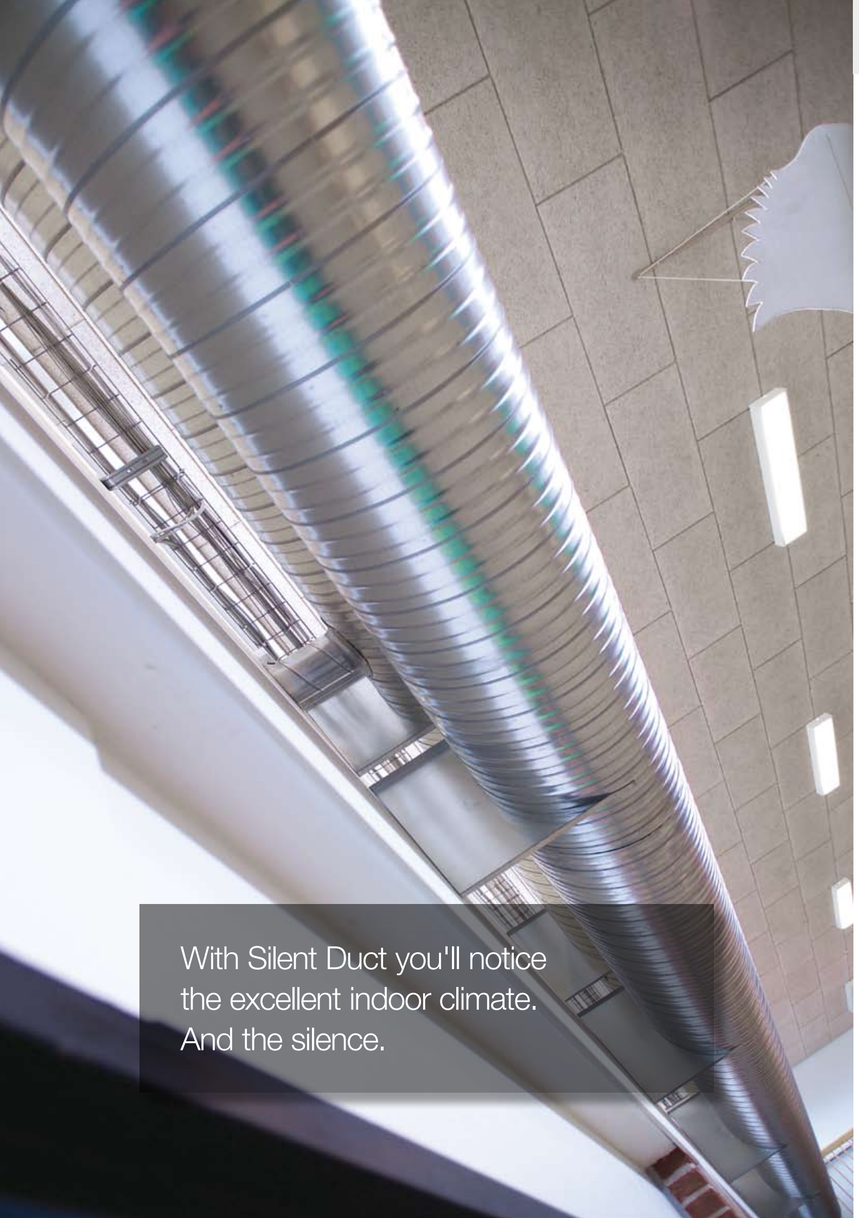

We simplify construction

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Lindab®
www.lindab.com

Silent Duct

You'll notice the silence...

Lindab®

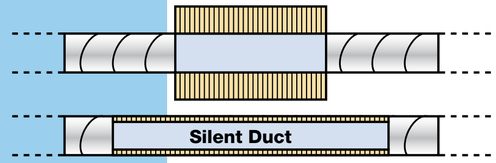
At the Høje Kolstrup School in Aabenraa, Silent Duct has improved job satisfaction and pupils and teachers have taken fewer sick days.

An aesthetic and effective solution

Silent Duct is especially suited to buildings with visible ducts or particularly demanding installations.

Where the duct system and its silencer are visible and form part of the room, Silent Duct is the perfect choice. By connecting the duct on Silent Duct's outer diameter, you can ensure uniform dimensions for the duct system, thus creating a harmonious appearance within the room.

Silent Duct is also an effective silencer in buildings with particularly demanding conditions, and the solution can be adapted to installations where there is very little space, for example, lift shafts and plant rooms. The possibilities with Silent Duct are endless.



Here you can see the difference between a traditional solution with visible silencer and the solution using Silent Duct's "invisible" attenuation.

Silent Duct is available with connection of ducts on inner pipes and outer pipes.

We document the effect in our sound laboratory

Good acoustics can be created in a variety of ways. At Lindab, we work continuously to find the most effective acoustic solutions. The entire Silent Duct system has been tested at our advanced sound laboratory in Farum. This is where we measure the effect of our various noise-reducing solutions. As a result, we have documented proof that they work!

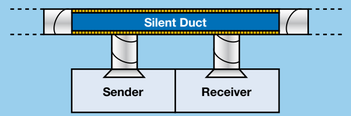
In certain cases, it is necessary to opt for slightly different solutions, which is why our professional resources in the sound laboratory are so useful. Through measurement and documentation, we are able to offer greater reliability, even when you choose less traditional ways of dealing with acoustic dimensioning.

We offer qualified support and documentation for projects using Silent Duct. We help you to dimension the solution, and if you wish you can also receive a final sound calculation from fan to room.

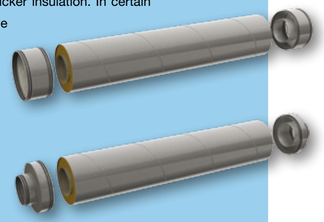
A complete range of solutions

Our extensive range of both circular and rectangular silencers is capable of dealing with most of the problems normally associated with the preparation of effective attenuation. Silent Duct pipes are delivered as standard in 3-metre lengths, but can easily be shortened to the lengths required. Silent Duct is normally available with spiral-seamed pipes, but the option also exists to use longitudinal-seamed pipes.

Silent Duct comprises an outer pipe, a perforated inner pipe (Ø100-Ø500 mm), two end plates and an intermediate sound-absorbing material 25 mm or 50 mm thick. A narrower, but longer silencer compensates for the reduced thickness of insulation compared with traditional silencers that have thicker insulation. In certain cases, it can be an advantage to use the length of the duct system instead of the width to achieve the desired attenuating effect.



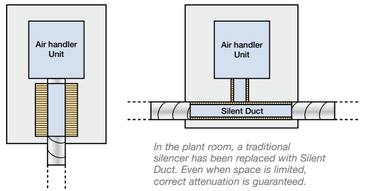
Silent Duct works particularly well where effective attenuation of noise is required from room to room. Lindab can, in such cases, offer optimised room-to-room solutions, based on precise measurement data from our sound laboratory.



Silent Duct attends to the indoor climate's third dimension

Nuisance noise in everyday life has an impact on our wellbeing and therefore also our concentration and efficiency. At Lindab, we take the subject of noise seriously and regard it as the indoor climate's third dimension. We know that good acoustics help ensure a good indoor climate, which is why we have created Silent Duct.

Silent Duct effectively deadens any noise and helps create optimum acoustic conditions in the room. Silent Duct is a complete system of attenuating ducts that is both effective and harmonious. It can even be used where space is limited.



In the plant room, a traditional silencer has been replaced with Silent Duct. Even when space is limited, correct attenuation is guaranteed.

The table below compares the attenuation of a traditional silencer (SLU) and Silent Duct (SD). Silent Duct offers numerous possibilities for ensuring optimum attenuation, as its length is variable.

Comparison of a traditional silencer's attenuation and Silent Duct

type	ød (mm)	øD (mm)	insul. (mm)	length (mm)	63	125	250	500	1k	2k	4k	8k	(Hz)
SLU	160	260	50	1275	2	6	15	35	50	50	30	17	(dB)
SD	160	224	*) 25	2000	4	6	10	22	46	50	28	19	(dB)
SD	160	280	**) 50	2000	7	11	23	44	50	50	34	20	(dB)
SLU	315	500	80	1200	4	8	16	27	25	15	9	10	(dB)
SD	315	400	25	2000	3	3	6	13	33	21	10	9	(dB)
SD	315	450	50	2000	4	6	13	28	50	18	10	9	(dB)

*) With 25 mm Silent Duct, excellent attenuation of low frequencies is achieved by increasing the length to 2,000 mm.
**) With 50 mm insulation, it is possible to achieve significantly greater attenuation compared with a standard SLU with an attenuation length of 1,200 mm.

It is clear that the thickness of any insulation has a significant impact on attenuation, but virtually the same effect can be achieved with 50 mm insulation as with the 80 mm insulation in a standard SLU simply by increasing the length from 1,200 to 2,000 mm.

This produces maximum attenuation of 50 dB.