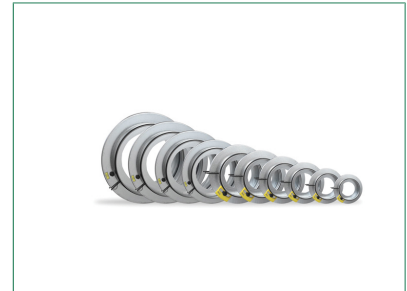


Regulation and measuring device IRIS



IRIS is an ideal solution for the exact and quick air flow measuring and regulation. The IRIS is composed of regulation plates, regulating nut or handle (size 80) and regulation scale plus manometer connections and casing. Because of its acid proof material, the IRIS-aaa-H is best suited for premises, where acid proof ducts are used.

Quick Selection

IRIS, 50 Pa

IRIS Size	Connection mm	Air flow l/s at sound level		
		25 dB(A)	30 dB(A)	35 dB(A)
IRIS-80	80	22	31	43
IRIS-100	100	22	32	43
IRIS-125	125	35	48	63
IRIS-150	150	49	65	90
IRIS-160	160	54	77	105
IRIS-200	200	80	110	150
IRIS-250	250	120	160	210
IRIS-315	315	130	225	310
IRIS-400	400	210	325	470
IRIS-500	500	360	500	690
IRIS-630	630	510	760	1100
IRIS-800	800	-	-	1100

– = outside working area

Specifications

- Low sound level
- Easy to adjust
- Operation independent of flow direction
- Fully openable for cleaning of duct
- Tightness class C
- 12 sizes

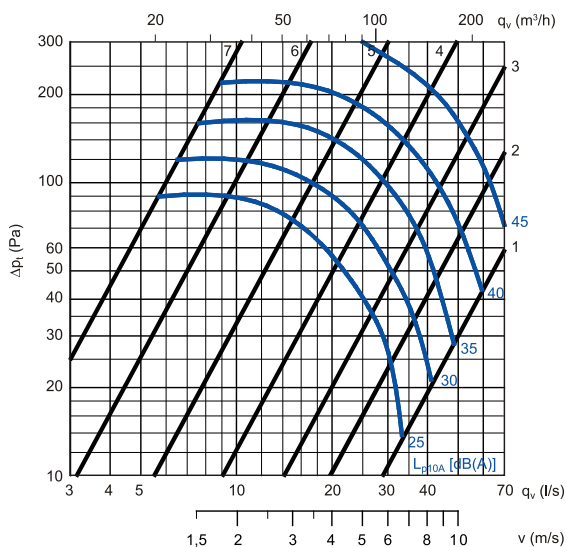
Product code example

Regulation and measuring device
IRIS-200.

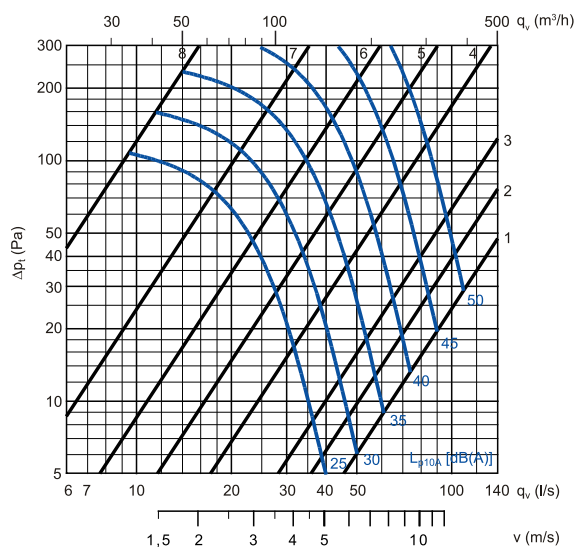
AIRTREND Ltd
Predstavništvo u Beogradu
Kumanovska 14, 11000 Beograd
Tel: 011/3836886, 3085740
Faks: 011/3444113
e-mail: gobrid@eunet.rs
web: www.airtrend.rs

Air flow, pressure drop, sound level

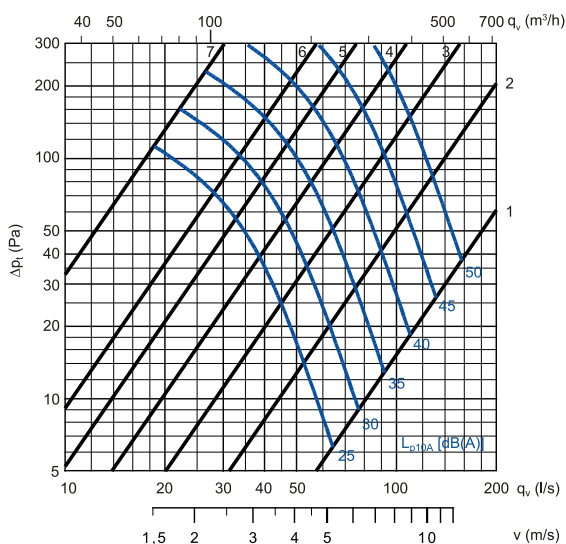
IRIS-80 *)



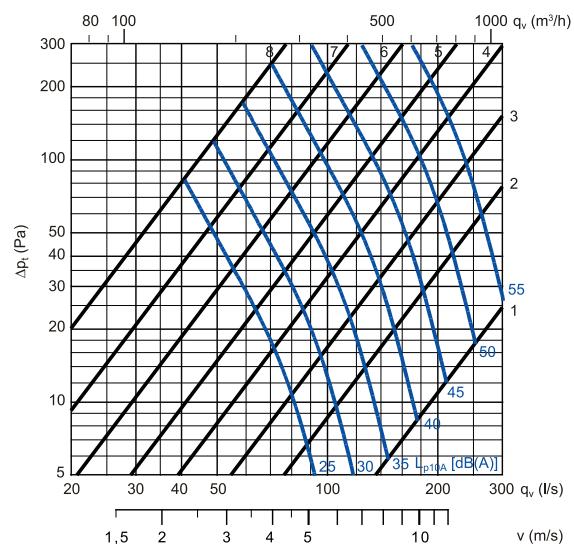
IRIS-100



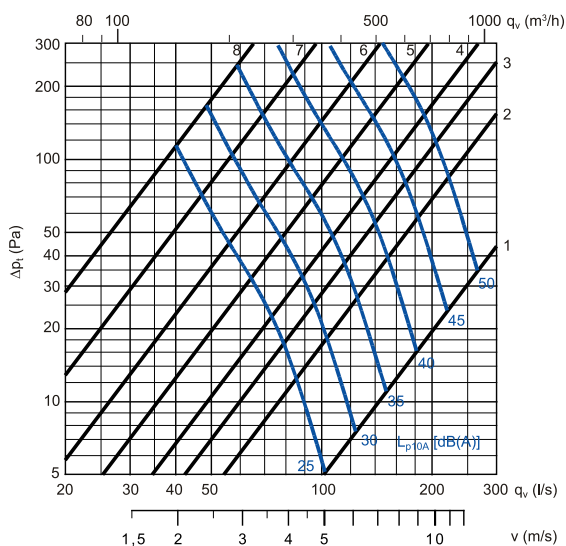
IRIS-125



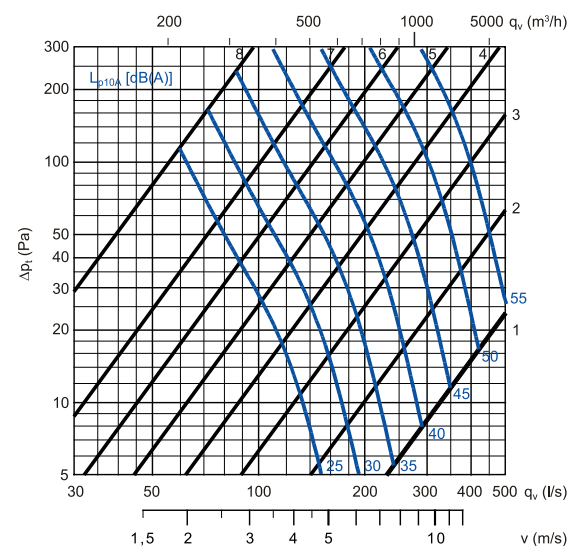
IRIS-150



IRIS-160



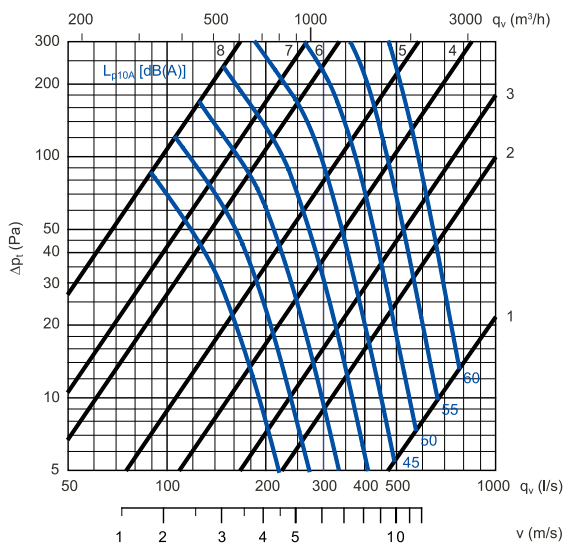
IRIS-200



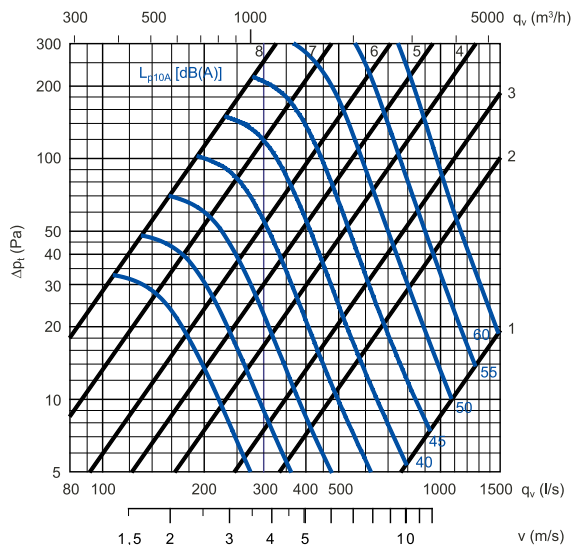
*) hot-galvanized steel only

Air flow, pressure drop, sound level

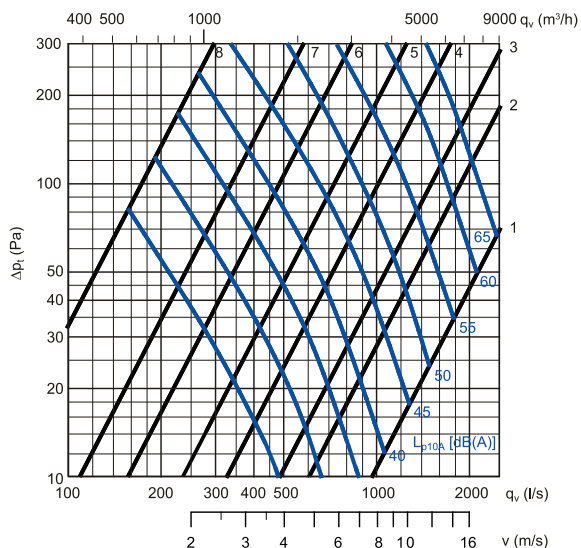
IRIS-250



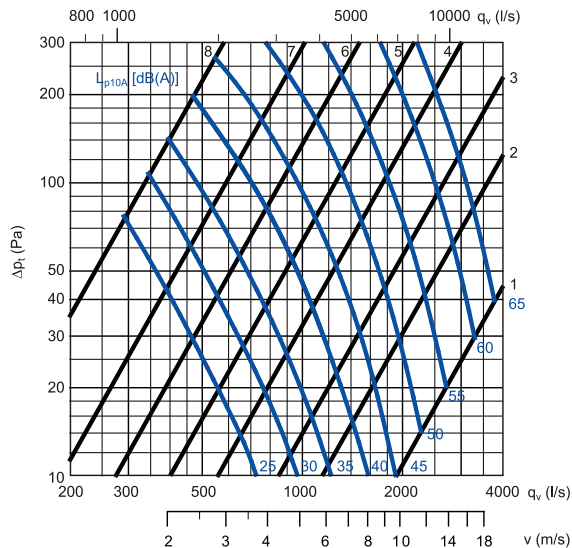
IRIS-315



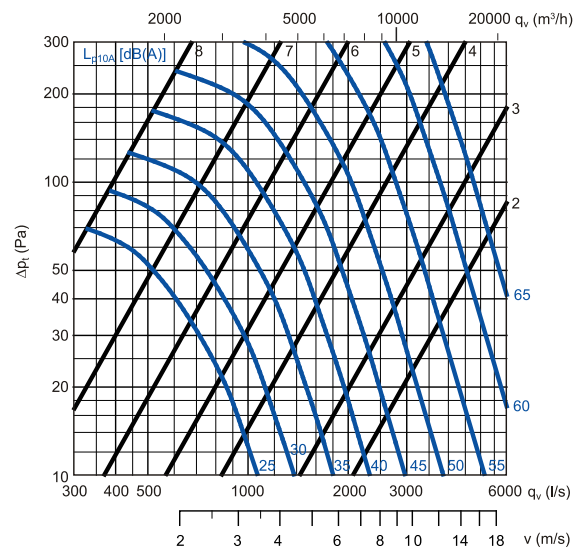
IRIS-400



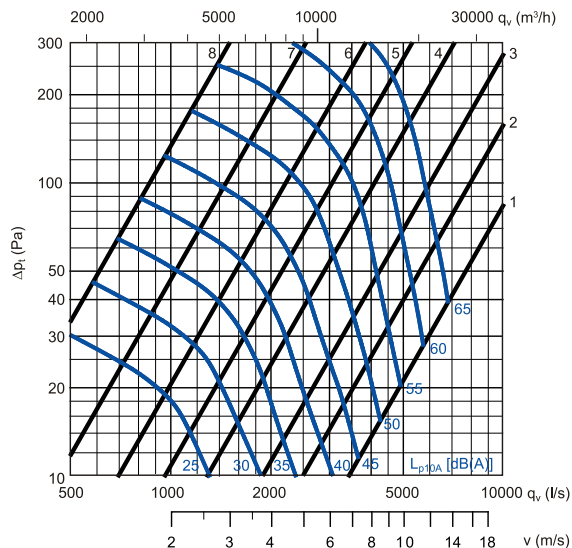
IRIS-500



IRIS-630



IRIS-800



Sound power level L_w

IRIS	Correction of sound level K (dB)							
	63	125	250	500	1000	2000	4000	8000
80	10	16	12	9	5	-1	-6	-23
100	25	21	16	9	4	-6	-12	-25
125	17	17	13	7	1	-4	-6	-17
150	21	20	14	8	0	-6	-16	-29
160	19	18	14	6	-1	-6	-13	-25
200	20	17	12	5	-2	-5	-14	-26
250	16	12	8	3	1	-4	-17	-32
315	24	12	5	0	1	-2	-13	-27
400	15	9	6	2	-1	-4	-9	-13
500	14	7	4	1	-1	-4	-8	-11
630	15	7	3	2	-1	-5	-9	-11
800	9	5	3	3	-1	-6	-10	-13
Tolerance \pm	6	3	2	2	2	2	2	3

The sound power levels of the duct for every octave band are obtained by adding the corrections K_{oct} of octave bands (see table above) to the total sound pressure level L_{p10A} , dB(A), according to the following formula:

$$L_{w\text{oct}} = L_{p10A} + K_{\text{oct}}$$

Correction K_{oct} is the average in the range of use of the IRIS regulation and measuring device.

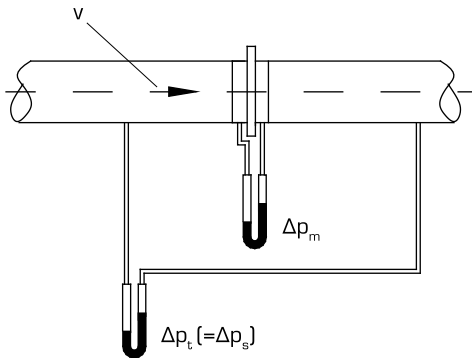
Regulation and measurement of air flow

The regulation plates form a virtually ideal measuring orifice which enables an easy and reliable measurement of the air flow.

To determine the air flow, measure the pressure difference Δp_m at the manometer connections and check the corresponding air flow from the regulation chart.

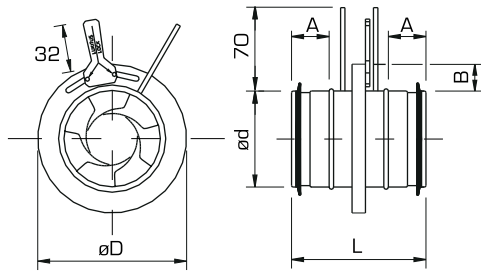
The chart is shown on the damper casing and in the separate information for air flow regulation and measurement (the selection diagrams do not serve the air flow measurement).

Air flow is regulated by the regulating nut or handle.

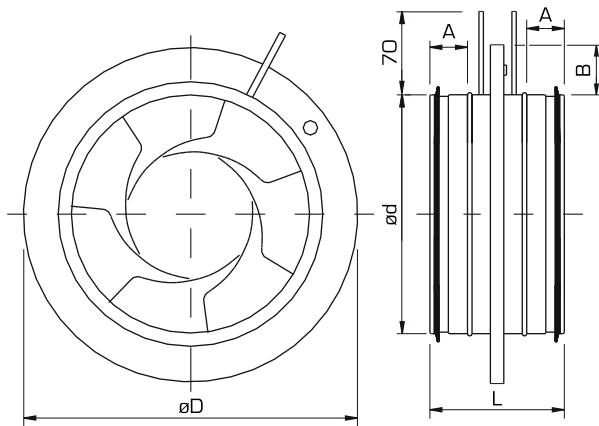


Dimensions and weights

Size 80



Sizes 100-800



Size	Ød [mm]	ØD [mm]	L [mm]	A [mm]	B [mm]	Weight [kg]
80	79	125	120	35	22	0.5
100	99	165	110	30	32	0.5
125	124	188	110	30	32	0.7
150	149	230	110	30	40	0.9
160	159	230	110	30	35	0.9
200	199	285	110	30	42	1.4
250	249	335	132	40	42	2.1
315	314	410	132	40	47	3.5
400	398	525	150	50	62	6.4
500	498	655	150	50	77	9.6
630	628	815	150	50	92	15.6
800	798	1015	285	100	107	25.0

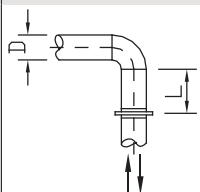
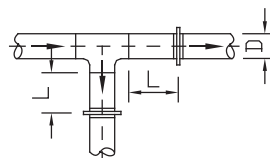
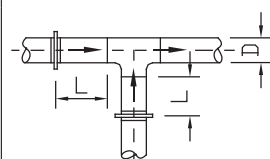
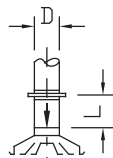
Installation

The IRIS damper is secured to the ducting with rivets. For vertical mounting ensure the weight of the interconnecting ductwork is fully supported.

Refer to the table below for recommended safety distances.

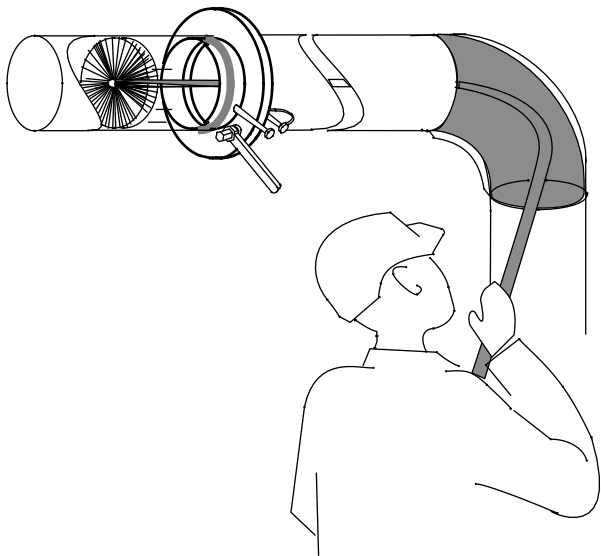
Safety distances

Accuracy of calibration during disturbance free air flow: ±5%.

Type of flow disturbance	The required safety distance L	
	$m_2 = \pm 7\%$	$m_2 = \pm 10\%$
	$\geq 1 D$	$\geq 1 D$
	$\geq 4 D$	$\geq 2 D$
	$\geq 2 D$	$\geq 2 D$
	$\geq 2 D *$	$\geq 2 D *$

*) To ensure the functioning of the supply air diffuser.

Cleaning



General

Execution and function

IRIS is an ideal solution for the exact and quick air flow measuring and regulation.

The IRIS is composed of regulation plates, regulating nut or handle (size 80) and regulation scale plus manometer connections and casing.

The joining collars are supplied with rubber sealing gasket.

Because of its acid proof material, the IRIS-aaa-H is best suited for premises, where acid proof ducts are used.

Material specification

The casing and regulation plates are made of hot-galvanized steel (standard IRIS) or acid-proof steel AISI 316 L (IRIS-aaa-H).

Product component	Material
Casing, blades	Hot galvanized steel or acid-proof steel (AISI 316)
Regulation mechanism	Polyamide
Stickers, window cover, instructions	PVC plastic
Veloduct-sealing	EPDM rubber
Measuring tap	TRP plastic

Product code

Regulation and measuring device **IRIS-aaa**
(spanner not included, no unit package)

Diameter in mm (aaa)

80, 100, 125, 150, 160, 200, 250, 315, 400, 500, 630, 800

Regulation and measuring device **IRIS-aaa-b**
(spanner included)

Diameter in mm (aaa)

100, 125, 150, 160, 200, 250, 315, 400, 500, 630, 800

Equipment (b)

1 = IRIS + unit package + spanner (sizes 100-400 mm)

2 = IRIS + spanner (sizes 400-800 mm)

Regulation and measuring device, acid-
proof **IRIS-aaa-H**
(spanner included, no unit package)

Diameter in mm (aaa)

100, 125, 150, 160, 200, 250, 315, 400, 500, 630, 800