INNO DAMPER

Product Brochure

Jeven

INNO

is a damper for circular ducts. It is completely made from soft elastic plastic foam with good damping abilities.

The damper has a number of oval openings equipped with releasable plugs. The pressure drop across the damper is adjusted by varying the number of open holes. Inno is usable with both supply and exhaust air valves.

MATERIAL

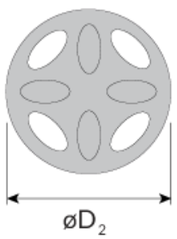
Inno-RP is mainly made from a flexible polyurethane foam.

Inno-ERE is mainly made from a polyester fiber. This material fulfills the SBI-test, pr EN 13823 B-class (B,s1,d0). Inno-ERE also contains small amounts of the flexible polyurethane foam. The material is flame resistant and conforms with FMVSS-302, the fabric flammability standard which is also used in e.g. automotive industry.

If fire is caught polyester and foam plastic are melt and gasify. Smoke and toxicity test shows that the combustion gases do not release harmful quantities of toxic gases e.g. carbon monoxide.

DIMENSIONS

Size mm	$øD_1$	$øD_2$	S
80	80	82	50
100	100	102	50
125	125	127	50
160	160	162	50
200	200	202	50
250	250	252	75
315	315	318	75



D_1 = Diameter of the duct

FUNCTIONING PRINCIPLE

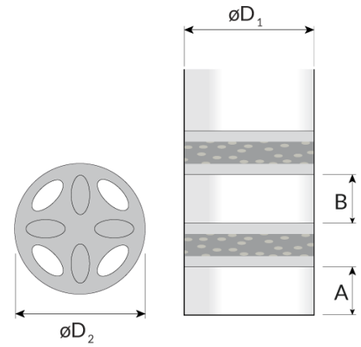
The pressure and air mass flow is easily adjusted by varying the number of open holes in the damper. The unique material and design of the damper results in low sound generation, even at large pressure drops. Inno is incredibly easy to install, which makes the damper ideal for use with existing installations.

The stable plastic foam has an open cellular structure and high density, which means extraordinary ability to absorb sound. Because of this the damper doubles as a simple silencer. The placement of several Innos one after another in a duct reduces noise, and sound problems such as overhearing between rooms can often be solved using Inno.

INSTALLATION

Inno is very easy to use with existing installations. Simply insert Inno into the duct opening from the room side. No tools are needed. The formable damper will seal tightly against the duct wall. Inno can be easily cleaned with a vacuum.

By placing several Innos after one another in a duct, the silencing is increased further. Inno can be easily cleaned with a vacuum during duct cleaning.



øD1 = Diameter of the duct
A = Minimum distance between duct opening and the first Inno damper
B = Minimum distance between Inno dampers

	A mm	B mm
Supply air	50-350	50-250
Exhaust air	0-50	50-250

PRODUCT CODE

INNO - 100 - RP/ERE

PRODUCT
SIZE

MATERIAL
ERE=Polyester fiber + flexible polyurethane foam

MATERIAL
RP=Flexible polyurethane foam

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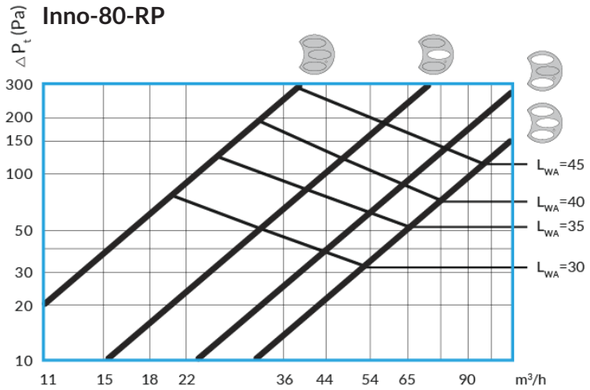
PRESSURE LOSS AND AIR FLOW RATE

INNO-RP

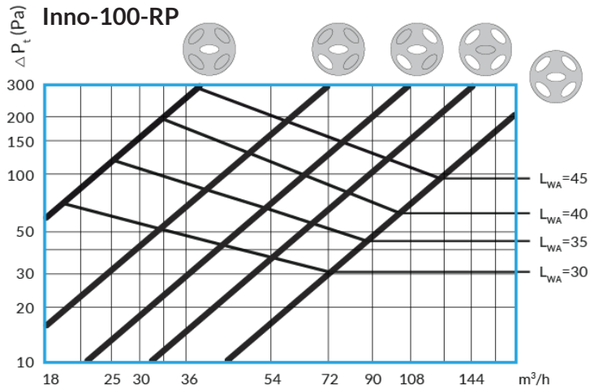
This symbol shows the number of open holes.

ΔPt(Pa)= Total pressure loss, Pa.
L_{WA}= Sound power level (A-weighed) in the duct db(A).

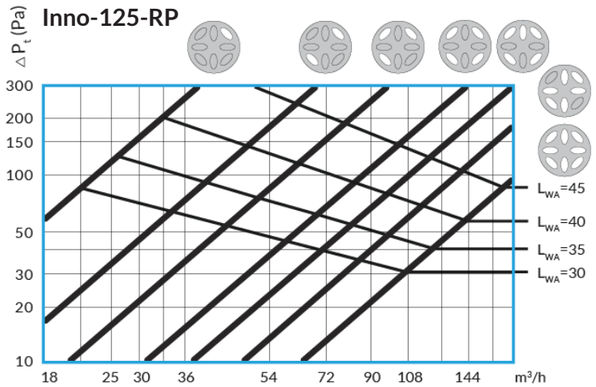
Inno-80-RP



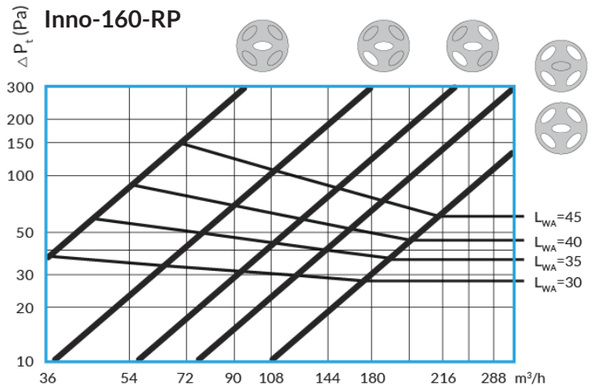
Inno-100-RP



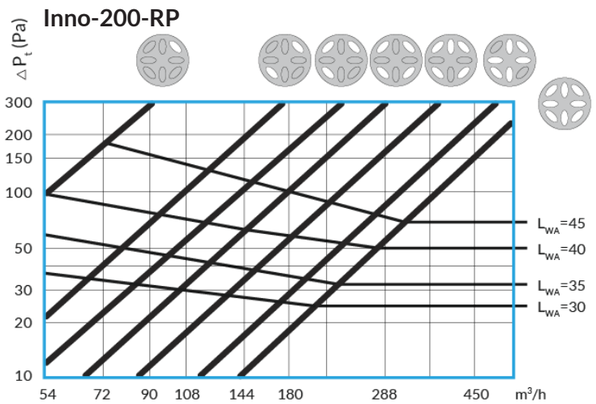
Inno-125-RP



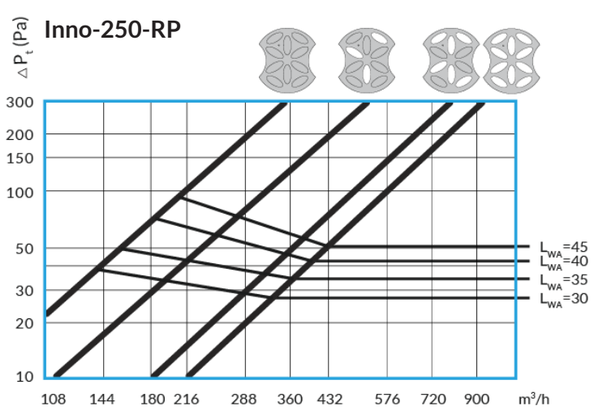
Inno-160-RP



Inno-200-RP



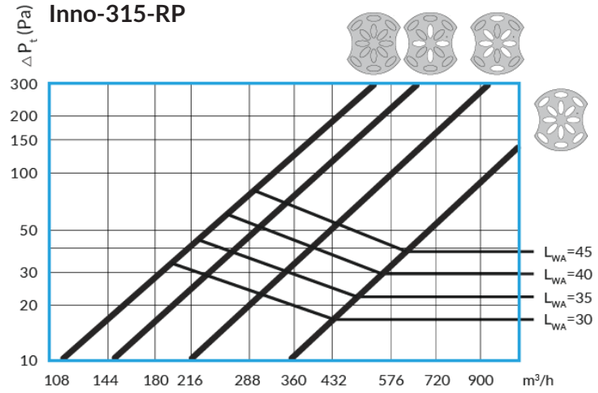
Inno-250-RP



PRESSURE LOSS AND AIR FLOW RATE

INNO-RP

Inno-315-RP



This symbol shows the number of open holes.

ΔPt(Pa)= Total pressure loss, Pa.
L_{WA}= Sound power level (A-weighed) in the duct db(A).

	Hz							
Product	**63**	**125**	**250**	**500**	**1000**	**2000**	**4000**	**8000**
Inno-80-RP	6	4	3	0	-9	-10	-17	-24
Inno-100-RP	6	4	3	0	-9	-10	-17	-24
Inno-125-RP	4	2	1	0	-8	-10	-18	-24
Inno-160-RP	5	4	3	0	-9	-10	-18	-22
Inno-200-RP	4	2	5	-4	-10	-15	-20	-25
Inno-250-RP	5	4	3	0	-9	-10	-18	-22
Inno-315-RP	4	2	5	-4	-10	-15	-20	-25

Sound power level $L_w = L_{wa} + K_w$
Table K_w

SOUND ATTENUATION

INNO-RP

The sound attenuation, dB by octave bands (63-8000 Hz) ISO 7235 (without end reflection)

	Hz							
Number of open holes	**63**	**125**	**250**	**500**	**1000**	**2000**	**4000**	**8000**
Inno-80-RP,2	2,5	2	3	4,5	6	9	10	16
Inno-100-RP,3	3	3,5	2,5	5,5	8,5	8,5	15	19
Inno-100-RP,5	1,5	2,5	1,5	3,5	6,0	6,5	12	17
Inno-125-RP,3	5	6	5	5	12	13	19	21
Inno-125-RP,8	1	1,5	1,5	2,5	6	6	11	18
Inno-160-RP,1	6,5	7	4	9,5	13	16	18	22
Inno-160-RP,5	3	3,5	2,5	5,5	8,5	8,5	15	20
Inno-200-RP,2	4	6,5	2,5	5,5	13	14	18	16
Inno-200-RP,8	2	2	1	1,5	7	7	13	14
Inno-250-RP,3	5	4	3	7	13	18	18	17
Inno-250-RP,10	2	3	1,5	2,5	7,5	11	14	13
Inno-315-RP,4	5	5	3	6	12	15	16	18
Inno-315-RP,14	2	2	1	1,5	7	8	10	13

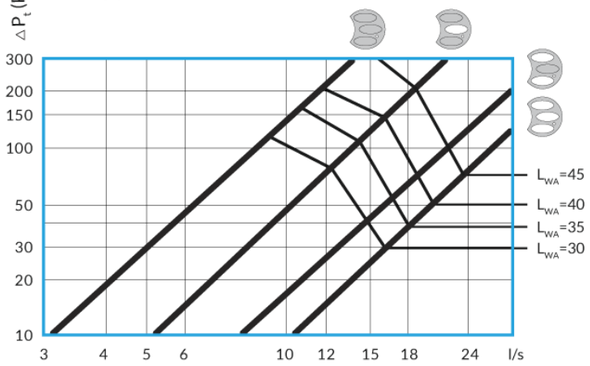
PRESSURE LOSS AND AIR FLOW RATE

INNO-ERE

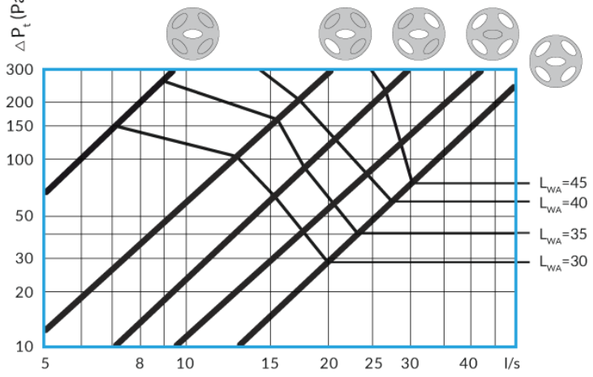
This symbol shows the number of open holes.

ΔPt(Pa)= Total pressure loss, Pa.
L_{WA}= Sound power level (A-weighed) in the duct db(A).

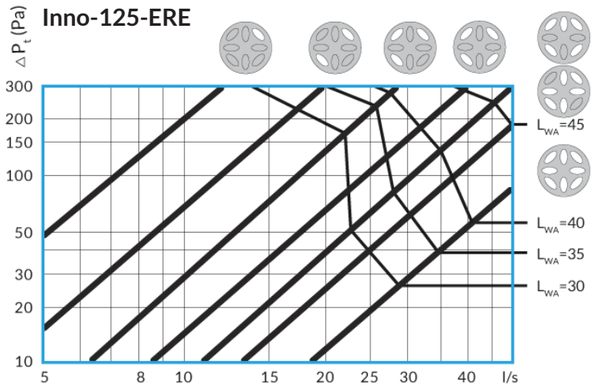
Inno-80-ERE



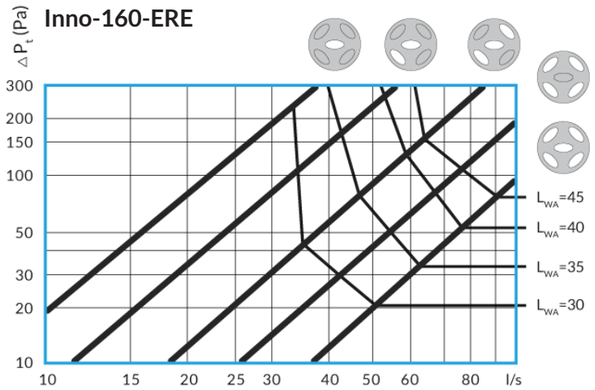
Inno-100-ERE



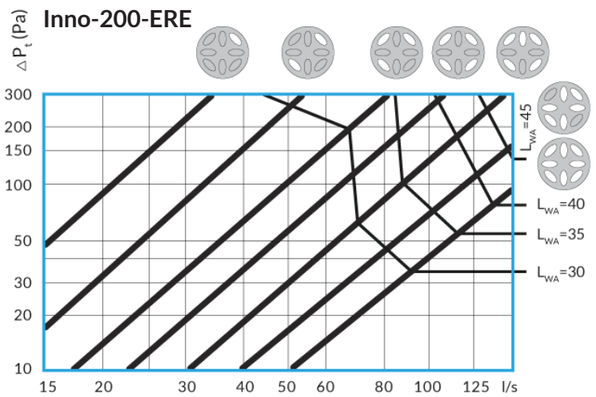
Inno-125-ERE



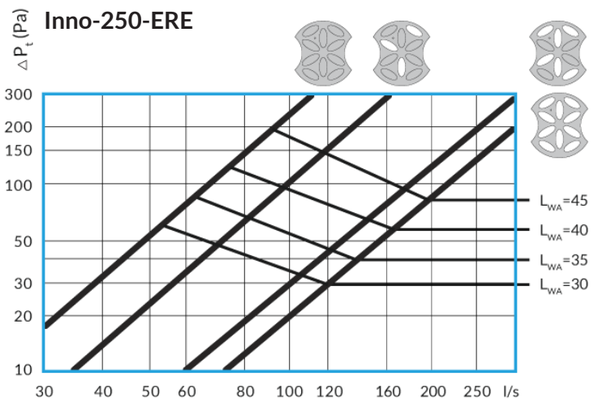
Inno-160-ERE



Inno-200-ERE



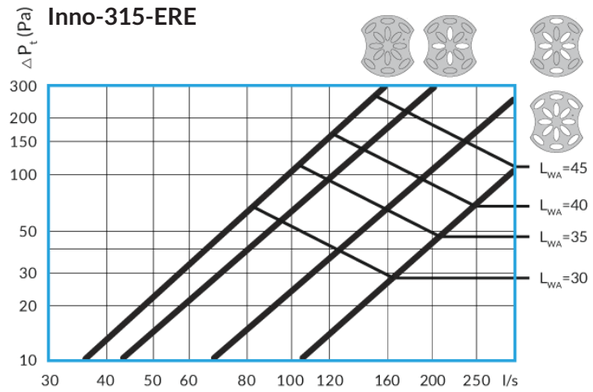
Inno-250-ERE



PRESSURE LOSS AND AIR FLOW RATE

INNO-ERE

Inno-315-ERE



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ΔPt(Pa)= Total pressure loss, Pa.
L_{WA}= Sound power level (A-weighed) in the duct db(A).

	Hz							
Product	**63**	**125**	**250**	**500**	**1000**	**2000**	**4000**	**8000**
Inno-80-ERE	8	6	4	-1	-9	-13	-15	-25
Inno-100-ERE	8	6	4	-1	-9	-13	-15	-25
Inno-125-ERE	9	7	5	-2	-7	-11	-18	-23
Inno-160-ERE	9	8	3	-3	-12	-13	-20	-24
Inno-200-ERE	9	8	6	-5	-9	-16	-14	-24
Inno-250-ERE	9	8	3	-3	-6	-13	-20	-24
Inno-315-ERE	8	8	6	-5	-5	-16	-14	-24

Sound power level $L_w = L_{wa} + K_w$
Table K_w

SOUND ATTENUATION

INNO-ERE

The sound attenuation, dB by octave bands (63-8000 Hz) ISO 7235 (without end reflection)

	Hz							
Number of open holes	**63**	**125**	**250**	**500**	**1000**	**2000**	**4000**	**8000**
Inno-80-ERE,2	0,5	1	2	4,5	6	10	11	13
Inno-100-ERE,3	0	0,5	1	2	3,5	4,5	7	11
Inno-100-ERE,5	0	0	0,5	1	1,5	2,5	4,5	8,5
Inno-125-ERE,3	2	2,5	3	4	5,5	7	11	16
Inno-125-ERE,8	0,5	0,5	0,5	1	1,5	2,5	5	9
Inno-160-ERE,1	2	1,5	2,5	2,5	3,5	4,5	6	7,5
Inno-160-ERE,5	0	0	0,5	1	1,5	2	4	5
Inno-200-ERE,2	2,5	2	2,5	2,5	3,5	5	6,5	7
Inno-200-ERE,8	0,5	0,5	1	1	1,5	3	4	6
Inno-250-ERE,3	3	3	3	5	6	7	9	11
Inno-250-ERE,10	0,5	0,5	1	2,5	3,5	5	7	8
Inno-315-ERE,4	1,5	2	3	4	6	8	9	11
Inno-315-ERE,14	0,5	1	1	2	4	5	7	9

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