

## HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

KQ  
SERIES

### OVERVIEW

KQ: Series of ceiling panel diffusers with adjustable deflectors for horizontal helical or vertical throw suitable for any mixing ventilation system for installation heights between 2.5 and 5 metres.

#### CHARACTERISTICS:

Panel made of carbon steel sheet with white RAL 9010 epoxy paint.

Deflectors in black plastic material.

Possible realization of special versions with AISI 304 stainless steel panel with polished or satin finish.

The KQ series diffusers are normally fixed to the plenum by means of a central screw. They can also be fixed by means of side screws. For this purpose they have a countersunk central hole and are supplied with a screw cover to be used in case of installation with central screw and a closing cap to be used in case of fixing with lateral screws. For sizes over 600, in order to ensure the flatness of the panel, it is advisable to fix it both with central screw and lateral screws.

#### FIELD OF USE AND REGULATION

KQ diffusers are suitable for false ceiling installation in rooms with a height between 2.5 and 5 meters such as offices, shops, meeting rooms, corridors, surgeries and similar.

They are suitable for both supply and extract air.

The two possible positions indicated of the deflectors allow to optimize the diffuser for the use to which it is dedicated.

By completely tilting all the deflectors on one side it is possible to have the air outlet along the ceiling with helical motion.

This regulation is indicated above all for use in cooling, but guarantees good conditions also for use in heating when there is more than one diffuser in the room.

By placing all the horizontal deflectors it is possible to throw the air downwards. This setting is therefore suitable for use in heating only or in extraction.

Intermediate positions should be avoided.

#### UNSUITABLE ENVIRONMENTS

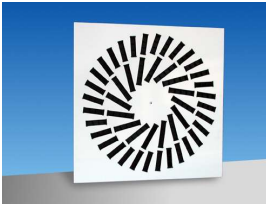
Painted carbon steel products are not suitable for installation in high humidity environments and in environments with potentially explosive atmospheres or containing dust or vapours of corrosive substances.



KQ inclined deflectors  
Cooling/heating adjustment  
Horizontal helicoidal throw  
Maximum induction effect



KQ horizontal deflectors  
Heating only and extraction adjustment  
Vertical throw  
Prevents air stratification



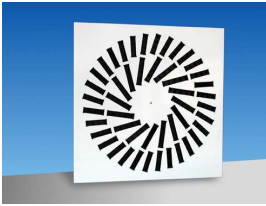
## HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

EFFECTIVE AREA  $A_k$

KQ  
SERIES

Values, in  $m^2$ , of effective area  $A_k$  for the different models of diffusers KQ series

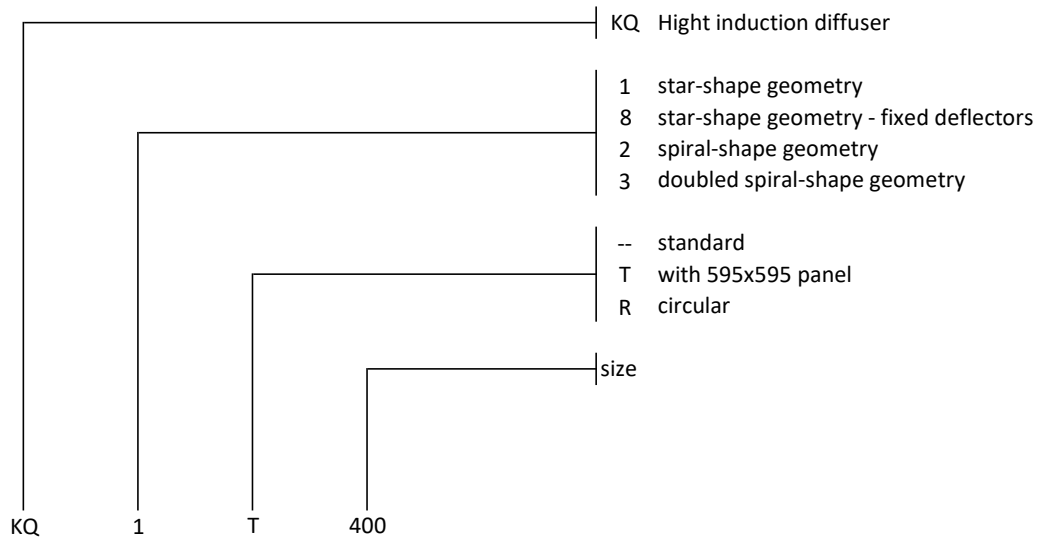
NOMINAL SIZE					
SIZE	Setting	KQ 1	KQ 2	KQ 3	KQ 8
300	Horizontal throw	0,00722	0,00831		
	Vertical throw	0,00911	0,00861		
400	Horizontal throw	0,01677	0,01673		0,01677
	Vertical throw	0,02066	0,02001		
500	Horizontal throw		0,02149		
	Vertical throw		0,02707		
500-32	Horizontal throw	0,02690			0,02690
	Vertical throw	0,03362			
500-40	Horizontal throw	0,03724			
	Vertical throw	0,04655			
600	Horizontal throw	0,04296	0,03223		0,04296
	Vertical throw	0,05399	0,04061		
600-36	Horizontal throw			0,03886	
	Vertical throw			0,04950	
600-48	Horizontal throw			0,043243	
	Vertical throw			0,055366	
625	Horizontal throw	0,04296	0,03223		0,04296
	Vertical throw	0,05399	0,04061		
625-36	Horizontal throw			0,03886	
	Vertical throw			0,04950	
625-48	Horizontal throw			0,043243	
	Vertical throw			0,055366	
800	Horizontal throw	0,07035		0,085216	
	Vertical throw	0,08795		0,111466	
825	Horizontal throw	0,07035		0,085216	
	Vertical throw	0,08795		0,111466	

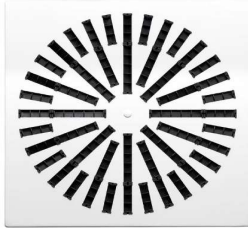


# HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

## KQ SERIES

### HOW TO ORDER



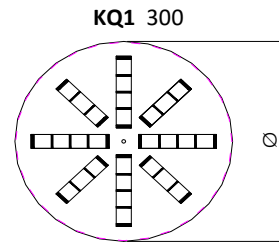
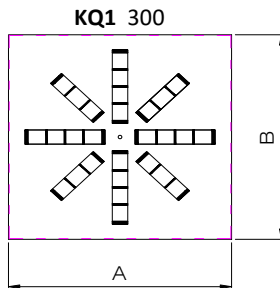


# HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

KQ1  
SERIES

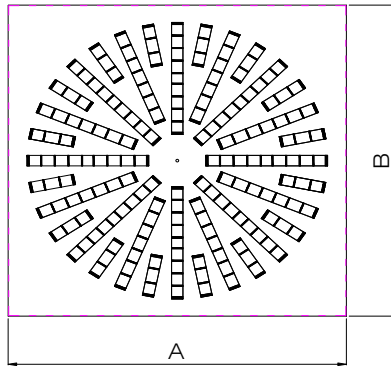
OVERALL SIZES

Square and circular standard construction

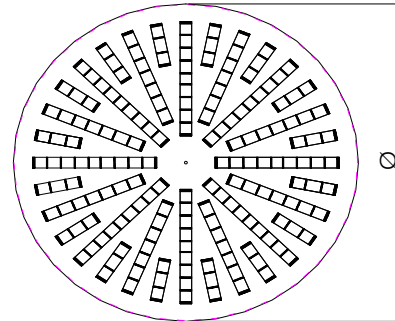


Square and circular standard construction

KQ1 400 500 600 625 800 825

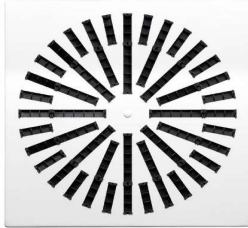


KQ1 R 400 500 600 625 800



Nominal size	Model		A [mm]	B [mm]	Ø
300	KQ1		296	296	296
400	KQ1	KQ8	396	396	396
500-32	KQ1	KQ8	496	496	496
500-40	KQ1				
600	KQ1	KQ8	596	596	596
625	KQ1	KQ8	621	621	621
800	KQ1		796	796	796
825	KQ1		821	821	

The KQ8 diffuser has the same geometry as the KQ1.  
The KQ1 diffuser is equipped with manually adjustable deflectors.  
The KQ8 diffuser is equipped with fixed deflectors.



# HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

## KQ1 SERIES

QUICK SELECTION

Model A <sub>k</sub> [m <sup>2</sup> ]		Air flow rate																		
		m <sup>3</sup> /h	60	75	100	125	150	175	200	300	400	500	600	700	800	900	1000	1100	1300	1500
		l/s	(17)	(21)	(28)	(35)	(42)	(49)	(56)	(83)	(111)	(139)	(167)	(194)	(222)	(250)	(278)	(306)	(361)	(417)
KQ1 300 (0,007)	L <sub>WA</sub> [dB(A)]	<20	<20	27	34	40	45													
	V <sub>k</sub> [m/s]	2,4	2,9	3,9	4,8	5,8	6,8													
	Δp <sub>t</sub> [Pa]	7	11	19	30	43	58													
	L <sub>0,2</sub> [m]	0,9	1,3	2,2	3,3	4,6	6													
KQ1 400 (0,017)	L <sub>WA</sub> [dB(A)]				<20	<20	21	25	36	45										
	V <sub>k</sub> [m/s]				2,1	2,5	2,9	3,3	4,9	6,6										
	Δp <sub>t</sub> [Pa]				6	9	12	15	34	60										
	L <sub>0,2</sub> [m]				1,4	2	2,6	3,3	6,5	10,8										
KQ1 500-32 (0,027)	L <sub>WA</sub> [dB(A)]				<20	<20	21	24	34	42	48									
	V <sub>k</sub> [m/s]				1,3	1,6	1,8	2,1	3,1	4,1	5,2									
	Δp <sub>t</sub> [Pa]				3	4	5	6	14	26	40									
	L <sub>0,2</sub> [m]				1	1,4	1,8	2,3	4,4	7,2	10,5									
KQ1 500-40 (0,037)	L <sub>WA</sub> [dB(A)]					<20	<20	<20	26	32	37	41	45	48						
	V <sub>k</sub> [m/s]					1,1	1,3	1,5	2,2	3	3,7	4,5	5,2	6						
	Δp <sub>t</sub> [Pa]					2	3	4	8	14	23	33	44	58						
	L <sub>0,2</sub> [m]					1,1	1,5	1,8	3,5	5,7	8,2	11,1	14,2	17,7						
KQ1 600 (0,043)	L <sub>WA</sub> [dB(A)]						<20	<20	22	28	33	37	40	42	45					
	V <sub>k</sub> [m/s]						1,1	1,3	1,9	2,6	3,2	3,9	4,5	5,2	5,8					
	Δp <sub>t</sub> [Pa]						2	3	6	11	18	25	34	45	57					
	L <sub>0,2</sub> [m]						1,4	1,7	3,2	5,1	7,4	10	12,7	15,8	19,2					
KQ1 625 (0,043)	L <sub>WA</sub> [dB(A)]						<20	<20	22	28	33	37	40	42	45					
	V <sub>k</sub> [m/s]						1,1	1,3	1,9	2,6	3,2	3,9	4,5	5,2	5,8					
	Δp <sub>t</sub> [Pa]						2	3	6	11	18	25	34	45	57					
	L <sub>0,2</sub> [m]						1,4	1,7	3,2	5,1	7,4	10	12,7	15,8	19,2					
KQ1 800 (0,07)	L <sub>WA</sub> [dB(A)]						<20	<20	<20	20	22	24	26	27	29	30	31	33	34	
	V <sub>k</sub> [m/s]						0,7	0,8	1,2	1,6	2	2,4	2,8	3,2	3,6	4	4,3	5,1	5,9	
	Δp <sub>t</sub> [Pa]						1	1	3	5	8	11	15	20	25	31	38	53	70	
	L <sub>0,2</sub> [m]						1,1	1,4	2,5	3,9	5,5	7,2	9,1	11,1	13,3	15,6	18,1	23,2	28,9	
KQ1 825 (0,07)	L <sub>WA</sub> [dB(A)]						<20	<20	<20	20	22	24	26	27	29	30	31	33	34	
	V <sub>k</sub> [m/s]						0,7	0,8	1,2	1,6	2	2,4	2,8	3,2	3,6	4	4,3	5,1	5,9	
	Δp <sub>t</sub> [Pa]						1	1	3	5	8	11	15	20	25	31	38	53	70	
	L <sub>0,2</sub> [m]						1,1	1,4	2,5	3,9	5,5	7,2	9,1	11,1	13,3	15,6	18,1	23,2	28,9	

10 ≤ L<sub>WA</sub> < 30

30 ≤ L<sub>WA</sub> < 40

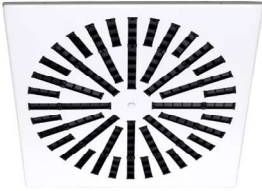
40 ≤ L<sub>WA</sub> < 50

Data valid for:

- Supply air
- Isotherm conditions
- Throw with ceiling effect

Terminology:

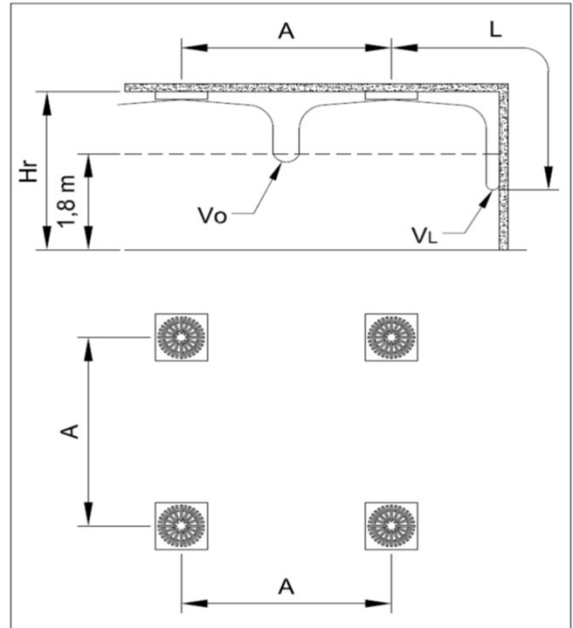
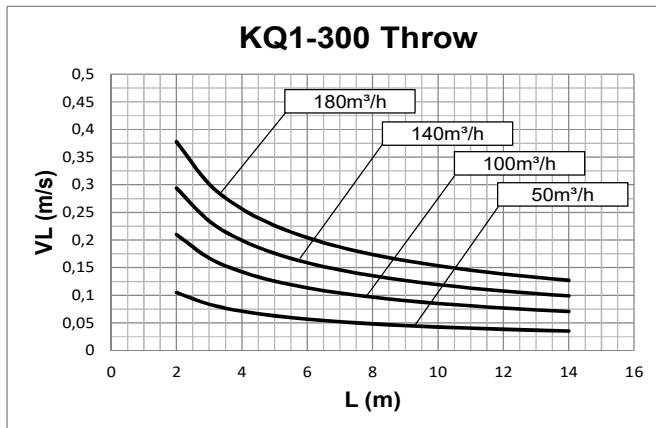
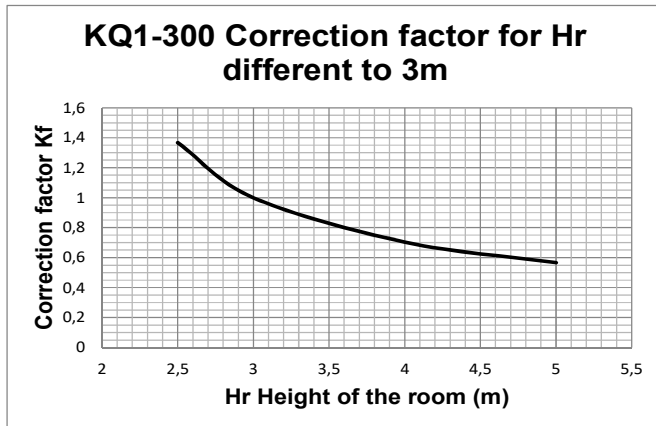
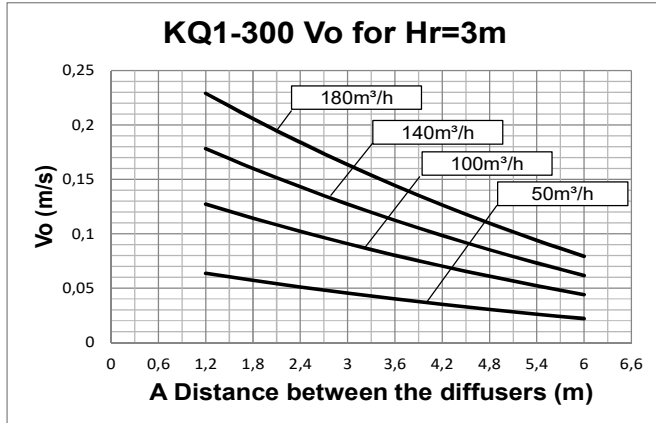
- A<sub>k</sub> = effective free area
- V<sub>k</sub> = effective face velocity
- Δp<sub>t</sub> = total pressure loss
- L<sub>WA</sub> = sound power level
- L<sub>0,2</sub> = throw to terminal velocity at 0,2 m/s



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PERFORMANCE QK1 300

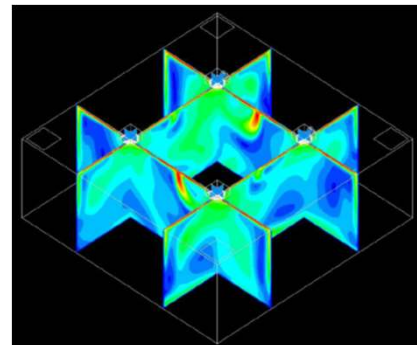
**QK1  
SERIES**

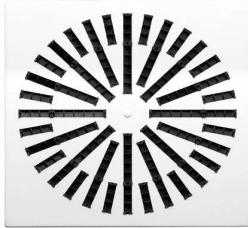


Data obtained from CFD mathematical model in virtual test room operating in isothermal conditions in accordance with the international standard: **ISO 5219 1984: Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.**

A (m) distance between 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:  
 $V_o(h) = V_o \times K_f$

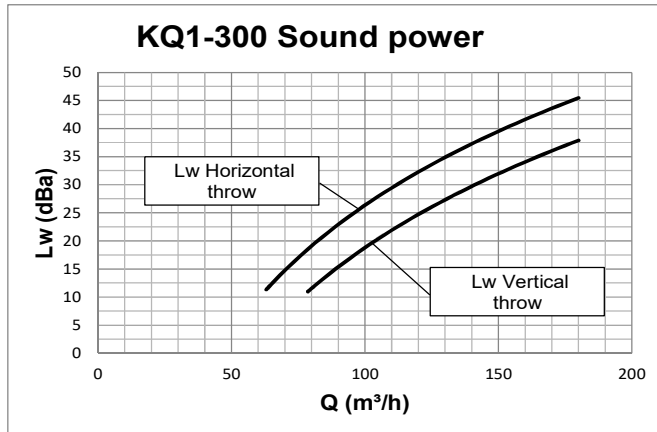




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PERFORMANCE KQ1 300

KQ1  
SERIES

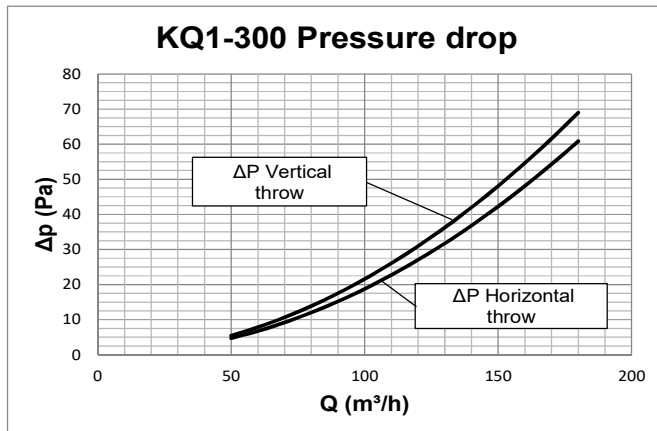


Data measured in reverberation room in accordance with international standards:

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

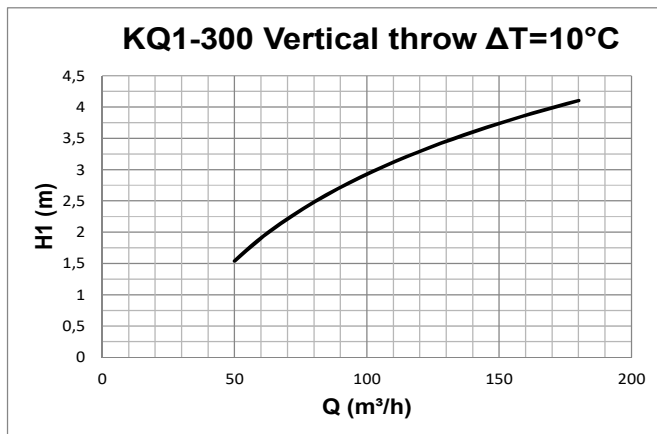
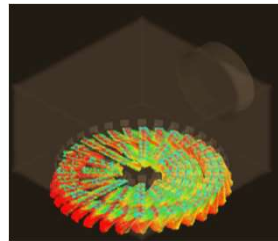
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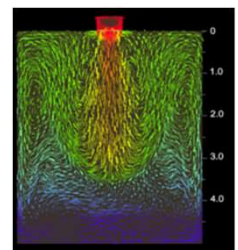
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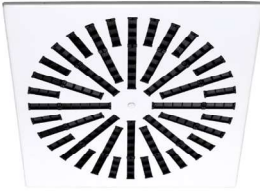


Data obtained from CFD mathematical model in virtual test room operating in heating conditions with  $\Delta T = 10^\circ\text{C}$  in accordance with the international standard:

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$H_1$  (m) vertical distance in metres from the centre of the diffuser at which there is the inversion of the direction of air

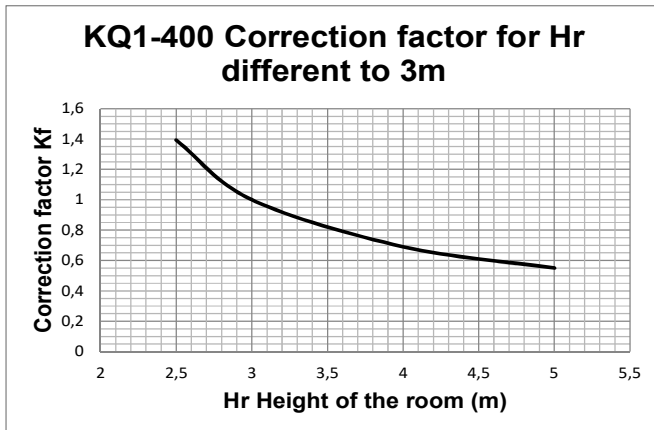
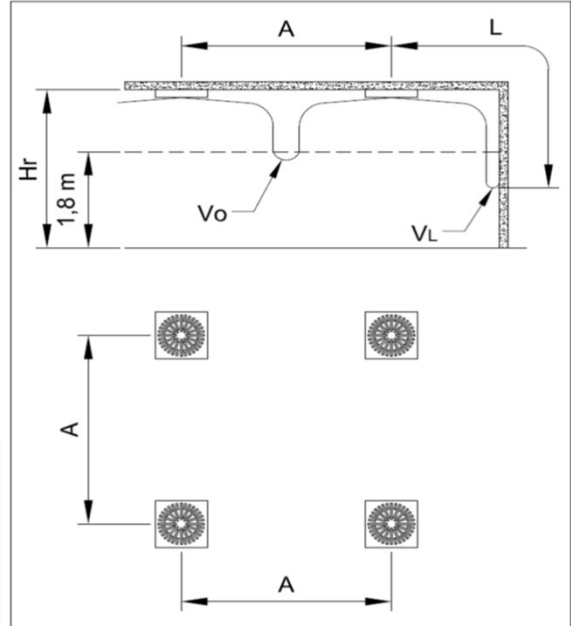
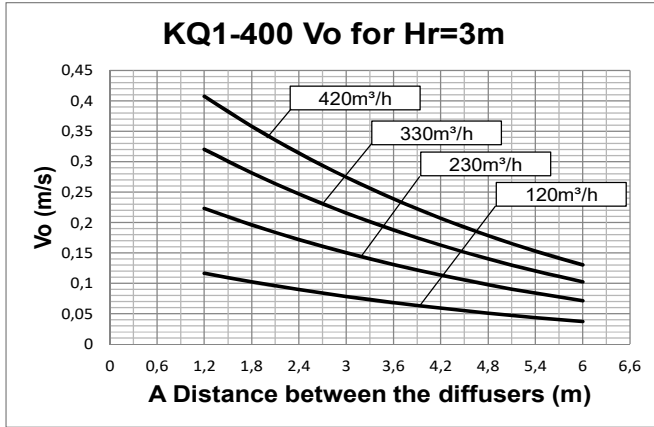




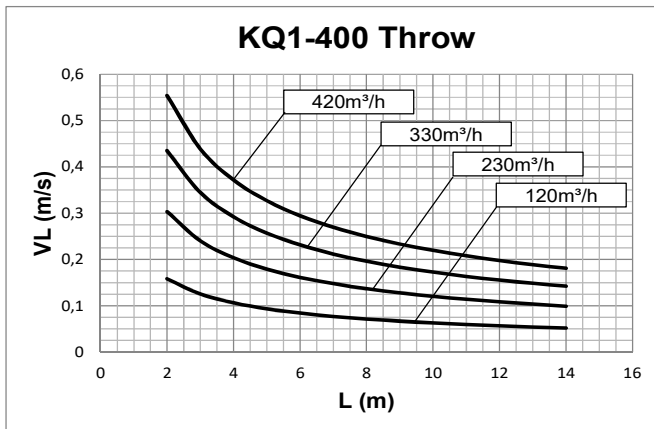
# HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

PERFORMANCE QK1 400

QK1  
SERIES



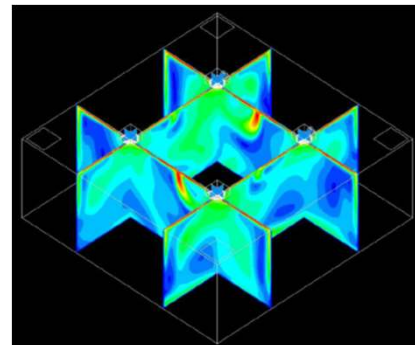
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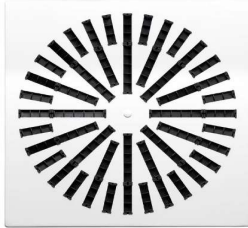
A (m) distance between the diffusers  
 Vo (m/s) speed at the limit of the occupied zone  
 L (m) horizontal distance in metres from the centre of the diffuser  
 VL (m/s) maximum speed in the air stream

For Hr different from 3m:

$$Vo(h) = Vo \times Kf$$



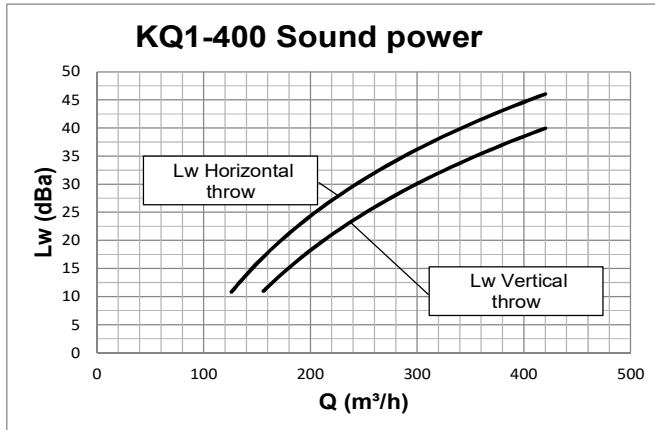




## HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

PERFORMANCE KQ1 400

KQ1  
SERIES

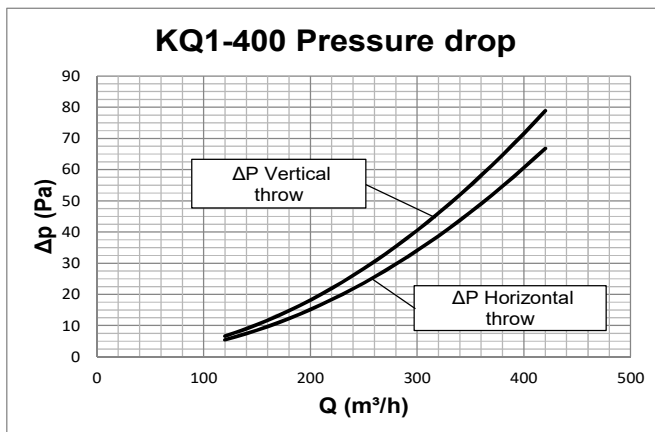


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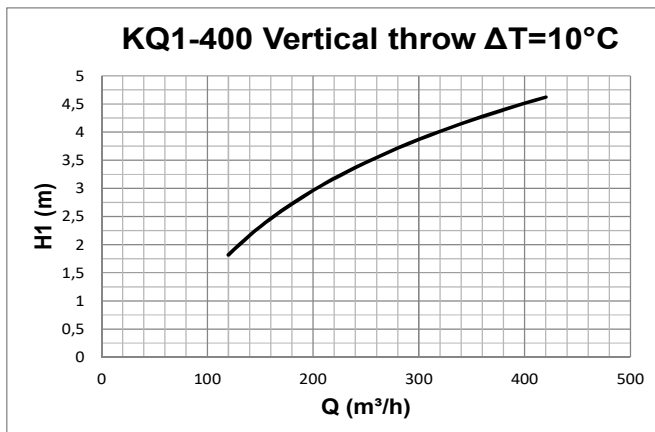
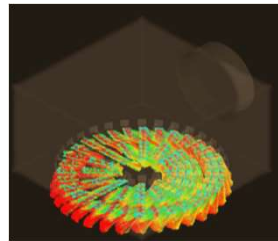
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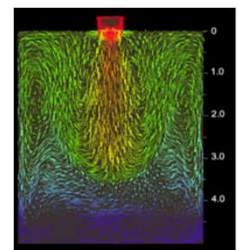
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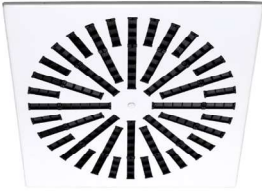


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H1 (m) vertical distance in metres from the centre of the diffuser at which there is the inversion of the direction of air

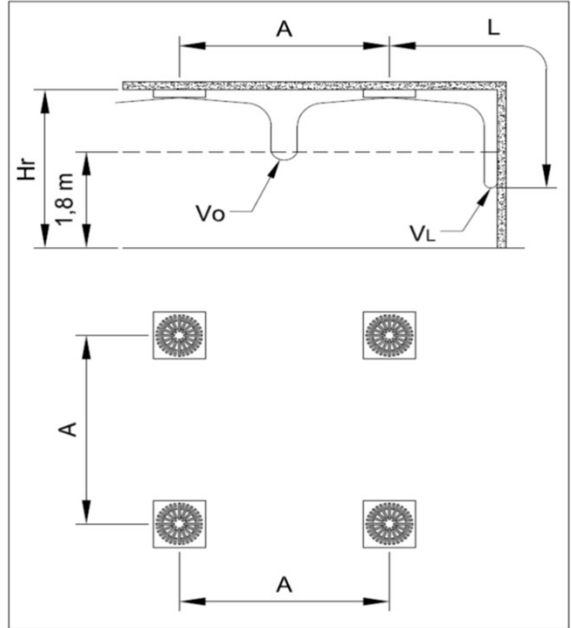
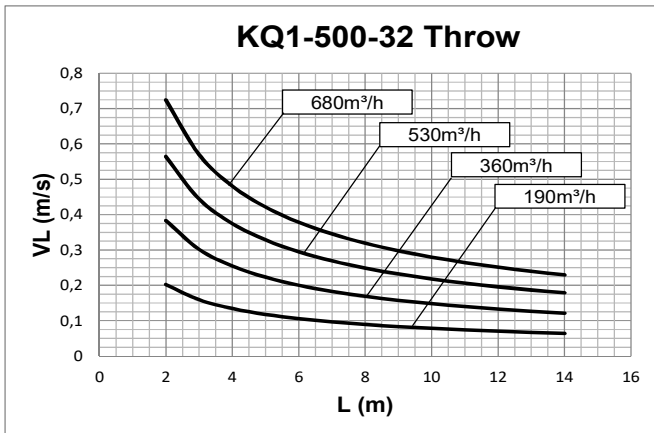
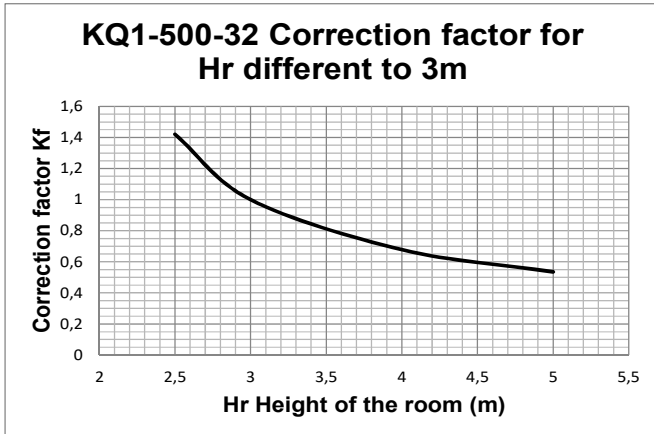
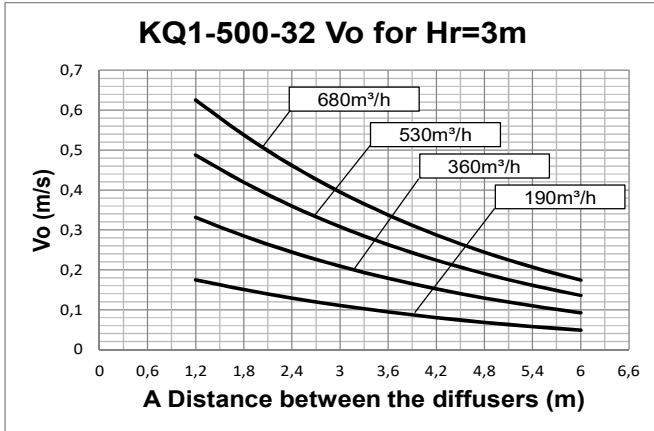




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PERFORMANCE KQ1 500-32

KQ1  
SERIES

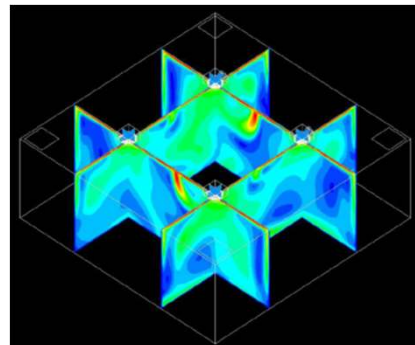


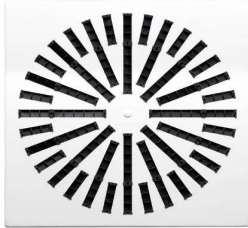
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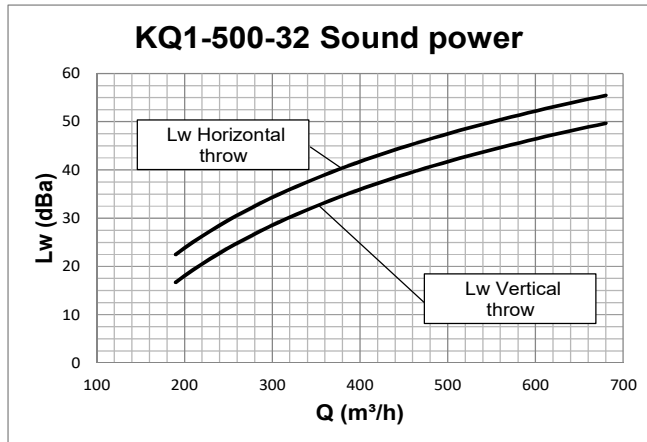




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PERFORMANCE KQ1 500-32

KQ1  
SERIES

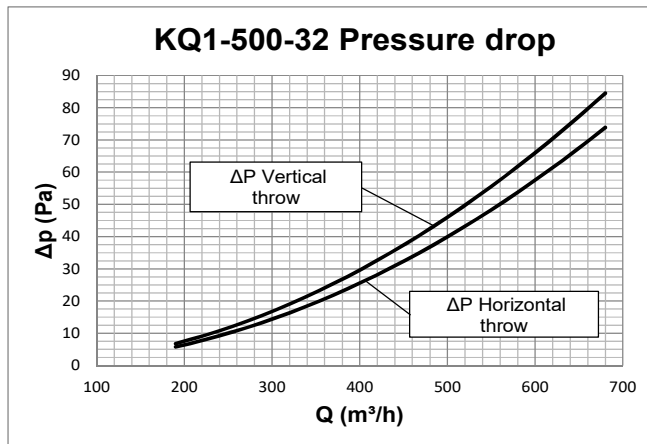


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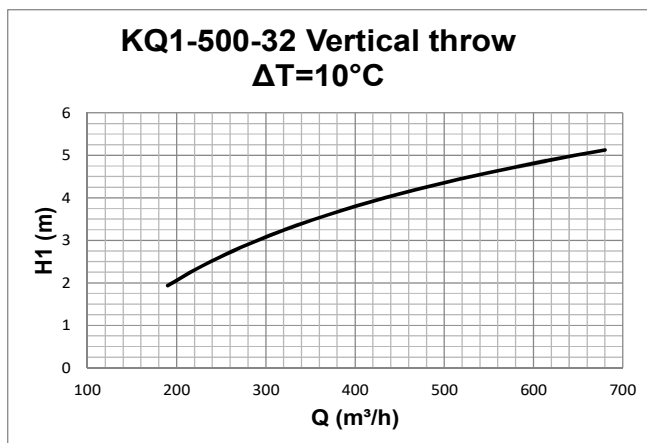
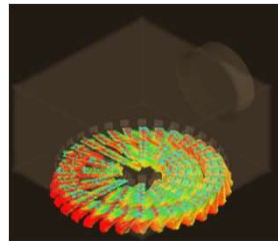
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Data obtained by CFD mathematical model in virtual test room operating in accordance with the international standard:

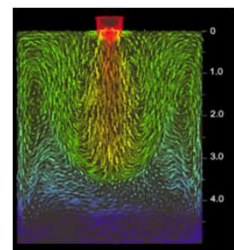
**ISO 5219 1984:** Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.

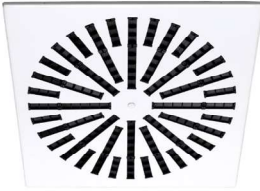


Data obtained from CFD mathematical model in virtual test room operating in heating conditions with  $\Delta T = 10^\circ\text{C}$  in accordance with the international standard:

**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

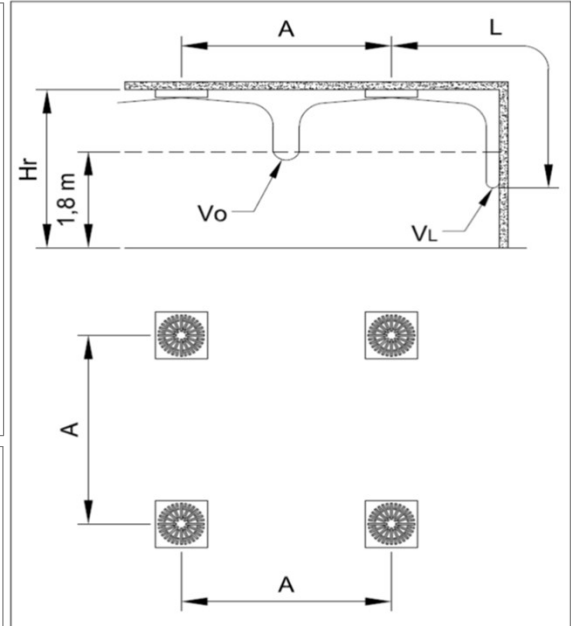
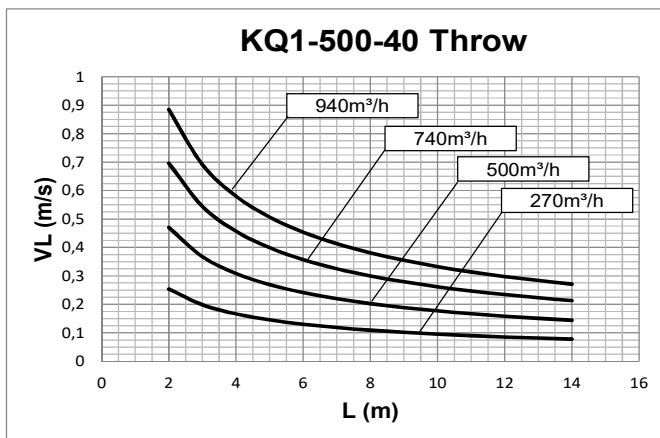
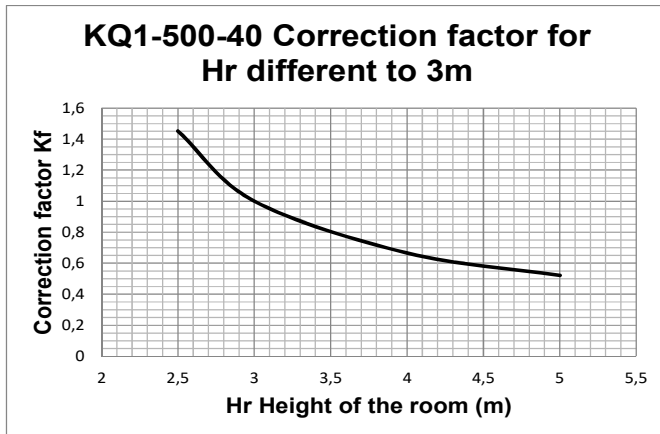
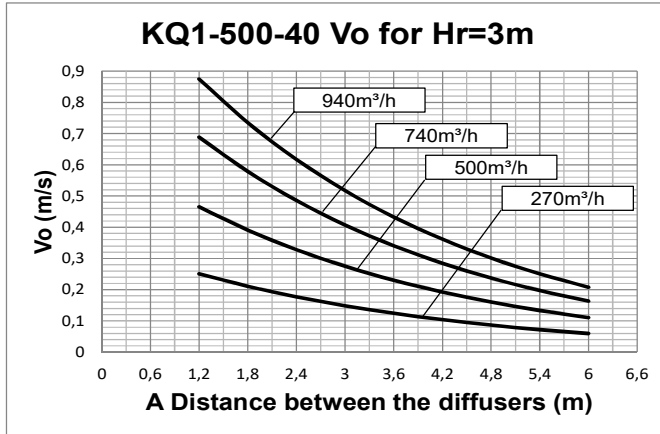




# HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

PERFORMANCE KQ1 500-40

KQ1  
SERIES

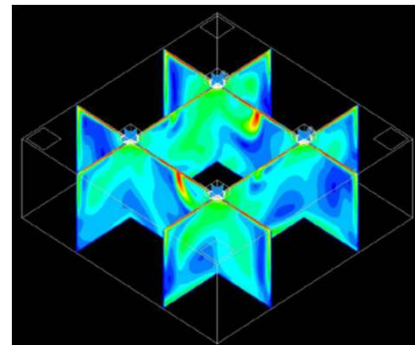


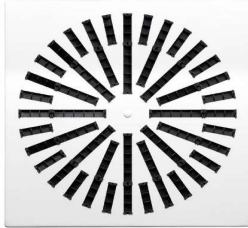
Data obtained from CFD mathematical model in virtual test room operating in isothermal conditions in accordance with the international standard: **ISO 5219 1984: Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.**

A (m) distance between 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:

$$Vo(h) = Vo \times Kf$$

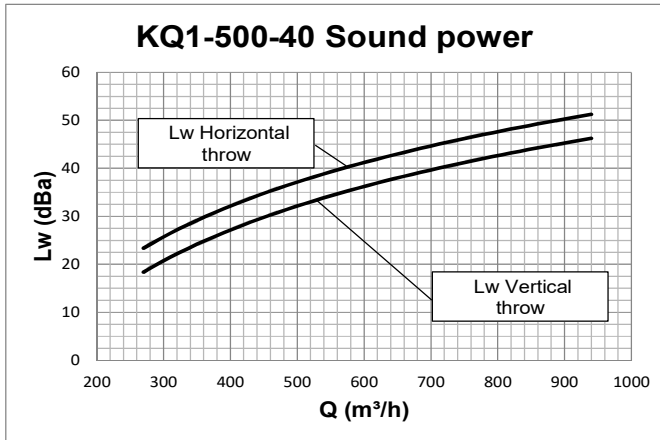




# HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

PERFORMANCE KQ1 500-40

KQ1  
SERIES

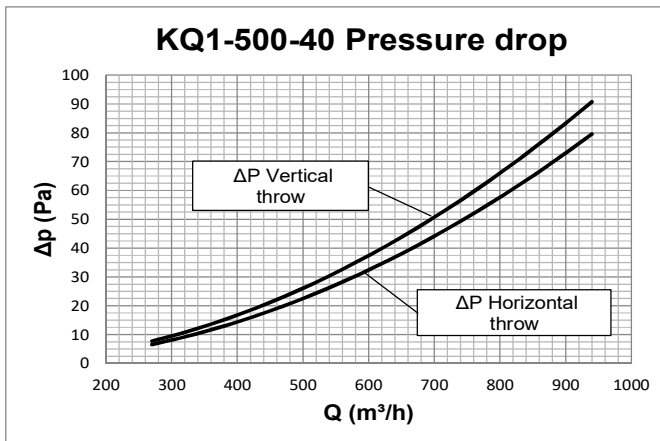


Data measured in reverberation room in accordance with international standards:

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

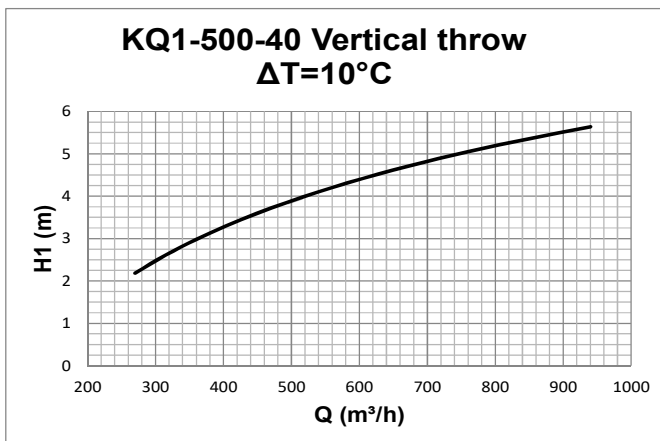
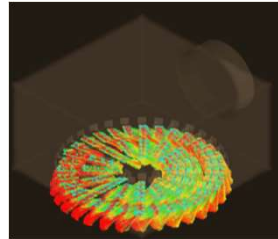
**ISO 5135 1997:** Acoustic - determination of sound power levels of noise from air-terminal devices ; air terminal units; dampers and valves by measurement in a reverberation room.

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



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

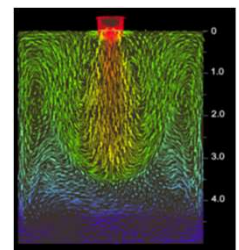
**ISO 5219 1984:** Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.

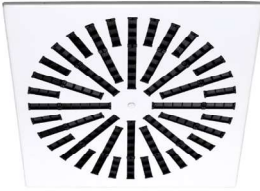


Data obtained from CFD mathematical model in virtual test room operating in heating conditions with  $\Delta T = 10^\circ C$  in accordance with the international standard:

**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

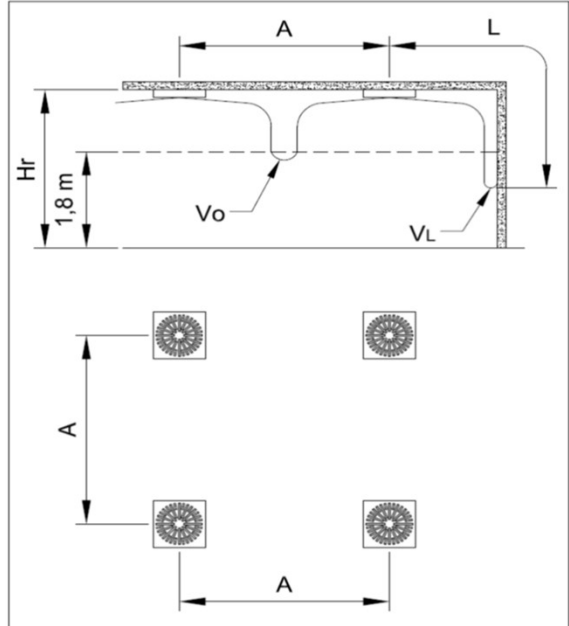
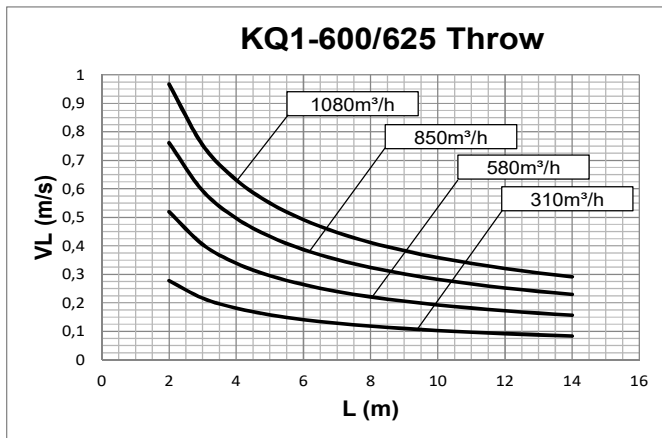
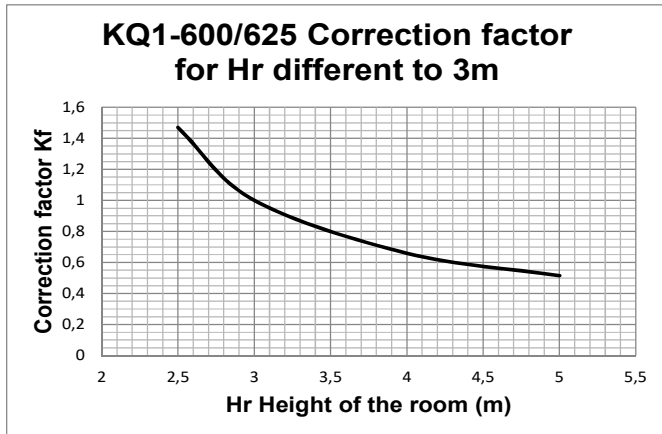
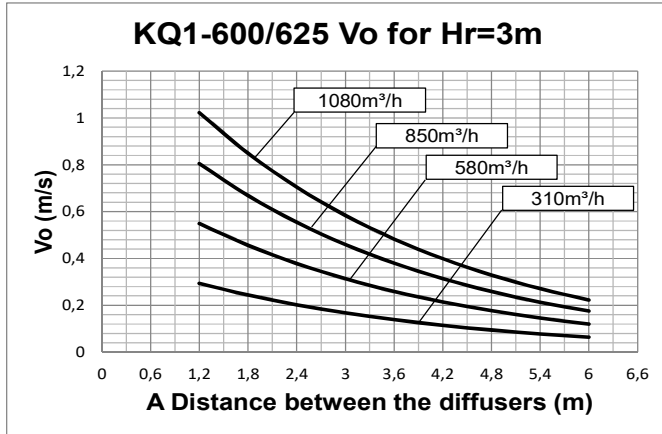




# HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

PERFORMANCE KQ1-600 KQ1-625

KQ1  
SERIES

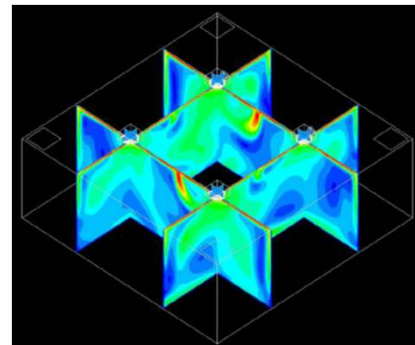


Data obtained from CFD mathematical model in virtual test room operating in isothermal conditions in accordance with the international standard: ISO 5219 1984: Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.

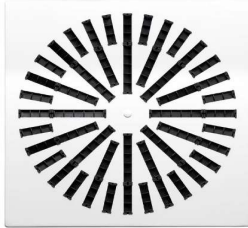
A (m) distance between the diffusers  
 Vo (m/s) speed at the limit of the occupied zone  
 L (m) horizontal distance in metres from the centre of the diffuser  
 VL (m/s) maximum speed in the air stream

For Hr different from 3m:

$$Vo(h) = Vo \times Kf$$



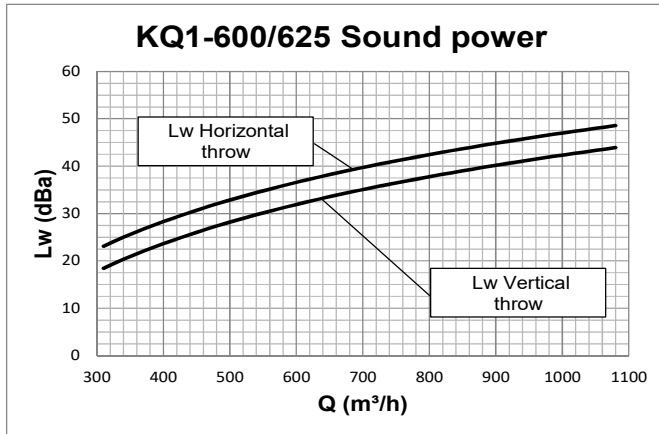




# HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

PERFORMANCE KQ1-600 KQ1-625

KQ1  
SERIES

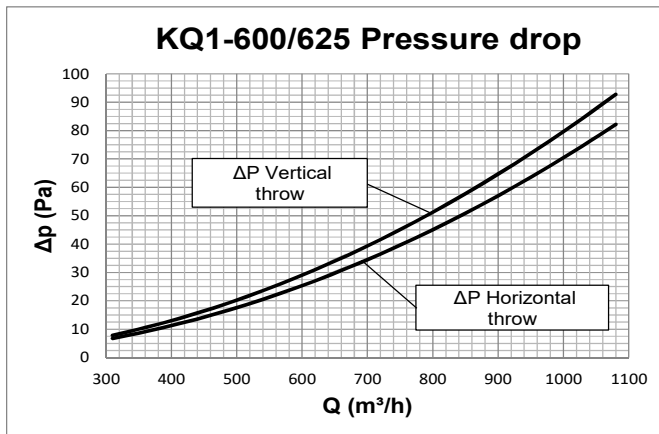


Data measured in reverberation room in accordance with international standards:

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

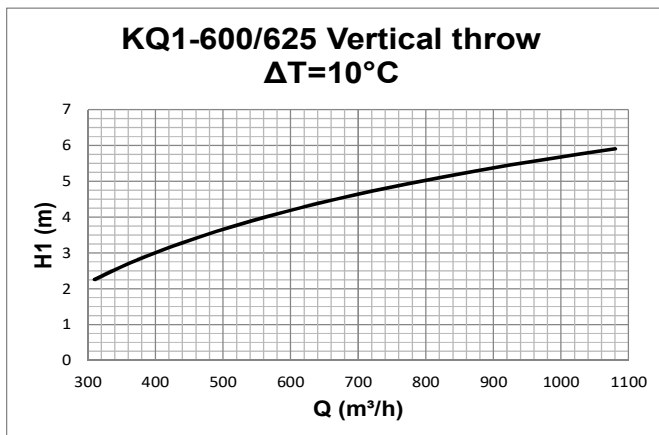
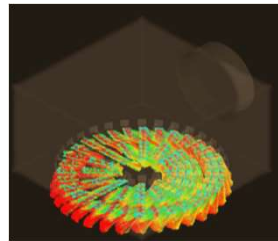
**ISO 5135 1997:** Acoustic - determination of sound power levels of noise from air-terminal devices ; air terminal units; dampers and valves by measurement in a reverberation room.

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

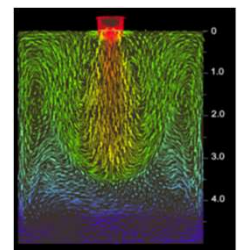
**ISO 5219 1984:** Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.

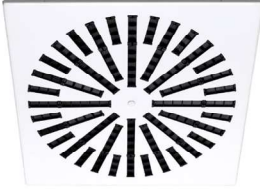


Data obtained from CFD mathematical model in virtual test room operating in heating conditions with  $\Delta T = 10^\circ\text{C}$  in accordance with the international standard:

**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

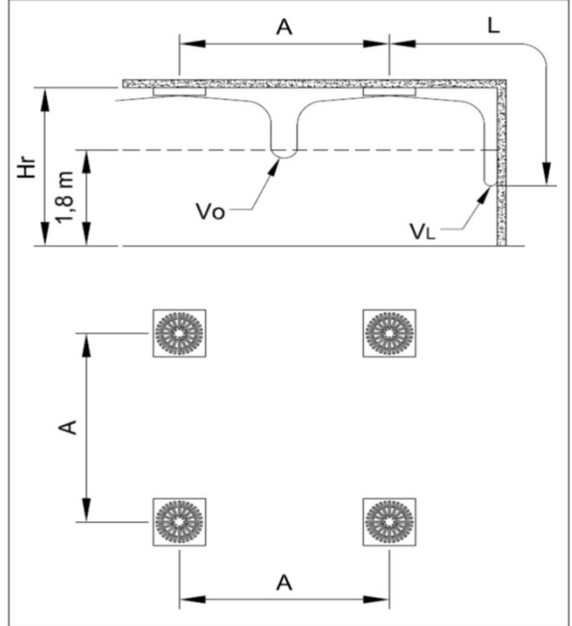
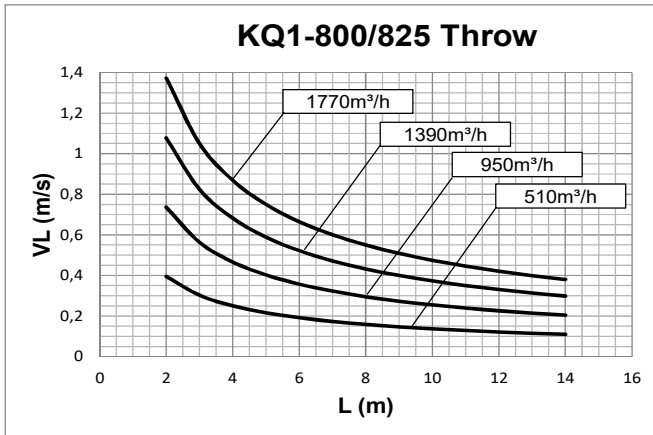
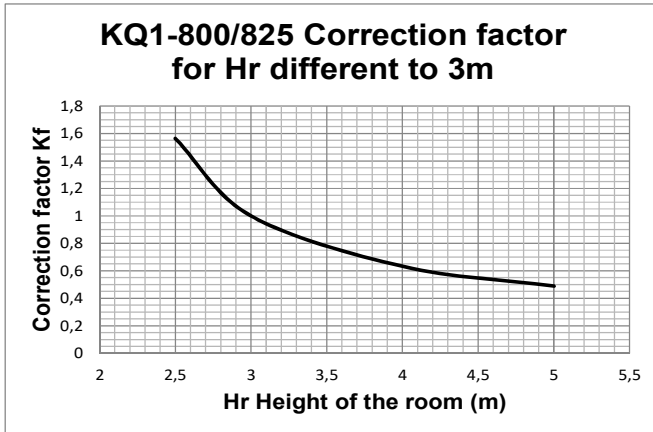
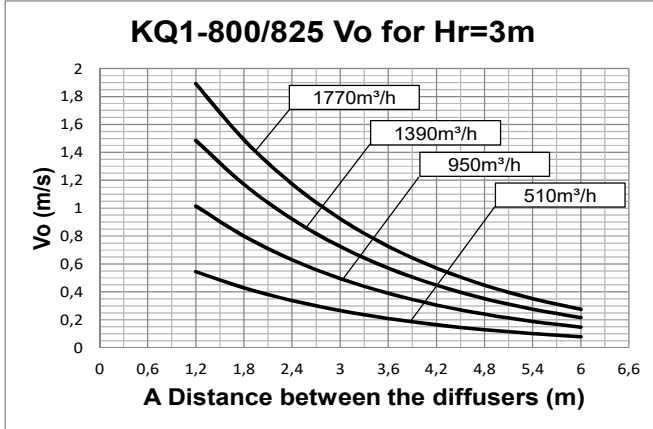




# HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

PERFORMANCE KQ1-800 KQ1-825

KQ1  
SERIES

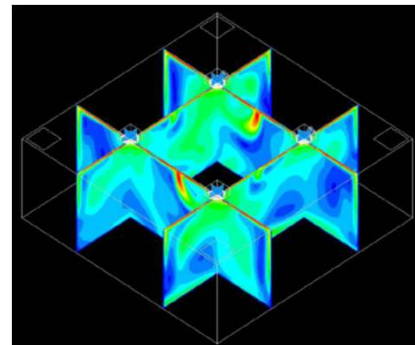


Data obtained from CFD mathematical model in virtual test room operating in isothermal conditions in accordance with the international standard: ISO 5219 1984: Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.

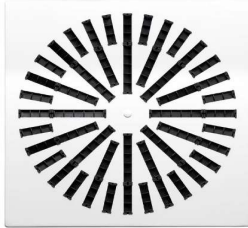
A (m) distance between the diffusers  
 Vo (m/s) speed at the limit of the occupied zone  
 L (m) horizontal distance in metres from the centre of the diffuser  
 VL (m/s) maximum speed in the air stream

For Hr different from 3m:

$$Vo(h) = Vo \times Kf$$



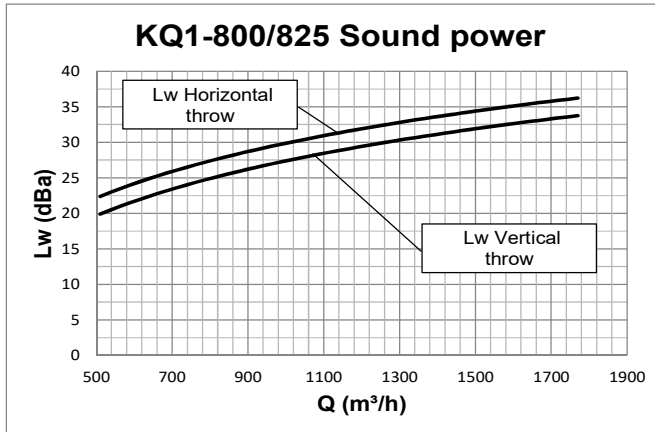




## HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

PERFORMANCE KQ1-800 KQ1-825

KQ1  
SERIES

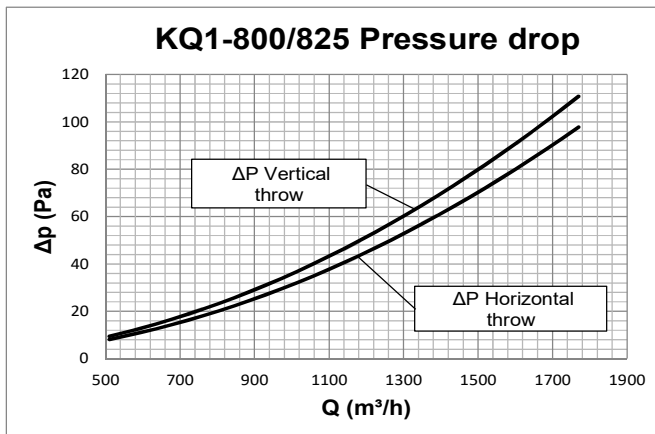


Data measured in reverberation room in accordance with international standards:

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

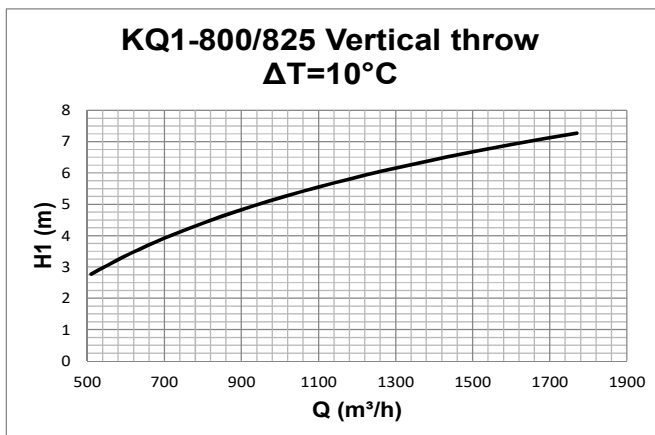
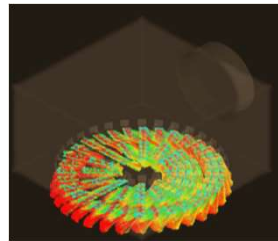
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Data obtained by CFD mathematical model in virtual test room operating in accordance with the international standard:

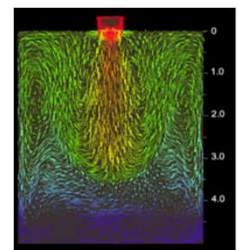
**ISO 5219 1984:** *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*

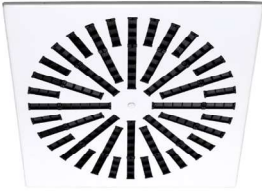


Data obtained from CFD mathematical model in virtual test room operating in heating conditions with  $\Delta T = 10^\circ\text{C}$  in accordance with the international standard:

**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

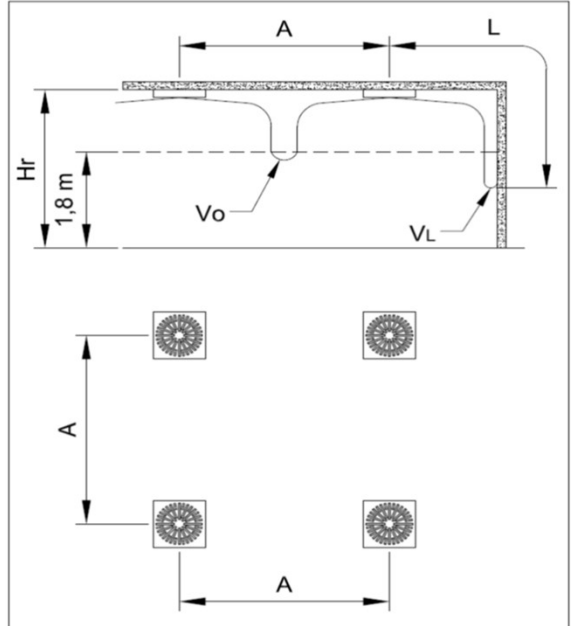
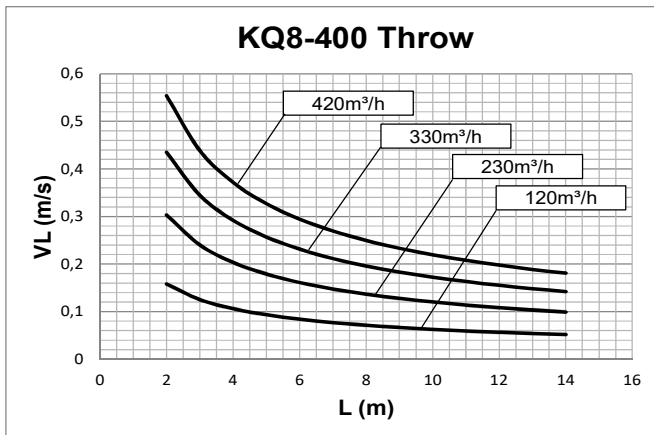
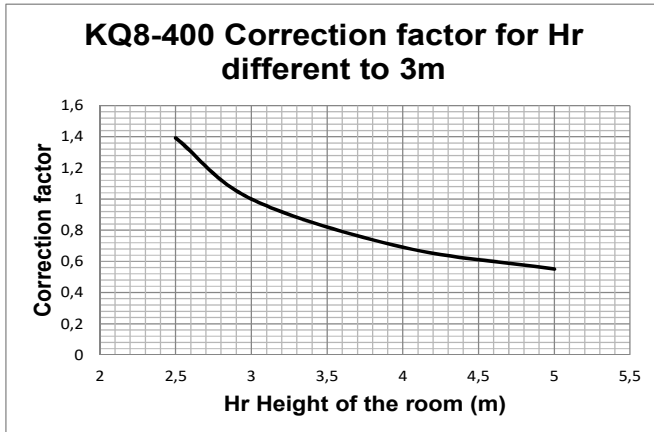
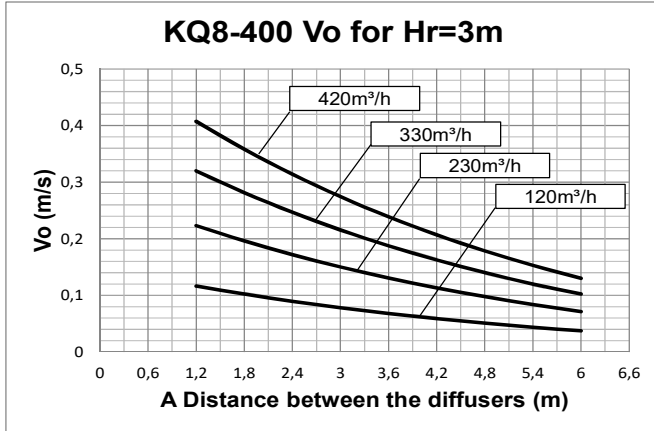




# HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

PERFORMANCE KQ8-400

KQ8  
SERIES

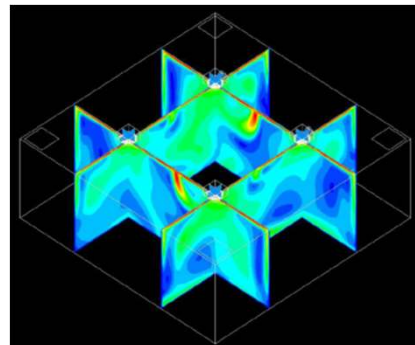


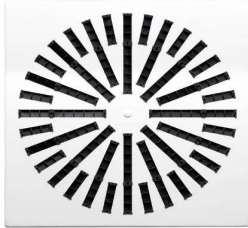
Data obtained from CFD mathematical model in virtual test room operating in isothermal conditions in accordance with the international standard: **ISO 5219 1984: Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.**

A (m) distance between 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:

$$Vo(h) = Vo \times Kf$$

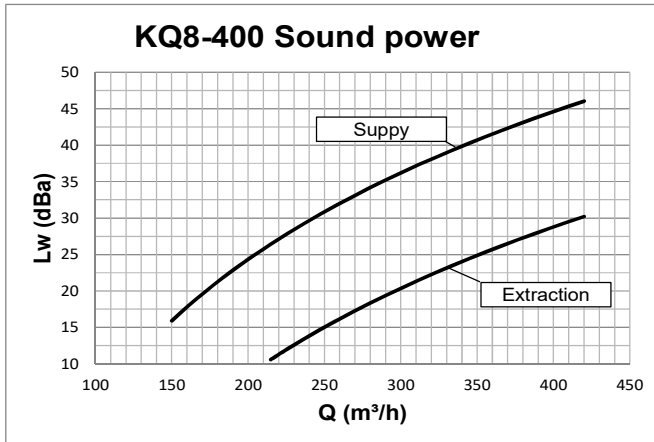




## HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

PERFORMANCE KQ8-400

KQ8  
SERIES

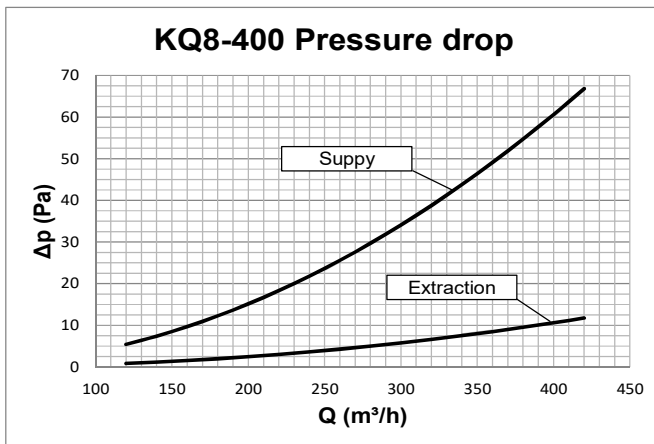


Data measured in reverberation room in accordance with international standards:

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

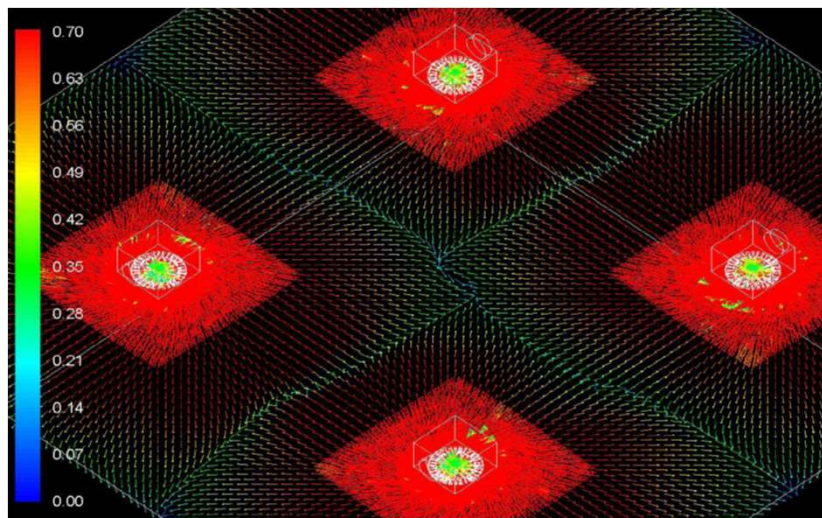
**ISO 5135 1997:** *Acoustic - determination of sound power levels of noise from air-terminal devices ; air terminal units; dampers and valves by measurement in a reverberation room.*

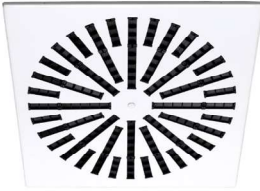
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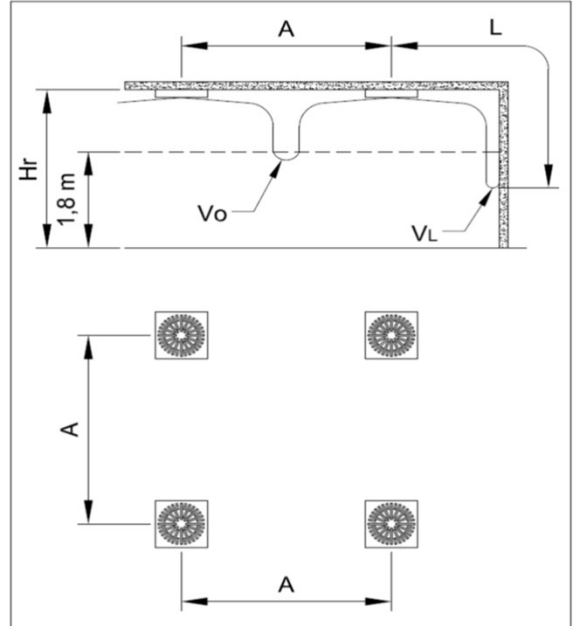
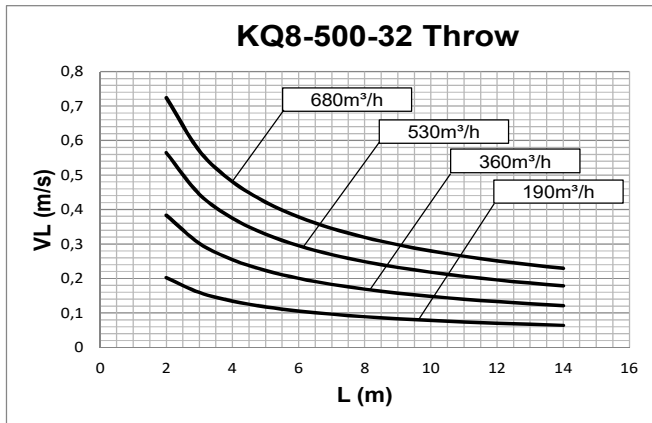
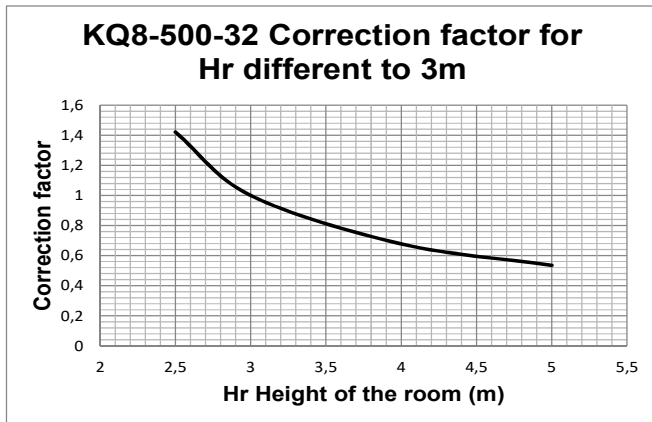
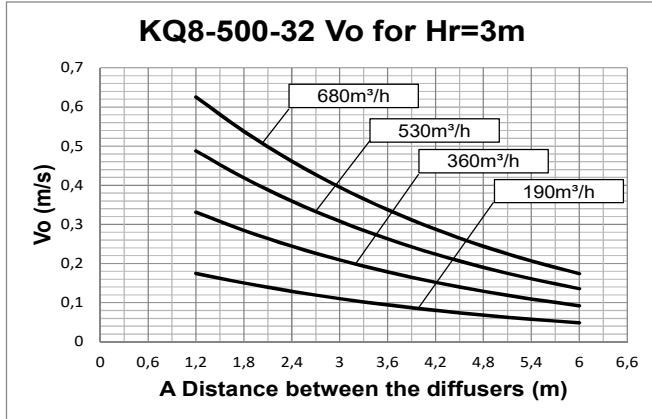




# HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

PERFORMANCE KQ8-500-32

KQ8  
SERIES

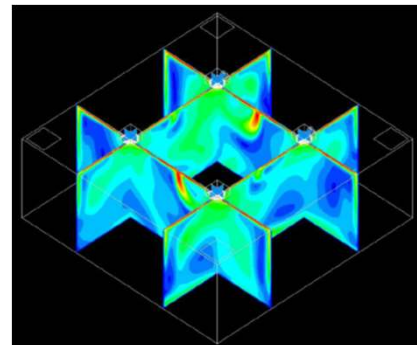


Data obtained from CFD mathematical model in virtual test room operating in isothermal conditions in accordance with the international standard: ISO 5219 1984: Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.

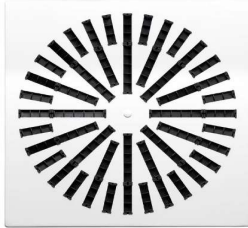
A (m) distance between the diffusers  
 Vo (m/s) speed at the limit of the occupied zone  
 L (m) horizontal distance in metres from the centre of the diffuser  
 VL (m/s) maximum speed in the air stream

For Hr different from 3m:

$$Vo(h) = Vo \times Kf$$



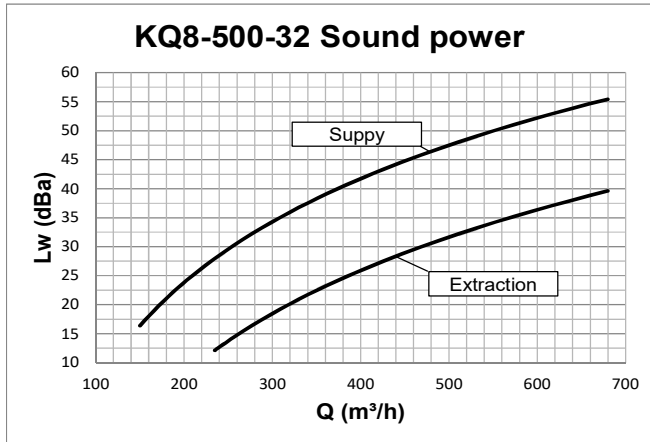




## HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

PERFORMANCE KQ8-500-32

KQ8  
SERIES

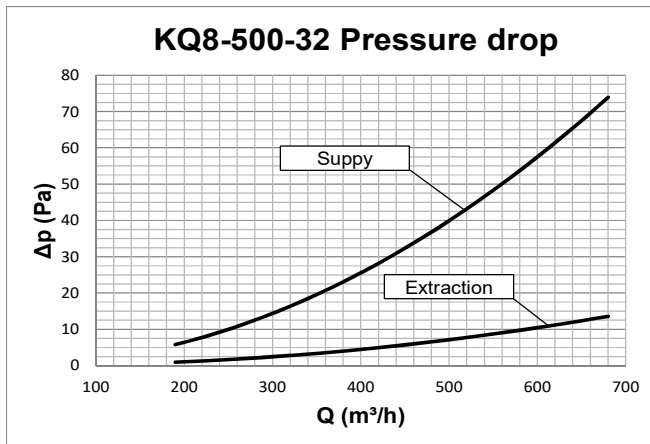


Data measured in reverberation room in accordance with international standards:

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

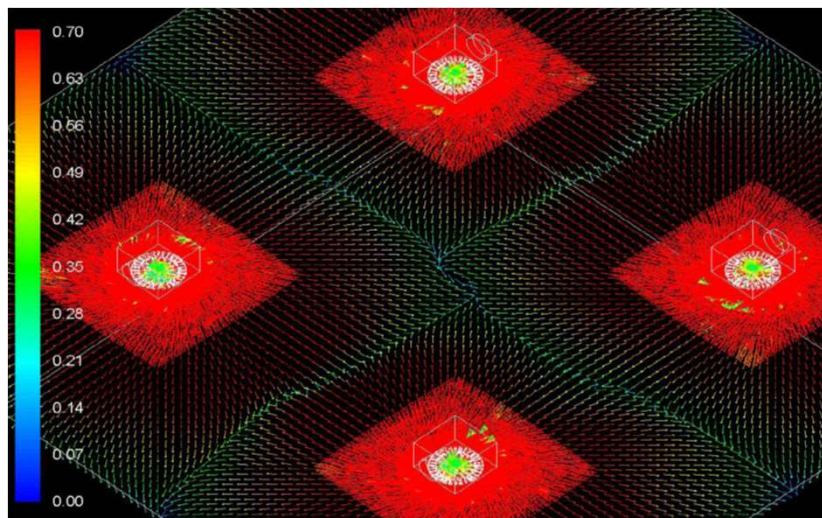
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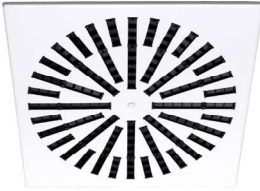
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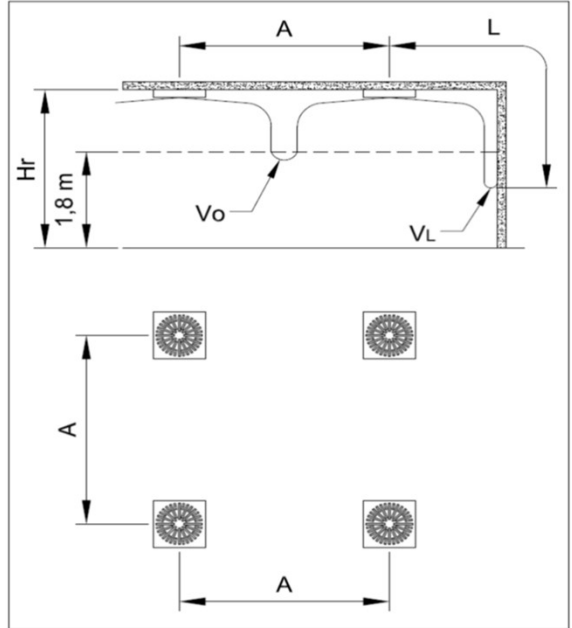
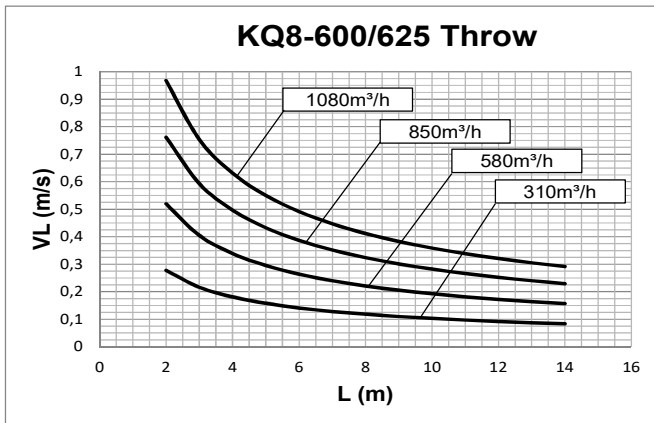
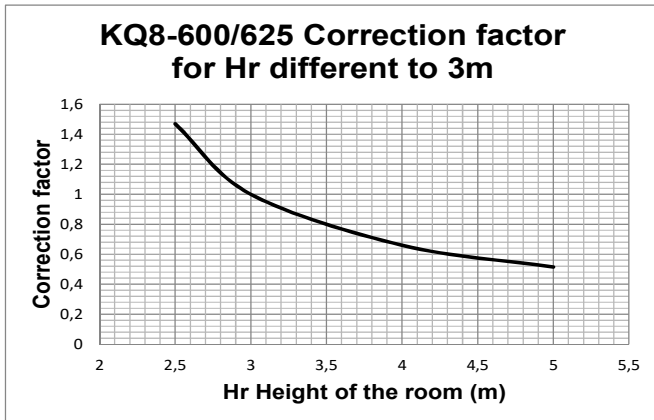
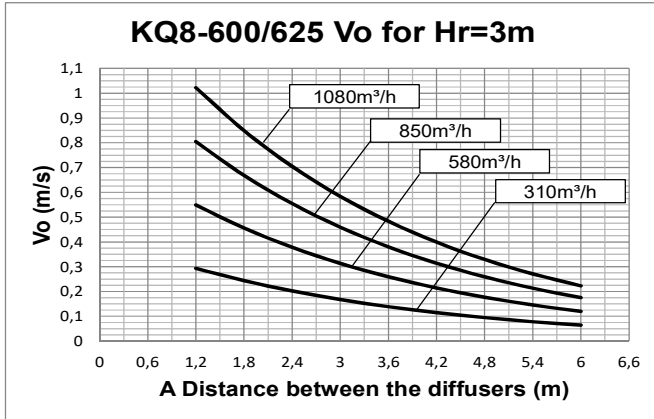




# HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

PERFORMANCE KQ8-600 KQ8-625

KQ8  
SERIES

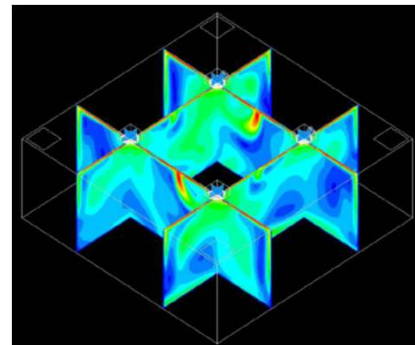


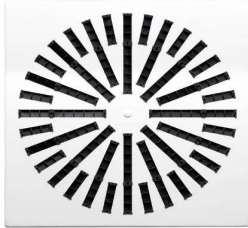
Data obtained from CFD mathematical model in virtual test room operating in isothermal conditions in accordance with the international standard: ISO 5219 1984: Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.

A (m) distance between the diffusers  
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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 3m:

$$Vo(h) = Vo \times Kf$$

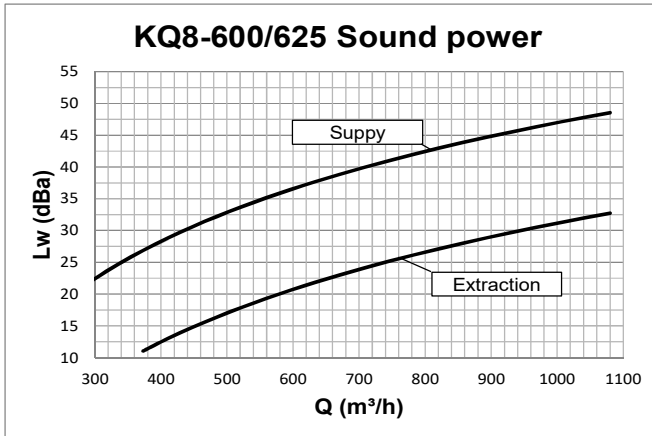




## HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

PERFORMANCE KQ8-600 KQ8-625

KQ8  
SERIES

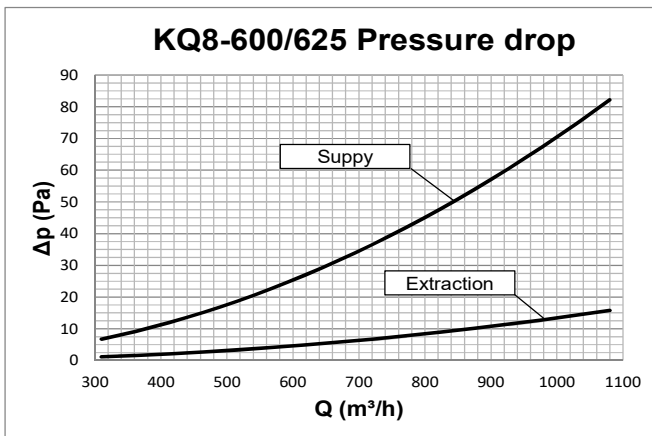


Data measured in reverberation room in accordance with international standards:

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

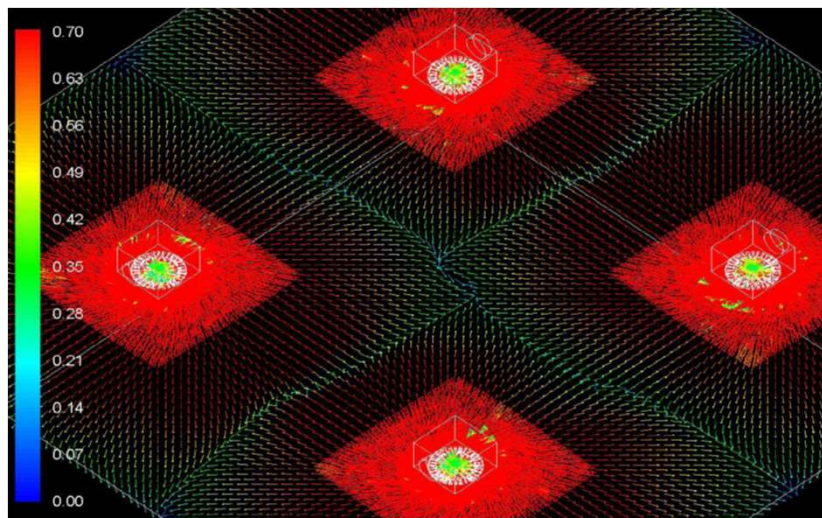
**ISO 5135 1997:** *Acoustic - determination of sound power levels of noise from air-terminal devices ; air terminal units; dampers and valves by measurement in a reverberation room.*

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



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.*





# HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

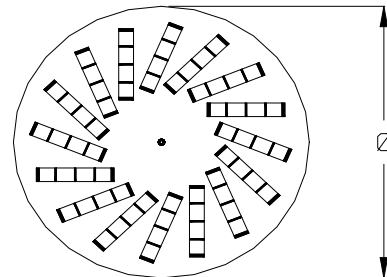
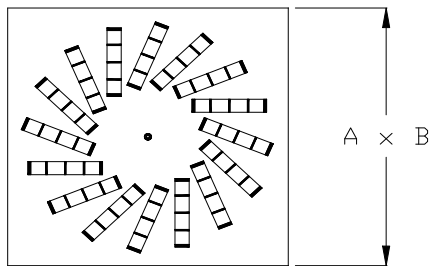
## KQ2 SERIES

### OVERALL SIZES

Square and circular standard construction

**KQ2** 300x300 400x400 500x500

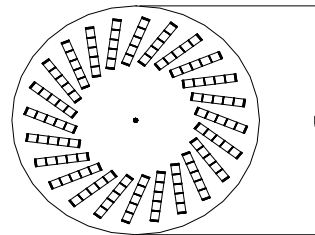
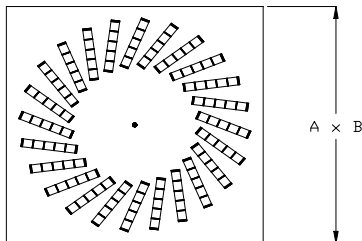
**KQ2 R** Ø 300 Ø 400 Ø 500



Square and circular standard construction

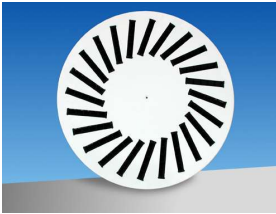
**KQ2** 600x600 625x625

**KQ2 R** Ø 600 Ø 625



Nominal size	Model	A [mm]	B [mm]	Ø
300	KQ2	296	296	296
400	KQ2	396	396	396
500	KQ2	496	496	496
600	KQ2	596	596	596
625	KQ2	621	621	





# HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

## KQ2 SERIES

### QUICK SELECTION

Model A <sub>k</sub> [m <sup>2</sup> ]		Air flow rate																		
		m <sup>3</sup> /h	75	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700	750
		l/s	(21)	(28)	(35)	(42)	(49)	(56)	(63)	(69)	(83)	(97)	(111)	(125)	(139)	(153)	(167)	(181)	(194)	(208)
KQ2 300 (0,008)	L <sub>WA</sub> [dB(A)]	<20	23	30	35	40	44													
	V <sub>k</sub> [m/s]	2,5	3,4	4,2	5,1	5,9	6,7													
	Δp <sub>t</sub> [Pa]	9	17	26	38	51	67													
	L 0,2 [m]	1	1,7	2,5	3,4	4,4	5,6													
KQ2 400 (0,017)	L <sub>WA</sub> [dB(A)]			<20	<20	24	28	31	34	40	44	48								
	V <sub>k</sub> [m/s]			2,1	2,5	2,9	3,3	3,8	4,1	5	5,8	6,6								
	Δp <sub>t</sub> [Pa]			6	9	13	16	21	25	36	49	65								
	L 0,2 [m]			2	2,6	3,3	4,1	4,8	5,5	7,2	9,1	11,1								
KQ2 500 (0,021)	L <sub>WA</sub> [dB(A)]				<20	<20	23	27	29	35	40	44	48							
	V <sub>k</sub> [m/s]				2	2,3	2,6	2,9	3,2	3,9	4,5	5,2	5,8							
	Δp <sub>t</sub> [Pa]				6	8	10	13	15	22	30	39	50							
	L 0,2 [m]				2,3	2,8	3,4	4	4,6	5,9	7,4	8,9	10,5							
KQ2 600 (0,032)	L <sub>WA</sub> [dB(A)]						<20	<20	<20	22	27	31	34	37	40	43	45	47	49	
	V <sub>k</sub> [m/s]						1,7	2	2,1	2,6	3	3,4	3,9	4,3	4,7	5,2	5,6	6	6,5	
	Δp <sub>t</sub> [Pa]						4	6	7	10	13	17	22	27	33	40	46	53	61	
	L 0,2 [m]						2,6	3	3,4	4,3	5,3	6,3	7,3	8,4	9,5	10,7	11,9	13	14,2	
KQ2 625 (0,032)	L <sub>WA</sub> [dB(A)]						<20	<20	<20	22	27	31	34	37	40	43	45	47	49	
	V <sub>k</sub> [m/s]						1,7	2	2,1	2,6	3	3,4	3,9	4,3	4,7	5,2	5,6	6	6,5	
	Δp <sub>t</sub> [Pa]						4	6	7	10	13	17	22	27	33	40	46	53	61	
	L 0,2 [m]						2,6	3	3,4	4,3	5,3	6,3	7,3	8,4	9,5	10,7	11,9	13	14,2	

10 ≤ L<sub>WA</sub> < 30

30 ≤ L<sub>WA</sub> < 40

40 ≤ L<sub>WA</sub> < 50

Data valid for:

- Supply air
- Isotherm conditions
- Throw with ceiling effect

Terminology:

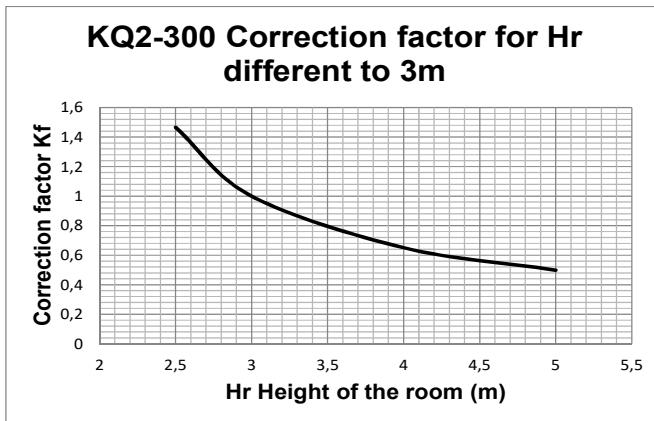
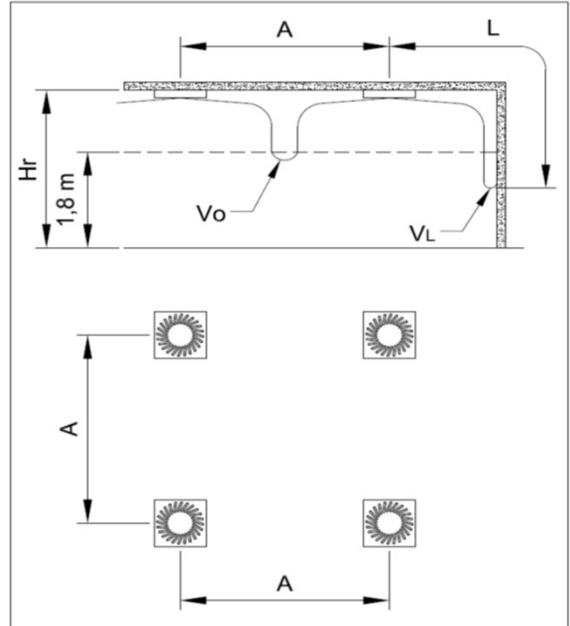
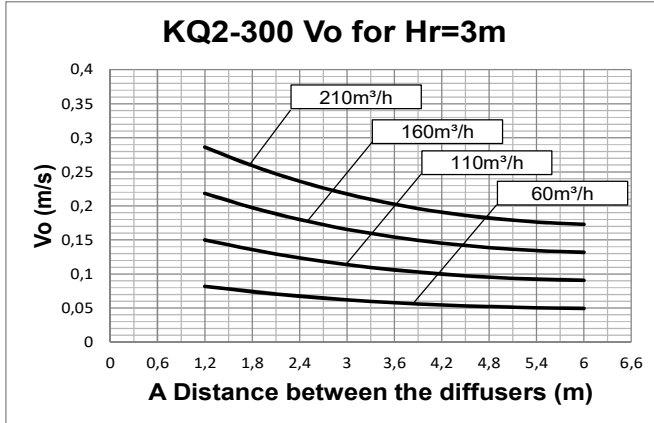
- A<sub>k</sub> = effective free area
- V<sub>k</sub> = effective face velocity
- Δp<sub>t</sub> = total pressure loss
- L<sub>WA</sub> = sound power level



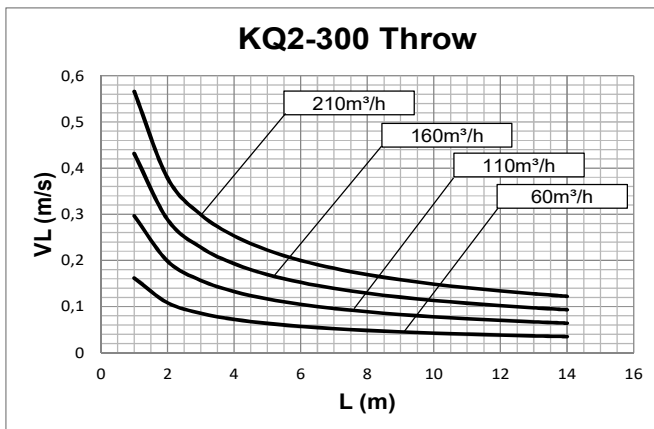
# HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

PERFORMANCE KQ2-300

KQ2  
SERIES



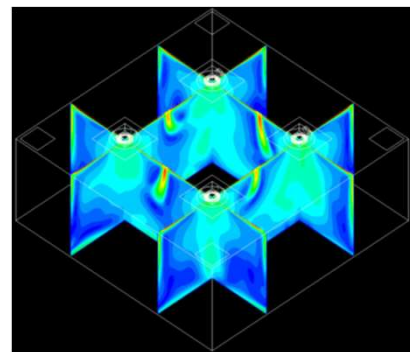
Data obtained from CFD mathematical model in virtual test room operating in isothermal conditions in accordance with the international standard: **ISO 5219 1984: Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.**

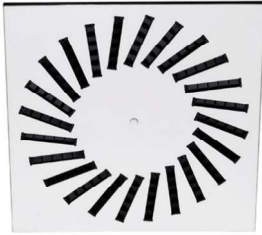


A (m) distance between the diffusers  
 Vo (m/s) speed at the limit of the occupied zone  
 L (m) horizontal distance in metres from the centre of the diffuser  
 VL (m/s) maximum speed in the air stream

For Hr different from 3m:

$$Vo(h) = Vo \times Kf$$

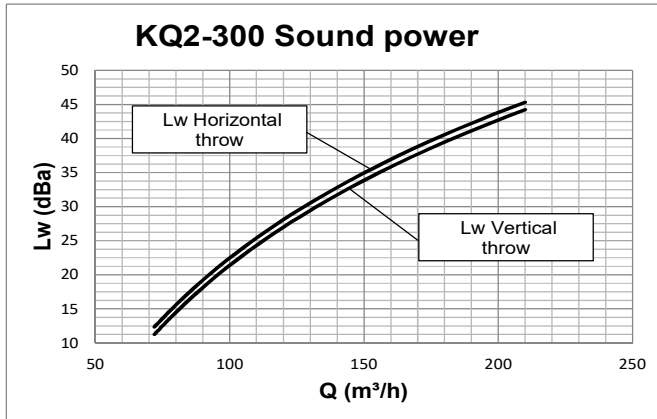




## HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

PERFORMANCE KQ2-300

KQ2  
SERIES

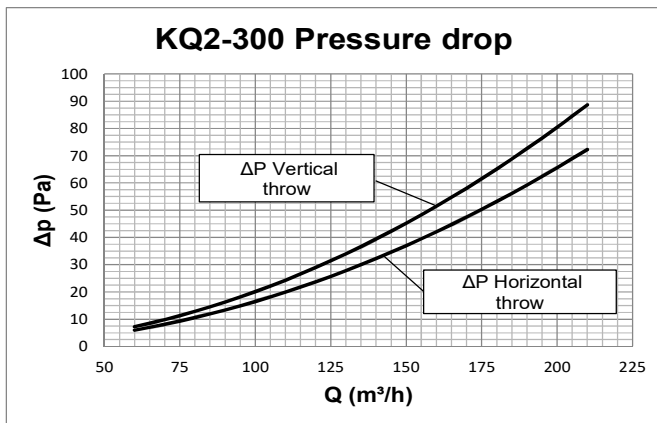


Data measured in reverberation room in accordance with international standards:

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

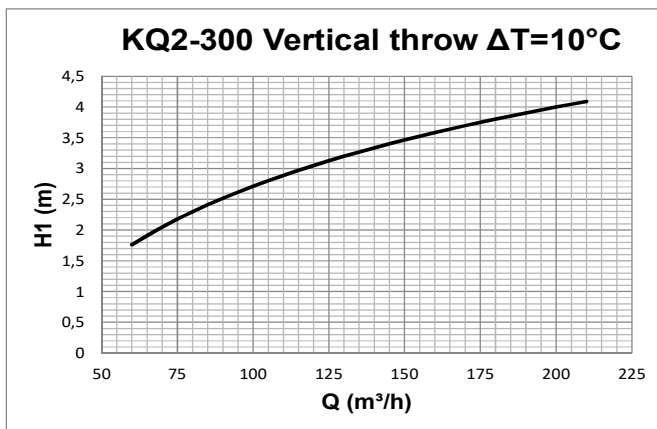
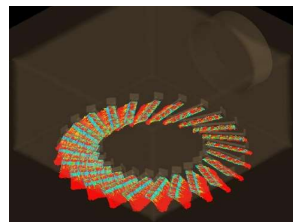
**ISO 5135 1997:** Acoustic - determination of sound power levels of noise from air-terminal devices ; air terminal units; dampers and valves by measurement in a reverberation room.

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

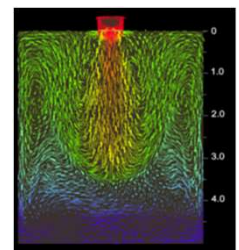
**ISO 5219 1984:** Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.



Data obtained from CFD mathematical model in virtual test room operating in heating conditions with  $\Delta T = 10^{\circ}\text{C}$  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

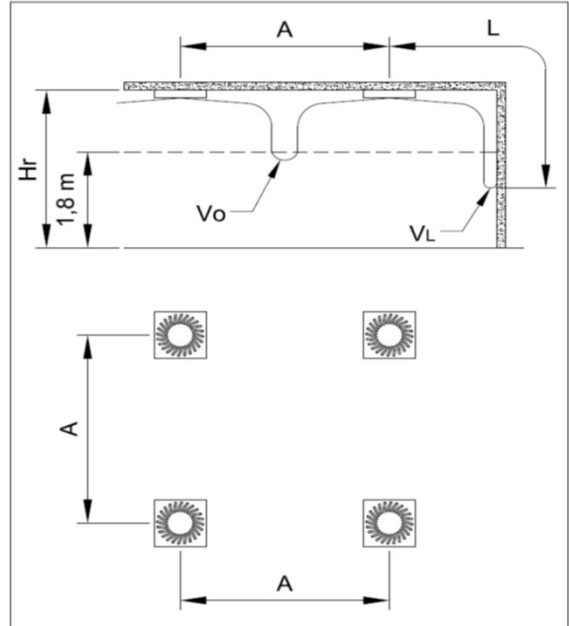
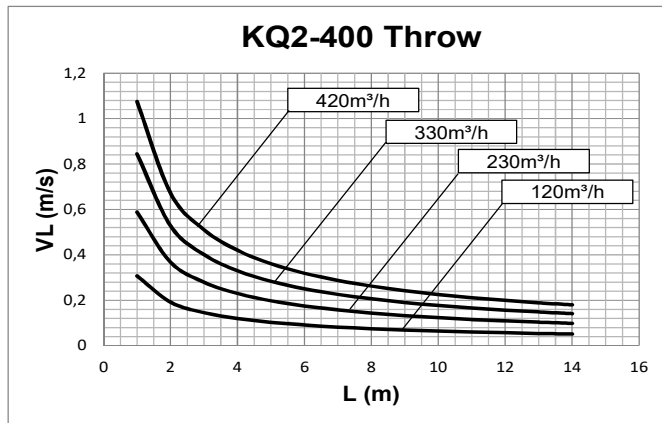
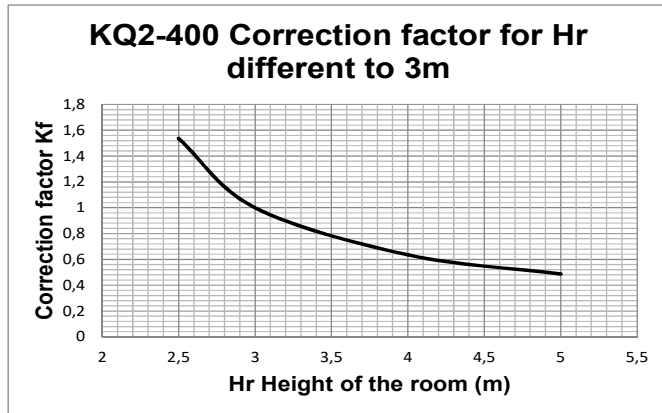
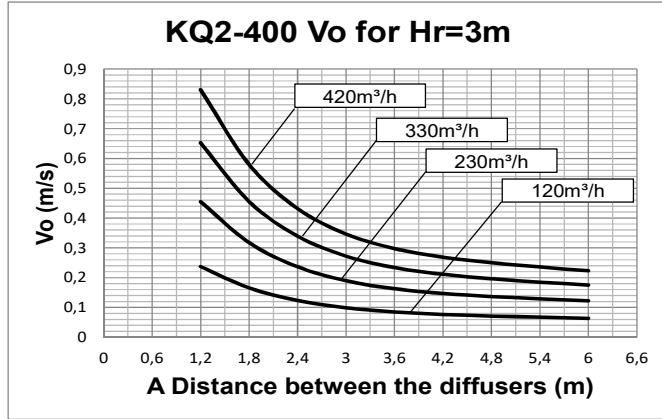




# HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

KQ2  
SERIES

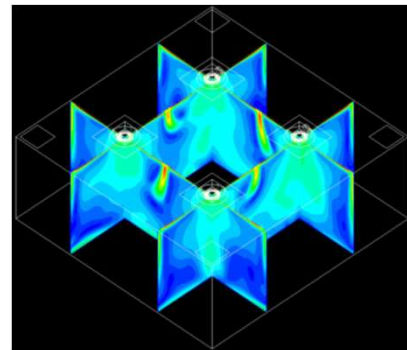
PERFORMANCE KQ2-400

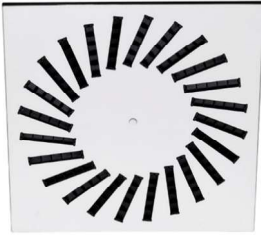


Data obtained from CFD mathematical model in virtual test room operating in isothermal conditions in accordance with the international standard: ISO 5219 1984: Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.

A (m) distance between 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:  
 $V_o(h) = V_o \times K_f$

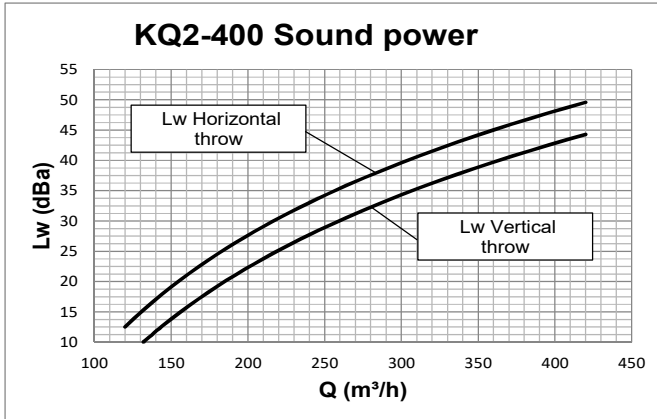




## HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

PERFORMANCE KQ2-400

KQ2  
SERIES

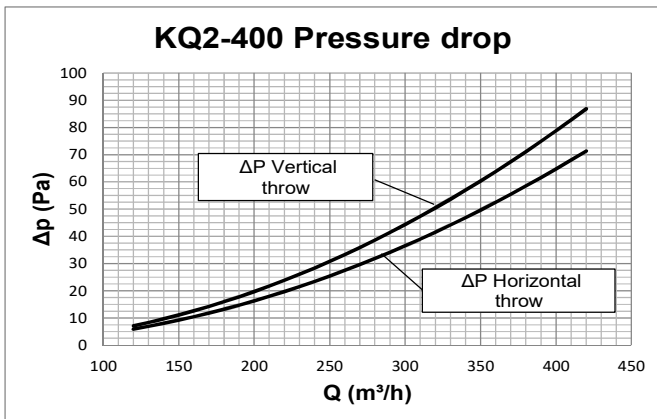


Data measured in reverberation room in accordance with international standards:

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

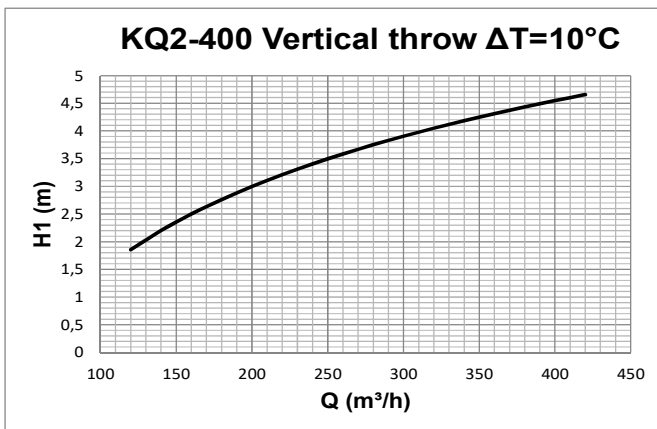
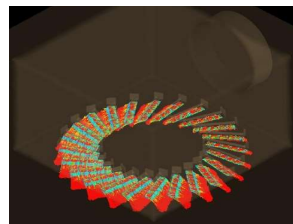
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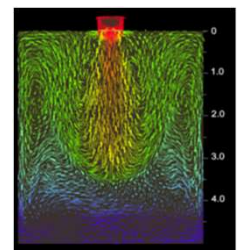
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H1 (m) vertical distance in metres from the centre of the diffuser at which there is the inversion of the direction of air

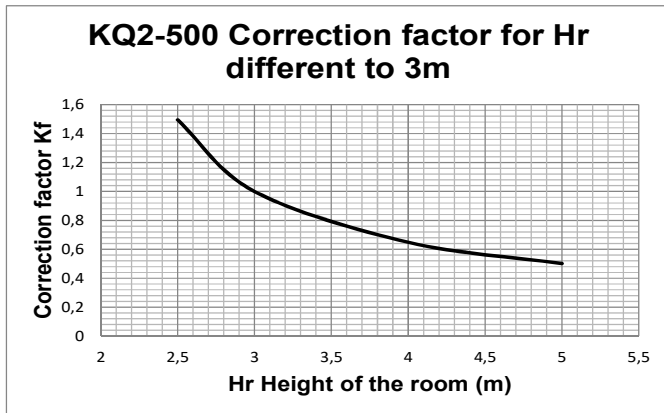
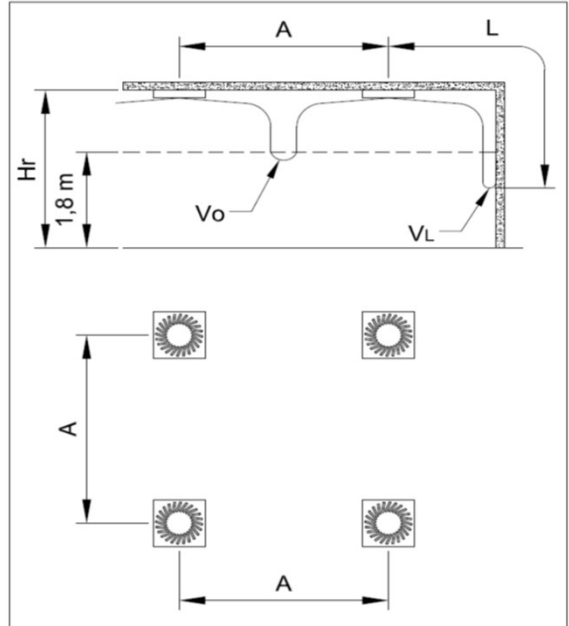
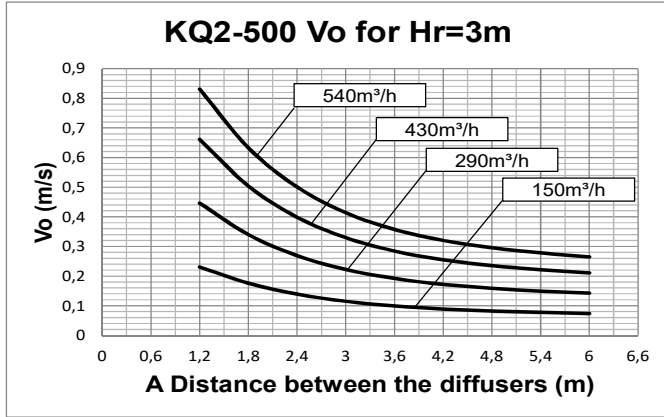




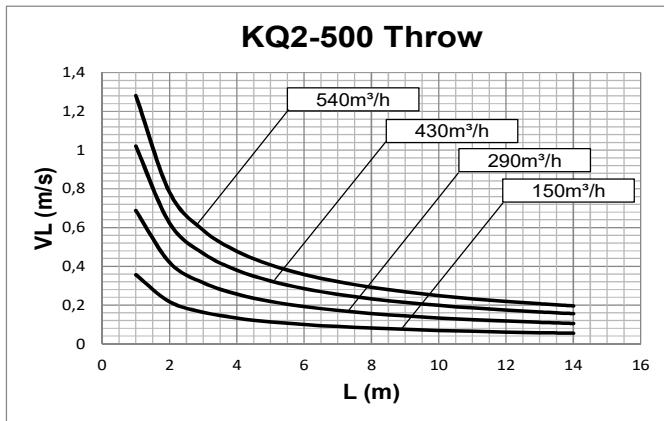
# HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

PERFORMANCE KQ2-500

KQ2  
SERIES



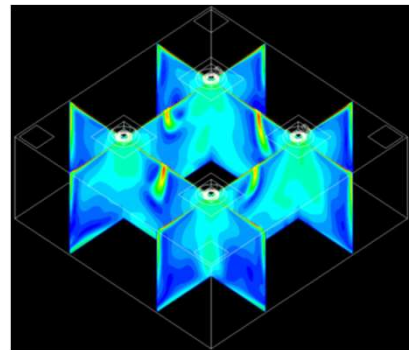
Data obtained from CFD mathematical model in virtual test room operating in isothermal conditions in accordance with the international standard: **ISO 5219 1984: Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.**



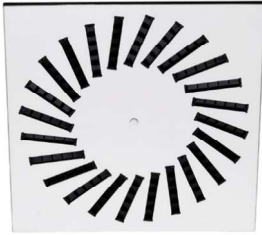
A (m) distance between the diffusers  
 Vo (m/s) speed at the limit of the occupied zone  
 L (m) horizontal distance in metres from the centre of the diffuser  
 VL (m/s) maximum speed in the air stream

For Hr different from 3m:

$$Vo(h) = Vo \times Kf$$



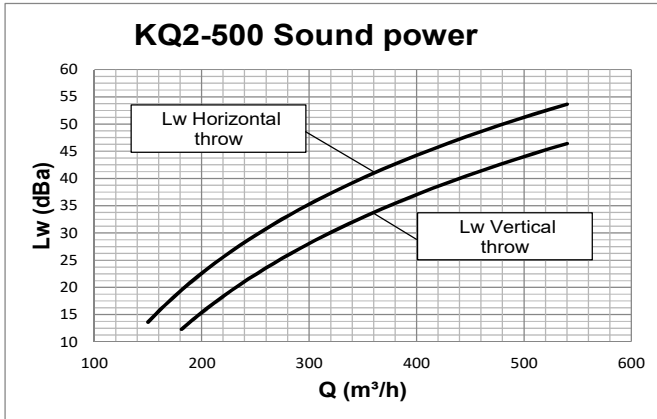




# HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

KQ2  
SERIES

PERFORMANCE KQ2-500

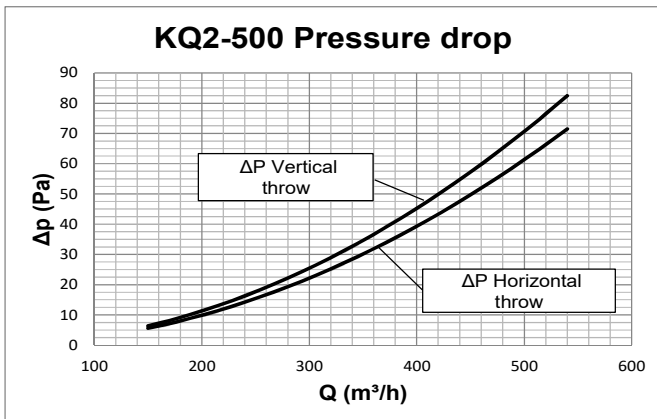


Data measured in reverberation room in accordance with international standards:

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

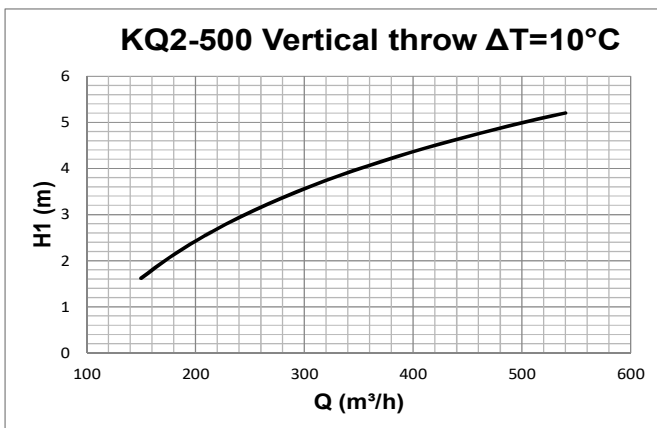
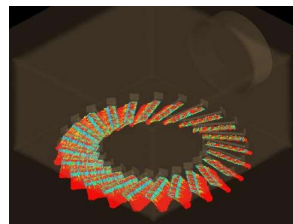
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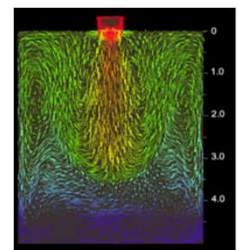
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H1 (m) vertical distance in metres from the centre of the diffuser at which there is the inversion of the direction of air

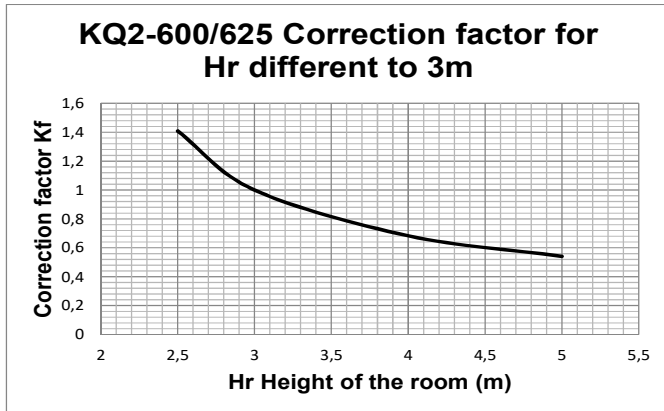
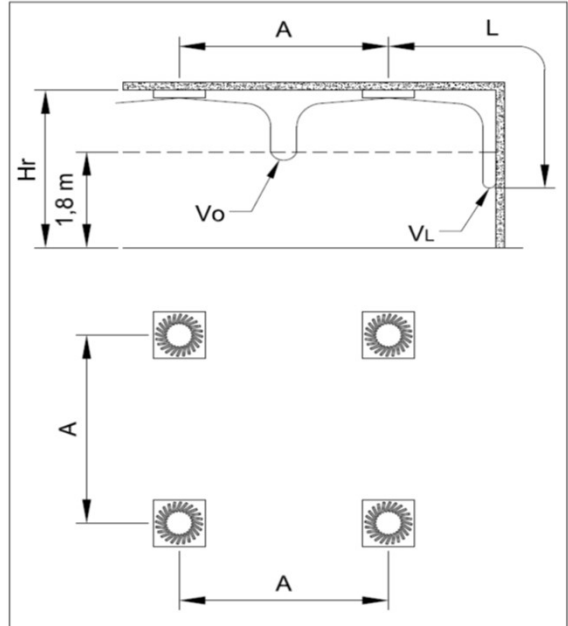
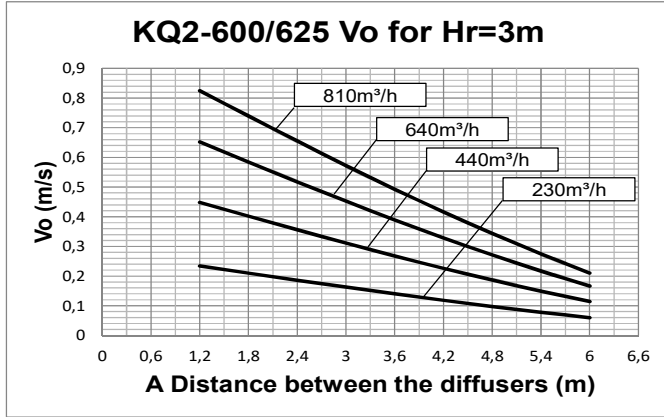




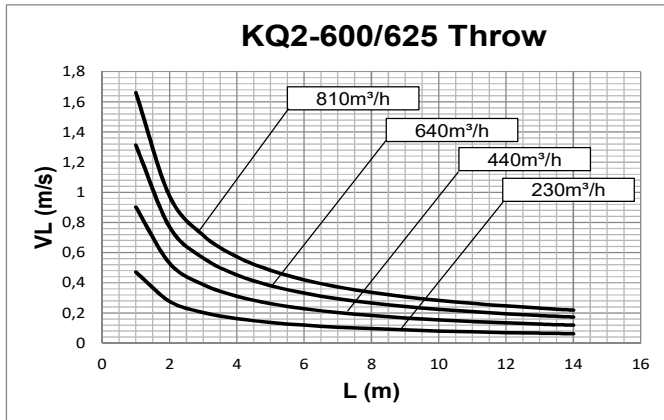
# HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

PERFORMANCE KQ2-600 KQ2-625

KQ2  
SERIES



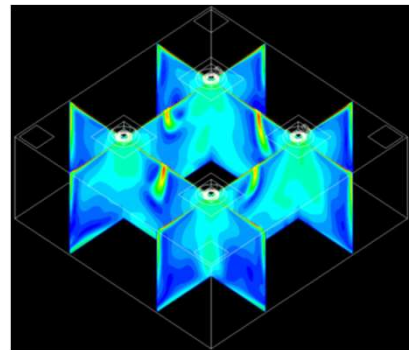
Data obtained from CFD mathematical model in virtual test room operating in isothermal conditions in accordance with the international standard: ISO 5219 1984: Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.



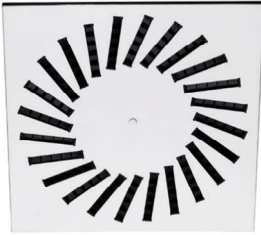
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For Hr different from 3m:

$$Vo(h) = Vo \times Kf$$



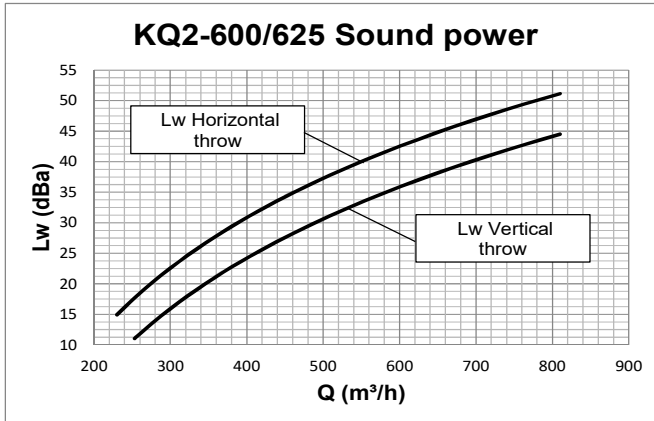




## HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

PERFORMANCE KQ2-600 KQ2-625

KQ2  
SERIES

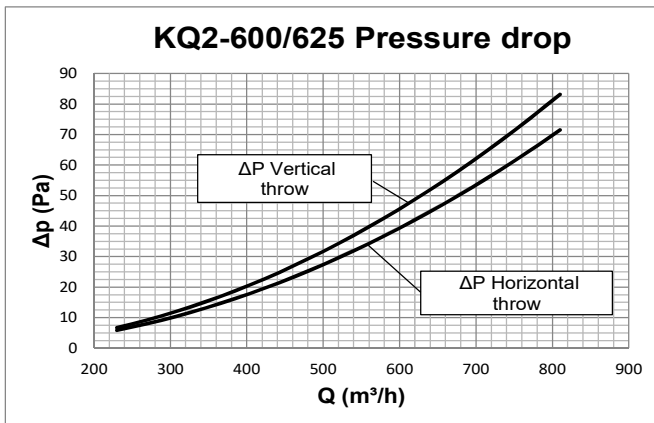


Data measured in reverberation room in accordance with international standards:

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

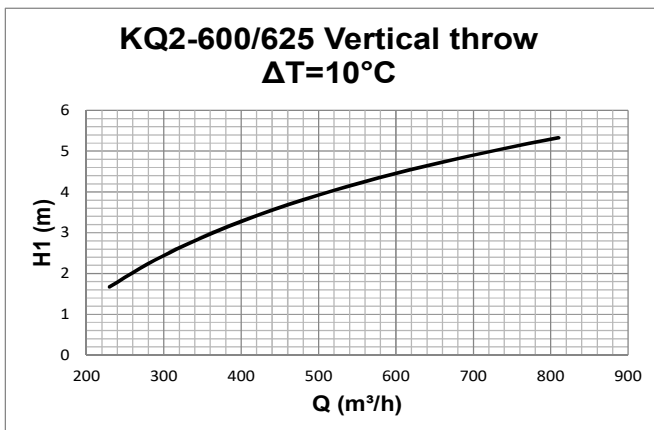
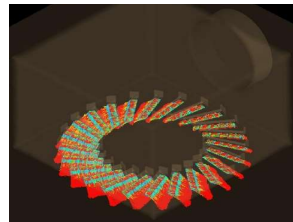
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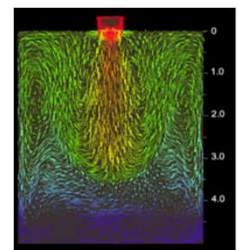
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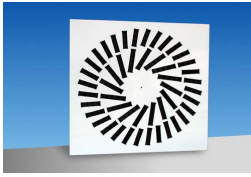


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H1 (m) vertical distance in metres from the centre of the diffuser at which there is the inversion of the direction of air





# HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

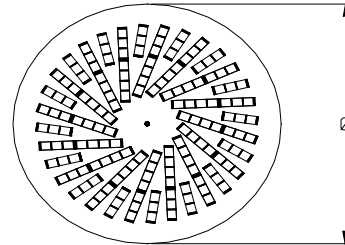
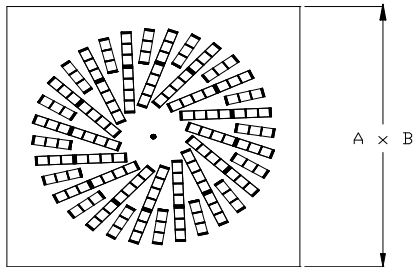
## KQ3 SERIES

### OVERALL SIZES

Square and circular standard construction

**KQ3** 600x600 625x625

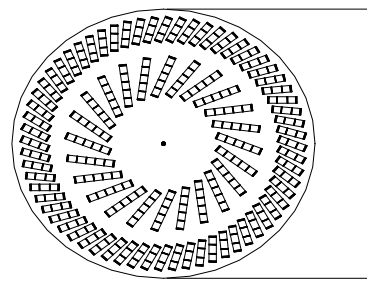
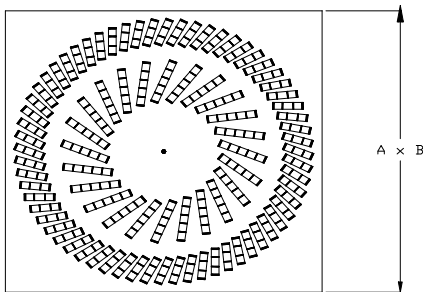
**KQ3 R** Ø 600 Ø 625



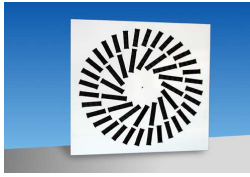
Square and circular standard construction

**KQ3** 800x800 825x825

**KQ3 R** Ø 800 Ø 825



Nominal size	Model	A [mm]	B [mm]	Ø
600	KQ3	596	596	596
625	KQ3	621	621	621
800	KQ3	796	796	796
825	KQ3	821	821	



# HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

## KQ3 SERIES

### QUICK SELECTION

Model A <sub>k</sub> [m <sup>2</sup> ]		Air flow rate																			
		m <sup>3</sup> /h	225	250	275	300	350	400	450	500	550	600	700	800	900	1000	1100	1200	1300	1400	
		l/s	(63)	(69)	(76)	(83)	(97)	(111)	(125)	(139)	(153)	(167)	(194)	(222)	(250)	(278)	(306)	(333)	(361)	(389)	
KQ3 600/36 (0,039)	L <sub>WA</sub> [dB(A)]	<20	<20	<20	20	25	29	32	36	39	41	46	50								
	V <sub>k</sub> [m/s]	1,6	1,8	2	2,1	2,5	2,9	3,2	3,6	3,9	4,3	5	5,7								
	Δp <sub>t</sub> [Pa]	4	5	6	7	9	12	15	19	23	27	37	48								
	L 0,2 [m]	2,6	3	3,4	3,7	4,6	5,4	6,3	7,2	8,1	9	10,9	12,9								
KQ3 625/36 (0,039)	L <sub>WA</sub> [dB(A)]	<20	<20	<20	20	25	29	32	36	39	41	46	50								
	V <sub>k</sub> [m/s]	1,6	1,8	2	2,1	2,5	2,9	3,2	3,6	3,9	4,3	5	5,7								
	Δp <sub>t</sub> [Pa]	4	5	6	7	9	12	15	19	23	27	37	48								
	L 0,2 [m]	2,6	3	3,4	3,7	4,6	5,4	6,3	7,2	8,1	9	10,9	12,9								
KQ3 600/48 (0,043)	L <sub>WA</sub> [dB(A)]		<20	<20	<20	22	27	30	33	36	39	43	47								
	V <sub>k</sub> [m/s]		1,6	1,8	1,9	2,2	2,6	2,9	3,2	3,5	3,9	4,5	5,1								
	Δp <sub>t</sub> [Pa]		4	5	5	7	10	12	15	18	22	30	39								
	L 0,2 [m]		2,8	3,1	3,5	4,2	5	5,8	6,6	7,4	8,2	9,9	11,7								
KQ3 625/48 (0,043)	L <sub>WA</sub> [dB(A)]		<20	<20	<20	22	27	30	33	36	39	43	47								
	V <sub>k</sub> [m/s]		1,6	1,8	1,9	2,2	2,6	2,9	3,2	3,5	3,9	4,5	5,1								
	Δp <sub>t</sub> [Pa]		4	5	5	7	10	12	15	18	22	30	39								
	L 0,2 [m]		2,8	3,1	3,5	4,2	5	5,8	6,6	7,4	8,2	9,9	11,7								
KQ3 800 (0,085)	L <sub>WA</sub> [dB(A)]						<20	<20	<20	21	24	28	32	36	39	42	44	47	49		
	V <sub>k</sub> [m/s]						1,3	1,5	1,6	1,8	2	2,3	2,6	2,9	3,3	3,6	3,9	4,2	4,6		
	Δp <sub>t</sub> [Pa]						2	3	4	5	6	8	10	13	16	19	22	26	31		
	L 0,2 [m]						3,1	3,5	4	4,4	4,9	5,8	6,7	7,6	8,6	9,6	10,5	11,5	12,5		
KQ3 825 (0,085)	L <sub>WA</sub> [dB(A)]						<20	<20	<20	21	24	28	32	36	39	42	44	47	49		
	V <sub>k</sub> [m/s]						1,3	1,5	1,6	1,8	2	2,3	2,6	2,9	3,3	3,6	3,9	4,2	4,6		
	Δp <sub>t</sub> [Pa]						2	3	4	5	6	8	10	13	16	19	22	26	31		
	L 0,2 [m]						3,1	3,5	4	4,4	4,9	5,8	6,7	7,6	8,6	9,6	10,5	11,5	12,5		

**10 ≤ L<sub>WA</sub> < 30**

**30 ≤ L<sub>WA</sub> < 40**

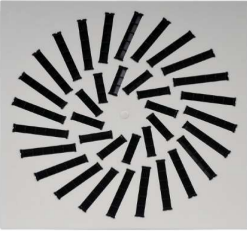
**40 ≤ L<sub>WA</sub> < 50**

**Data valid for:**

- Supply air
- Isotherm conditions
- Throw with ceiling effect

**Terminology:**

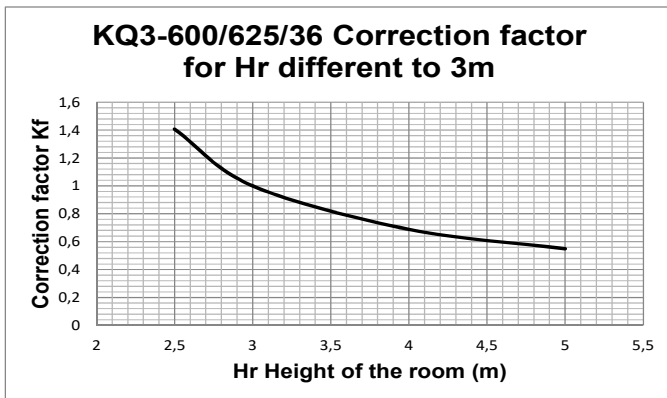
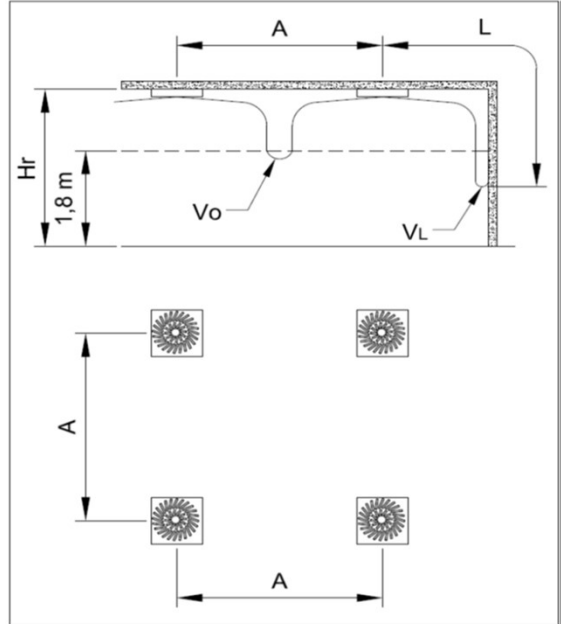
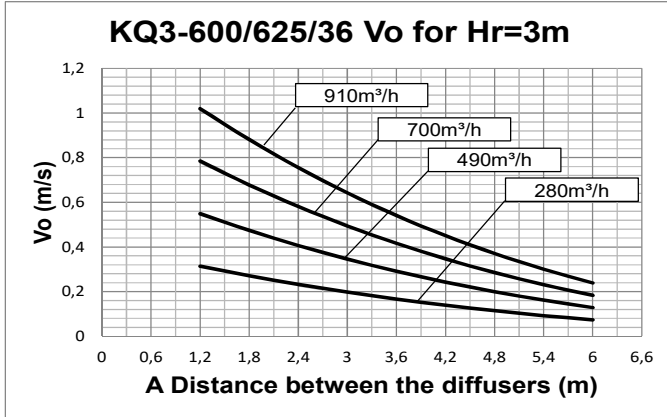
- A<sub>k</sub> = effective free area
- V<sub>k</sub> = effective face velocity
- Δp<sub>t</sub> = total pressure loss
- L<sub>WA</sub> = sound power level



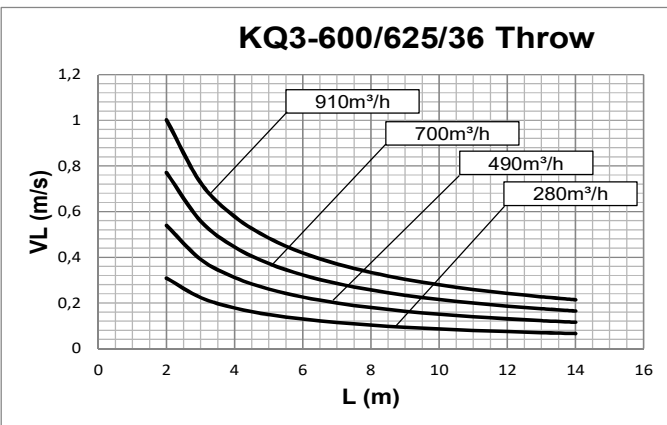
# HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

PERFORMANCE KQ3-600-36 KQ3-625-36

KQ3  
SERIES



Aerulic data and pressure losses measured in isothermic conditions in accordance with international standards:  
**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

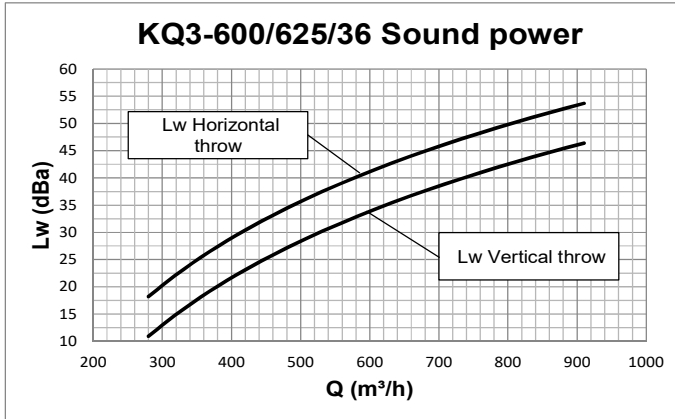
For Hr different from 3m:



## HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

PERFORMANCE KQ3-600-36 KQ3-625-36

KQ3  
SERIES

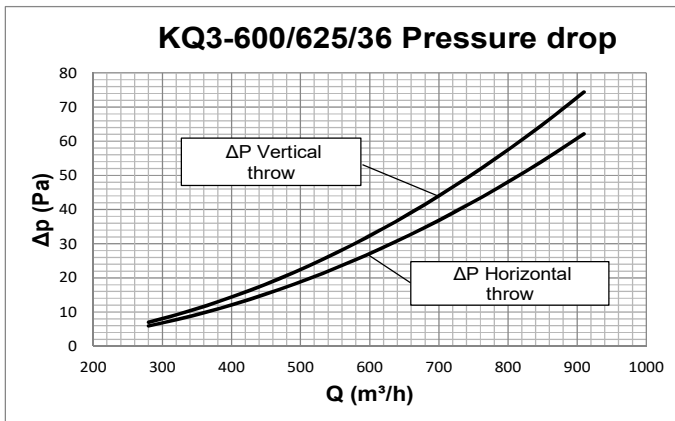


Data measured in reverberation room in accordance with international standards:

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

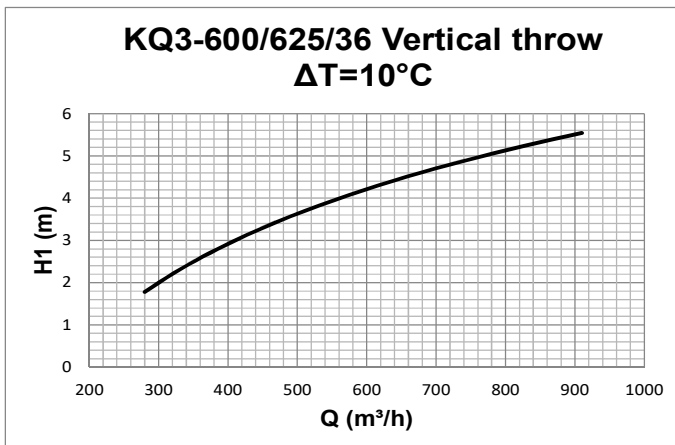
**ISO 5135 1997:** *Acoustic - determination of sound power levels of noise from air-terminal devices ; air terminal units; dampers and valves by measurement in a reverberation room.*

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



Aerulic data and pressure losses measured in isothermic conditions in accordance with international standards:

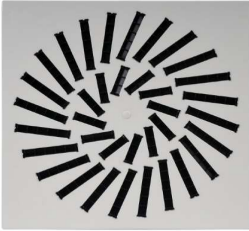
**ISO 5219 1984:** *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*



Data obtained from CFD mathematical model in virtual test room operating in heating conditions with  $\Delta T = 10^\circ\text{C}$  in accordance with the international standard:

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

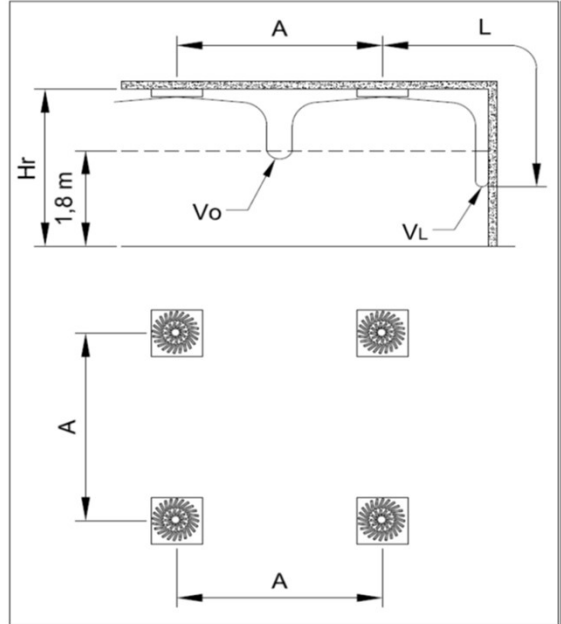
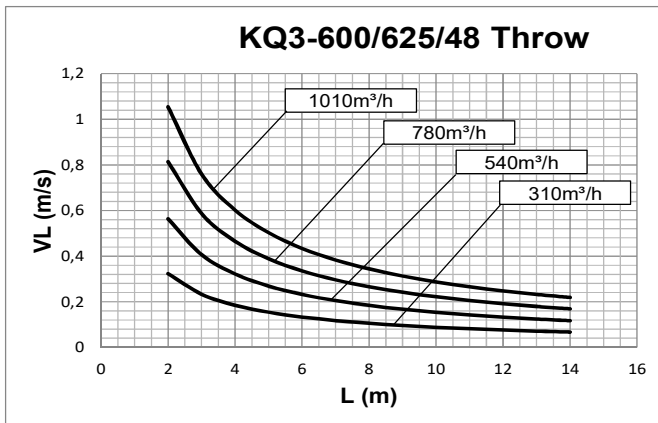
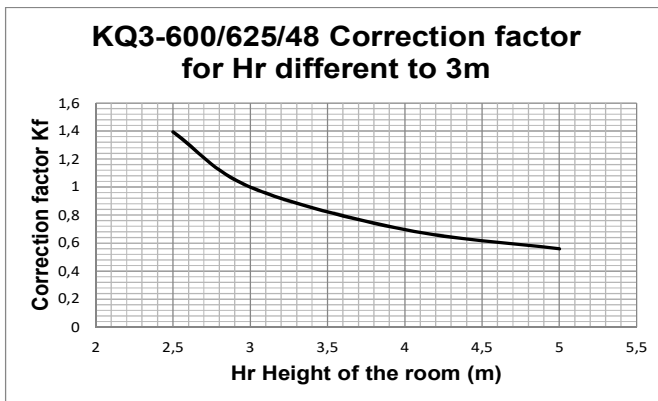
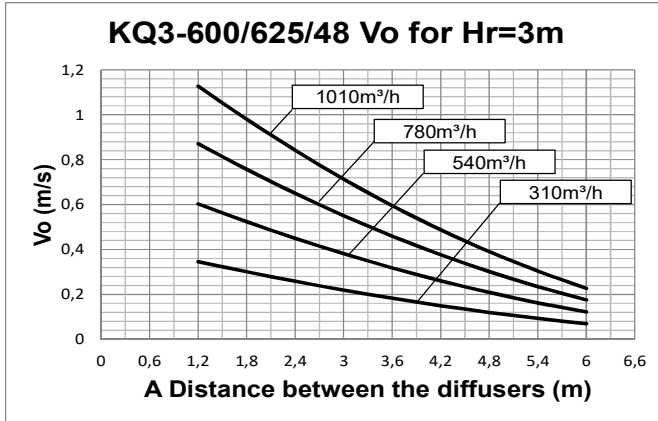
H1 (m) vertical distance in metres from the centre of the diffuser at which there is the inversion of the direction of air



# HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

PERFORMANCE KQ3-600-48 KQ3-625-48

KQ3  
SERIES



Aerulic data and pressure losses measured in isothermic conditions in accordance with international standards:  
**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

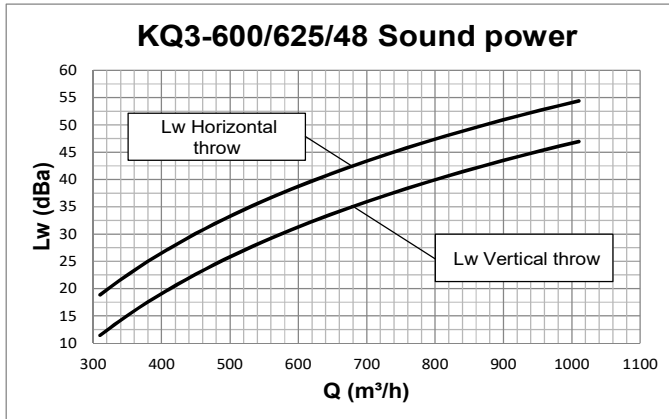
For Hr different from 3m:



## HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

PERFORMANCE KQ3-600-48 KQ3-625-48

# KQ3 SERIES

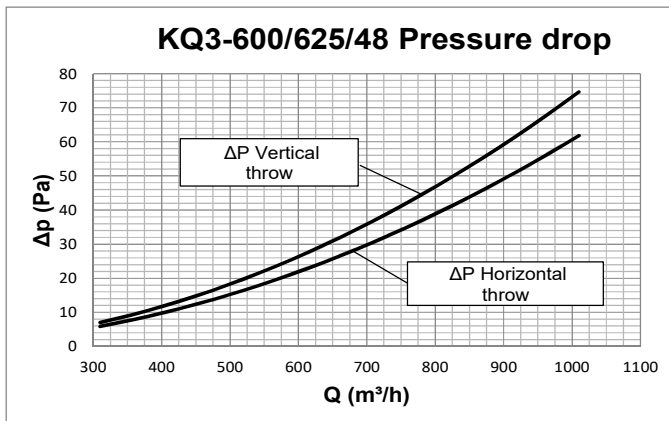


Data measured in reverberation room in accordance with international standards:

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

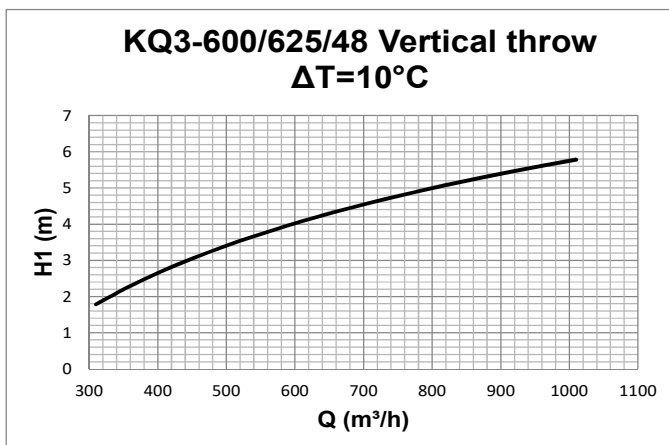
**ISO 5135 1997:** Acoustic - determination of sound power levels of noise from air-terminal devices ; air terminal units; dampers and valves by measurement in a reverberation room.

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Aerologic data and pressure losses measured in isothermic conditions in accordance with international standards:

**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  $\Delta T = 10^\circ\text{C}$  in accordance with the international standard:

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

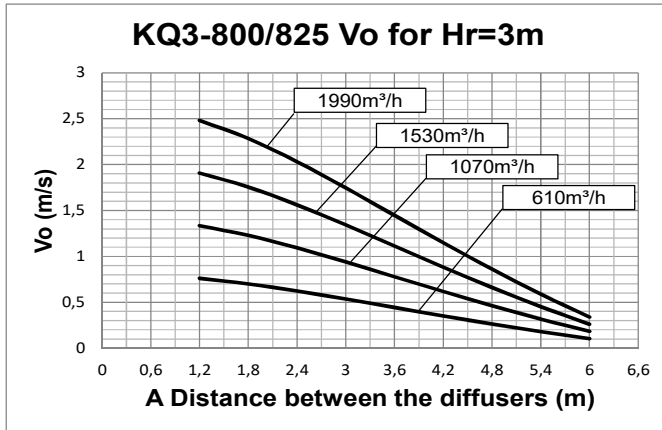
H1 (m) vertical distance in metres from the centre of the diffuser at which there is the inversion of the direction of air



# HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

PERFORMANCE KQ3-800 KQ3-825

KQ3  
SERIES

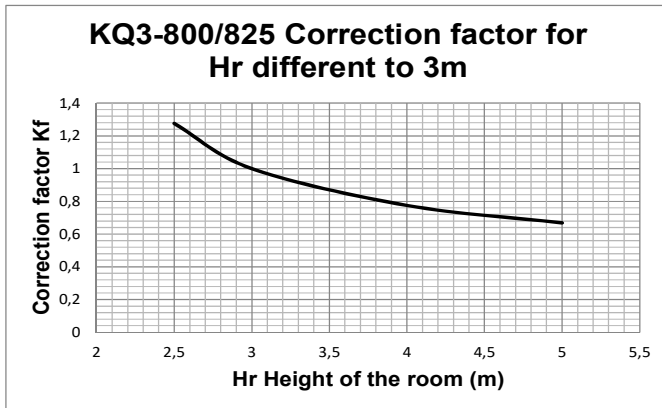


Data measured in reverberation room in accordance with international standards:

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

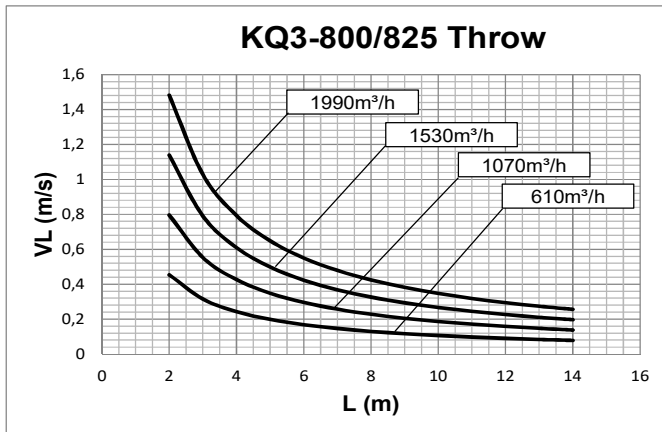
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Aeroluc data and pressure losses measured in isothermic conditions in accordance with international standards:

**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  $\Delta T = 10$  ° 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

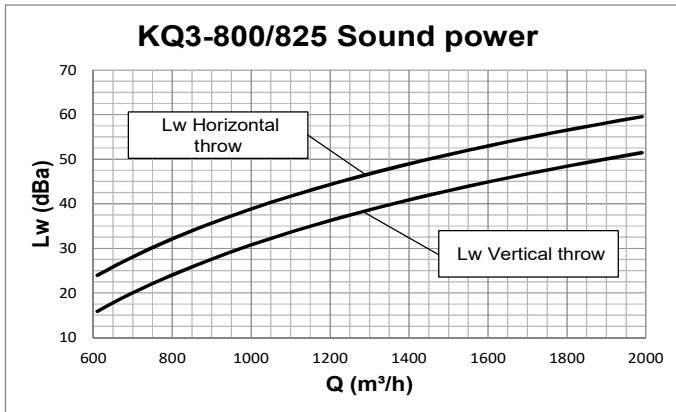




# HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

PERFORMANCE KQ3-800 KQ3-825

## KQ3 SERIES

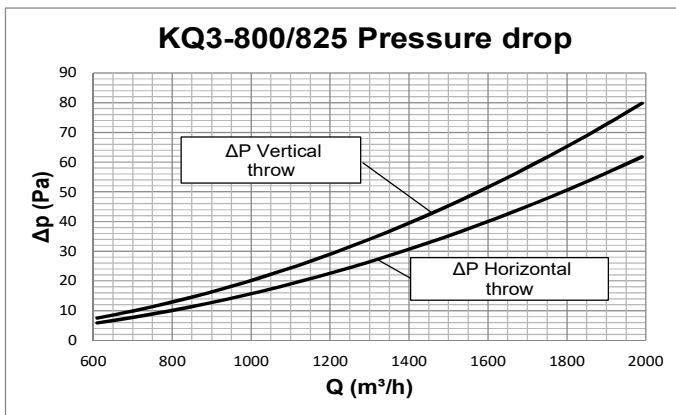


Data measured in reverberation room in accordance with international standards:

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

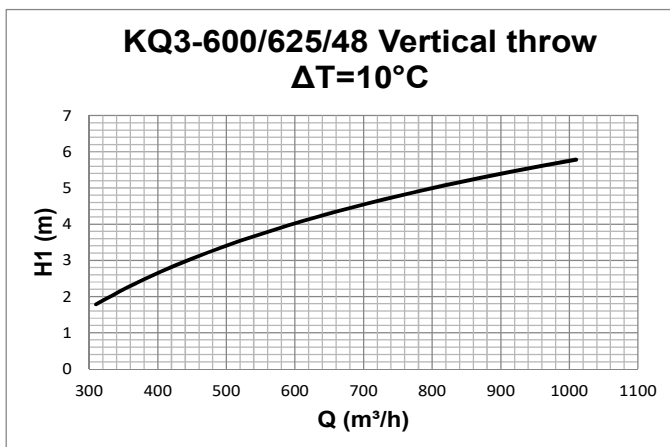
**ISO 5135 1997:** Acoustic - determination of sound power levels of noise from air-terminal devices ; air terminal units; dampers and valves by measurement in a reverberation room.

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



Aerologic data and pressure losses measured in isothermic conditions in accordance with international standards:

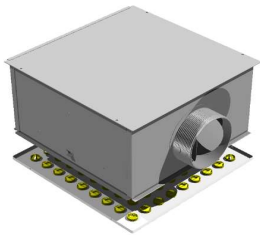
**ISO 5219 1984:** Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.



Data obtained from CFD mathematical model in virtual test room operating in heating conditions with  $\Delta T = 10$  ° C in accordance with the international standard:

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

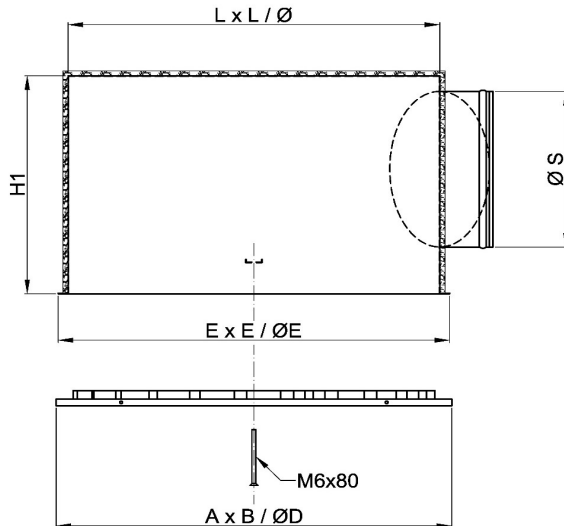
H1 (m) vertical distance in metres from the centre of the diffuser at which there is the inversion of the direction of air



## HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

PP80  
PP81

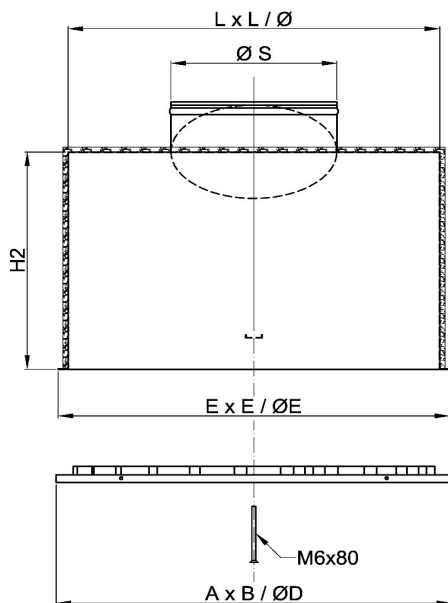
PLENUM IN SEEL SHEET



### PLENUM PP80

Made of galvanized sheet steel.  
Lateral connection.  
Mounting bridge for mounting diffuser with central screw.  
Complete with hooks for ceiling suspension.

optionals:  
polyethylene insulation;  
equalizer steel mesh;  
control damper into the connection.



### PLENUM PP81

Made of galvanized sheet steel.  
Rear connection.  
Mounting bridge for mounting diffuser with central screw.  
Complete with hooks for ceiling suspension.

optionals:  
polyethylene insulation;  
equalizer steel mesh;  
control damper into the connection.

Nominal size of the diffuser	AxB ØD	L x L Ø	E x E ØE	H1	H2	N° connec- tions	S	Connection and damper material
300	296	260	290	250	150	1	123	ABS (*)
400	396	360	390	350	200	1	195	ABS (*)
500	496	460	490	350	200	1	195	ABS (*)
600	596	560	590	350	200	1	245	ABS (*)
625	621	585	615	350	200	1	245	ABS (*)
800	796	760	790	400	250	1	296	steel
825	821	785	815	400	250	1	296	steel

(\*) Steel on request

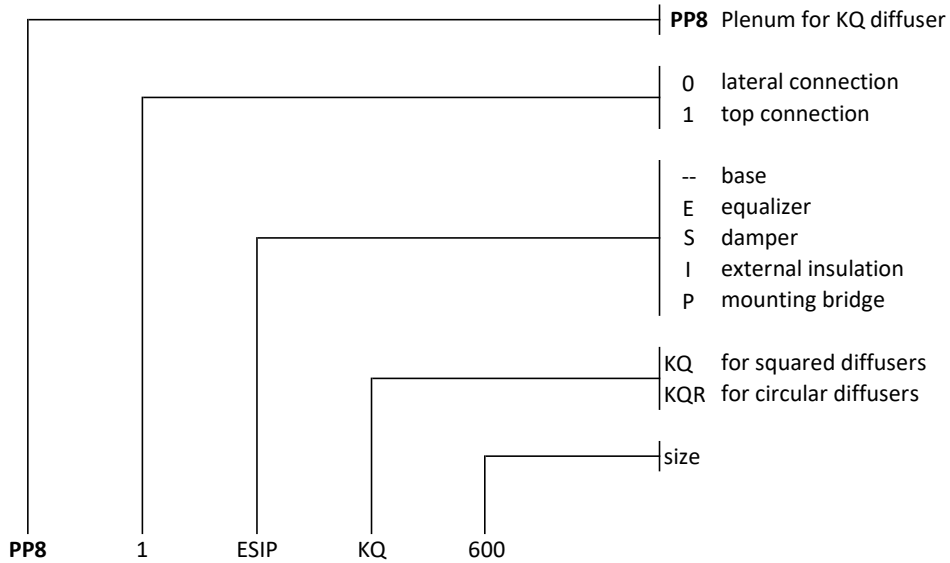


## HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

PP80

PP81

PLENUM IN SEEL SHEET  
HOW TO ORDER



Standard sizes
300
400
500
600
625
800
825



## PS PLENUM

## PPS SERIES

### OVERVIEW

#### OVERVIEW :

The PPS series of polystyrene assemblable plenum boxes have a density of 45 kg/m<sup>3</sup>, with a Fire class 1 quality, eternally crystallised.

The transformation process and the special properties of the material, make the PPS a very compact and lightweight plenum.

These special features combined to the trapezoidal shape that distinguish it, allows the fixing of the unit in completed countersealing structure. This facilitates both the realisation and maintenance of the system. Given the light weight, the plenum is positioned on the structure of the counter ceiling, eliminating therefore the necessity of using hanging clips for fixing to the ceiling.

This has the advantage of reducing considerably the fitting time and a saving of the space used of over 50%, compared to a traditional plenum box.

The PPS has an excellent thermal acoustic insulation characteristic. It does not therefore require additional insulating material.

The PPS plenums can be supplied already assembled with a square 600x60mm diffuser panel, model KQ1, complete with regulation damper in ABS and equalizer, ready for installation.

As an alternative, there is also a version assembled but without the diffuser fitted.

Lastly a kit is also available, comprising the plenum, the connection "C", bar "A" and assembly diagram.

Installation: once the diffuser has been fitted to the plenum using the screw "V" (PPS-V680T) to bar "A", the plenum is positioned on the counter ceiling structure.

#### TECHNICAL CHARACTERISTICS:

fire reaction:  
Class 1 - Test report CSI DC01/378F05.  
Euroclass E - Test report CSI DC01/656F07

Mechanic resistance:  
10% deformation with 226kPa pressure - Test report CSI 0936/FPM/MATs/07.

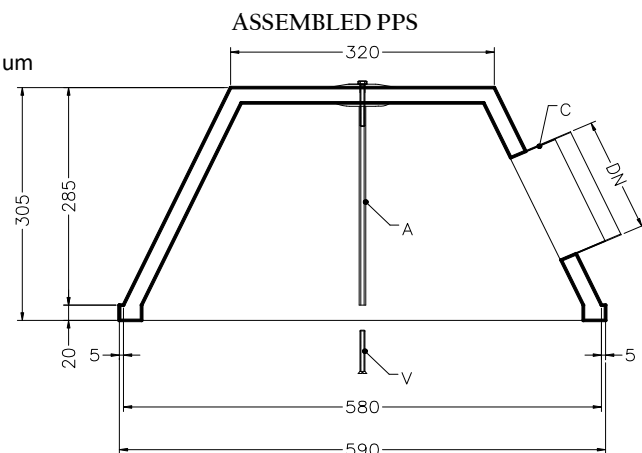
Water absorption:  
Increase average volume 3,26% in full immersion, tested according to UNI EN 12087 method 2A - Test report CSI 0936/FPM/MATs/07\_2.

Thermal conductivity:  
 $\Delta$  (average) 0,0320 W/mK - Test report CSI 0037/DC/TTS/07.

Thermal resistance:  
R (average) 0.637 m<sup>2</sup>K/W- Test report CSI 0037/DC/TTS/07.

Test certificate type:  
Certificate CSI DE/1831/07 issued in conformity to directive 89/106/CEE on the basis of UNI EN 13163/2003 and UNI EN 13172/2003.

The documentation indicated above can viewed in electronic form in Italian with prior agreement from the Technical Department.





## PS PLENUM

### CODES

## PPS SERIES

Image	Description	Connector diameter	Code
	Plenum in PS already assembled with connector in ABS with damper and without equalizer.	125	PPS-PS125
		160	PPS-PS160
		200	PPS-PS200
		250	PPS-PS250
	Plenum in PS already assembled, complete with connector in ABS with damper and equalizer.	125	PPS-PES125
		160	PPS-PES160
		200	PPS-PES200
		250	PPS-PES250

### ACCESSORIES

PPS-G	PS bell shape body
PPS-CA	Fixing rod
PPS-E	Equalizer in steel
PPS-E ABS	Equalizer in ABS
RR10 ...	Connector in ABS $\phi$ ...
RRS10 ...	Connector in ABS $\phi$ ... with regulation damper
PPS-V680T	Screw for fixing diffuser series KQ