



HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

KZ
SERIES

OVERVIEW CHARACTERISTICS APPLICATIONS

OVERVIEW :

The high induction diffusers with variable geometry series KZ are a new type of air terminal devices. Their unique regulation system is suitable for heating and cooling applications. Indeed the throw optimization can be obtained by the adjustment of finning inclination. The finning regulation can be controlled by servomotor.

This characteristic together with the good inductive power and the variety of model enables the diffuser to be used in ventilation system for installation height from 3 to 25 meters, with temperature variation from supplied air and ambient from -12 to +30 °C (depend on the model, air flow and temperature variation).

Within this range, KZ diffusers ensure the correct air speed in the occupied area, thus maintaining a steady temperature and preventing any irregular unwanted air currents.

Any problems installing the diffusers in false ceiling are solved by the models fitted with a 595x595 panel.

CHARACTERISTICS AND OPERATION :

KZ series ceiling diffusers are equipped with 6 pivoting fins, which enable high induction. In this way, the delivery speed and temperature gradient are quickly reduced to the optimum values for the occupied area.

The 6 deflector fins employ a variable horizontal part to subdivide the air flow into radial jets, which are forced to swirl around the main axis.

The KZ diffusers are suitable to application on rooms with high ceiling. Furthermore the finning configuration can be regulated in 4 ways (depending on the KZ model):

- manual for each fin during installation
- manual with a mechanism that controls all fins simultaneously
- automatic by on-off actuator kind
- automatic by proportional actuator kind

Standard the motor externally, upon request the diffuser can

APPLICATIONS :

The diffuser is designed for civil and industrial applications with any type of mixing ventilation plant and should be installed at heights between 3 and 25 meters. The high induction diffuser with variable geometry, which can be changed during operation, can set flows between 200 and 12.000 m³/h with variable temperature gradients ranging from +30 °C and -11 °C.

SELECTION PROGRAM:

MP3 has at its disposal a selection program to identify the most ideal product, the best regulation, the number and layout of diffusers on the basis of the room characteristics and the heat values required.

For this selection it is possible to contact the Sales Department.

The multilingual program, is usable in the customer area of the company website www.mp3-italia.it.

The required password must be requested from the Sales Department.



HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

KZ
SERIES

TECHNICAL DRAWINGS
CONSTRUCTION DIMENSIONS

CONSTRUCTION DIMENSIONS :

Figura n° 1 Standard circular construction

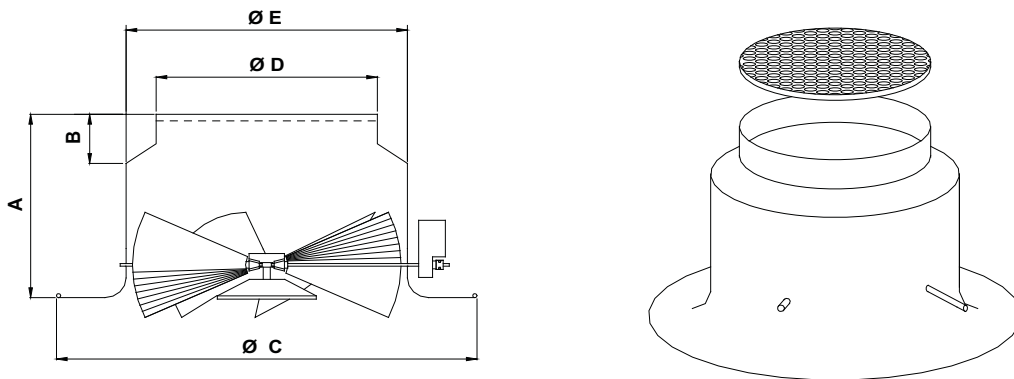
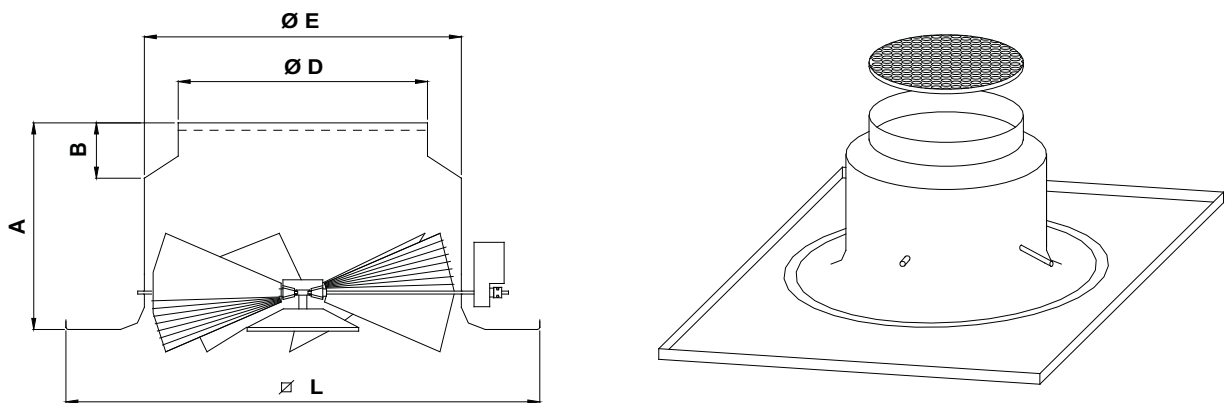


Figura n° 2 Costruction with false ceiling panel



Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	L [mm]	[kg]
160	155	65	300	158	198	595	1,3
200	180	60	350	198	248	595	2,0
250	205	70	400	248	298	595	2,7
315	230	70	500	313	398	595	3,8
400	270	105	615	398	465	=	6,3
500	320	95	780	498	565	=	8,9
630	390	105	935	628	665	=	14,5
800	390	0	1020	798	798	=	30,0

Note: equalizer optional



HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

KZ
SERIES

INSTALLATION EXAMPLE

INSTALLATION INSTRUCTIONS:

The diffuser is installed directly in both the channel (side or inferior) and the plenum, as illustrated below.
The diffuser is fitted directly onto the channel or the plenum itself with screws at the side. The 595x595 integrated panel is installed as a standard false ceiling panel would be.

Figure no.3
Fastening to plenum (diffuser with panel)

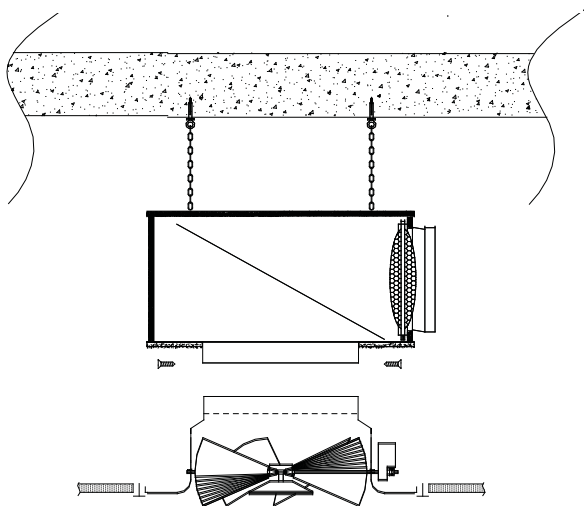


Figure no.4
Fastening to plenum (diffuser standard)

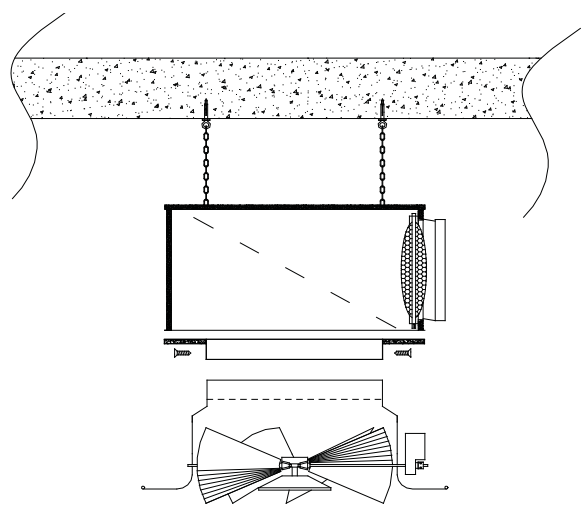


Figure no.5
Fastening to channel with circular coupling

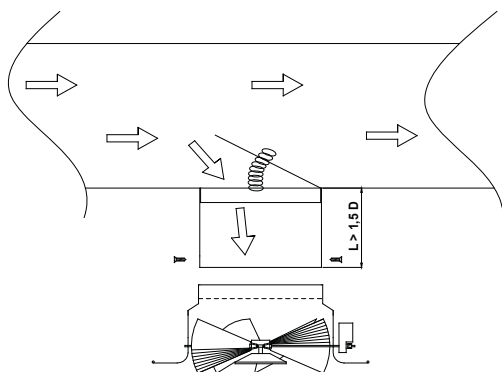
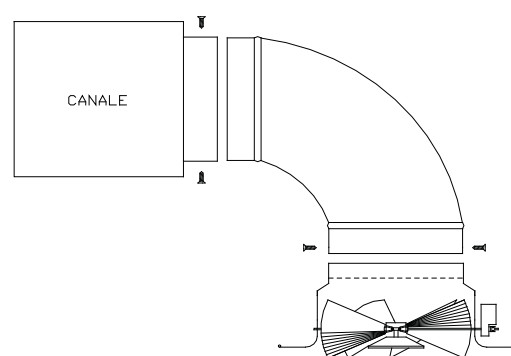


Figure no.6
Fastening to channel with circular coupling





HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

KZ
SERIES

OPERATIONS

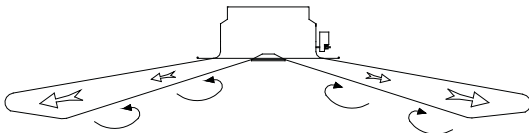
OPERATIONS:

Depending on the installation angle, different types of airflow are given off.

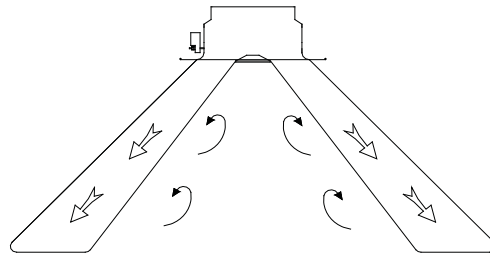
When the fixture is fitted into the ceiling and with the blades at an angle of more than 50° , there is coanda effect, in this case the launch is increased by approx. 40%.

For cooling, the neck speed must not be less than the speeds given in the table below:

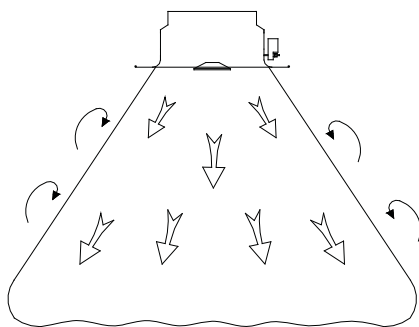
Blade angle: 67°
Immission angle: 150°
Radial launch



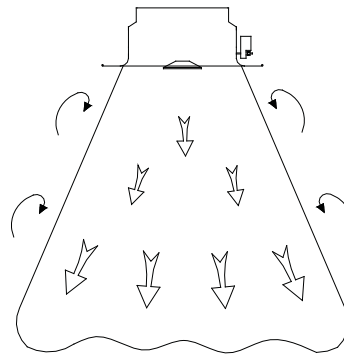
Blade angle: 45°
Immission angle: 95°
Radial/axial launch



Blade angle: 30°
Immission angle: 50°
Axial launch



Blade angle: 15°
Immission angle: 30°
Axial launch





HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

KZ-CT SERIES

WITH AUTOMATIC REGULATION WITH THERMOSTATIC SPRING

OVERVIEW :

The KZ-CT series of high induction diffusers use a thermostatic spring with form memory mechanism for the simultaneous inclination of the blades. this systems allows to better obtain an optimum air flow direction in relation to the temperature, in an automatic way.

The injected air temperature, in fact, determines the dilation or contraction of the thermostatic spring, which in turn determines the simultaneous rotation of the distribution blades reaching the ideal angel on inclination.

By choosing the KZ-CT diffuser, one can eliminate:

- electric thermostats
- electric circuit
- servomotors.

CHARACTERISTICS :

The directional blades inject air into the room at a horizontal to vertical directional throw.

In the case of a horizontal air flow, the 6 blades divide the flow in 6 radiant jets and at the same time form a rotary motion around the axis of the diffuser. A helicoidal air flow is therefore had , capable of injecting a large volume of air in the room and mixing it with the injected air.

In the case of a vertical flow, the phenomenon of stratification is eliminated.

The rotation of the blades from the maximum to the minimum angle of inclination corresponds to a range in temperature of the injected air from 16° C to 35° C and occurs in less than 5 minutes.

The maximum and minimum angle can be determined and regulated very simply acting on the two screws having a hexagon shape.

SELECTION SOFTWARE :

The aeraulic qualities of the KZ-CT are identical to those of the KZ diffusers as they only differ in the way in which the blades are regulated.

The company MP3 makes use of a selection program to identify the best product, the best regulation, the number and arrangement of diffusers on the basis of the room characteristics and of the thermal values required.

The multilingual program, is available inside the registered customer area of the company web site (www.mp3-italia.it). The access password can be request from our Export Office.

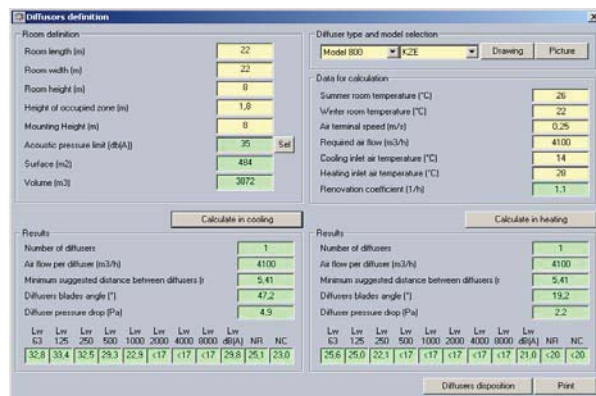
METHOD OF REGULATION :

With the use of the selection program it is possible to determine the most appropriate model of diffuser for each application.

The software also indicates, as output data, the maximum and minimum angles of inclination of the blades equal to the heating and cooling conditions.

The plate on the side of the diffuser indicates a graduated scale for the inclination of the blades and two slidable blocks fixable in correspondence to the angle indicated by the program for the heating (red zone of the scale) and for the cooling (the blue zone of the scale).

The diffuser now regulated is ready to be installed.



Output date from the selection software



Detail of the graduate plate



HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

KZ-CT
SERIES

WITH AUTOMATIC REGULATION
WITH THERMOSTATIC SPRING

WORKING PRINCIPLE :

The angle of the blades is adjusted by rotating the central axis of the diffuser, connected to the adjustable blades with the use of cone shaped grooved wheels.

The central axis of the diffuser is connected to two springs, of which one is in thermo sensitive material and the another in steel.

The thermo sensitive spring varies its own elasticity in relation of the injected air temperature, where as the steel spring maintains constant its own characteristics.

The balance between the two springs determines the different angles of rotation of the axis and therefore the angles of inclination of the blades - in relation to the Supply air temperature.



Ordering codes

Diffuser	Diffuser on 595x595 pannel
KZCT160	KZCT160T
KZCT200	KZCT200T
KZCT250	KZCT250T
KZCT315	KZCT315T
KZCT400	
KZCT500	
KZCT630	
KZCT800	



HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

KZ
SERIES

PERFORMANCE

The performances here shown allow for a maximum sizing.

MP3 has at its disposal a selection program to identify the most ideal product, the best regulation, the number and layout of diffusers on the basis of the room characteristics and the heat values required.

For this selection it is possible to contact the Sales Department.

The multilingual program, is usable in the customer area of the company website www.mp3-italia.it.

The required password must be requested from the Sales Department.

Air flow		Model	Neck speed in m/s	Blade angle 0° (heating)								Blade angle 67° (cooling)						
				Vertical throw							Δp _{st}	L _p	Vertical throw				Δp _{st}	L _p
				Temperature difference									Temperature difference					
				+5	+10	+15	+20	+25	+30	Pa	dB(A)	-3	-5	-10	-15	Pa	dB(A)	
60	216	200	2,0	5,2	3,7	3,0	2,6	2,3	2,1	2	--	0,5	0,5	0,5	0,5	14	23	
		250	1,3	4,1	2,9	2,4	2,0	1,8	1,7	1	--	0,7	0,7	0,7	0,7	5	--	
80	288	200	2,7	6,7	4,7	3,8	3,3	3,0	2,7	3	20	0,5	0,5	0,5	0,5	25	32	
		250	1,7	5,2	3,7	3,0	2,6	2,3	2,1	1	--	0,7	0,7	0,7	0,7	10	23	
100	360	200	3,4	8,0	5,7	4,6	4,0	3,6	3,3	4	26	0,5	0,5	0,5	0,5	39	38	
		250	2,1	6,2	4,4	3,6	3,1	2,8	2,6	2	--	0,7	0,7	0,7	0,7	15	29	
		315	1,3	4,7	3,3	2,7	2,4	2,1	1,9	1	--	1,0	1,0	1,0	1,0	6	--	
125	450	200	4,2	9,7	6,8	5,6	4,8	4,3	3,9	7	33	0,5	0,5	0,5	0,5	61	45	
		250	2,7	7,5	5,3	4,3	3,8	3,4	3,1	3	20	0,7	0,7	0,7	0,7	24	36	
		315	1,7	5,9	4,2	3,4	3,0	2,6	2,4	1	--	1,0	1,0	1,0	1,0	10	22	
150	540	200	5,0	11,2	7,9	6,5	5,6	5,0	4,6	10	39	0,5	0,5	0,5	0,6	87	50	
		250	3,2	8,8	6,2	5,1	4,4	3,9	3,6	4	25	0,7	0,7	0,7	0,7	34	42	
		315	2,0	7,1	5,0	4,1	3,5	3,2	2,9	2	--	1,0	1,0	1,0	1,0	14	28	
175	630	200	5,9	12,8	9,0	7,4	6,4	5,7	5,2	13	43	0,5	0,5	0,6	0,7	119	55	
		250	3,7	10,0	7,0	5,7	5,0	4,4	4,1	5	29	0,7	0,7	0,7	0,7	47	46	
		315	2,3	8,2	5,8	4,7	4,1	3,7	3,4	2	--	1,0	1,0	1,0	1,0	19	33	
200	720	200	6,7	14,3	10,1	8,2	7,1	6,4	5,8	17	47	0,5	0,6	0,7	0,8	155	58	
		250	4,2	11,1	7,9	6,4	5,6	5,0	4,5	7	34	0,7	0,7	0,7	0,7	61	50	
		315	2,7	9,4	6,6	5,4	4,7	4,2	3,8	3	--	1,0	1,0	1,0	1,0	24	37	
		400	1,6	6,3	4,4	3,6	3,1	2,8	2,6	1	--	1,0	1,0	1,0	1,0	10	23	
250	900	250	5,3	13,4	9,5	7,7	6,7	6,0	5,5	11	40	0,7	0,7	0,7	0,8	95	56	
		315	3,3	11,7	8,3	6,7	5,8	5,2	4,8	4	26	1,0	1,0	1,0	1,0	38	43	
		400	2,0	7,8	5,5	4,5	3,9	3,5	3,2	2	--	1,0	1,0	1,0	1,0	15	30	
300	1080	250	6,4	15,6	11,0	9,0	7,8	7,0	6,4	15	46	0,7	0,7	0,8	0,9	137	61	
		315	4,0	14,0	9,9	8,1	7,0	6,3	5,7	6	31	1,0	1,0	1,0	1,0	55	49	
		400	2,4	9,4	6,6	5,4	4,7	4,2	3,8	2	20	1,0	1,0	1,0	1,0	22	36	
		500	1,6	6,8	4,8	3,9	3,4	3,0	2,8	1	--	1,0	1,0	1,0	1,0	9	25	
350	1260	315	4,6	16,3	11,5	9,4	8,1	7,3	6,6	8	36	1,0	1,0	1,0	1,0	75	52	
		400	2,9	10,9	7,7	6,3	5,5	4,9	4,5	3	24	1,0	1,0	1,0	1,0	29	40	
		500	1,8	7,9	5,6	4,6	4,0	3,5	3,2	1	--	1,0	1,0	1,0	1,0	12	30	
		630	1,1	5,3	3,7	3,0	2,6	2,4	2,2	1	--	1,0	1,0	1,0	1,0	5	--	
400	1440	315	5,3	18,6	13,1	10,7	9,3	8,3	7,6	11	40	1,0	1,0	1,0	1,0	98	57	
		400	3,3	12,5	8,8	7,2	6,2	5,6	5,1	4	28	1,0	1,0	1,0	1,0	38	44	
		500	2,1	9,1	6,4	5,2	4,5	4,1	3,7	2	--	1,0	1,0	1,0	1,0	15	34	
450	1620	315	6,0	20,8	14,7	12,0	10,4	9,3	8,5	14	43	1,0	1,0	1,0	1,0	124	60	
		400	3,7	14,0	9,9	8,1	7,0	6,3	5,7	5	32	1,0	1,0	1,0	1,0	49	48	
		500	2,3	10,2	7,2	5,9	5,1	4,6	4,2	2	--	1,0	1,0	1,0	1,0	19	38	
		630	1,5	6,8	4,8	3,9	3,4	3,0	2,8	1	--	1,0	1,0	1,0	1,0	8	25	



HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

KZ
SERIES

PERFORMANCE

Air flow		Model	Neck speed in m/s	Blade angle 0° (heating)								Blade angle 67° (cooling)					
				Vertical throw				Temperature difference				Δp_{st}	L_p	Vertical throw			
l/s	m ³ /h	+5	+10	+15	+20	+25	+30	Pa	dB(A)	-3	-5			-10	-15	Pa	dB(A)
500	1800	315	6,6	23,1	16,4	13,4	11,6	10,3	9,4	17	47	1,0	1,0	1,0	1,0	153	63
		400	4,1	15,5	11,0	9,0	7,8	7,0	6,3	7	35	1,0	1,0	1,0	1,0	60	51
		500	2,6	11,4	8,1	6,6	5,7	5,1	4,6	3	20	1,0	1,0	1,0	1,0	24	41
		630	1,6	7,6	5,4	4,4	3,8	3,4	3,1	1	--	1,0	1,0	1,0	1,0	10	28
600	2160	400	4,9	18,6	13,2	10,8	9,3	8,3	7,6	10	40	1,0	1,0	1,0	1,0	86	56
		500	3,1	13,7	9,7	7,9	6,9	6,1	5,6	4	26	1,0	1,0	1,0	1,0	34	46
		630	2,0	9,1	6,4	5,3	4,6	4,1	3,7	2	--	1,0	1,0	1,0	1,0	14	34
700	2520	400	7,5	21,7	15,4	12,5	10,9	9,7	8,9	13	45	1,0	1,0	1,0	1,0	118	60
		500	5,7	16,1	11,4	9,3	8,0	7,2	6,6	5	30	1,0	1,0	1,0	1,1	47	51
		630	4,1	10,6	7,5	6,1	5,3	4,8	4,3	2	--	1,0	1,0	1,0	1,0	19	39
800	2880	400	8,6	24,8	17,5	14,3	12,4	11,1	10,1	17	49	1,0	1,0	1,0	1,0	154	64
		500	6,5	18,4	13,0	10,6	9,2	8,2	7,5	7	34	1,0	1,0	1,1	1,3	61	55
		630	4,7	12,2	8,6	7,0	6,1	5,4	5,0	3	--	1,0	1,0	1,0	1,0	25	43
900	3240	500	7,3	20,8	14,7	12,0	10,4	9,3	8,5	9	38	1,0	1,0	1,2	1,4	78	58
		630	5,3	13,7	9,7	7,9	6,9	6,1	5,6	3	21	1,0	1,0	1,0	1,1	32	46
1.000	3600	500	8,1	23,1	16,4	13,4	11,6	10,3	9,4	11	41	1,1	1,1	1,4	1,6	96	61
		630	5,8	15,3	10,8	8,8	7,6	6,8	6,2	4	24	1,0	1,0	1,1	1,3	39	50
1.100	3960	500	9,0	25,5	18,0	14,7	12,8	11,4	10,4	13	44	1,2	1,3	1,5	1,8	116	64
		630	6,4	16,8	11,9	9,7	8,4	7,5	6,9	5	27	1,0	1,0	1,2	1,4	47	52
1.200	4320	500	9,8	27,9	19,7	16,1	13,9	12,5	11,4	15	47	1,3	1,4	1,6	1,9	138	66
		630	7,0	18,3	13,0	10,6	9,2	8,2	7,5	6	30	1,0	1,1	1,3	1,6	56	55
1.300	4680	630	7,6	19,9	14,1	11,5	9,9	8,9	8,1	7	32	1,1	1,2	1,4	1,7	66	57
1.400	5040	630	8,2	21,4	15,2	12,4	10,7	9,6	8,8	8	35	1,2	1,3	1,6	1,8	76	59
1.500	5400	630	8,8	23,0	16,3	13,3	11,5	10,3	9,4	10	37	1,3	1,4	1,7	2,0	88	61
1.700	6120	630	9,9	26,1	18,4	15,1	13,0	11,7	9,4	13	40	1,5	1,6	1,9	2,3	112	65
1.900	6840	630	11,1	29,2	20,6	16,8	14,6	13,1	9,4	16	44	1,7	1,8	2,2	2,6	140	68

The throw values are based on a terminal speed of approx. 0.20 m/s

The pressure drop values are for a diffuser without plenum

The acoustic pressure values (L_p) have considered an acoustic attenuation of 8 dB

Values lower than 20 dB(A) are given by "--"

All the values refer to diffusers without equaliser (see correction factors)

The intermediate values can be calculated by interpolation



HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

KZ
SERIES

PERFORMANCE

The performances here shown allow for a maximum sizing.

MP3 has at its disposal a selection program to identify the most ideal product, the best regulation, the number and layout of diffusers on the basis of the room characteristics and the heat values required.

For this selection it is possible to contact the Sales Department.

The multilingual program, is usable in the customer area of the company website www.mp3-italia.it.

The required password must be requested from the Sales Department.

Air flow		Model	Neck speed in m/s	Distance in m	Blade angle 45°						Blade angle 30°					
					Vertical throw				Δp_{st}	L_{pA}	Vertical throw				Δp_{st}	L_{pA}
					Temperature difference						Temperature difference					
l/s	m ³ /h				-10	-5	+5	+15	Pa	dB(A)	-10	-5	+5	+15	Pa	dB(A)
60	216	200	2,0	1,9	2,3	1,9	1,6	1,2	3	--	5,3	4,4	3,5	2,0	2	--
		250	1,3	1,7	1,7	1,4	1,2	0,9	1	--	4,0	3,3	2,7	1,6	1	--
80	288	200	2,7	2,5	3,1	2,6	2,2	1,6	6	22	7,1	5,9	4,4	2,5	4	19
		250	1,7	1,8	2,3	1,9	1,7	1,2	2	--	5,4	4,5	3,4	2,0	2	--
100	360	200	3,4	3,1	3,9	3,2	2,8	2,0	10	29	8,9	7,4	5,3	3,1	6	26
		250	2,1	2,3	2,9	2,5	2,1	1,5	4	--	6,8	5,7	4,1	2,4	2	--
		315	1,3	2,1	1,8	1,5	1,4	1,0	2	--	4,1	3,5	3,1	1,8	1	--
125	450	200	4,2	3,9	4,9	4,1	3,5	2,5	15	36	11,2	9,4	6,4	3,7	9	33
		250	2,7	2,8	3,7	3,1	2,7	1,9	6	23	8,5	7,1	5,0	2,9	4	20
		315	1,7	2,1	2,3	1,9	1,7	1,2	2	--	5,2	4,4	3,9	2,2	1	--
150	540	200	5,0	4,7	5,9	4,9	4,2	3,0	22	41	13,5	11,3	7,4	4,3	14	38
		250	3,2	3,4	4,5	3,7	3,2	2,3	9	29	10,3	8,6	5,8	3,3	5	25
		315	2,0	2,3	2,7	2,3	2,1	1,5	3	--	6,3	5,3	4,7	2,7	2	--
175	630	200	5,9	5,4	6,9	5,7	4,9	3,5	30	46	15,8	13,2	8,4	4,9	18	43
		250	3,7	4,0	5,2	4,4	3,8	2,7	12	34	12,1	10,1	6,6	3,8	7	30
		315	2,3	2,7	3,2	2,7	2,4	1,7	5	19	7,4	6,2	5,4	3,1	3	--
200	720	200	6,7	6,2	7,9	6,6	5,7	4,1	39	49	18,1	15,2	9,4	5,4	24	47
		250	4,2	4,5	6,0	5,0	4,3	3,1	15	38	13,9	11,6	7,3	4,2	9	34
		315	2,7	3,1	3,7	3,1	2,8	2,0	6	23	8,5	7,1	6,2	3,6	4	20
		400	1,6	2,7	2,2	1,8	1,7	1,2	2	--	5,0	4,2	4,1	2,4	1	--
250	900	250	5,3	5,7	7,6	6,4	5,5	3,9	24	44	17,5	14,6	8,8	5,1	15	41
		315	3,3	3,9	4,7	3,9	3,5	2,5	10	30	10,7	9,0	7,7	4,4	6	26
		400	2,0	2,7	2,7	2,3	2,1	1,5	4	--	6,3	5,3	5,1	3,0	2	--
300	1080	250	6,4	6,8	9,2	7,7	6,6	4,7	34	50	21,1	17,7	10,3	5,9	21	46
		315	4,0	4,7	5,6	4,7	4,3	3,0	14	36	13,0	10,9	9,2	5,3	9	32
		400	2,4	3,2	3,3	2,8	2,6	1,8	5	23	7,6	6,4	6,2	3,6	3	20
		500	1,6	3,5	4,4	3,7	3,4	2,4	2	--	10,1	8,5	4,4	2,6	1	--
350	1260	315	4,6	5,5	6,6	5,5	5,0	3,6	19	40	15,2	12,8	10,7	6,2	12	37
		400	2,9	3,7	3,9	3,2	3,0	2,2	7	28	8,9	7,5	7,2	4,1	5	24
		500	1,8	3,5	5,2	4,3	4,0	2,8	3	--	11,9	10,0	5,2	3,0	2	--
		630	1,1	4,1	4,0	3,3	2,9	2,1	1	--	9,2	7,7	3,5	2,0	1	--
400	1440	315	5,3	6,2	7,6	6,4	5,7	4,1	24	44	17,5	14,7	12,2	7,1	15	41
		400	3,3	4,3	4,4	3,7	3,5	2,5	10	32	10,2	8,6	8,2	4,7	6	29
		500	2,1	3,5	5,9	5,0	4,5	3,3	4	--	13,7	11,5	6,0	3,4	2	--
450	1620	315	6,0	7,0	8,6	7,2	6,5	4,6	31	48	19,8	16,6	13,7	7,9	19	44
		400	3,7	4,8	5,0	4,2	3,9	2,8	12	36	11,5	9,7	9,2	5,3	8	32
		500	2,3	3,7	6,7	5,6	5,1	3,7	5	22	15,5	13,0	6,7	3,9	3	--
		630	1,5	4,1	5,2	4,4	3,9	2,8	2	--	12,0	10,1	4,5	2,6	1	--



HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

KZ
SERIES

PERFORMANCE

Air flow		Model	Neck speed in m/s	Distance in in	Blade angle 45°						Blade angle 30°					
					Vertical throw				Δp_{st}	L_{pA}	Vertical throw				Δp_{st}	L_{pA}
					Temperature difference						Temperature difference					
l/s	m ³ /h				-10	-5	+5	+15	Pa	dB(A)	-10	-5	+5	+15	Pa	dB(A)
500	1800	315	6,6	7,8	9,6	8,0	7,2	5,2	38	51	22,1	18,5	15,2	8,8	24	47
		400	4,1	5,4	5,6	4,7	4,3	3,1	15	39	12,8	10,8	10,2	5,9	9	35
		500	2,6	4,1	7,5	6,3	5,7	4,1	6	26	17,3	14,5	7,5	4,3	4	21
		630	1,6	4,1	5,9	4,9	4,4	3,1	2	--	13,5	11,3	5,0	2,9	2	--
600	2160	400	4,9	6,4	6,7	5,6	5,2	3,8	22	44	15,5	13,0	12,3	7,1	13	41
		500	3,1	4,9	9,1	7,6	7,0	5,0	9	31	21,0	17,6	9,0	5,2	5	27
		630	2,0	4,1	7,2	6,0	5,3	3,8	3	--	16,5	13,8	6,0	3,5	2	--
700	2520	400	5,7	7,5	7,9	6,6	6,1	4,4	29	49	18,2	15,2	14,3	8,3	18	45
		500	3,6	5,7	10,7	9,0	8,2	5,8	12	36	24,6	20,6	10,6	6,1	7	32
		630	2,3	4,1	8,5	7,1	6,3	4,5	5	21	19,5	16,3	7,0	4,0	3	--
800	2880	400	6,5	8,6	9,0	7,6	7,0	5,0	38	53	20,8	17,5	16,3	9,4	24	49
		500	4,2	6,5	12,3	10,3	9,4	6,7	15	40	28,3	23,7	12,1	7,0	10	36
		630	2,6	4,7	9,8	8,2	7,3	5,2	6	25	22,5	18,9	8,0	4,6	4	19
900	3240	500	4,7	7,3	13,9	11,7	10,6	7,6	19	44	32,1	26,9	13,7	7,9	12	39
		630	2,9	5,3	11,1	9,3	8,3	5,9	8	28	25,6	21,5	9,0	5,2	5	23
1.000	3600	500	5,2	8,1	15,5	13,0	11,9	8,5	24	47	35,8	30,0	15,2	8,8	15	42
		630	3,3	5,8	12,5	10,5	9,3	6,6	10	32	28,7	24,1	10,1	5,8	6	26
1.100	3960	500	5,7	9,0	17,2	14,4	13,1	9,4	29	49	39,6	33,2	16,8	9,7	18	45
		630	3,6	6,4	13,8	11,6	10,3	7,3	12	35	31,9	26,7	11,1	6,4	7	29
1.200	4320	500	6,2	9,8	18,8	15,8	14,4	10,3	34	52	43,3	36,3	18,4	10,6	21	48
		630	3,9	7,0	15,2	12,8	11,3	8,1	14	37	35,0	29,4	12,1	7,0	9	32
1.300	4680	630	4,2	7,6	16,6	13,9	12,3	8,8	16	40	38,2	32,0	13,1	7,6	10	34
1.400	5040	630	4,6	8,2	18,0	15,1	13,4	9,6	19	42	41,4	34,7	14,1	8,2	12	36
1.500	5400	630	4,9	8,8	19,4	16,3	14,4	10,3	22	44	44,7	37,4	15,1	8,7	14	38
1.700	6120	630	5,5	9,9	22,2	18,6	16,5	11,8	28	48	51,2	42,9	17,2	9,9	18	42
1.900	6840	630	6,2	11,1	25,1	21,0	18,6	13,3	35	51	57,8	48,4	19,2	11,1	22	46

The throw values are based on a terminal speed of approx. 0.20 m/s

The pressure drop values are for a diffuser without plenum

The acoustic pressure values (L_{pA}) have considered an acoustic attenuation of 8 dB

Values lower than 20 dB(A) are given by "--"

All the values refer to diffusers without equaliser (see correction factors)

The intermediate values can be calculated by interpolation



HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

PERFORMANCE

KZ
SERIES

CORRECTION FACTOR FOR DIFFUSER WITH EQUALIZER :

Model	Multiplying factor of throw			
	Blades angle			
	0°	30°	45°	67°
160				
200	0,70	0,78	0,85	1,00
250				
315				
400				
500				
630				
800				

Model	Multiplying factor of pressure drop			
	Blades angle			
	0°	30°	45°	67°
160				
200	4,7	3,7	2,7	1,4
250	4,9	3,8	2,7	1,4
315	5,5	4,2	3,0	1,5
400	5,7	4,4	3,1	1,5
500	5,9	4,5	3,2	1,5
630	5,9	4,5	3,2	1,5
800				

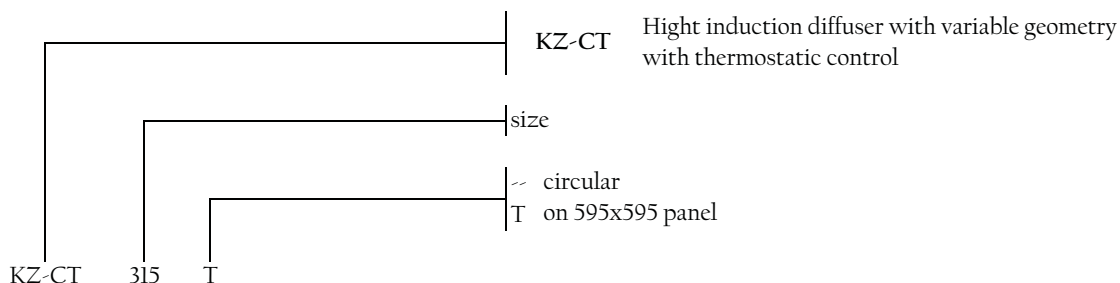
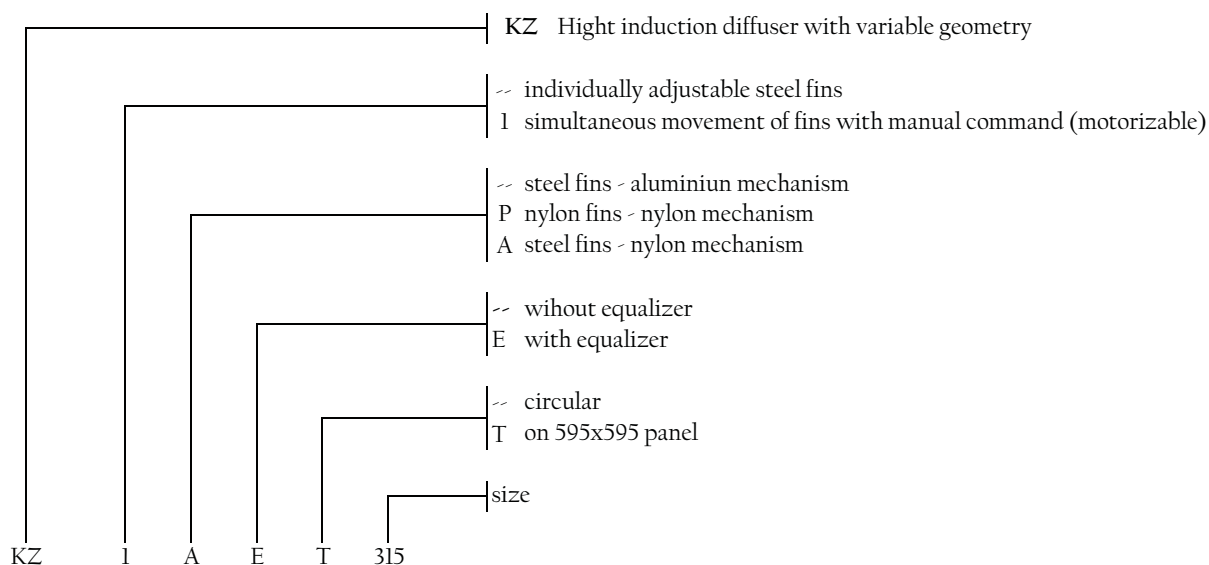
Model	Addiction factor of noise			
	Blades angle			
	0°	30°	45°	67°
160				
200	9	9	7	5
250	10	9	8	4
315	13	11	9	5
400	13	12	10	6
500	15	13	11	5
630	18	16	12	6
800				






HIGH INDUCTION DIFFUSERS WITH VARIABLE GEOMETRY

KZ
SERIES

HOW TO ORDER



Actuators for motorizable mechanisms

		
Nominal diameter	Electric proportional actuator 24 V	Electric on-off actuator 24 V
Ø 200 Ø 250 Ø 315 Ø 400 Ø 500 Ø 630	WM-GDB161.1E WM-LM24SR WM-DMN1.2N	WM-GDB131.1E WM-LM24 WM-DAN1.SN
Ø 800	WM-GLB161.1E WM-NM24SR WM-DMS1.1	WM-GLB131.1E WM-NM24 WM-DAS1



PLENUM FOR CIRCULAR DIFFUSER

PP 60
SERIES

OVERVIEW

PLENUM :

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

Materials :

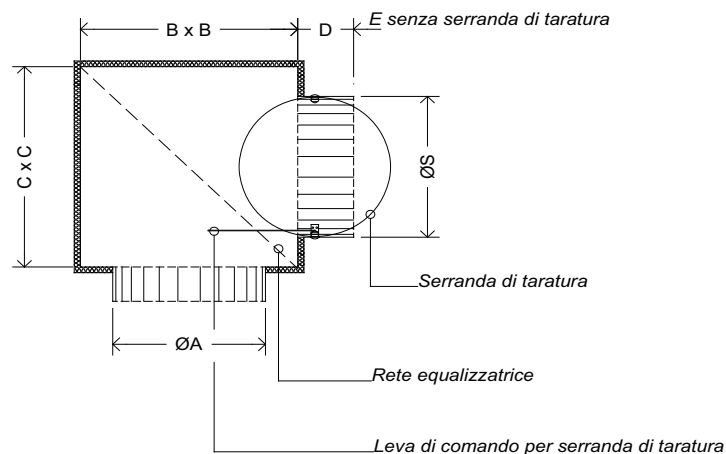
PP 60 standard plenum : galvanized steel sheet.
Insulation: expanded polyethylene certified for the reaction to fire according to Italian class I.

Versions :

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

Accessories:

Regulation damper and equalizing net in the connection of the



nominal deck diameter mm	A mm	B mm	C mm	D mm	E mm	N° of connection	S [mm] mm
100	102	200	200	65	65	1	96
125	127	225	225	90	60	1	121
150	152	250	250	70	70	1	146
160	162	250	250	90	60	1	156
200	202	300	300	90	60	1	196
250	252	350	350	90	60	1	246
300	302	400	400	90	60	1	296
315	317	400	400	90	60	1	311
350	352	450	450	90	90	1	346
355	357	450	450	90	90	1	346
400	402	500	500	90	90	1	396
450	453	550	550	100	100	1	446
500	503	600	600	100	100	1	496
630	633	730	730	100	100	1	600



PLENUM FOR CIRCULAR DIFFUSER

PP 60
SERIES

HOW TO ORDER

