

DRIS IRIS DAMPER AIR MANAGEMENT SYSTEMS



PRODUCT PROPERTIES IRIS REGULATION AND MEASURING DEVICE

The ideal solution for the exact and quick air flow measuring and regulation.

- Diameters from 080 to 800mm
- Low noise level
- Operation independent of flow direction
- Fully openable for cleaning of duct tight construction
- Measuring points on each side of the Iris damper
- Airtightness class C according EN 1751
- Double EPDM gasket for tight connection with the duct
- Service temperature from -10°C up to +80°C

CONSTRUCTION

The IRIS DAMPER **DRIS** is composed of regulation plates, regulating nut by enclosed key for regulation scale plus manometer connections and casing. Due to its acid-resistant material, the **DRIS-S** is ideal for locations where acid-resistant ducts are installed.

INSTALLATION

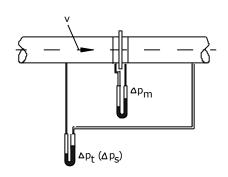
The **IRIS DAMPER** is secured to the ducting with rivets. For vertical mounting, ensure the weight of the interconnecting ductwork is fully supported. Refer to the table for recommended safety distances.

REGULATION AND MEASUREMENT OF AIR FLOW

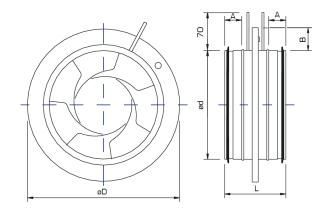
The regulation plates form a virtually ideal measuring orifice which enables an easy and reliable measurement of the air flow. To determine the airflow, measure the pressure difference Δp_m at the manometer connections and check the corresponding airflow from the regulation chart.

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).

The adjustment of the Iris is simple, all that is needed is a standard 13mm spanner and the damper locks in the right position automatically.



DIMENSIONS in mm



Size	Ød	ØD	L	Α	В	
80	79	125	115	33	22	
100	99	165	115	27	32	
125	124	188	115	27	32	
150	149	230	115	27	40	
160	159	230	115	27	35	
200	199	285	115	27	42	
250	249	335	135	33	42	
315	314	405	140	33	47	
400	398	525	150	46	62	
500	498	655	150	46	77	
630	628	815	155	46	92	
800	798	1015	285	110	107	



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PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

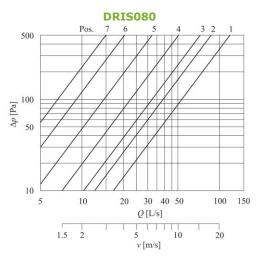
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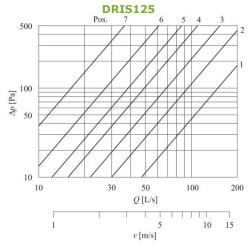
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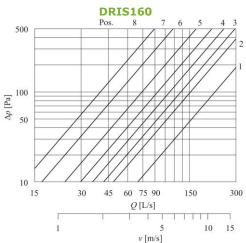


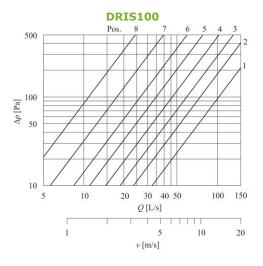
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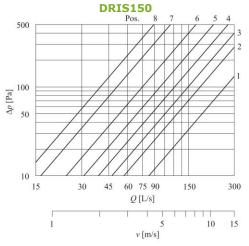


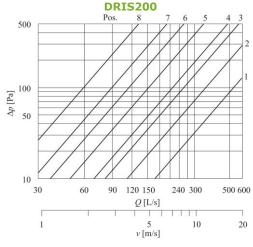














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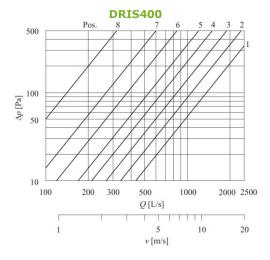
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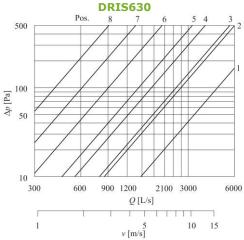


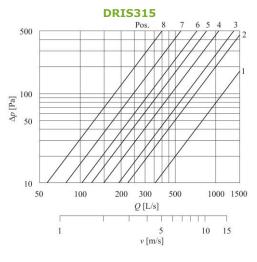


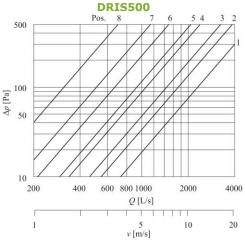


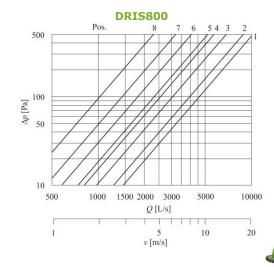
DRIS250 Pos 500 100 $\Delta p \, [Pa]$ 50 10 50 200 250 300 Q[L/s]1 10 v [m/s]













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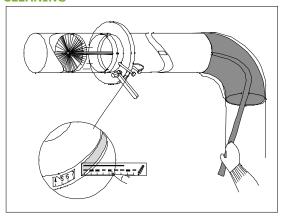
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SAFETY DISTANCES

Type of flow disturbance	The required safety distance L				
	$m^2 = \pm 7\%$	$m^2 = \pm 10\%$			
	≥ 1 D	≥ 1 D			
	≥ 4 D	≥ 2 D			
	≥ 2 D	≥ 2 D			
	≥ 2 D	≥ 2 D			

CLEANING



To ensure the functioning of the inlet air diffuser

SYMBOLS

q_{v}	air volume	(m^3/h)
Δp_{t}	total pressure drop	(Pa)
Δp_s	static pressure drop	(Pa)
$\Delta p_{_{m}}$	pressure difference	(Pa)
m ₂	method-specific measurement tolerance	%
V	average velocity	(m/s)

Accuracy of calibration during disturbance free air flow \pm 5%

	k														
IRIS	1	1,5	2	2,5	3	3,5	4	4,5	5	5,5	6	6,5	7	7,5	8
80	6,1	-	4,1	-	3,2	-	2,3	-	1,4	-	0,9	-	0,6	-	-
100	10,4	7,9	7,5	6,6	6,0	5,2	4,5	3,8	3,4	2,9	2,5	2,1	1,7	1,2	0,9
125	13,8	10,4	8,8	7,3	6,5	5,5	4,7	4,0	3,5	3,1	2,7	2,2	1,5	-	-
150	24,1	20,0	16,5	14,9	13,4	12,0	11,0	10,0	8,9	7,9	6,9	6,0	5,2	4,4	3,7
160	22,1	17,2	14,8	13,4	12,5	11,5	10,7	9,5	8,5	7,5	6,8	5,6	4,9	4,0	3,5
200	44,2	36,6	30,9	26,9	23,2	20,6	18,2	15,9	14,0	12,3	11,0	9,6	8,4	6,5	5,0
250	64,4	53,5	45,6	41,8	38,7	34,5	30,7	27,3	24,1	21,4	18,4	15,8	12,8	10,9	8,9
315	118,0	88,3	70,0	64,5	58,7	53,0	45,1	42,4	37,0	33,3	30,0	25,9	21,8	19,0	15,8
400	131,0	-	102,0	-	88,3	-	67,3	-	52,7	-	38,5	-	28,4	-	15,5
500	230,0	-	177,0	-	146,0	-	112,0	-	88,5	-	66,6	-	48,0	-	30,0
630	451,0	-	297,0	-	238,0	-	169,0	-	127,0	-	91,6	-	62,8	-	35,1
800	489,0	-	402,0	-	344,0	-	267,0	-	217,0	-	170,0	-	122,0	-	73,7



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