

DESCRIPTION

NZG is a variable geometry air vent for air-conditioning and heating systems in high buildings, e.g. shopping centres, sports halls, auditoriums and warehouses. At the same time, it is adjusted for operation in industrial buildings. The variable geometry function makes it possible to adjust the direction and range of the stream of air which is supplied to rooms of different height.

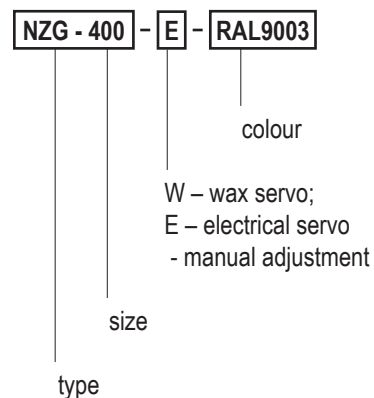
FEATURES

- air vents made of galvanised sheet metal;
- standard painted in RAL 9003;
- customized items can be painted in any colour from the RAL palette;
- air vents also available with electrical or wax servos

STANDARD SIZES

Size	Ø D [mm]	Ø D1 [mm]	M [mm]	N [mm]	Mass [kg]
200	198	450	130	170	5,9
250	248	560	145	200	8,5
315	313	700	165	230	10,3
400	398	900	190	290	12,4
450	448	900	200	320	15,0
500	498	980	220	380	17,5
630	628	1200	250	440	21,5

ORDER REFERENCE

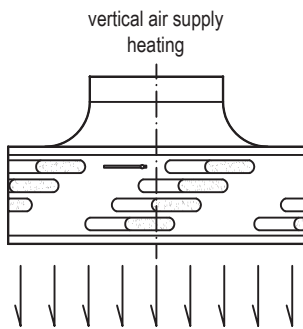


variable geometry air vents

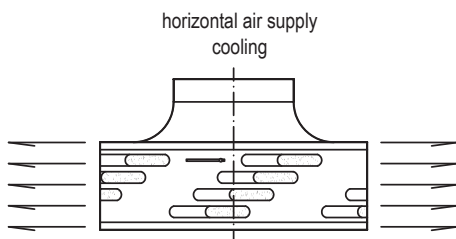
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METHOD OF PROVIDING AIR-SUPPLY

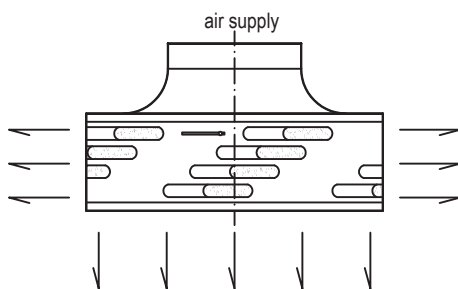
HEATING – as the supplied warm air tends to rise since its density is smaller than the density of the air in the room, it is necessary to supply it vertically down. In this way, it reaches the zones where people are present.



COOLING – as the supplied cold air tends to fall since its density is greater than the density of the air in the room, it is necessary to supply it horizontally. In this way, the stream of cold air reduces its speed before reaching the zones where people are present and reaches as much space of the cooled room as possible.



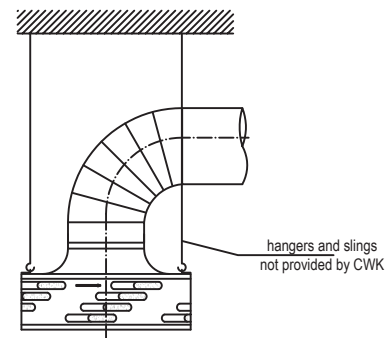
VENTILATION – in case the air-supply has the same temperature as the air in the room, a mixed air-supply must be utilised. In this way, the air is supplied horizontally and vertically, which enables it to reach as much space of the room as possible.



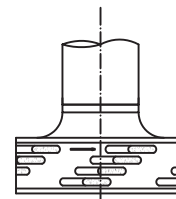
INSTALLATION

NZG air vents may be mounted on ceilings by means of standard slings or directly on the circular section ventilation duct.

INSTALLATION IN THE ROOF



ASSAMBLY TO CHANNEL CIRCULAR CROSS-SECTION



FEATURES

The charts show air efficiency V (m³/h), pressure losses p (Pa), stream range L (m) for final speed equal to 0.25 m/s and noise level [dB(A)].

The given value of stream reach L regards the isothermal vertical and horizontal air-supply. In other cases, the stream range value must be corrected with the coefficients given in the below tables.

HEATING

correction coefficient for the vertical range

ΔT (K)	5	10	15	20
a	0.8	0.6	0.5	0.4

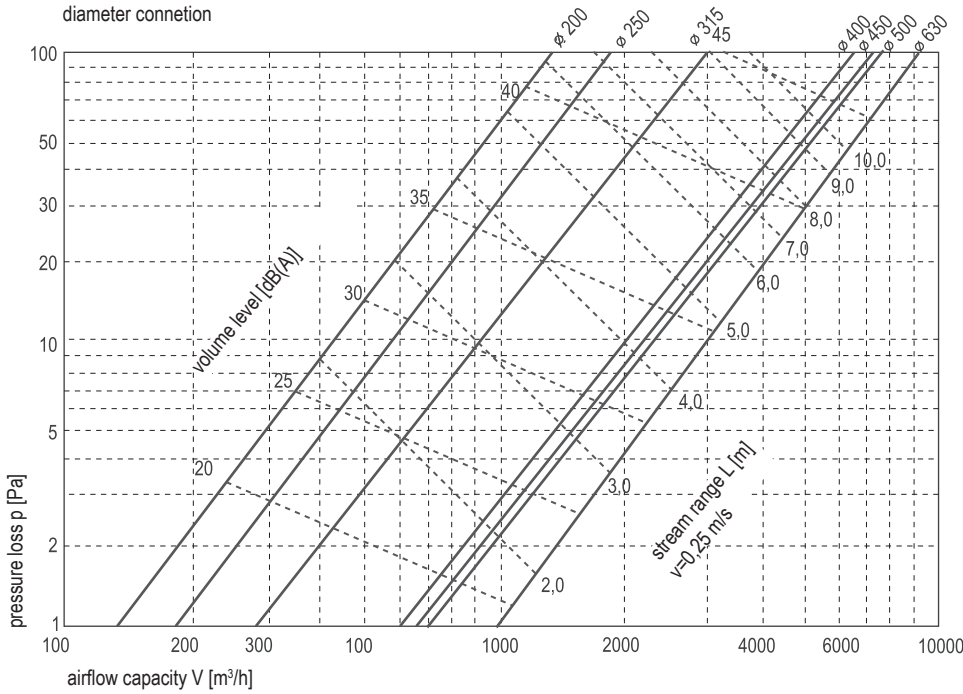
COOLING

falling stream range

ΔT (K)	2	5	10	15	20	
horizontal range [m]	4	<1.0	1.0	2.3	3.5	4.5
	5	1.0	2.5	4.2	7.0	10.0
	6	1.6	3.8	8.0	12.0	-
	7	2.5	7.0	12.0	-	-
	8	3.5	8.0	-	-	-
9	5.5	12.0	-	-	-	

FEATURES

HORIZONTAL AIR-SUPPLY (ISOTHERMAL)



VERTICAL AIR-SUPPLY (ISOTHERMAL)

