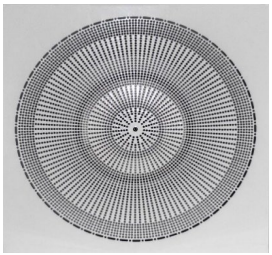
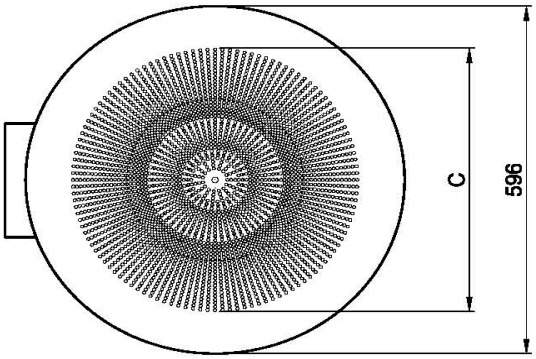


CEILING IMPULSE DIFFUSERS

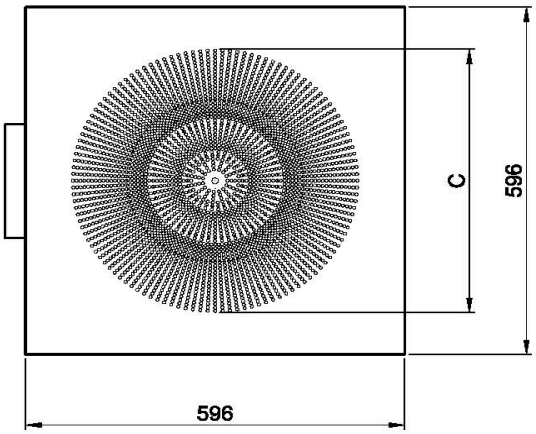
OVERVIEW

KQI
SERIES

KQI: series of impulse diffusers generally used in rooms with a ceilings about four meters high. They are characterized by a horizontal throw and elevated "Coanda effect". The impulse air flow perfectly follows the ceiling, creating an extraction effect of the air present in the room. This flow, mixing gradually with the air creates a high inductive effect ensuring optimum comfort characterized by temperature uniformity in the environment and lack of perceived air currents inside the occupied zone.
The perforated front plate allows easy and quick cleaning of the diffuser thereby enabling the use also in hygiene-controlled environments



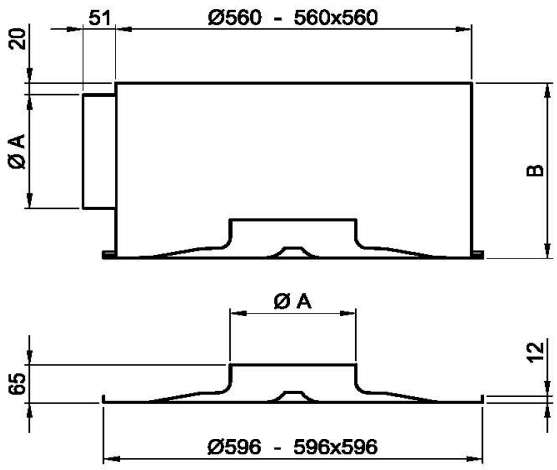
CHARACTERISTICS:
Perforated frontal panel made of carbon steel sheet with white RAL 9010 or RAL 9003 epoxy paint.
Rear aluminium plate, powder painted epoxy black RAL 9005 and galvanized carbon steel plenum



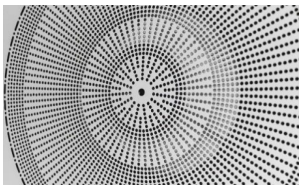
The installation can be made using suspension rods in open field, fitted within plasterboard ceilings or simply resting on the support structure in modular ceilings.

FIELD OF USE
KQI diffusers are suitable for false ceiling installation in rooms with a height between 2.5 and 6 meters such as shops, supermarkets, meeting rooms, corridors, surgeries and similar.

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.



Size	A [mm]	B [mm]	C [mm]	Ak [m²]
125	123	230	296	0,0212
160	158	260	368	0,0299
200	198	300	452	0,0463
250	248	341	524	0,0805



CEILING IMPULSE DIFFUSERS

QUICK SELECTION

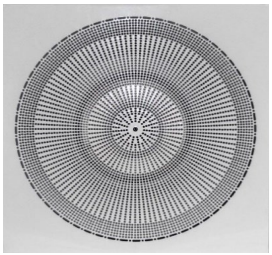
KQI
SERIES

Model A_k [m²]			Air flow rate																	
		m³/h	40	75	100	125	150	175	200	250	300	350	400	450	500	550	600	650	700	750
		l/s	(11)	(21)	(28)	(35)	(42)	(49)	(56)	(69)	(83)	(97)	(111)	(125)	(139)	(153)	(167)	(181)	(194)	(208)
KQI 125 (0,021)	L_{WA}	[dB(A)]	<20	30	36	41	45	48												
	V_k	[m/s]	0,5	1	1,3	1,6	2	2,3												
	Δp_t	[Pa]	3	11	19	30	44	60												
	L 0,12	[m]	0,1	0,2	0,3	0,5	0,6	0,8												
KQI 160 (0,03)	L_{WA}	[dB(A)]			<20	<20	24	28	32	39	44	49								
	V_k	[m/s]			0,9	1,2	1,4	1,6	1,9	2,3	2,8	3,2								
	Δp_t	[Pa]			6	10	14	19	25	37	54	74								
	L 0,12	[m]			1,8	2	2,3	2,5	2,8	3,2	3,6	4								
KQI 200 (0,046)	L_{WA}	[dB(A)]						<20	<20	23	29	35	40	44	47					
	V_k	[m/s]						1,1	1,2	1,5	1,8	2,1	2,4	2,7	3					
	Δp_t	[Pa]						6	8	12	17	24	31	40	49					
	L 0,12	[m]						1,1	1,3	1,8	2,3	2,9	3,5	4,2	4,8					
KQI 250 (0,08)	L_{WA}	[dB(A)]								<20	21	26	30	34	37	40	43	46	48	50
	V_k	[m/s]								0,9	1	1,2	1,4	1,6	1,7	1,9	2,1	2,2	2,4	2,6
	Δp_t	[Pa]								8	12	17	22	28	34	42	49	58	67	77
	L 0,12	[m]								1,3	1,6	1,9	2,2	2,6	2,9	3,2	3,6	3,9	4,2	4,6

10 ≤ LwA < 30 **30 ≤ LwA < 40** **40 ≤ LwA < 50**

Data valid for:
- Supply air
- Isotherm conditions
- Throw with ceiling effect

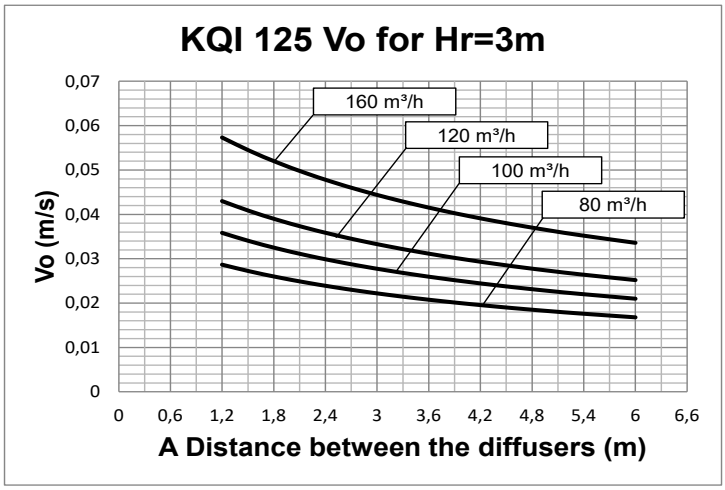
Terminology:
- A_k = effective free area
- V_k = effective face velocity
- Δpt = total pressure loss
- L_{WA} = sound power level
- $L_{0,12}$ = throw to terminal velocity at 0,12 m/s

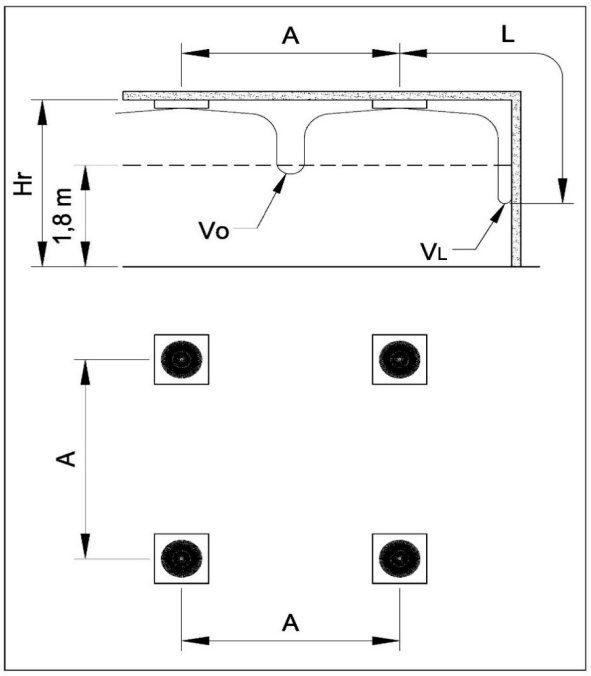


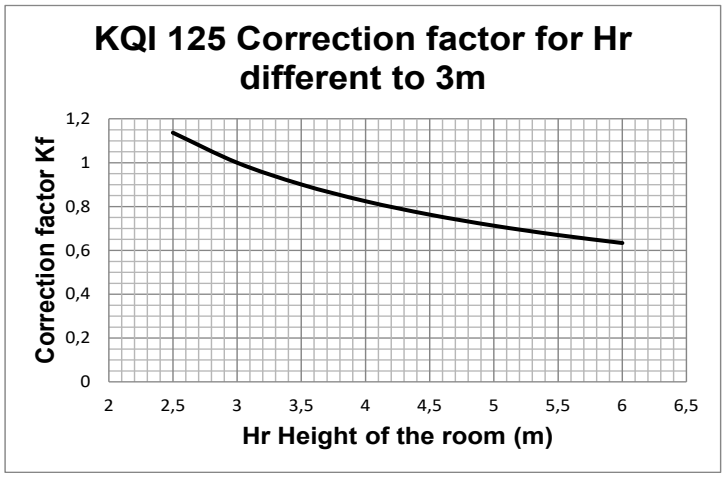
CEILING IMPULSE DIFFUSERS

KQI
SERIES

PERFORMANCE KQI-125







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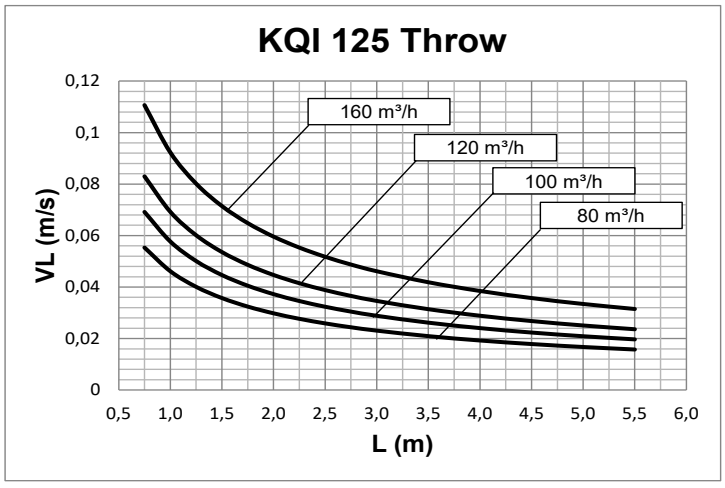
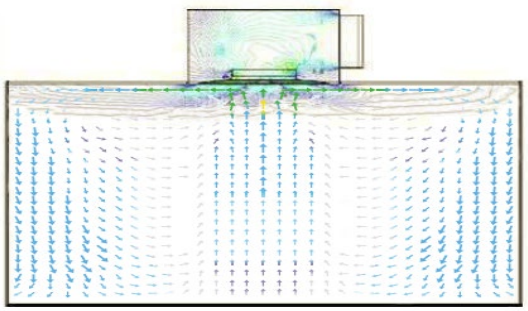
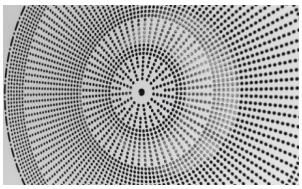
L (m) horizontal distance in metres from the centre of the diffuser
VL (m/s) maximum speed in the air stream

For Hr different from 3m:
Vo (h) = Vo x Kf



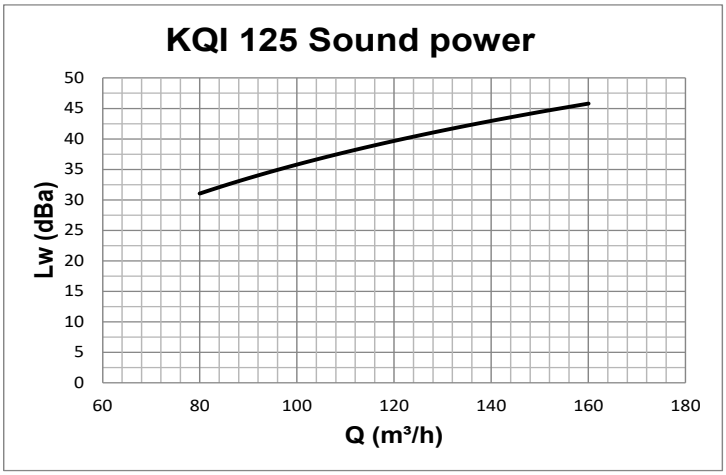




CEILING IMPULSE DIFFUSERS

PERFORMANCE KQI-125

KQI
SERIES



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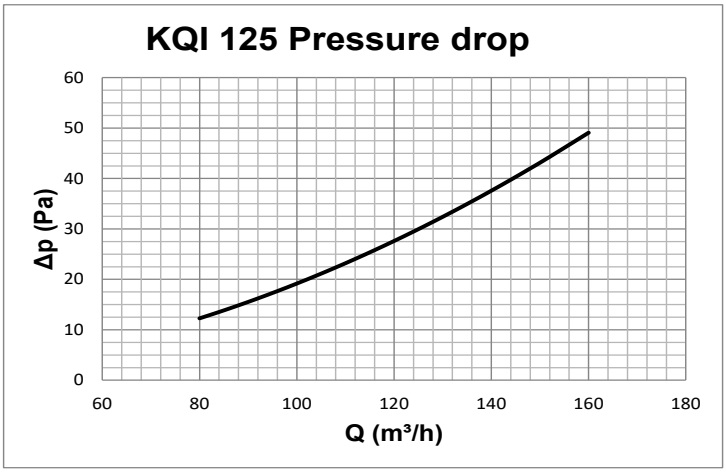

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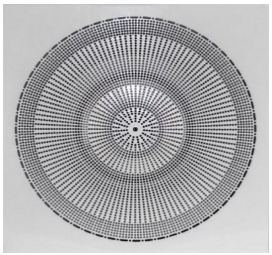
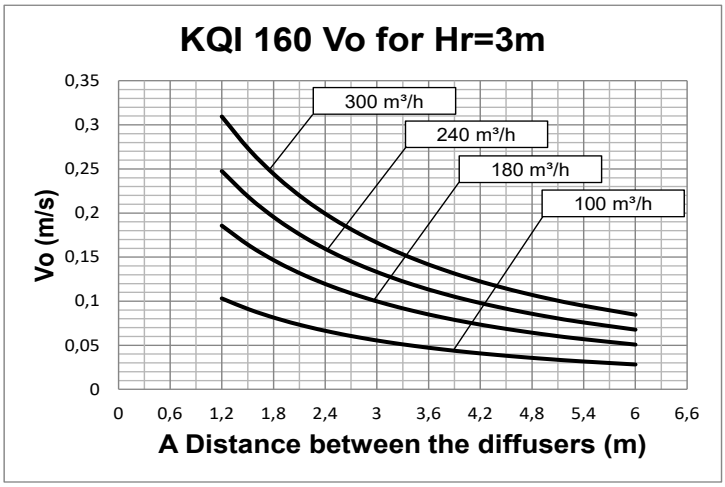
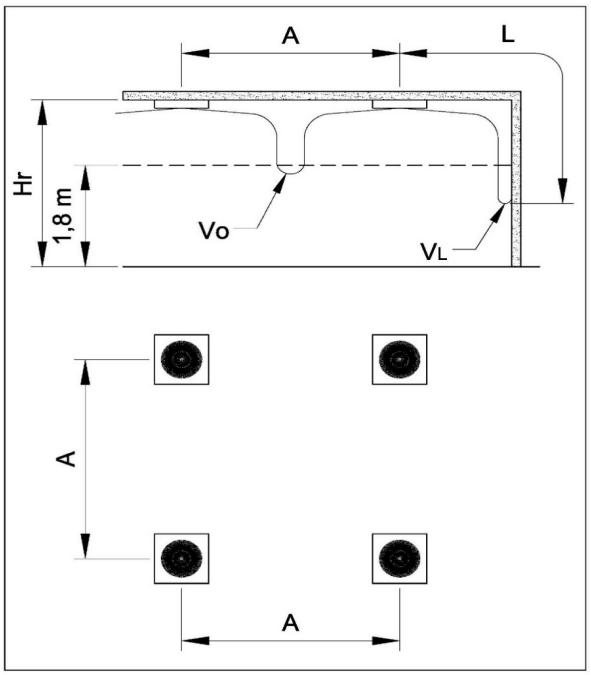


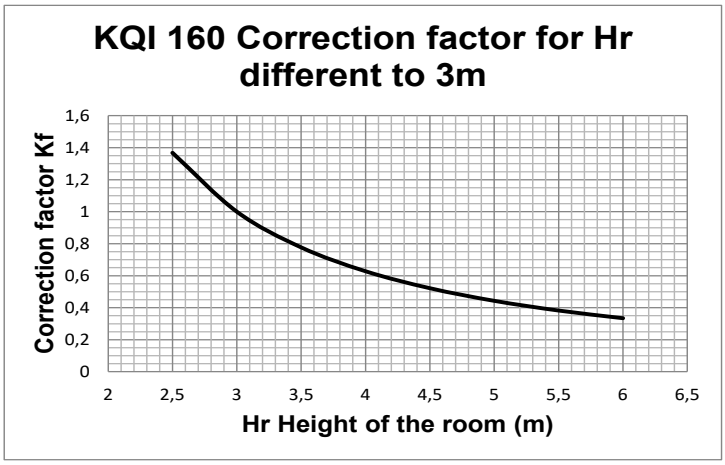
CEILING IMPULSE DIFFUSERS

KQI
SERIES

PERFORMANCE KQI-160







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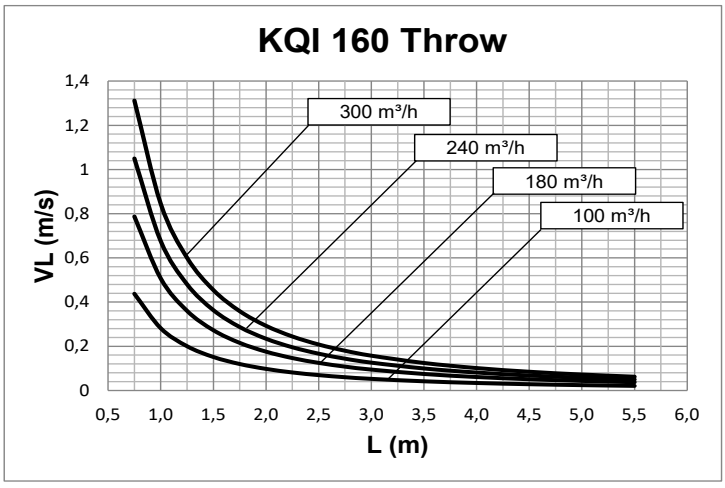
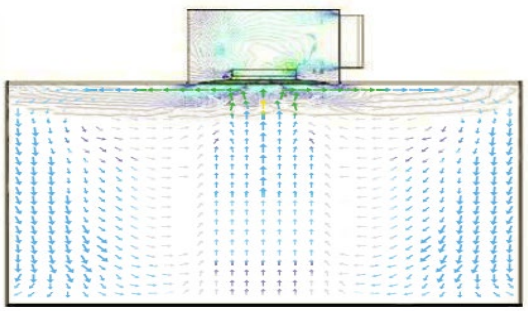
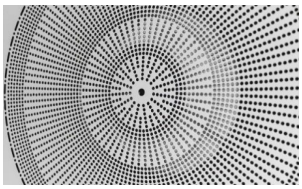


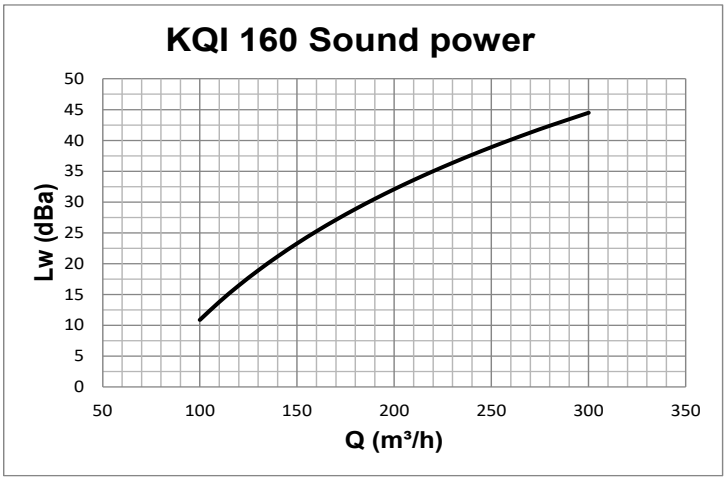




CEILING IMPULSE DIFFUSERS

PERFORMANCE KQI-160

KQI
SERIES



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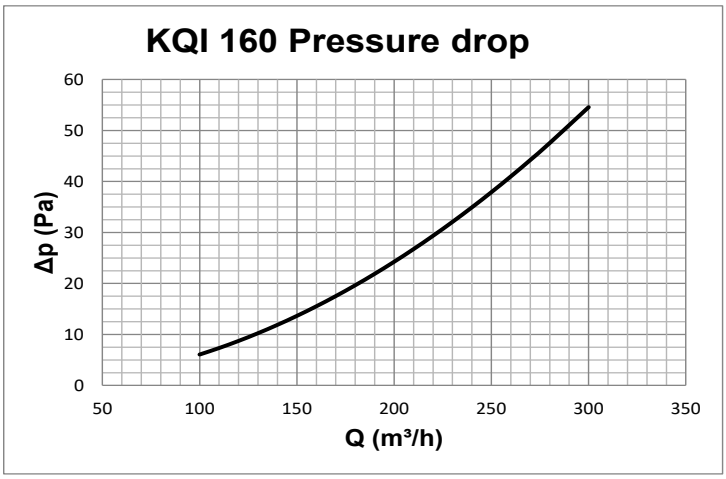

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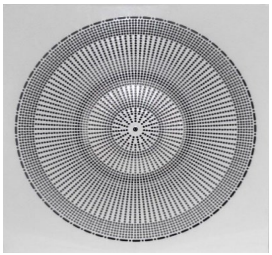
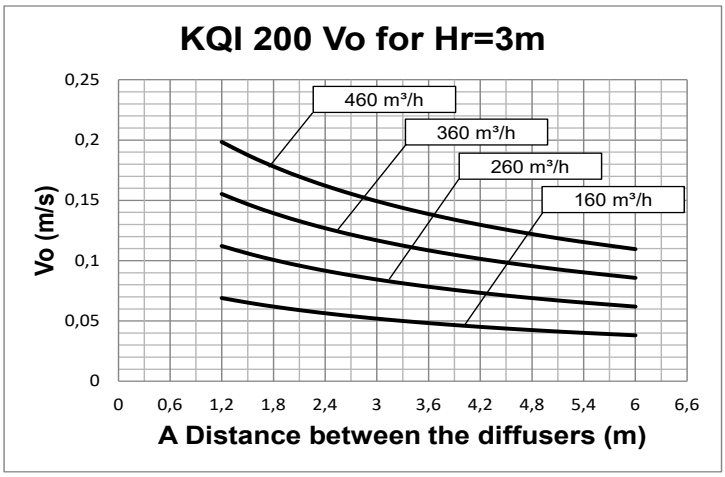
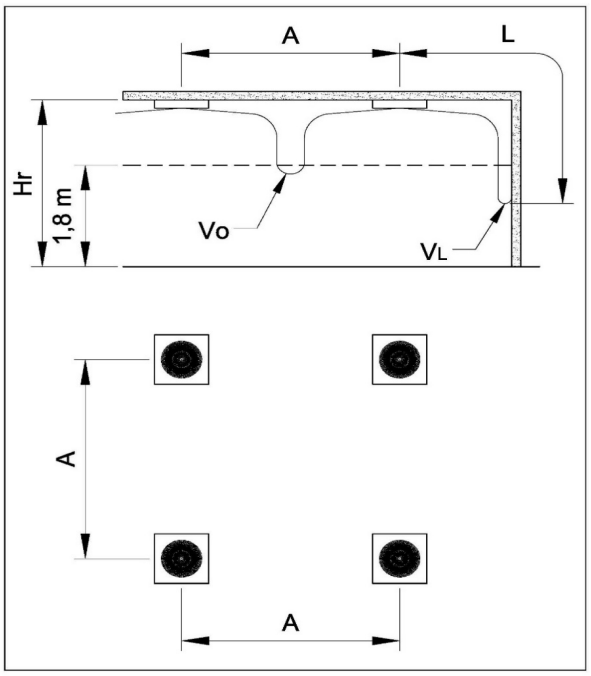


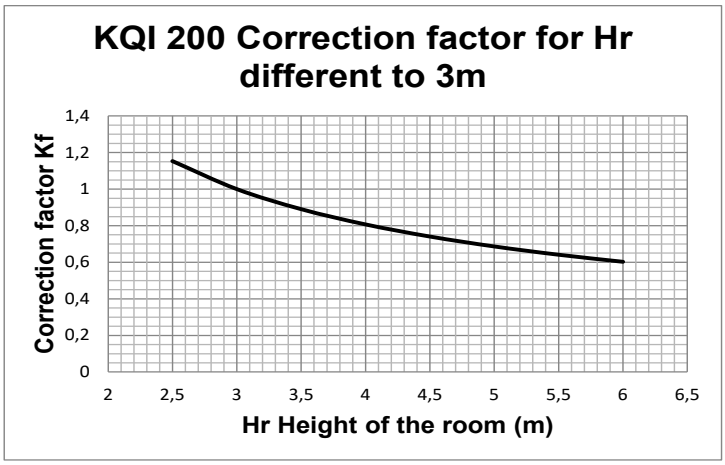
CEILING IMPULSE DIFFUSERS

KQI
SERIES

PERFORMANCE KQI-200







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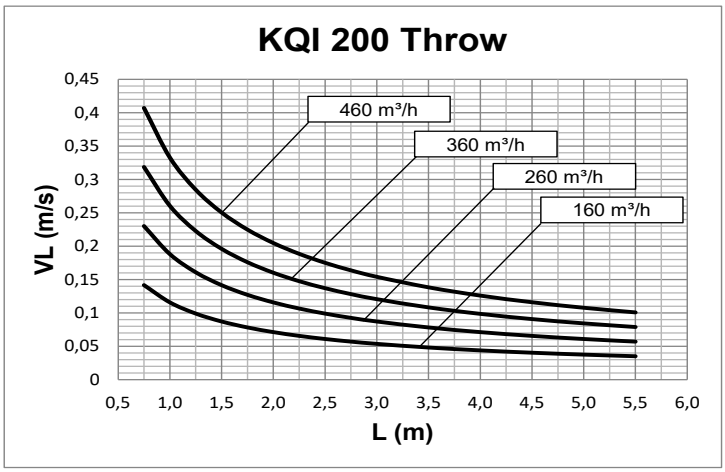
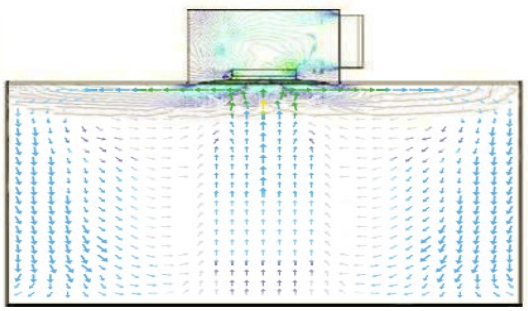
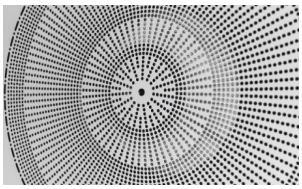


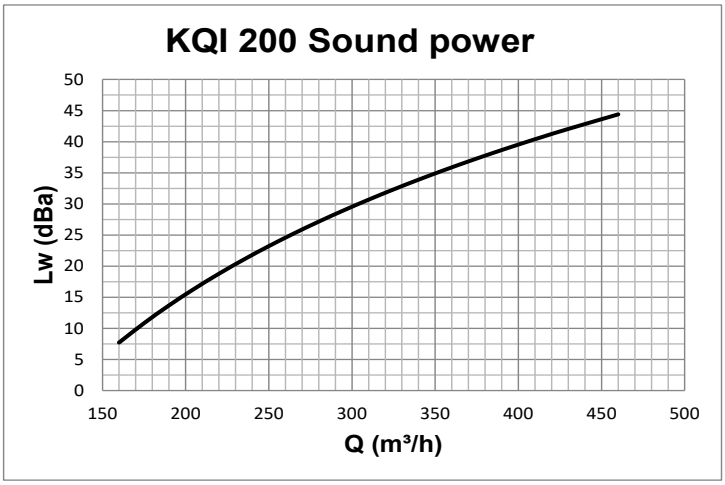




CEILING IMPULSE DIFFUSERS

PERFORMANCE KQI-200

KQI
SERIES



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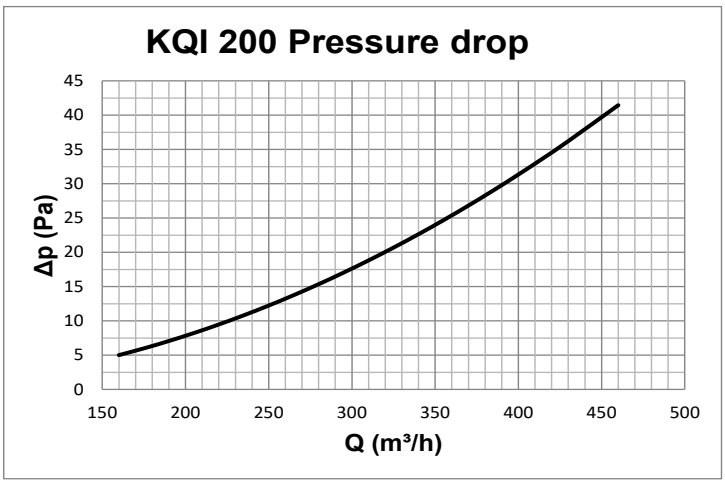

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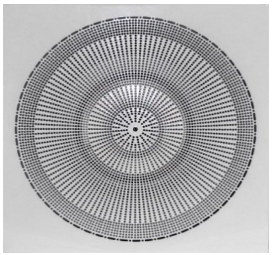
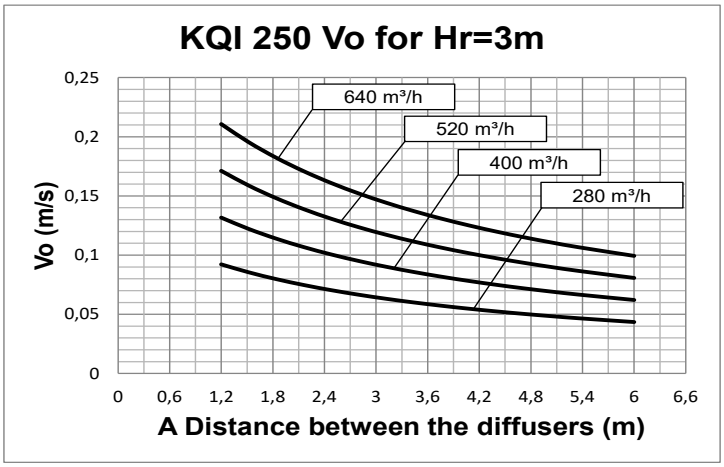
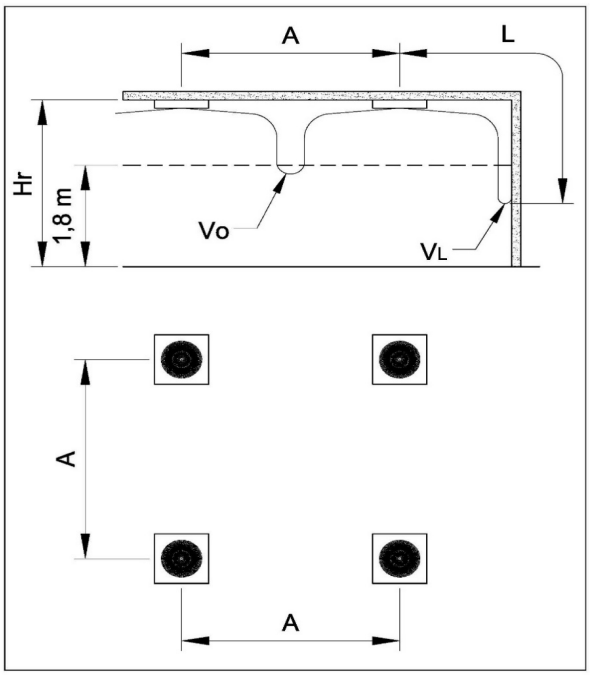


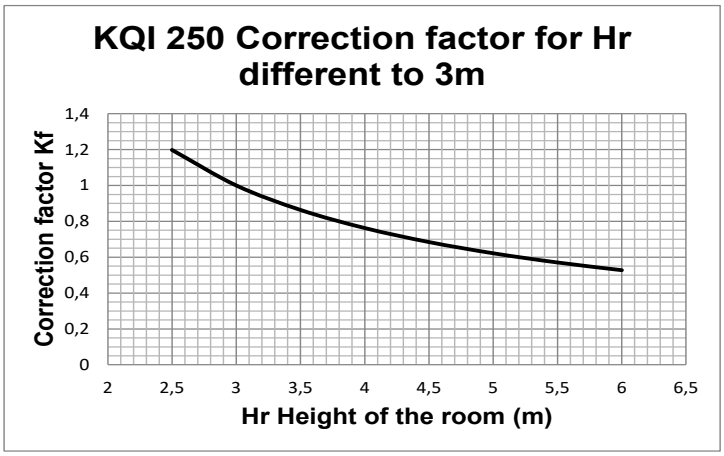
CEILING IMPULSE DIFFUSERS

PERFORMANCE KQI-250

KQI
SERIES







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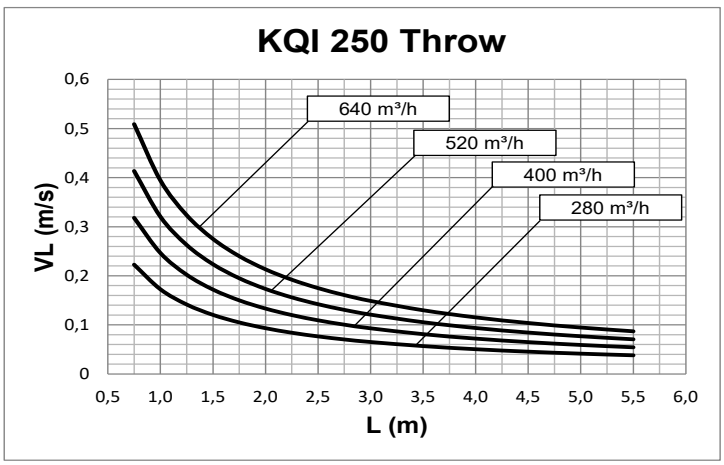
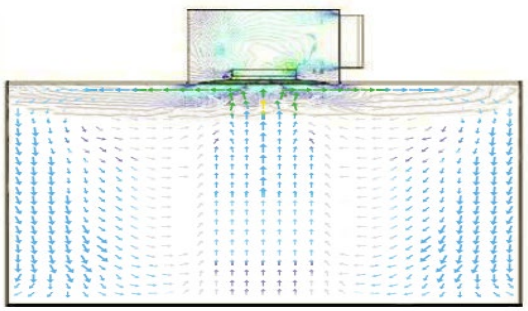
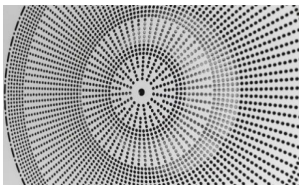


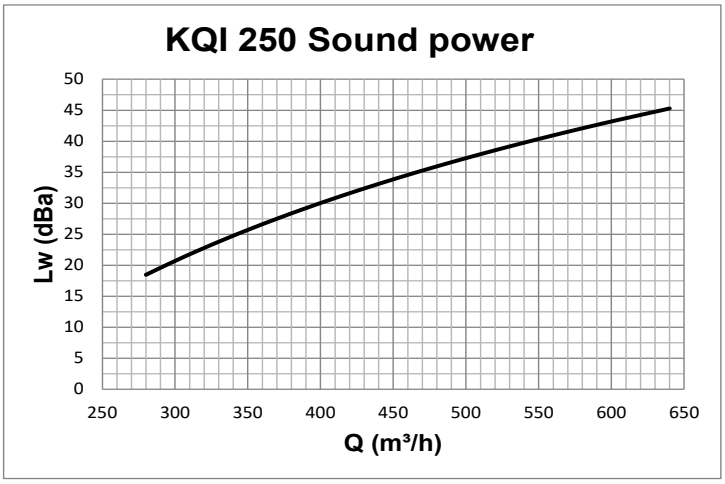




CEILING IMPULSE DIFFUSERS

PERFORMANCE KQI-250

KQI
SERIES



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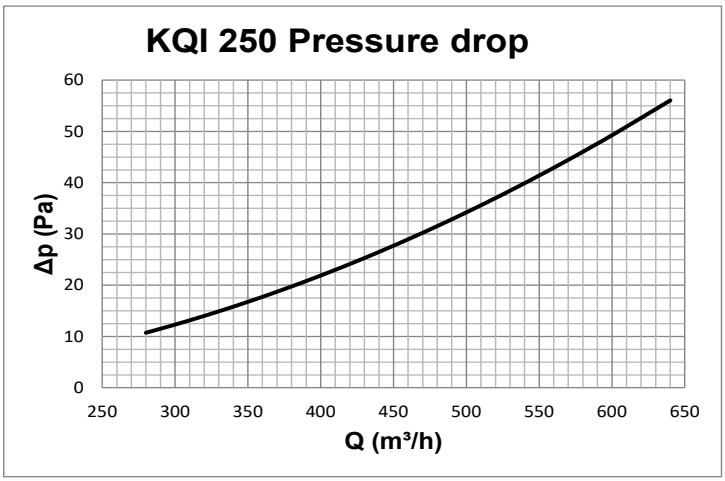
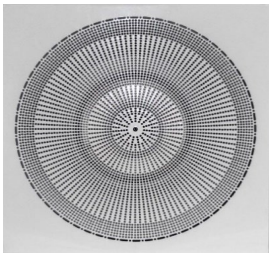


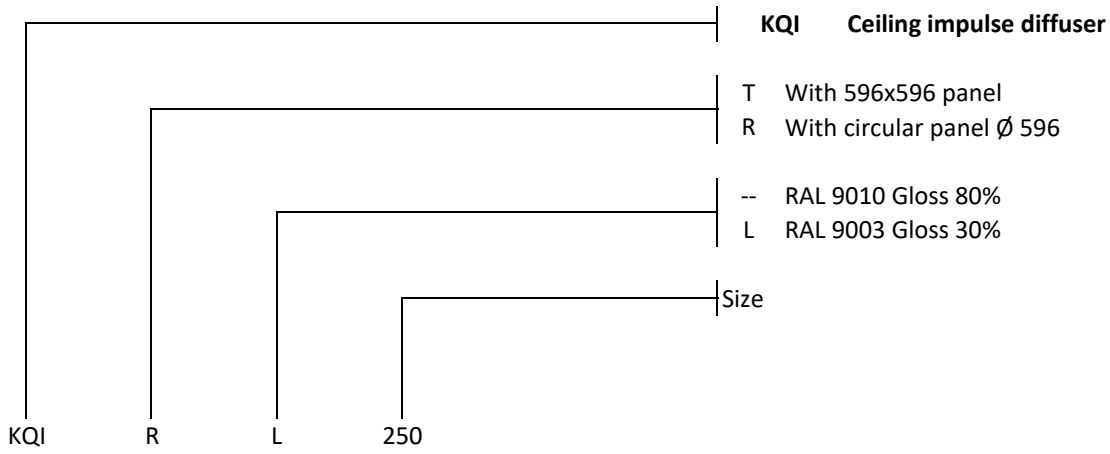
Data obtained operating in accordance with the international standard:
ISO 5219 1984: *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*

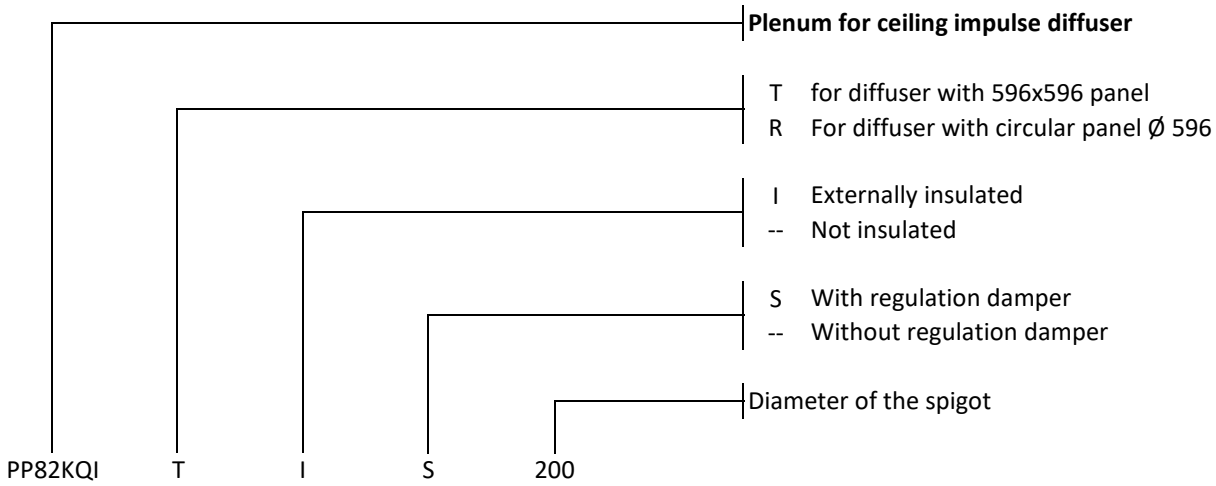


CEILING IMPULSE DIFFUSERS

KQI
SERIES

HOW TO ORDER





for correct operation, the air inlet diameter of the plenum must be the same of the nominal size of the diffuser