

PINO

The PINO series for exhaust air was developed to complement the TINO supply air series. You can use them separately or in combination. PINO is the smallest technically feasible exhaust air vent that can be installed even in a visible location. Let your visual preferences decide for the convex version D or the concave version C.

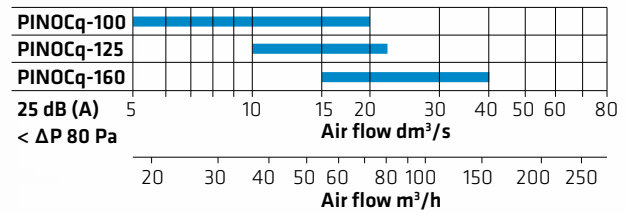
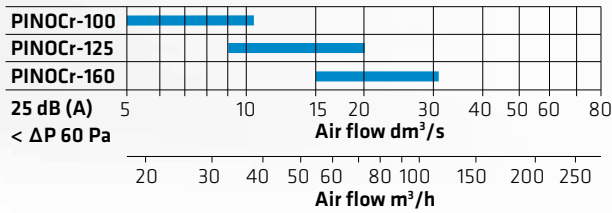
The PINO series represents a design trend not usually seen in exhaust air vents. Besides the convex or concave forms, you can choose different perforation styles. An exhaust air device can now become part of interior decoration without compromising on performance.

PINOC

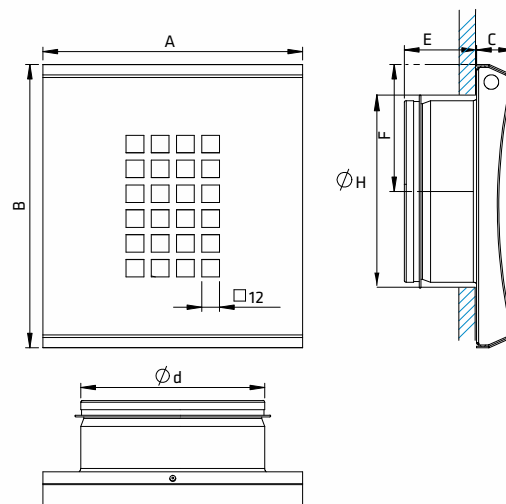
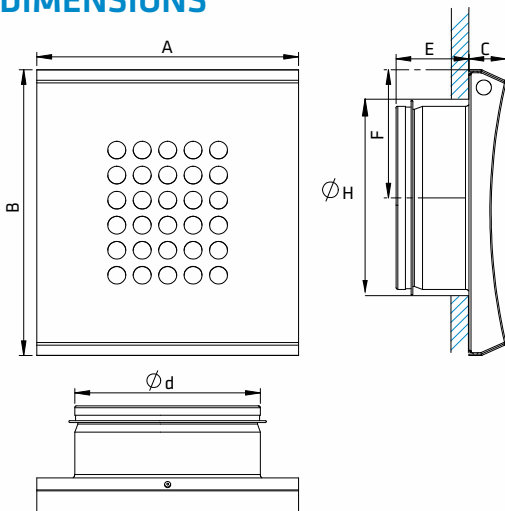
PINOC is an attractively designed exhaust air vent for anybody wanting to highlight details in new buildings as well as renovation projects. The silent, easily cleaned PINOC is available with both round and square perforation. Reliable measurement combined with quick and precise adjustment are prominent features of the PINOC series.



QUICK GUIDE



DIMENSIONS

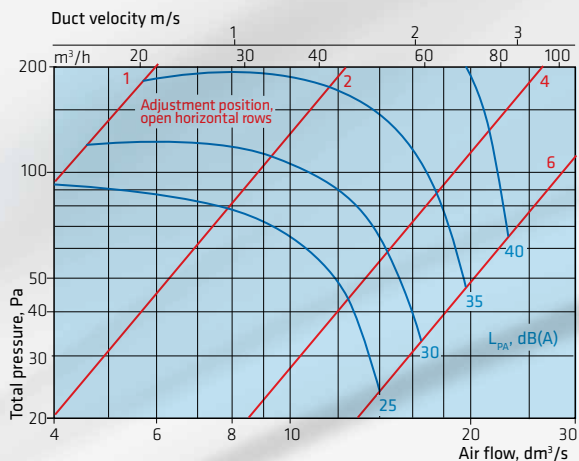


Exhaust air vents

Model	Ød	ØH	AxB	C	E	F	Weight, kg
PINOCr-100	100	115	150x164	20	45	72	0,4
PINOCr-125	125	140	175x192	25	45	87	0,6
PINOCr-160	160	175	210x231	30	45	106	0,8

Model	Ød	ØH	AxB	C	E	F	Weight kg
PINOCq-100	100	115	150x164	20	45	72	0,4
PINOCq-125	125	140	175x192	25	45	87	0,6
PINOCq-160	160	175	210x231	30	45	106	0,8

PINOCr-100



Sound power level L_{okt}

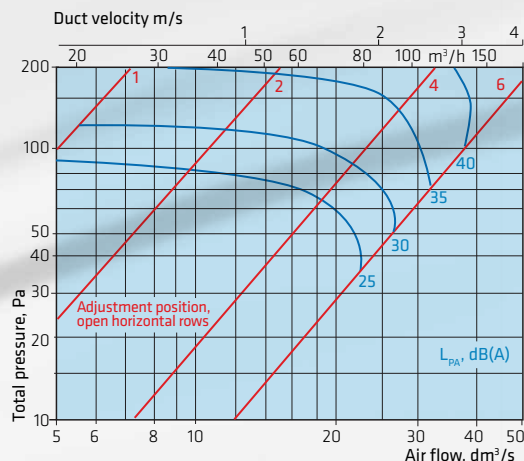
Size	f, Hz	63	125	250	500	1k	2k	4k	8k
PINOCr-100	K, dB	-8	-5	-3	-2	1	-3	-10	-16

Sound attenuation

Size	f, Hz	63	125	250	500	1k	2k	4k	8k
PINOCr-100	ΔL, dB	22	16	11	7	-1	4	3	4

L_{wokt} = L_{pA} + K

PINOCr-125



Sound power level L_{okt}

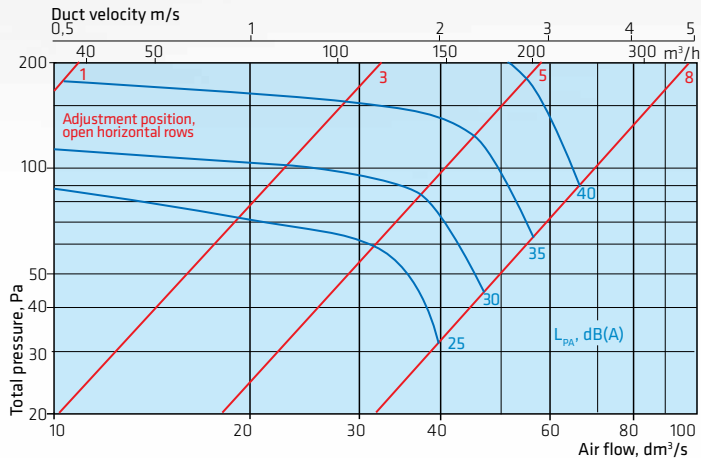
Size	f, Hz	63	125	250	500	1k	2k	4k	8k
PINOCr-125	K, dB	-12	-4	-4	-2	1	-4	-9	-12

Sound attenuation

Size	f, Hz	63	125	250	500	1k	2k	4k	8k
PINOCr-125	ΔL, dB	19	14	9	3	1	4	3	4

L_{wokt} = L_{pA} + K

PINOCr-160



Sound power level L_{okt}

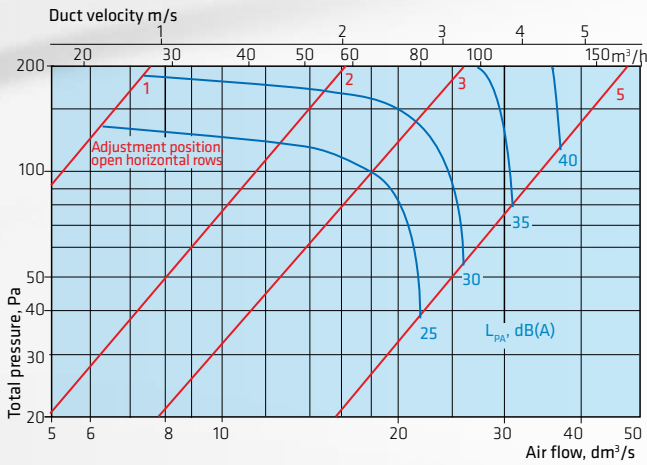
Size	f, Hz	63	125	250	500	1k	2k	4k	8k
PINOCr-160	K, dB	-9	-3	-2	-1	1	-4	-9	-11

Sound attenuation

Size	f, Hz	63	125	250	500	1k	2k	4k	8k
PINOCr-160	ΔL, dB	18	12	6	3	2	3	2	4

L_{wokt} = L_{pA} + K

PINOCq-100



Sound power level L_{okt}

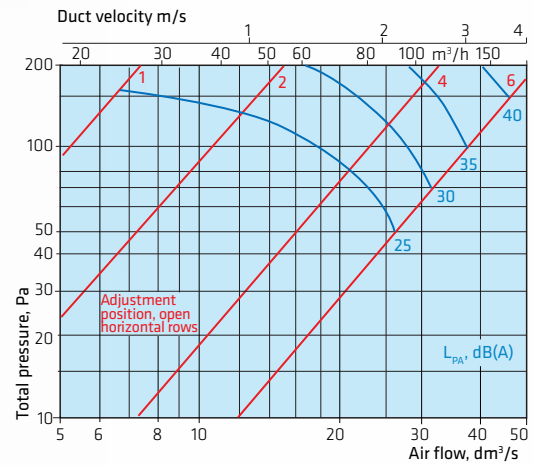
Size	f, Hz	63	125	250	500	1k	2k	4k	8k
PINOCq-100	K, dB	-10	-3	-1	-2	0	-3	-8	-9

Sound attenuation

Size	f, Hz	63	125	250	500	1k	2k	4k	8k
PINOCq-100	ΔL, dB	22	16	11	7	-1	4	2	3

L_{wokt} = L_{pA} + K

PINOCq-125



Sound power level L_{okt}

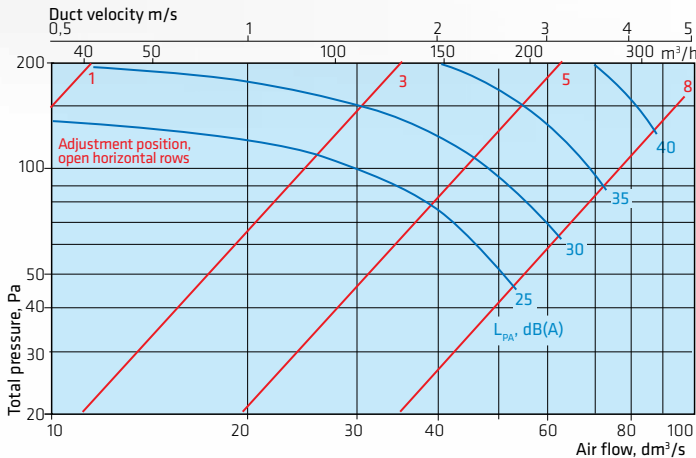
Size	f, Hz	63	125	250	500	1k	2k	4k	8k
PINOCq-125	K, dB	-8	-1	-2	-2	1	-4	-9	-10

Sound attenuation

Size	f, Hz	63	125	250	500	1k	2k	4k	8k
PINOCq-125	ΔL, dB	19	14	9	3	2	5	3	3

L_{wokt} = L_{pA} + K

PINOCq-160



Sound power level L_{okt}

Size	f, Hz	63	125	250	500	1k	2k	4k	8k
PINOCq-160	K, dB	-7	-1	-2	-2	0	-3	-7	-9

Sound attenuation

Size	f, Hz	63	125	250	500	1k	2k	4k	8k
PINOCq-160	ΔL, dB	18	13	7	2	1	4	2	3

L_{wokt} = L_{pA} + K

Airborne sound insulation D, n, e, w, dB

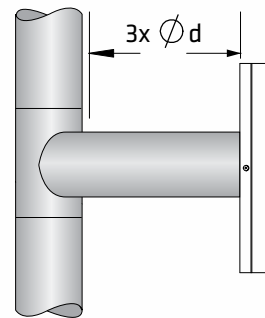
Supply air

Size	PINOC	PINOC+VAL	PINOC+VAM
100	42	60	62
125	41	60	60
160	41	59	58

Sound attenuation

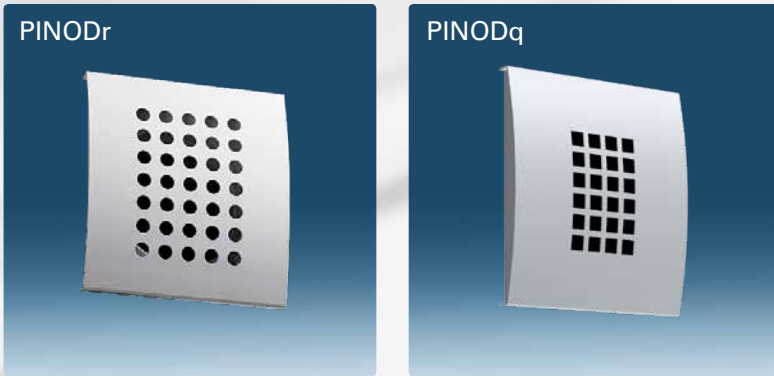
Sound level will increase if cover distance is below 3 x Ø d:

- after bend +4 dB (A)
- after T joint +8 dB (A)

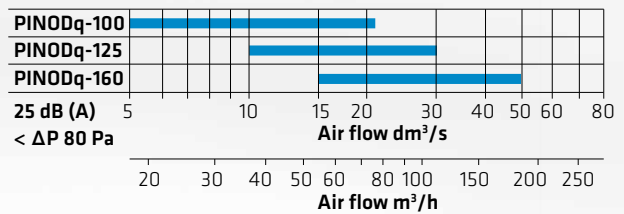
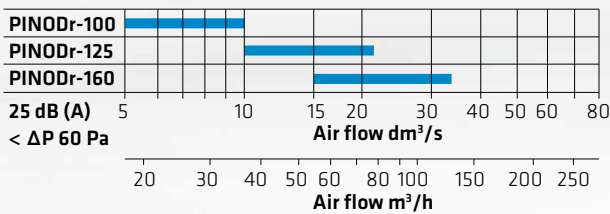


PINOD

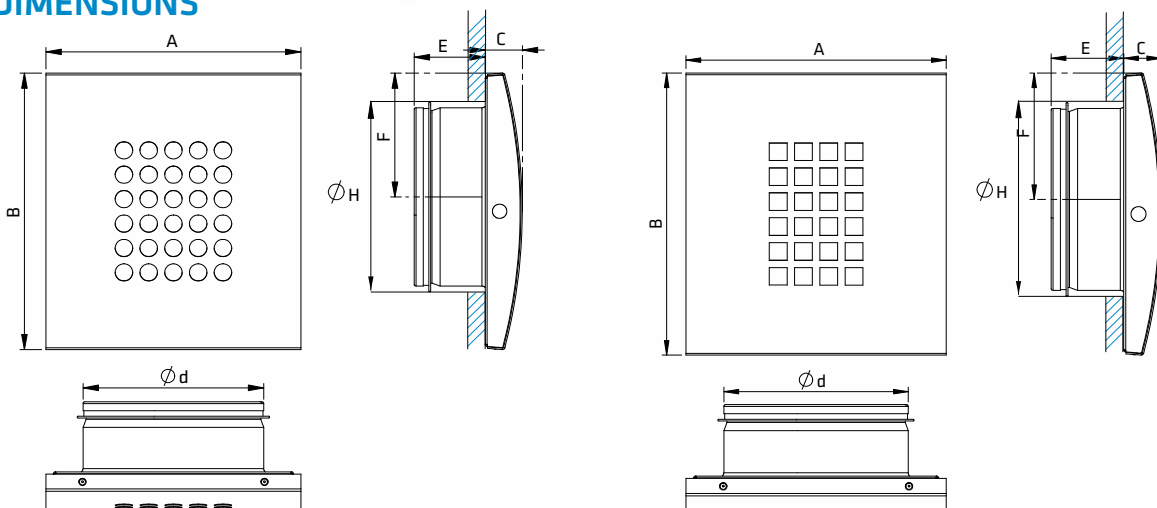
The convexly shaped **PINOD** is a representative of classic Nordic design with clean lines. The silent and easily cleaned PINOD is available with round and square perforation. Reliable measurement combined with quick and precise adjustment.



QUICK GUIDE



DIMENSIONS

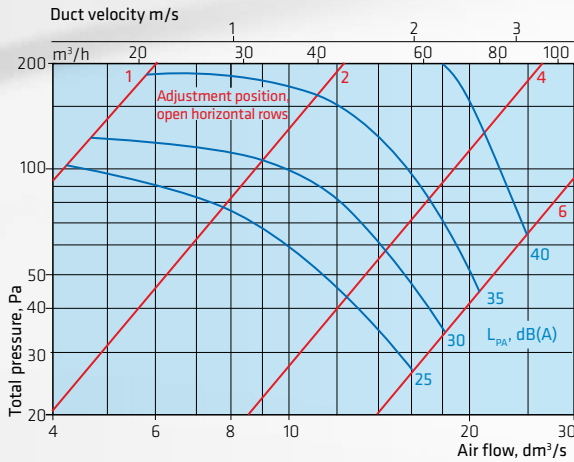


Exhaust air vents

Model	Ød	ØH	AxB	C	E	F	Weight, kg
PINODr-100	100	115	150x164	20	45	70	0,5
PINODr-125	125	140	175x192	25	45	82	0,6
PINODr-160	160	175	210x231	30	45	99	0,8

Model	Ød	ØH	AxB	C	E	F	Weight, kg
PINODq-100	100	115	150x164	20	45	70	0,5
PINODq-125	125	140	175x192	25	45	82	0,6
PINODq-160	160	175	210x231	30	45	99	0,8

PINODr-100



Sound power level L_{okt}

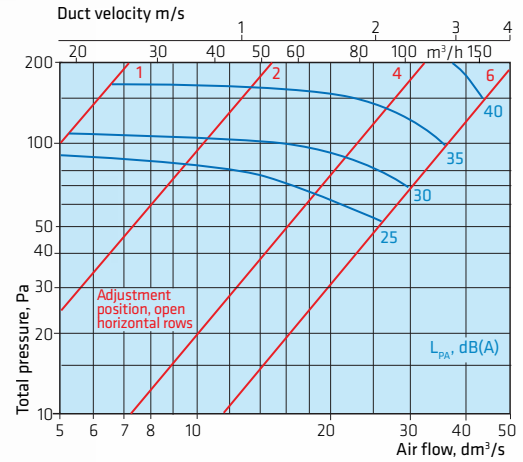
Size	f, Hz	63	125	250	500	1k	2k	4k	8k
PINODr-100	K, dB	-8	-6	-4	-2	0	-2	-11	-16

Sound attenuation

Size	f, Hz	63	125	250	500	1k	2k	4k	8k
PINODr-100	ΔL , dB	22	16	11	7	-1	4	2	4

L_{wokt} = L_{pA} + K

PINODr-125



Sound power level L_{okt}

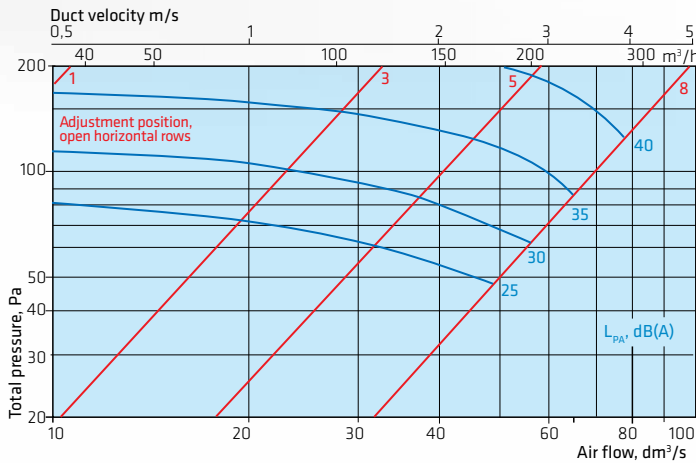
Size	f, Hz	63	125	250	500	1k	2k	4k	8k
PINODr-125	K, dB	-11	-3	-4	-3	1	-3	-9	-14

Sound attenuation

Size	f, Hz	63	125	250	500	1k	2k	4k	8k
PINODr-125	ΔL , dB	19	14	9	3	1	5	3	4

L_{wokt} = L_{pA} + K

PINODr-160



Sound power level L_{okt}

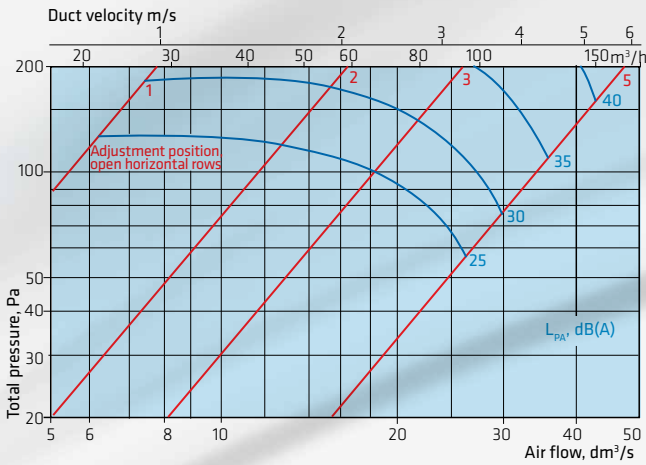
Size	f, Hz	63	125	250	500	1k	2k	4k	8k
PINODr-160	K, dB	-10	-2	-2	-2	1	-4	-10	-13

Sound attenuation

Size	f, Hz	63	125	250	500	1k	2k	4k	8k
PINODr-160	ΔL , dB	18	12	7	3	1	3	2	4

L_{wokt} = L_{pA} + K

PINODq-100



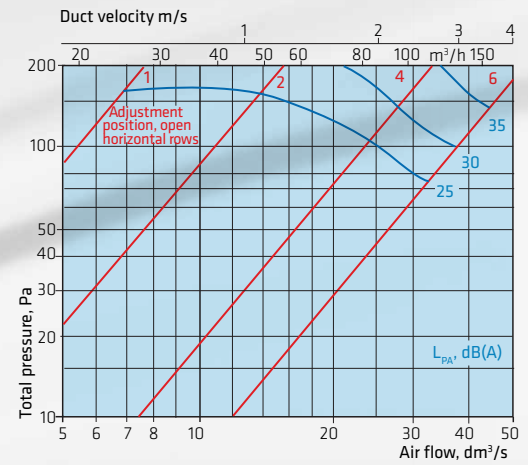
Sound power level Lokt

Size	f, Hz	63	125	250	500	1k	2k	4k	8k
PINODq-100	K, dB	-6	-2	-1	-2	0	-2	-9	-10

Sound attenuation

Size	f, Hz	63	125	250	500	1k	2k	4k	8k
PINODq-100	ΔL, dB	22	16	11	7	0	5	2	3
Lwokt = LpA + K									

PINODq-125



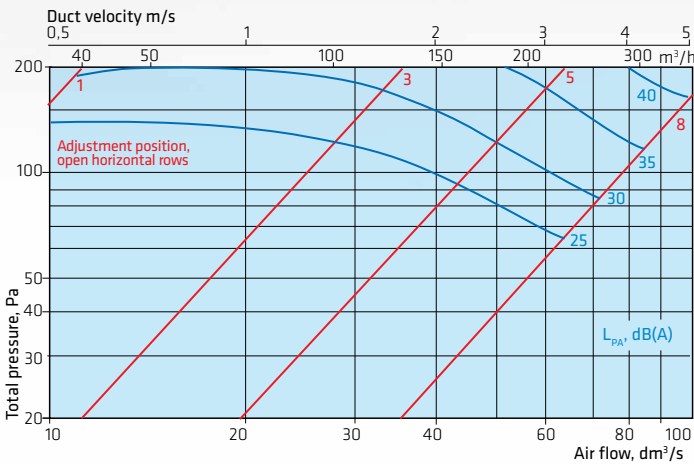
Sound power level Lokt

Size	f, Hz	63	125	250	500	1k	2k	4k	8k
PINODq-125	K, dB	-11	-2	-3	-4	0	-2	-7	-8

Sound attenuation

Size	f, Hz	63	125	250	500	1k	2k	4k	8k
PINODq-125	ΔL, dB	19	14	9	3	1	6	3	4
Lwokt = LpA + K									

PINODq-160



Sound power level Lokt

Size	f, Hz	63	125	250	500	1k	2k	4k	8k
PINODq-160	K, dB	-6	-1	-1	-2	0	-3	-7	-10

Sound attenuation

Size	f, Hz	63	125	250	500	1k	2k	4k	8k
PINODq-160	ΔL, dB	18	12	6	3	2	4	2	3
Lwokt = LpA + K									

Airborne sound insulation D, n, e, w, dB

Supply air

Size	PINOD	PINOD+VAL	PINOD+VAM
100	42	60	62
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Sound attenuation

Sound level will increase if cover distance is below $3 \times \varnothing d$:

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