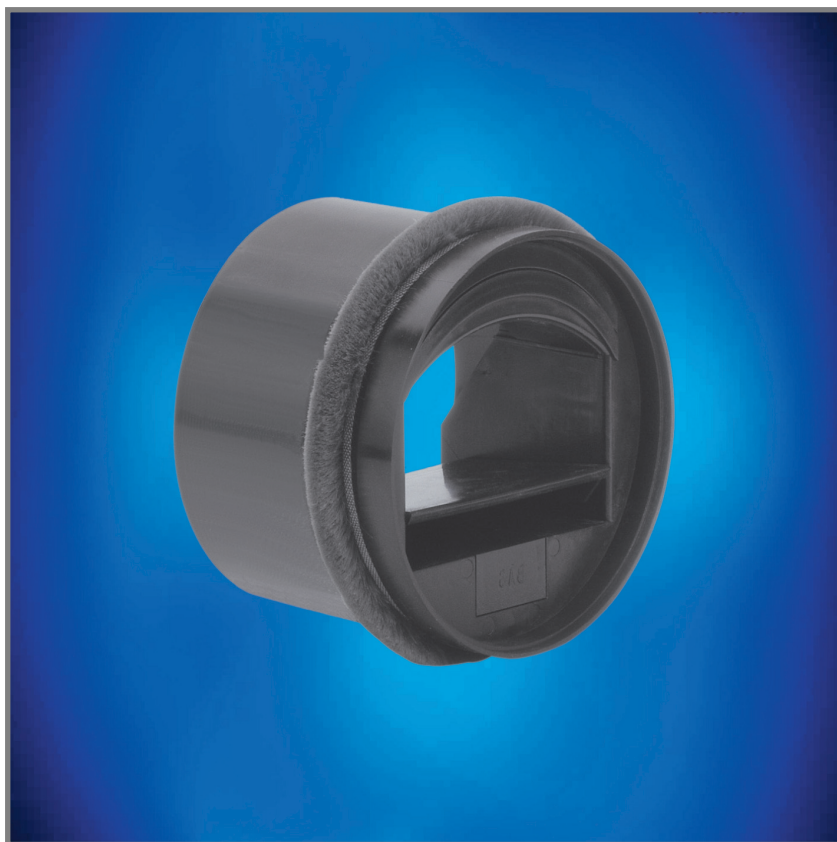
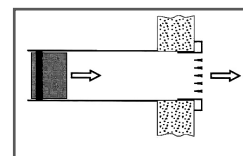


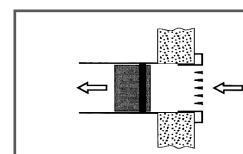
AIRFLOW CAPACITY REGULATOR



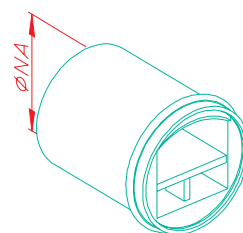
Installation in supply duct



Installation in exhaust duct



in the libraries
Fluid Desk
 Building Engineering Solutions



parametric libraries
GRYFIT CAD

FUNCTION

MRD capacity regulator is designed for ventilation and air-conditioning systems in all kinds of buildings.

APPLICATION

MRD regulators are used in supply or exhaust ventilation ducts.

MRD regulator is installed inside the duct in order to achieve constant capacity in a range of pressure between 50 and 200 Pa. There is a damper fitted with control spring and shock absorber, which controls capacity depending on the pressure difference.

DESCRIPTION

MRD regulator consists of a housing with a gasket and a casing of control module. In the casing there is a damper made of plastic, a shock absorber, a damper spring made of stainless steel and a capacity limiter. Installation of the capacity regulators in ventilation systems has a lot of good points in comparison with other control devices (dampers, orifices etc.):

- allows the users not to make any control adjustments
- results in maintenance of constant capacity regardless of the pressure fluctuation in ventilation ducts

INSTALLATION

Airflow capacity regulator is installed inside vertical or horizontal ducts by putting it directly into the duct. Fixing and tightness can be obtained thanks to the gasket. It is important to follow the rules listed on the regulator's housing as regards the airflow direction.

SELECTION METHOD

A regulator has factory settings of required airflow capacity for all NA particular diameters. Airflow capacity should be given in order.

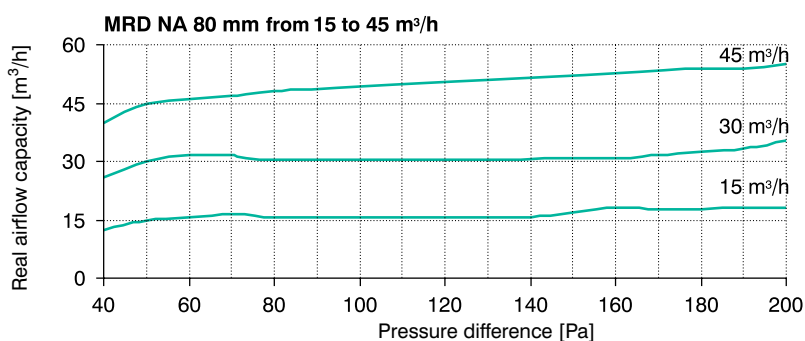
1. Selection of NA diameter of a duct
2. Selection of required airflow capacity according to the pressure range
3. Control Lw compliance of the used pressure with the user's requirements and acoustic instructions

EXAMPLE OF SELECTION

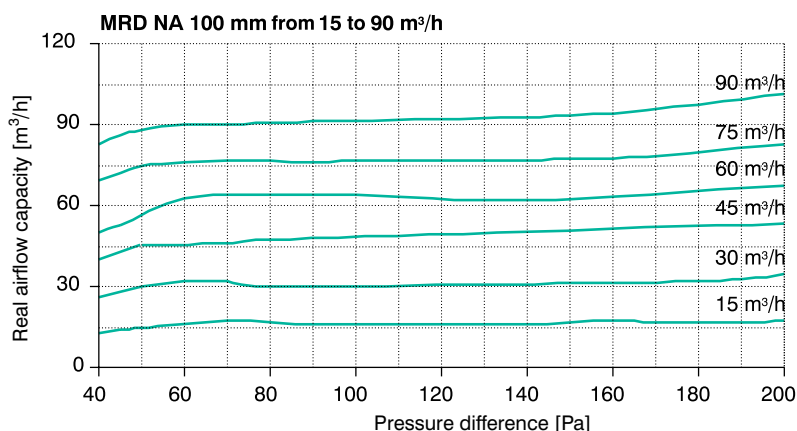
NA diameter of a duct	125 [mm]
Required airflow capacity	60 [m³/h]
Pressure difference	100 [Pa]
Real airflow capacity	64 [m³/h]
Sound power level Lw	37 [dB(A)]

Factory settings of capacity of MRD regulator

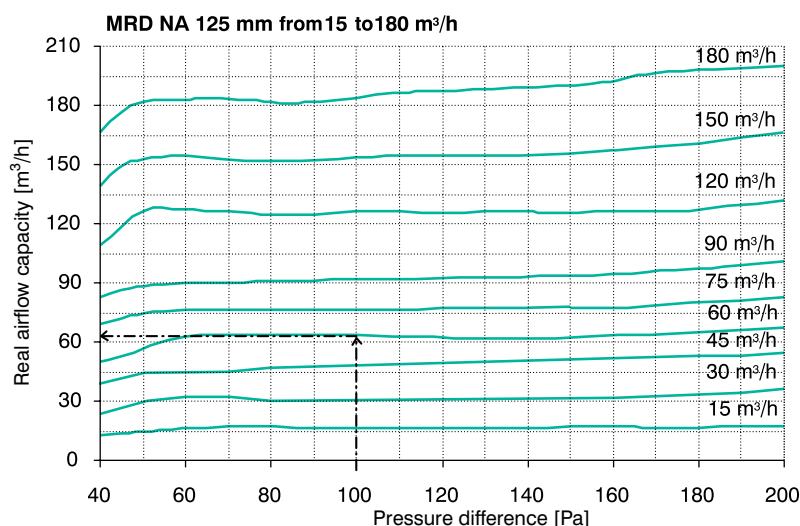
NA [mm]	Airflow capacity [m³/h]								
80	15	30	45	-	-	-	-	-	-
100	15	30	45	60	75	90	-	-	-
125	15	30	45	60	75	90	120	150	180
160	120	150	180	210	240	270	300	-	-
200	210	240	270	300	350	400	450	500	-
250	300	350	400	450	500	-	-	-	-



Airflow capacity [m³/h]	Lw[dB(A)]			
	50 Pa	100 Pa	150 Pa	200 Pa
15	25	29	32	35
30	26	31	35	38
45	27	33	36	39



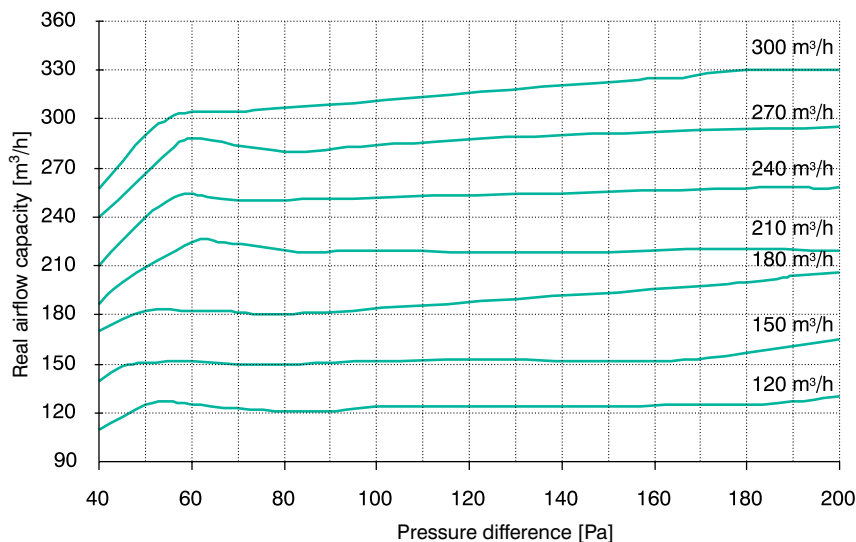
Airflow capacity [m³/h]	Lw[dB(A)]			
	50 Pa	100 Pa	150 Pa	200 Pa
15	25	29	32	35
30	26	31	35	38
45	27	33	36	39
60	32	37	39	42
75	32	37	40	42
90	32	38	41	44



Airflow capacity [m³/h]	Lw[dB(A)]			
	50 Pa	100 Pa	150 Pa	200 Pa
15	25	29	32	35
30	26	31	35	38
45	27	33	36	39
60	32	37	39	42
75	32	37	40	42
90	32	38	41	44
120	30	34	39	42
150	33	37	41	45
180	34	40	44	47

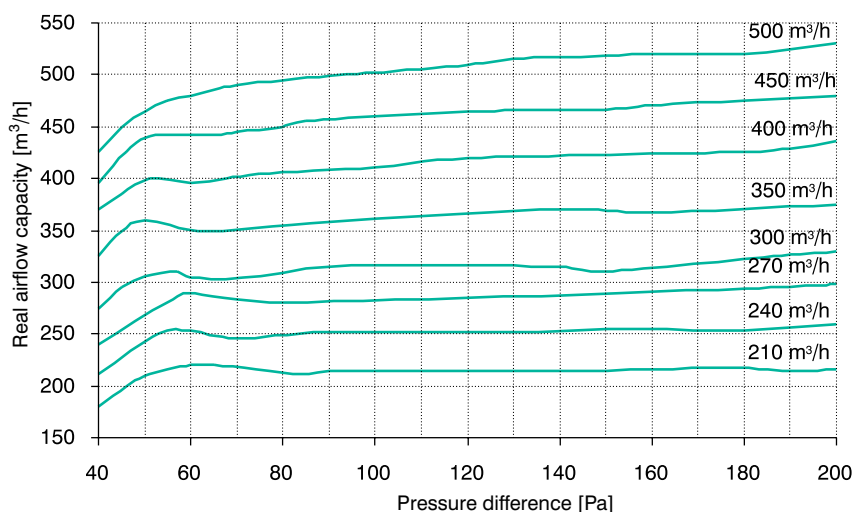
SELECTION

MRD NA 160 mm from 120 to 300 m³/h



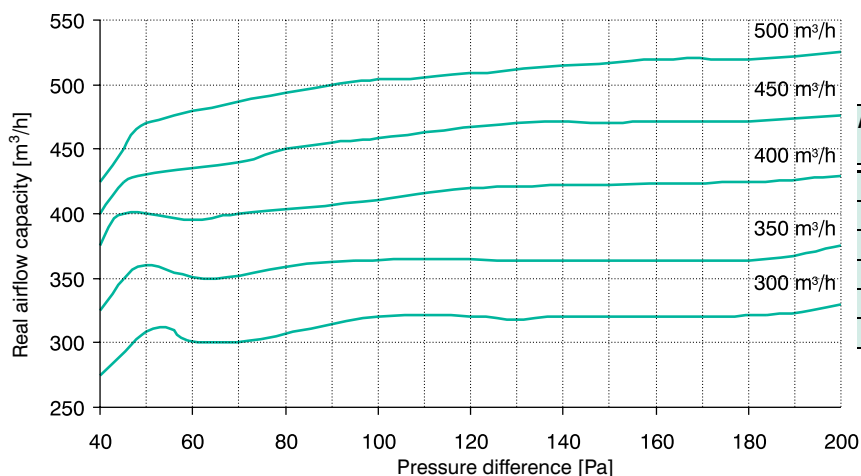
Airflow capacity [m³/h]	Lw[dB(A)]			
	50 Pa	100 Pa	150 Pa	200 Pa
120	30	34	39	42
150	33	37	41	45
180	34	40	44	47
210	34	40	42	44
240	35	41	44	47
270	37	43	45	49
300	38	45	48	51

MRD NA 200 mm from 210 to 500 m³/h



Airflow capacity [m³/h]	Lw[dB(A)]			
	50 Pa	100 Pa	150 Pa	200 Pa
210	34	40	42	44
240	35	41	44	47
270	37	43	45	49
300	33	37	42	45
350	35	40	44	47
400	37	42	45	50
450	38	44	46	51
500	39	46	48	53

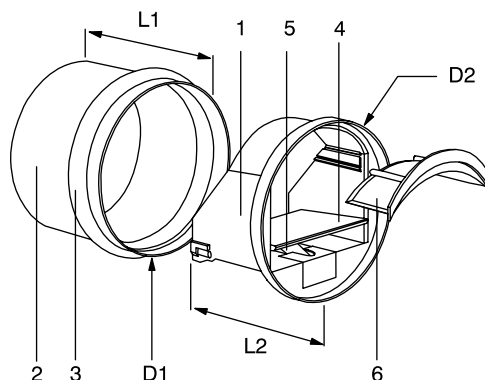
MRD NA 250 mm from 300 to 500 m³/h



Airflow capacity [m³/h]	Lw[dB(A)]			
	50 Pa	100 Pa	150 Pa	200 Pa
300	33	37	42	45
350	35	40	44	47
400	37	42	45	50
450	38	44	46	51
500	39	46	48	53
600	40	48	50	55

DIMENSIONS AND INSTALLATION METHOD

DIMENSIONS



1. Regulator casing
2. Housing
3. Gasket
4. Damper
5. Shock absorber
6. Airflow capacity limiter

NA [mm]	D1 [mm]	L1 [mm]	D2 [mm]	L2 [mm]
80	75	90	73	68
100	95	90	93	77
125	119	90	117	77
160	154	120	152	82
200	194	120	192	82
250	244	120	242	82

INSTALLATION

In order to achieve maximum efficiency of the regulator's work it is important to follow the rules listed on the regulator's housing as regards the airflow direction.

