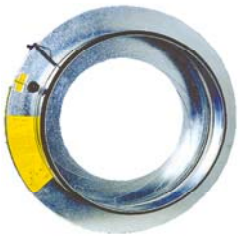


IRIS REGULATION DAMPER

WMIR
SERIES

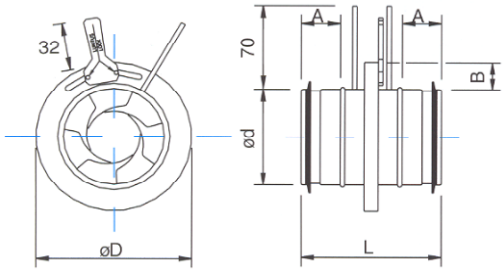
OVERVIEW

CONSTRUCTION :
The WMIR iris dampers are equipped with a supporting structure with a series of regulation blades, activated by turning a nut or lever (80 diameter). The dampers also have a regulation scale together with sockets for differential pressure gauges. The structure and the blades are made of hot galvanised steel, while the other components are made of plastic. The connections have a gasket on the outside used to ensure the joint is sealed.

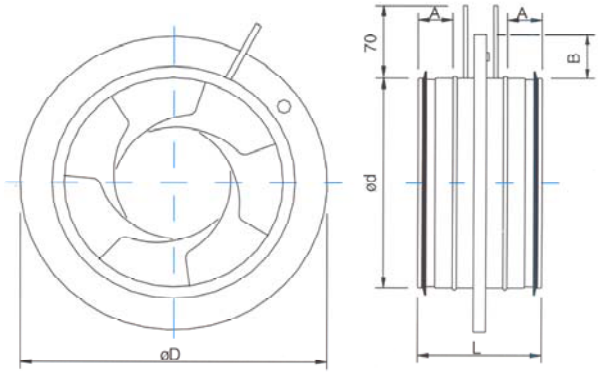
USE :
The WMIR iris dampers are the ideal solution for precise, quick measuring and regulation of flow rates. For ducts that carry acid fumes or agents that are particularly corrosive, these iris dampers can be used.

Made of AISI 316 stainless steel, upon specific request.

DIMENSIONS :

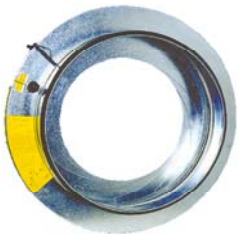


NOMINAL DIAMETER 80



NOMINAL DIAMETER 100 TO 800

Nom. Dia.	Ø d [mm]	Ø D [mm]	L [mm]	A [mm]	B [mm]	Weight [kg]
80	79	125	110	30	22	0,5
100	99	165	110	30	32	0,5
125	124	188	110	30	32	0,7
150	149	230	210	27	40	0,9
160	159	230	110	30	35	0,9
200	199	285	110	30	42	1,4
250	249	335	135	40	42	2,1
315	314	410	135	40	47	3,5
400	398	525	190	60	62	6,4
500	498	655	170	50	77	9,6
630	628	815	170	50	92	15,6
800	798	1015	270	100	107	25,0

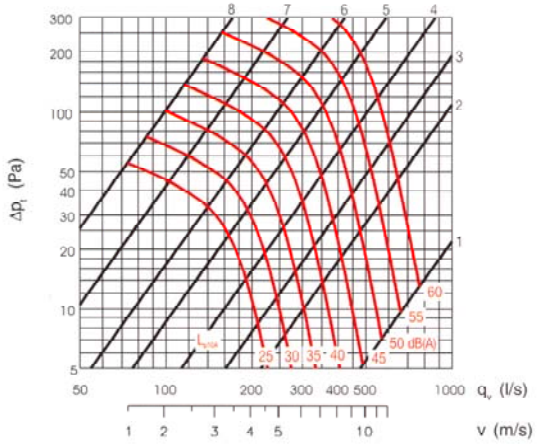


IRIS REGULATION DAMPER

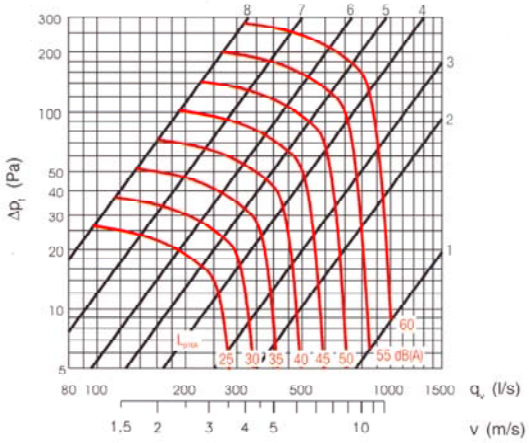
WMIR
SERIES

PERFORMANCE

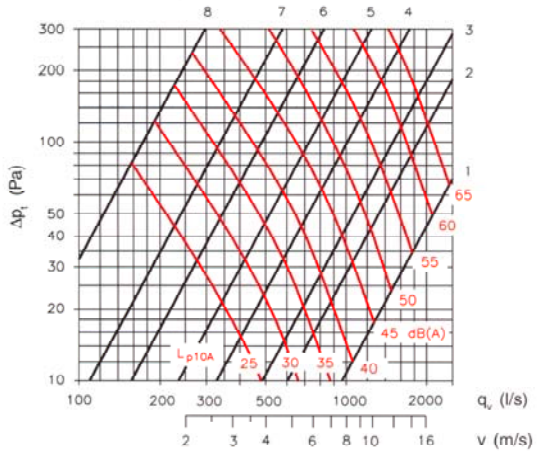
WMIR 250



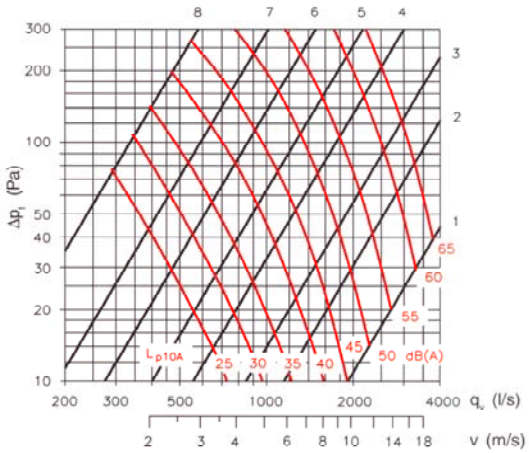
WMIR 315



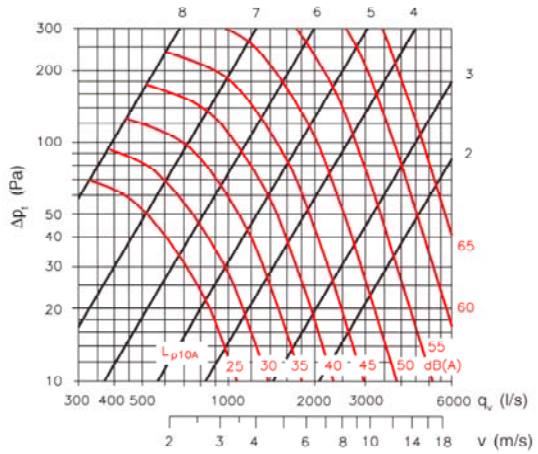
WMIR 400



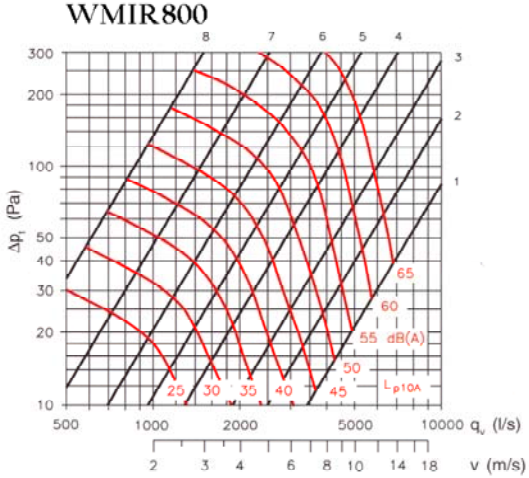
WMIR 500

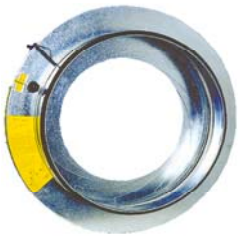


WMIR 630



WMIR 800





IRIS REGULATION DAMPER

WMIR
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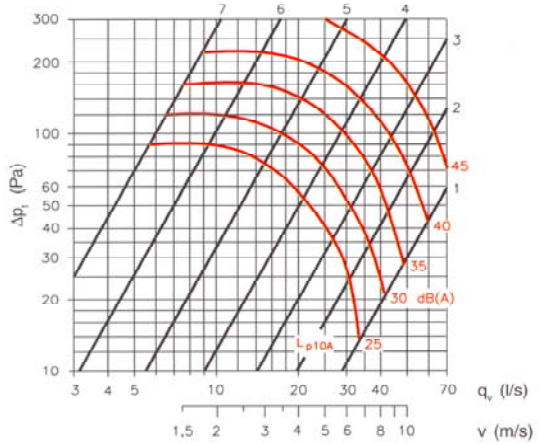
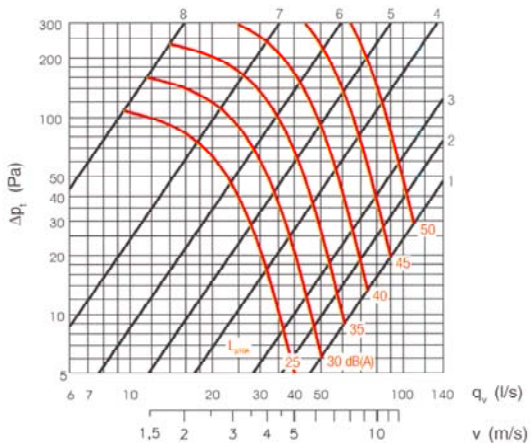
PERFORMANCE

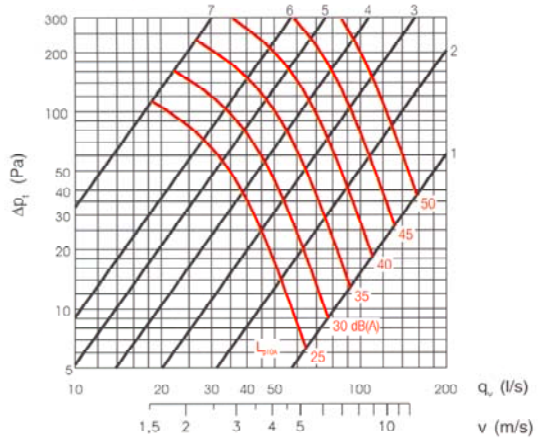
WMIR 80



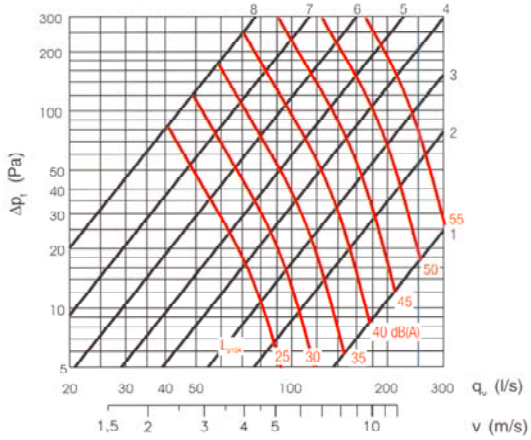
WMIR100



WMIR125



WMIR150



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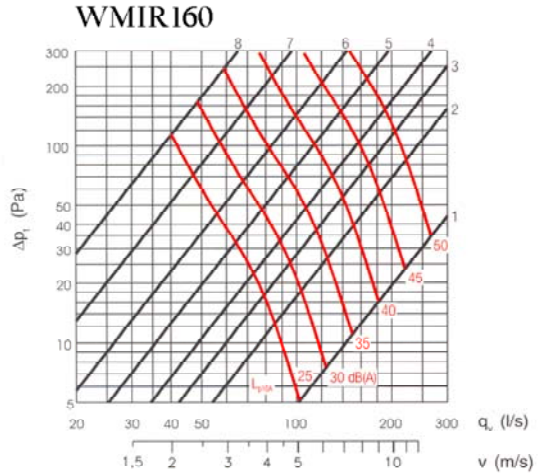
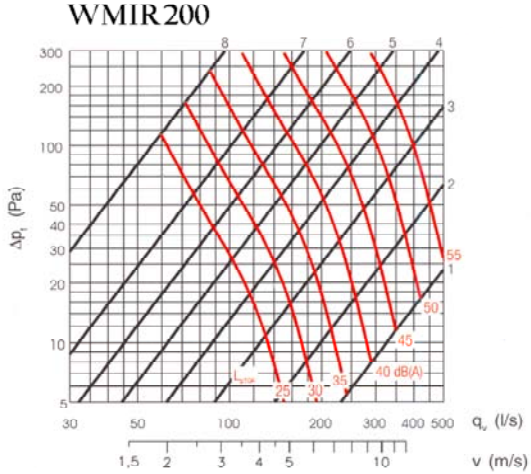
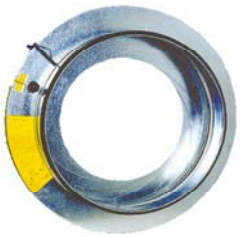


WMIR200





IRIS REGULATION DAMPER

WMIR
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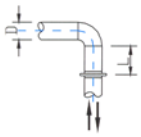
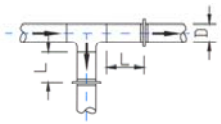
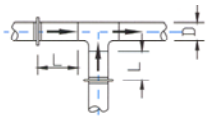
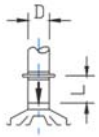
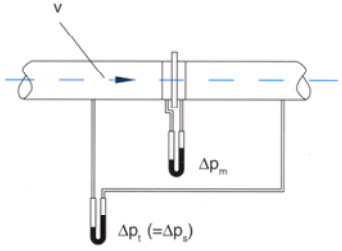
INSTALLATION
MEASURING FLOW RATES

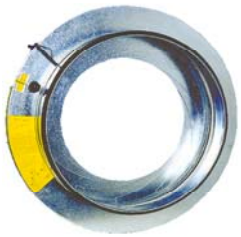
INSTALLATION :
The WMIR iris dampers can be riveted in position. For vertical installations, the weight of the ducting positioned on top of the damper must be fully supported. In addition, the iris damper must be positioned sufficiently far away from branches, unions and any element that can cause disturbances to the measuring of air flow rates. In this case, we recommend installing the units at the safe distance, as indicated below.

Type of flow disturbance	Safe distance L, for a measuring tolerance of ± 7 %	Safe distance L, for a measuring tolerance of ± 10 %
	≥ 2 D	≥ 1 D
	≥ 4 D	≥ 2 D
	≥ 4 D	≥ 2 D
	≥ 2 D	≥ 2 D

In general, the measuring accuracy for an undisturbed flow is around ± 5 %. In the latter case however, the safe distance between the diffuser and the damper is intended to allow the diffuser to work normally, despite the damper being added to the system.

MEASURING THE FLOW RATE :
The regulation blades make up an ideal measuring diaphragm, allowing the air flow rate to be measured easily and reliably. The flow rate value is determined by measuring the differential pressure Dpm via connection to a differential pressure gauge. Once the Dpm value is known, the regulation diagram is used to determine the corresponding flow rate. The regulation diagram is clearly shown on the damper close to the regulation nut and includes a set of curves that relate to the various regulation positions. It is important to note that the diagrams on the damper are used only for regulating and not for selection - the selection data is given on the previous pages.





IRIS REGULATION DAMPER

WMIR
SERIES

ACOUSTIC CHARACTERISTICS
MAINTENANCE

ACOUSTIC CHARACTERISTICS :

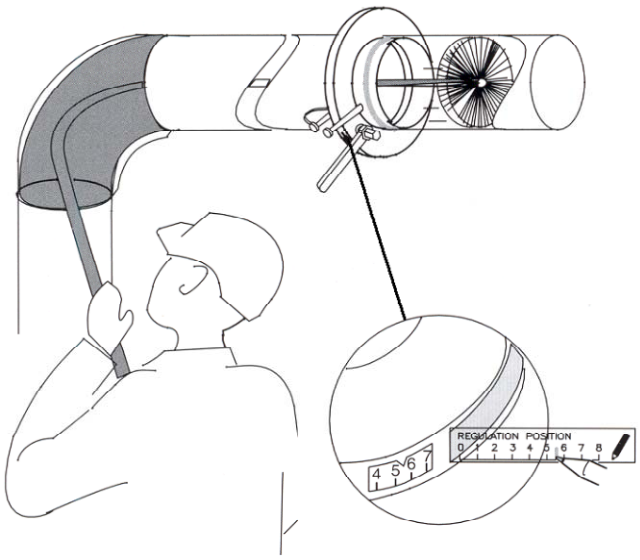
Nom. Dia.	Correction factor K_{oct} [dB]							
	Mean frequency for the octave band [Hz]							
	63	125	250	500	1000	2000	4000	8000
80	10	16	12	9	5	-1	-6	-23
100	25	21	16	9	4	-6	-12	-25
125	17	17	13	7	1	-4	-6	-17
150	21	20	14	8	0	-6	-16	-29
160	19	18	14	6	-1	-6	-13	-25
200	20	17	12	5	-2	-5	-14	-26
250	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
Toll.+	6	3	2	2	2	2	2	3

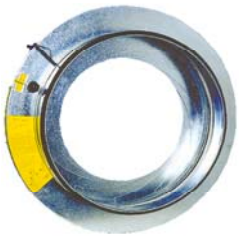
The acoustic power levels for the duct, for each octave band, are obtained by adding the correction factor, K_{oct} for the octave band (see table above) to the total acoustic pressure level Lp10A [dB(A)] using the following equation:

$$L_{Woct} = L_{p10A} + K_{oct}$$

The correction factor K_{oct} for octave band is equal to the mean value for the field in which the WMIR series iris regulation is used.

MAINTENANCE :





IRIS REGULATION DAMPER

WMIR
SERIES

HOW TO ORDER