

Visible diffuser

LCF



Description

LCF is a diffuser with circular unperforated face plate for free hanging installations.

LCF is suitable for horizontal supply of cooled air and handles high airflows as well as low airflows with high under-temperature without the risk of drafts.

LCF includes a unique linear cone damper which makes it possible to regulate in the full airflow range (0-100%) and allows to balance with a high pressure drop over the unit with low sound level (up to 200 Pa).

Furthermore the construction of the damper gives an accurate and reliable measurement.

LCF has a readable K-value scale and has the possibility to be preadjusted before the final balancing.

- Suitable in full airflow range with high undertemperature.
- Unique linear cone damper
- Up to 200 Pa with low sound level
- Accurate and reliable measurement of flow

Maintenance

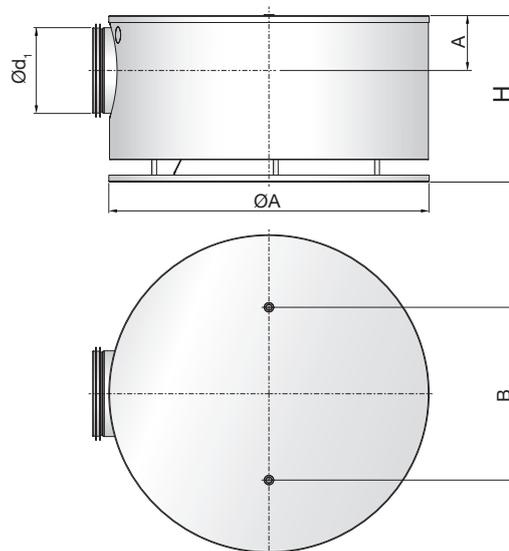
The face plate can be detached and the damper removed to enable cleaning of the internal parts or the duct. The visible parts of the diffuser can be wiped with a damp cloth.

Order code

Product	LCF	aaa	S
Type	LCF		
Connection dim.	Ød 125-200		
Functional use	S = Supply air		

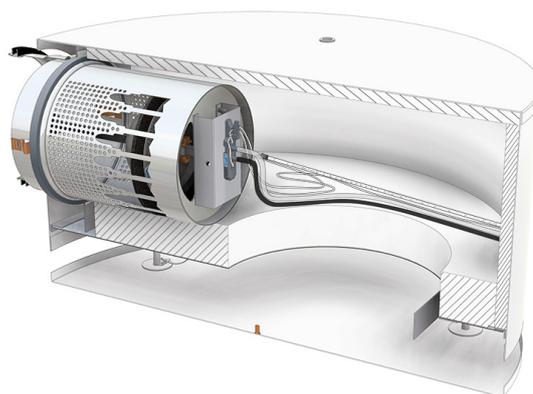
Example: LCF-200-S

Dimensions



Ød ₁ mm	ØA mm	A mm	H mm	B mm	Weight kg
125	460	80	241	250	7.0
160	540	97	275	300	10.0
200	660	117	315	400	13.7

Construction



Materials and finish

Material:	Galvanised steel
Standard finish:	Powder-coated
Standard colour:	White, RAL 9010, gloss 30 or white 9003, gloss 30.

The diffuser is available in other colours or unpainted. Please contact Lindab's sales department for further information.

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Technical data

Capacity

Volume flow q_v [l/s] and [m³/h], total pressure Δp_t [Pa], throw $l_{0.2}$ [m] and sound power level L_{WA} [dB(A)] can be seen in the diagrams.

For complete configuration, go to the [LindQST - Airborne calculator](#).

Frequency-related sound effect level

The sound effect level in the frequency band is defined as $L_{WA} + K_{ok}$. K_{ok} values are given in charts beneath the diagrams on the following pages.

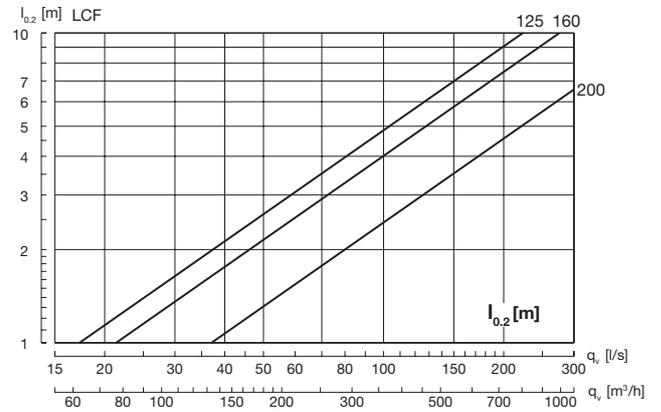
Quick selection

Supply air

duct Ød ₁	Δp _t ≥ 50 Pa 30 dB(A)		Δp _t ≥ 50 Pa 35 dB(A)	
	l/s	m ³ /h	l/s	m ³ /h
125	55	198	71	256
160	76	274	99	356
200	129	463	154	553

Throw $l_{0.2}$

The throw is specified at a terminal velocity of 0.2 m/s.



Sound attenuation

Sound attenuation of the diffusers ΔL from duct to room, including end reflection, see table below.

LCF Duct Ød ₁	Sound attenuation ΔL [dB]							
	Centre frequency Hz							
	63	125	250	500	1K	2K	4K	8K
125	18	15	13	12	12	14	17	18
160	12	10	16	12	13	14	18	19
200	9	10	14	14	12	15	18	19

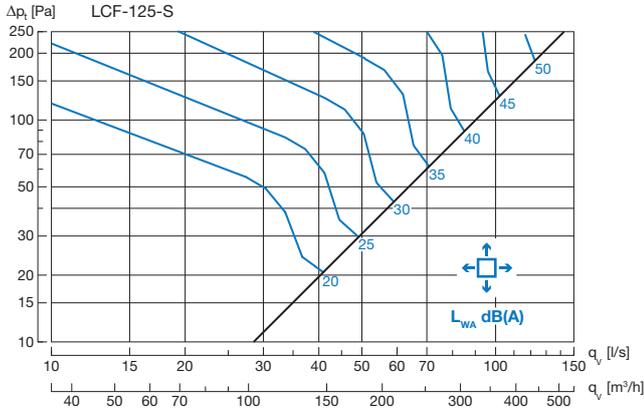
Balancing

Balancing data is contained in a separate brochure.

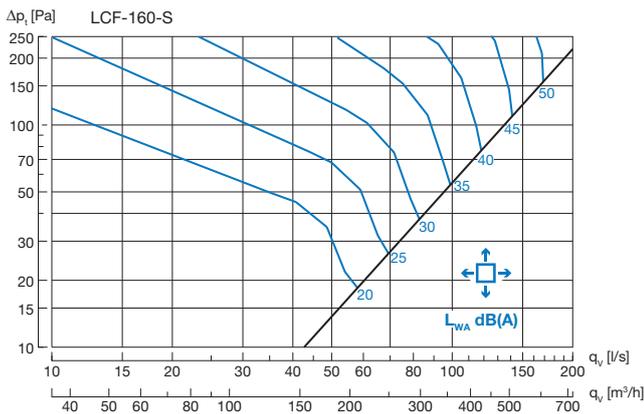
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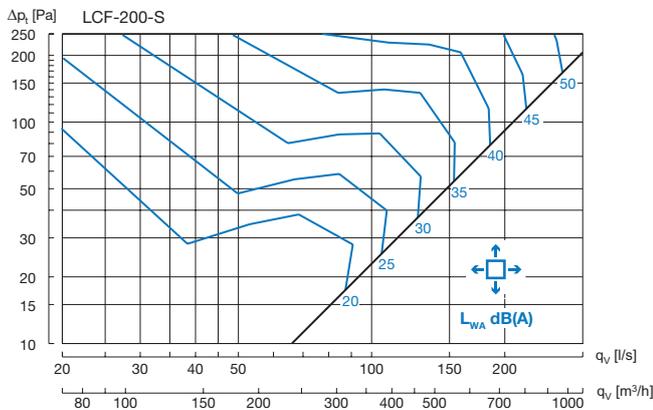
Technical data



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	7	7	-3	-6	-4	-8	-15	-17



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	10	9	-3	-6	-4	-10	-16	-14



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	7	6	-3	-6	-6	-6	-14	-16