



# HIGH INDUCTION DIFFUSER WITH FIXED GEOMETRY ROUND NEK

KP  
SERIES

## TECHNICAL DATA

### TECHNICAL DATA

The KP series diffusers are composed by an external panel and a round central part. The central body has fixed deflectors which create a elicoidal/centrifugal motion of the air flow. For this reason, this specific air terminal is suitable for applications requiring heating with a strong induction effect. KP diffusers are used for installation heights from 2,6 m to 5,1m.

### MATERIAL

The diffuser is manufactured from sheet steel, with white epoxy finish RAL 9010.

### MOUNTING

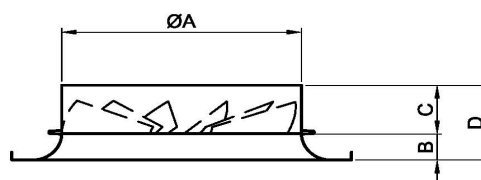
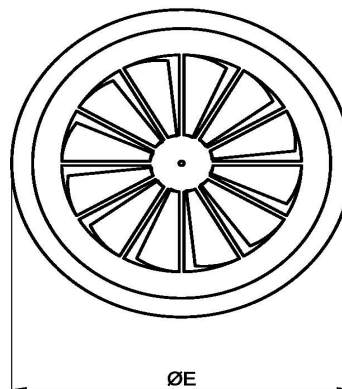
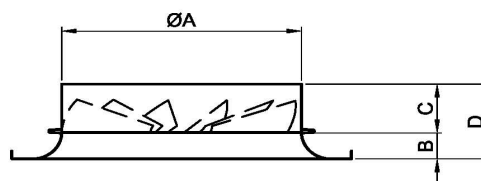
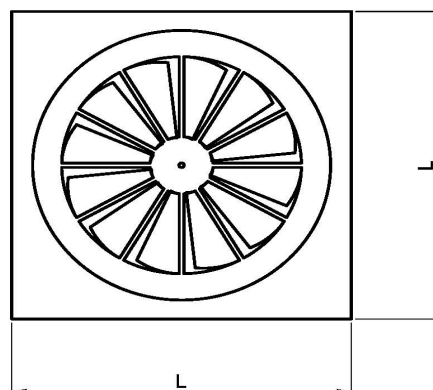
The diffuser has to be fixed with a central M6 screw directly on the plenum bridge. It is supplied with a white screw cover.

### VERSIONS

KP with squared panel;  
KP6 with squared panel 596x596;  
KPD with squared panel 623x623  
KPR circular

### UNSUITABLE ENVIRONMENTS

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.



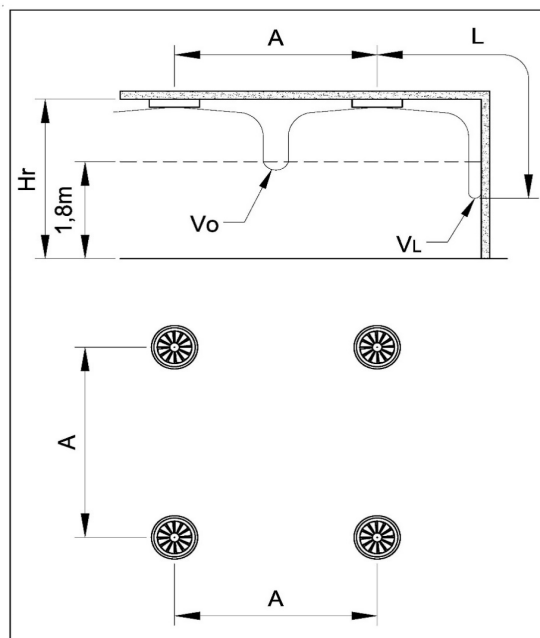
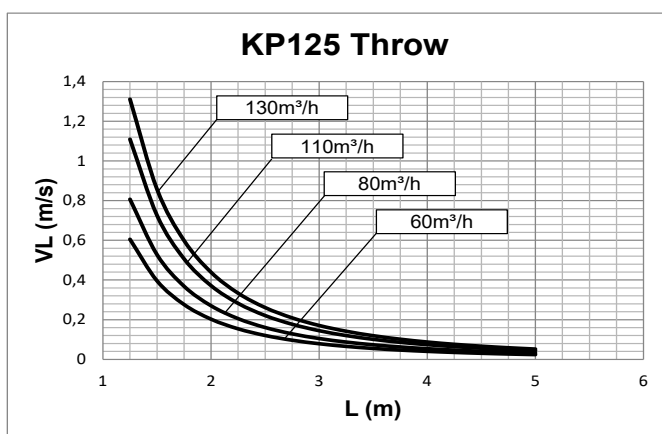
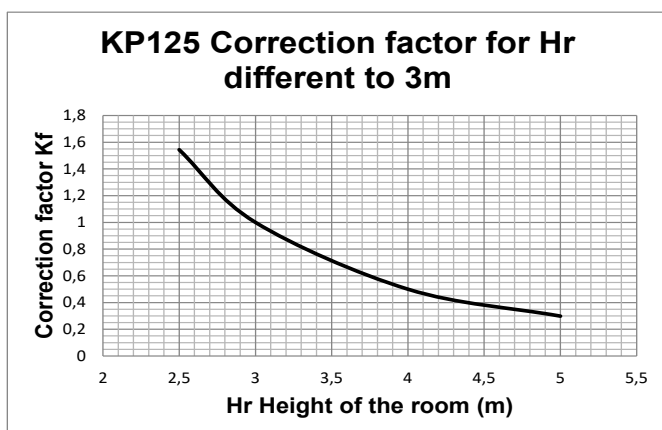
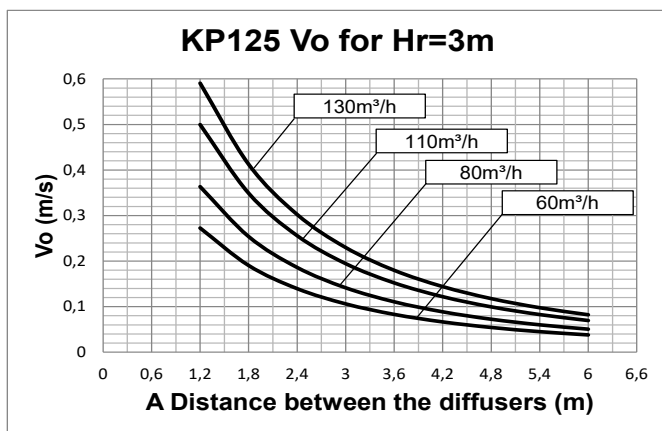
SIZE	A	B	C	D	KP L	KP6 L	KPD L	KPR E	Ak m <sup>2</sup>
125	122	27	55	82	225	596	623	225	0,0091
160	157	27	55	82	250	596	623	250	0,0146
200	197	27	55	82	300	596	623	300	0,0225
250	247	30	55	85	350	596	623	350	0,0345
315	312	30	55	85	415	596	623	415	0,0537
355	353	38	65	103		596	623	455	0,0676
400	398	38	65	103		596	623	520	0,0850



# HIGH INDUCTION DIFFUSER WITH FIXED GEOMETRY ROUND NEK

PERFORMANCE KP 125

KP  
SERIES



Data measured 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 the 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

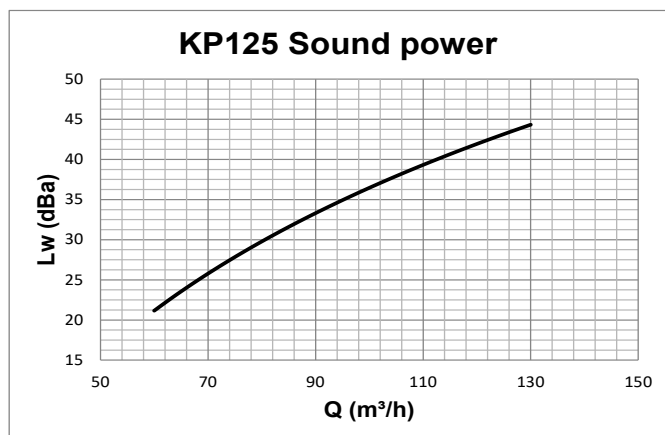
For Hr different from 3m:  
 $V_o(h) = V_o \times K_f$



# HIGH INDUCTION DIFFUSER WITH FIXED GEOMETRY ROUND NEK

PERFORMANCE KP 125

KP  
SERIES

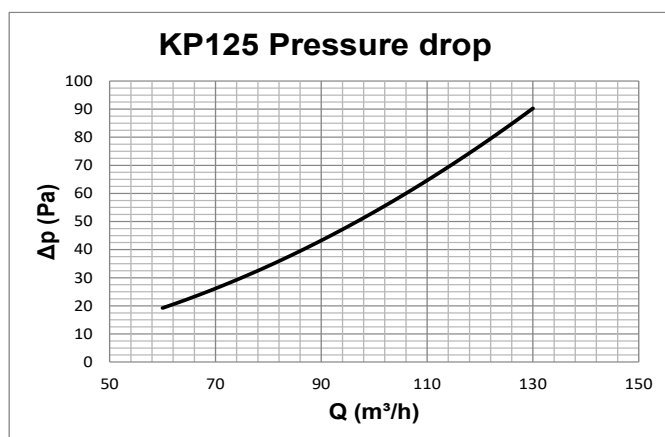


Data measured in reverberation room in accordance with international standards:

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 measured operating in isothermal conditions in accordance with the international standard:

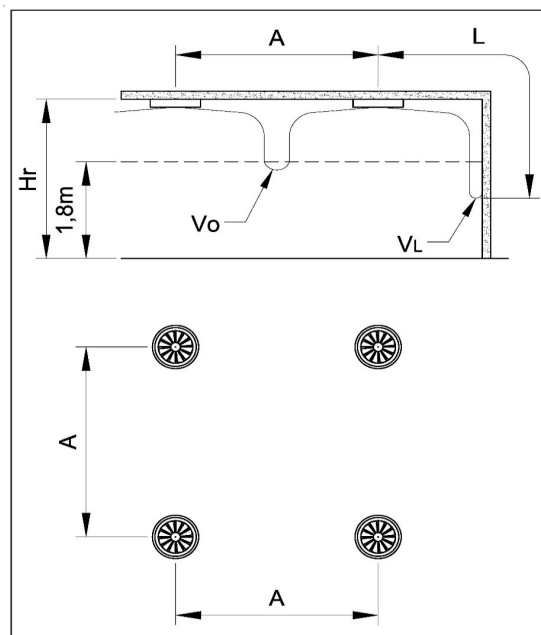
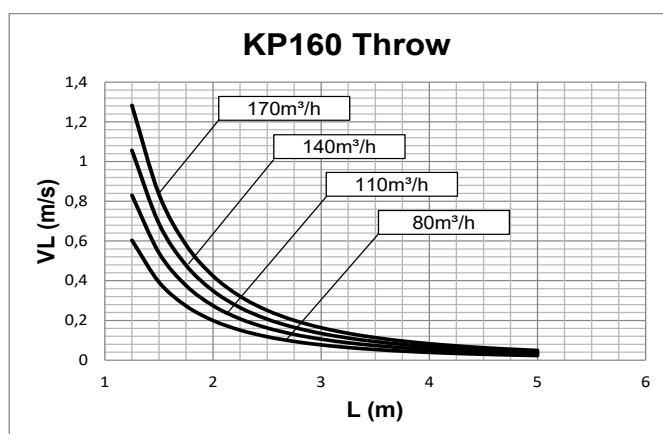
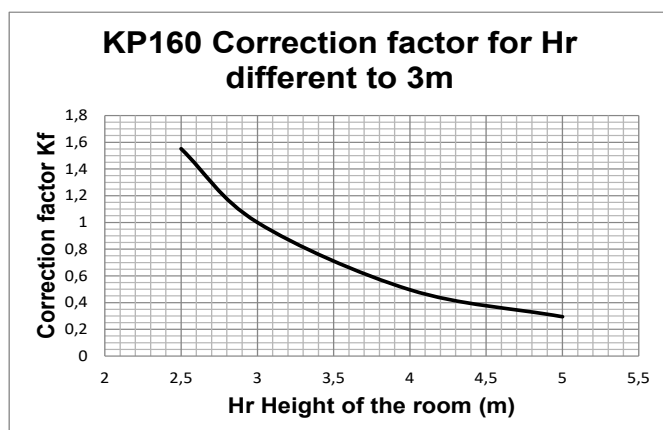
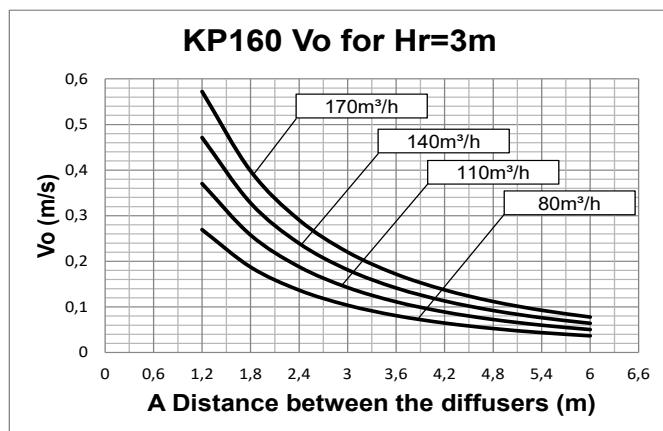
ISO 5219 1984: *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*



# HIGH INDUCTION DIFFUSER WITH FIXED GEOMETRY ROUND NEK

PERFORMANCE KP 160

KP  
SERIES



Data measured 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

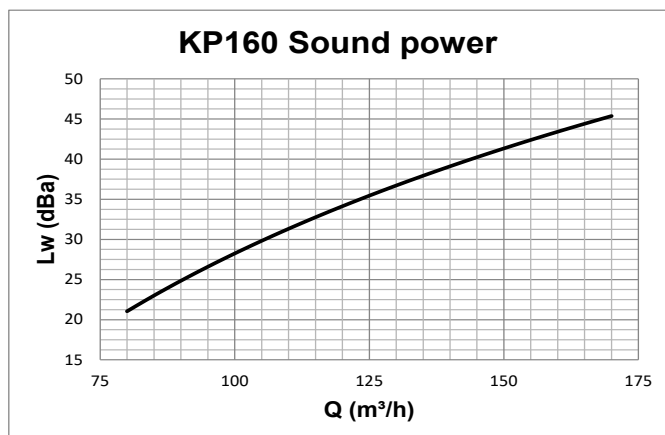
For Hr different from 3m:  
 $Vo(h) = Vo \times Kf$



# **HIGH INDUCTION DIFFUSER WITH FIXED GEOMETRY ROUND NEK**

PERFORMANCE KP 160

**KP  
SERIES**

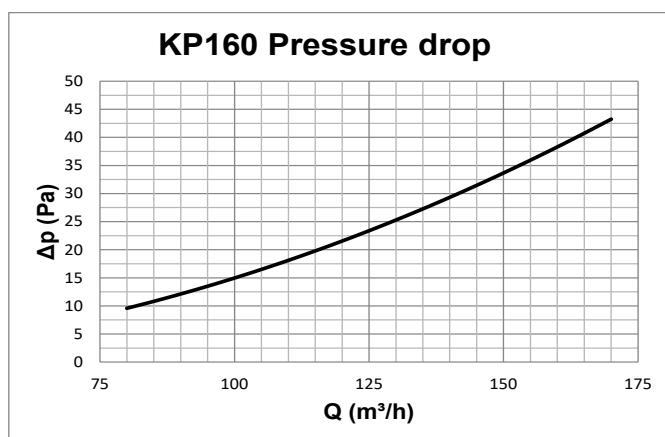


Data measured in reverberation room in accordance with international standards:

**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 measured operating in isothermal conditions in accordance with the international standard:

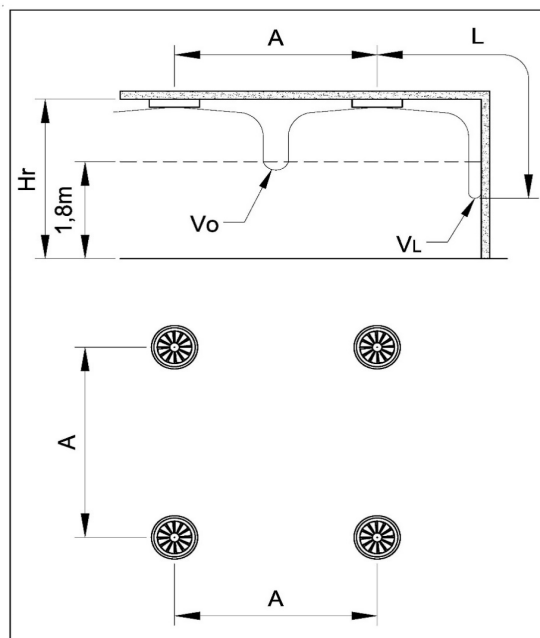
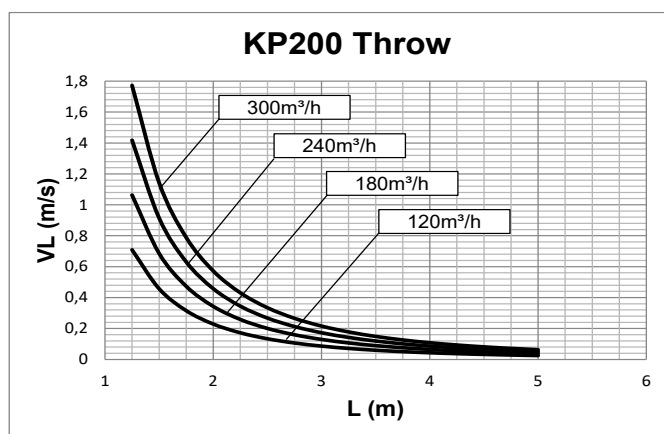
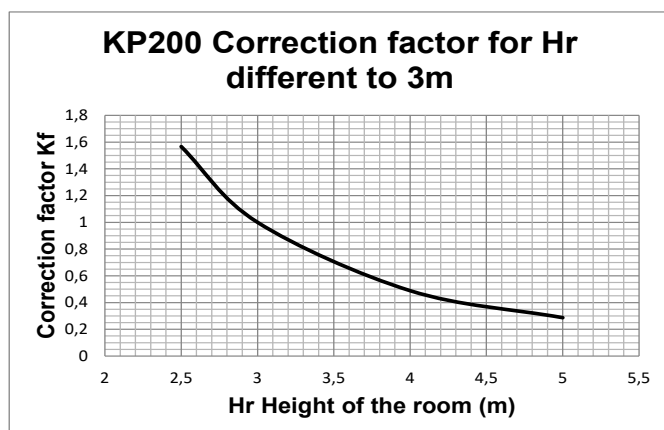
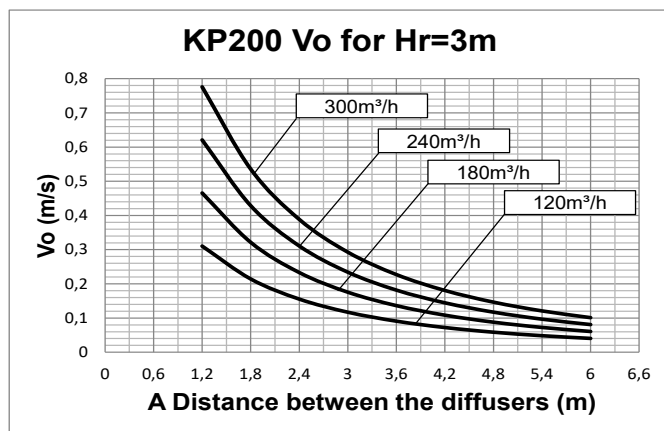
**ISO 5219 1984:** *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*



# HIGH INDUCTION DIFFUSER WITH FIXED GEOMETRY ROUND NEK

PERFORMANCE KP 200

KP  
SERIES



Data measured 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 the 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

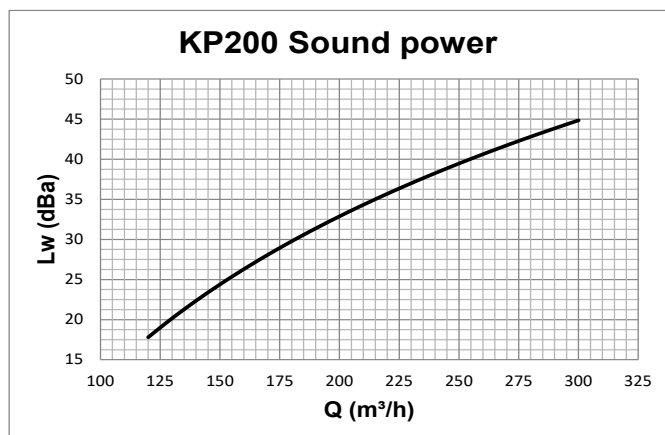
For Hr different from 3m:  
 $V_o(h) = V_o \times K_f$



# **HIGH INDUCTION DIFFUSER WITH FIXED GEOMETRY ROUND NEK**

PERFORMANCE KP 200

**KP  
SERIES**

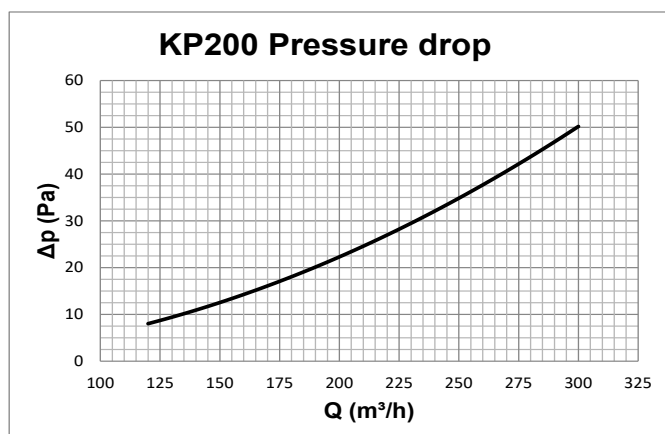


Data measured in reverberation room in accordance with international standards:

**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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Data measured operating in isothermal conditions in accordance with the international standard:

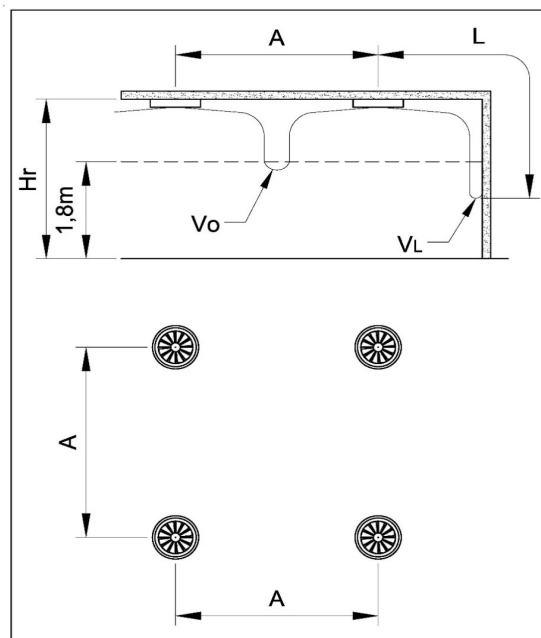
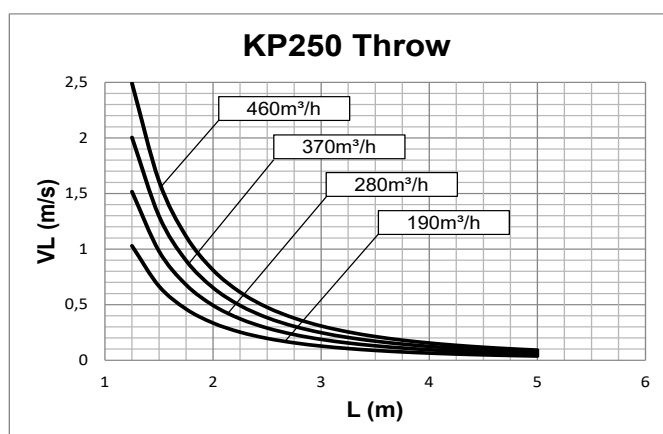
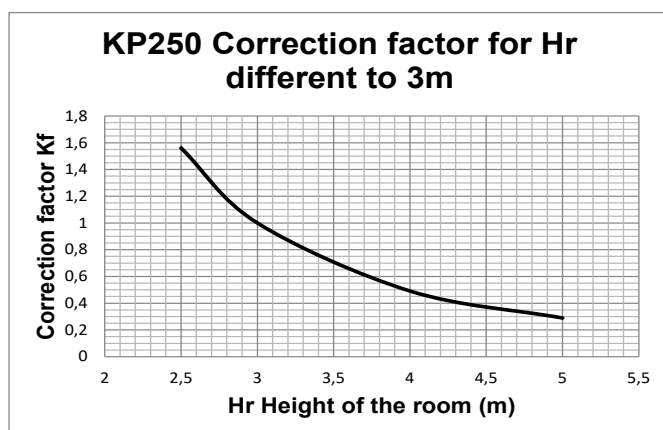
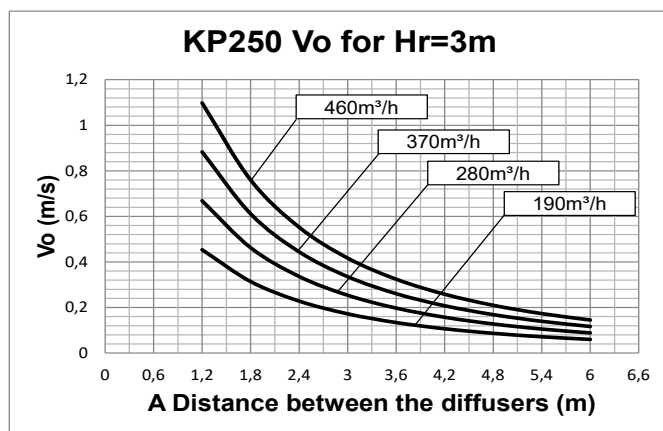
**ISO 5219 1984:** *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*



# HIGH INDUCTION DIFFUSER WITH FIXED GEOMETRY ROUND NEK

PERFORMANCE KP 250

KP  
SERIES



Data measured 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 3m:  
 $V_o(h) = V_o \times K_f$

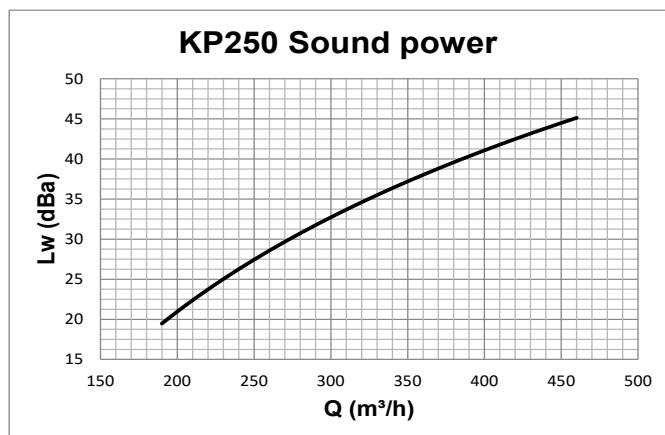




# **HIGH INDUCTION DIFFUSER WITH FIXED GEOMETRY ROUND NEK**

PERFORMANCE KP 250

**KP  
SERIES**

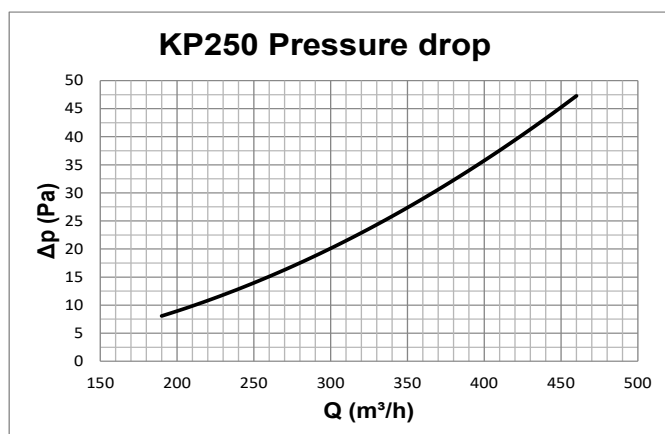


Data measured in reverberation room in accordance with international standards:

**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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Data measured operating in isothermal conditions in accordance with the international standard:

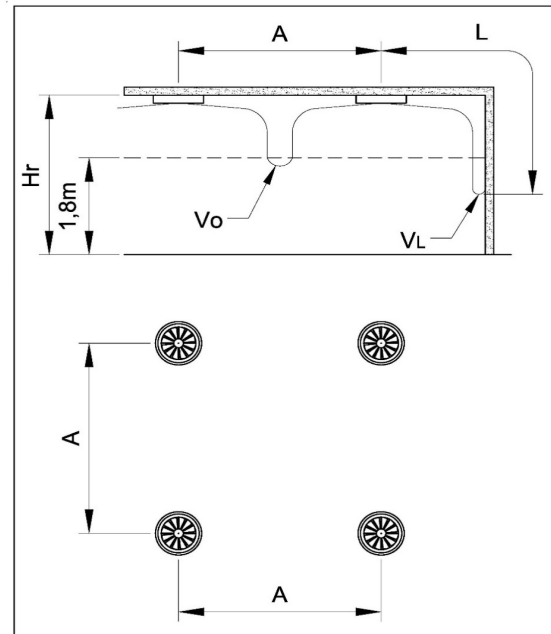
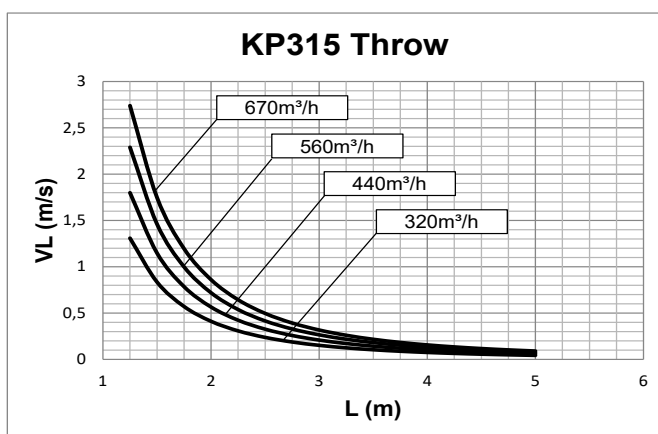
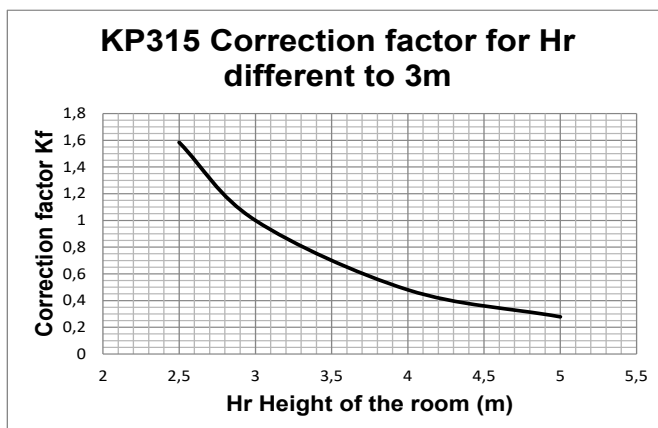
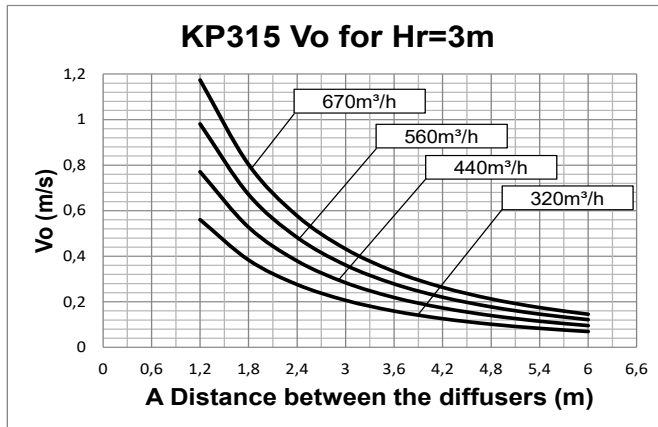
**ISO 5219 1984:** *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*



# HIGH INDUCTION DIFFUSER WITH FIXED GEOMETRY ROUND NEK

PERFORMANCE KP 315

KP  
SERIES



Data measured 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

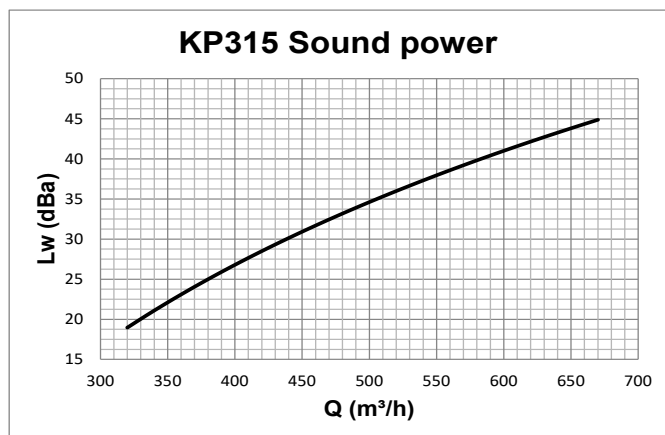
For Hr different from 3m:  
 $Vo(h) = Vo \times Kf$



# **HIGH INDUCTION DIFFUSER WITH FIXED GEOMETRY ROUND NEK**

PERFORMANCE KP 315

**KP  
SERIES**

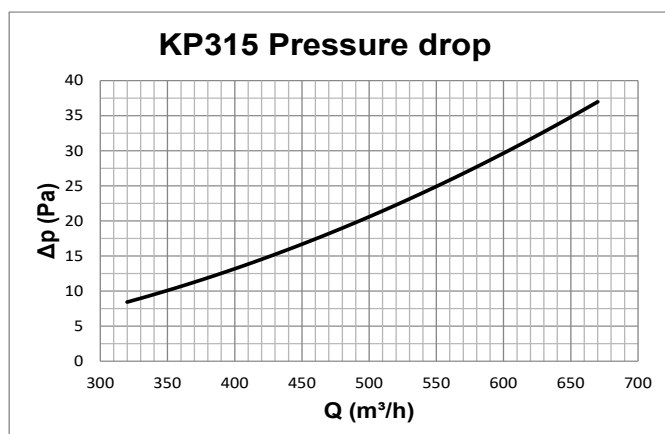


Data measured in reverberation room in accordance with international standards:

**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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Data measured operating in isothermal conditions in accordance with the international standard:

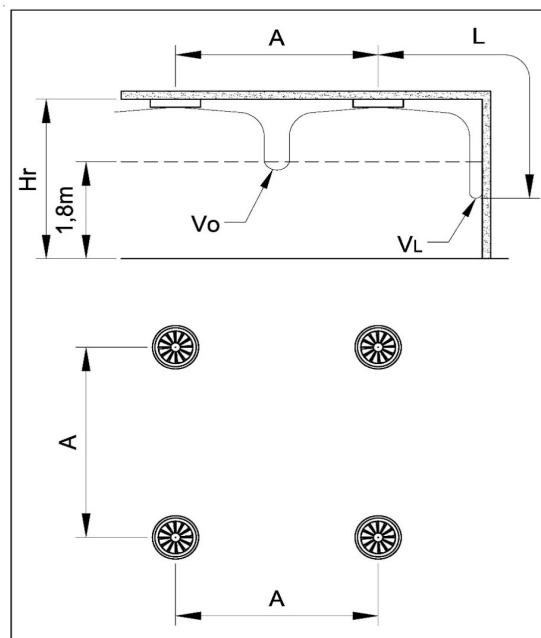
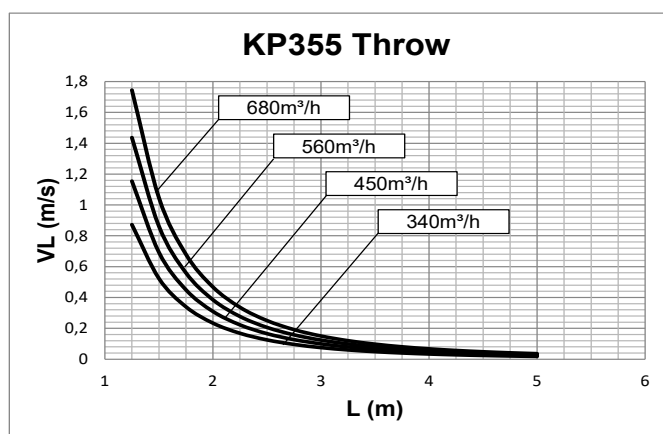
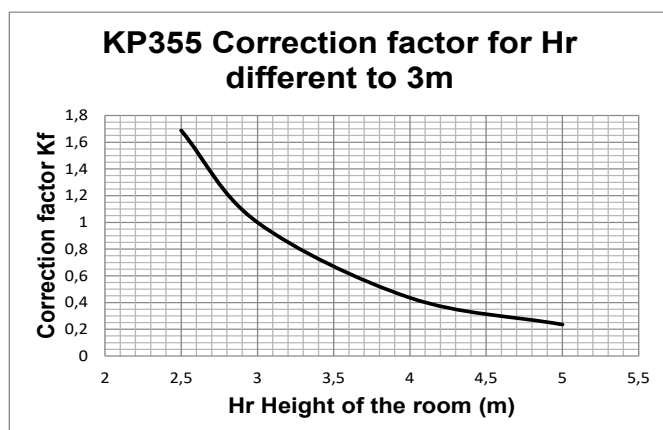
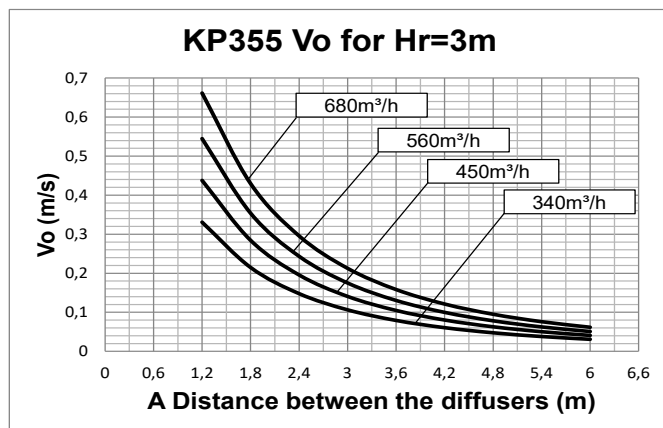
**ISO 5219 1984:** *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*



# HIGH INDUCTION DIFFUSER WITH FIXED GEOMETRY ROUND NEK

PERFORMANCE KP 355

KP  
SERIES



Data measured 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

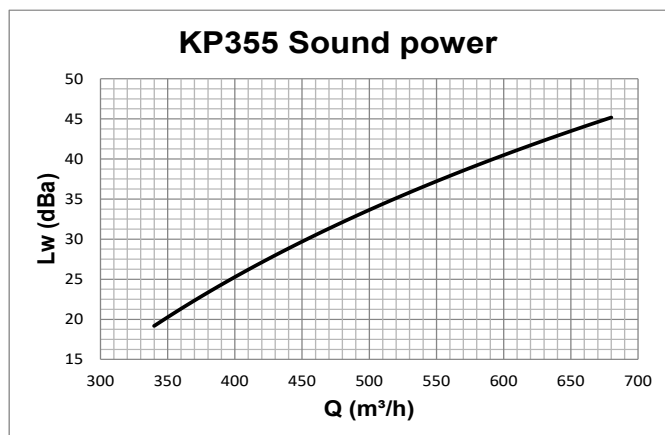
For Hr different from 3m:  
 $V_o(h) = V_o \times K_f$



# **HIGH INDUCTION DIFFUSER WITH FIXED GEOMETRY ROUND NEK**

**PERFORMANCE KP 355**

**KP  
SERIES**

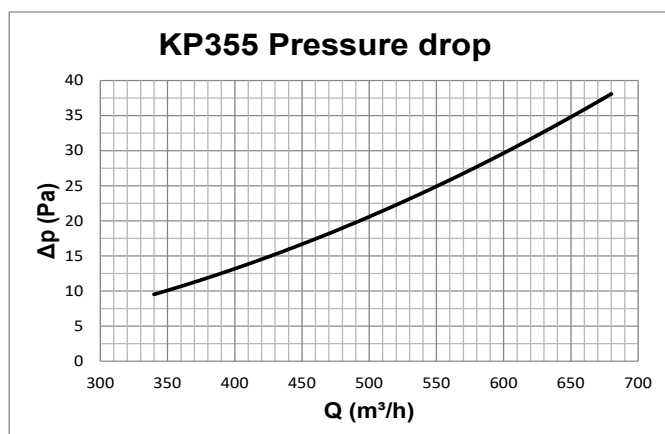


Data measured in reverberation room in accordance with international standards:

**ISO 3741 1999:** *Acoustic - determination of sound power levels of noise sources using sound pressure - Precision methods for reverberation rooms*

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Data measured operating in isothermal conditions in accordance with the international standard:

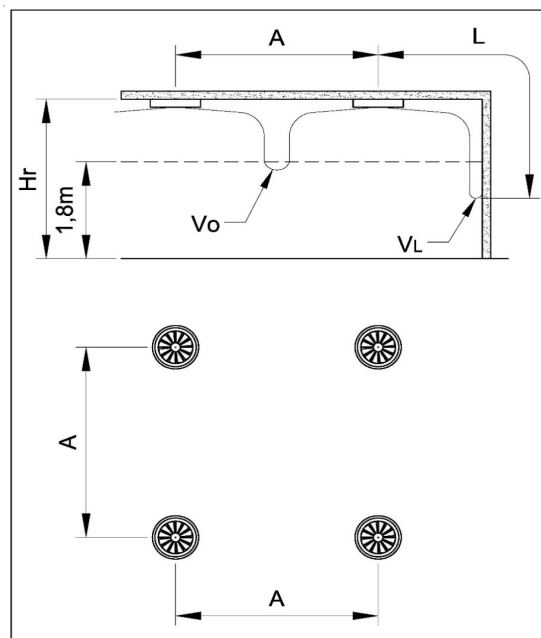
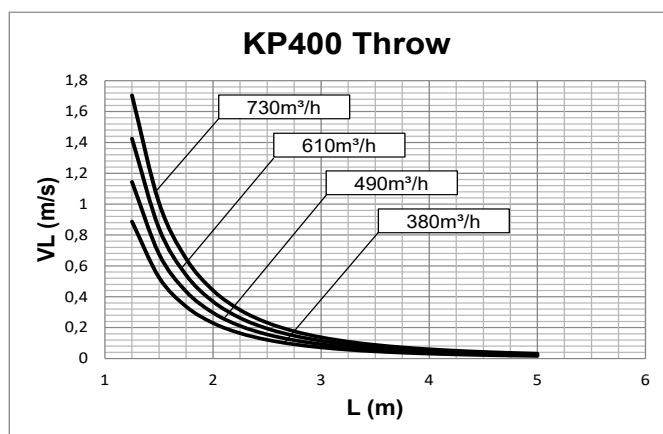
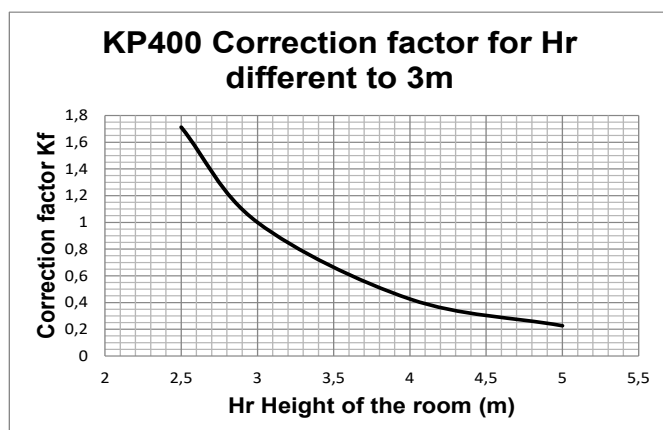
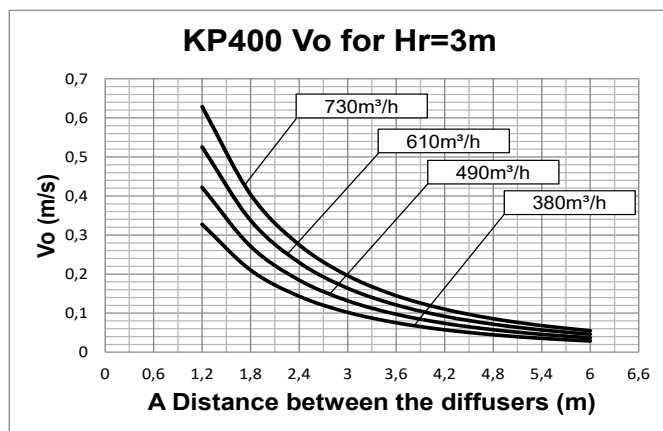
**ISO 5219 1984:** *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*



# HIGH INDUCTION DIFFUSER WITH FIXED GEOMETRY ROUND NEK

PERFORMANCE KP 400

KP  
SERIES



Data measured 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 the 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

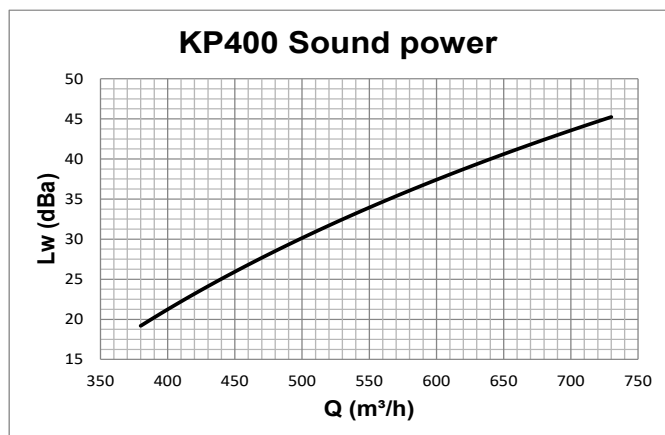
For Hr different from 3m:  
 $V_o(h) = V_o \times K_f$



## HIGH INDUCTION DIFFUSER WITH FIXED GEOMETRY ROUND NEK

PERFORMANCE KP 400

KP  
SERIES

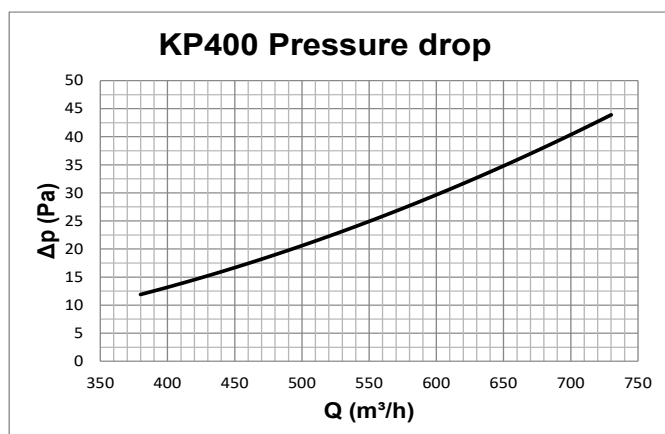


Data measured in reverberation room in accordance with international standards:

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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Data measured operating in isothermal conditions in accordance with the international standard:

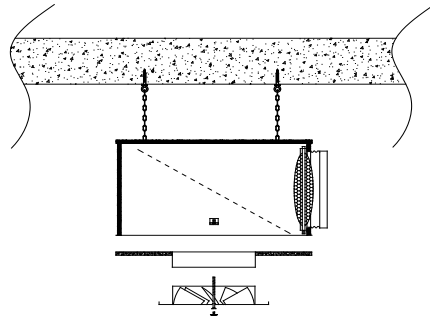
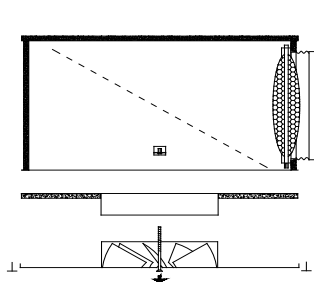
ISO 5219 1984: *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*



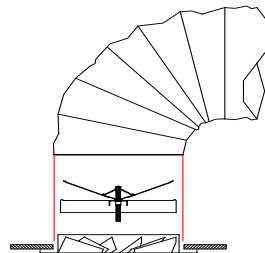
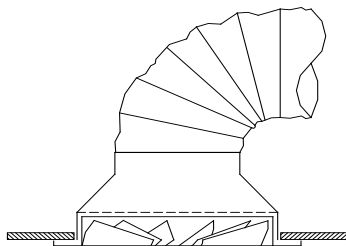
# HIGH INDUCTION DIFFUSER WITH FIXED GEOMETRY ROUND NEK

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SERIES

## TECHNICAL DATA INSTALLATION

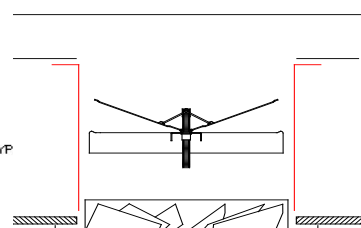
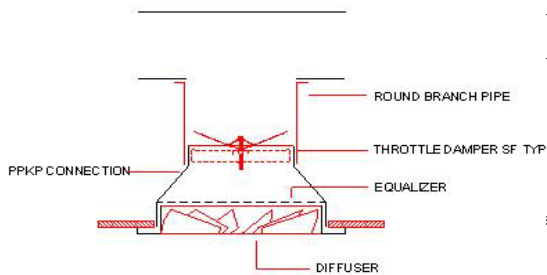


Installation with plenum

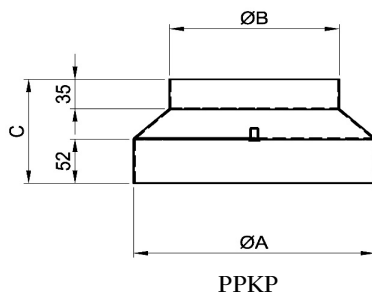


Installation with coupling  
and flexible duct

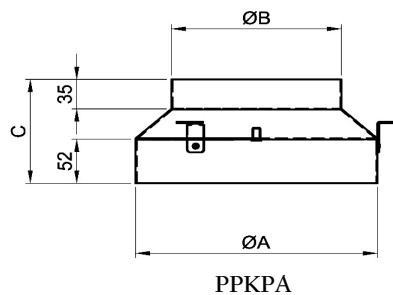
Installation with coupling  
butterfly damper  
and flexible duct



Installation with branch  
and steel duct



PPKP



PPKPA

Models of coupling

PPKP PPKPA	125	160	200	250	315	355	400
ØA	128	163	203	253	318	358	403
ØB	98	123	148	178	198	248	248
C	90	95	113	123	160	160	160

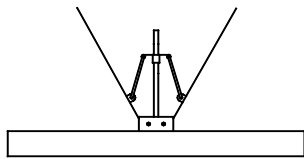




## HIGH INDUCTION DIFFUSER WITH FIXED GEOMETRY ROUND NEK

KP  
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ACCESSORIES  
HOW TO ORDER



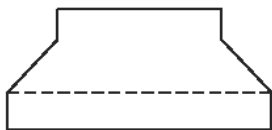
SF

Butterfly damper  
available for all diameters  
specify diameter at order stage



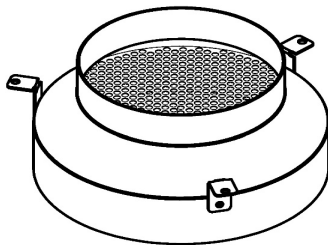
SB

Collection damper for KU5/6/9 diffusers  
available for diameters 100 to 500 included  
specify diameter at order stage



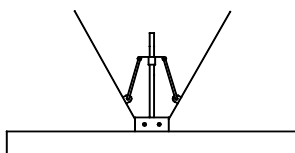
PPKP

Coupling with equalizer  
available for all the diameters  
specify diameter at order stage



PPKPA

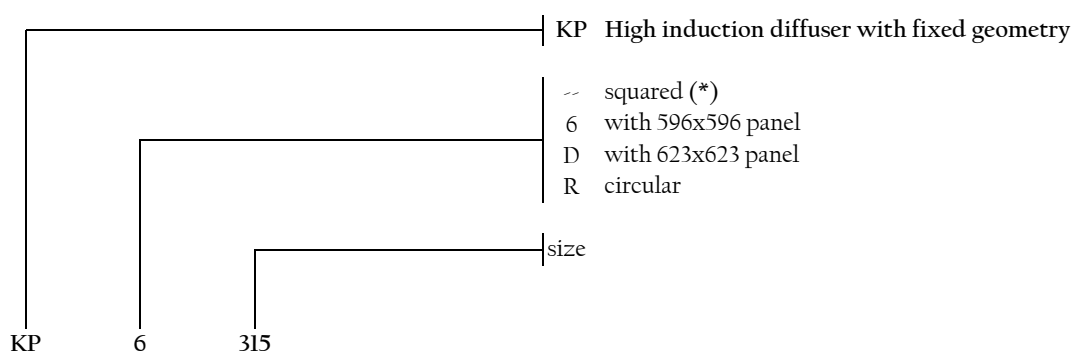
Coupling with equalizer  
and hooks for ceiling suspension  
available for all the diameters  
specify diameter at order stage



SF

Butterfly damper  
for coupling

diffuser	damper
125	SF 100
160	SF 125
200	SF 150
250	SF 180
315	SF 200
400	SF 250



(\*) Not available for KP315 e KP400



## 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.

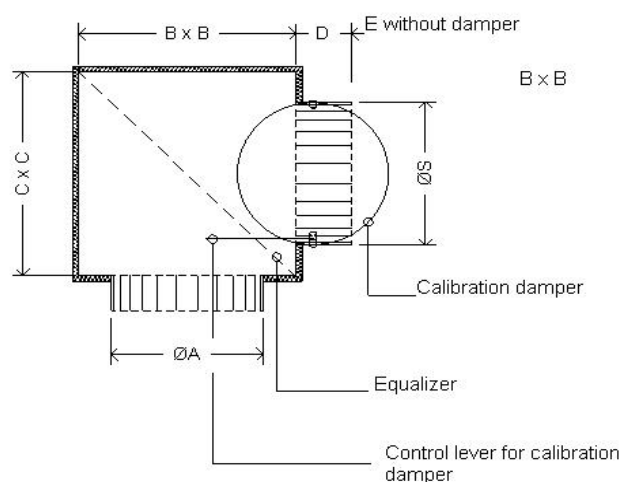
Insulation: expanded polyethylene certified for the reaction to fire according european class B-s2 d0.

#### 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
125	127	225	225	90	60	1	121	ABS (*)
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 (*)
315	317	400	400	90	60	1	311	steel
355	357	450	450	90	90	1	346	steel
400	402	500	500	90	90	1	396	steel

(\*) steel on request



## PLENUM FOR CIRCULAR DIFFUSER

PP 60  
SERIES

### HOW TO ORDER

