

ADAPT



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Square Diffuser

Product description

4 ways square horizontal supply diffuser with only 1 slot getting a perfect Coanda effect for variable or constant volume air flow installations, brand KOOLAIR, model **ADAPT**, size 595x595 mm or 670x670 mm, for installation in false ceilings of 600x600 mm, 675x675 mm or continuous ceiling. Manufactured with external extruded aluminium profiles, central core in steel sheet, its central core can adjust its height to 3 positions using a position rod and top connection in galvanized steel sheet for diffusers without the plenum box.

It can include lateral plenum box in galvanized steel sheet with regulation damper accessible from the false ceiling, with optional internal insulation.

Highly versatile to accommodate a wide range of air flow rates in the same size of diffuser by manually adjusting the height of the central core, for a unified or smooth solution aesthetics in the same room. Additionally, it enables to correct deviations of flow rates found on site for an optimal pattern of air flow rate in these settings. Removable central core to get an easy access for cleaning and adjust the regulating damper internally when installed in a continuous ceiling.

With a highly aesthetic design in stylized lines and a single air supply way with a smooth central core, the unit can be optimally integrated in the ceiling and enhance the decoration of the premises. The finishing can be RAL painted upon demand or coloured similar to anodized aluminium and stainless steel. As an option, it can be manufactured in other dimensions to match for other types and dimensions of false ceilings.

Accessories

PCFL. Circular fixed plenum with lateral connection.

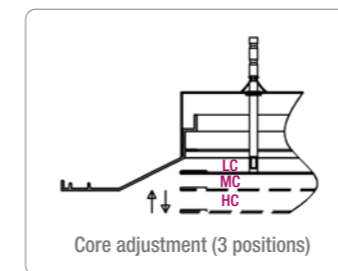
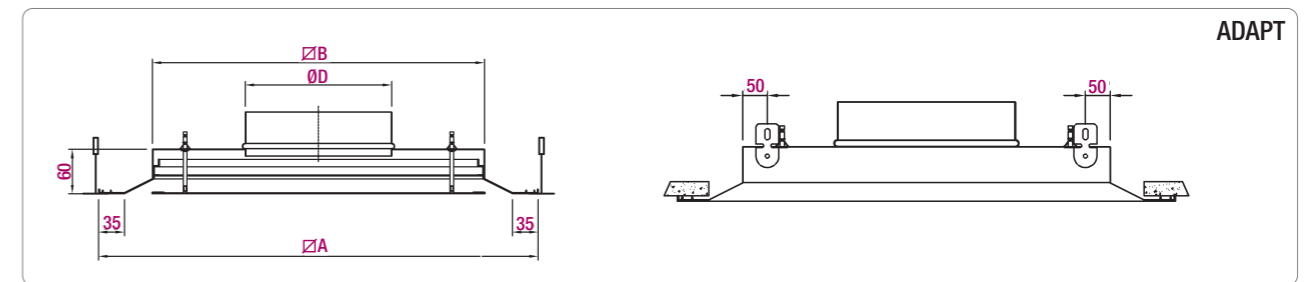
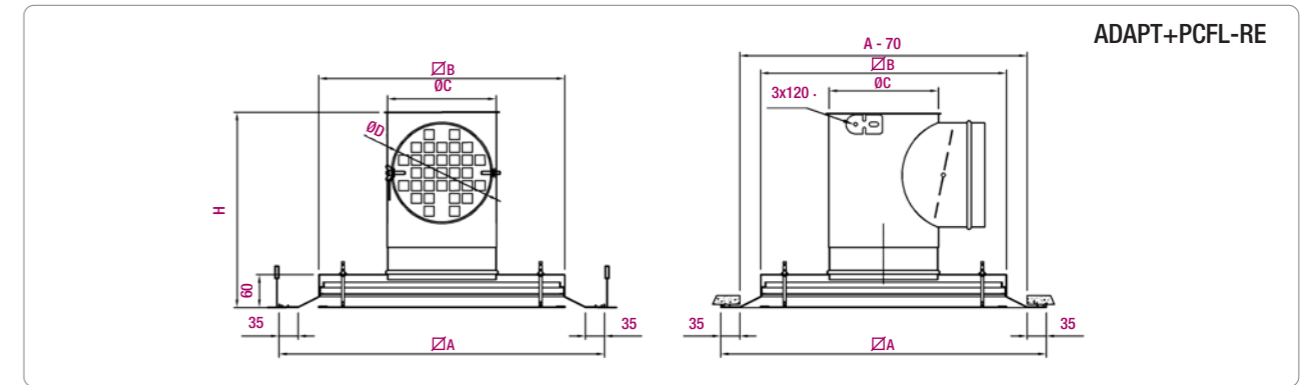
A. Inner isolation in plenum connection.

RE. Regulation damper embedded in the diffuser's own connection opening for units without plenum box or with lateral connexion plenum box. Accessible from the false ceiling or from inside the plenum box by removing the central core.

RC. Regulation damper by cords, integrated in the diffuser or in the side entry plenum box, accessible from the room. Recommended for continuous ceiling installations.

SM. Mounting system enabling fixing of internally embedded diffuser in external profile in continuous false ceiling installations without lateral steel sheet plenum box. Required when the continuous ceiling is finished with an opening for the diffuser and the diffuser unit is installed in the last stage.

General dimensions



DIFFUSER	A	B	H	ØC	ØD
600-125			254	128	124
600-160			289	163	159
600-200	594	452	329	203	199
600-250			379	253	249
600-315			444	318	314
675-125			254	128	124
675-160			289	163	159
675-200	669	527	329	203	199
675-250			379	253	249
675-315			444	318	314

Unit in mm.

SYMBOLS

- Q (m³/h):** Air flow.
- L_{WA} [dB(A)]:** Sound power level in dB(A)
- ΔP_t (Pa):** Pressure drop.
- X (m):** Horizontal throw for a terminal velocity of the air flow of 0.25 m/s, thermal jump ΔT = -10° C (cold air)
- V_k (m/s):** Effective velocity.

Selection table (ADAPT-600)

SIZE	L _{WA} [dB(A)]	HIGH CAPACITY				MEDIUM CAPACITY				LOW CAPACITY			
		Q (m³/h)	ΔP _t (Pa)	X (m)	V _k (m/s)	Q (m³/h)	ΔP _t (Pa)	X (m)	V _k (m/s)	Q (m³/h)	ΔP _t (Pa)	X (m)	V _k (m/s)
125	24	160	4	1	1,7	130	7	1	2	105	10	1,1	1,9
	32	220	8	1,4	2,4	180	13	1,4	2,7	145	20	1,5	2,7
	40	300	15	1,9	3,2	250	25	2	3,8	200	38	2,1	3,7
160	24	210	5	1	2	160	8	0,9	2,1	110	11	0,9	1,8
	32	290	9	1,4	2,7	215	15	1,2	2,8	150	21	1,3	2,5
	40	380	15	1,9	3,6	290	27	1,7	3,8	205	39	1,7	3,4
200	24	250	12	1,3	2,5	205	11	1,2	2,4	150	8	1,1	2,3
	32	340	22	1,8	3,4	290	22	1,7	3,5	195	14	1,4	2,9
	40	460	40	2,4	4,6	400	41	2,3	4,8	250	24	1,8	3,8
250	24	400	9	1,9	4	320	10	1,7	3,8	200	11	1,6	2,9
	32	520	14	2,4	5,2	410	16	2,2	4,8	260	19	2	3,8
	40	660	23	3,1	6,6	520	26	2,8	6,1	340	32	2,6	5
315	24	420	9	1,9	4,2	330	10	1,8	3,9	280	10	1,9	3,8
	32	560	17	2,6	5,6	430	17	2,4	5,1	380	19	2,6	5,1
	40	770	31	3,6	7,6	570	31	3,1	6,7	500	40	3,4	6,7

Data for central core middle position.