exhaust with aero dynamic shaped individually adjustable anodized air guiding lamellas in natural color. Noise reducing lining in the blow out section.

Manufactured according to DIN EN ISO 9001-2000.

Mounting

Easy installation with female thread M 8 at top of the device and optional available mounting kit.

Maintenance

Easy accessible revision flap with single hinge at bottom of the device.

Regenerative filter elements (class G2), located behind the air take-in grid, ensure a constantly high heat transfer and long durability of the devices.

Hot Water Type

Heat exchanger made of Cu/AL for pump hot water, connections with female threads 3/4", tamper proof locked.

Electro Type

Electro heater with resistance heater elements, corrosion proof with spiral shaped lamellas and thermal overheat protection.

Fans

Vibration free bearings, double sided air intake by radial fans with AC motors 230 V / 50 Hz, directly driven, multi bladed with high output pressure, low noise motor with full motor protection by external thermo contacts. Controlling via 8 step transformers, regularly integrated in the device.

Control System

For your own comfort you may select from a palette of 7 different electronic control systems and a wide range of accessories for controlling the heater.

Your Advantages

- Stable self supporting sheet steel housing
- Available in lengths of 1000, 1500, 2000, 2500 and 3000 mm
- Four performance classes with three types available
- Easy to clean filter mats in maintenance friendly sizes
- Sound lamella technology at the blow out section
- Seven comfortable controller systems for all applications
- High grade powder coating, individual colors on request

It all depends on the situation.

Determination of your individual design situation

- You determine, which building situation is existing (A, B or C).
- You check at which exhaust height the device should be mounted.
- In the diagram on page 5 you will read the expected isolation

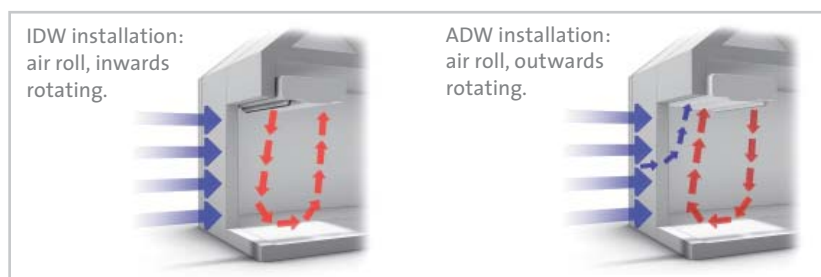
performance of the series A 1, 2, 3 or 4, each at IDW installation (inwards rotating roll) and ADW installation (outwards rotating roll).

- The necessary isolation depends on meteorological and building specific situations. These are for example direct or heavy wind loads, a passage isolated by streets lined with houses, or street buildings located crosswise to the general direction of wind, etc.

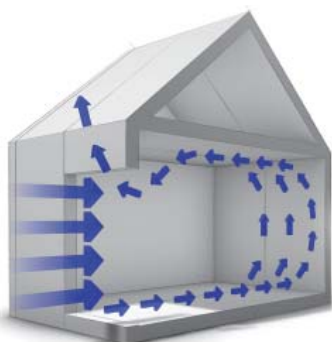
Orientation values

- Occurring air flow caused only by temperature differences during the heating season internal/ external: 0.3 up to 1 m/s
- At generally low air streaming, e.g. due to nearby located buildings at the pressure side of the streaming object: 1 up to 3 m/s
- At generally strong air streaming, e.g. location at block ends or market places with poor protection by nearby located buildings: 1 up to 6 m/s
- At completely unprotected locations, at open air locations significantly more

Note: Measure the air flow at different wind pressure situations.



Push and thermal convection, shown at different building situations



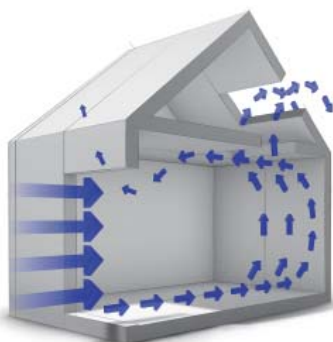
Building situation A

The door areas are located at one side of the building.

No significant possibility for air streaming by thermal convection or chimney effect.



$\Delta p = \text{large}$,
depending on temperature
difference between indoor
and outdoor



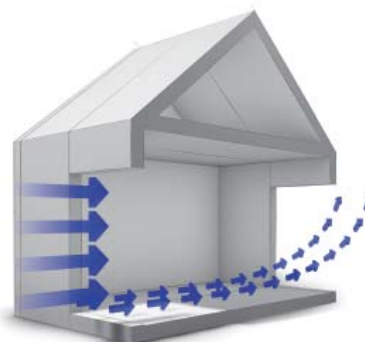
Building situation B

The door areas are located at one side of the building.

Air streaming possibilities are there by thermal convection in the upper floors or by the chimney effect, respectively, outwards over areas, which do not exceed half of the door areas in size (height conditions not considered).



$\Delta p = \text{smaller}$,
since partly decreased
by streaming



Building situation C

Unprotected door areas are also located at the opposite side of the building, e.g. at the sides or opposite.

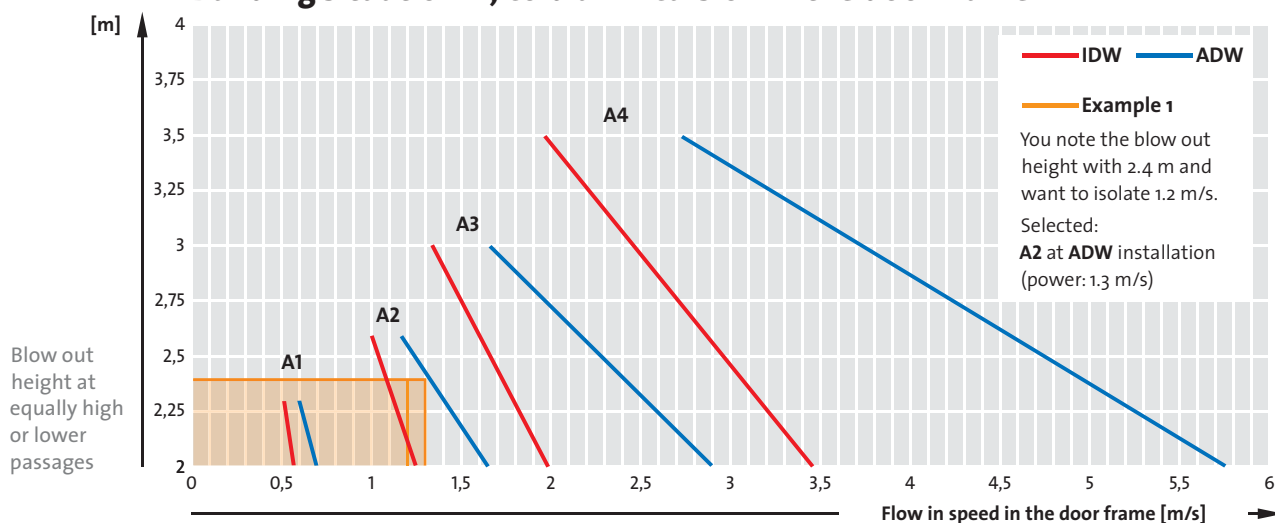
The value for air streaming possibilities is identical with the value of the door area to be isolated or larger.



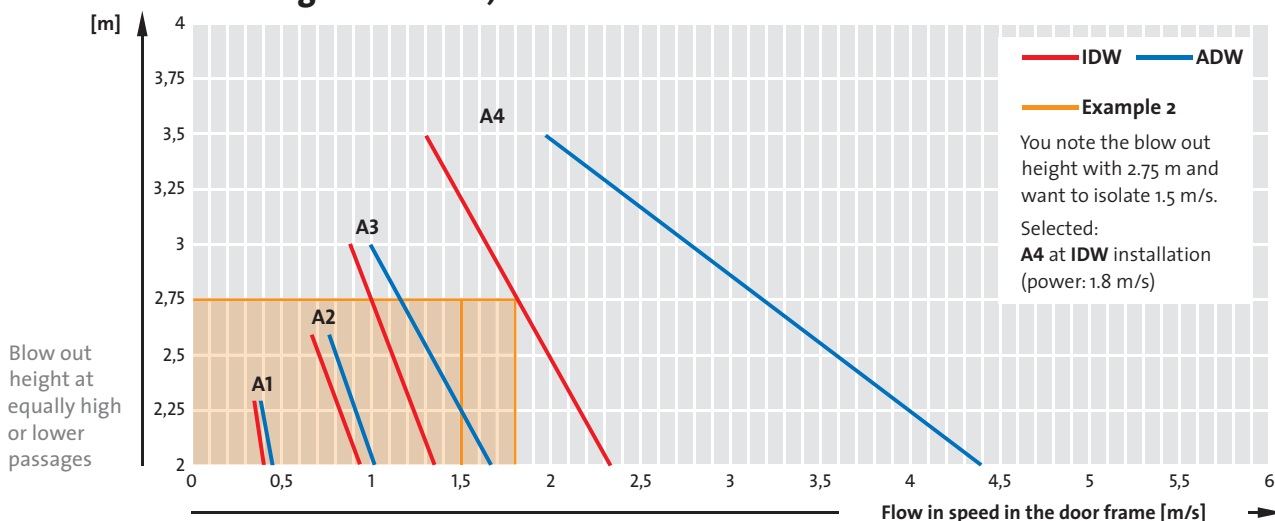
$\Delta p = \text{very low}$,
due to outwards push



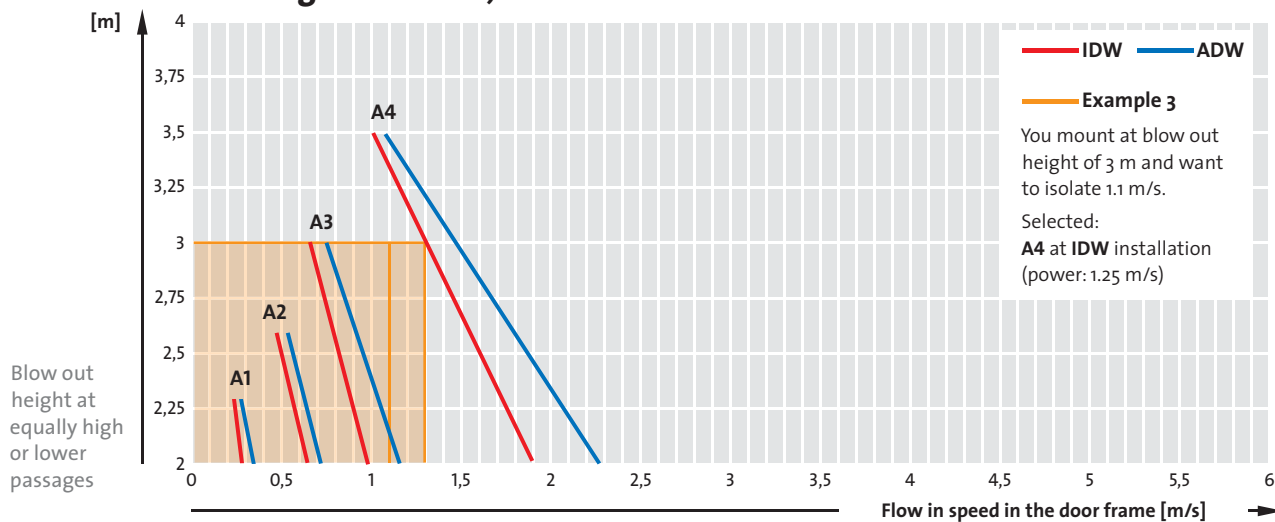
Building situation A, cold air incursion in the door frame



Building situation B, cold air incursion in the door frame



Building situation C, cold air incursion in the door frame



Technical data

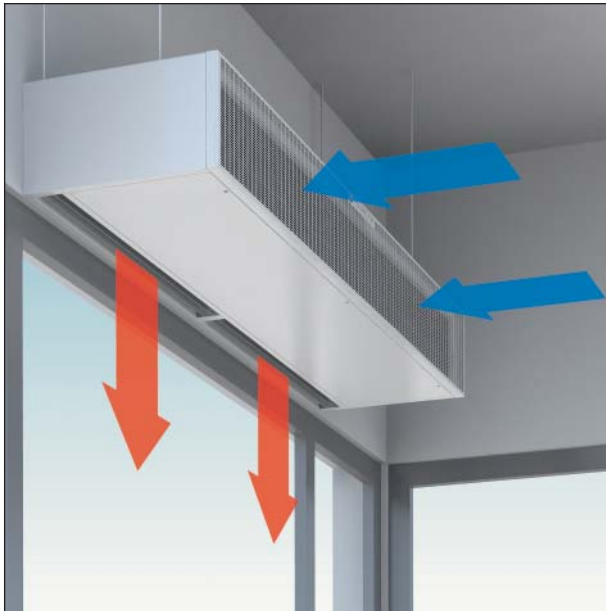
Series	A1					A2				
Total width [cm]	100	150	200	250	300	100	150	200	250	300
Max. installation height [m]	2,3	2,3	2,3	2,3	2,3	2,6	2,6	2,6	2,6	2,6
Max. blow out speed [m/s]	5,4	5,4	5,4	5,4	5,4	7,9	7,3	7,7	7,6	7,3
Air quantity [m³/h]	1200	1800	2400	3000	3600	1900	2700	3800	4600	5400
Noise level in 3 m lateral distance [dB(A)]	53	54	55	56	58	54	55	56	57	59
Device weight type S [kg]	40	45	65	75	100	40	50	70	90	105
Device weight type U [kg]	50	58	80	92	120	50	63	85	107	125
Device weight type Z [kg]	55	64	88	101	130	55	68	93	116	135
Power consumption of fans										
Voltage, 1Ph, 50 Hz [V]	230	230	230	230	230	230	230	230	230	230
Power consumption [kW] max.	0.48	0.48	0.72	0.96	0.96	0.48	0.72	0.96	1.20	1.44
Current [A] max.	2.10	2.10	3.15	4.20	4.20	2.10	3.15	4.20	5.20	6.30
Technical data heater										
Pipe connection upstream + downstream [inch]	¾	¾	¾	¾	¾	¾	¾	¾	¾	¾
PWW 70/50°C at take-in and blow-out temperature, 20/37°C, (Installation type IDW)										
Heater power [kW]	6.91	10.47	13.96	17.44	20.93	11.05	15.70	22.10	26.75	31.40
Through flow quantity [m³/h]	0.29	0.47	0.61	0.76	0.93	0.47	0.68	0.97	1.19	1.37
Water resistance [kPa]	3	2	3	2	3	1	4	4	4	4
PWW 70/50°C at take-in and blow-out temperature, 5/34°C, (Installation type ADW)										
Heater power [kW]	11.78	17.85	23.80	29.74	35.71	18.85	26.78	37.71	45.63	53.56
Through flow quantity [m³/h]	0.50	0.79	1.04	1.30	1.58	0.83	1.19	1.66	2.01	2.34
Water resistance [kPa]	8	5	8	5	8	4	11	10	12	10
PWW 60/40°C at take-in and blow-out temperature, 20/36°C, (Installation type IDW)										
Heater power [kW]	6.16	10.47	13.96	17.44	20.93	10.08	15.70	22.10	24.39	28.63
Through flow quantity [m³/h]	0.25	0.47	0.61	0.76	0.90	0.43	0.68	0.97	1.08	1.26
Water resistance [kPa]	3	2	3	2	3	1	4	4	4	3
Technical data electro heater system (three steps, 400 V, 3 Ph, 50 Hz)										
Step 1 [kW]	3	4	6	6	9	4,5	6	9	12	12
Step 2 [kW]	6	8	12	12	15	7,5	12	15	18	24
Step 3 [kW]	9	12	18	18	24	12	18	24	30	36

Series	A3					A4				
Total width [cm]	100	150	200	250	300	100	150	200	250	300
Max. installation height [m]	3	3	3	3	3	3,5	3,5	3,5	3,5	3,5
Max. blow out speed [m/s]	9,7	9,6	9,5	9,4	9,4	11,5	11,3	11,2	11,1	11,1
Air quantity [m³/h]	2700	3600	5400	6300	7200	4000	6000	8000	10000	12000
Noise level in 3 m lateral distance [dB(A)]	55	56	57	58	60	57	57	58	60	62
Device weight type S [kg]	42	65	80	100	120	110	125	160	180	225
Device weight type U [kg]	52	78	95	117	140	128	150	192	219	271
Device weight type Z [kg]	57	83	103	128	150	136	160	202	230	282
Power consumption fans										
Voltage, 1Ph, 50 Hz [V]	230	230	230	230	230	230	230	230	230	230
Power consumption [kW] max.	0.72	0.96	1.44	1.68	1.92	0.81	1.22	1.62	2.03	2.44
Current [A] max.	3.15	4.20	6.30	7.35	8.40	3.60	5.40	7.20	9.00	10.80
Technical data heater system										
Pipe connection upstream + downstream [inch]	¾	¾	¾	¾	¾	¾	¾	¾	¾	¾
PWW 70/50°C at take-in and blow-out temperature, 20/37°C, (Installation type IDW)										
Heater power [kW]	15.7	20.93	31.40	36.63	41.86	23.26	34.89	46.51	58.15	69.77
Through flow quantity [m³/h]	0.68	0.94	1.37	1.62	1.84	1.00	1.51	2.05	2.56	3.06
Water resistance [kPa]	3	3	4	4	4	6	4	5	7	8
PWW 70/50°C at take-in and blow-out temperature, 5/34°C, (Installation type ADW)										
Heater power [kW]	26.78	35.71	53.56	62.49	71.41	39.67	59.51	79.34	99.19	119.01
Through flow quantity [m³/h]	1.19	1.58	2.34	2.73	3.13	1.73	2.59	3.46	4.36	5.22
Water resistance [kPa]	8	7	10	10	11	15	10	14	19	22
PWW 60/40°C at take-in and blow-out temperature, 20/36°C, (Installation type IDW)										
Heater power [kW]	12.01	20.93	30.47	36.63	41.86	16.42	26.68	38.31	49.59	59.50
Through flow quantity [m³/h]	0.54	0.94	1.33	1.62	1.84	0.72	1.15	1.66	2.16	2.59
Water resistance [kPa]	2	3	4	4	4	3	2	4	5	6
Technical data electro heater system (three steps, 400 V, 3 Ph, 50 Hz)										
Step 1 [kW]	6	9	12	12	12	9	12	12	12	12
Step 2 [kW]	12	15	24	24	24	15	18	24	24	24
Step 3 [kW]	18	24	36	36	36	24	30	36	36	36

Technical alterations reserved.



It is your choice.



Type S

Wall or ceiling mounting in visible areas.
Air take-in from forehead side.



Type U

For visible or inserted ceiling mounting with visible device bottom. Air take-in at bottom. Optionally with ceiling mounting frame available.



Type Z

Inserted ceiling mounting. Air take-in at bottom. Only the openings for air take-in and blow out are visible.

Order key

A = Item

1 = Series (performance level)

2 = Series (performance level)

3 = Series (performance level)

4 = Series (performance level)

S = Visible device

U = Ceiling installation device

Z = Ceiling installation device

100, 150, 200, 250, 300 = Total width in cm

W = Pump hot water 90/70°C - 80/60°C

N = Pump hot water 70/50°C

NT = Pump hot water 60/40°C

E = Electrical heater system

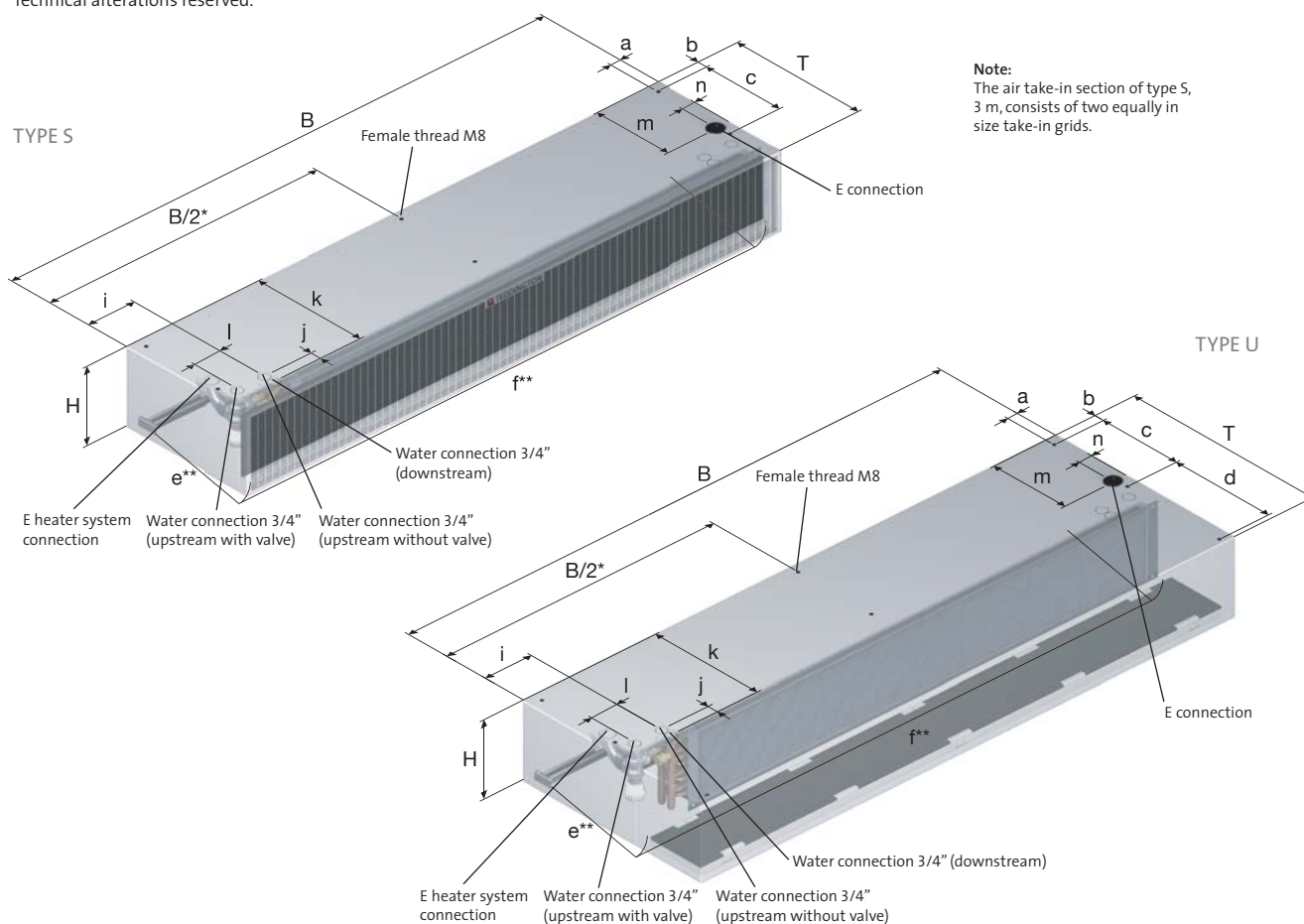
9016 = in RAL 9016. Other colors on request

A 1-S-100 W 9016 = Example

Dimensions Type S

	Dimensions			Mounting				Revision flap		Pipe connection				Electro	
	Width B [mm]	Height H [mm]	Depth T [mm]	a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	i [mm]	j [mm]	k [mm]	l [mm]	m [mm]	n [mm]
1-S	1000 up to 3000	260	490	40	35	295	–	352	(B - 52)	175	38	410	101	285	54
2-S															
3-S															
4-S		450	730	40	35	515	–	542	(B - 52)	175	50	641	130	505	54

Technical alterations reserved.






Dimensions Type U

	Dimensions			Mounting				Revision flap		Pipe connection				Electro	
	Width B [mm]	Height H [mm]	Depth T [mm]	a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	i [mm]	j [mm]	k [mm]	l [mm]	m [mm]	n [mm]
1-U	1000 up to 3000	260	720	40	35	295	370	352	(B - 52)	175	38	410	101	285	54
2-U															
3-U															
4-U		450	1100	40	35	515	530	542	(B - 52)	175	50	641	130	505	54



* Center mounting from 2.5 m device width

** Dimensions of the revision flap



Thermostats

	<p>Frost protection thermostat FTE</p> <p>For protecting the hot water heater system with capillary pipe sensor, capillary pipe length 3 m, self protecting as single-pole, potential free toggle switch, protection grade IP 30, ready installed in the device.</p>
	<p>Electronic frost protection thermostat FTM</p> <p>Only in combination with controller systems TCU, TC5 and TC3. With capillary sensor, capillary pipe length 0.9 m, protection grade IP 30, ready installed in the device, only suitable for low voltage applications (open contacts).</p>
	<p>Electro mechanic room air thermostat ERT</p> <p>5 - 30 °C with bimetallic contact, white (similar to color RAL 9010), switching capacity 230 V AC, 50...60 HZ, 10 A (4 A inductive) switching difference 0.5 K, protection grade IP 30. Humidity 0...95 %, non condensing, operating temperature 0...40 °C, thermal feedbacks, dimensions 75 x 75 x 25 mm.</p>

Repair switches

	<p>Repair switch REP-S</p> <p>For switching off the equipment by software. Only in combination with controller systems TCU, TC5 and TC3. Switch is located behind the revision flap.</p>
	<p>Repair switch REP-L</p> <p>3 pole repair switch as wall mounting type, as unpacked by-pack for installation at site in the connection cable.</p>

Door contacts

	<p>Door contact Type TK</p> <p>Protection grade IP 65, jumper switch with H switches and full contact up to time of switching, shock-proof terminals according to VDE 0106, part 100 (VGB 4), cable gland 2 x PG 13.5 at bottom and at side, switching voltage 230 V AC, 24 V DC, switching current 6 A AC, 4 A DC.</p>
	<p>Door contact Type TKB</p> <p>Contact-less door contact with protection grade IP 00, consisting of reed contact and permanent magnet for open circuit (contact open at applied magnet), switching voltage 100 V DC, switching current 250 mA DC.</p>



Controller/shut-off and magnetic valves

	<p>Thermostatic control valve Type KR 2-E DN 20 installed</p> <p>Thermostatic control valve (angle valve) KR-2 with thermostat head for controlling on constant blow out temperature, completely installed. Special valve for controlling especially large water quantities; kvs value 7.0. Capillary pipe length sensor 2m, connection DN 20.</p>
	<p>Thermostatic control valve Type KR 2-L DN 20</p> <p>Thermostatic control valve (straight-through-valve) KR-2 with thermostat head for controlling on constant blow out temperature, unpacked in the by-pack. Special valve for controlling especially large water quantities; kvs value 5.0. Capillary pipe length sensor 2m, connection DN 20.</p>
	<p>Thermostatic control valve Type KR 2-L-F DN 20</p> <p>Thermostatic control valve (straight-through-valve) KR-2 with remote control for controlling on constant blow out temperature, unpacked in the by-pack. Special valve for controlling especially large water quantities. kvs-value 5.0. Capillary pipe length sensor 3m, remote adjustment 5 m, connection DN 20.</p>
	<p>Thermostatic control valve Type KR 3-L DN 20/25/32</p> <p>Thermostatic control valve (three way valve) KR 3-L with thermostat head for controlling on constant blow out temperature, unpacked in the by-pack. Special valve for controlling especially large water quantities. Capillary pipe length sensor 2m, DN 20 kvs 4.5; DN 25 kvs 6.5; DN 32 kvs 9.5.</p>
	<p>Thermo electric shut-off valve Type TAV</p> <p>230 V, closed at no current, unpacked in the by-pack for water shut-off via summer/winter switch or for controlling the water through flow quantities with controlling at site. Special valve for controlling especially large water quantities; kvs-value 5.0. Connection DN 20.</p>
	<p>Magnetic valve MV</p> <p>230 V, closed at no current, immediately closing, closing for water shut-off purposes via summer/winter switch, unpacked in the by-pack. DN 20 kvs 11; DN 25 kvs 13; DN 32 kvs 30.</p>

Suspensions

	<p>Ceiling mounting bracket DH</p> <p>Suspension bracket, vibration damper, threaded rods 1 m, securing and counter nut, anchor bolt, minimum space required 0.1 m, hanging down length 1 m (number of items depending on device length and type).</p>
	<p>Comfort ceiling mounting bracket DHD</p> <p>Suspension bracket, vibration damper 17 dB, turnbuckle, right-left threaded bolt, threaded rods 1 m, securing and counter nut, drive in dowel, minimum space required 0.2 m, hanging down length 1.1 m (number of items depending on device length and type).</p>



*Everything at one glance.
Everything under control.
Everything really simple.*



TCU • Teddington Control Unit

TCU • friendly and intelligent.

With the controller system TCU you can adapt your Teddington air curtain equipment exactly to the various conditions at site.

On the LCD display you will see all functions and parameters clearly at one glance. The programming of the various functions and options is thus very simple and intuitively possible.

Via an integrated BUS system up to 9 air curtain devices can be controlled by only one operating panel. This facilitates the management of complex equipment significantly.

That is well thought-out technology and user friendly intelligence ...

Electronic remote control, free programmable for 5 steps or continuous control of Teddington air curtain equipment with large multi function LCD display and covered programming key board.

Integrated room thermostat for controlling the heater function and display of the current room temperature.

Integrated clock with free selectable switching intervals.

Integrated filter monitoring with trouble free adaptation to the operating conditions at site.

Key locking feature.

Requesting failure messages from battery backed-up failure memory for remote diagnostic purposes.

Summer-/winter toggle switch, control of magnetic valve and/or pump.

Frost protection circuit.

Electronic blow out temperature controller by means of an integrated control valve with electrical actuator and digital temperature display.

Automatic function via outdoor thermostat, infra red transmitter or any signal device for free programmable, signal depending control of revolution speed or preset of the rpm level at door contact operation.

Integral and proportional control parameters for adapting the device to local conditions, settable on the multi functions LCD display. Potential free operating and failure messages.

DDC/GLT release and input for controlling the power level via GLT (0-20 mA, 4-2 mA, 0-10V).

Dimensions: 103 x 103 x 29 mm.



Teddington controller unit TC5

5-stage electronic air volume controller with LCD Display for setting and indication of the operating status. Manual / Automatic mode via potential-free contact with adjustable after-run time. Summer / Winter function. Filter maintenance function with signalling at the control panel, indication and analysis of the fan failure error signal, transformer failure via the thermal contacts and danger of frost via the optional frost protection thermostat. The integrated frost protection circuit deactivates the ventilators whenever there is the danger of frost and releases the valve or pump. A repair switch for switching off the unit by software is available. For GLT coupling, an external release and an operating and fault message are all made available. The connection of the control panel and up to 9 slave units takes place via a simple 2-core bus cable. The terminals are reverse connection and short circuit protected. The controller has got an integrated key lock function as well as an operating hours counter. Dimensions: 103 x 103 x 29 mm.



Teddington controller unit TC3

3-stage electronic air volume controller with LCD Display for setting and indication of the operating status. Manual / Automatic mode via potential-free contact and Summer / Winter function. Indication and analysis of the fan failure error signal, transformer failure via the thermal contacts and danger of frost via the optional frost protection thermostat. The integrated frost protection circuit deactivates the ventilators whenever there is the danger of frost and releases the valve or pump. The connection of the control panel and up to 9 slave units takes place via a simple 2-core bus cable. The terminals are reverse connection and short circuit protected. The controller has got an integrated key lock function as well as an operating hours counter. Dimensions: 103 x 103 x 29 mm.



Teddington controller unit TC3E

3-stage electronic air volume controller for electrically-heated air curtain devices, with LCD Display for setting and indication of the operating status. Air volume and heat output are always 3-stage adjustable. The heat output is interlocked with the air volume stage. Manual / Automatic mode via potential-free contact. Safety functions: after-run function controlled by a 50 °C thermostat, overheating protection by a 60 °C thermostat and an additional overheating protection by a 175 °C thermostat. The connection of the control panel and up to 9 slave units takes place via a simple 2-core bus cable. The terminals are reverse connection and short circuit protected. The controller has got an integrated key lock function as well as an operating hours counter. Dimensions: 103 x 103 x 29 mm.



DDC 5 (Hot water devices)

5-stage controller pc-board with auxiliary functions, which allows the connection to the building management technology / DDC. All logical combinations as well as operating and failure messages are generated here and be made available via potential free inputs/outputs.

Summer-/winter toggle switch; connection of e.g. DDC, door contact, timer, room thermostat; full motor protection; option: Frost protection and repair switch. Dimensions: 240 x 110 x 55 mm.



ST 3G / ST 5G (Hot water devices)

3-stage or 5-stage, respectively control device with exchangeable blind for either summer/winter or manual/automatic operation. Dimensions: 100 x 79 x 112 mm.

Quality is our highest demand.





Independently of what device you may decide for – at Teddington's you can be sure to have chosen a high performance product having a name in the market and featuring the latest state of the art technology.

With our experience over many years we can guarantee, that each device is composed of high grade, well proven components. And we are continuously developing new techniques, which are minimizing your operating costs and optimize the efficiency of the devices.

Teddington is a long lasting partner of the specialized craft business, of trade and industry.

A staff of experienced specialists care almost around the clock for making sure to continuously satisfying the world wide demands for precise and high quality air curtain products.

Teddington runs a network of competent special firms, which are always available for you.

We will assist you in planning and supporting your choice for that device, which suits your needs most and will also support you after the time of putting the equipment into operation by a comprehensive service.

... typically Teddington.



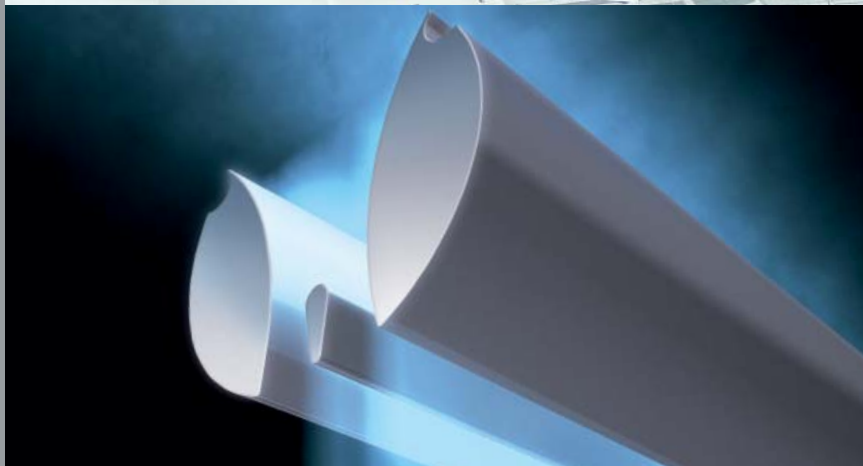
Device technology, intelligent controller systems and service – all matching perfectly.

The better the consultation, the better the result will be.

Modern production facilities with CNC technology ensure a very high quality standard.

Innovation is our main commitment. For example, the patented nozzle technology.

No device will leave the production, which has not been tested entirely on all functions.



www.teddington.de

 **Innovative Technology**

 **Highest Economy**

 **Trendsetting Design**

 **Top Quality**

 **Perfect Service**

...that's Teddington.



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