ADJUSTABLE CONES CIRCULAR DIFFUSERS

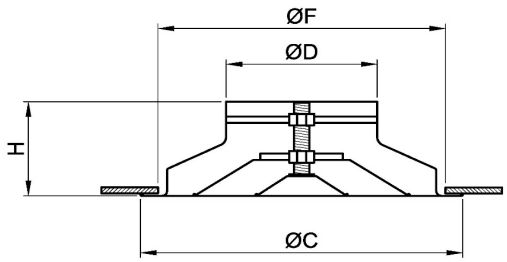
OVERVIEW

KU5
KU6
SERIES

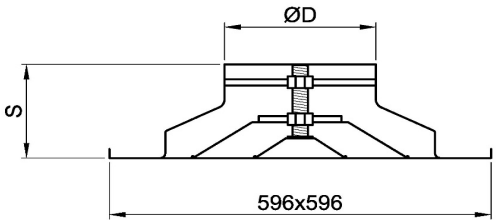
OVERVIEW: The KU5 KU6 series of diffusers are composed from an external containment cone and by a central adjustable section with cones that may be adjusted individually to the nearest millimetre.
The different positioning of the cones allows to vary the direction of the air, in order to obtain air flows in horizontal or vertical direction.
For this reason this diffuser is suitable for all applications where heating and cooling is required.
It can also be used for air extraction.
The installation height of the diffuser is normally between 2.6 m and 6 m.

INSTALLATION : The diffuser is fixed laterally using screws directly to the plenum's connection. Various clips are available to fix the diffuser to plaster board counter ceilings and versions with flat or lowered "fineline" panels for use in modular counter ceilings.

REGULATION DAMPER: Some sizes of the KU6 series diffusers are available with a segmented regulation damper that can be adjusted once installed by acting on the central cone of the diffuser.
The KU5 and KU6 diffusers may be supplied with a butterfly damper adjustable using a screw-driver from the face side of the diffuser.



Standard



With panel

neck nominal diamter mm			number of cones	D mm	C mm	H mm	S mm	F mm	P mm	Ak summer m²	Ak winter m²
100	KU5	KU6	2	98	230	75	70	198	596	0,0138	0,0129
150	KU5	KU6	3	148	335	105	100	288	596	0,0268	0,0270
160	KU5 [1] [2]	KU6 [2] [3]	3	158	335	105	100	288	596	0,0298	0,0304
200	KU5 [1] [2]	KU6 [2] [3]	3	198	423	118	110	370	596	0,0431	0,0456
250	KU5 [1] [2]	KU6 [2] [3]	3	248	517	130	120	461	596	0,0622	0,0684
300	KU5	KU6	3	298	640	146	126	576	596	0,0840	0,0952
315	KU5 [1] [2]	KU6 [2]	3	313	640	146	126	576	596	0,0910	0,1041
350	KU5		3	348	730	185	--	656	--	0,1082	0,1260
355	KU5 [1]		3	353	730	185	--	656	--	0,1108	0,1293
400	KU5 [1]		4	398	776	185	--	700	--	0,1349	0,1606
450	KU5 [1]		4	448	825	185	--	755	--	0,1637	0,1990
500	KU5 [1]		4	498	917	185	--	825	--	0,1948	0,2410
630	KU5		5	628	1045	185	--	963	--	0,2850	0,3667

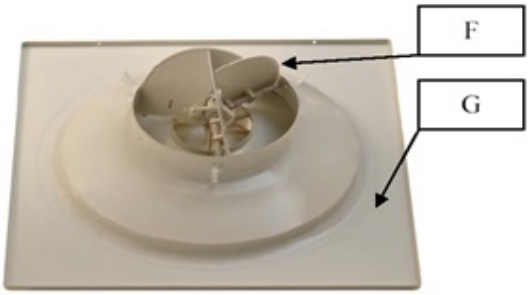
[1] also available with automatic regulation using thermostatic spring
[2] also available in fineline version
[3] also available with segment damper

ADJUSTABLE CONES
CIRCULAR DIFFUSERS

MATERIALS

KU5
KU6
SERIES

	A	B	C	D	F	G
KU5	alluminium	alluminium	steel	steel	---	steel
KU6	alluminium	alluminium	steel	ABS	ABS	steel



DESCRIPTION FOR TENDER:

KU5: aluminium circular diffuser painted RAL9010 or RAL 9003 for use in ceilings, with manually adjustable cones to optimize the direction of the air flow; milimetric regulation central screw in galvanized steel; predisposed for connection to a plenum or a flexible duct; available as standard model or complete with aluminium panel painted RAL9010 or RAL 9003 for fitting into modular ceilings; sup pliable with a galvanized steel butterfly regulation damper, adjustable through the cavity obtained in the central regulation screw.

KU5CT : aluminium circular diffuser painted RAL 9010 or RAL 9003 for ceilings with automatically adjusting cones without power supply but by using a thermostatic return spring to optimize the direction of the air flow; central guide in galvanized steel; predisposed for connecting to a plenum or a flexible duct; available as standard model and version complete with aluminium panel painted RAL 9010 or RAL 9003 for fitting within modular ceilings.

KU6: circular aluminium diffuser painted RAL9010 or RAL 9003 for use in ceilings with manually adjustable cones to optimize the direction of the air flow; ABS milimetric regulation central screw; predisposed for connection to a plenum or a flexible duct; can be supplied with 3 segment regulation damper, manually adjustable without the use of tools but simply by rotating the central cone; available as standard model or complete with aluminium panel painted RAL 9010 or RAL 9003 for fitting within modular ceilings.

UNSUITABLE ENVIRONMENTS

The aluminum products are not suitable for installation in environments with an atmosphere containing corrosive substances for this material and in particular containing chlorine, such as swimming pools, spas and some types of food industries.

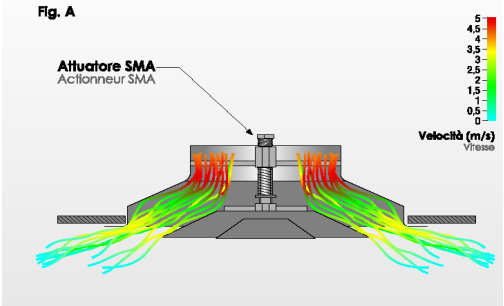
The products in painted carbon steel are not suitable for installation in environments with high humidity and in environments with a potentially explosive atmosphere or containing powders or vapors of corrosive substances.

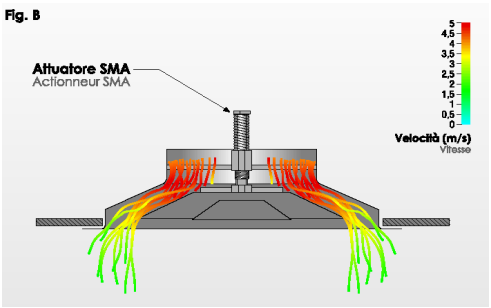
ADJUSTABLE CONES CIRCULAR DIFFUSERS

VERSION WITH AUTOMATIC REGULATION WITH THERMOSTATIC SPRING

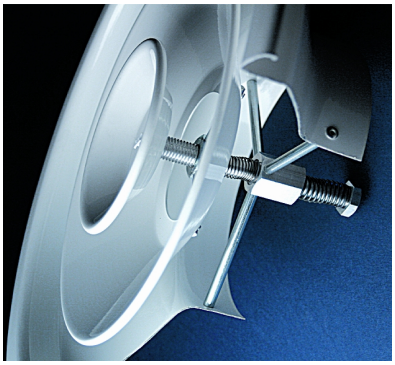
KU 5 CT SERIES

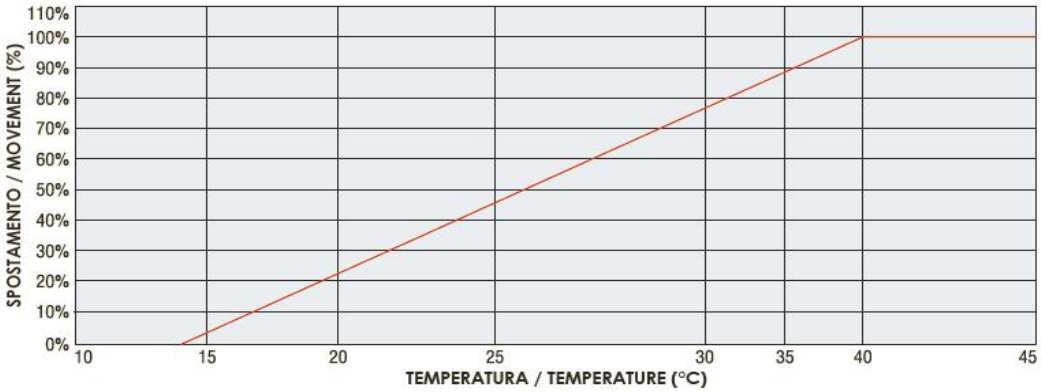
The KU5 CT diffusers allow to automatically regulate the cones in the summer or winter position without the need of a technician. The work without any auxiliary power (e.g.. electrical power supply) and do not require any maintenance.
The movement of the intermediate cones is controlled by means of a special shape remembering spring who's cycle of use determines the position of the cones in relations to the temperature.
In this way the flow of air is controlled in relation to the temperature, enabling the intermediate cones to be always in the optimal position, both when in the cooling and heating faze.
The memory spring varies its extension within a temperature range of 14°C and 40°C.
The minimum lasting time of the spring is 100,000 cycles. A cycle is given from an extension followed by a compression of the spring. If, for example, we consider to be in the position to start the system in the morning and to turn it off in the evening, the spring will last o average about 270 years.
The drawings shows the two positions at full extension and full compression of the spring, the 0% position in cooling conditions and 100% position in heating conditions.





Externsion of the spring in relation to the temperature in the transition from cooling to heating





ADJUSTABLE CONES
CIRCULAR DIFFUSERS

VERSION WITH AUTOMATIC REGULATION
WITH THERMOSTATIC SPRING

KU 5 CT
SERIES

Version with single spring
diameter 160
diameter 200
diameter 250
diameter 315
Available also on flat panel for modular ceiling or "fineline" version

Version with three springs
diameter 355
diameter 400
diameter 450
diameter 500

ADJUSTABLE CONES CIRCULAR DIFFUSERS

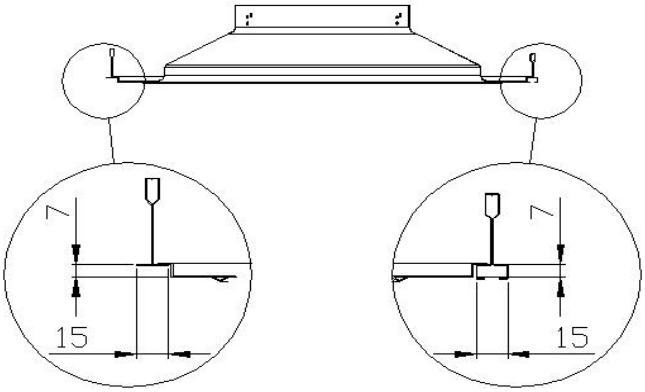
FINELINE VERSION

KUF5
KUF6
SERIES

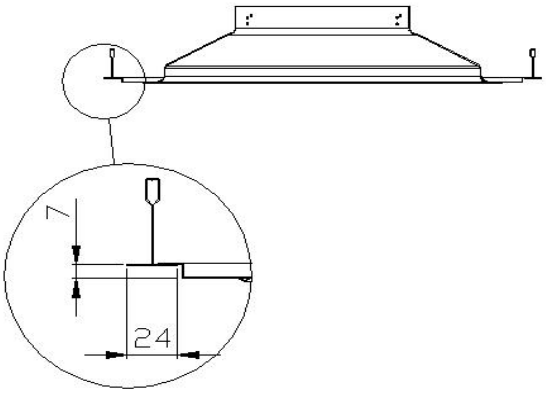
OVERVIEW

The **KUF5** and **KUF6** series diffusers are conceived for fitting within modular ceilings with a shaped panel.
They are built in different versions for the various types of applications and ceiling pattern.
They are composed by a adjustable cones diffusers, series KU5 and KU6 and of a carbon steel sheet pressure shaped panel.

Versions		
Neck diameter	Panel	For support of
160	595x595	15
200	595x595	15
250	595x595	15
315	595x595	15
160	595x595	24
200	595x595	24
250	595x595	24
160	670x670	24
200	670x670	24
250	670x670	24
315	670x670	24
355	670x670	24



Counter ceiling version with 15mm supports



Counter ceiling version with 24mm supports

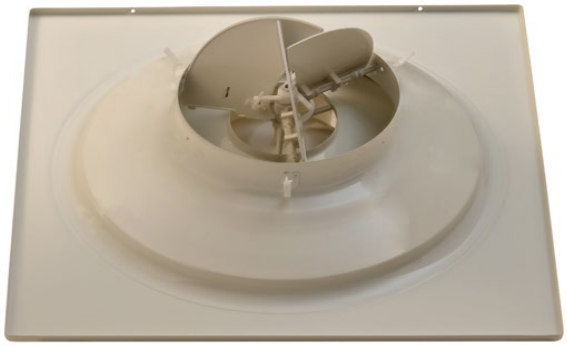
ADJUSTABLE CONES
CIRCULAR DIFFUSERS

VERSION WITH SEGMENT DAMPER

KU6S
SERIES

OVERVIEW
The **KU6S** series diffusers are equipped with segment regulation damper that can be adjusted for the outside acting on the central cone.
This solution presents to fundamental advantages:
- less noise generated from the damper and the air flow, more even inside the diffuser;
- regulation without the use of tools

diameter 160
diameter 200
diameter 250



KU6S version also on 595x595 flat panel for modular ceilings and of "fineline" panel

ADJUSTABLE CONES CIRCULAR DIFFUSERS

SELECTION

KU5
KU6
SERIES

SELECTION METHOD

Using the diagram shown below it is possible to make a first selection of the diffuser on the basis of the air flow.
Saying so, it is advised to verify, using the diagrams of the technical data shown in the following pages, the actual compliance of the choice made with the specific use intended for the diffuser.

CONE REGULATION

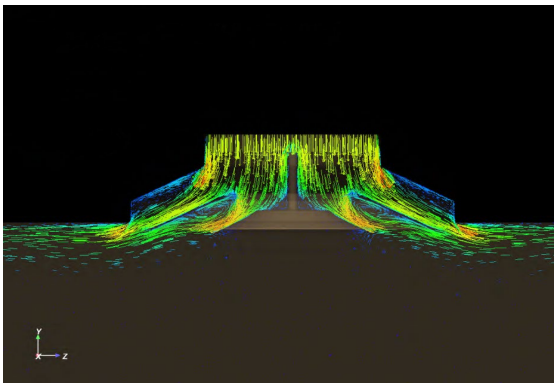
The technical data considers two regulation positions for the diffuser cones, "summer" and "winter".

Summer regulation

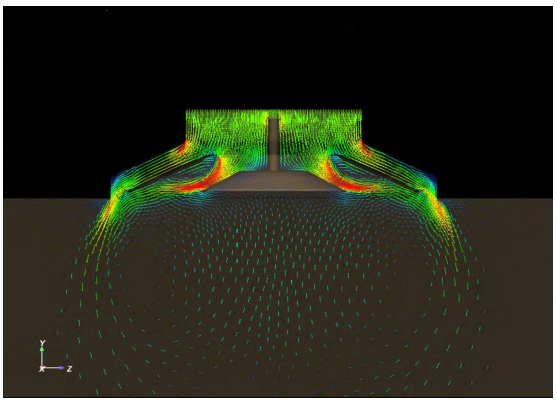
The summer regulation corresponds to the lowering of the central cones up to almost 15mm below the actual height of the ceiling.
This regulation achieves a fresh air horizontal throw which, supported by the coanda effect, flows along the ceiling, gradually mixing with the air in the room therefore avoiding air currents forming with the occupied area.

Winter regulation

The winter regulation corresponds to the lifting of the central cones up to almost 15mm above the actual height of the ceiling.
This regulation drives the hot air directly towards the occupied area, avoiding any different air temperature layers from forming.



SUMMER REGULATION



WINTER REGULATION

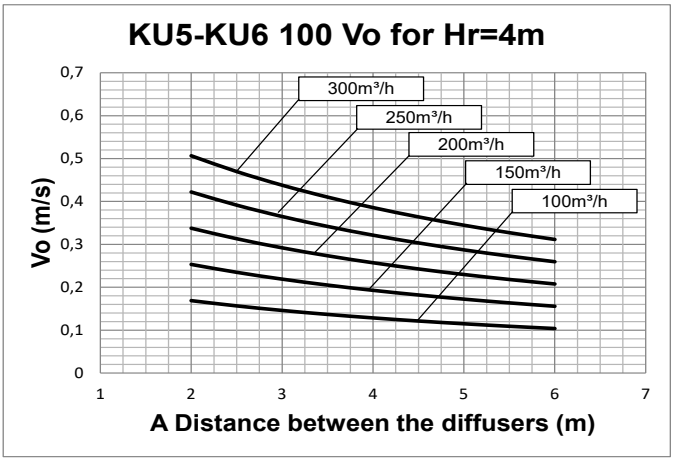
fluid dynamic analysis carried out at

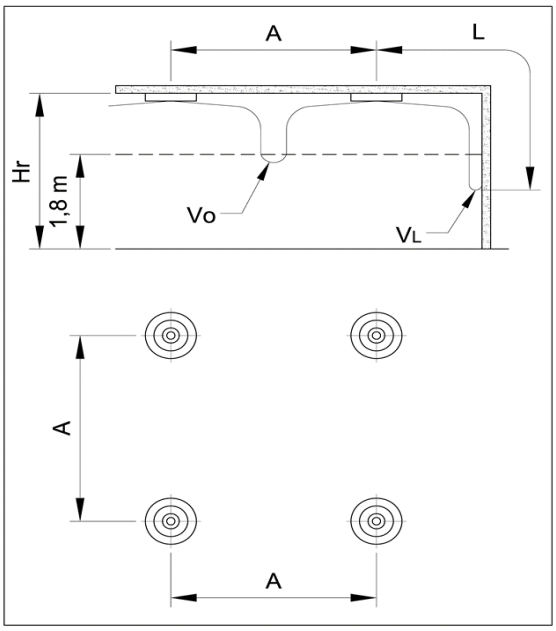
ENERGO
ENERGY EFFICIENCY ENGINEERING
www.energogroup.com

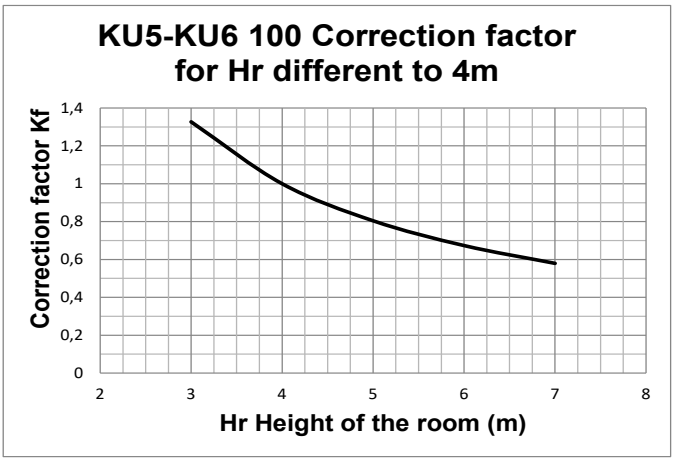
ADJUSTABLE CONES CIRCULAR DIFFUSERS

PERFORMANCE KU5-KU6 100

KU5
KU6
SERIES



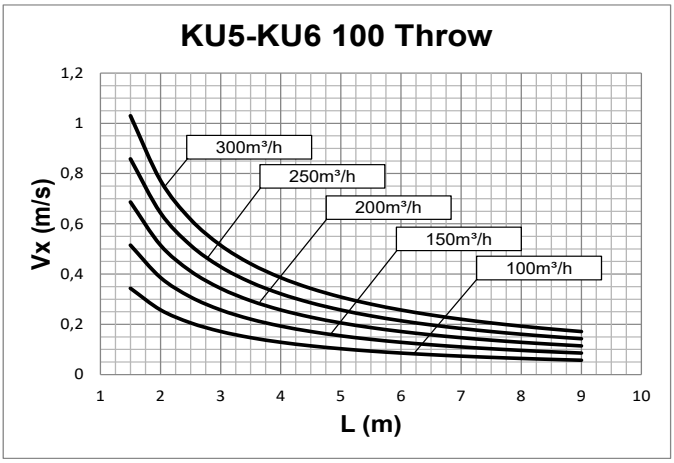


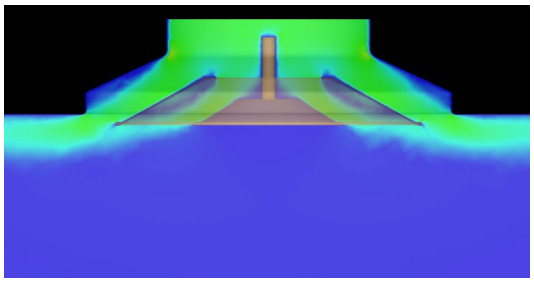


Data obtained from CFD mathematical model in virtual test room operating in isothermal conditions in accordance with the international standard:
ISO 5219 1984: *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*

A(m) distance between thwe diffusers
Vo (m/s) speed at the limit of the occupied zone
L (m) horizontal distance in metres from the centre of the diffuser
VL (m/s) maximum speed in the air stream

For Hr different from 4m:
Vo (h) = Vo x Kf

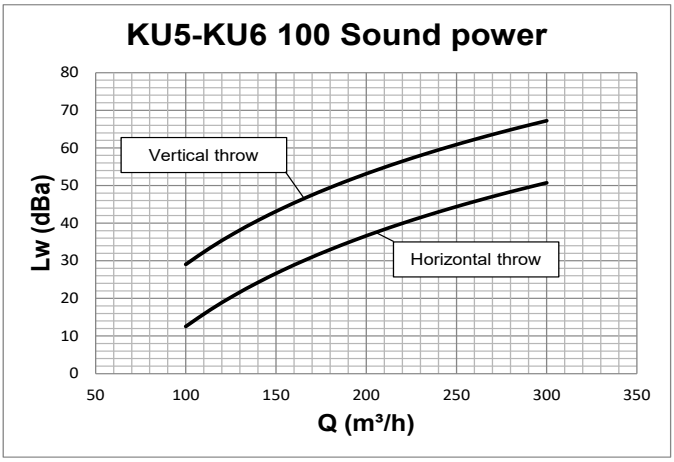




ADJUSTABLE CONES CIRCULAR DIFFUSERS

PERFORMANCE KU5-KU6 100

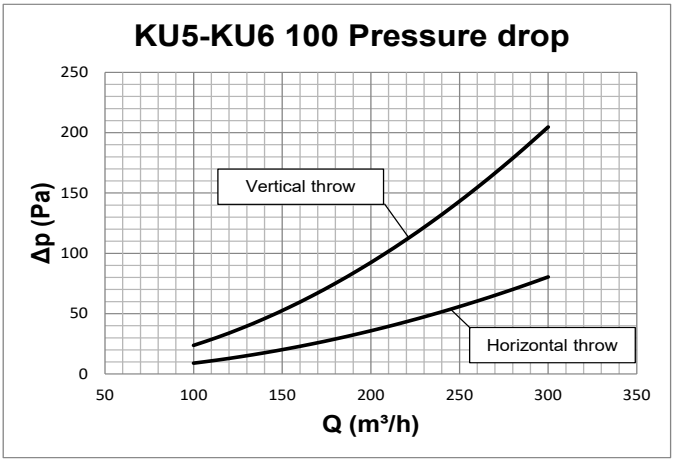
KU5
KU6
SERIES



Data measured in reverberation room in accordance with international standards:
ISO 3741 1999: *Acoustic - determination of sound power levels of noise sources using sound pressure - Precision methods for reverberation rooms*

ISO 5135 1997: *Acoustic - determination of sound power levels of noise from air-terminal devices ; air terminal units; dampers and valves by measurement in a reverberation room.*

The data presented does not consider the attenuation given by the area of installation. This attenuation is normally between 6 and 10 dBA and is determined by the room size, the shape of the environment and the interior features.



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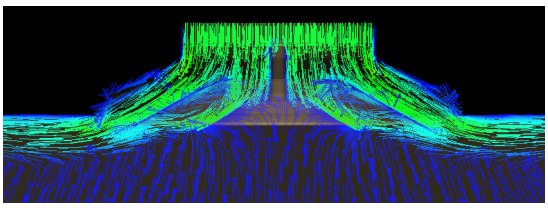
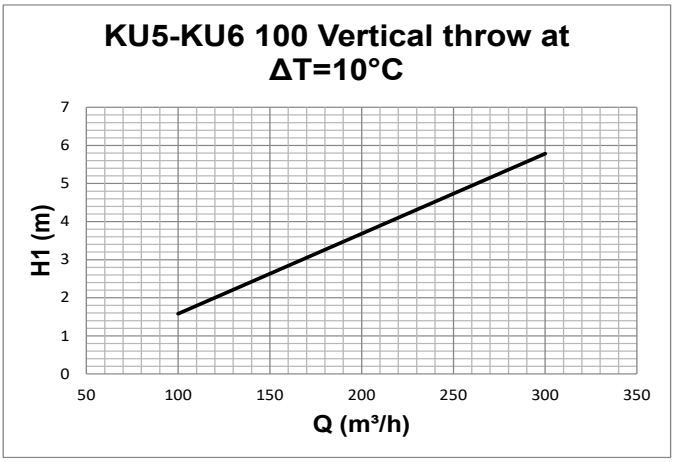
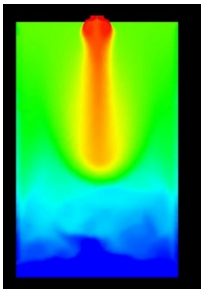




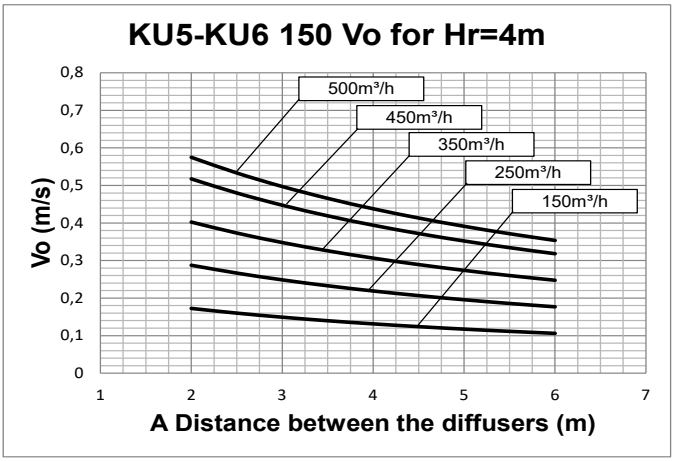
Data obtained from CFD mathematical model in virtual test room operating in heating conditions with ΔT = 10 ° C in accordance with the international standard:
ISO 5219 1984: *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*
H1 (m) vertical distance in metres from the centre of the diffuser at which there is the inversion of the direction of air

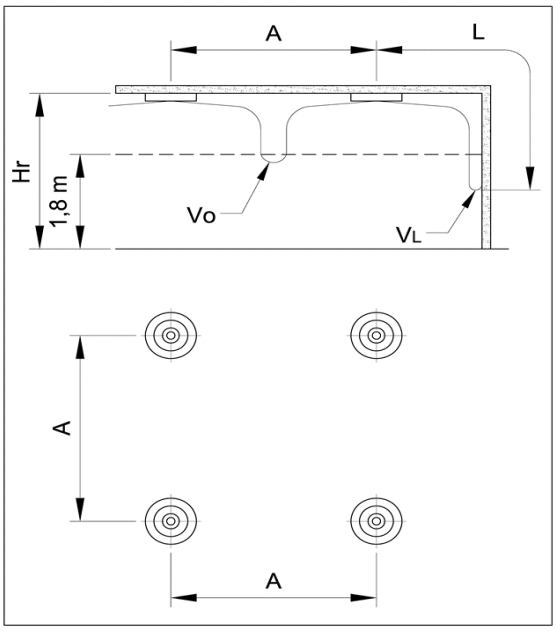


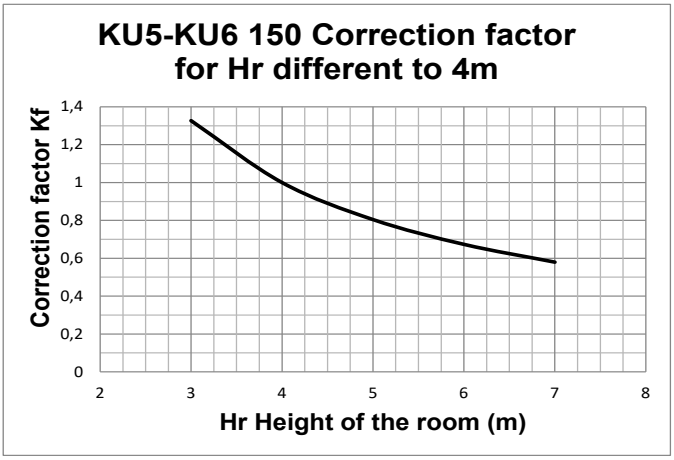
ADJUSTABLE CONES CIRCULAR DIFFUSERS

PERFORMANCE KU5-KU6 150

KU5
KU6
SERIES







Data obtained from CFD mathematical model in virtual test room operating in isothermal conditions in accordance with the international standard:
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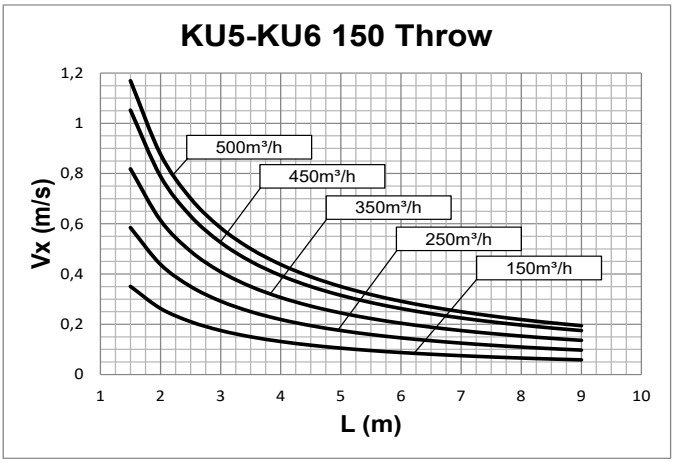
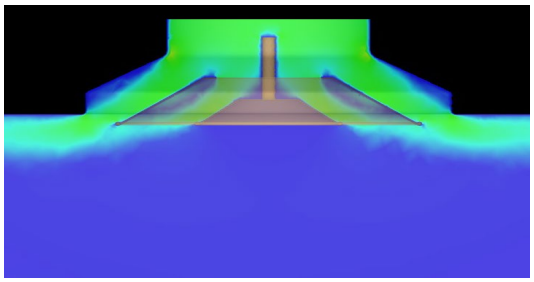
L (m) horizontal distance in metres from the centre of the diffuser
VL (m/s) maximum speed in the air stream

For Hr different from 4m:
Vo (h) = Vo x Kf

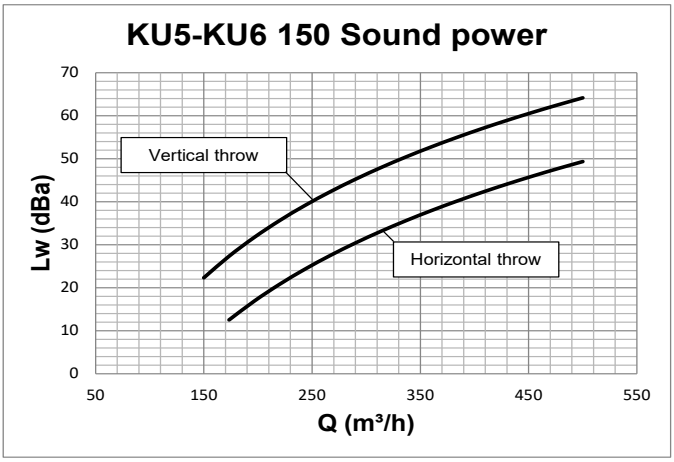




ADJUSTABLE CONES CIRCULAR DIFFUSERS

PERFORMANCE KU5-KU6 150

KU5
KU6
SERIES



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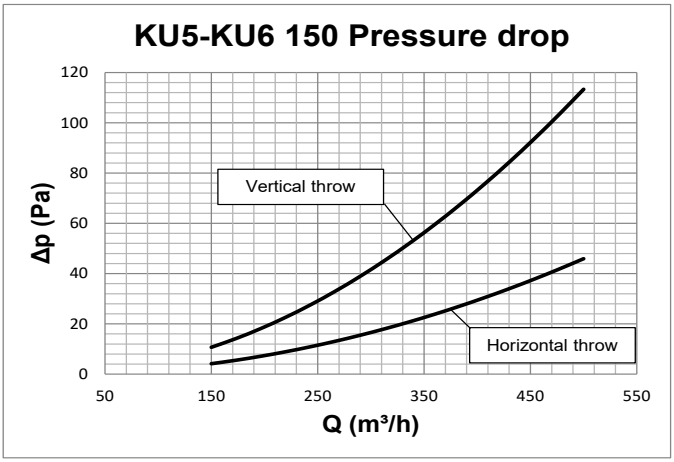
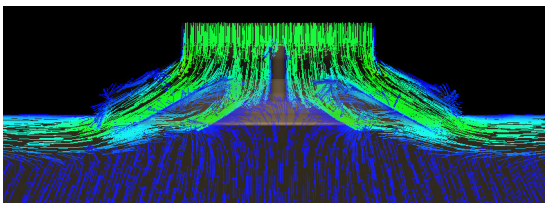
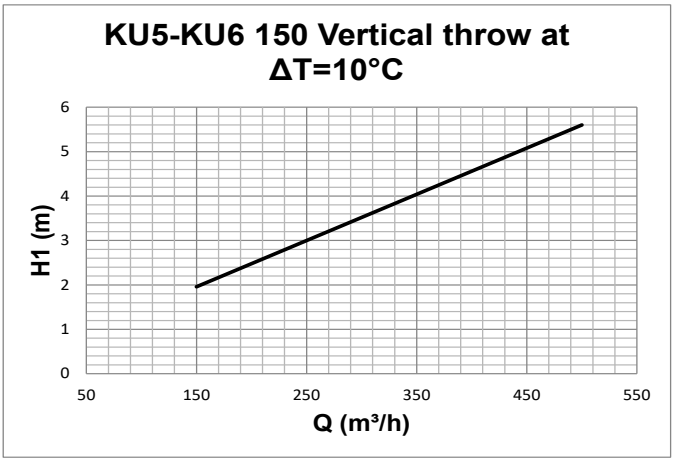
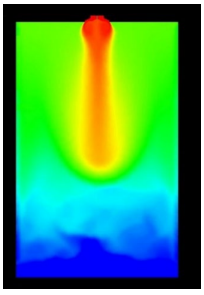


Data obtained by CFD mathematical model in virtual test room operating in accordance with the international standard:
ISO 5219 1984: *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*





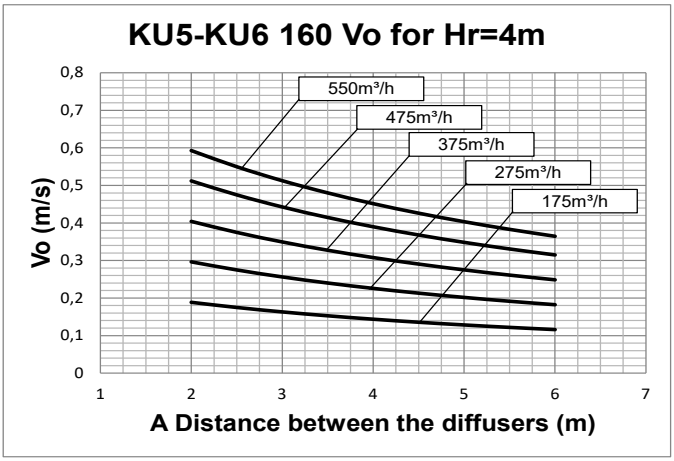
Data obtained from CFD mathematical model in virtual test room operating in heating conditions with ΔT = 10 ° C in accordance with the international standard:
ISO 5219 1984: *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*
H1 (m) vertical distance in metres from the centre of the diffuser at which there is the inversion of the direction of air

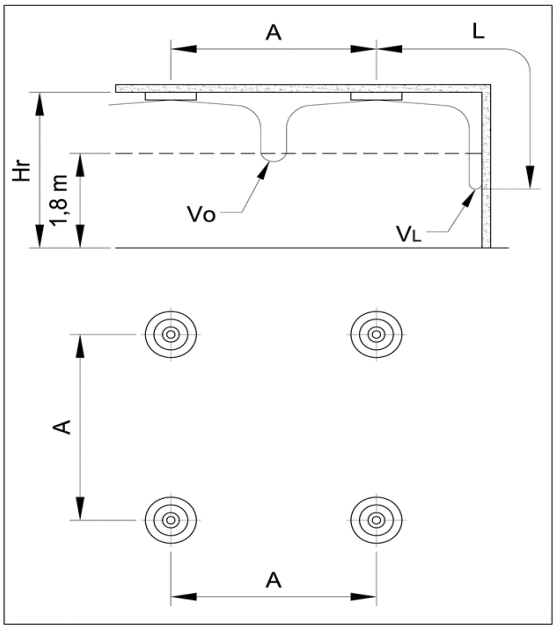


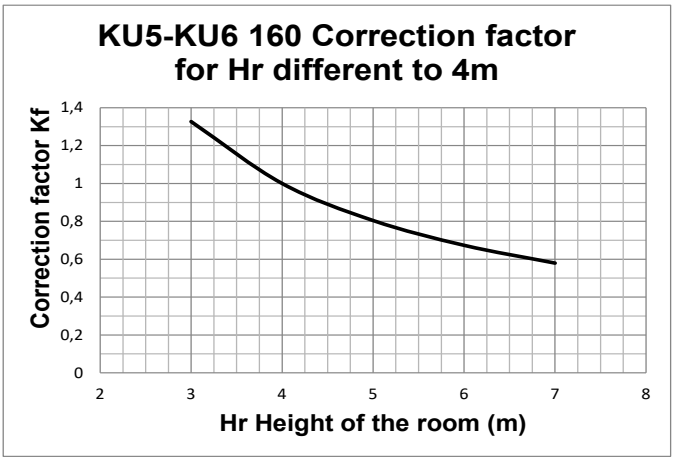
ADJUSTABLE CONES CIRCULAR DIFFUSERS

PERFORMANCE KU5-KU6 160

KU5
KU6
SERIES



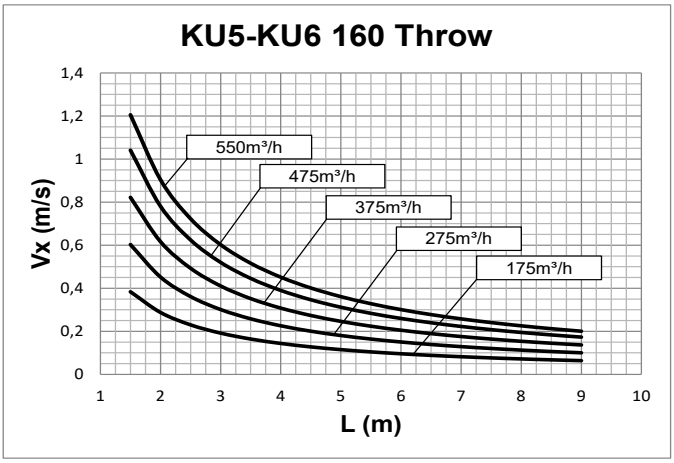


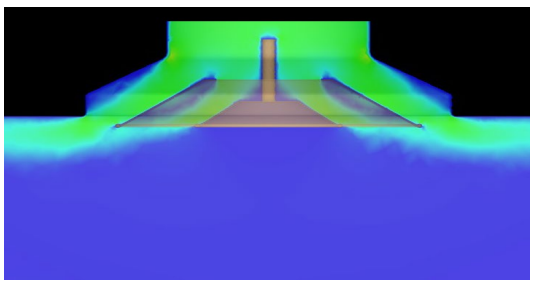


Data obtained from CFD mathematical model in virtual test room operating in isothermal conditions in accordance with the international standard:
ISO 5219 1984: *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*

A(m) distance between thwe diffusers
Vo (m/s) speed at the limit of the occupied zone
L (m) horizontal distance in metres from the centre of the diffuser
VL (m/s) maximum speed in the air stream

For Hr different from 4m:
Vo (h) = Vo x Kf

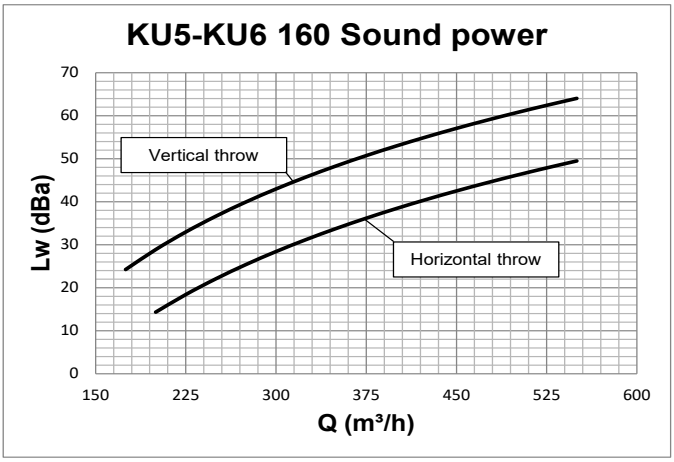




ADJUSTABLE CONES CIRCULAR DIFFUSERS

PERFORMANCE KU5-KU6 160

KU5
KU6
SERIES



Data measured in reverberation room in accordance with international standards:
ISO 3741 1999: *Acoustic - determination of sound power levels of noise sources using sound pressure - Precision methods for reverberation rooms*

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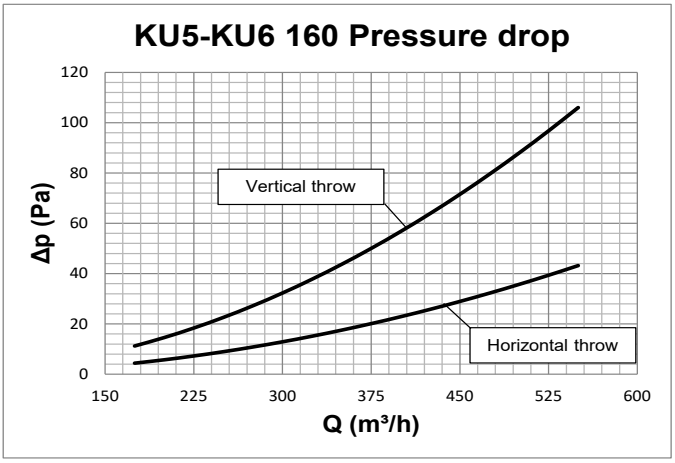
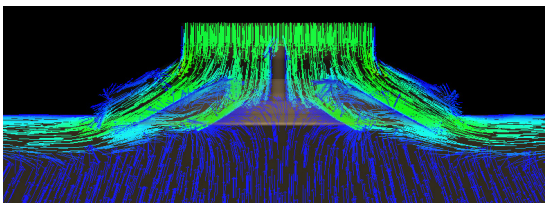
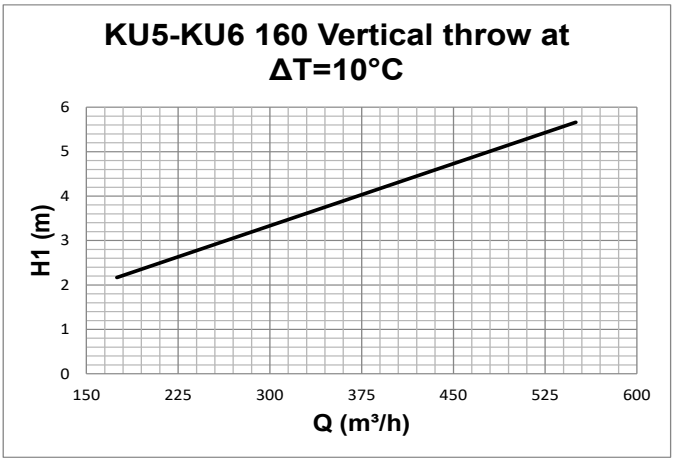
The data presented does not consider the attenuation given by the area of installation. This attenuation is normally between 6 and 10 dBA and is determined by the room size, the shape of the environment and the interior features.

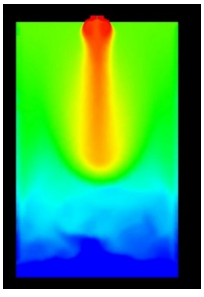


Data obtained by CFD mathematical model in virtual test room operating in accordance with the international standard:
ISO 5219 1984: *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*





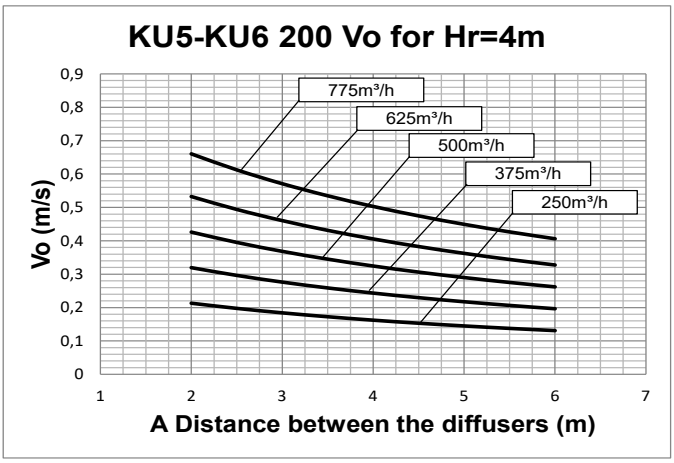
Data obtained from CFD mathematical model in virtual test room operating in heating conditions with ΔT = 10 ° C in accordance with the international standard:
ISO 5219 1984: *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*
H1 (m) vertical distance in metres from the centre of the diffuser at which there is the inversion of the direction of air

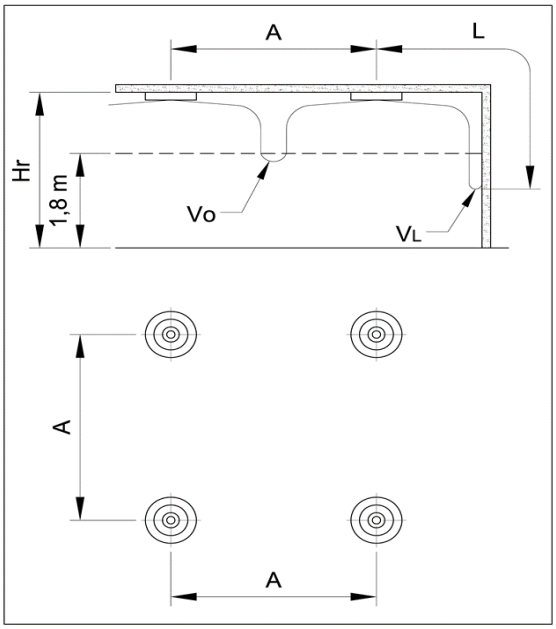


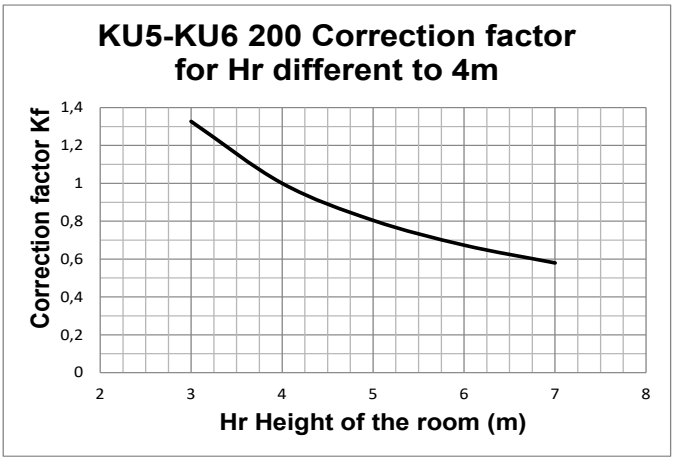
ADJUSTABLE CONES CIRCULAR DIFFUSERS

PERFORMANCE KU5-KU6 200

KU5
KU6
SERIES



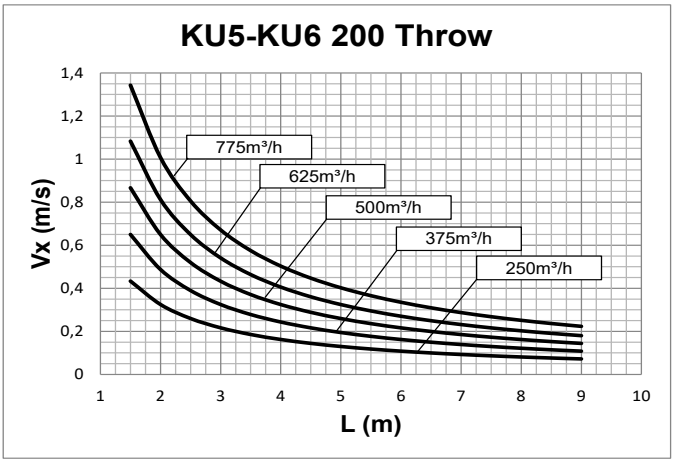


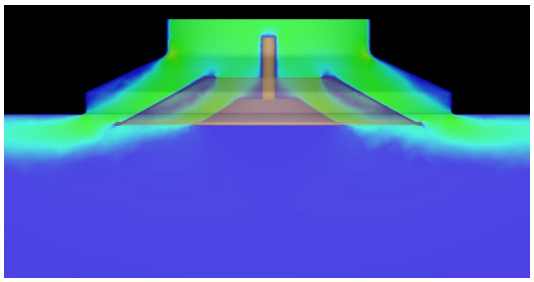


Data obtained from CFD mathematical model in virtual test room operating in isothermal conditions in accordance with the international standard:
ISO 5219 1984: *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*

A(m) distance between thwe diffusers
Vo (m/s) speed at the limit of the occupied zone
L (m) horizontal distance in metres from the centre of the diffuser
VL (m/s) maximum speed in the air stream

For Hr different from 4m:
Vo (h) = Vo x Kf

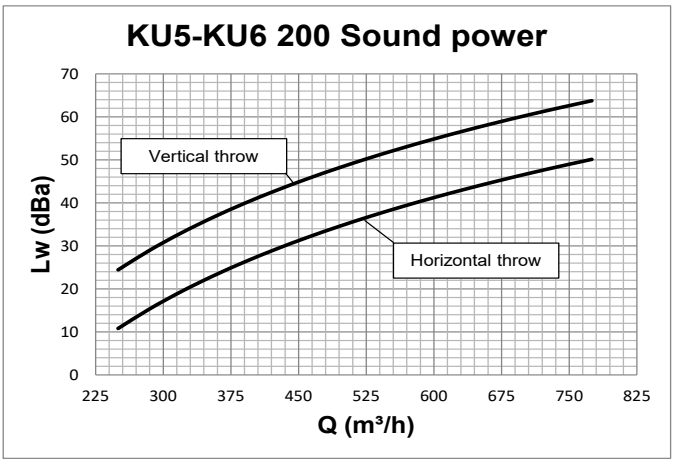




ADJUSTABLE CONES CIRCULAR DIFFUSERS

PERFORMANCE KU5-KU6 200

KU5
KU6
SERIES



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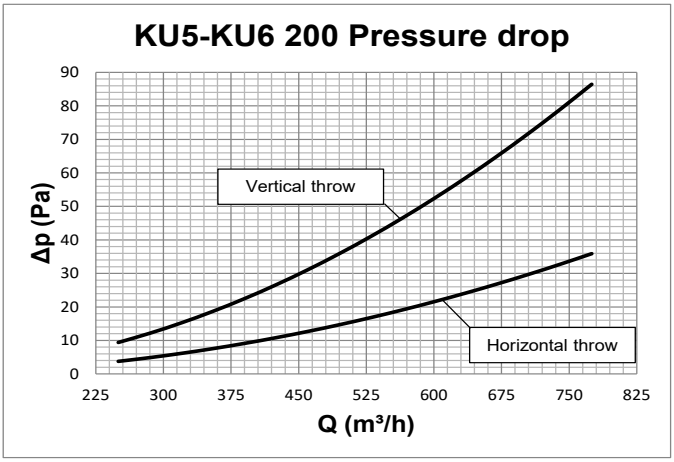

Data obtained by CFD mathematical model in virtual test room operating in accordance with the international standard:
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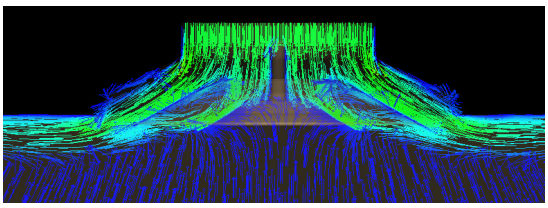
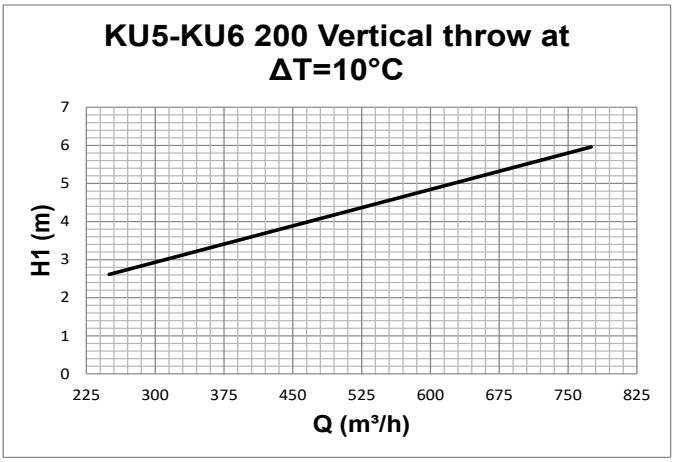
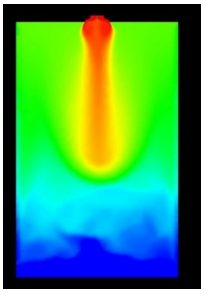




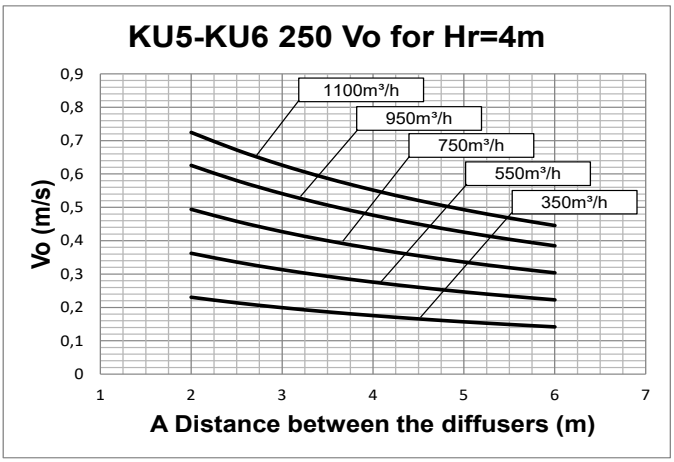
Data obtained from CFD mathematical model in virtual test room operating in heating conditions with ΔT = 10 ° C in accordance with the international standard:
ISO 5219 1984: *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*
H1 (m) vertical distance in metres from the centre of the diffuser at which there is the inversion of the direction of air

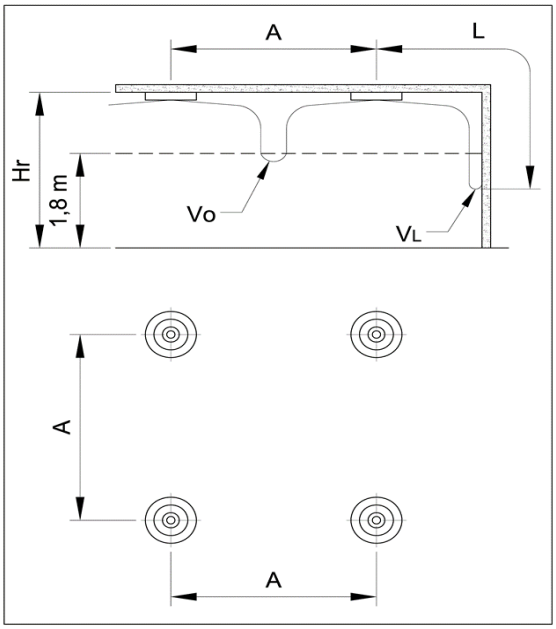


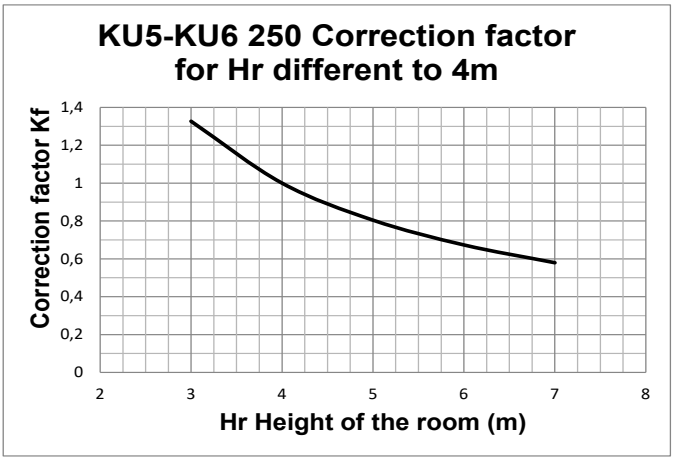
ADJUSTABLE CONES CIRCULAR DIFFUSERS

PERFORMANCE KU5-KU6 250

KU5
KU6
SERIES



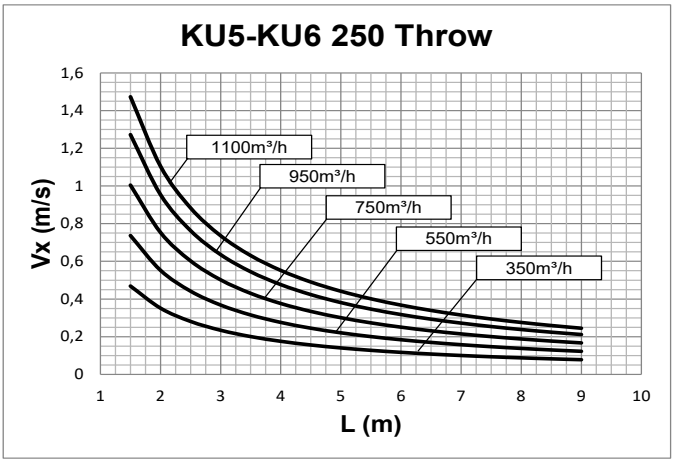


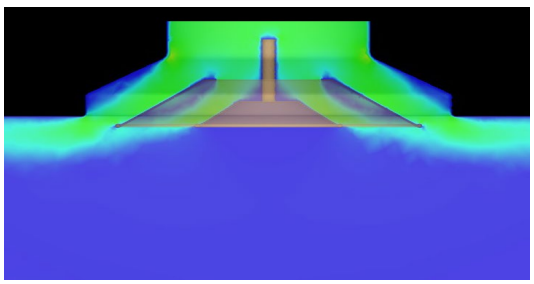


Data obtained from CFD mathematical model in virtual test room operating in isothermal conditions in accordance with the international standard:
ISO 5219 1984: *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*

A(m) distance between thwe diffusers
Vo (m/s) speed at the limit of the occupied zone
L (m) horizontal distance in metres from the centre of the diffuser
VL (m/s) maximum speed in the air stream

For Hr different from 4m:
Vo (h) = Vo x Kf

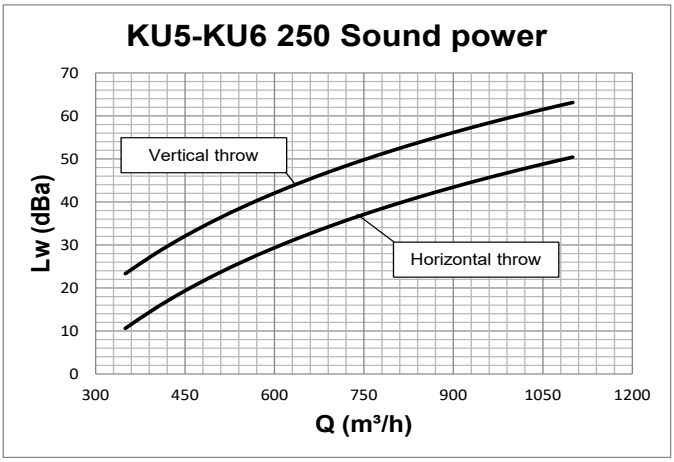




ADJUSTABLE CONES CIRCULAR DIFFUSERS

PERFORMANCE KU5-KU6 250

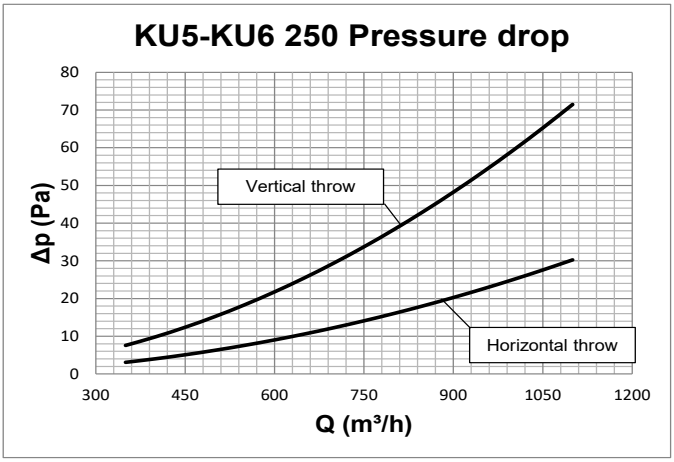
KU5
KU6
SERIES



Data measured in reverberation room in accordance with international standards:
ISO 3741 1999: *Acoustic - determination of sound power levels of noise sources using sound pressure - Precision methods for reverberation rooms*

ISO 5135 1997: *Acoustic - determination of sound power levels of noise from air-terminal devices ; air terminal units; dampers and valves by measurement in a reverberation room.*

The data presented does not consider the attenuation given by the area of installation. This attenuation is normally between 6 and 10 dBA and is determined by the room size, the shape of the environment and the interior features.



Data obtained by CFD mathematical model in virtual test room operating in accordance with the international standard:
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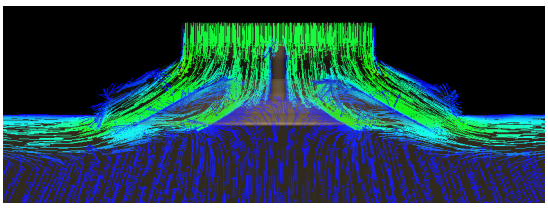
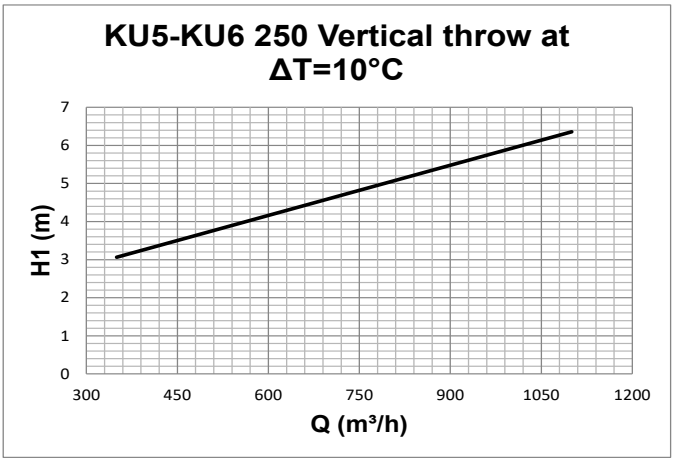
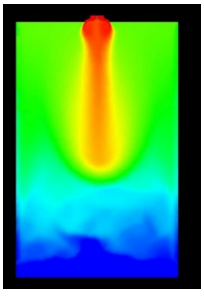




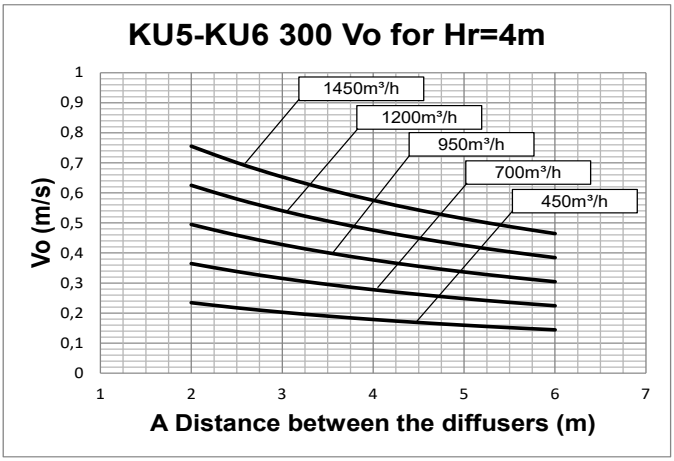
Data obtained from CFD mathematical model in virtual test room operating in heating conditions with ΔT = 10 ° C in accordance with the international standard:
ISO 5219 1984: *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*
H1 (m) vertical distance in metres from the centre of the diffuser at which there is the inversion of the direction of air

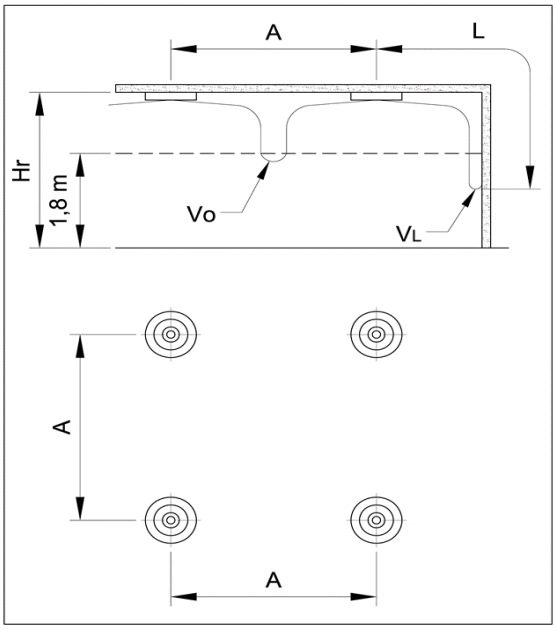


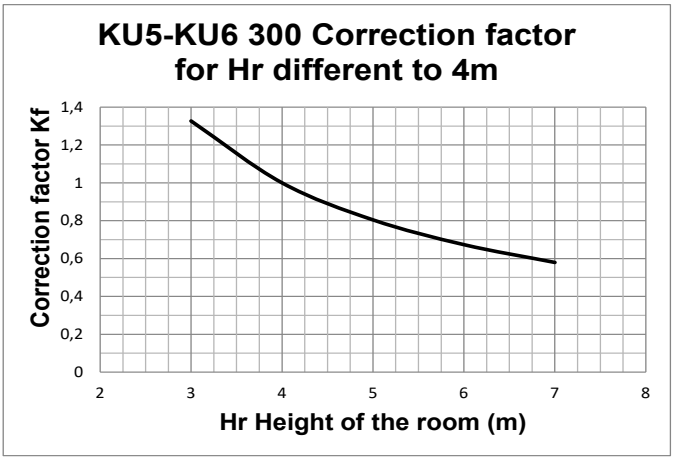
ADJUSTABLE CONES CIRCULAR DIFFUSERS

PERFORMANCE KU5-KU6 300

KU5
KU6
SERIES



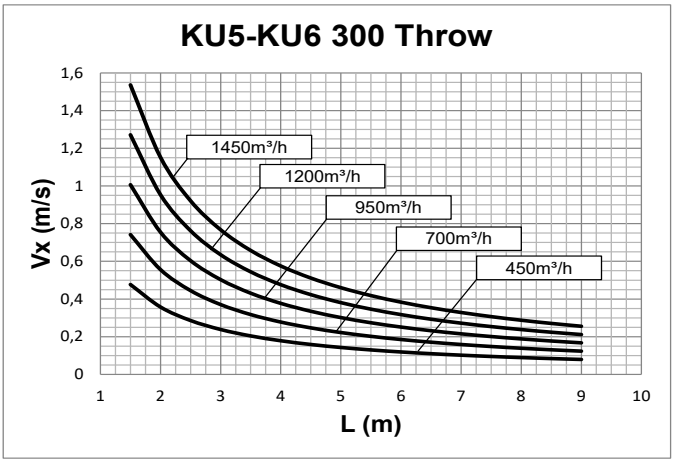


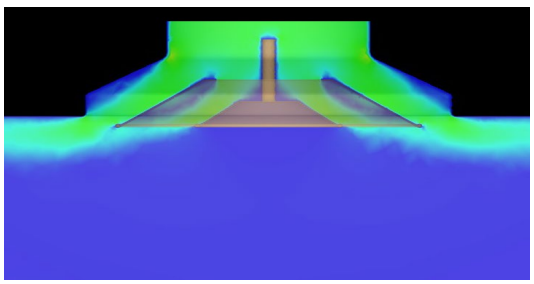


Data obtained from CFD mathematical model in virtual test room operating in isothermal conditions in accordance with the international standard:
ISO 5219 1984: *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*

A(m) distance between thwe diffusers
Vo (m/s) speed at the limit of the occupied zone
L (m) horizontal distance in metres from the centre of the diffuser
VL (m/s) maximum speed in the air stream

For Hr different from 4m:
Vo (h) = Vo x Kf

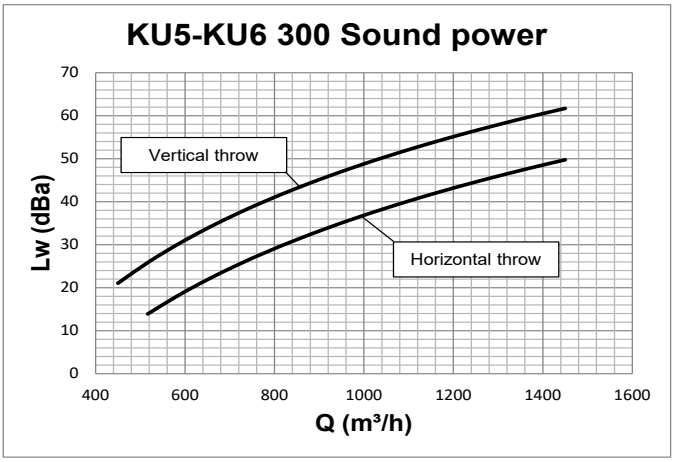




ADJUSTABLE CONES CIRCULAR DIFFUSERS

PERFORMANCE KU5-KU6 300

KU5
KU6
SERIES



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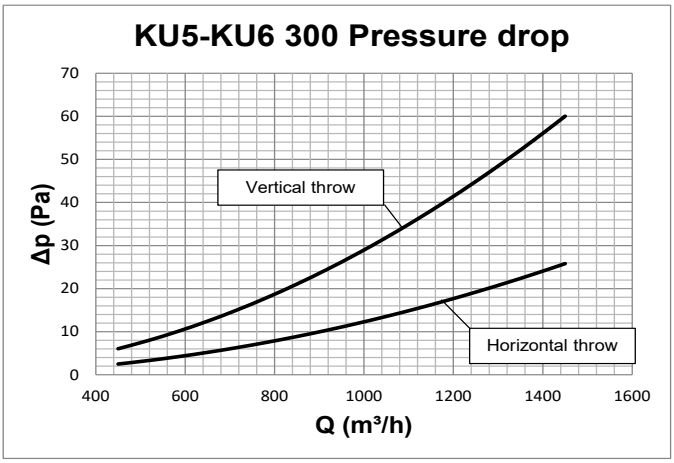
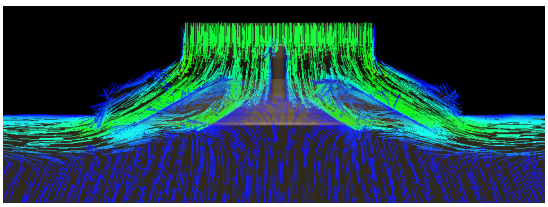
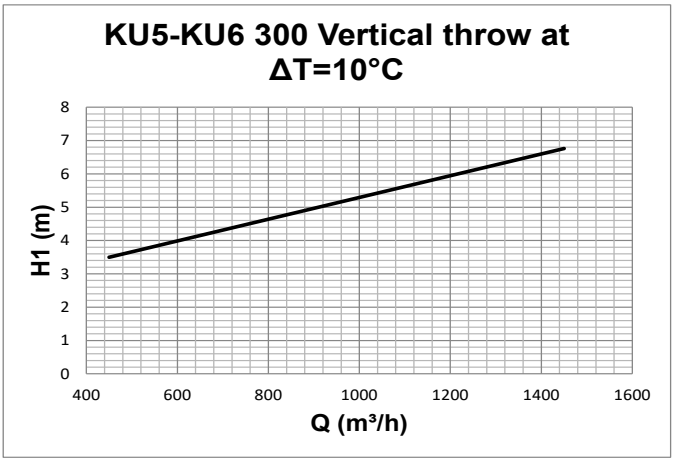
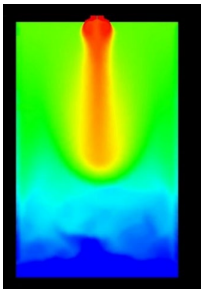


Data obtained by CFD mathematical model in virtual test room operating in accordance with the international standard:
ISO 5219 1984: *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*





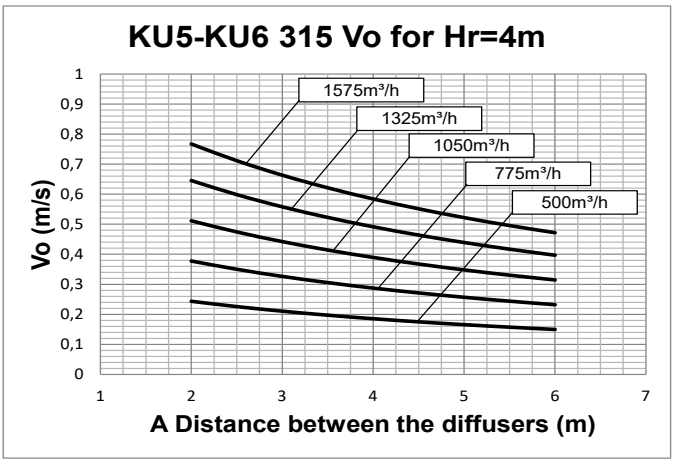
Data obtained from CFD mathematical model in virtual test room operating in heating conditions with ΔT = 10 ° C in accordance with the international standard:
ISO 5219 1984: *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*
H1 (m) vertical distance in metres from the centre of the diffuser at which there is the inversion of the direction of air

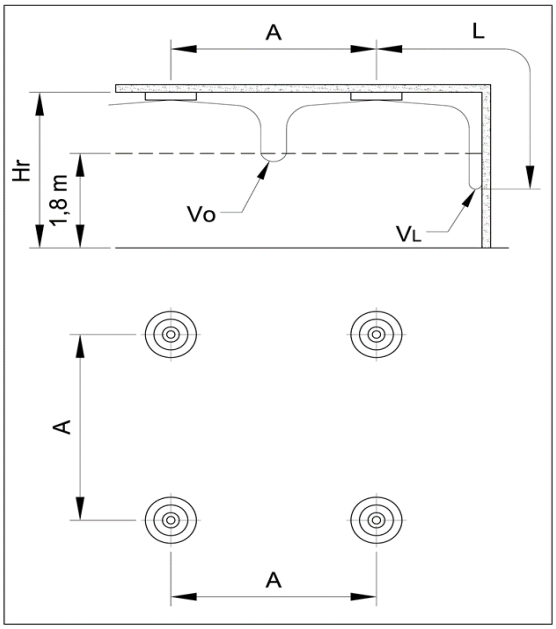


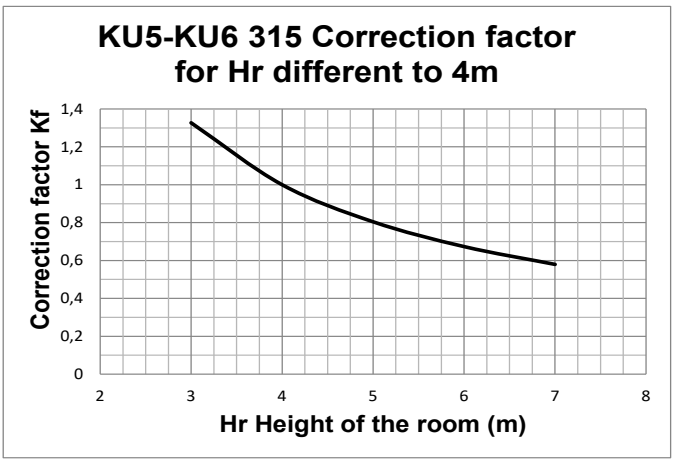
ADJUSTABLE CONES CIRCULAR DIFFUSERS

PERFORMANCE KU5-KU6 315

KU5
KU6
SERIES







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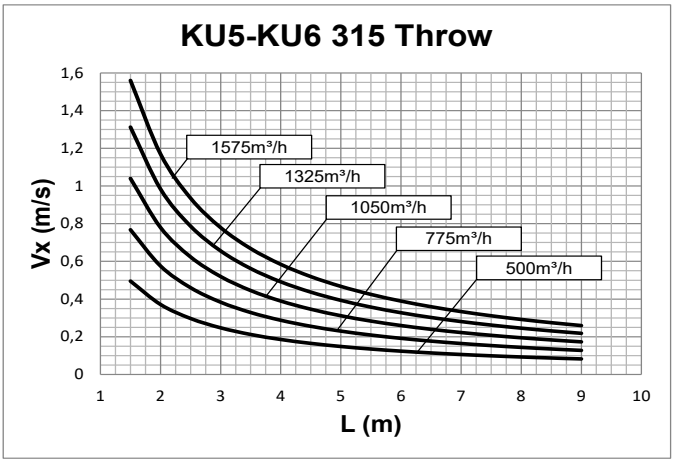
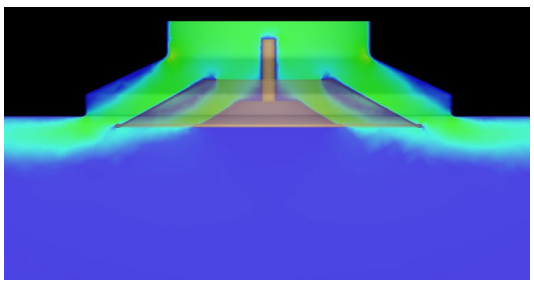
A(m) distance between thwe diffusers
Vo (m/s) speed at the limit of the occupied zone
L (m) horizontal distance in metres from the centre of the diffuser
VL (m/s) maximum speed in the air stream

For Hr different from 4m:
Vo (h) = Vo x Kf

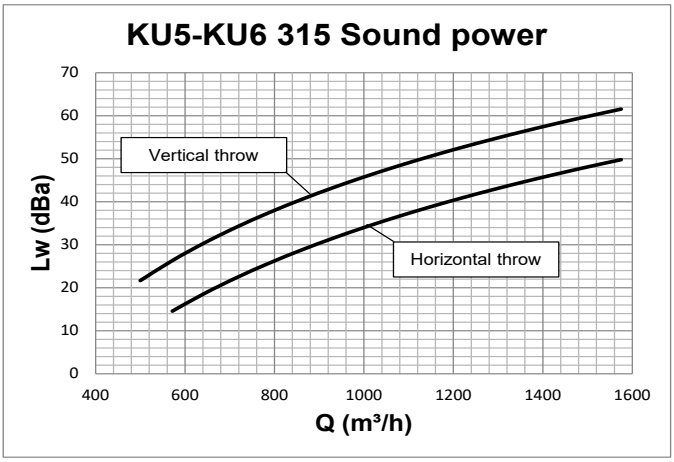




ADJUSTABLE CONES CIRCULAR DIFFUSERS

PERFORMANCE KU5-KU6 315

KU5
KU6
SERIES



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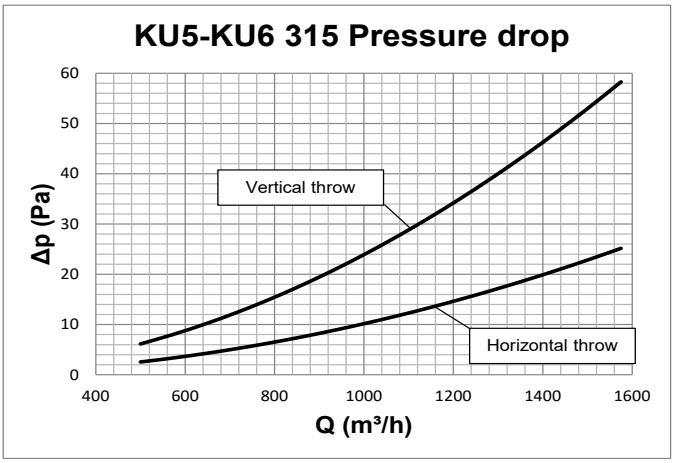
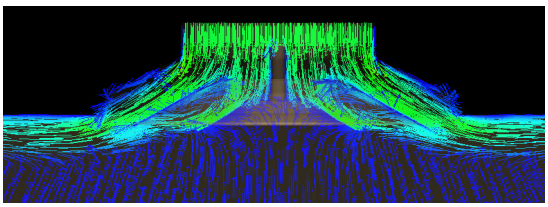
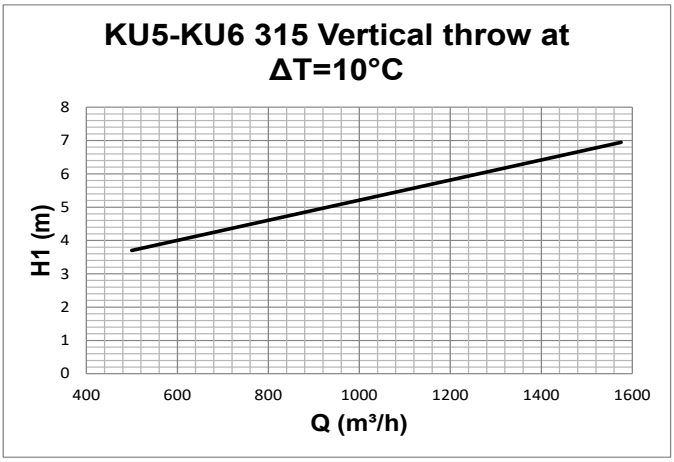
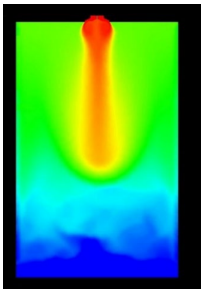


Data obtained by CFD mathematical model in virtual test room operating in accordance with the international standard:
ISO 5219 1984: *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*





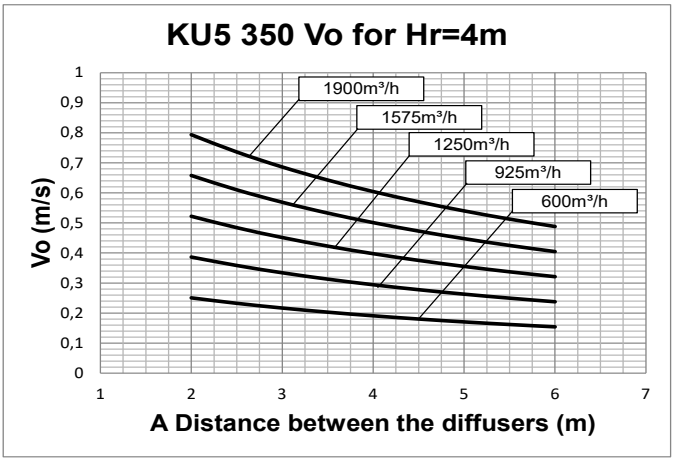
Data obtained from CFD mathematical model in virtual test room operating in heating conditions with ΔT = 10 ° C in accordance with the international standard:
ISO 5219 1984: *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*
H1 (m) vertical distance in metres from the centre of the diffuser at which there is the inversion of the direction of air

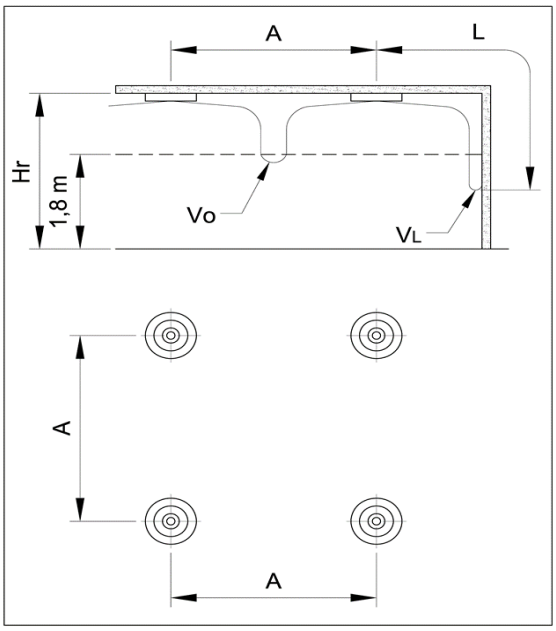


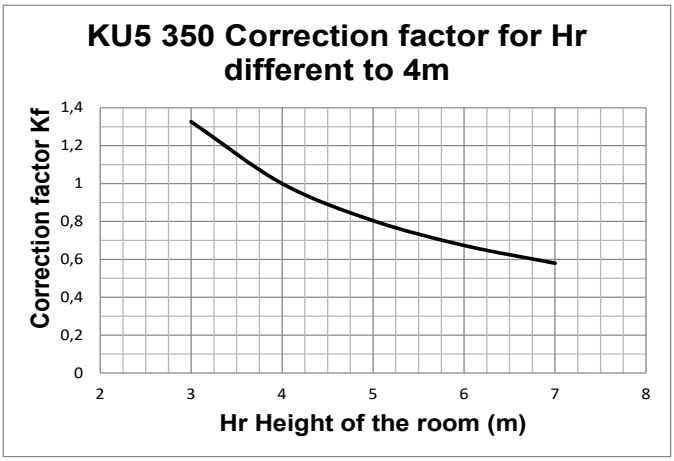
ADJUSTABLE CONES CIRCULAR DIFFUSERS

KU5 SERIES

PERFORMANCE KU5 350

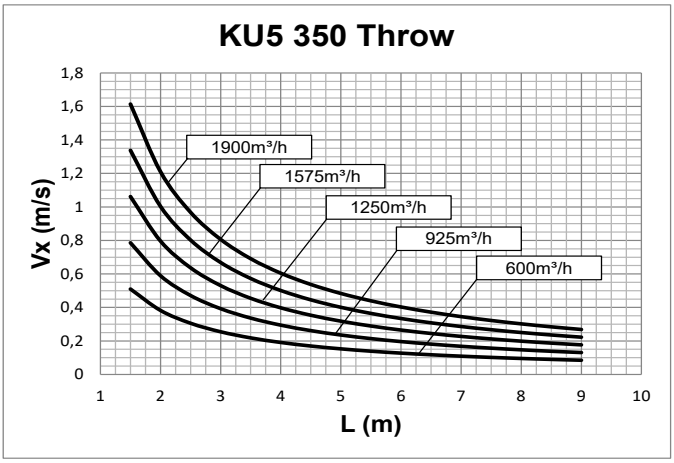




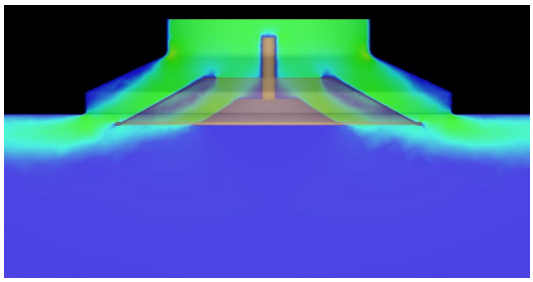


Data obtained from CFD mathematical model in virtual test room operating in isothermal conditions in accordance with the international standard:
ISO 5219 1984: *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*

A(m) distance between thwe diffusers
Vo (m/s) speed at the limit of the occupied zone
L (m) horizontal distance in metres from the centre of the diffuser
VL (m/s) maximum speed in the air stream



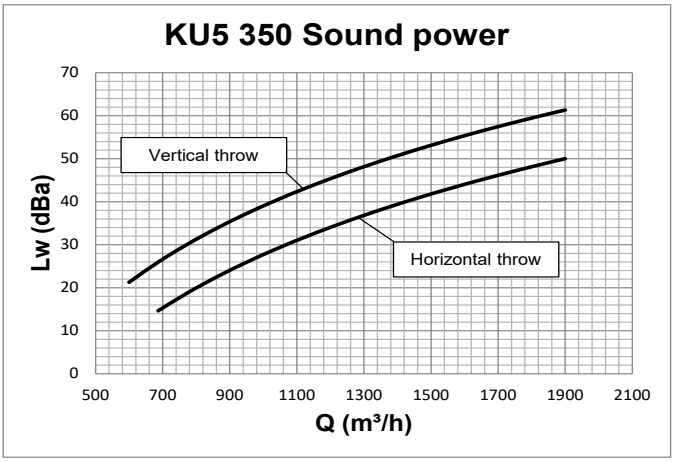
For Hr different from 4m:
Vo (h) = Vo x Kf



ADJUSTABLE CONES CIRCULAR DIFFUSERS

PERFORMANCE KU5 350

KU5
SERIES



Data measured in reverberation room in accordance with international standards:
ISO 3741 1999: *Acoustic - determination of sound power levels of noise sources using sound pressure - Precision methods for reverberation rooms*

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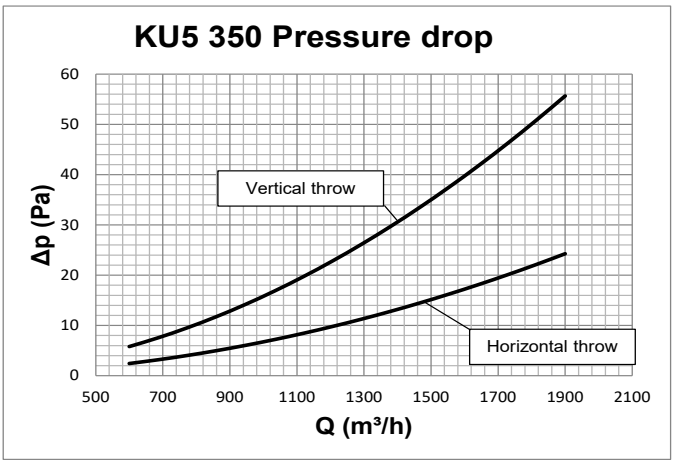

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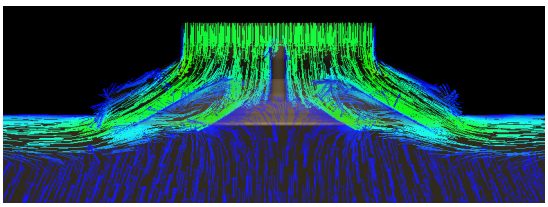
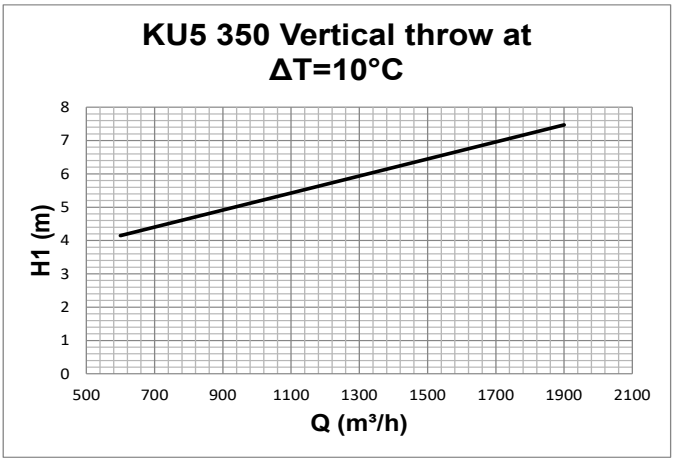
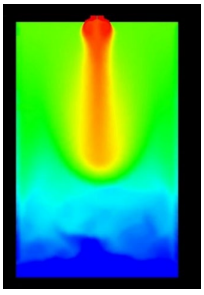




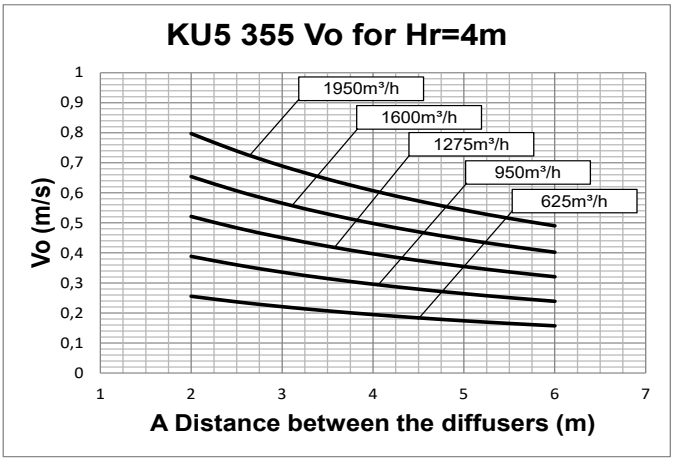
Data obtained from CFD mathematical model in virtual test room operating in heating conditions with ΔT = 10 ° C in accordance with the international standard:
ISO 5219 1984: *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*
H1 (m) vertical distance in metres from the centre of the diffuser at which there is the inversion of the direction of air

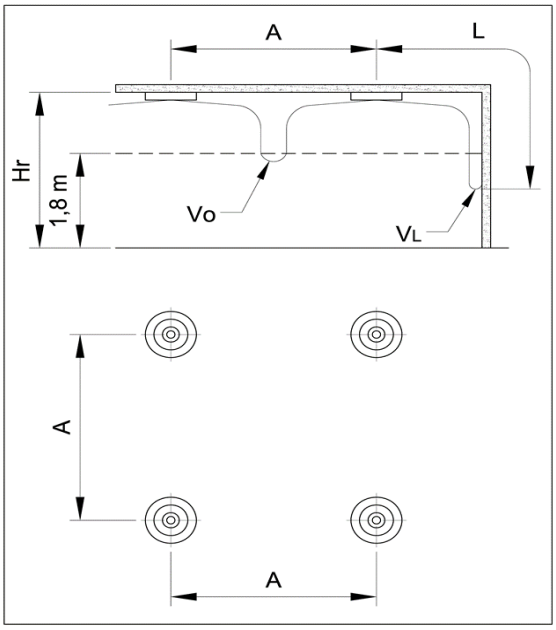


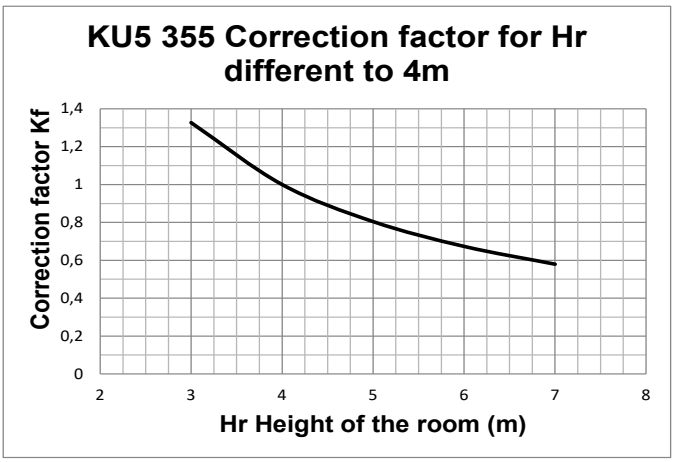
ADJUSTABLE CONES CIRCULAR DIFFUSERS

KU5 SERIES

PERFORMANCE KU5 355







Data obtained from CFD mathematical model in virtual test room operating in isothermal conditions in accordance with the international standard:
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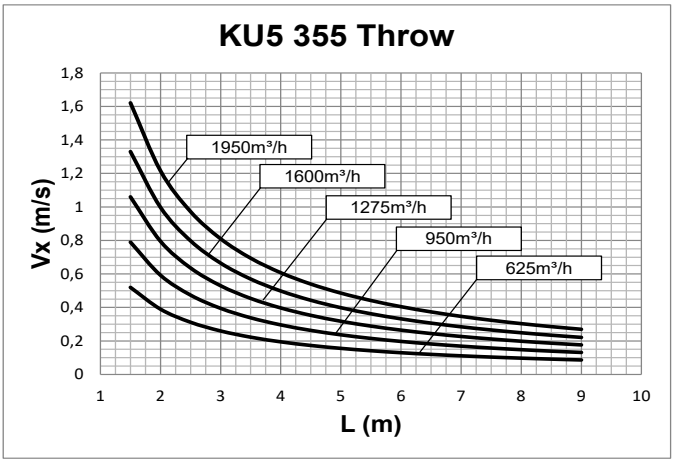
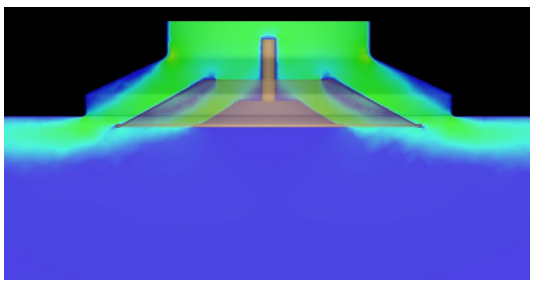
L (m) horizontal distance in metres from the centre of the diffuser
VL (m/s) maximum speed in the air stream

For Hr different from 4m:
Vo (h) = Vo x Kf

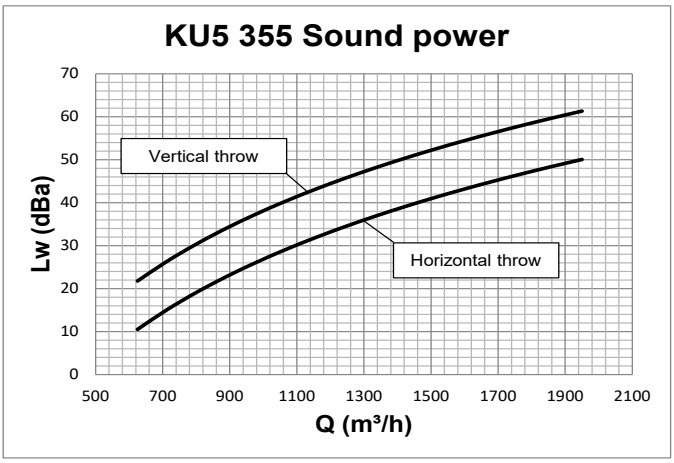




ADJUSTABLE CONES CIRCULAR DIFFUSERS

PERFORMANCE KU5 355

KU5
SERIES



Data measured in reverberation room in accordance with international standards:
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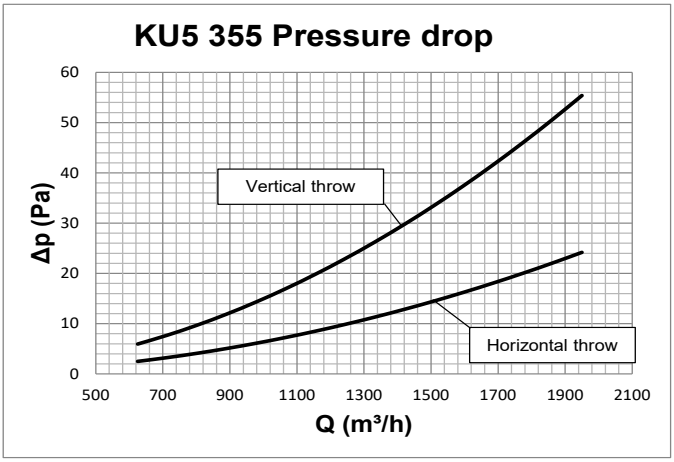

Data obtained by CFD mathematical model in virtual test room operating in accordance with the international standard:
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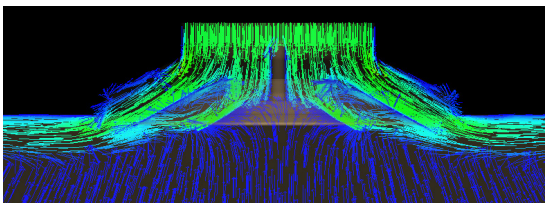
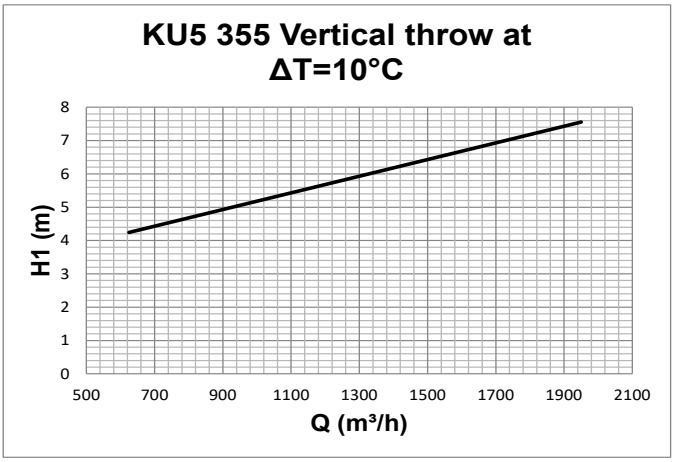
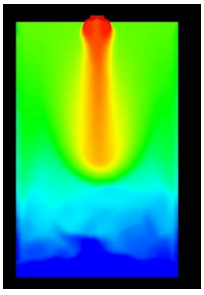




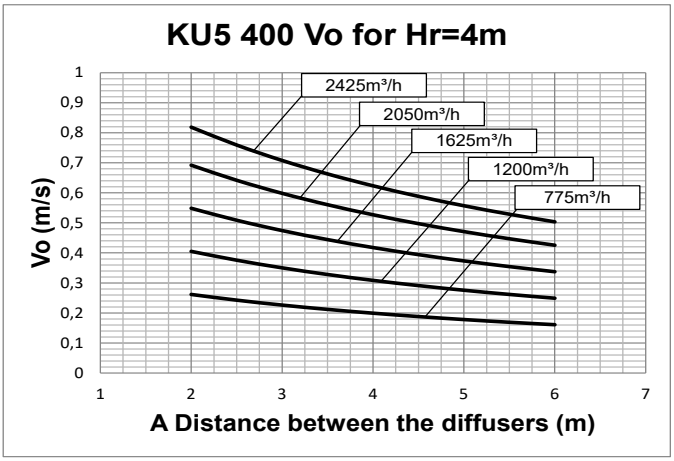
Data obtained from CFD mathematical model in virtual test room operating in heating conditions with ΔT = 10 ° C in accordance with the international standard:
ISO 5219 1984: *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*
H1 (m) vertical distance in metres from the centre of the diffuser at which there is the inversion of the direction of air

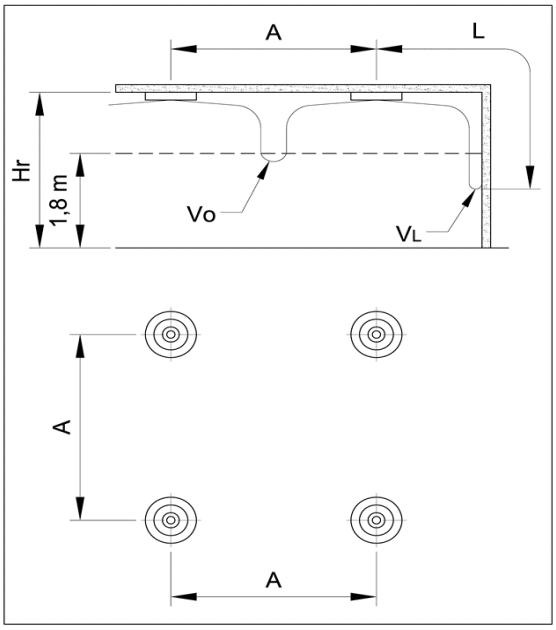


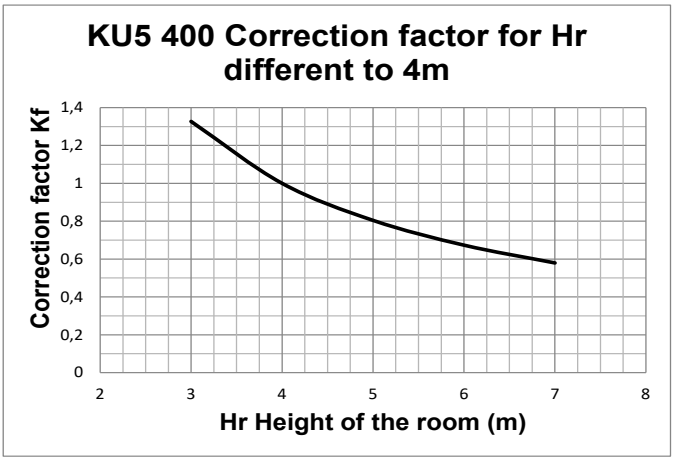
ADJUSTABLE CONES CIRCULAR DIFFUSERS

KU5
SERIES

PERFORMANCE KU5 400







Data obtained from CFD mathematical model in virtual test room operating in isothermal conditions in accordance with the international standard:
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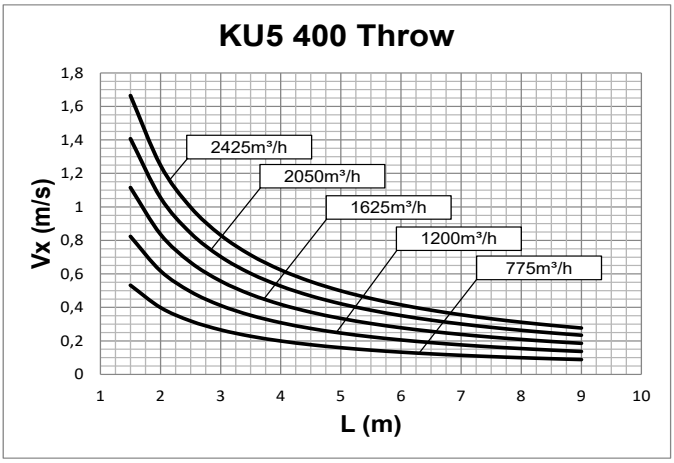
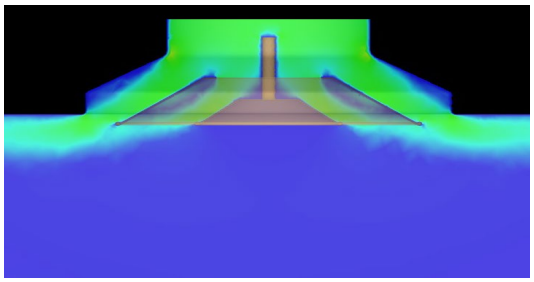
For Hr different from 4m:
Vo (h) = Vo x Kf

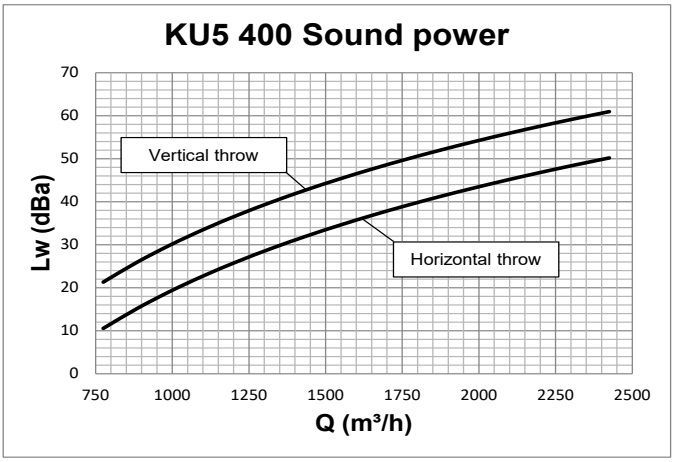




ADJUSTABLE CONES CIRCULAR DIFFUSERS

PERFORMANCE KU5 400

KU5
SERIES



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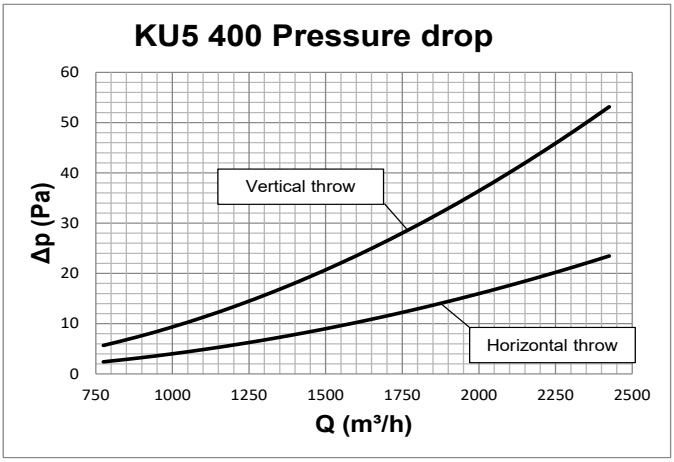

Data obtained by CFD mathematical model in virtual test room operating in accordance with the international standard:
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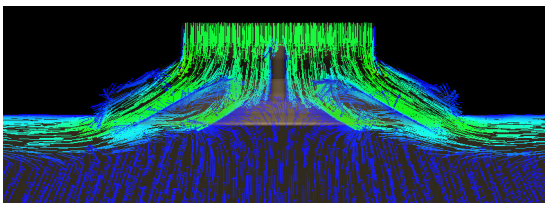
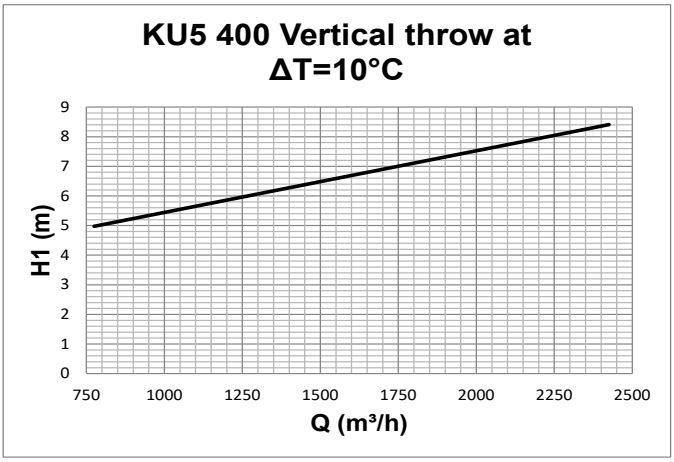
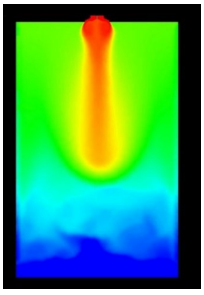




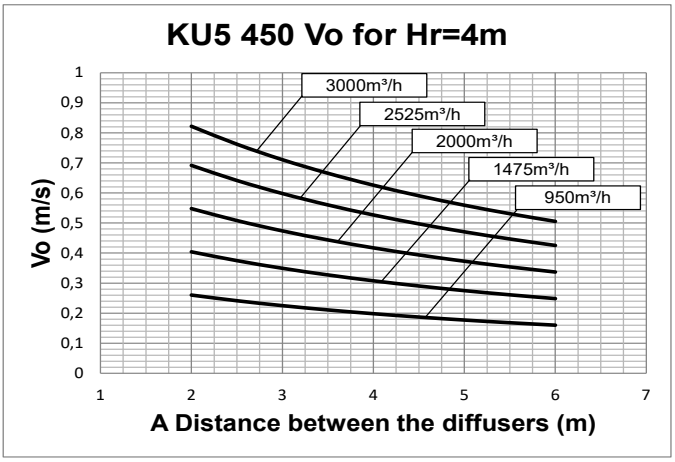
Data obtained from CFD mathematical model in virtual test room operating in heating conditions with ΔT = 10 ° C in accordance with the international standard:
ISO 5219 1984: *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*
H1 (m) vertical distance in metres from the centre of the diffuser at which there is the inversion of the direction of air

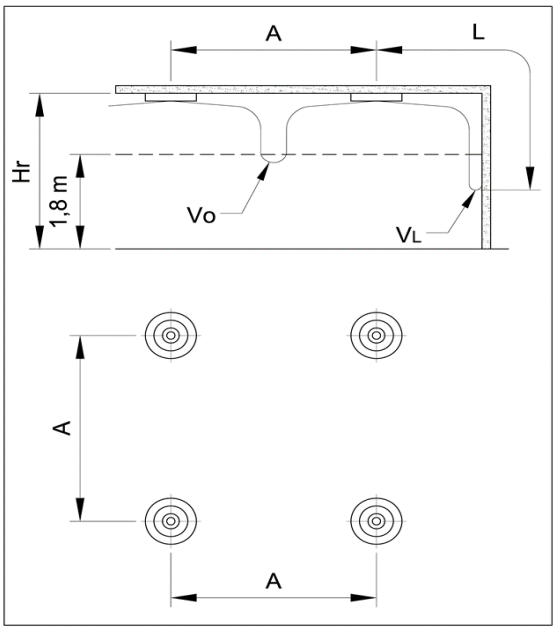


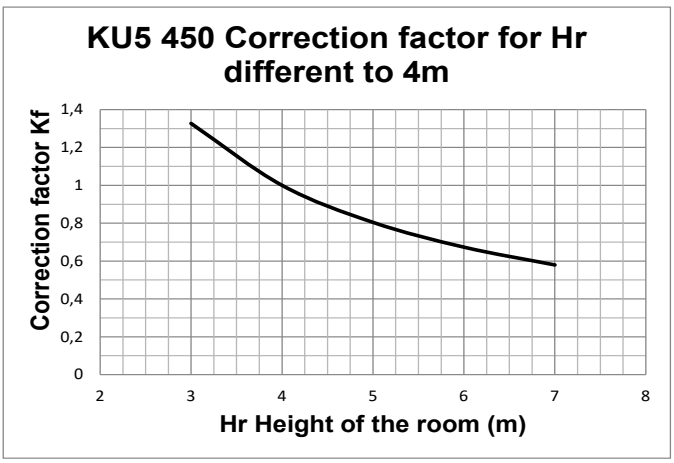
ADJUSTABLE CONES CIRCULAR DIFFUSERS

KU5
SERIES

PERFORMANCE KU5 450







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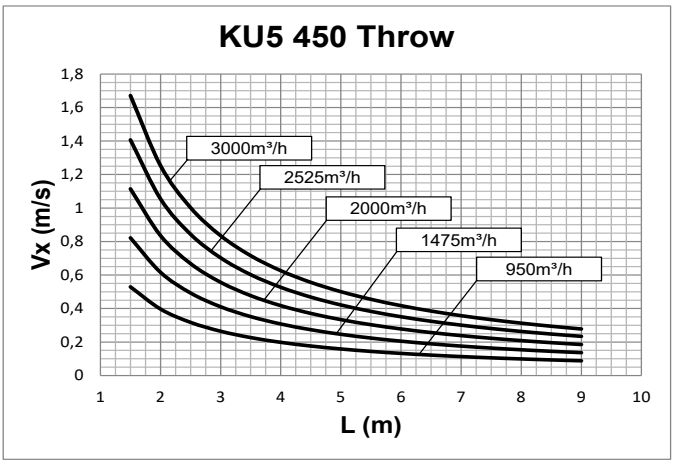
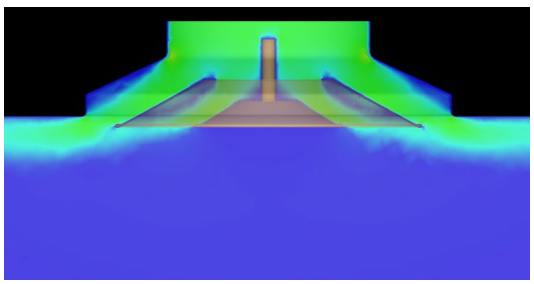
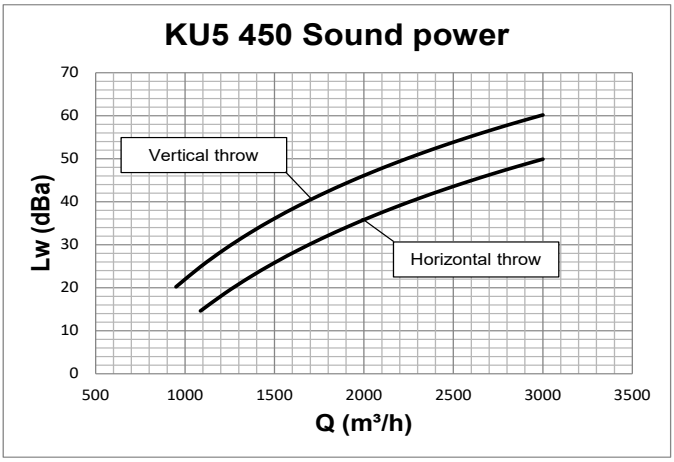




ADJUSTABLE CONES CIRCULAR DIFFUSERS

PERFORMANCE KU5 450

KU5
SERIES



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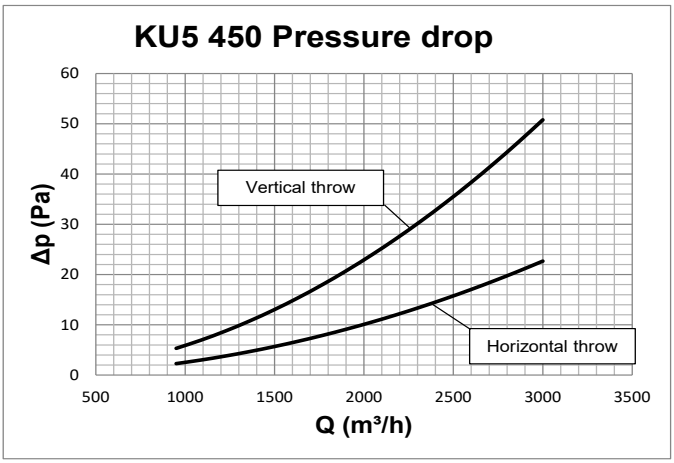

Data obtained by CFD mathematical model in virtual test room operating in accordance with the international standard:
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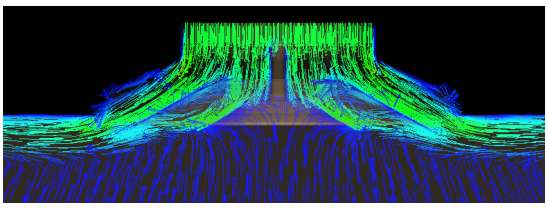
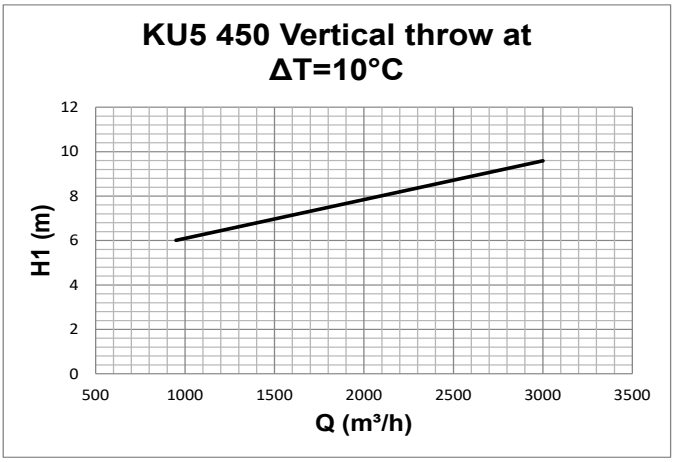
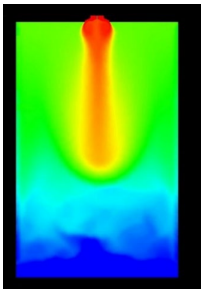




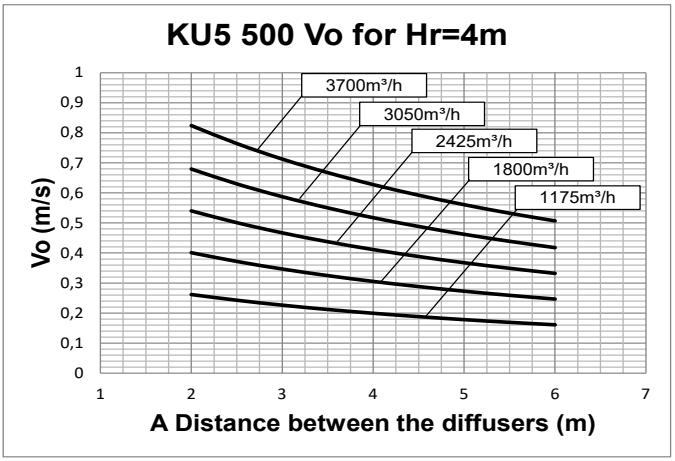
Data obtained from CFD mathematical model in virtual test room operating in heating conditions with ΔT = 10 ° C in accordance with the international standard:
ISO 5219 1984: *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*
H1 (m) vertical distance in metres from the centre of the diffuser at which there is the inversion of the direction of air

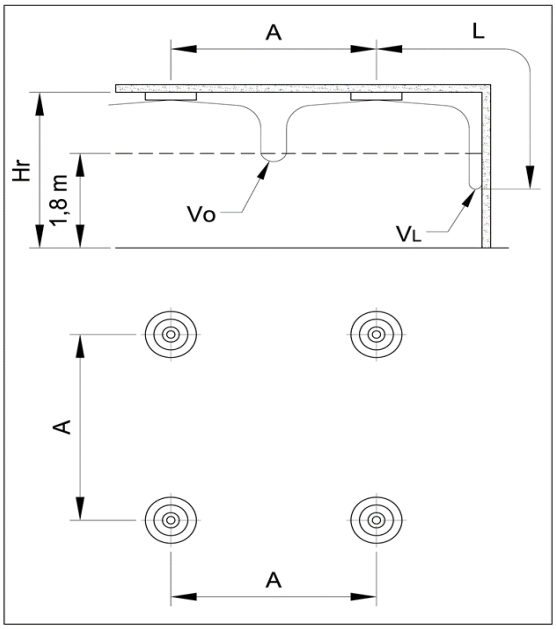


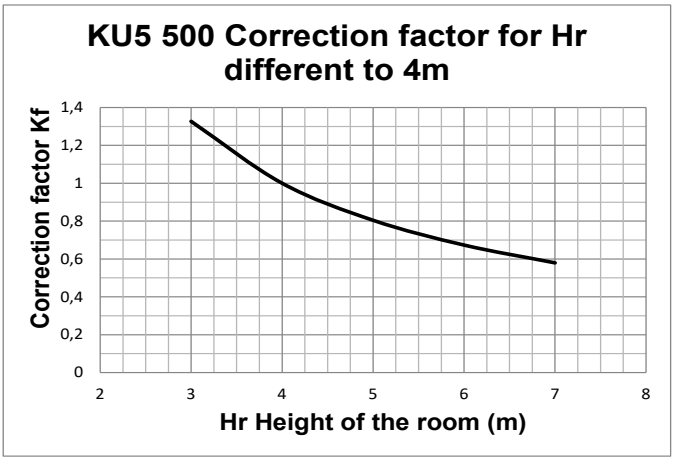
ADJUSTABLE CONES CIRCULAR DIFFUSERS

PERFORMANCE KU5 500

KU5
SERIES



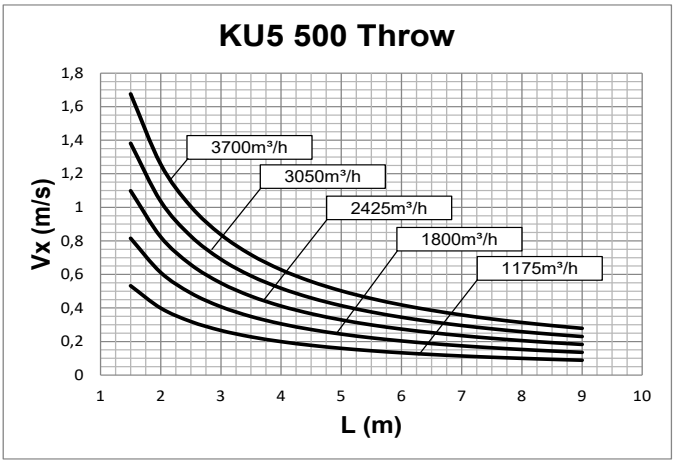


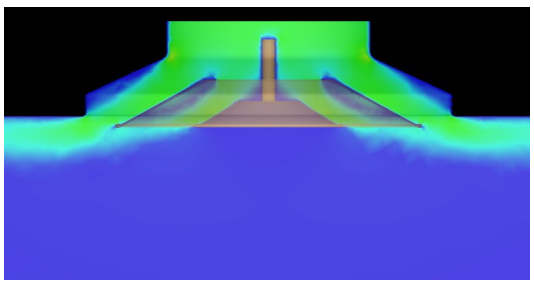


Data obtained from CFD mathematical model in virtual test room operating in isothermal conditions in accordance with the international standard:
ISO 5219 1984: *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*

A(m) distance between thwe diffusers
Vo (m/s) speed at the limit of the occupied zone
L (m) horizontal distance in metres from the centre of the diffuser
VL (m/s) maximum speed in the air stream

For Hr different from 4m:
Vo (h) = Vo x Kf

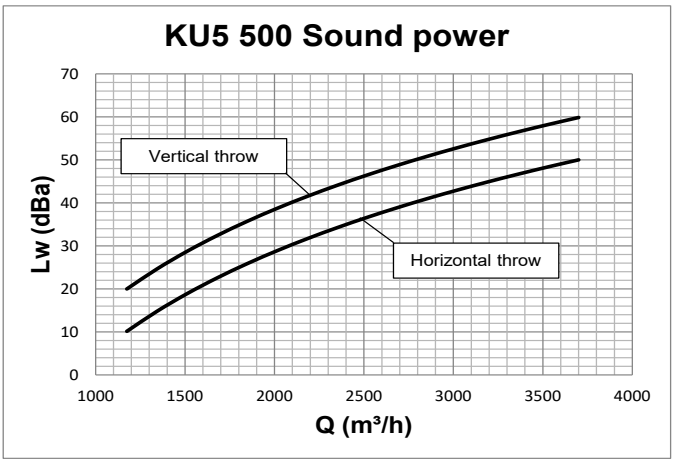




ADJUSTABLE CONES CIRCULAR DIFFUSERS

PERFORMANCE KU5 500

KU5
SERIES



Data measured in reverberation room in accordance with international standards:
ISO 3741 1999: *Acoustic - determination of sound power levels of noise sources using sound pressure - Precision methods for reverberation rooms*

ISO 5135 1997: *Acoustic - determination of sound power levels of noise from air-terminal devices ; air terminal units; dampers and valves by measurement in a reverberation room.*

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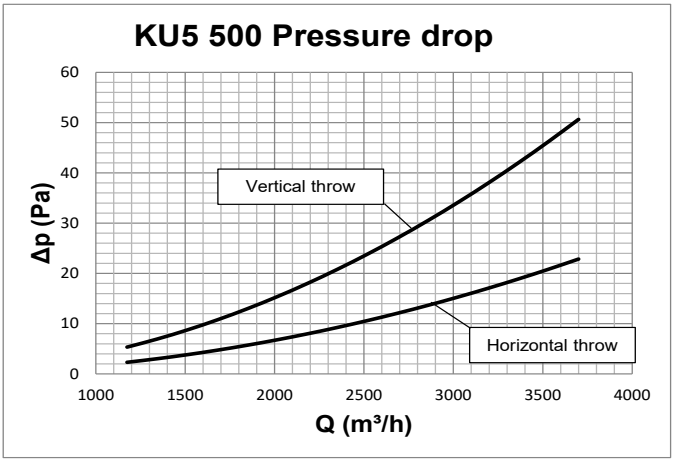

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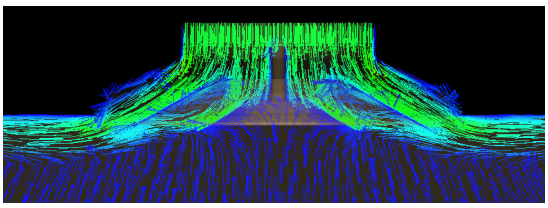

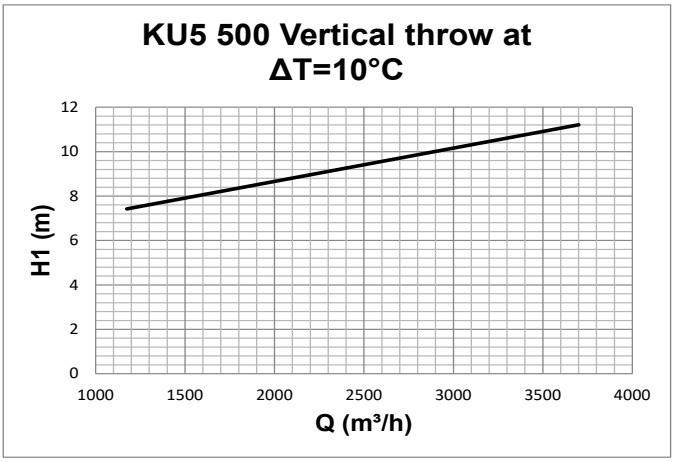

Data obtained from CFD mathematical model in virtual test room operating in heating conditions with ΔT = 10 ° C in accordance with the international standard:
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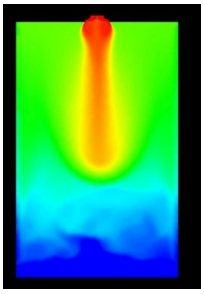
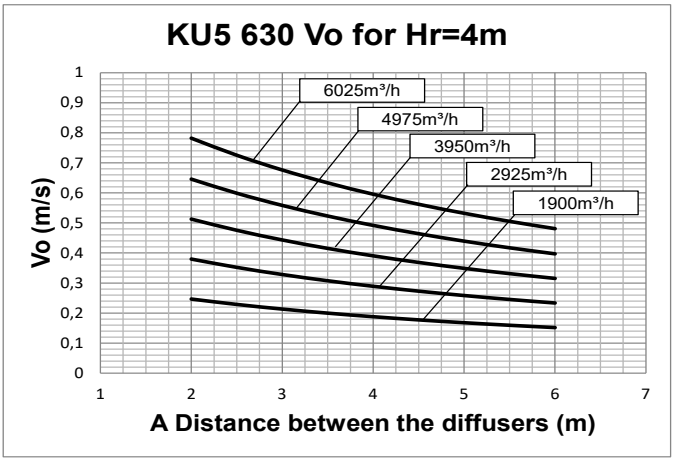
H1 (m) vertical distance in metres from the centre of the diffuser at which there is the inversion of the direction of air

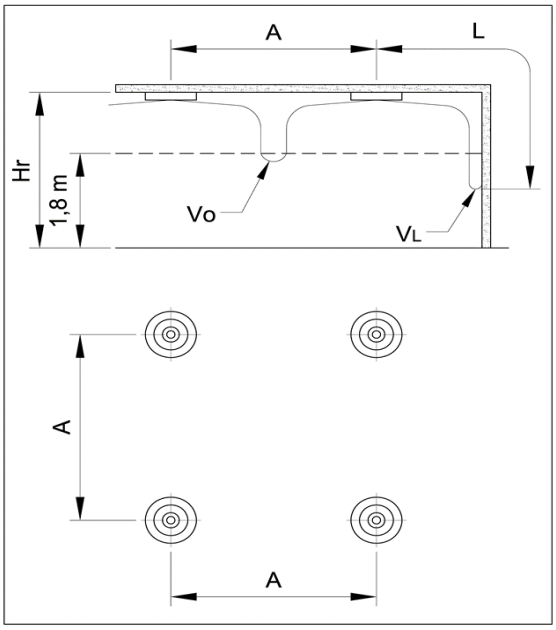


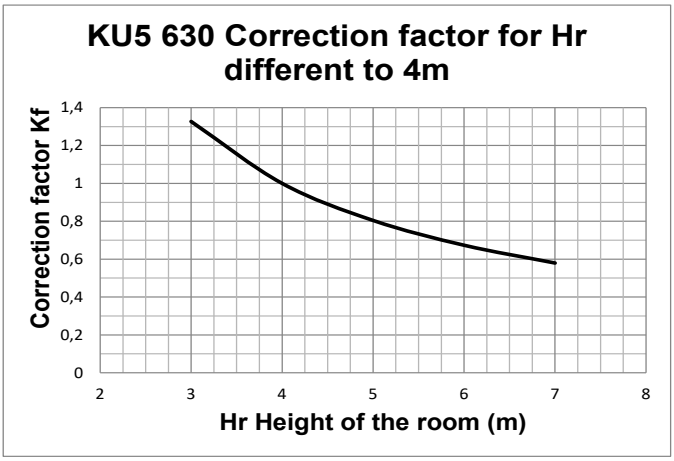
ADJUSTABLE CONES CIRCULAR DIFFUSERS

PERFORMANCE KU5 630

KU5
SERIES







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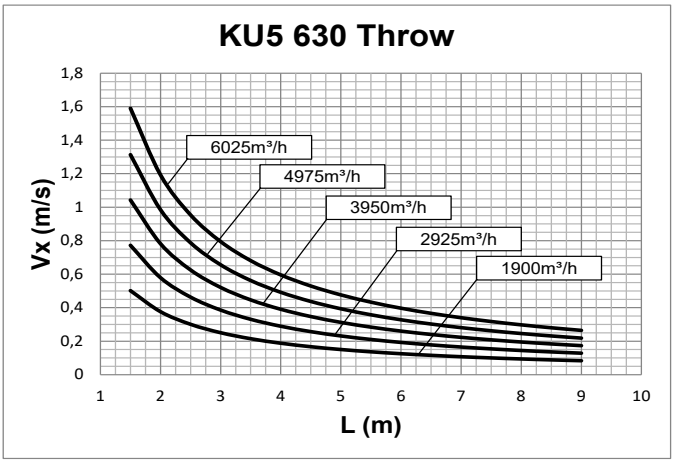
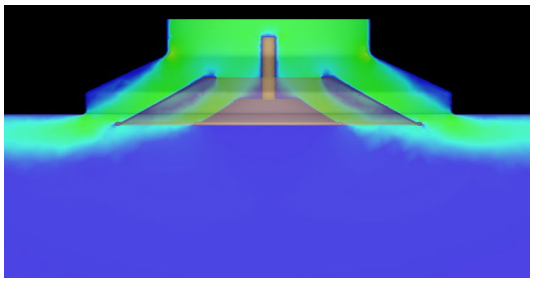
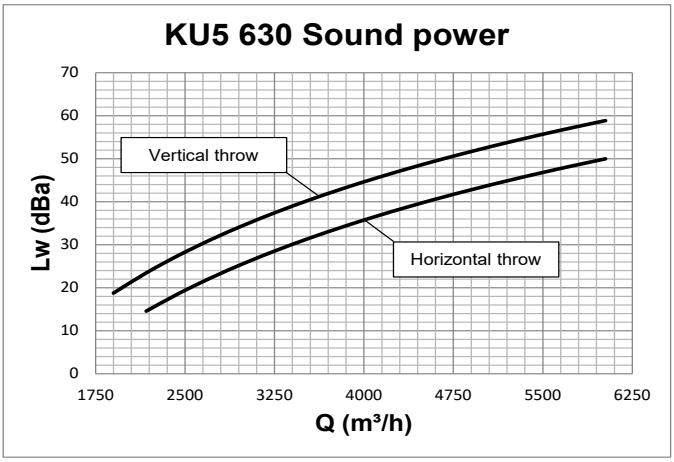




ADJUSTABLE CONES CIRCULAR DIFFUSERS

PERFORMANCE KU5 630

KU5
SERIES



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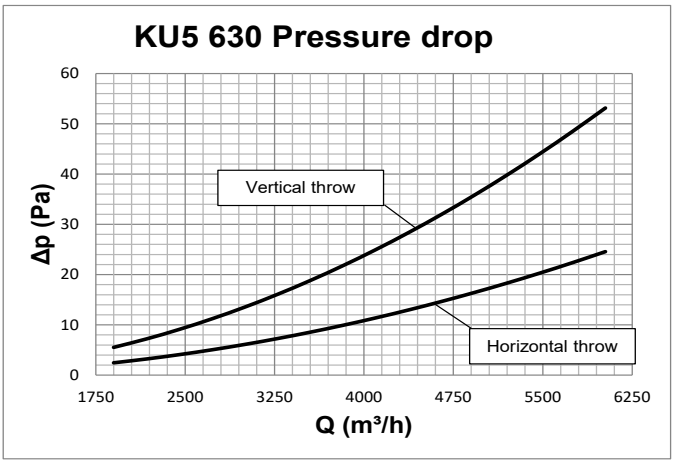

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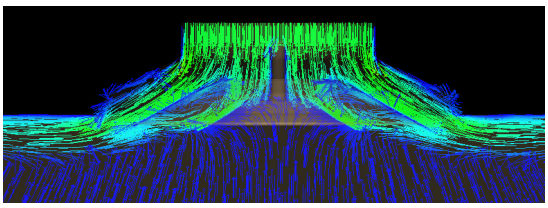

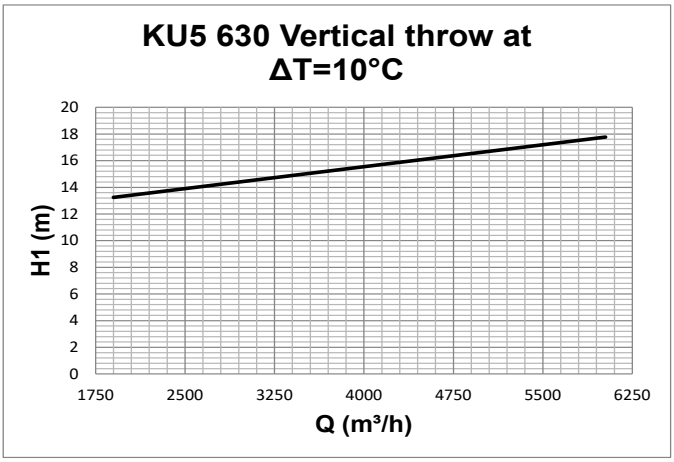

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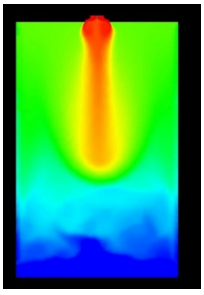
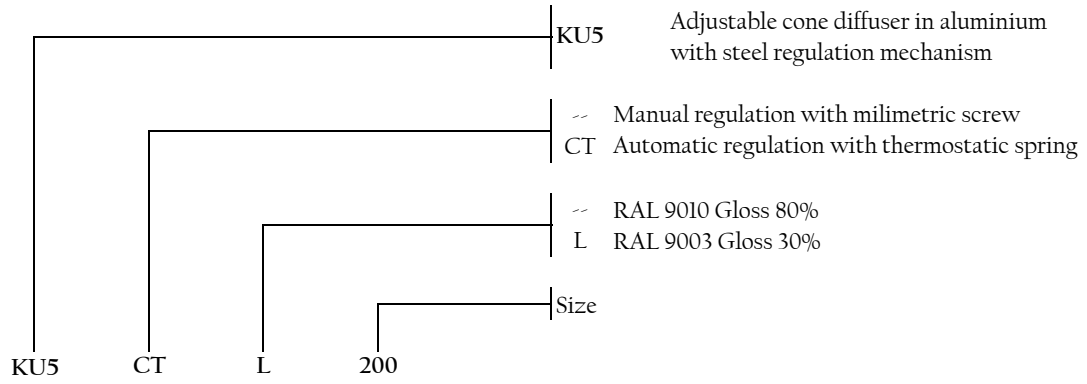
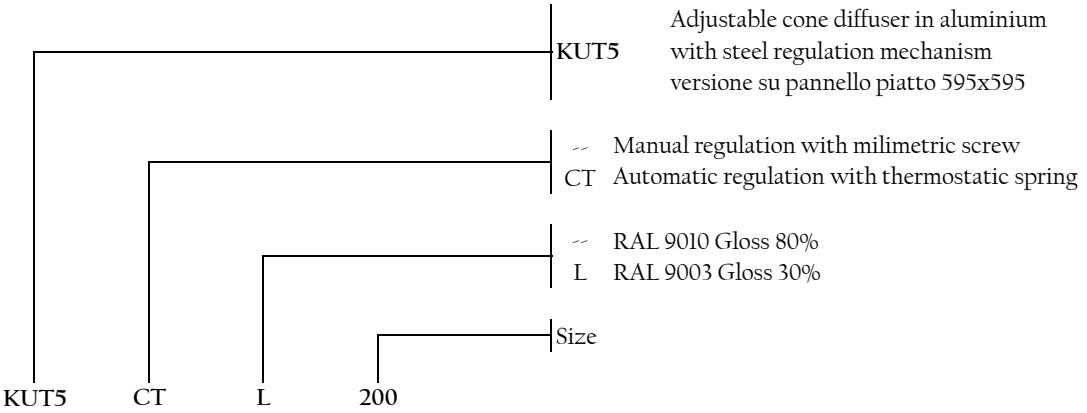


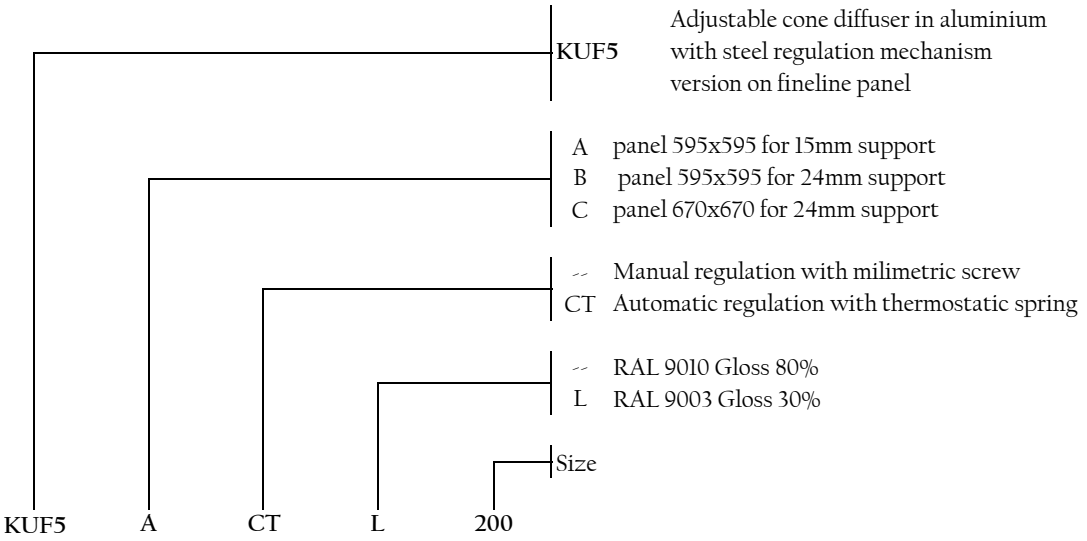
ADJUSTABLE CONES
CIRCULAR DIFFUSERS

KU 5
SERIES

HOW TO ORDER







ADJUSTABLE CONES
CIRCULAR DIFFUSERS

KU 6
SERIES

HOW TO ORDER

KU6 — Adjustable cone diffuser in aluminium with regulation and milimetric screw in ABS

- -- Without regulation damper
- S With segment regulation damper

- -- RAL 9010 Gloss 80%
- L RAL 9003 Gloss 30%

- Size

KU6 S L 200

KUT6 — Adjustable cone diffuser in aluminium with regulation and milimetric screw in ABS version on flat panel 595x595

- -- Without regulation damper
- S With segment regulation damper

- -- RAL 9010 Gloss 80%
- L RAL 9003 Gloss 30%

- Size

KUT6 S L 200

KUF6 — Adjustable cone diffuser in aluminium with regulation and milimetric screw in ABS version on fineline panel

- A panel 595x595 for 15mm support
- B panel 595x595 for 24mm support
- C panel 670x670 for 24mm support

- -- Without regulation damper
- S With segment regulation damper

- -- RAL 9010 Gloss 80%
- L RAL 9003 Gloss 30%

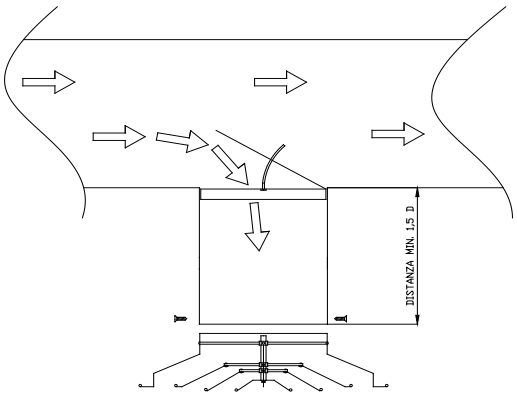
- Size

KUF6 A S L 200

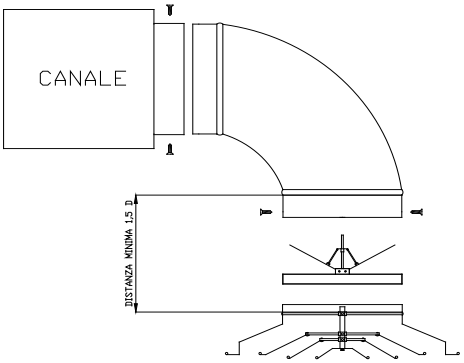
ADJUSTABLE CONES
CIRCULAR DIFFUSERS

INSTALLATION EXAMPLES

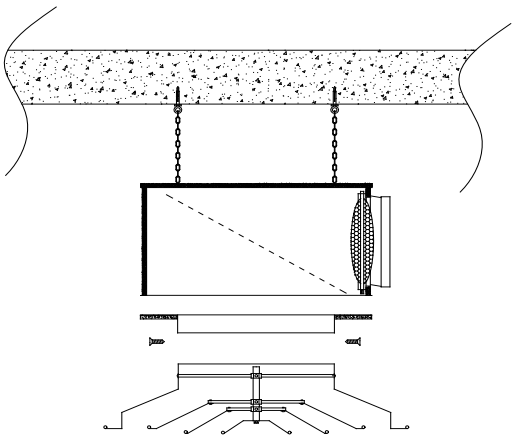
KU5
KU6
SERIES



FITTING TO DUCT



FITTING WITHFLEXIBLE DUCT



FITTING WITH PLENUM

ADJUSTABLE CONES
CIRCULAR DIFFUSERS

ACCESSORIES

KU5
KU6
SERIES

KU5KD — Set of 3 clips for fitting to ceilings of KU5 and KU6 diffusers
available for diameters 150 to 355
specify diameter at order stage

KUDC — Connection collar with brackets
available for diameters 160 to 315 included
specify diameter at order stage

KUSF — Connection collar with brackets
with regulation damper included
available for diameters 160 to 315 included
specify diameter at order stage

SF — Butterfly damper for KU5 and KU6 diffusers
available for all diameters
specify diameter at order stage

SB — Collection damper for KU5 and KU6 diffusers
available for diameters 100 to 500 included
specify diameter at order stage

PLENUM FOR CIRCULAR DIFFUSER

PP 60
SERIES

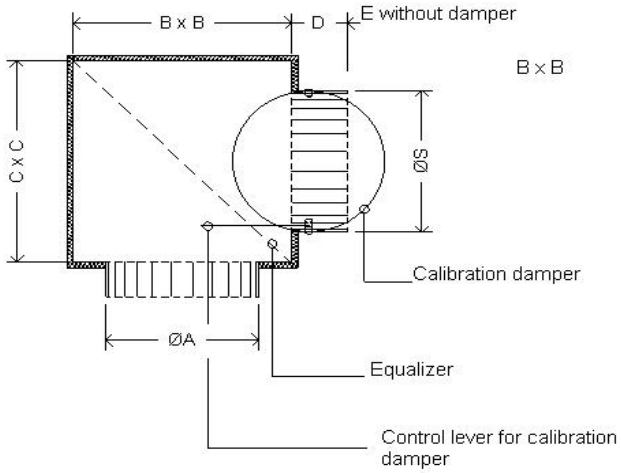
OVERVIEW

PLENUM :
The PP60 plenums, also named "calm cases", allow the correct entry of air in the neck of the diffuser thus ensuring that the throw of air in the room is homogenous along all the circumference of the diffuser.

Materials :
PP 60 standard plenum : galvanized steel sheet.
Insulation: expanded polyethylene certified for the reaction to fire according to european class B-s2 d0.

Versions :
Made from insulated steel sheet with expanded polyethylene, ideal for the supply of air, and in simple sheet steel normally used for air extraction.

Accessories:
Regulation damper and equalizing net in the connection of the



nominal deck diameter mm	A mm	B mm	C mm	D mm	E mm	N° of connections	S [mm] mm	connection and damper material
100	102	200	200	65	65	1	96	steel
150	152	250	250	70	70	1	146	steel
160	162	250	250	90	60	1	156	ABS (*)
200	202	300	300	90	60	1	196	ABS (*)
250	252	350	350	90	60	1	246	ABS (*)
300	302	400	400	90	60	1	296	steel
315	317	400	400	90	60	1	311	steel
350	352	450	450	90	90	1	346	steel
355	357	450	450	90	90	1	346	steel
400	402	500	500	90	90	1	396	steel
450	453	550	550	100	100	1	446	steel
500	503	600	600	100	100	1	496	steel
630	633	730	730	100	100	1	600	steel

(*) steel on request

PLENUM FOR CIRCULAR DIFFUSER

PP 60
SERIES

HOW TO ORDER