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Air-Conditioning & Ventilation Components & Systems

## ● Ceiling swirl diffuser

# SD9

περισσότερα  
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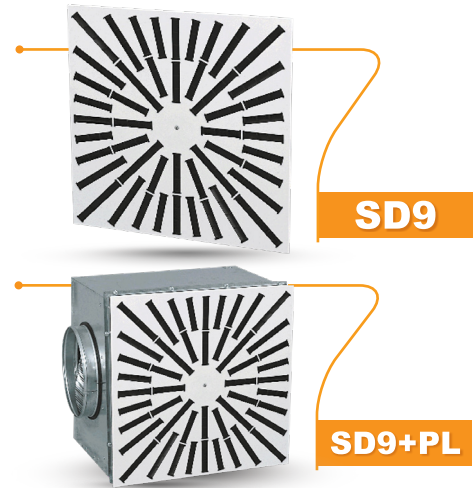
 [www.instagram.com/airtechnic.chatzoudis](https://www.instagram.com/airtechnic.chatzoudis)

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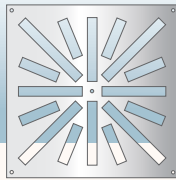
# Ceiling swirl diffuser **SD9**

Ceiling swirl diffusers **SD9** by **AIRTECHNIC** are designed to meet the increased demands of performance and aesthetics, combining modern technology with modern architecture. They are suitable for all types of air conditioning, ventilation and heating or cooling systems. They are used in areas where high air conditioning comfort and large air supply is required as their special design allows the discharge of the air flow in many directions, achieving multiple combinations of supply and exhaust air.

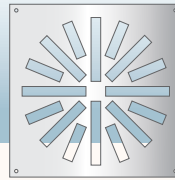
Diffusers **SD9** have square (KK, KR) or circular (RR) frame from galvanized steel, powder painted in RAL9010 and slots with independent, manually adjustable or grouped, automatically adjustable plastic blades in a radial, square shaped (KK) or circular shaped (KR, RR) configuration. The adjustment of the blades can be done manually or automatically (page 5) upon request. Also, upon request, the type **SD9 + PL** is available, which includes a plenum box (square or circular) made of galvanized steel. It is also possible to install a volume damper inside the plenum box.



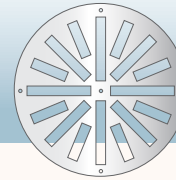
**SD9.KK**  
With **square** frame and blades in a radial, **square** shaped configuration



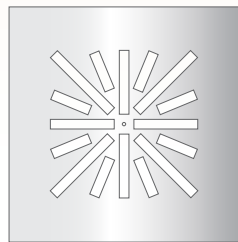
**SD9.KR**  
With **square** frame and blades in a radial, **circular** shaped configuration



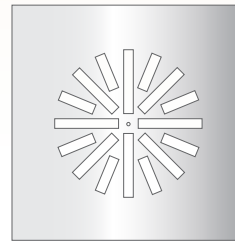
**SD9.RR**  
With **circular** frame and blades in a radial, **circular** shaped configuration



**SD9.KK.O**  
With **false ceiling** plate and blades in a radial, **square** shaped configuration

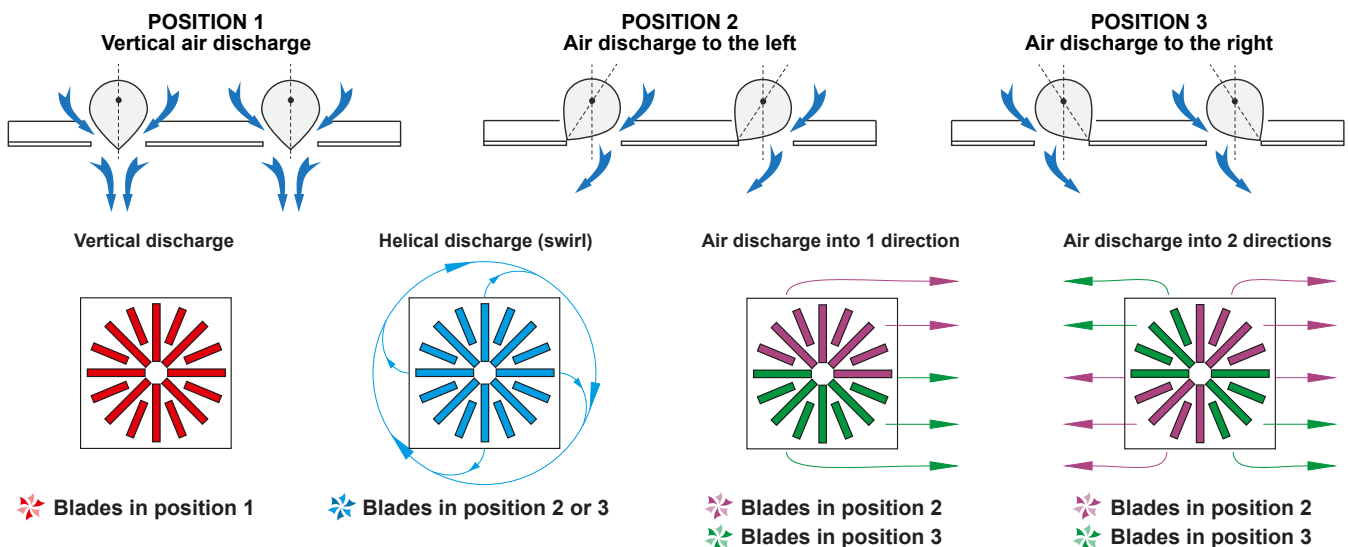


**SD9.KR.O**  
With **false ceiling** plate and blades in a radial, **circular** shaped configuration



Ceiling swirl diffusers **SD9** maintain a stable stream morphology even at large fluctuations of the air flow and achieve good mixing of the supplied air with the air inside the room. The helical movement of the air stream provides comfort within the air-conditioned space. An important advantage of SD9 diffusers is the maintenance of air pressure drop and noise level, regardless of the position of the blades.

## AIR SUPPLY POSSIBILITIES



Adjustment suitable for **HEATING** operation.  
Maximum vertical range with minimal air dispersion.

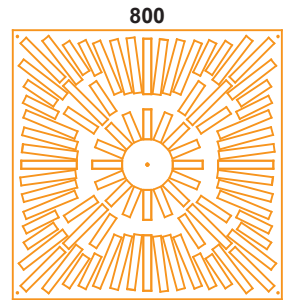
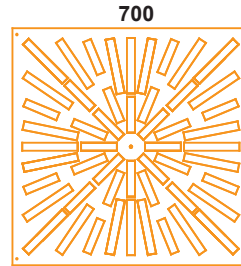
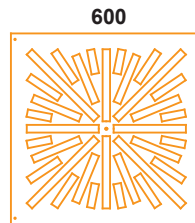
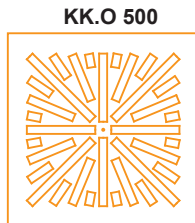
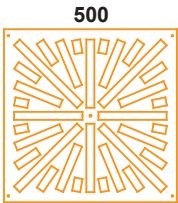
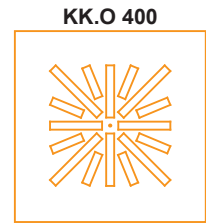
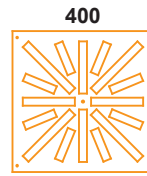
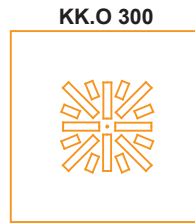
Adjustment suitable for **COOLING** operation.  
Cold currents are avoided within the comfort zone.

Adjustment suitable for direction of the air stream to a specific location within a wider area.

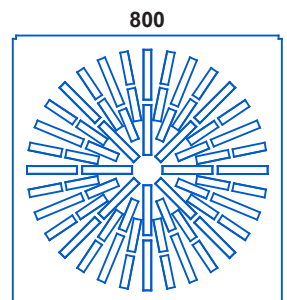
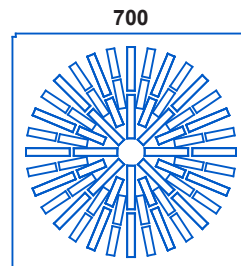
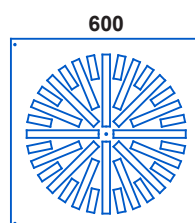
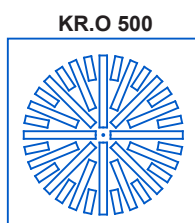
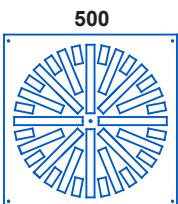
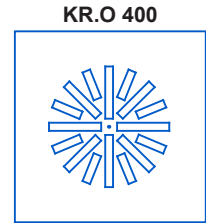
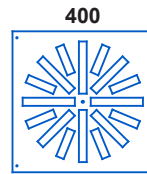
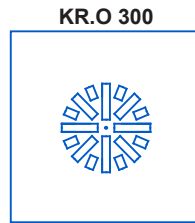
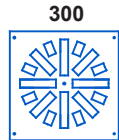
Adjustment suitable for separation of the air stream in opposite directions. (Equalizing grid required)

## SD9.KK/KR - STANDARD SIZES

KK / KK.O

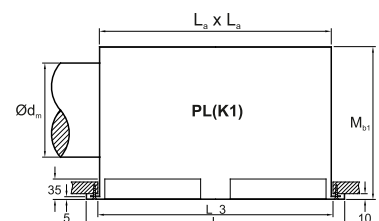
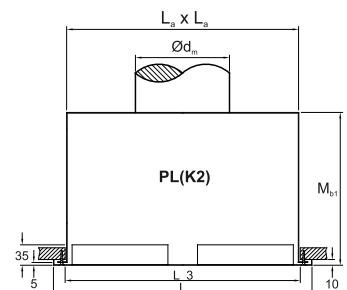
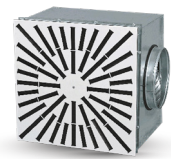


KR / KR.O



SIZE KK / KR	DIFFUSER L x L [mm]	PLENUM BOX L <sub>a</sub> x L <sub>a</sub> [mm]	M <sub>b1</sub>	Ø d <sub>m</sub>	r <sub>1</sub>	r <sub>2</sub>	r
300	340 x 340	295 x 295	260	160	310	188	75
400	440 x 440	395 x 395	260	160	410	268	75
500	540 x 540	495 x 495	300	200	510	368	85
600	595 x 595	555 x 555	350	250	570	423	85
700	740 x 740	695 x 695	400	300	710	528	105
800	840 x 840	795 x 795	450	350	810	628	105

SIZE KK.O / KR.O	DIFFUSER L x L [mm]	PLENUM BOX L <sub>a</sub> x L <sub>a</sub> [mm]	M <sub>b1</sub>	Ø d <sub>m</sub>	r <sub>1</sub>	r <sub>2</sub>	r
300	595 x 595	300 x 300	260	160	570	423	85
400	595 x 595	400 x 400	260	160	570	423	85
500	595 x 595	500 x 500	300	200	570	423	85

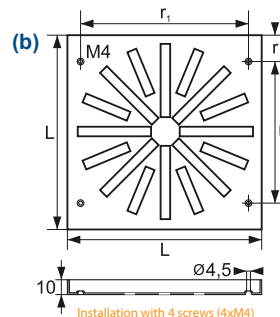
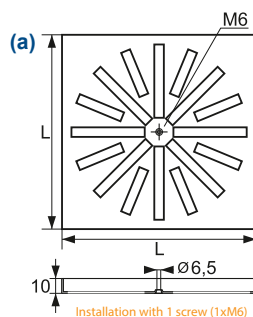


## DIFFUSERS SD9.KK/KR - INSTALLATION

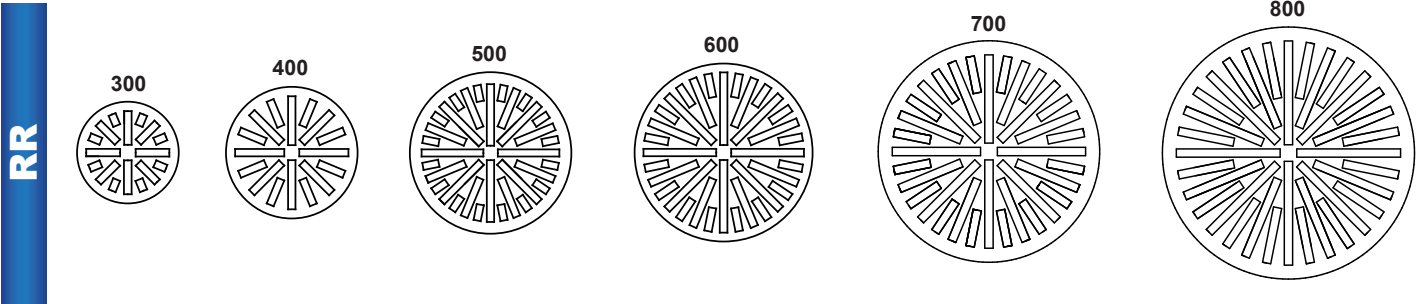
Swirl diffusers SD9.KK/KR (square frame) can be installed in the following ways:

### Installation with

- 1 screw M6 at the center of the diffuser.
- 4 screws M4 at the perimeter of the diffuser.
- Without screws, for KK.O / KR.O size 600 diffusers that can replace a false ceiling plate 600 x 600.



**SD9.RR - STANDARD SIZES**



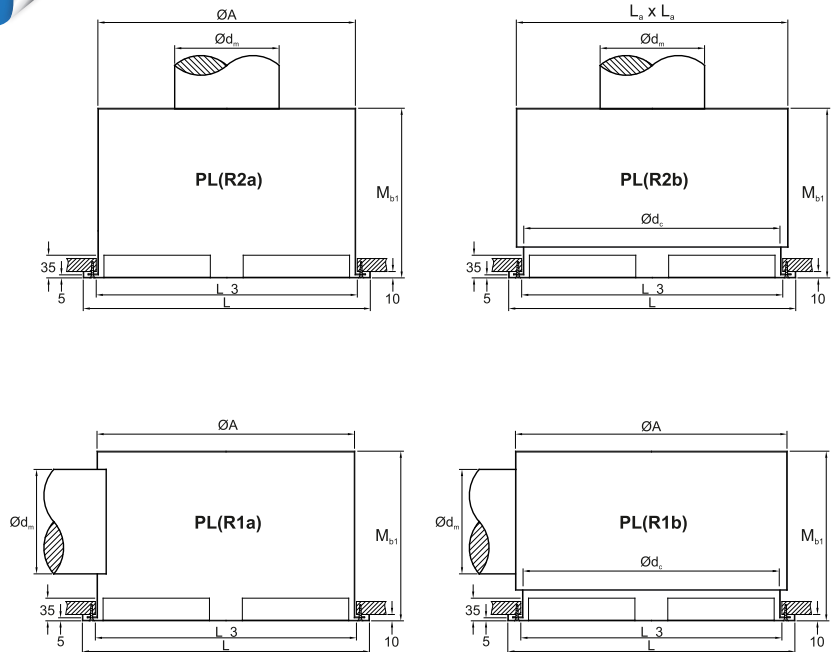
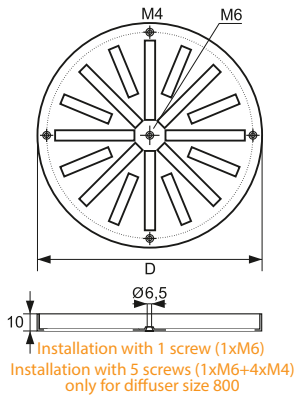
SIZE RR	Ø D	PLENUM BOX L <sub>a</sub> x L <sub>a</sub> [mm] - square -	PLENUM BOX Ø D <sub>a</sub> [mm] - circular (external) -	Ø d <sub>c</sub>	M <sub>b1</sub>	Ø d <sub>m</sub>
300	340	320 x 320	300	295	260	160
400	440	420 x 420	400	395	260	160
500	540	520 x 520	500	495	300	200
600	595	580 x 580	570	555	350	250
700	740	720 x 720	700	695	400	300
800	840	820 x 820	800	795	450	350

**DIFUSERS SD9.RR - INSTALLATION**

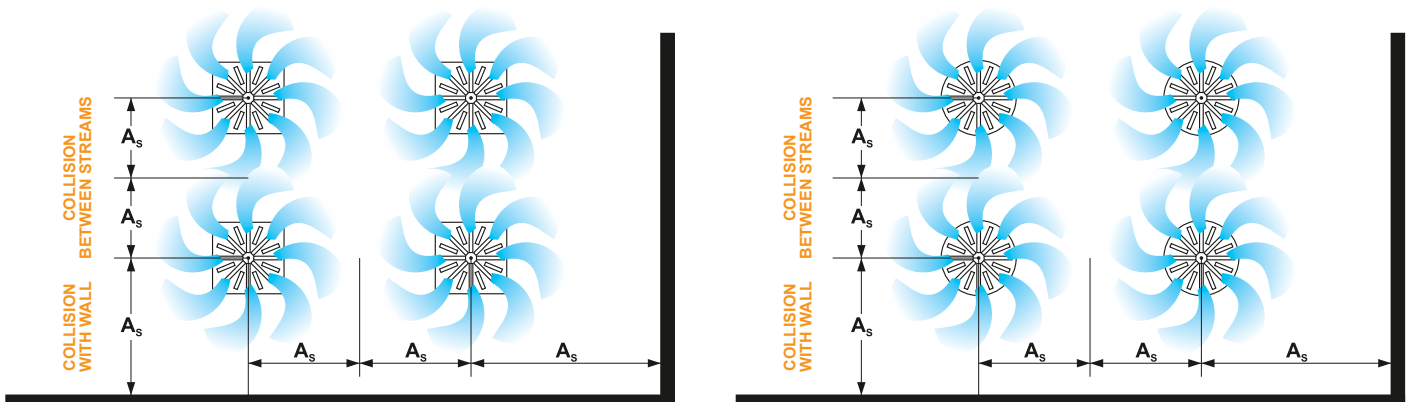
Swirl diffusers **SD9.RR** (circular frame) can be installed in the following ways:

**Installation with**

- a) **1 screw M6** at the center of the diffuser.
- b) **4 screws M4** at the perimeter of the diffuser.
- c) Only for size 800 diffusers, **1 screw M6** at the center and **4 screws M4** at the perimeter of the diffuser.

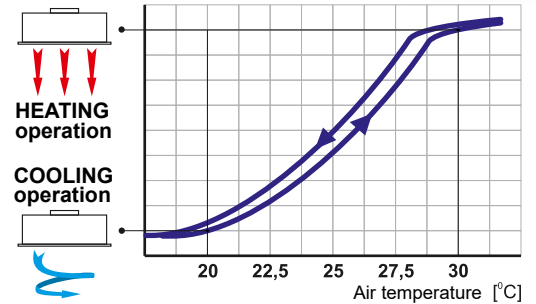


**SWIRL DIFUSERS SD9 PLACEMENT**



Changing the stream direction of swirl diffusers SD9 can be achieved:

- (a) With **independent, manual** adjustment of the blades.
- (b) With grouped adjustment of the blades, via **actuator On / Off 220V (SD9+MO)** or **analog 24V (SD9+MA)** (Siemens or Belimo).
- (c) With grouped adjustment of the blades, via **thermodynamical mechanism (SD9+TP)** (Thermodynamic Piston) which does not require power supply or additional automations and automatically adjusts the angle of the blades according the air supply temperature (as shown in the diagram). At temperatures below 20 °C (cooling operation) the angle of the blades remains in position 2 (or 3) for helical discharge (swirl). At temperatures from 20 °C to 30 °C (transitional state) the angle of the blades changes from position 2 (or 3) to position 1. At temperatures above 30 °C (heating operation) the angle of the blades remains in position 1 for vertical discharge.



## CONSTRUCTION OPTIONS

- SD9.KK** Square frame from galvanized steel, powder painted in RAL9010 with black or white, plastic, adjustable blades in a radial, square shaped configuration.
- SD9.KK+PL(K1)** Square frame from galvanized steel, powder painted in RAL9010 with black or white, plastic, adjustable blades in a radial, square shaped configuration, installed on a plenum box with spigot on the side.
- SD9.KK+PL(K2)** Square frame from galvanized steel, powder painted in RAL9010 with black or white, plastic, adjustable blades in a radial, square shaped configuration, installed on a plenum box with spigot opposite the diffuser.
- SD9.KK.O** Square frame from galvanized steel, powder painted in RAL9010, with external dimensions 595 x 595 mm and black or white, plastic, adjustable blades in a radial, square shaped configuration.
- SD9.KR** Square frame from galvanized steel, powder painted in RAL9010 with black or white, plastic, adjustable blades in a radial, circular shaped configuration.
- SD9.KR+PL(K1)** Square frame from galvanized steel, powder painted in RAL9010 with black or white, plastic, adjustable blades in a radial, circular shaped configuration, installed on a plenum box with spigot on the side.
- SD9.KR+PL(K2)** Square frame from galvanized steel, powder painted in RAL9010 with black or white, plastic, adjustable blades in a radial, circular shaped configuration, installed on a plenum box with spigot opposite the diffuser.
- SD9.KR.O** Square frame from galvanized steel, powder painted in RAL9010, with external dimensions 595 x 595 mm and black or white, plastic, adjustable blades in a radial, circular shaped configuration.
- SD9.RR** Circular frame from galvanized steel, powder painted in RAL9010 with black or white, plastic, adjustable blades in a radial, circular shaped configuration.
- SD9.RR+PL(R1a)** Circular frame from galvanized steel, powder painted in RAL9010 with black or white, plastic, adjustable blades in a radial, circular shaped configuration, installed on a circular plenum box with spigot on the side.
- SD9.RR+PL(R2a)** Circular frame from galvanized steel, powder painted in RAL9010 with black or white, plastic, adjustable blades in a radial, circular shaped configuration, installed on a circular plenum box with spigot opposite the diffuser.
- SD9.RR+PL(R1b)** Circular frame from galvanized steel, powder painted in RAL9010 with black or white, plastic, adjustable blades in a radial, circular shaped configuration, installed on a square plenum box with spigot on the side.
- SD9.RR+PL(R2b)** Circular frame from galvanized steel, powder painted in RAL9010 with black or white, plastic, adjustable blades in a radial, circular shaped configuration, installed on a square plenum box with spigot opposite the diffuser.

All diffusers can be powder painted in any RAL color, upon request. For the full range of RAL colors please contact us.



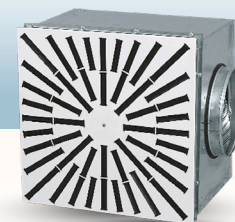
The blades of the diffusers SD9 are made of black or white plastic.

Color examples

## SWIRL DIFFUSERS SD9 - SELECTION

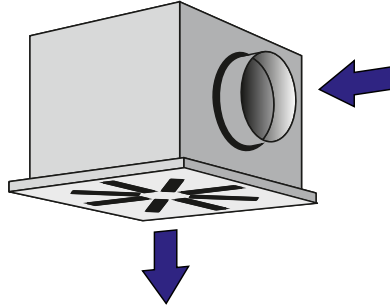
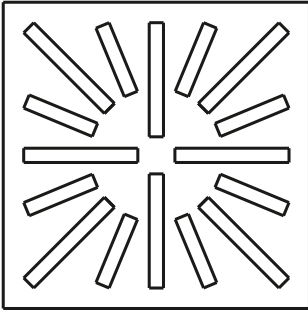
The technical specifications for swirl diffusers **SD9** are the following :

Diffuser Length / Width	L x L	[mm]
Diffuser diameter	Ø D	[mm]
Pressure drop inside the diffuser	ΔP	[Pa]
Noise level	Θ	dB[A]
Maximum air velocity inside the diffuser	U <sub>o</sub>	[m/s]
Temperature difference Supply / Room	Δ <sub>T</sub>	°C
Horizontal stream range	X <sub>o</sub>	[m]
Horizontal stream vertical drop	Y <sub>o</sub>	[m]
Horizontal stream velocity at distance X	U <sub>T</sub>	[m/s]
Horizontal air-stream temperature	T <sub>T</sub>	°C
Vertical stream range	Y <sub>k</sub>	[m]
Vertical stream velocity at distance Y	U <sub>k</sub>	[m/s]
Vertical air-stream temperature	T <sub>k</sub>	°C
Distance between diffuser and point of stream collision	A <sub>s</sub>	[m]
Rise / Drop of non-isothermal horizontal stream	X <sub>a</sub>	[mm]



The selection of swirl diffusers **SD9** will be made using the following diagrams and in accordance with the guideline CR 1752:1998 (Ventilation for buildings - Design criteria for the indoor environment).

**SD9.KK - PRESSURE DROP & NOISE LEVEL CALCULATION**

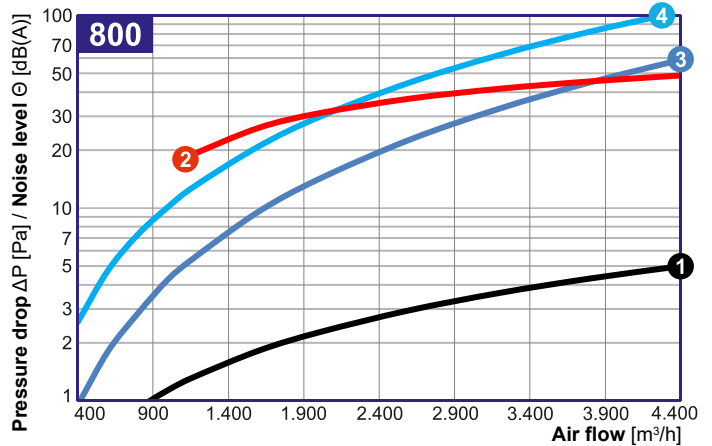
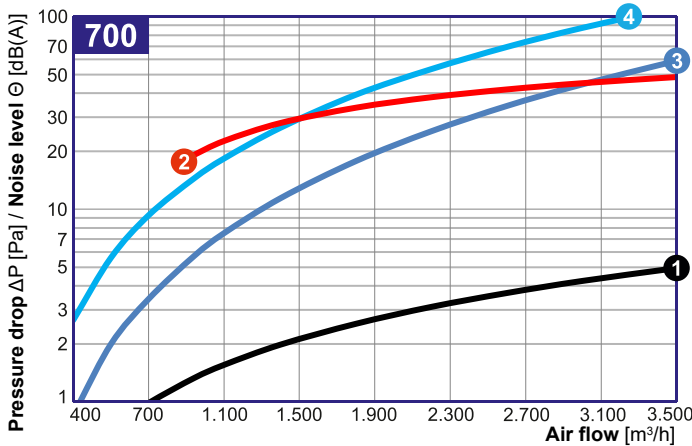
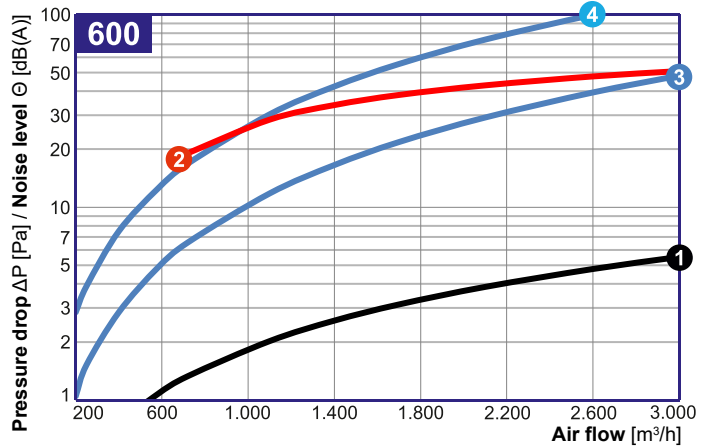
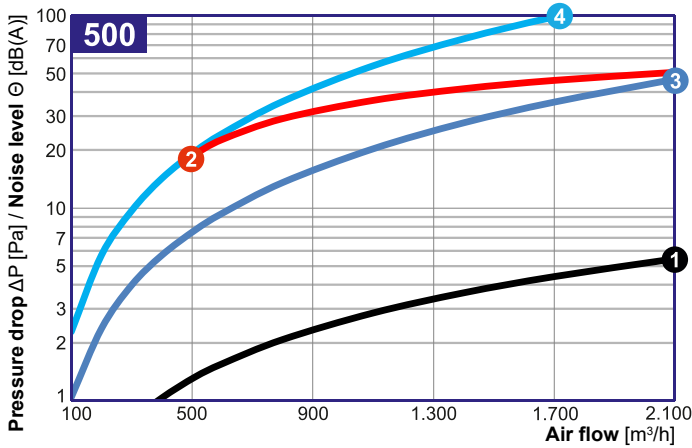
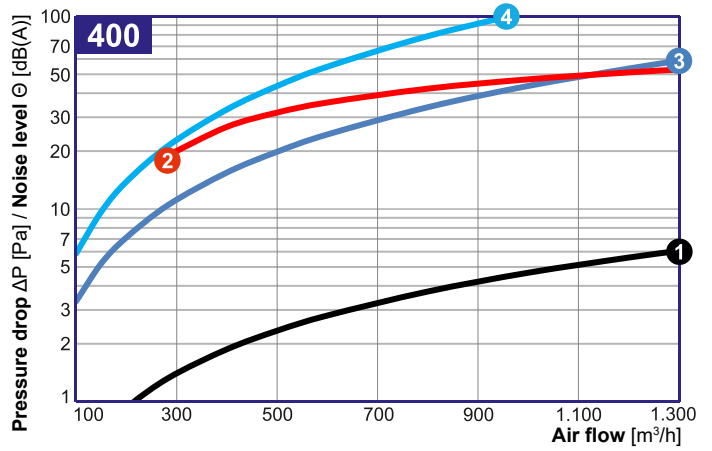
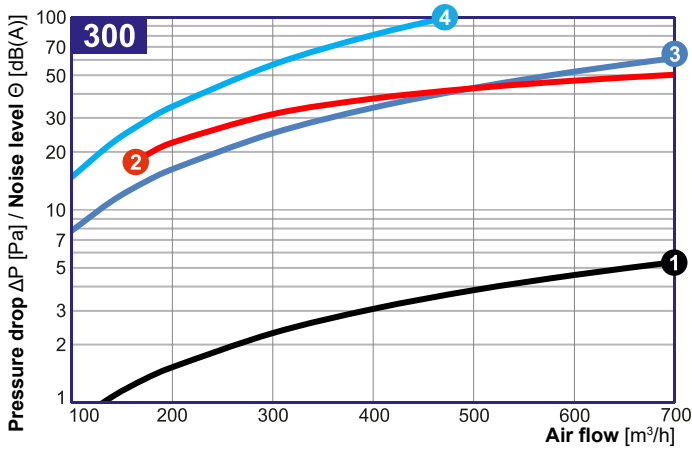


**Curve 1**  
Maximum air velocity inside the diffuser  $U_0$  [m/s]

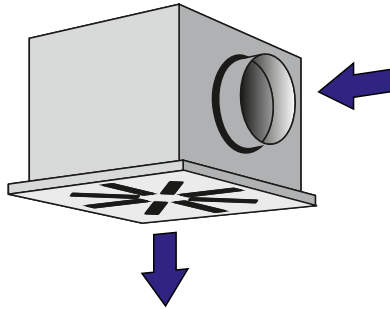
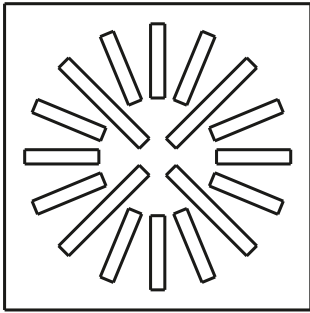
**Curve 2**  
Noise level  $\Theta$  [dB(A)]

**Curve 3**  
Pressure drop  $\Delta P$  [Pa] for fully open damper ( $0^\circ$ )

**Curve 4**  
Pressure drop  $\Delta P$  [Pa] for damper blade angle  $45^\circ$



**SD9.KR - PRESSURE DROP & NOISE LEVEL CALCULATION**

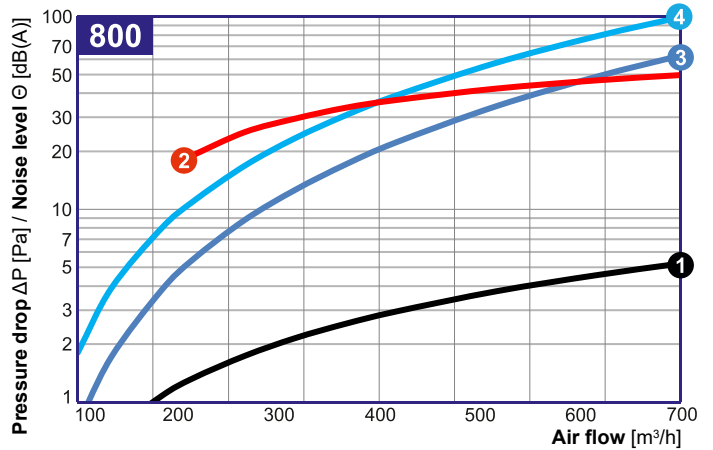
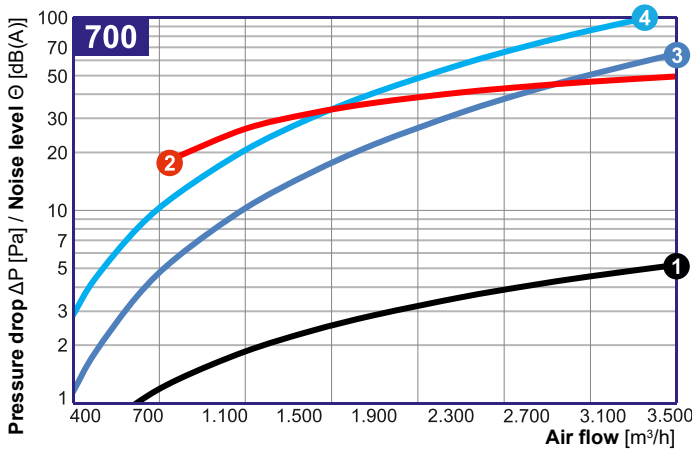
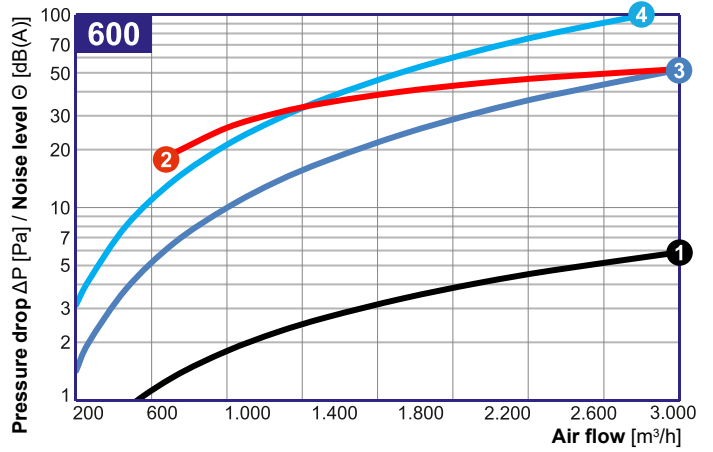
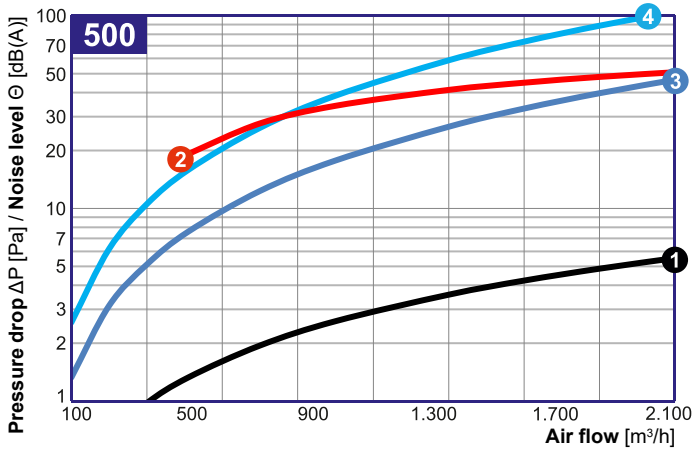
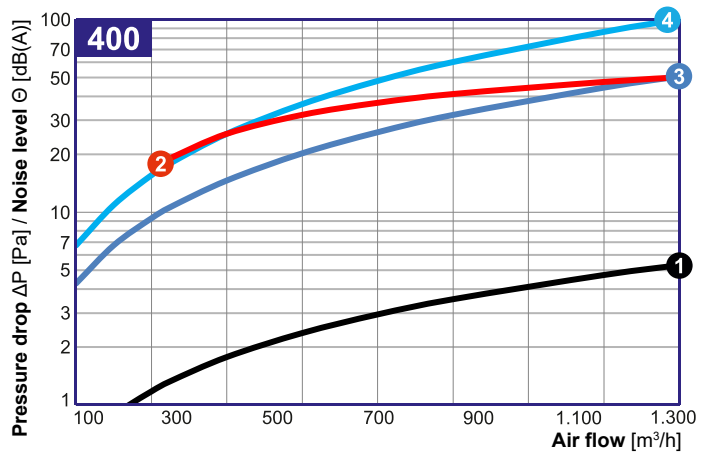
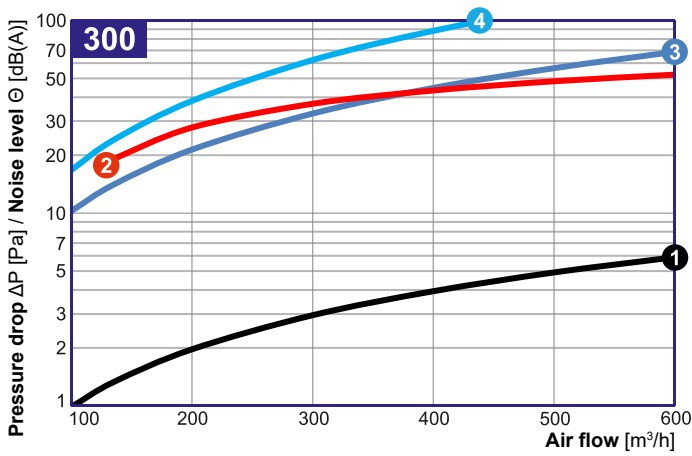


**Curve 1**  
Maximum air velocity inside the diffuser  $U_0$  [m/s]

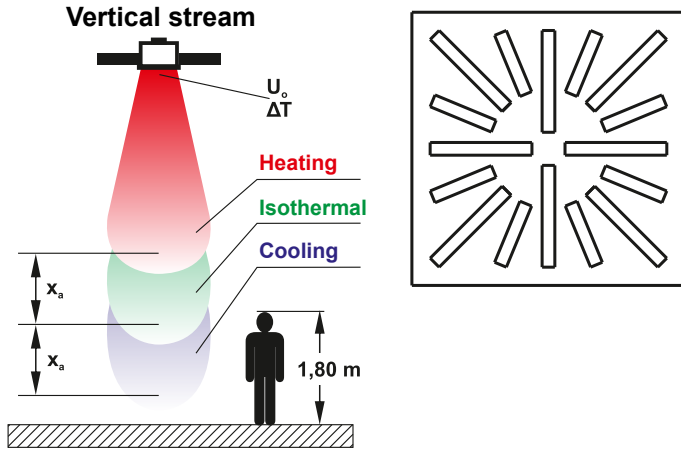
**Curve 2**  
Noise level  $\Theta$  [dB(A)]

**Curve 3**  
Pressure drop  $\Delta P$  [Pa] for fully open damper ( $0^\circ$ )

**Curve 4**  
Pressure drop  $\Delta P$  [Pa] for damper blade angle  $45^\circ$



**SD9.KK - VERTICAL STREAM RANGE  $Y_k$  CALCULATION ( $U_T = 0,5 \text{ m/s}$ )**



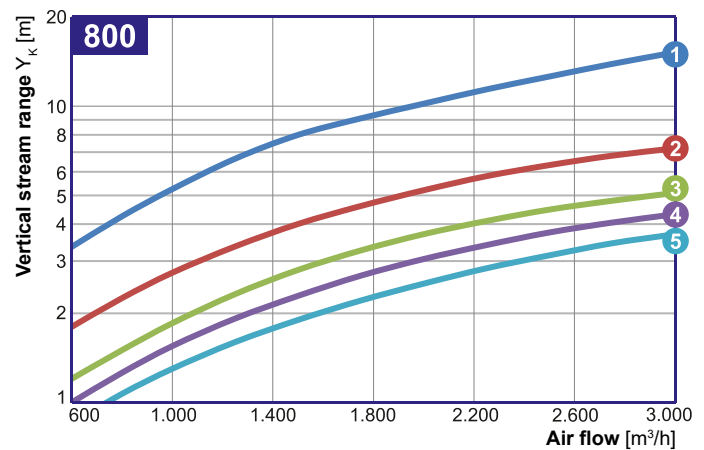
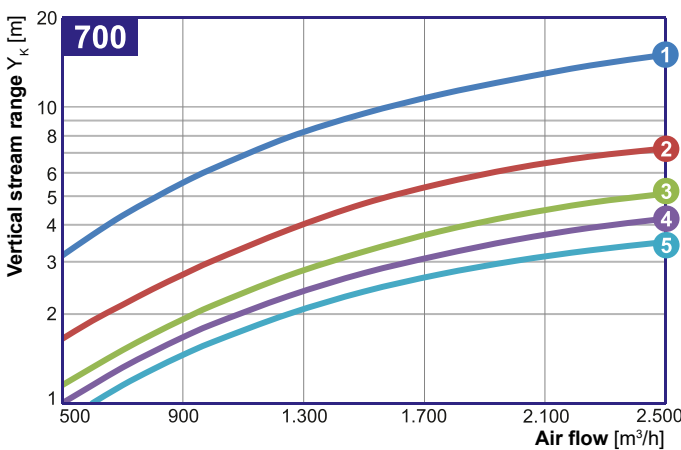
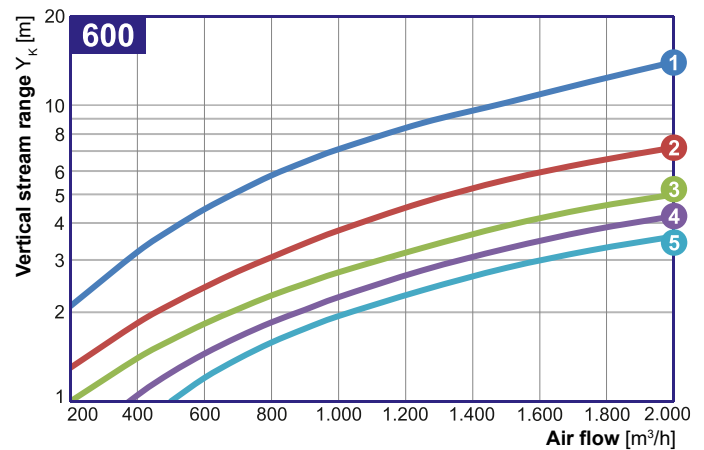
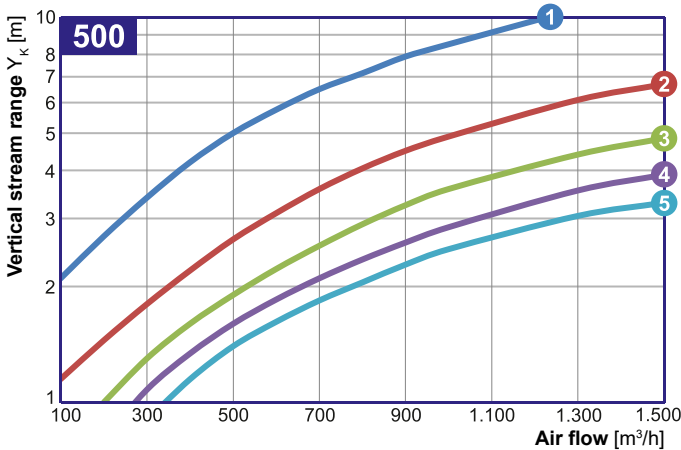
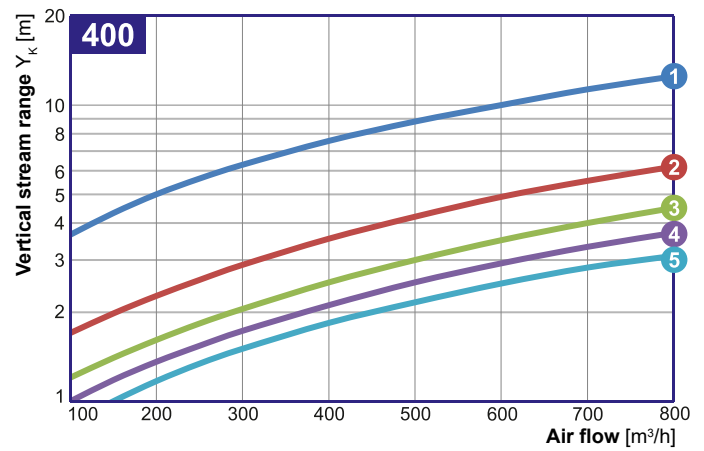
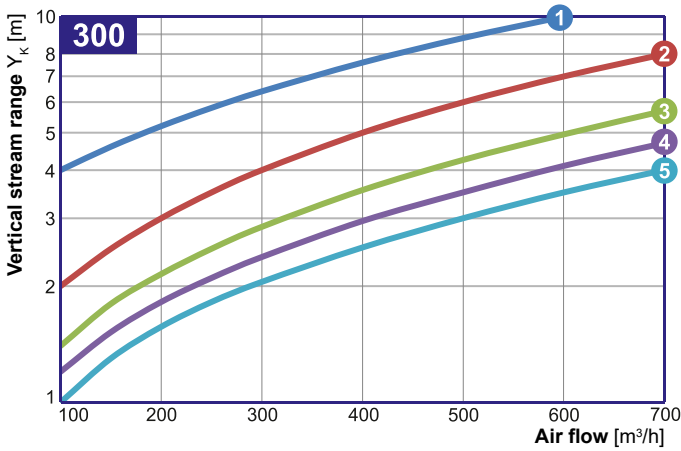
**Curve 1**  
Vertical **isothermal** stream range  $Y_k$  [m] /  $\Delta T = 0^\circ\text{C}$

**Curve 2**  
Vertical **non-isothermal** stream range  $Y_k$  [m] /  $\Delta T = 5^\circ\text{C}$

**Curve 3**  
Vertical **non-isothermal** stream range  $Y_k$  [m] /  $\Delta T = 10^\circ\text{C}$

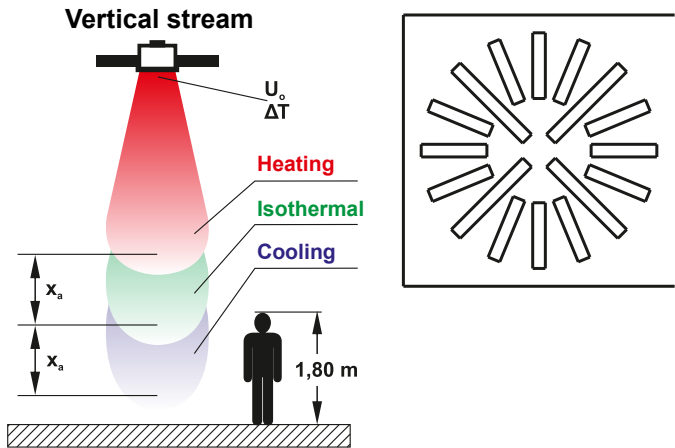
**Curve 4**  
Vertical **non-isothermal** stream range  $Y_k$  [m] /  $\Delta T = 15^\circ\text{C}$

**Curve 5**  
Vertical **non-isothermal** stream range  $Y_k$  [m] /  $\Delta T = 20^\circ\text{C}$





**SD9.KR - VERTICAL STREAM RANGE  $Y_k$  CALCULATION ( $U_T = 0,5 \text{ m/s}$ )**



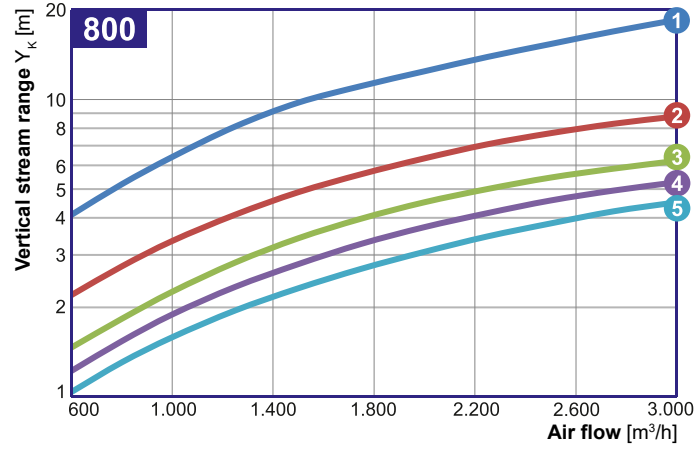
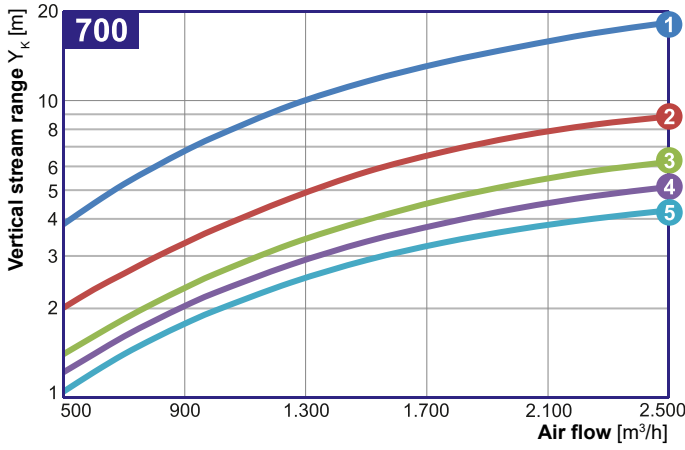
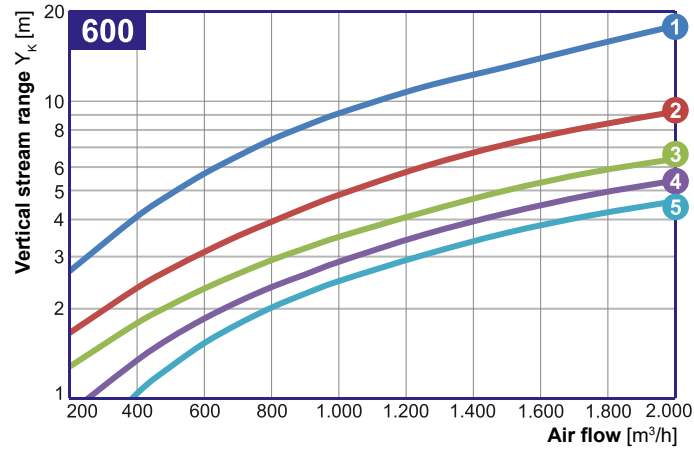
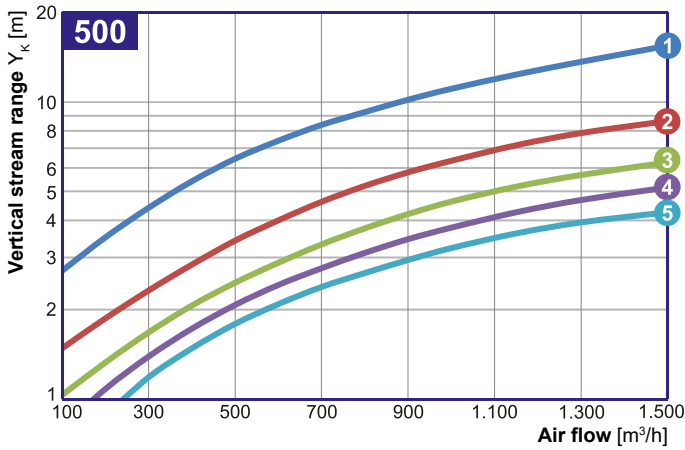
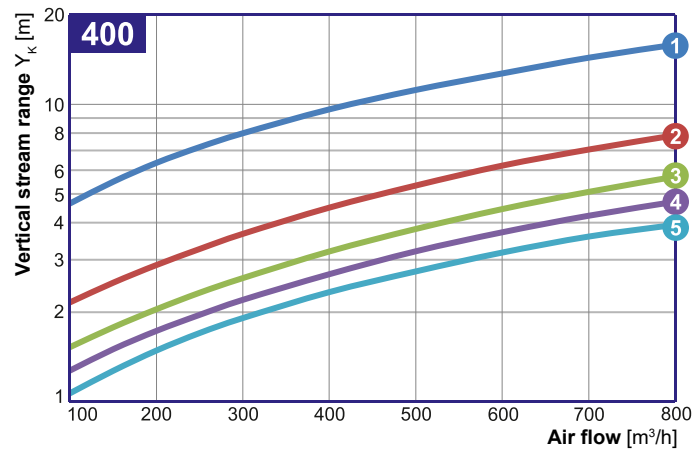
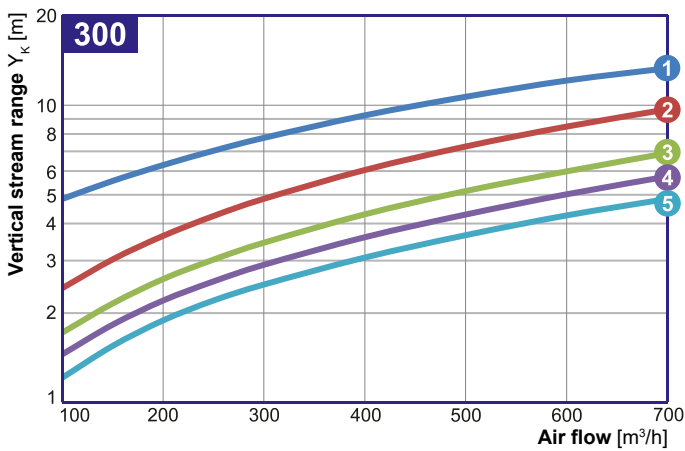
**Curve 1**  
Vertical **isothermal** stream range  $Y_k$  [m] /  $\Delta T = 0^\circ\text{C}$

**Curve 2**  
Vertical **non-isothermal** stream range  $Y_k$  [m] /  $\Delta T = 5^\circ\text{C}$

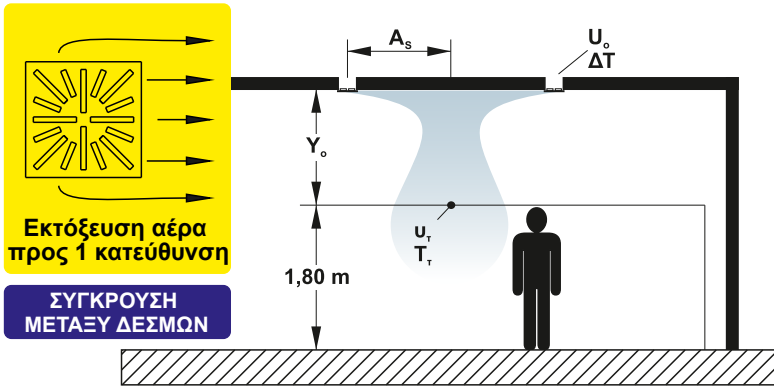
**Curve 3**  
Vertical **non-isothermal** stream range  $Y_k$  [m] /  $\Delta T = 10^\circ\text{C}$

**Curve 4**  
Vertical **non-isothermal** stream range  $Y_k$  [m] /  $\Delta T = 15^\circ\text{C}$

**Curve 5**  
Vertical **non-isothermal** stream range  $Y_k$  [m] /  $\Delta T = 20^\circ\text{C}$



**SD9.KK - HORIZONTAL STREAM VERTICAL DROP  $Y_o$  CALCULATION ( $U_T = 0,2$  m/s)**



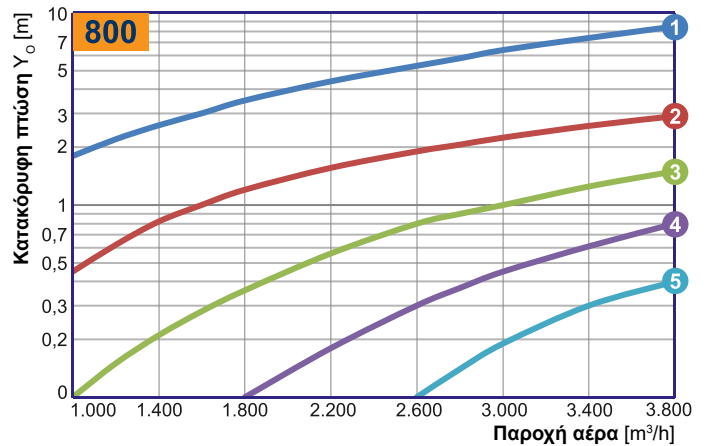
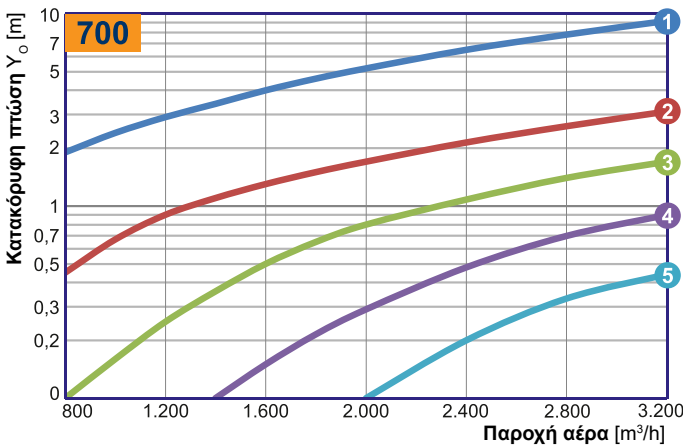
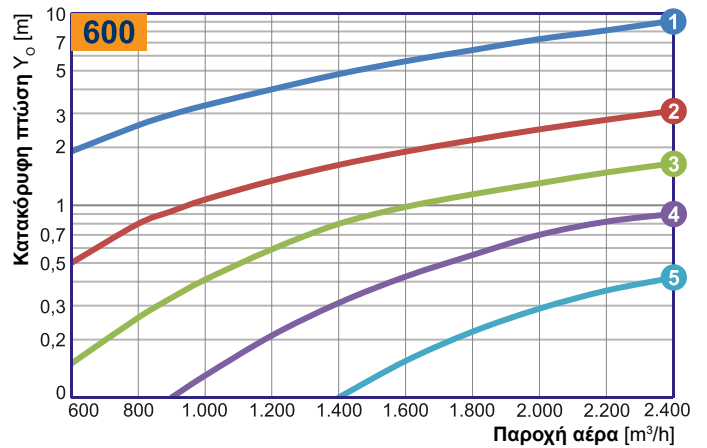
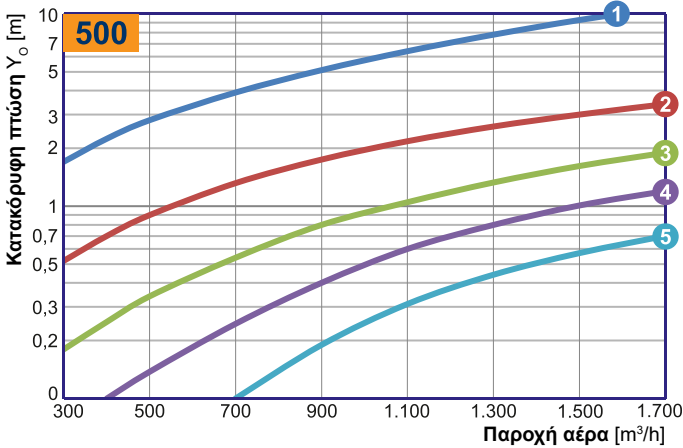
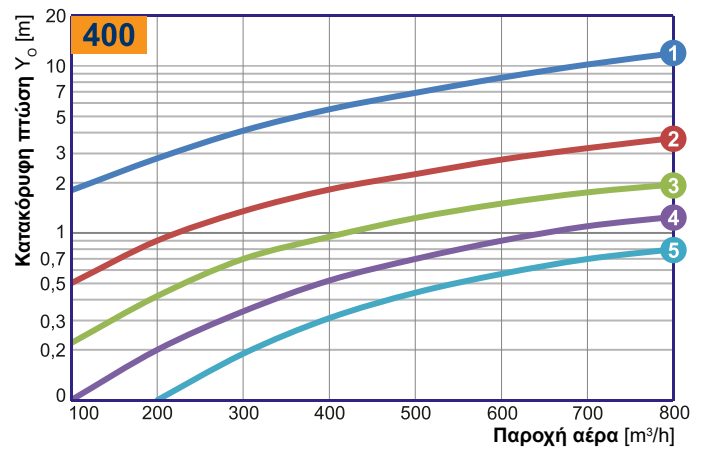
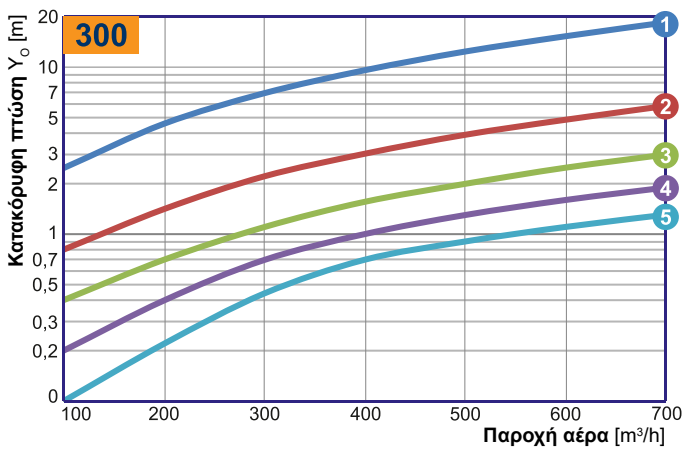
**Καμπύλη 1**  
Πτώση οριζόντιας δέσμης αέρα  $Y_o$  [m] /  $A_s = 1$  [m]

**Καμπύλη 2**  
Πτώση οριζόντιας δέσμης αέρα  $Y_o$  [m] /  $A_s = 2$  [m]

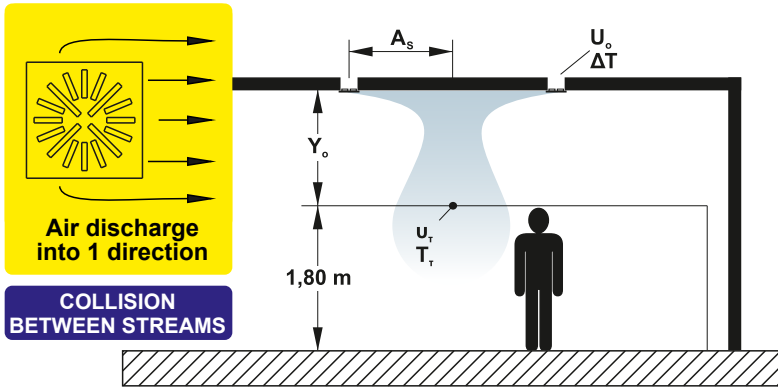
**Καμπύλη 3**  
Πτώση οριζόντιας δέσμης αέρα  $Y_o$  [m] /  $A_s = 3$  [m]

**Καμπύλη 4**  
Πτώση οριζόντιας δέσμης αέρα  $Y_o$  [m] /  $A_s = 4$  [m]

**Καμπύλη 5**  
Πτώση οριζόντιας δέσμης αέρα  $Y_o$  [m] /  $A_s = 5$  [m]



**SD9.KR - HORIZONTAL STREAM VERTICAL DROP  $Y_o$  CALCULATION ( $U_T = 0,2$  m/s)**



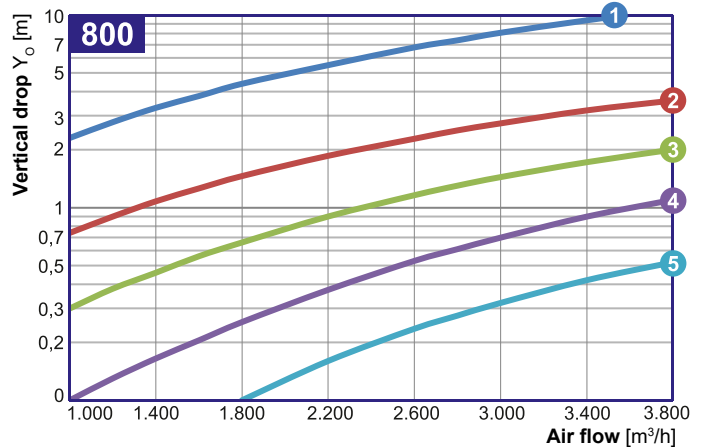
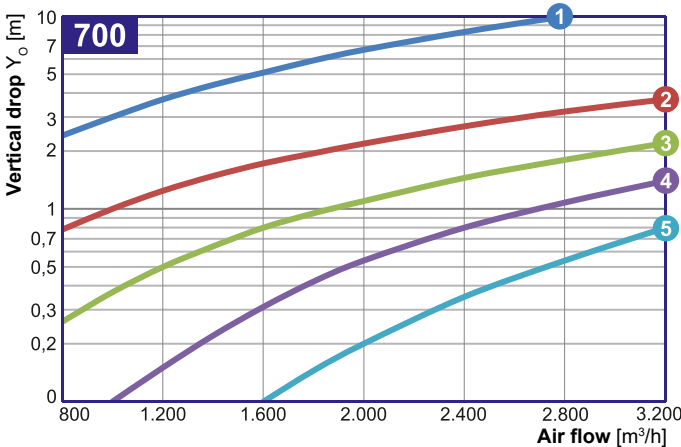
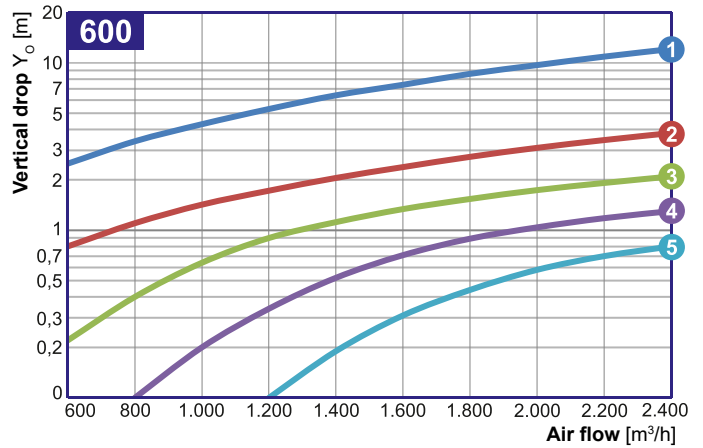
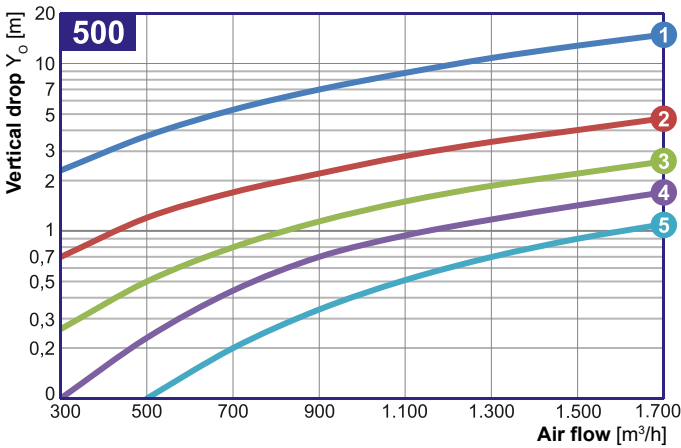
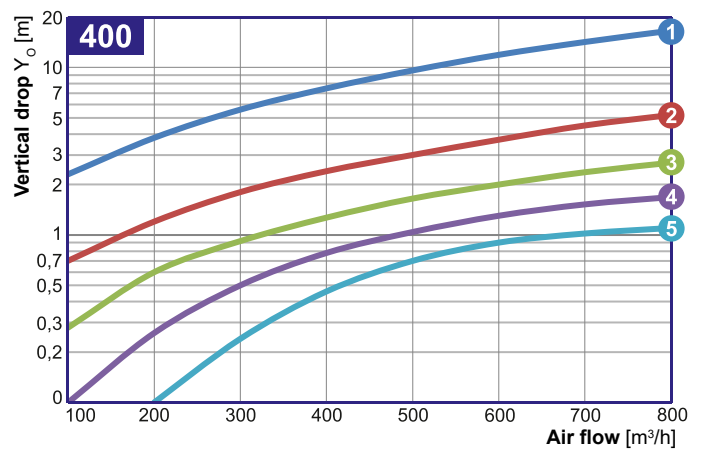
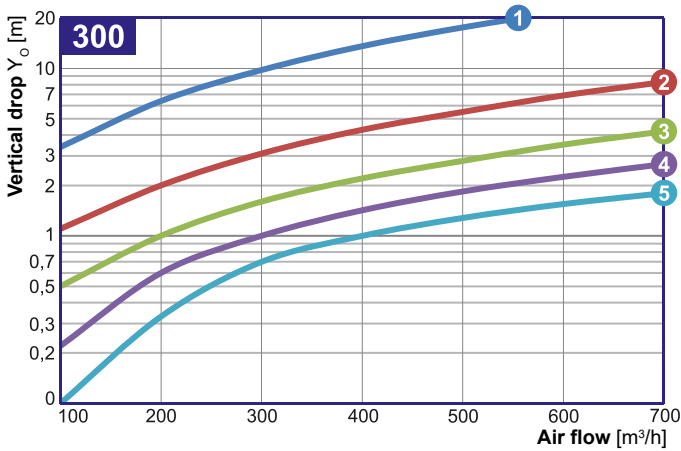
**Curve 1**  
Horizontal stream vertical drop  $Y_o$  [m] /  $A_s = 1$  [m]

**Curve 2**  
Horizontal stream vertical drop  $Y_o$  [m] /  $A_s = 2$  [m]

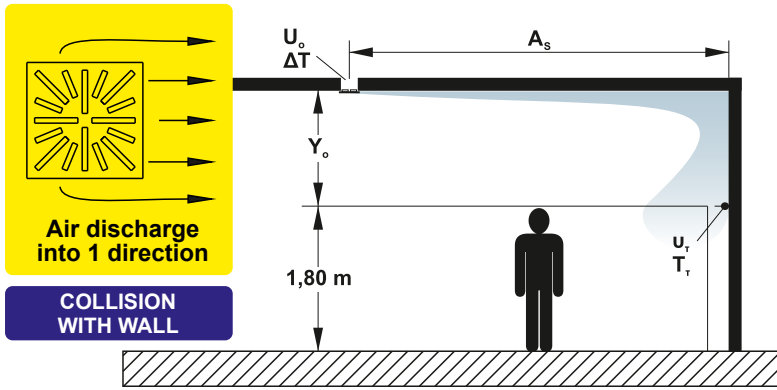
**Curve 3**  
Horizontal stream vertical drop  $Y_o$  [m] /  $A_s = 3$  [m]

**Curve 4**  
Horizontal stream vertical drop  $Y_o$  [m] /  $A_s = 4$  [m]

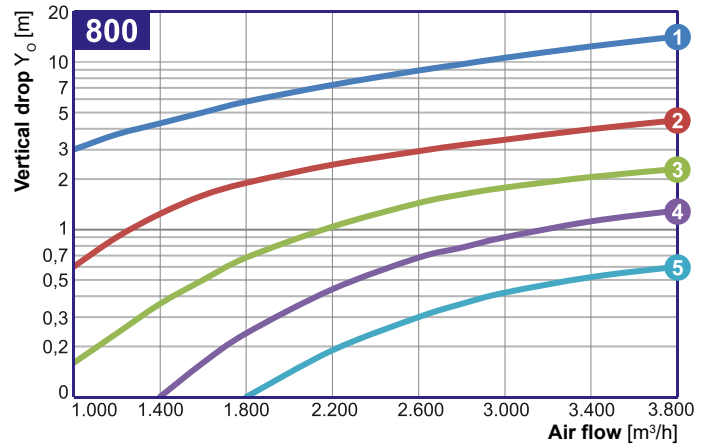
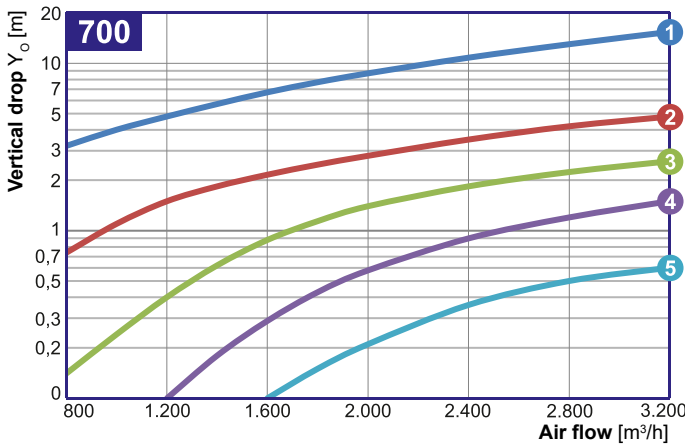
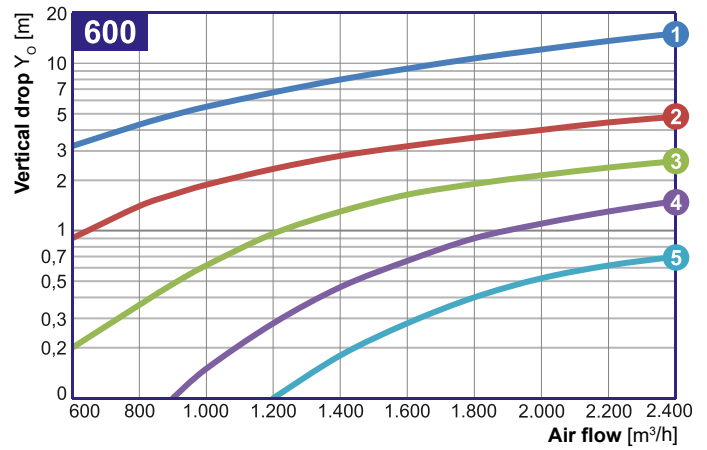
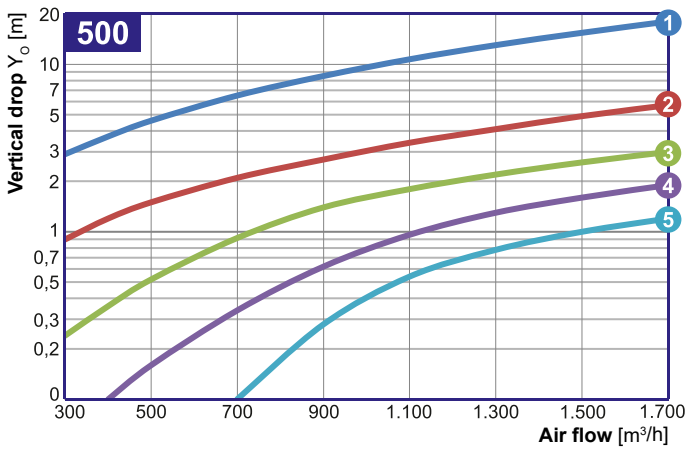
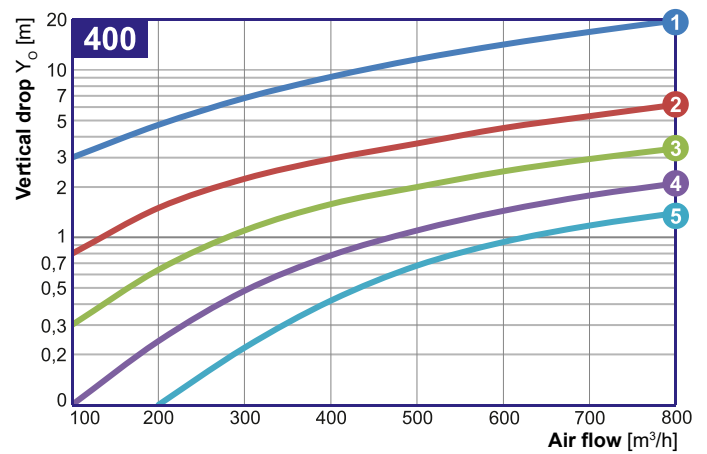
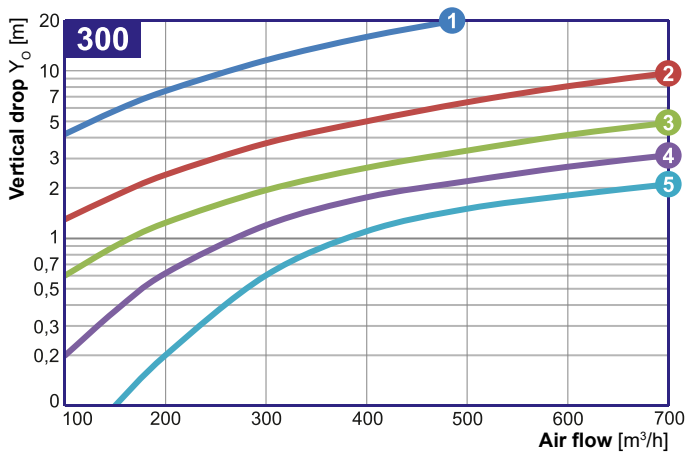
**Curve 5**  
Horizontal stream vertical drop  $Y_o$  [m] /  $A_s = 5$  [m]



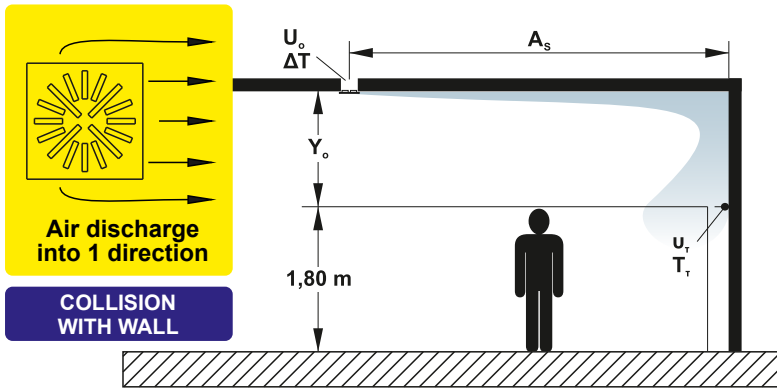
**SD9.KK - HORIZONTAL STREAM VERTICAL DROP  $Y_o$  CALCULATION ( $U_T = 0,2$  m/s)**



- Curve 1**  
Horizontal stream vertical drop  $Y_o$  [m] /  $A_s = 1$  [m]
- Curve 2**  
Horizontal stream vertical drop  $Y_o$  [m] /  $A_s = 2$  [m]
- Curve 3**  
Horizontal stream vertical drop  $Y_o$  [m] /  $A_s = 3$  [m]
- Curve 4**  
Horizontal stream vertical drop  $Y_o$  [m] /  $A_s = 4$  [m]
- Curve 5**  
Horizontal stream vertical drop  $Y_o$  [m] /  $A_s = 5$  [m]



**SD9.KR - HORIZONTAL STREAM VERTICAL DROP  $Y_o$  CALCULATION ( $U_T = 0,2$  m/s)**



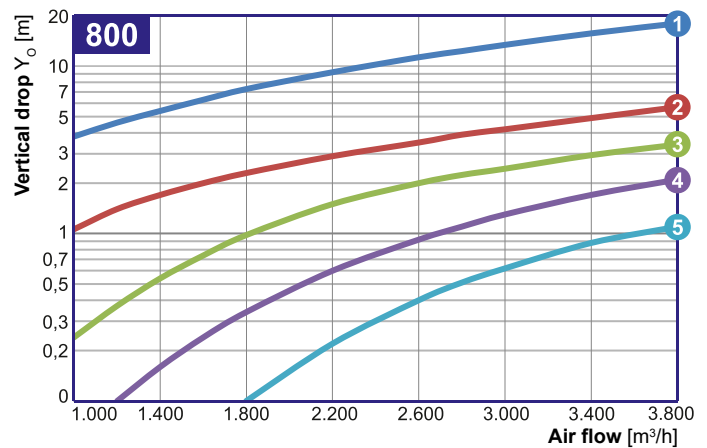
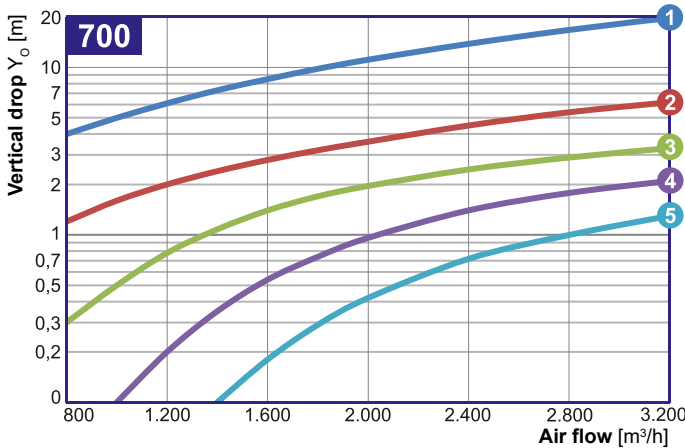
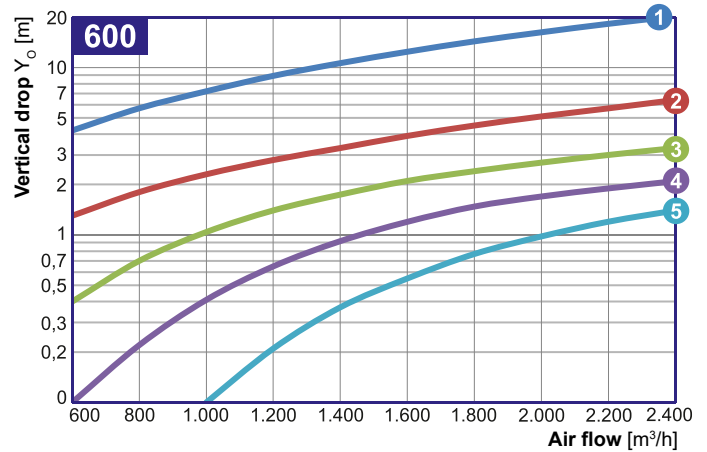
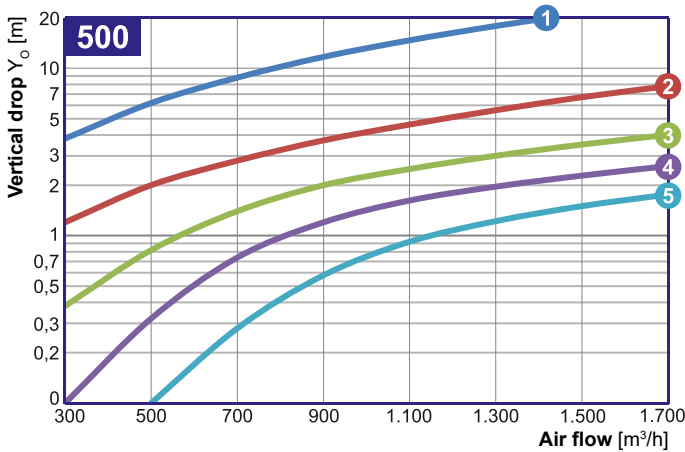
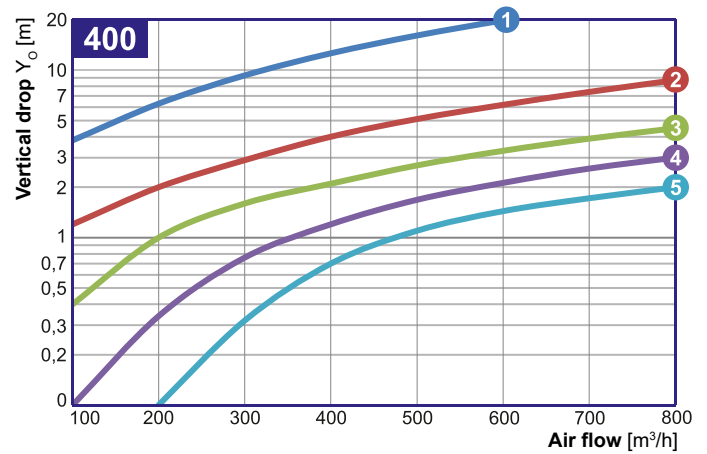
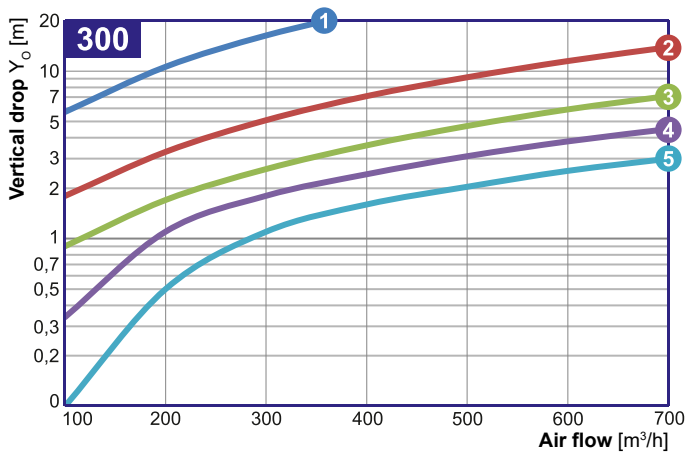
**Curve 1**  
Horizontal stream vertical drop  $Y_o$  [m] /  $A_s = 1$  [m]

**Curve 2**  
Horizontal stream vertical drop  $Y_o$  [m] /  $A_s = 2$  [m]

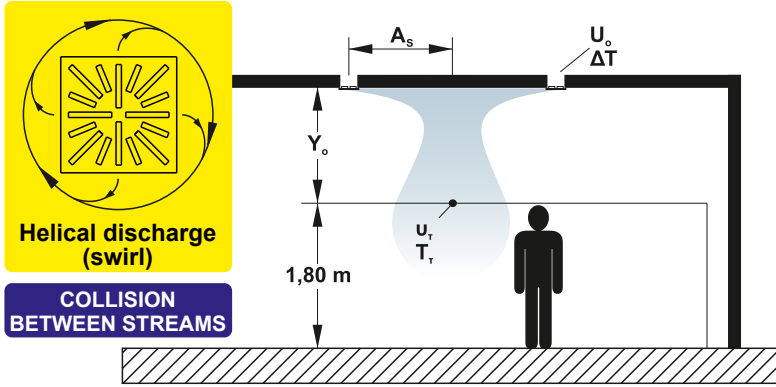
**Curve 3**  
Horizontal stream vertical drop  $Y_o$  [m] /  $A_s = 3$  [m]

**Curve 4**  
Horizontal stream vertical drop  $Y_o$  [m] /  $A_s = 4$  [m]

**Curve 5**  
Horizontal stream vertical drop  $Y_o$  [m] /  $A_s = 5$  [m]



**SD9.KK - HELICAL STREAM VERTICAL DROP  $Y_o$  CALCULATION ( $U_T = 0,2$  m/s)**

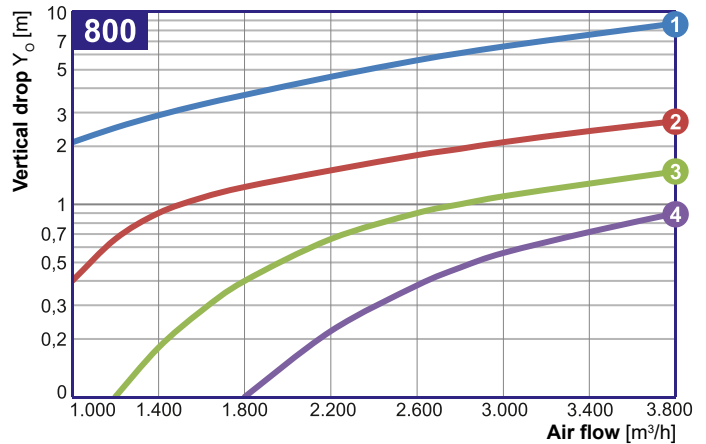
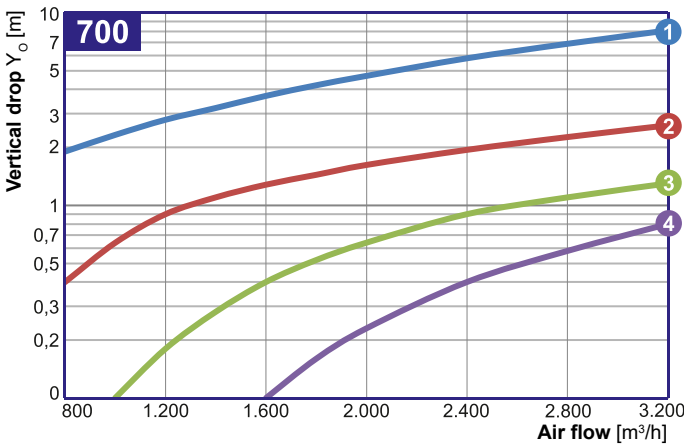
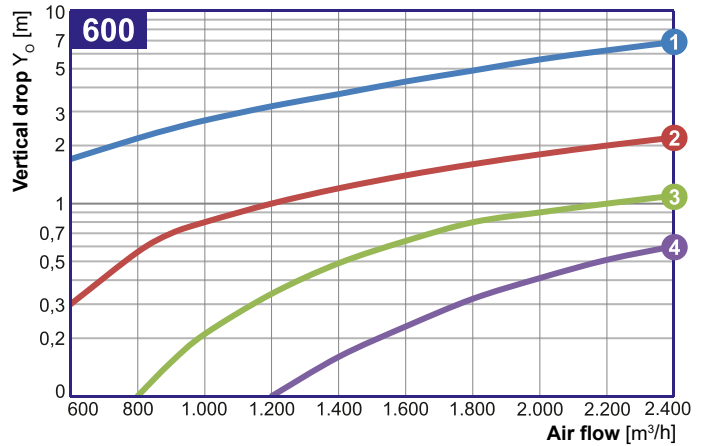
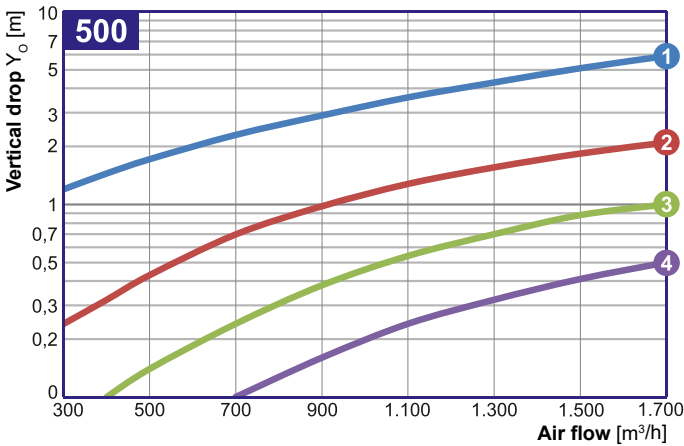
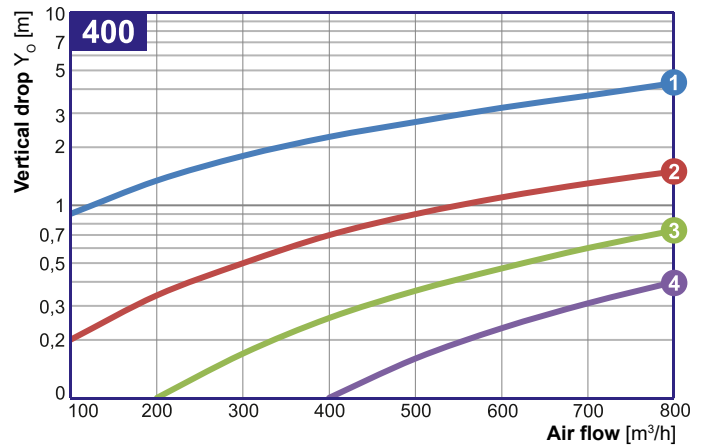
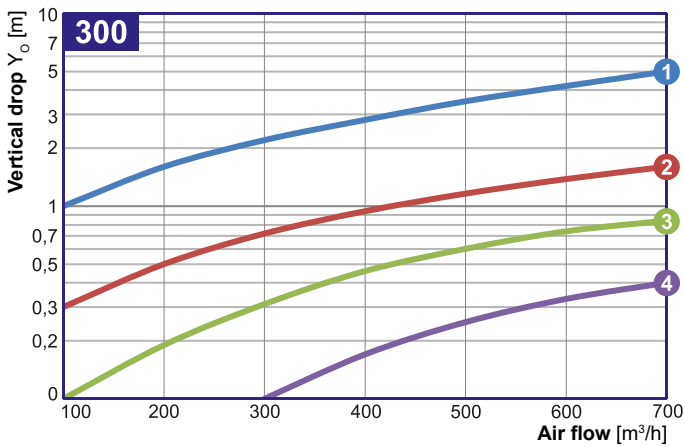


**Curve 1**  
Helical stream vertical drop  $Y_o$  [m] /  $A_s = 1$  [m]

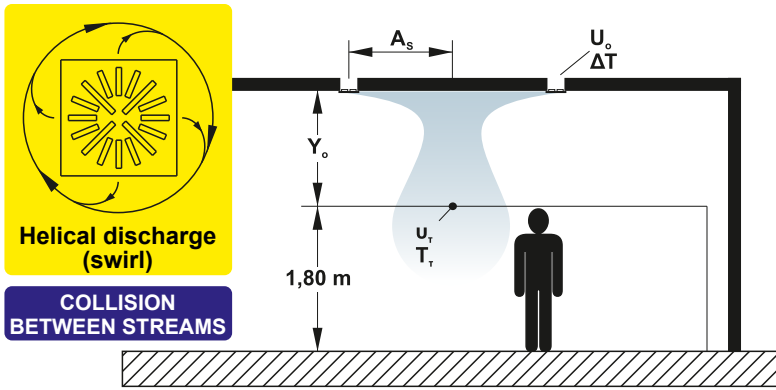
**Curve 2**  
Helical stream vertical drop  $Y_o$  [m] /  $A_s = 2$  [m]

**Curve 3**  
Helical stream vertical drop  $Y_o$  [m] /  $A_s = 3$  [m]

**Curve 4**  
Helical stream vertical drop  $Y_o$  [m] /  $A_s = 4$  [m]



**SD9.KR - HELICAL STREAM VERTICAL DROP  $Y_o$  CALCULATION ( $U_t = 0,2$  m/s)**

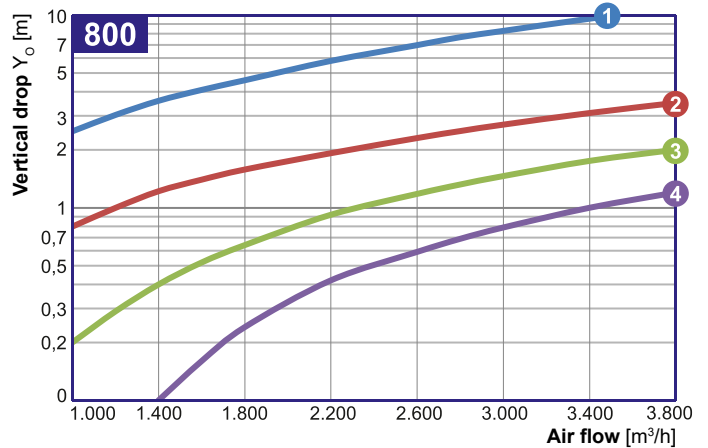
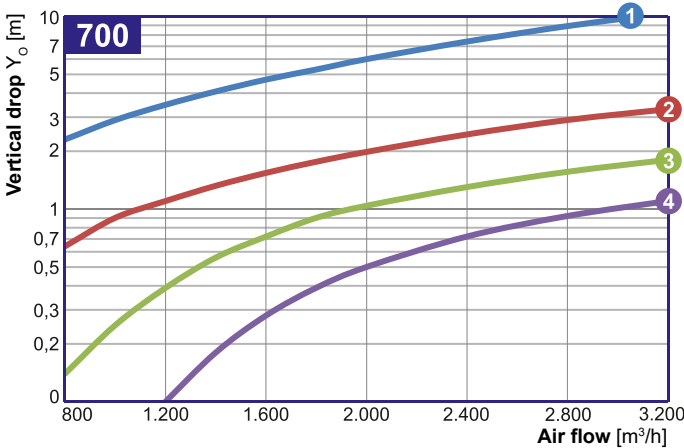
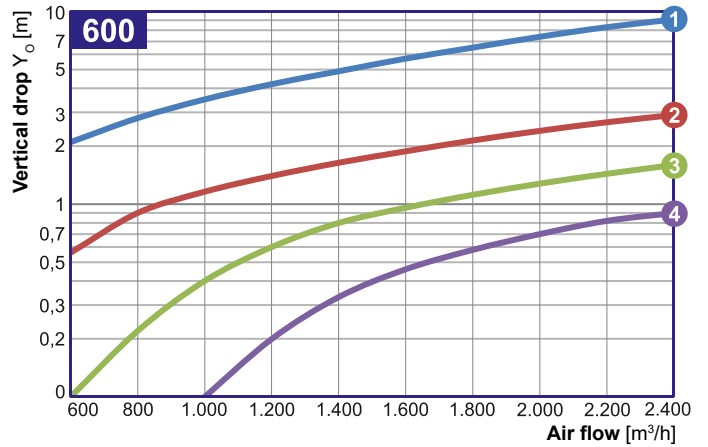
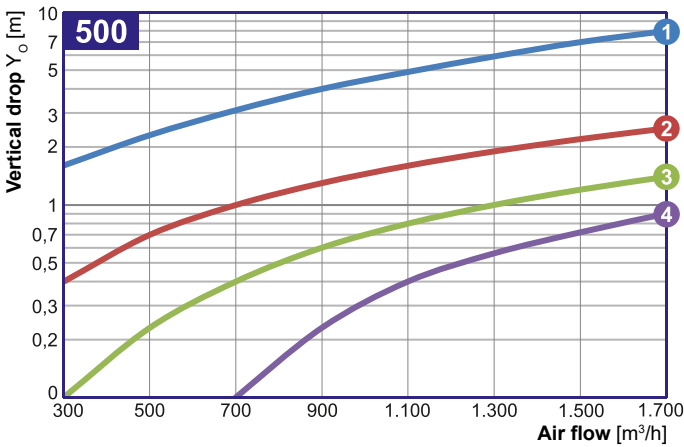
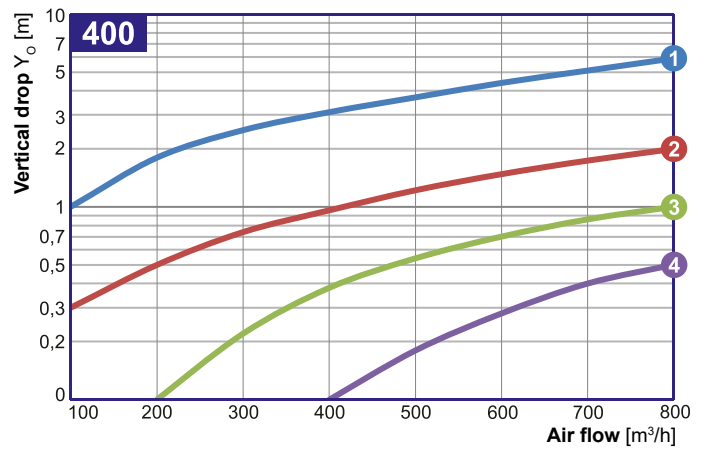
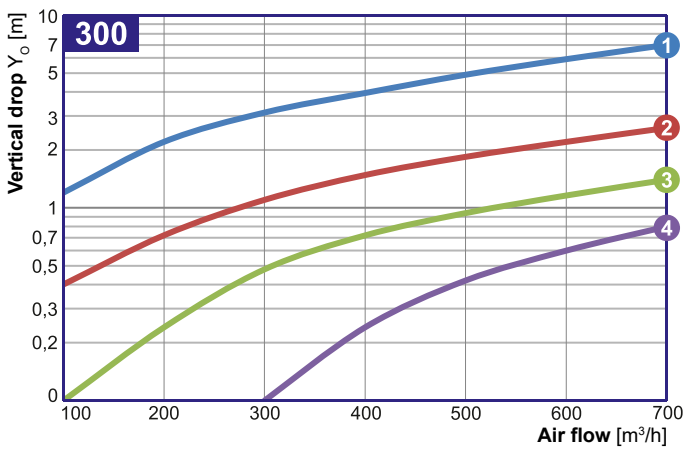


**Curve 1**  
Helical stream vertical drop  $Y_o$  [m] /  $A_s = 1$  [m]

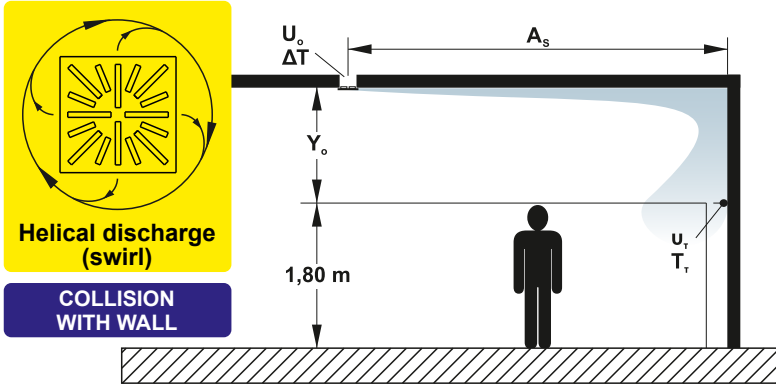
**Curve 2**  
Helical stream vertical drop  $Y_o$  [m] /  $A_s = 2$  [m]

**Curve 3**  
Helical stream vertical drop  $Y_o$  [m] /  $A_s = 3$  [m]

**Curve 4**  
Helical stream vertical drop  $Y_o$  [m] /  $A_s = 4$  [m]



**SD9.KK - HELICAL STREAM VERTICAL DROP  $Y_o$  CALCULATION ( $U_T = 0,2$  m/s)**

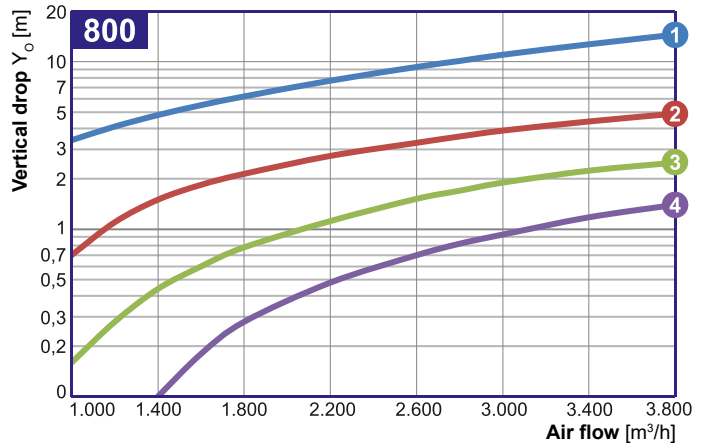
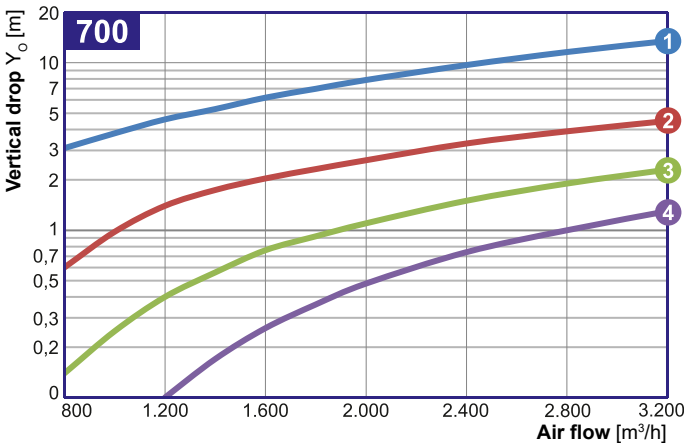
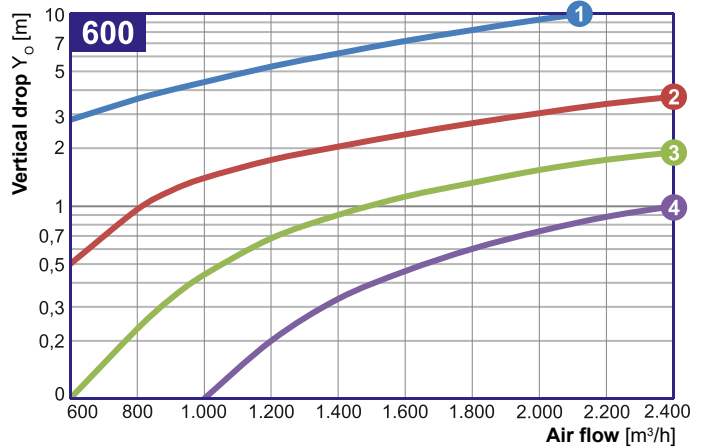
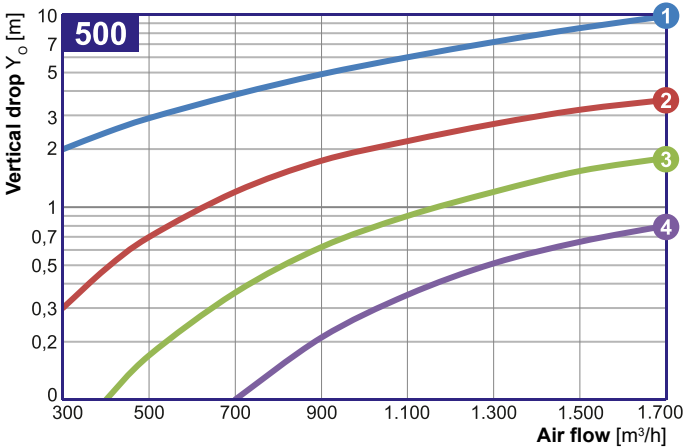
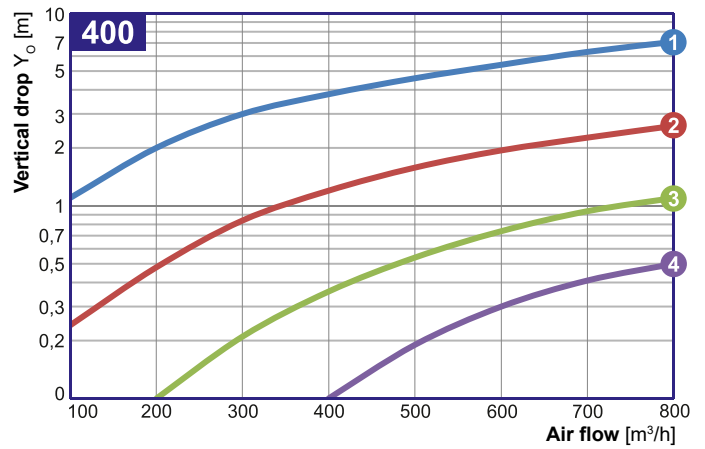
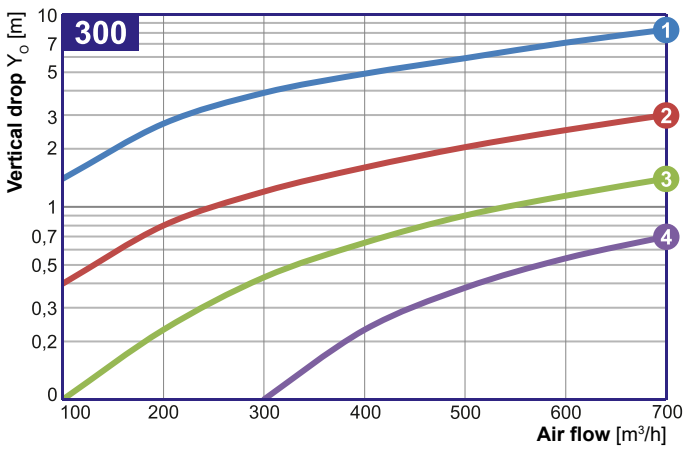


**Curve 1**  
Helical stream vertical drop  $Y_o$  [m] /  $A_s = 1$  [m]

**Curve 2**  
Helical stream vertical drop  $Y_o$  [m] /  $A_s = 2$  [m]

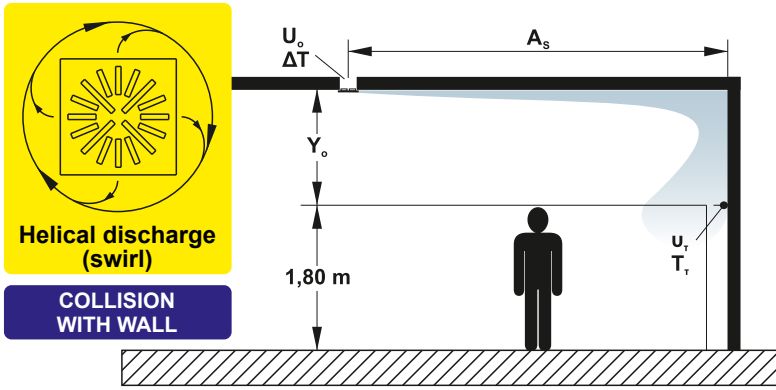
**Curve 3**  
Helical stream vertical drop  $Y_o$  [m] /  $A_s = 3$  [m]

**Curve 4**  
Helical stream vertical drop  $Y_o$  [m] /  $A_s = 4$  [m]





**SD9.KR - HELICAL STREAM VERTICAL DROP  $Y_o$  CALCULATION ( $U_T = 0,2$  m/s)**

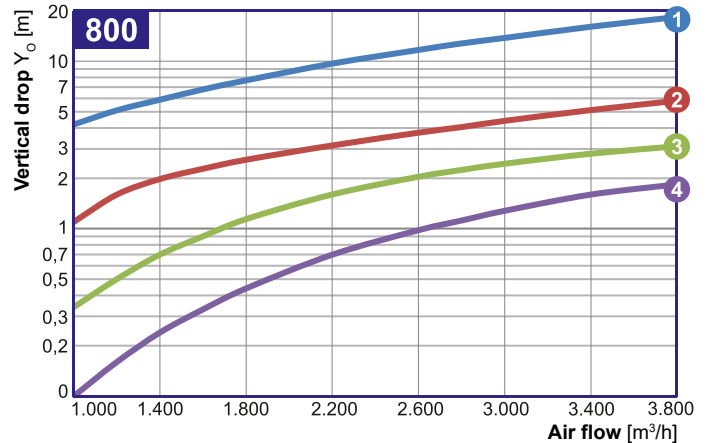
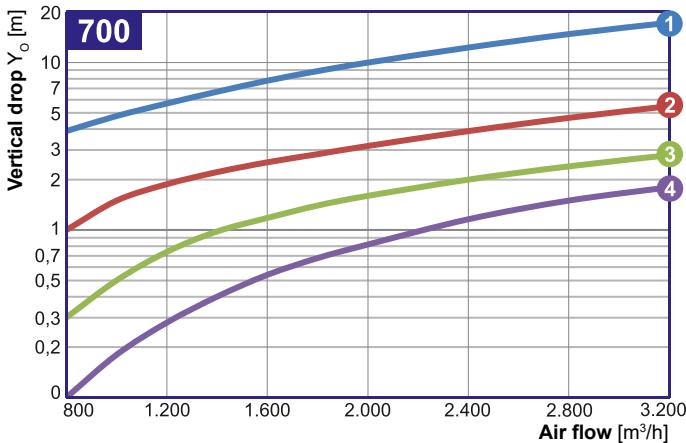
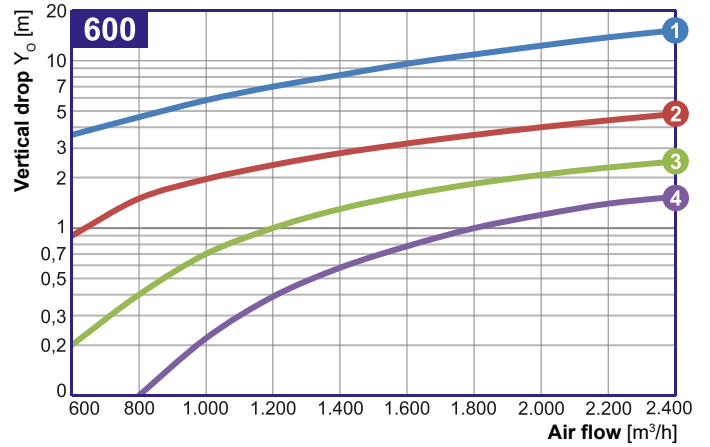
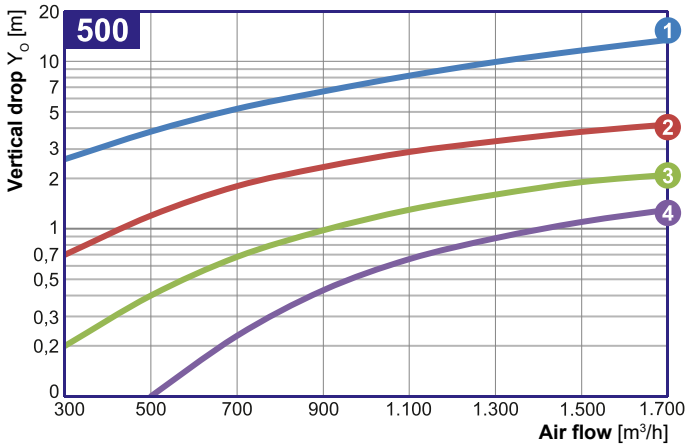
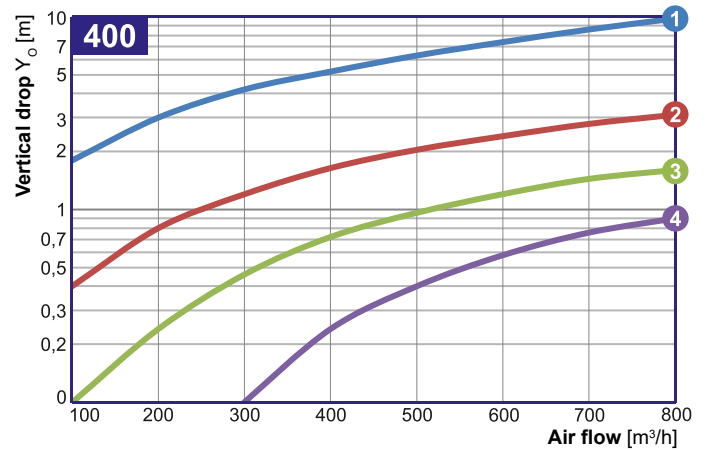
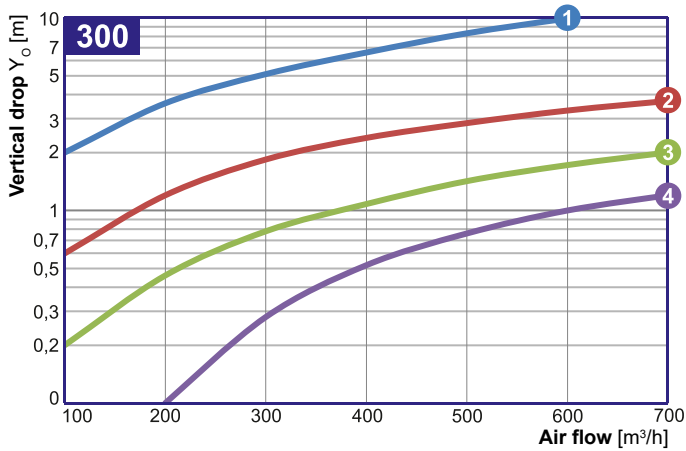


**Curve 1**  
Helical stream vertical drop  $Y_o$  [m] /  $A_s = 1$  [m]

**Curve 2**  
Helical stream vertical drop  $Y_o$  [m] /  $A_s = 2$  [m]

**Curve 3**  
Helical stream vertical drop  $Y_o$  [m] /  $A_s = 3$  [m]

**Curve 4**  
Helical stream vertical drop  $Y_o$  [m] /  $A_s = 4$  [m]



## SD9 - ORDER

For the proper order of ceiling swirl diffusers **SD9** please use the following code :

**SD9.KK** + **TP** + **PL 300** | **FR.9010** | **BL.W**

<b>BL.W</b>	= Blades from white plastic material
<b>Blank</b>	= Blades from black plastic material
<b>FR.RAL...</b>	= Frame powder painted in RAL color
<b>Blank</b>	= Frame powder painted in <b>RAL9010</b>
<b>Diffuser size</b>	
<b>PL(K1)</b>	= plenum box for <b>SD9 ...K</b> with spigot on the side
<b>PL(K2)</b>	= plenum box for <b>SD9 ...K</b> with spigot opposite the diffuser
<b>PL(R1a)</b>	= circular plenum box for <b>SD9 ...R</b> with spigot on the side
<b>PL(R2a)</b>	= circular plenum box for <b>SD9 ...R</b> with spigot opposite the diffuser
<b>PL(R1b)</b>	= square plenum box for <b>SD9 ...R</b> with spigot on the side
<b>PL(R2b)</b>	= square plenum box for <b>SD9 ...R</b> with spigot opposite the diffuser
<b>D</b>	= with <b>volume damper</b>
<b>Blank</b>	= without additional accessories
<b>TP</b>	= with <b>thermodynamic mechanism</b>
<b>MO</b>	= with <b>actuator On / Off</b>
<b>MA</b>	= with <b>24V analog actuator</b>
<b>Blank</b>	= <b>manual blades adjustment</b>
<b>SD9.KK</b>	= Square diffuser from galvanized steel powder painted in RAL 9010 with blades in a radial, square shaped configuration.
<b>SD9.KK.O</b>	= Square frame from galvanized steel, powder painted in RAL9010, with outer dimensions 595 x 595 mm and blades in a radial, square shaped configuration.
<b>SD9.KR</b>	= Square diffuser from galvanized steel powder painted in RAL 9010 with blades in a radial, circular shaped configuration.
<b>SD9.KR.O</b>	= Square frame from galvanized steel, powder painted in RAL9010, with outer dimensions 595 x 595 mm and blades in a radial, circular shaped configuration.
<b>SD9.RR</b>	= Circular diffuser from galvanized steel powder painted in RAL 9010 with blades in a radial, circular shaped configuration.

### Examples

#### **SD9.KR 400 + PL(K1) | FR.7040 =**

Square diffuser SD9, size 400, made from galvanized steel, powder painted in RAL 7040, with black plastic blades in a radial, circular shaped configuration and plenum box with spigot on the side. Adjustment of the blades is done manually.

#### **SD9.RR 600 + MA | BL.W =**

Radial diffuser SD9, size 600, made from galvanized steel, powder painted in RAL 9010, with white plastic blades in a radial, circular shaped configuration. Blades adjustment is done automatically via 24V analog actuator.

## SPECIFICATIONS

### Ceiling swirl diffuser, with adjustable blades, **SD9.KK**

Ceiling swirl diffuser, indicative type **SD9.KK** by **AIRTECHNIC**, with square frame manufactured of aluminium powder painted in RAL 9010 color and slots with independent, manually adjustable or grouped, automatically adjustable plastic blades [in black or white color] in a radial, square shaped configuration. The blade angle adjustment will be achieved manually [**SD9.KK**] / automatically via thermodynamic piston [**SD9.KK+TP**] / automatically via actuator On / Off 230V [**SD9.KK+MO**] / automatically via analog actuator 24V [**SD9.KK+MA**]. The manufacturer will have performed measurements of the technical characteristics of the diffuser, in an independent laboratory according to the standard ELOT CR 1752:1998. It will have a volume damper [**D**] / plenum box with spigot on the side [**PL(K1)**] / plenum box with spigot opposite the diffuser [**PL(K2)**]. It will be suitable for ceiling placement for air supply and visible installation with 4 screws on the diffuser's perimeter / with 1 screw on the diffuser's center. The factory will be certified according to ISO 9001:2015 (Quality Management Systems) and according to ISO 14001:2015 (Environmental Management Systems).

It will be manufactured by **AIRTECHNIC** type **SD9.KK**

It will be manufactured by **AIRTECHNIC** type **SD9.KK +PL(K1), +PL(K2) / SD9.KK +PL(K1), +PL(K2), +D**

It will be manufactured by **AIRTECHNIC** type **SD9.KK +TP / SD9.KK +TP, +PL(K1), +PL(K2) +D**

It will be manufactured by **AIRTECHNIC** type **SD9.KK +MO / SD9.KK +MO, +PL(K1), +PL(K2) +D**

It will be manufactured by **AIRTECHNIC** type **SD9.KK +MA / SD9.KK +MA, +PL(K1), +PL(K2) +D**

### Ceiling swirl diffuser, with adjustable blades, SD9.KR

Ceiling swirl diffuser, indicative type **SD9.KR** by **AIRTECHNIC**, with square frame manufactured of aluminium powder painted in RAL 9010 color and slots with independent, manually adjustable or grouped, automatically adjustable plastic blades [in black or white color] in a radial, circular shaped configuration. The blade angle adjustment will be achieved manually [**SD9.KR**] / automatically via thermodynamic piston [**SD9.KR+TP**] / automatically via actuator On / Off 230V [**SD9.KR+MO**] / automatically via analog actuator 24V [**SD9.KR+MA**]. The manufacturer will have performed measurements of the technical characteristics of the diffuser, in an independent laboratory according to the standard ELOT CR 1752:1998. It will have a volume damper [**D**] / plenum box with spigot on the side [**PL(K1)**] / plenum box with spigot opposite the diffuser [**PL(K2)**]. It will be suitable for ceiling placement for air supply and visible installation with 4 screws on the diffuser's perimeter / with 1 screw on the diffuser's center. The factory will be certified according to ISO 9001:2015 (Quality Management Systems) and according to ISO 14001:2015 (Environmental Management Systems). Περιβαλλοντικής Διαχείρισης).

It will be manufactured by **AIRTECHNIC** type **SD9.KR**

It will be manufactured by **AIRTECHNIC** type **SD9.KR +PL(K1), +PL(K2) / SD9.KR +PL(K1), +PL(K2), +D**

It will be manufactured by **AIRTECHNIC** type **SD9.KR +TP / SD9.KR +TP, +PL(K1), +PL(K2) +D**

It will be manufactured by **AIRTECHNIC** type **SD9.KR +MO / SD9.KR +MO, +PL(K1), +PL(K2) +D**

It will be manufactured by **AIRTECHNIC** type **SD9.KR +MA / SD9.KR +MA, +PL(K1), +PL(K2) +D**

### Ceiling swirl diffuser, with adjustable blades, SD9.RR

Ceiling swirl diffuser, indicative type **SD9.RR** by **AIRTECHNIC**, with circular frame manufactured of aluminum powder painted in RAL 9010 color and slots with independent, manually adjustable or grouped, automatically adjustable plastic blades [in black or white color] in a radial, circular shaped configuration. The blade angle adjustment will be achieved manually [**SD9.RR**] / automatically via thermodynamic piston [**SD9.RR+TP**] / automatically via actuator On / Off 230V [**SD9.RR+MO**] / automatically via analog actuator 24V [**SD9.RR+MA**]. The manufacturer will have performed measurements of the technical characteristics of the diffuser, in an independent laboratory according to the standard ELOT CR 1752:1998. It will have a volume damper [**D**] / circular plenum box with spigot on the side [**PL(R1a)**] / circular plenum box with spigot opposite the diffuser [**PL(R2a)**] / square plenum box with spigot on the side [**PL(R1b)**] / square plenum box with spigot opposite the diffuser [**PL(R2b)**]. It will be suitable for ceiling placement for air supply and visible installation with 4 screws on the diffuser's perimeter / with 1 screw on the diffuser's center. The factory will be certified according to ISO 9001:2015 (Quality Management Systems) and according to ISO 14001:2015 (Environmental Management Systems).

It will be manufactured by **AIRTECHNIC** type **SD9.RR**

It will be manufactured by **AIRTECHNIC** type **SD9.RR +PL(R1a), +PL(R2a) / SD9.RR +PL(R1a),+PL(R2a),+D**

It will be manufactured by **AIRTECHNIC** type **SD9.RR +PL(R1b), +PL(R2b) / SD9.RR +PL(R1b),+PL(R2b),+D**

It will be manufactured by **AIRTECHNIC** type **SD9.RR +TP / SD9.RR +TP, +PL(K1), +PL(K2) +D**

It will be manufactured by **AIRTECHNIC** type **SD9.RR +MO / SD9.RR +MO, +PL(K1), +PL(K2) +D**

It will be manufactured by **AIRTECHNIC** type **SD9.RR +MA / SD9.RR +MA, +PL(K1), +PL(K2) +D**

### Ceiling swirl diffuser, with adjustable blades, SD9.KK.O

Ceiling swirl diffuser, indicative type **SD9.KK.O** by **AIRTECHNIC**, with square frame 595 x 595 mm (external dimensions) manufactured of galvanized steel powder painted in RAL 9010 color and slots with independent, manually adjustable or grouped, automatically adjustable plastic blades [in black or white color] in a radial, square shaped configuration. The blade angle adjustment will be achieved manually [**SD9.KK.O**] / automatically via thermodynamic piston [**SD9.KK.O +TP**] / automatically via actuator On / Off 230V [**SD9.KK.O +MO**] / automatically via analog actuator 24V [**SD9.KK.O +MA**]. The manufacturer will have performed measurements of the technical characteristics of the diffuser, in an independent laboratory according to the standard ELOT CR 1752:1998. It will have a volume damper [**D**] / plenum box with spigot on the side [**PL(K1)**] / plenum box with spigot opposite the diffuser [**PL(K2)**]. It will be suitable for false ceiling placement for air supply and visible installation without screws (by replacing a false ceiling plate 600 x 600). The factory will be certified according to **ISO 9001:2015** (Quality Management Systems) and according to **ISO 14001:2015** (Environmental Management Systems).

It will be manufactured by **AIRTECHNIC** type **SD9.KK.O**

It will be manufactured by **AIRTECHNIC** type **SD9.KK.O +PL(K1), +PL(K2) / SD9.KK.O +PL(K1), +PL(K2), +D**

It will be manufactured by **AIRTECHNIC** type **SD9.KK.O +TP / SD9.KK.O +TP, +PL(K1), +PL(K2) +D**

It will be manufactured by **AIRTECHNIC** type **SD9.KK.O +MO / SD9.KK.O +MO, +PL(K1), +PL(K2) +D**

It will be manufactured by **AIRTECHNIC** type **SD9.KK.O +MA / SD9.KK.O +MA, +PL(K1), +PL(K2) +D**

### Ceiling swirl diffuser, with adjustable blades, SD9.KR.O

Ceiling swirl diffuser, indicative type **SD9.KR.O** by **AIRTECHNIC**, with square frame 595 x 595 mm (external dimensions) manufactured of galvanized steel powder painted in RAL 9010 color and slots with independent, manually adjustable or grouped, automatically adjustable plastic blades [in black or white color] in a radial, circular shaped configuration. The blade angle adjustment will be achieved manually [**SD9.KR.O**] / automatically via thermodynamic piston [**SD9.KR.O +TP**] / automatically via actuator On / Off 230V [**SD9.KR.O +MO**] / automatically via analog actuator 24V [**SD9.KR.O +MA**]. The manufacturer will have performed measurements of the technical characteristics of the diffuser, in an independent laboratory according to the standard ELOT CR 1752:1998. It will have a volume damper [**D**] / plenum box with spigot on the side [**PL(K1)**] / plenum box with spigot opposite the diffuser [**PL(K2)**]. It will be suitable for false ceiling placement for air supply and visible installation without screws (by replacing a false ceiling plate 600 x 600). The factory will be certified according to **ISO 9001:2015** (Quality Management Systems) and according to **ISO 14001:2015** (Environmental Management Systems).

It will be manufactured by **AIRTECHNIC** type **SD9.KR.O**

It will be manufactured by **AIRTECHNIC** type **SD9.KR.O +PL(K1), +PL(K2) / SD9.KR.O +PL(K1), +PL(K2), +D**

It will be manufactured by **AIRTECHNIC** type **SD9.KR.O +TP / SD9.KR.O +TP, +PL(K1), +PL(K2) +D**

It will be manufactured by **AIRTECHNIC** type **SD9.KR.O +MO / SD9.KR.O +MO, +PL(K1), +PL(K2) +D**

It will be manufactured by **AIRTECHNIC** type **SD9.KR.O +MA / SD9.KR.O +MA, +PL(K1), +PL(K2) +D**



ISO 9001:2015



ISO 14001:2015

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