CAP-G

Square multi nozzle ceiling diffuser

Function

CAP-G is a ceiling diffuser with directionally adjustable nozzles. This enables functionality in a vast range of operation modes like horizontal, vertical, diagonal, single- or multi-directional and swirl for both, cooling and heating. Typical installation sites are offices, hospitals, public and business buildings etc. The installation height is up to 4m. It is possible to remove the diffuser face to access the duct system and for easy cleaning and service. Pull the front plate one step out from the main body to create an air gap around the diffuser increasing the flow capacity. Max temperature difference for cooled air ΔT 12 K.

Design

The diffuser is made of powder paint coated galvanized steel sheet. The nozzles are ABS Plastics. The diffuser plate is adjustably attached to the base with circular tight connection.

Dimensions

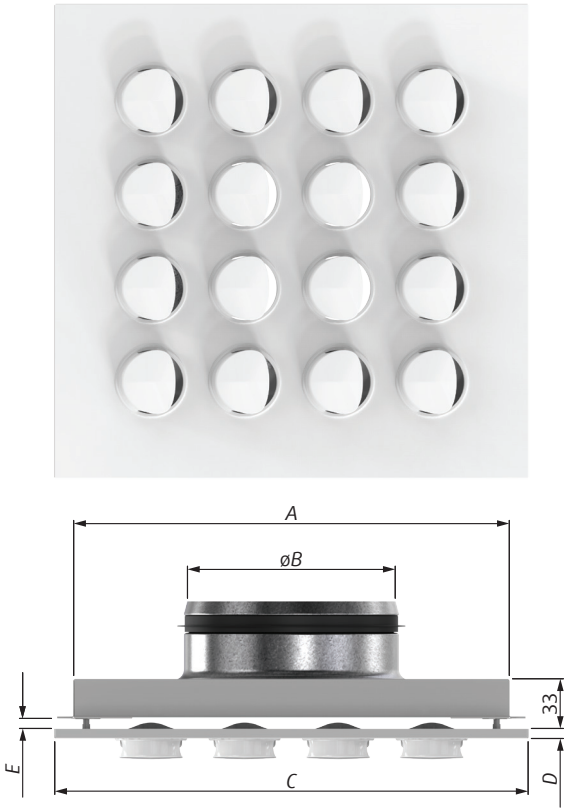

Fig. 1: CAP-G dimensions

Ordering code	A	øB	C	D	E	F	m
	(mm)						(kg)
CAP-G-125-16 *	326	124	355	7,4	7,5	40	2,0
CAP-G-160-25 *		159					2,1
CAP-G-200-36 *	426	199	455				3,3
CAP-G-250-49 *	561	249	595				5,0
CAP-G-315-81 *		314					4,9

Tab. 1: CAP-G dimensions and weight
NOTE: * Number of nozzles

Technical details

CAP-G Size	25 L_{WA} (dB) q_v (m³/h)	25 L_{WA} (dB) q_v (l/s)	30 L_{WA} (dB) q_v (m³/h)	30 L_{WA} (dB) q_v (l/s)	35 L_{WA} (dB) q_v (m³/h)	35 L_{WA} (dB) q_v (l/s)
125	66	18	107	30	176	49
160	82	23	142	40	243	68
200	121	34	173	48	247	69
250	148	41	243	68	417	116
315	157	44	365	101	845	235

Tab. 2: Quick selection for CAP-G diffuser
NOTE: The data specified in the table applies to 10 Pa total

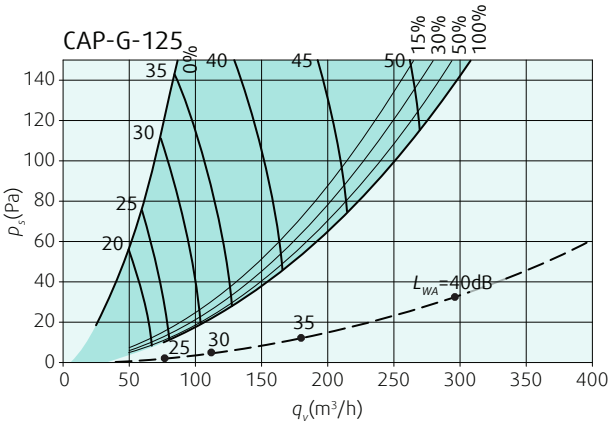

Diagram 1a: Pressure drop and sound power level measured with (continuous lines) and without (dashed line) Thor plenum box.

CAP-G Size	THOR PLENUM BOX	25 L_{WA} (dB) q_v (m³/h)	25 L_{WA} (dB) q_v (l/s)	30 L_{WA} (dB) q_v (m³/h)	30 L_{WA} (dB) q_v (l/s)	35 L_{WA} (dB) q_v (m³/h)	35 L_{WA} (dB) q_v (l/s)
125	100-125	71	20	92	26	119	33
160	125-160	80	22	111	31	154	43
200	160-200	123	34	164	46	217	60
250	200-250	159	44	215	60	290	81
315	250-315	672	187	700	194	631	175

Tab. 2: Quick selection for CAP-G diffuser with THOR plenum box
NOTE: The data specified in the table applies to 10 Pa total

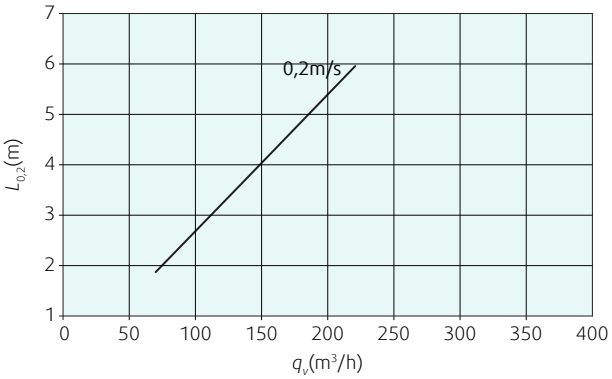

Diagram 1b: Isothermal, 4-way nozzle configuration throw length with terminal velocity 0,2m/s.

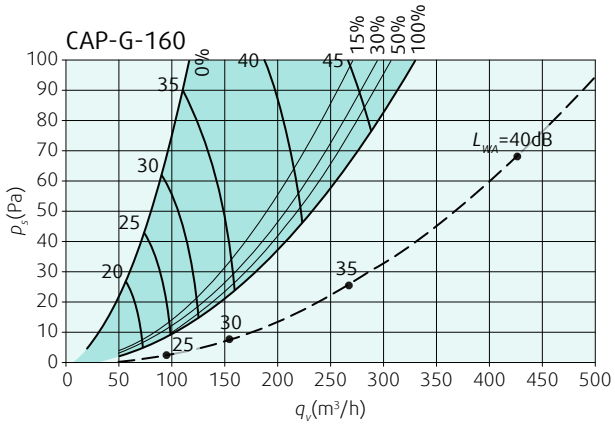

Diagram 2a: Pressure drop and sound power level measured with (continuous lines) and without (dashed line) Thor plenum box.

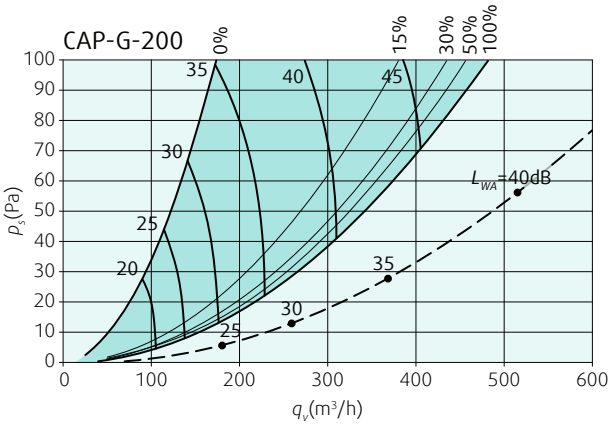

Diagram 3a:Pressure drop and sound power level measured with (continuous lines) and without (dashed line) Thor plenum box.

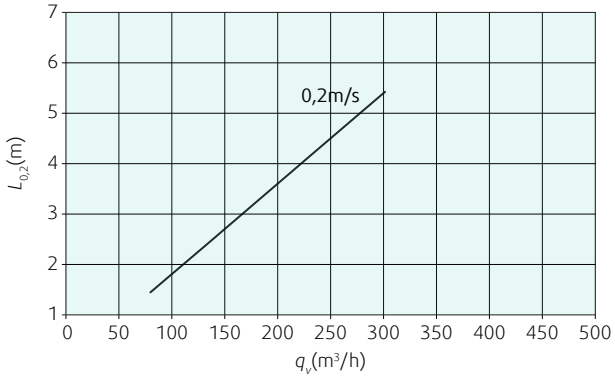

Diagram 2b: Isothermal, 4-way nozzle configuration throw length with terminal velocity 0,2m/s.

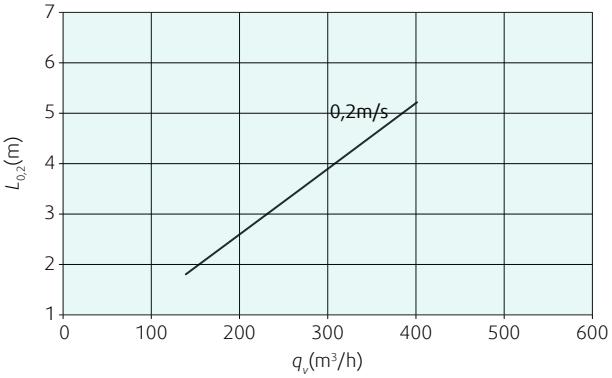

Diagram 3b: Isothermal, 4-way nozzle configuration throw length with terminal velocity 0,2m/s.

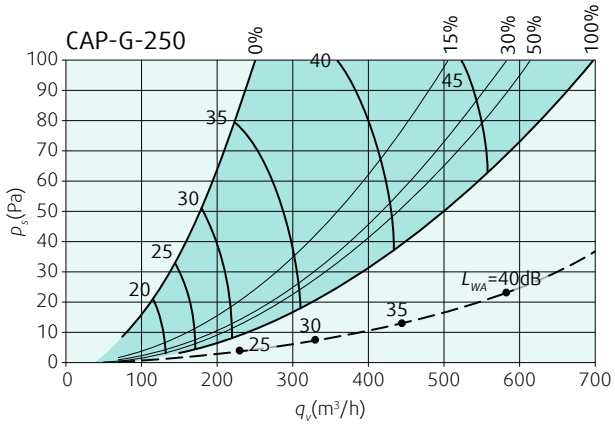

Diagram 4a: Pressure drop and sound power level measured with (continuous lines) and without (dashed line) Thor plenum box.

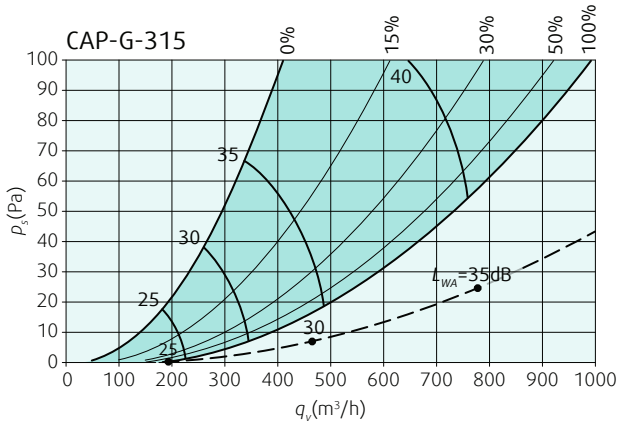

Diagram 5a: Pressure drop and sound power level measured with (continuous lines) and without (dashed line) Thor plenum box.

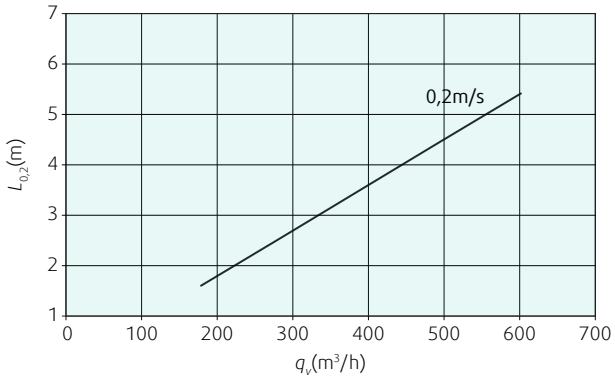

Diagram 4b: Isothermal, 4-way nozzle configuration throw length with terminal velocity 0,2m/s.

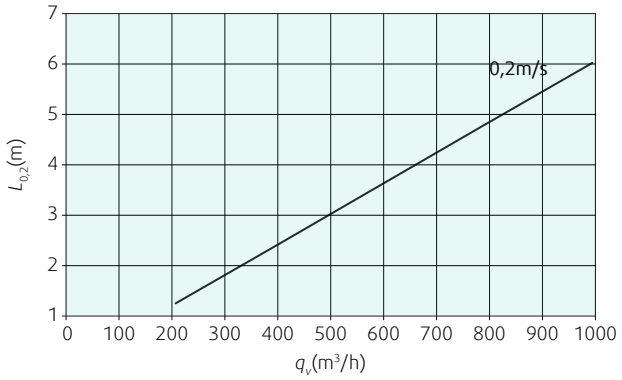

Diagram 5b: Isothermal, 4-way nozzle configuration throw length with terminal velocity 0,2m/s.

Legend

0%...100%	Zeus adjustment damper on Thor plenum box, opening position
———	CAP-G with Thor plenum box
– – – – –	CAP-G without plenum box

Mounting

The diffuser is specially designed for flush mounting in false ceiling. By opening a square hole in the ceiling slabthe diffuser back box can be completely recessedinto the opening onto the metal flange.The flange, which is part of the back box, is used to cover the edges of the opening. The diffuser is fastened to the duct or plenum box THOR from the inside of the spigot by screws or pop rivets. The front plate with the nozzles is easily detached from the back box by gently inserting a screwdriver in openings on the side after which the two parts are bent apart. In the same fashion a small extra air gap can be created around the diffuser.