



Diffusion

Components for perfect
air distribution in HVAC systems



TEKNOWOOL[®]
ADVANCED AIR TREATMENT SOLUTIONS



technical catalogue



Diffusion

Components
for perfect air
distribution in HVAC
systems



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Diffusion

Components
for perfect air
distribution in HVAC
systems

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Diffusion

Components for
perfect distribution of
air in HVAC systems

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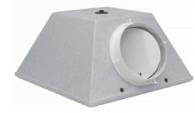
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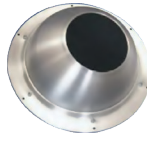
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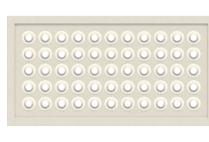
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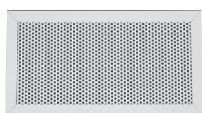
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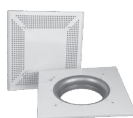
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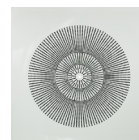
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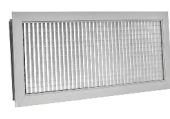
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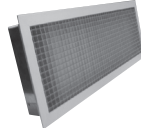
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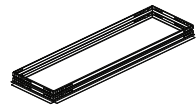
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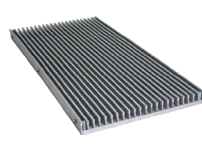
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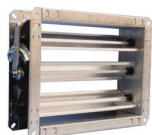


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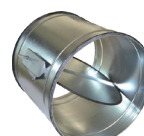
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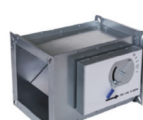
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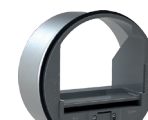
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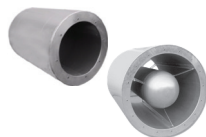
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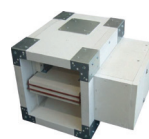
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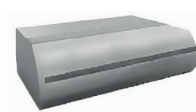
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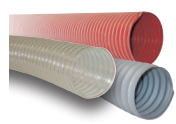
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Diffusion

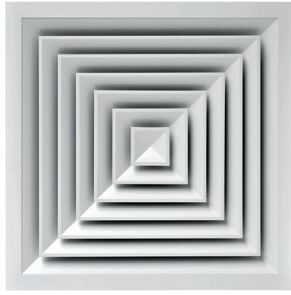
Components for perfect air distribution in HVAC systems

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DQBS

4-way multidirectional diffuser



Product

DQBS

Application

Ceiling mounted, supply and return
Installation height: 2.5-3.1 m

Construction

Anodized aluminium painted RAL 9016

SPECIFICATION

4-way multidirectional diffuser with removable centre

MOUNTING

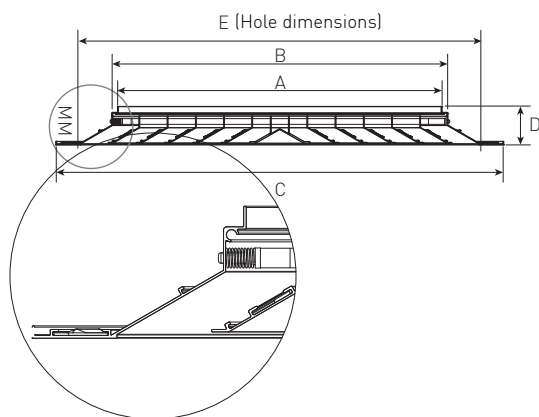
Concealed screw mounting on the diffuser neck

ACCESSORIES

Standard (PDOS/PDVS) or insulated (PDOI/PDVI) galvanised steel plenum.
SEDQ balancing damper with opposed blade movement

DIMENSIONS

DQBS mm	A mm	B mm	C mm	D mm	E mm
150x150	140	150	300	50	240x240
225x225	215	225	375	50	315x315
300x300	290	300	450	50	390x390
375x375	365	375	525	50	465x465
450x450	435	445	595	50	535x535



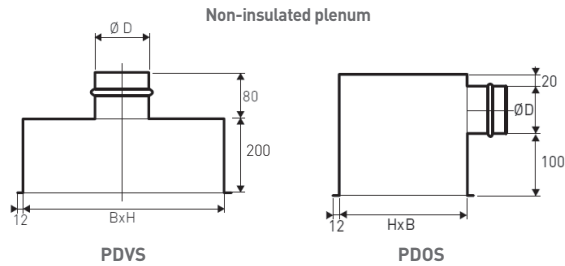


Diffusion

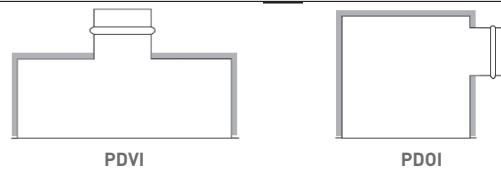
Components
for perfect air
distribution in HVAC
systems

PLENUM DIMENSIONS PDOS/PDVS

BxH mm	Ø D mm
150x150	122
225x225	147
300x300	197
375x375	197
450x450	247



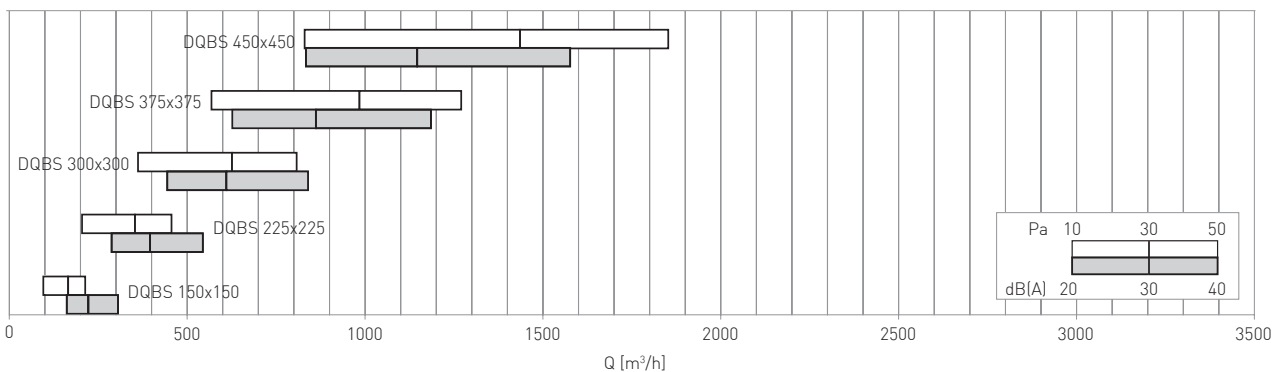
Externally insulated plenum thickness 6 mm



SELECTION TABLE

DQBS Model	Ak m ²	Ways n.	Q [m ³ /h]		L _{WA} [dB(A)]		X _(0.25) [m]		D _{pt} [Pa]	
			min	max	min	max	min	max	min	max
150x150	0,0094	4	100	210	< 20	29	0,80	3,99	10	50
225x225	0,0194	4	200	460	< 20	34	0,92	4,61	10	50
300x300	0,0332	4	360	810	< 20	39	1,03	5,14	10	50
375x375	0,0511	4	570	1270	< 20	42	1,12	5,60	10	50
450x450	0,0729	4	830	1850	< 20	45	1,20	6,01	10	50

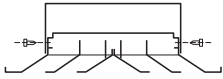
QUICK SELECTION CHART



MOUNTING AND CONNECTION

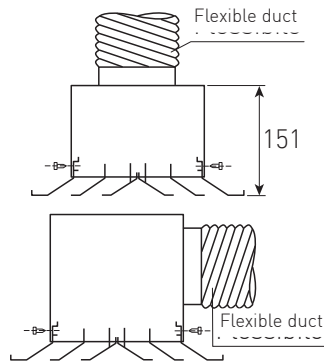
RECTANGULAR DUCT ADAPTER

Encase the diffuser in the duct.
Fix the diffuser with screws.



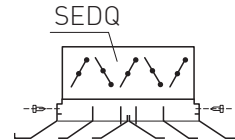
FLEXIBLE DUCT CONNECTOR WITH PLENUM

Encase the diffuser in the duct.
Fix the diffuser with screws.

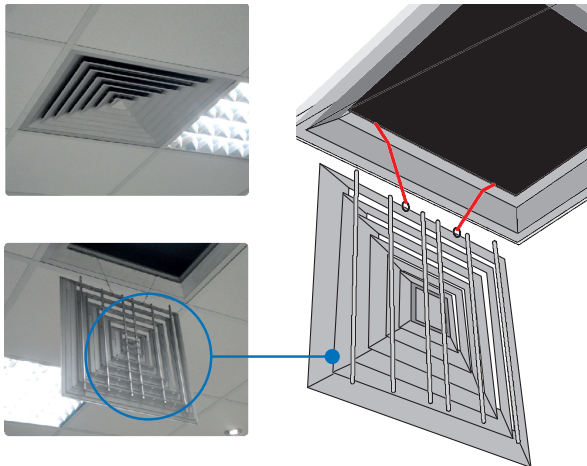


CALIBRATION

A damper can be installed in any configuration.
Clip the damper onto the diffuser.



SAFETY SYSTEM



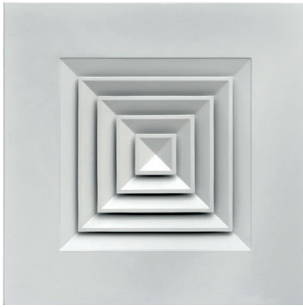
DQBSP

4-way multidirectional panel diffuser



Diffusion

Components
for perfect air
distribution in HVAC
systems



Product

DQBSP

Application

Ceiling mounted, supply and return
Installation height: 2.5-3.1 m

Construction

Anodised aluminium painted white RAL 9016

SPECIFICATION

4-way multi-directional diffuser on 595x595 panel with removable central part

MOUNTING

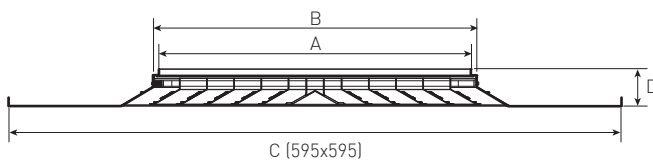
Concealed screw mounting on the diffuser neck

ACCESSORIES

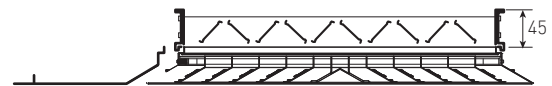
SEDQP balancing damper with opposed blade opposed

DIMENSIONS

DQBSP mm	A mm	B mm	C mm	D mm
150x150	135	145	595	50
225x225	210	220	595	50
300x300	285	295	595	50
375x375	360	370	595	50



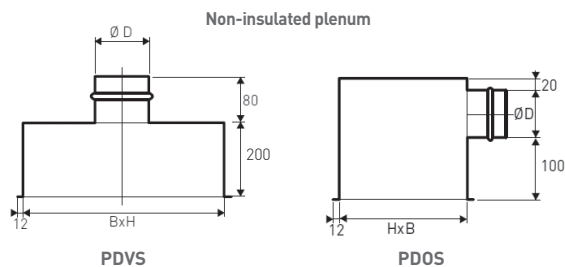
DQBSP



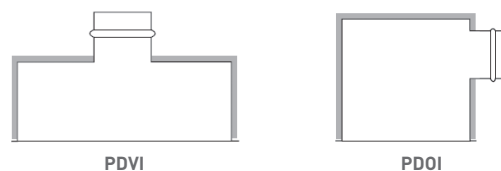
DQBSP - SEDQP

PLENUM PDOS/PDVS

BxH mm	Ø D mm
150x150	122
225x225	147
300x300	197
375x375	197



Externally insulated plenum thickness 6 mm



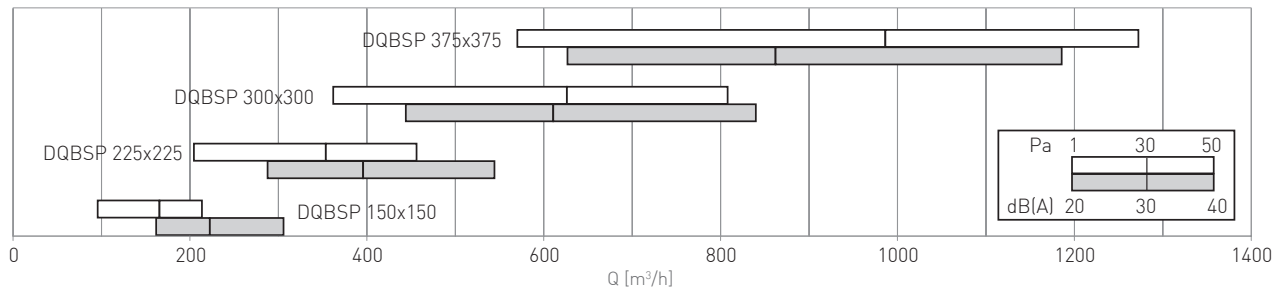
DQBSP

4-way multidirectional panel diffuser

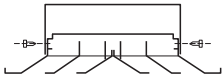
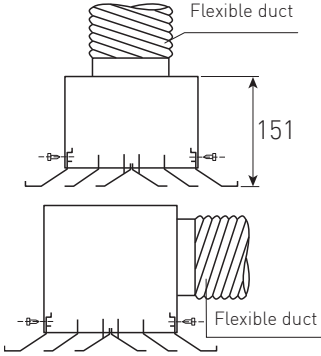
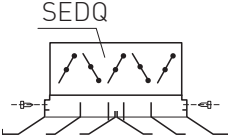
SELECTION TABLE

DQBSP Model	Ak* m ²	Ways n.	Q [m ³ /h]		L _{wa} [dB(A)]		X _{0.25} ** [m]		D _{pl} [Pa]	
			min	max	min	max	min	max	min	max
DQBSP 150x150	0,0094	4	100	210	< 20	29	0,80	3,99	10	50
DQBSP 225x225	0,0194	4	200	460	< 20	34	0,92	4,61	10	50
DQBSP 300x300	0,0332	4	360	810	< 20	39	1,03	5,14	10	50
DQBSP 375x375	0,0511	4	570	1270	< 20	42	1,12	5,60	10	50

QUICK SELECTION CHART



MOUNTING AND CONNECTION

<p>RECTANGULAR DUCT ADAPTER</p> <p>Encase the diffuser in the duct. Fix the diffuser with screws.</p> 	<p>FLEXIBLE DUCT CONNECTOR WITH PLENUM</p> <p>Encase the diffuser in the duct. Fix the diffuser with screws.</p> 	<p>CALIBRATION</p> <p>A damper can be installed in any configuration. Clip the damper onto the diffuser.</p> 
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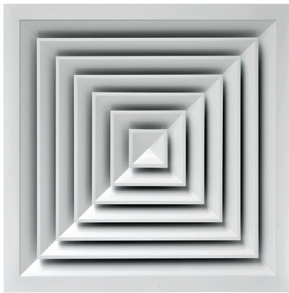
DQA-DRA

1,2,3 and 4-way multidirectional diffuser



Diffusion

Components
for perfect air
distribution in HVAC
systems



Product

DQA-DRA

Application

Ceiling mounted, supply and return
Installation height: 2.5-3.2 m

Construction

Anodized aluminium
Anodized aluminium painted RAL 9016

SPECIFICATION

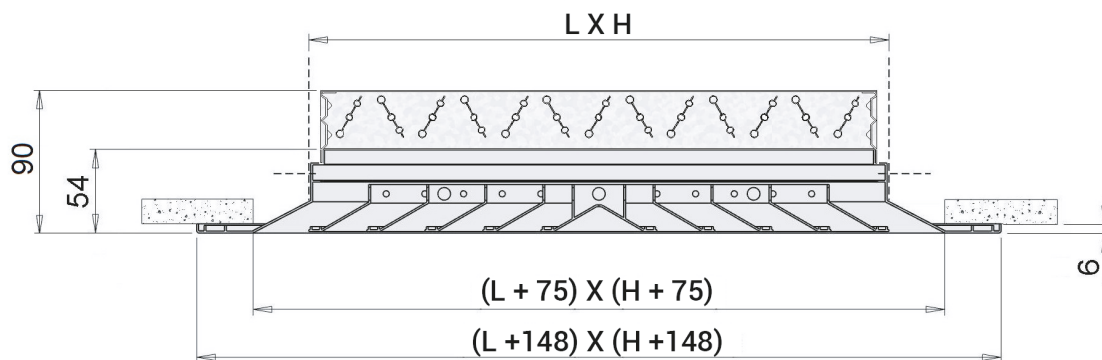
4-way multidirectional diffuser with
removable centre

MOUNTING

Concealed screw mounting on the diffuser
neck

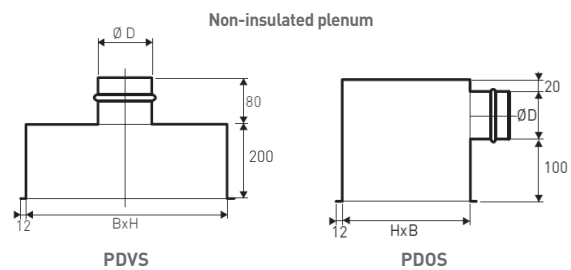
ACCESSORIES

Standard or insulated galvanised steel plenum.
Galvanised steel balancing damper with
opposed blade movement

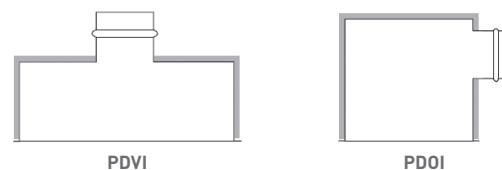


PLENUM DIMENSIONS PDOS/PDVS

BxH mm	Ø D mm
150x150	122
225x225	147
300x300	197
375x375	197
450x450	247
600x600	297



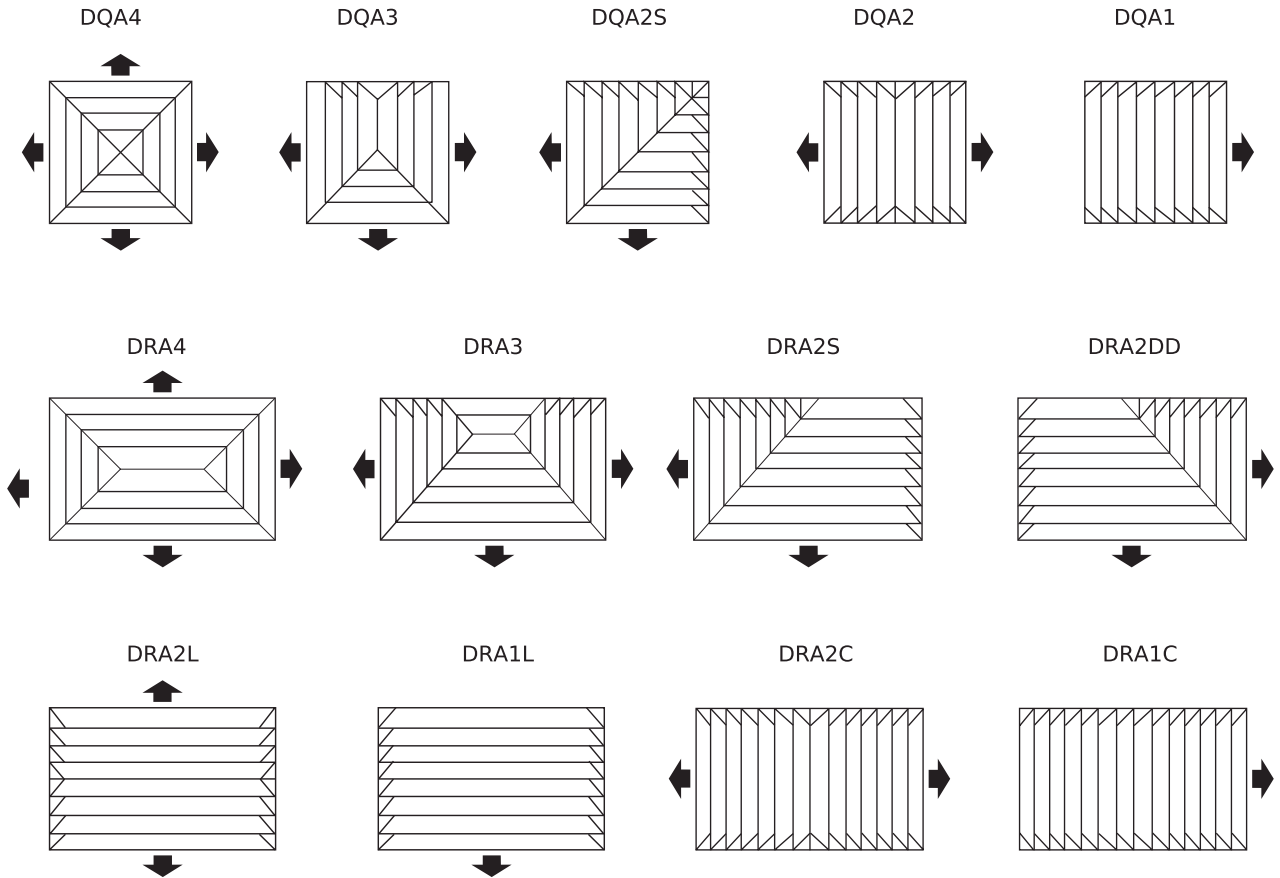
Externally insulated plenum thickness 6 mm



DQA-DRA

1.2.3 and 4-way multidirectional diffuser

AIR THROW CONFIGURATION TABLE





Diffusion

Components
for perfect air
distribution in HVAC
systems

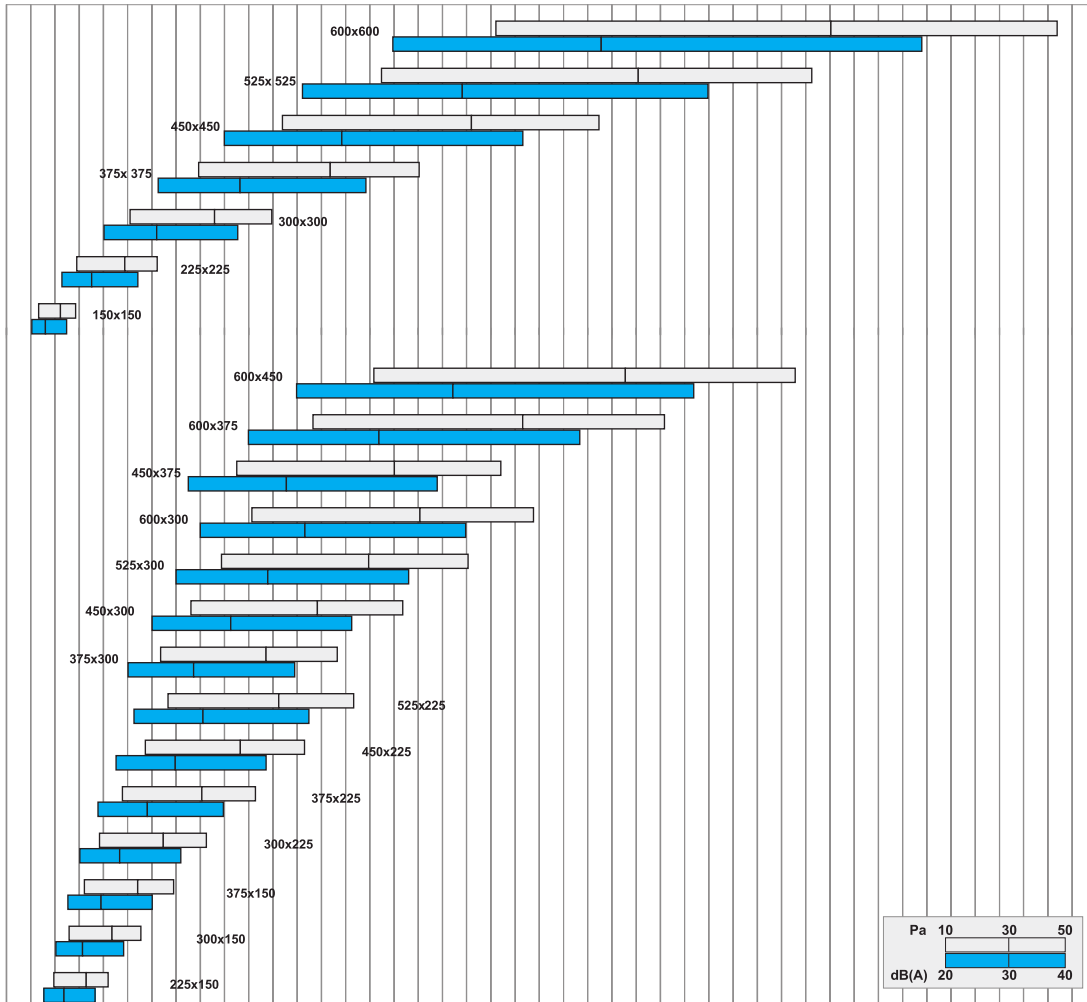
SELECTION TABLE

DQA-DRA Model	Ak [m ²]		Q [m ³ /h]		L _{WA} [dB(A)]		X _(0,25) [m]		D _{pt} [Pa]	
	m ²	n.	min	max	min	max	min	max	min	max
DQA 150x150	0,0080	0,01	130	290	35	53	1,7	3,4	10	50
DQA 225x225	0,0179	0,02	290	620	35	53	2,5	5	10	50
DQA 300x300	0,0317	0,04	510	1100	35	53	3,2	6,6	10	50
DQA 375x375	0,0494	0,06	790	1700	35	53	4	8,3	10	50
DQA 450x450	0,0711	0,09	1140	2450	35	53	4,8	10	10	50
DQA 525x525	0,0967	0,12	1550	3320	35	53	5,6	11,6	10	50
DQA 600x600	0,1262	0,15	2020	4340	35	53	6,4	13,4	10	50
DRA 225x150	0,0120	0,01	200	420	35	53	2,5	5,2	10	50
DRA 300x150	0,0160	0,02	260	560	35	53	2,8	5,8	10	50
DRA 375x150	0,0199	0,02	320	690	35	53	3,1	6,4	10	50
DRA 300x225	0,0238	0,03	380	830	35	53	3,3	6,9	10	50
DRA 375x225	0,0297	0,04	480	1030	35	53	3,6	7,6	10	50
DRA 450x225	0,0356	0,04	570	1230	35	53	3,9	8,3	10	50
DRA 525x225	0,0416	0,05	670	1430	35	53	4,2	8,8	10	50
DRA 375x300	0,0396	0,05	640	1370	35	53	4,1	8,7	10	50
DRA 450x300	0,0475	0,06	760	1640	35	53	4,4	9,4	10	50
DRA 525x300	0,0553	0,07	890	1910	35	53	4,7	10	10	50
DRA 600x300	0,0632	0,08	1010	2180	35	53	5	10,6	10	50
DRA 450x375	0,0593	0,07	950	2040	35	53	4,9	10,3	10	50
DRA 600x375	0,0790	0,09	1270	2720	35	53	5,5	11,7	10	50
DRA 600x450	0,0947	0,11	1520	3260	35	53	6	12,7	10	50

DQA-DRA

1.2.3 and 4-way multidirectional diffuser

QUICK SELECTION CHART



DH SERIES

High induction Swirl diffuser



Diffusion

Components for perfect air distribution in HVAC systems



Product

DHE, DHR, DHL and DHV SERIES

Application

Ceiling mounted, supply and return

Construction

Steel diffuser with black ABS deflectors
Finish: White RAL 9016

The same design can be made on 595x595 panel

SPECIFICATION

High performance swirl diffuser on circular or square panel.
Suitable for both constant and variable flow rate systems.
Available in 595x595 size for lay-in suspended ceiling or Fine Line with T of 15 mm o 24 mm

MOUNTING

With side screws or central screw on mounting bridge (optionally installed in plenum)

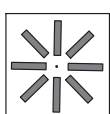
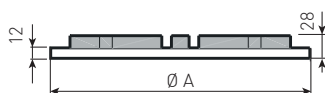
ACCESSORIES

PQOS-PQOI Galvanised sheet metal plenum (damper and equaliser installed on request).
PQOP Polystyrene plenum for panelled 595 x 595 diffusers only.
RC1BS Connector with ABS damper diameter Ø 160, Ø 200, Ø 250.
EQ1B Equaliser on polystyrene plenum (on request)

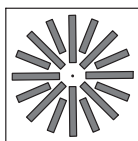
DIMENSIONS

DHE SQUARE DIFFUSER

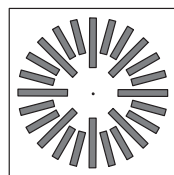
DN mm	□ A mm
300x300	296x296
400x400	396x396
500x500	496x496
600x600	596x596
625x625	621x621
800x800	796x796



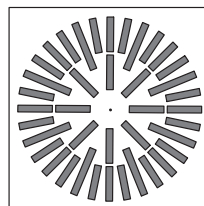
300x8



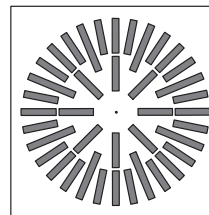
400x16



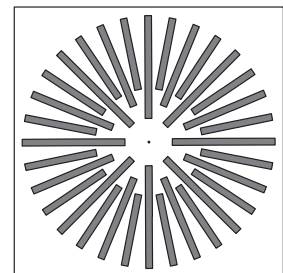
500x32



600x40



620x40



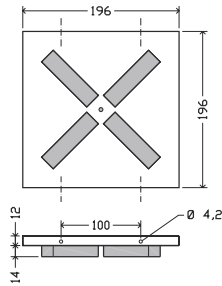
800x32

DH SERIES

High induction Swirl diffuser

DHE 200

QUICK SELECTION TABLE



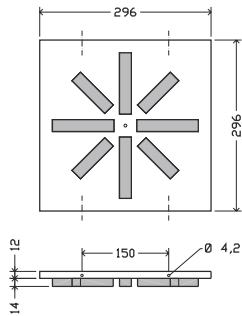
Noise level	Nr dB	< 20	20	25	30	35	40	45	50	55
Churches, libraries										
Hospitals										
Apartments, offices										
Commercial buildings										

Installation height (m)	min	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.4	3.4
	max	3.3	3.4	3.4	3.5	3.6	3.7	3.9	4	4.1
Outlet velocity V _k	m/s	2	3	4	5	6	8	9	10	12
Pressure drop	Pa	4	8	13	19	27	45	56	68	94
Flow rate	mc/h	19	28	37	47	56	75	84	94	112
Throw	m	0.1	0.2	0.2	0.2	0.3	0.4	0.4	0.5	0.5

Diffuser mounted on plenum with open damper, terminal velocity VT=0,25 m/s

DHE 300

QUICK SELECTION TABLE



Noise level	Nr dB	< 20	20	25	30	35	40	45	50	55
Churches, libraries										
Hospitals										
Apartments, offices										
Commercial buildings										

Installation height (m)	min	2.6	2.7	2.8	3.0	3.0	3.1	3.2	3.4	3.4
	max	3.3	3.4	3.4	3.6	3.6	3.7	3.9	4	4.1
Outlet velocity V _k	m/s	2	3	4	5	6	8	9	10	12
Pressure drop	Pa	5	10	16	25	34	58	72	87	121
Flow rate	mc/h	51	76	102	127	153	204	229	255	306
Throw	m	0.2	0.3	0.4	0.5	0.6	0.8	0.9	1	1.2

Diffuser mounted on plenum with open damper and equalizer grid, terminal velocity Vt=0.37 m/s

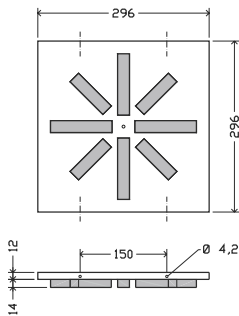


Diffusion

Components
for perfect air
distribution in HVAC
systems

DHE 400

QUICK SELECTION TABLE



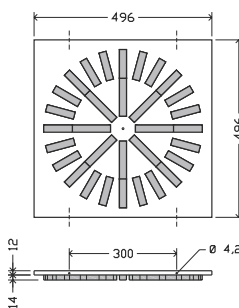
Noise level	Nr dB	< 20	20	25	30	35	40	45	50	55
Churches, libraries		█								
Hospitals			█							
Apartments, offices				█						
Commercial buildings					█					

Installation height (m)	min	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.4	3.4
	max	3.3	3.4	3.4	3.5	3.6	3.7	3.9	4	4.1
Outlet velocity V _k	m/s	2	3	4	5	6	8	9	10	12
Pressure drop	Pa	6	12	21	19	44	74	91	111	154
Flow rate	mc/h	136	204	272	47	409	545	613	681	817
Throw	m	0.4	0.6	0.7	0.2	1.1	1.5	1.7	1.9	2.3

Diffuser mounted on plenum with open damper and equalizer grid, terminal velocity V_t=0.37 m/s

DHE 500/32

QUICK SELECTION TABLE



Noise level	Nr dB	< 20	20	25	30	35	40	45	50	55
Churches, libraries		█								
Hospitals			█							
Apartments, offices				█						
Commercial buildings					█					

Installation height (m)	min	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.4	3.4
	max	3.3	3.4	3.4	3.5	3.6	3.7	3.9	4	4.1
Outlet velocity V _k	m/s	2	3	4	5	6	8	9	10	12
Pressure drop	Pa	7	14	24	19	50	85	105	128	178
Flow rate	mc/h	242	363	485	47	727	969	1090	1211	1454
Throw	m	0.2	0.3	0.4	0.5	0.6	2.2	2.5	2.8	3.3

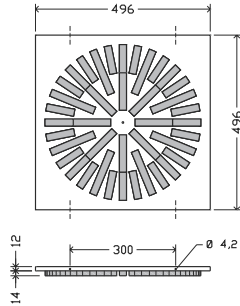
Diffuser mounted on plenum with open damper and equalizer grid, terminal velocity V_t=0.37 m/s

DH SERIES

High induction Swirl diffuser

DHE 500/40

QUICK SELECTION TABLE



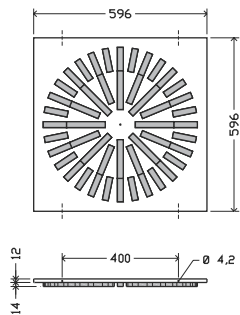
Noise level	Nr dB	< 20	20	25	30	35	40	45	50	55
Churches, libraries		████████								
Hospitals			████████							
Apartments, offices				████████						
Commercial buildings					████████					

Installation height (m)	min	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.4	3.4
	max	3.3	3.4	3.4	3.5	3.6	3.7	3.9	4	4.1
Outlet velocity V _k	m/s	2	3	4	5	6	8	9	10	12
Pressure drop	Pa	8	16	27	40	55	94	116	140	196
Flow rate	mc/h	356	535	713	891	1069	1426	1604	1782	2138
Throw	m	0.8	1.1	1.5	1.9	2.3	3	3.4	3.8	4.6

Diffuser mounted on plenum with open damper and equalizer grid, terminal velocity V_t=0.37 m/s

DHE 600/FC

QUICK SELECTION TABLE



Noise level	Nr dB	< 20	20	25	30	35	40	45	50	55
Churches, libraries		████████								
Hospitals			████████							
Apartments, offices				████████						
Commercial buildings					████████					

Installation height (m)	min	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.4	3.4
	max	3.3	3.4	3.4	3.5	3.6	3.7	3.9	4	4.1
Outlet velocity V _k	m/s	2	3	4	5	6	8	9	10	12
Pressure drop	Pa	8	16	28	42	58	98	121	147	205
Flow rate	mc/h	428	642	856	1070	1284	1712	1926	2141	2569
Throw	m	0.9	1.3	1.8	2.2	2.7	3.6	4	4.4	5.3

Diffuser mounted on plenum with open damper and equalizer grid, terminal velocity V_t=0.37 m/s

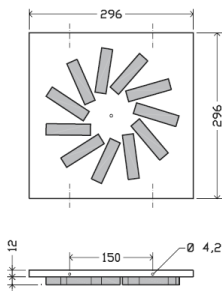


Diffusion

Components
for perfect air
distribution in HVAC
systems

DHR 300

QUICK SELECTION TABLE



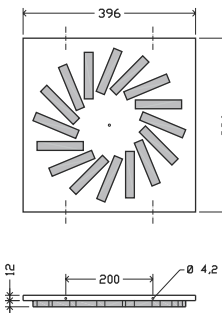
Noise level	Nr dB	< 20	20	25	30	35	40	45	50	55
Churches, libraries		█								
Hospitals			█							
Apartments, offices				█						
Commercial buildings					█					

Installation height (m)	min	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.4	3.4
	max	3.3	3.4	3.4	3.5	3.6	3.7	3.9	4	4.1
Outlet velocity V _k	m/s	2	3	4	5	6	8	9	10	12
Pressure drop	Pa	7	15	24	36	50	82	101	121	167
Flow rate	mc/h	74	111	149	186	223	297	334	371	446
Throw	m	0.2	0.3	0.5	0.6	0.7	0.9	1	1.1	1.4

Diffuser mounted on plenum with open damper, terminal velocity VT=0,25 m/s

DHR 400

QUICK SELECTION TABLE



Noise level	Nr dB	< 20	20	25	30	35	40	45	50	55
Churches, libraries		█								
Hospitals			█							
Apartments, offices				█						
Commercial buildings					█					

Installation height (m)	min	2.6	2.7	2.8	3.0	3.0	3.1	3.2	3.4	3.4
	max	3.3	3.4	3.4	3.6	3.6	3.7	3.9	4	4.1
Outlet velocity V _k	m/s	2	3	4	5	6	8	9	10	12
Pressure drop	Pa	7	14	24	35	49	81	99	119	164
Flow rate	mc/h	140	211	281	351	421	562	632	702	843
Throw	m	0.4	0.6	0.8	1	1.2	1.5	1.7	1.9	2.3

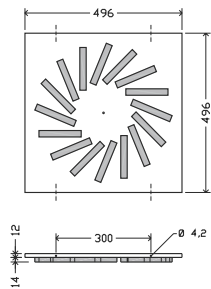
Diffuser mounted on plenum with open damper and equalizer grid, terminal velocity Vt=0.37 m/s

DH SERIES

High induction Swirl diffuser

DHR 500

QUICK SELECTION TABLE



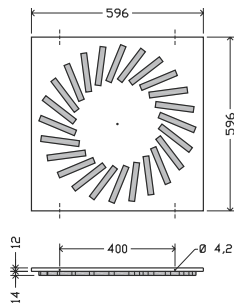
Noise level	Nr dB	< 20	20	25	30	35	40	45	50	55
Churches, libraries		██████████								
Hospitals			██████████							
Apartments, offices				██████████						
Commercial buildings					██████████					

Installation height (m)	min	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.4	3.4
	max	3.3	3.4	3.4	3.5	3.6	3.7	3.9	4	4.1
Outlet velocity V _k	m/s	2	3	4	5	6	8	9	10	12
Pressure drop	Pa	7	14	24	35	48	80	98	118	163
Flow rate	mc/h	175	263	350	438	525	701	788	876	1051
Throw	m	0.5	0.7	0.9	1.1	1.4	1.8	2	2.3	2.7

Diffuser mounted on plenum with open damper, terminal velocity VT=0,25 m/s

DHR 600

QUICK SELECTION TABLE



Noise level	Nr dB	< 20	20	25	30	35	40	45	50	55
Churches, libraries		██████████								
Hospitals			██████████							
Apartments, offices				██████████						
Commercial buildings					██████████					

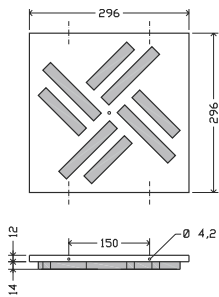
Installation height (m)	min	2.6	2.7	2.8	3.0	3.0	3.1	3.2	3.4	3.4
	max	3.3	3.4	3.4	3.6	3.6	3.7	3.9	4	4.1
Outlet velocity V _k	m/s	2	3	4	5	6	8	9	10	12
Pressure drop	Pa	7	14	23	35	48	79	97	117	161
Flow rate	mc/h	260	389	519	649	779	1039	1168	1298	1558
Throw	m	0.6	0.9	1.2	1.5	1.8	2.4	2.7	3	3.6

Diffuser mounted on plenum with open damper and equalizer grid, terminal velocity V_t=0.37 m/s



DHL 300

QUICK SELECTION TABLE



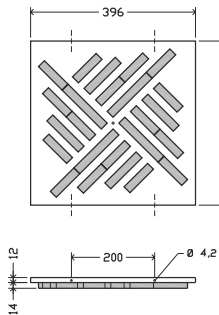
Noise level	Nr dB	< 20	20	25	30	35	40	45	50	55
Churches, libraries										
Hospitals										
Apartments, offices										
Commercial buildings										

Installation height (m)	min	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.4	3.4
	max	3.3	3.4	3.4	3.5	3.6	3.7	3.9	4	4.1
Outlet velocity V _k	m/s	2	3	4	5	6	8	9	10	12
Pressure drop	Pa	3	6	10	15	21	36	45	55	77
Flow rate	mc/h	75	112	149	186	224	298	335	373	447
Throw	m	0.2	0.3	0.4	0.5	0.6	0.9	1	1.1	1.3

Diffuser mounted on plenum with open damper, terminal velocity VT=0,25 m/s

DHL 400

QUICK SELECTION TABLE



Noise level	Nr dB	< 20	20	25	30	35	40	45	50	55
Churches, libraries										
Hospitals										
Apartments, offices										
Commercial buildings										

Installation height (m)	min	2.6	2.7	2.8	3.0	3.0	3.1	3.2	3.4	3.4
	max	3.3	3.4	3.4	3.6	3.6	3.7	3.9	4	4.1
Outlet velocity V _k	m/s	2	3	4	5	6	8	9	10	12
Pressure drop	Pa	6	13	24	33	46	78	98	119	168
Flow rate	mc/h	191	286	382	477	572	763	859	954	1145
Throw	m	05	07	1	12	15	2	22	25	3

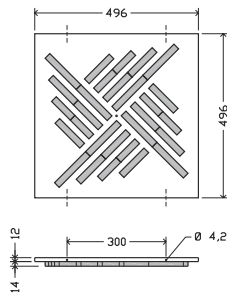
Diffuser mounted on plenum with open damper and equalizer grid, terminal velocity Vt=0.37 m/s

DH SERIES

High induction Swirl diffuser

DHL 500

QUICK SELECTION TABLE



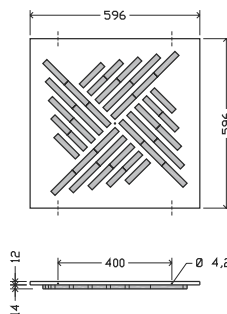
Noise level	Nr dB	< 20	20	25	30	35	40	45	50	55
Churches, libraries										
Hospitals										
Apartments, offices										
Commercial buildings										

Installation height (m)	min	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.4	3.4
	max	3.3	3.4	3.4	3.5	3.6	3.7	3.9	4	4.1
Outlet velocity V _k	m/s	2	3	4	5	6	8	9	10	12
Pressure drop	Pa	8	16	28	42	60	102	127	155	218
Flow rate	mc/h	262	393	524	654	785	1047	1178	1309	1571
Throw	m	0.6	1	1.3	1.6	1.9	2.6	2.9	3.2	3.8

Diffuser mounted on plenum with open damper, terminal velocity VT=0,25 m/s

DHL 600

QUICK SELECTION TABLE



Noise level	Nr dB	< 20	20	25	30	35	40	45	50	55
Churches, libraries										
Hospitals										
Apartments, offices										
Commercial buildings										

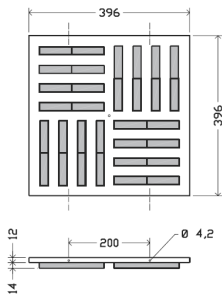
Installation height (m)	min	2.6	2.7	2.8	3.0	3.0	3.1	3.2	3.4	3.4
	max	3.3	3.4	3.4	3.6	3.6	3.7	3.9	4	4.1
Outlet velocity V _k	m/s	2	3	4	5	6	8	9	10	12
Pressure drop	Pa	11	23	39	59	83	142	173	215	302
Flow rate	mc/h	388	582	776	970	1164	1552	1746	1940	2328
Throw	m	0.8	1.2	1.7	2.1	2.5	3.3	3.7	4.2	5

Diffuser mounted on plenum with open damper and equalizer grid, terminal velocity V_t=0.37 m/s



DHV 400

QUICK SELECTION TABLE



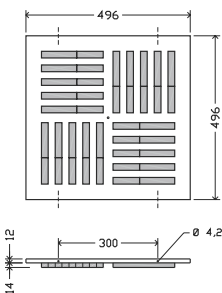
Noise level	Nr dB	< 20	20	25	30	35	40	45	50	55
Churches, libraries										
Hospitals										
Apartments, offices										
Commercial buildings										

Installation height (m)	min	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.4	3.4
	max	3.3	3.4	3.4	3.5	3.6	3.7	3.9	4	4.1
Outlet velocity V _k	m/s	2	3	4	5	6	8	9	10	12
Pressure drop	Pa	15	31	53	80	112	189	235	285	398
Flow rate	mc/h	263	395	526	658	789	1052	1184	1316	1579
Throw	m	0.6	0.9	1.2	1.5	1.8	2.4	2.7	3	3.6

Diffuser mounted on plenum with open damper, terminal velocity VT=0,25 m/s

DHV 500

QUICK SELECTION TABLE



Noise level	Nr dB	< 20	20	25	30	35	40	45	50	55
Churches, libraries										
Hospitals										
Apartments, offices										
Commercial buildings										

Installation height (m)	min	2.6	2.7	2.8	3.0	3.0	3.1	3.2	3.4	3.4
	max	3.3	3.4	3.4	3.6	3.6	3.7	3.9	4	4.1
Outlet velocity V _k	m/s	2	3	4	5	6	8	9	10	12
Pressure drop	Pa	14	30	50	75	105	178	221	268	375
Flow rate	mc/h	379	568	757	947	1136	1515	1704	1893	2272
Throw	m	0.2	1.2	1.6	2	2.4	3.2	3.6	4	4.8

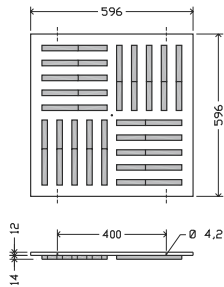
Diffuser mounted on plenum with open damper and equalizer grid, terminal velocity Vt=0.37 m/s

DH SERIES

High induction Swirl diffuser

DHV 600

QUICK SELECTION TABLE



Noise level	Nr dB	< 20	20	25	30	35	40	45	50	55
Churches, libraries										
Hospitals										
Apartments, offices										
Commercial buildings										

Installation height (m)	min	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.4	3.4
	max	3.3	3.4	3.4	3.5	3.6	3.7	3.9	4	4.1
Outlet velocity V _k	m/s	2	3	4	5	6	8	9	10	12
Pressure drop	Pa	14	28	48	73	101	171	213	258	360
Flow rate	mc/h	483	725	967	1209	1450	1934	2175	2417	2901
Throw	m	1	1.5	2	2.5	3	4	4.5	5	6

Diffuser mounted on plenum with open damper; terminal velocity VT=0,25 m/s

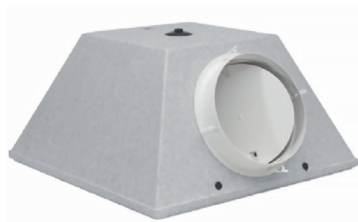
PQOP

Polystyrene plenum



Diffusion

Components
for perfect air
distribution in HVAC
systems



Product

PQOP

Versions

Polystyrene plenum complete with diffuser mounting kit, pre-cut for RC1BS connector

Construction

Moulded polystyrene density 45 kg/m³, fire retardant class 1 and crystallised inside

SPECIFICATION

Plenum for swirl diffuser on panel
595x595 mm

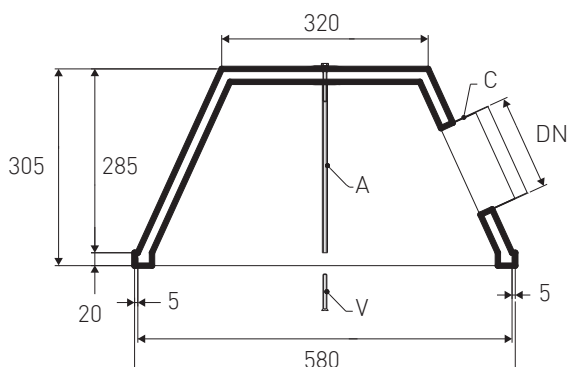
MOUNTING

Fixing the diffuser to the plenum via
screw V on rod A

ACCESSORIES

EQ1B equalizer in ABS.
RC1BS collar complete with ABS damper in
diameters Ø 125, Ø 160,
Ø 200, Ø 250

DIMENSIONS



CRA/CRABS

Circular diffuser with adjustable cones



Product

CRA/CRABS

Application

Ceiling mounted, supply and return

Construction

Epoxy powder coated aluminium white RAL 9010. Adjustable cones by micrometric screw with galvanised steel self-locking nut or cone central

CRABS with integrated damper and ABS screw available from d.160

SPECIFICATION

Circular adjustable cone diffuser in aluminium or ABS

MOUNTING

Concealed screw mounting on the diffuser neck

ACCESSORIES

SF Butterfly damper (for CRA only).
PCOS/I Galvanised sheet metal/insulated plenum.
KIT CRA Fixing kit with springs.

DIMENSIONS AND PERFORMANCE

CRA

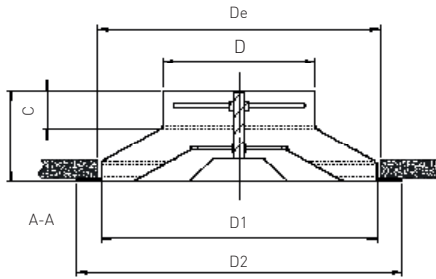
Model mm	D mm	D e mm	D1 mm	Ø D2 mm	C mm	H mm	Cones n.	A _t m ²	Q m ³ /h	ΔP Pa	Throw -L m
100	98	198	194	230	30	75	1	0,008	86	19	0,6
150	148	288	280	335	45	105	2	0,0174	188	16	1,1
160	158	288	280	335	45	105	2	0,0197	213	16	1,1
200	198	370	360	423	48	118	2	0,0302	326	15	1,5
250	248	461	445	517	48	130	2	0,0462	499	14	1,6
300	298	576	560	640	48	146	2	0,0653	706	13	1,9
315	313	576	560	640	48	146	2	0,0717	774	12	1,9
350	348	656	640	730	65	185	2	0,0876	946	13	2,7
355	363	656	640	730	65	185	2	0,09	972	12	2,7
400	398	700	680	776	65	185	3	0,1129	1219	12	3,1
450	448	755	735	825	65	185	3	0,1412	1525	12	3,6
500	498	825	805	917	65	185	3	0,1724	1862	11	3,9
630	628	963	943	1045	65	185	4	0,2673	2887	10	4,8

- Adjustable internal cones

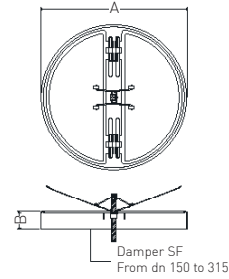


Diffusion

Components
for perfect air
distribution in HVAC
systems



CRA

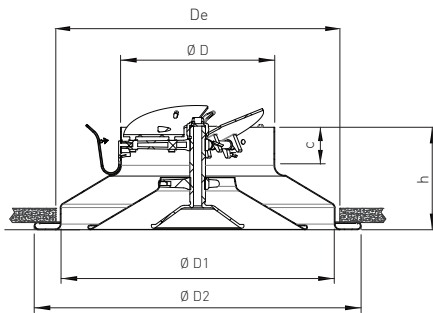


DAMPER

CRABS

Model mm	D mm	De mm	D1 mm	Ø D2 mm	C mm	H mm	Cones n.	A _v m ²	Q m ³ /h	ΔP Pa	Throw -L m
160	158	288	280	335	45	105	3	0,0197	213	16	1,1
200	198	370	360	423	48	118	3	0,0302	326	15	1,5
250	248	461	445	517	48	135	3	0,0462	499	14	1,6
315	313	576	560	640	48	145	3	0,0653	706	13	1,9

- Adjustable internal cones



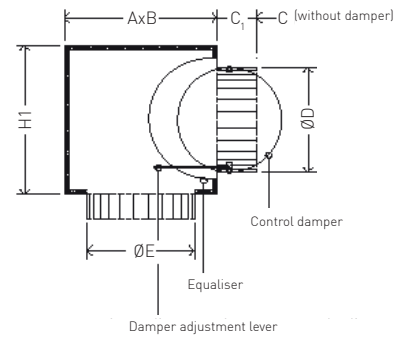
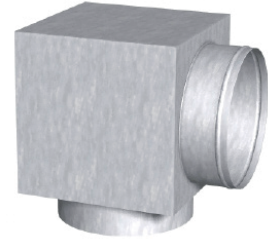
CRABS

CRA/CRABS

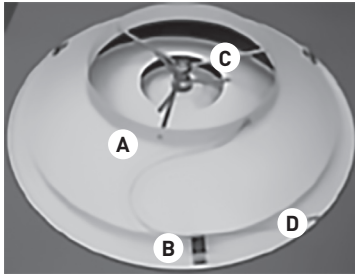
Circular diffuser with adjustable cones

PLENUM PCOS/PCOI

Dimensions nominal	AxB	C	C ₁	Ø D	Ø E	H1	N
mm	mm	mm	mm	mm	mm	mm	mm
100	200x200	65	65	96	102	200	1
150	250x250	70	70	146	152	250	1
160	250x250	60	90	156	162	250	1
200	300x300	60	90	196	202	300	1
250	350x350	60	90	246	252	350	1
300	400x400	60	90	296	302	400	1
315	400x400	60	90	311	317	400	1
350	450x450	90	90	346	352	450	1
355	450x450	90	90	346	357	450	1
400	500x500	90	90	396	402	500	1
450	550x550	100	100	446	453	550	1
500	600x600	100	100	496	503	600	1
630	730x730	100	100	600	633	730	1



MOUNTING



- A. Diffuser
- B. Fixing spring
- C. Rosettes
- D. Safety cable

Hole diameter: ØN160 (Ø310); ØN200 (Ø390); ØN250 (Ø475); ØN315 (Ø590); ØN350 (Ø670); ØN355 (Ø670)

WARNING! For models ØN350 and ØN355 the use of 6 clips is recommended (the equivalent of 2 mounting kits of ØN315)



1. Apply the fixing springs (B) at the diffuser spokes maintaining an angle of approximately 120°



2. Apply a light downward pressure on the spring (B)

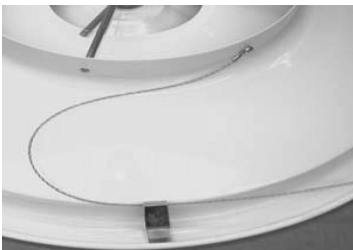


Diffusion

Components
for perfect air
distribution in HVAC
systems



3. Drill a through hole (\varnothing 5.5 mm) on the terminal part of the diffuser neck (near the radius) for fixing the safety cable (D)



4. Fix the safety cable (D) using the supplied screw and nut (M5). Fix the terminal part of the cable to the suspended ceiling structure



5. Insert the diffuser (A) into the appropriate housing

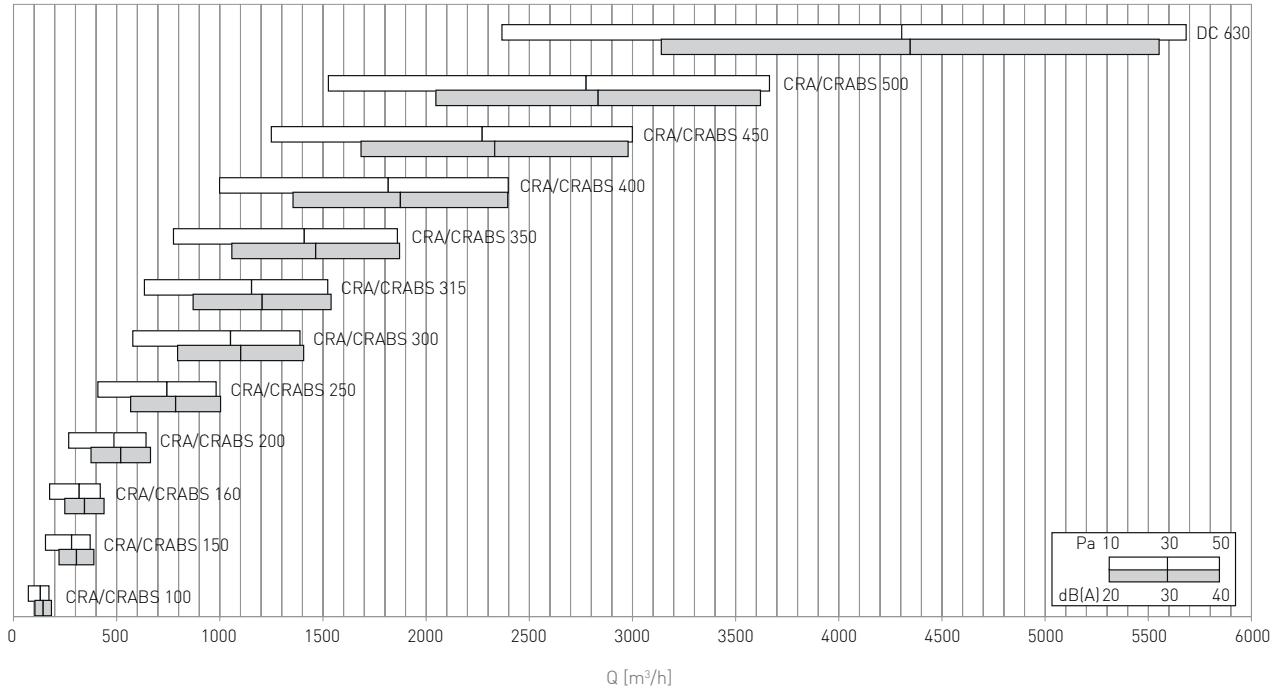
SELECTION TABLE

CRA/CRABS Model	A_k m ²	Q [m ³ /h]		L_{WA} [dB(A)]		$X_{(0,25)} - Y_{(0,25)}$ [m]		D_{pt} [Pa]	
		min	max	min	max	min	max	min	max
100	0,0073	70	170	-	36	0,7	1,8	10	50
150	0,0161	160	370	-	38	1,3	3,2	10	50
160	0,0183	180	420	-	38	1,5	3,6	10	50
200	0,0284	270	640	-	38	2,0	4,9	10	50
250	0,0440	410	980	-	39	2,7	6,7	10	50
300	0,0630	580	1390	-	39	3,6	8,7	10	50
315	0,0693	630	1520	-	39	3,8	9,3	10	50
350	0,0852	780	1860	-	40	4,5	10,8	10	50
400	0,1108	1000	2400	-	40	5,4	13,0	10	50
450	0,1397	1250	3000	-	40	6,3	15,3	10	50
500	0,1719	1530	3660	-	40	7,4	17,7	10	50
630	0,2707	2370	5680	-	41	10,2	24,5	10	50

CRA/CRABS

Circular diffuser with adjustable cones

QUICK SELECTION CHART



CRAQ/CRAQBS

Panel diffuser with adjustable cones



Diffusion

Components for perfect air distribution in HVAC systems



Product

CRAQ/CRAQBS

Application

Ceiling mounted, supply and return

Construction

Epoxy powder coated aluminium white RAL 9010. Adjustable cones by means of screw micrometric with galvanised steel self-locking nut
CRAQBS with integrated damper and ABS screw available from d.160

SPECIFICATION

Panel diffuser with adjustable cones

MOUNTING

Concealed screw mounting on the diffuser neck

ACCESSORIES

SF Butterfly damper (for CRAQ only).
PCOS/I Galvanised sheet metal/insulated plenum

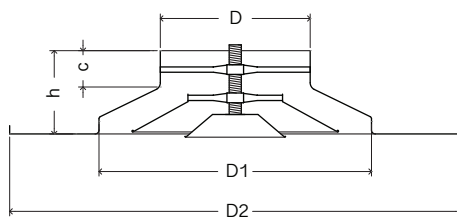
DIMENSIONS AND PERFORMANCE

CRAQ

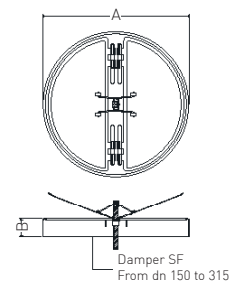
Model mm	D mm	D1 mm	Ø D2 mm	C mm	H mm	Cones n.	Q m³/h	ΔP Pa	Throw -L m
100	98	194	595	30	70	2	86	19	0,6
160	157	280	595	45	100	2	213	16	1,1
200	198	360	595	48	110	2	326	15	1,5
250	248	445	595	48	120	2	499	14	1,6
300	298	495	595	48	126	2	706	13	1,9
315	313	495	595	48	126	2			

- Adjustable internal cones

Performance calculated for installation heights $2.7 < H < 3,4$ and velocity $v = 3$ m/s



CRAQ



DAMPER

CRAQ/CRAQBS

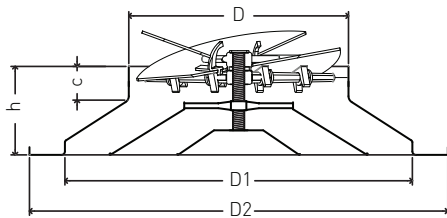
Panel diffuser with adjustable cones

CRAQBS

Model mm	D mm	D1 mm	Ø D2 mm	C mm	H mm	Cones n.	A _k m ²	Q m ³ /h	ΔP Pa	Throw -L m
160	157	280	596	45	100	3	0,0197	213	16	1,1
200	198	360	596	48	110	3	0,0302	326	15	1,5
250	248	445	596	48	120	3	0,0462	499	14	1,6
315	313	495	596	48	126	3	0,0653	706	13	1,9

- Adjustable internal cones

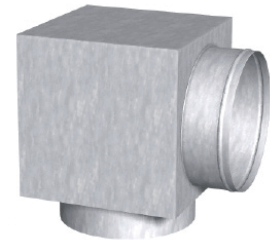
Performance calculated for installation heights 2.7<H<3,4 and velocity v = 3 m/s



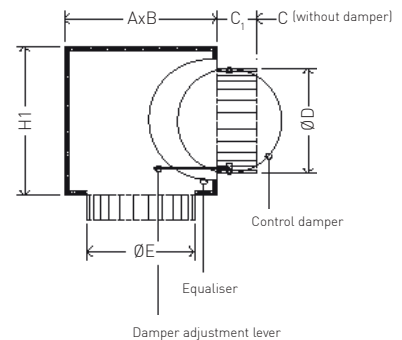
CRAQBS

PLENUM PCOS/PCOI

Dimensions nominal mm	AxB mm	C mm	C ₁ mm	Ø D mm	Ø E mm	H1 mm	N mm
100	200x200	65	65	96	102	200	1
150	250x250	70	70	146	152	250	1
160	250x250	60	90	156	162	250	1
200	300x300	60	90	196	202	300	1
250	350x350	60	90	246	252	350	1
300	400x400	60	90	296	302	400	1
315	400x400	60	90	311	317	400	1



PCOS - PCOI



CFASE

Circular diffuser with fixed cones and damper



Diffusion

Components
for perfect air
distribution in HVAC
systems



Product

CFASE

Application

Ceiling mounted, supply and return

Construction

Aluminium painted white RAL 9016 with sealing gasket

SPECIFICATION

Circular fixed cone diffuser with removable central body and butterfly damper

MOUNTING

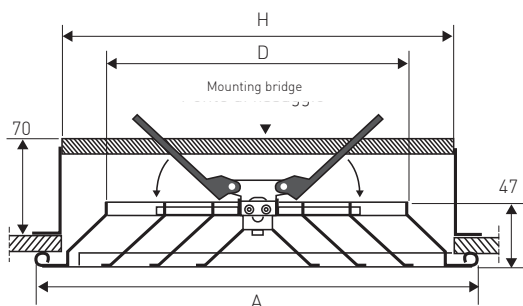
Hidden screw fixing positioned inside the diffuser or with mounting bridge

ACCESSORIES

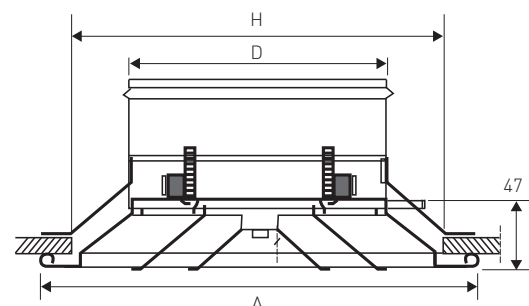
MF-MZ Fixing collar

DIMENSIONS

CFASE Ø mm	H mm	D mm	A mm
150	225	149	257
200	275	199	309
250	325	249	362
300	375	298	415



CFASE



CFASE+MF



Ø 150
Ø 200
Ø 250

Polycarbonate fixing collar

MF



Ø 300
Ø 350

Steel fixing collar

MZ

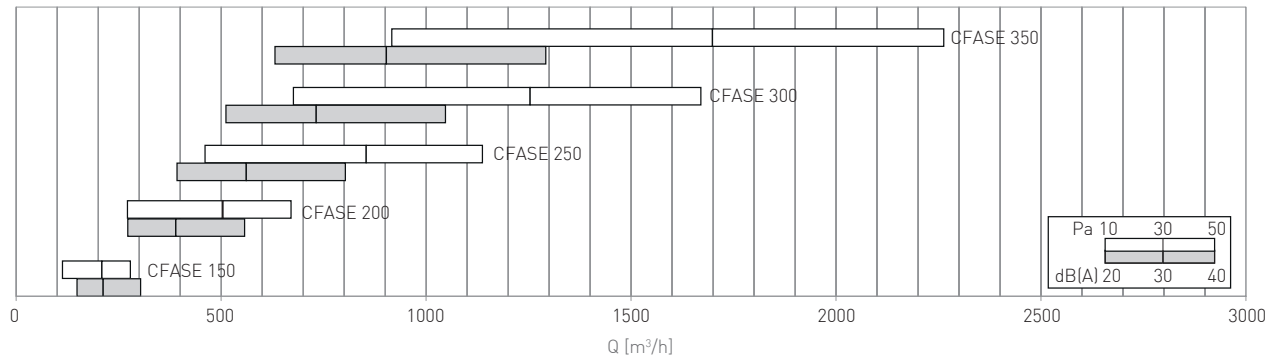
CFASE

Circular diffuser with fixed cones and damper

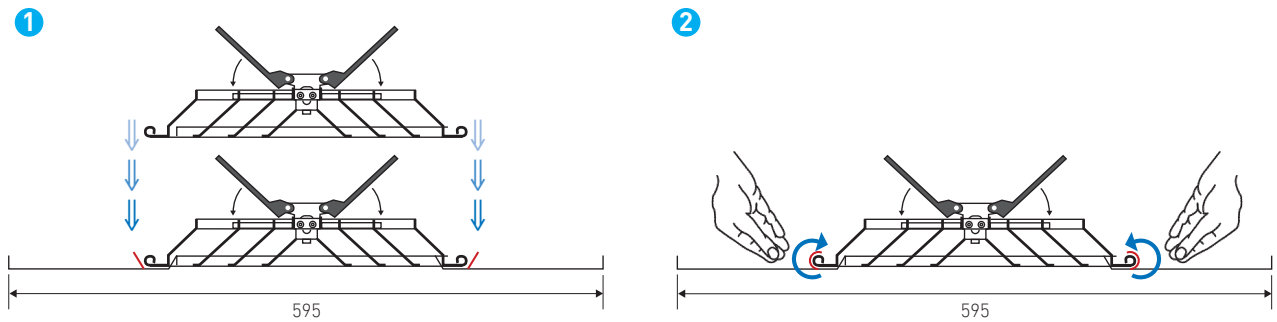
SELECTION TABLE

CFASE Model	A_k m ²	Q [m ³ /h]		L_{WA} [dB(A)]		$X_{(0,25)} - Y_{(0,25)}$ [m]		Dpt [Pa]	
		min	max	min	max	min	max	min	max
150	0,0102	110	280	-	38	1,0	2,1	10	50
200	0,0227	270	670	-	45	1,5	3,2	10	50
250	0,0366	460	1140	24	50	1,9	4,2	10	50
300	0,0519	680	1670	28	53	2,2	5,1	10	50
350	0,0684	920	2260	31	56	2,6	6,0	10	50

QUICK SELECTION CHART



MOUNTING





Product

CSC

Application

Ceiling mounted, supply and return

Construction

Aluminium painted white RAL 9010 with sealing gasket

SPECIFICATION

Circular diffusers with adjustable single cone

MOUNTING

With screws on diffuser neck

ACCESSORIES

Butterfly balancing damper (SF)

Capture damper (SC)

Equalizer (EQ1)

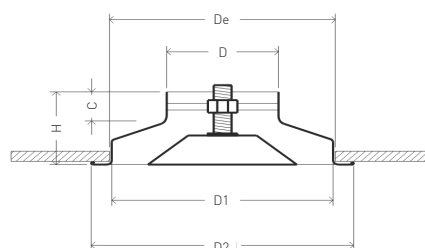
Standard plenum (PCOS)

Insulated plenum (PCOI)

From dn. 150 available on 595x595 mm panel

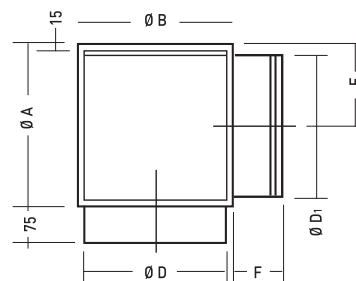
DIMENSIONS

CSC Model	D mm	De mm	D1 mm	D2 mm	C mm	H mm
CSC 100	98	198	194	230	30	75
CSC 150	148	288	280	335	45	105
CSC 160	158	288	280	335	45	105
CSC 200	198	370	360	423	48	118
CSC 250	248	461	445	517	48	130



PLENUM DIMENSIONS PDOS/PDVS

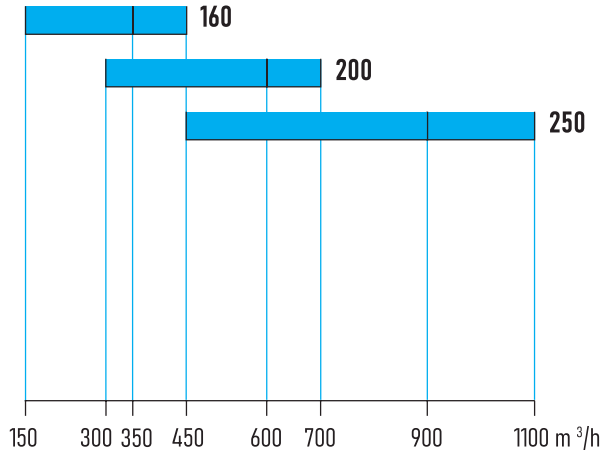
DN mm	ØA mm	ØB mm	ØD int. mm	ØD 1 ext. mm	F mm
160	190	180	160	160	75
200	240	230	200	200	75
250	290	280	250	250	75



Standard/insulated plenum PCOI

Standard/insulated plenum PCOS

QUICK SELECTION CHART



CRV/CRVB

Variable geometry diffuser



Diffusion

Components
for perfect air
distribution in HVAC
systems



Product

CRV/CRVB

Application

Ceiling mounted, supply

Construction

Aluminium bell and steel blades
Epoxy powder paint white RAL9010

Both models are available on 595X595 panel
(CRVQ/CRVBQ)

SPECIFICATION

Variable geometry diffuser with manually adjustable blades and individually (CRV) or simultaneously (CRVB with ABS gears) from 0° (opening Total) or at 90° (total closure).

MOUNTING

Fixing secured by screws positioned on the diffuser neck

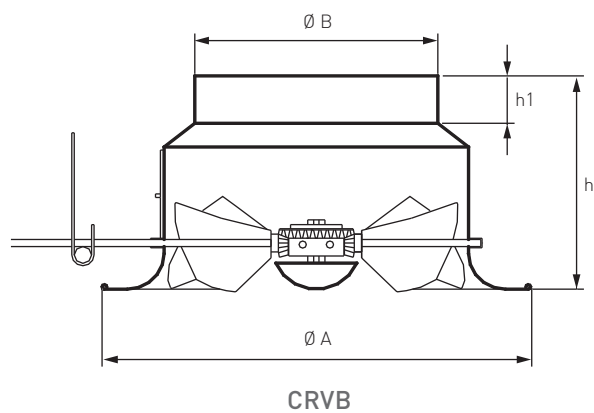
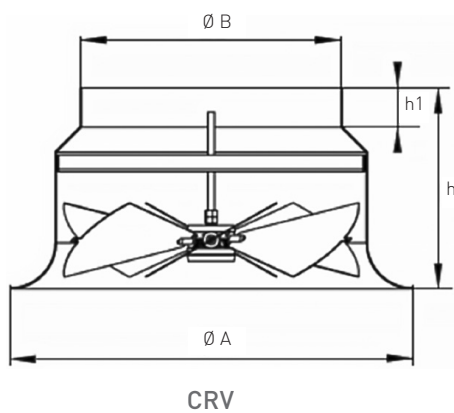
ACCESSORIES

PCOS/I: Galvanised steel plenum
Manual control
Actuator (CRVM) on request
EQ: equalizer on request

DIMENSIONS

CRV/CRVB

Model mm	A mm	B mm	H mm	H1 mm
200	350	198	180	40
250	400	248	205	40
315	500	313	230	40
400	615	398	270	60
500	798	498	320	60
630	935	628	390	80

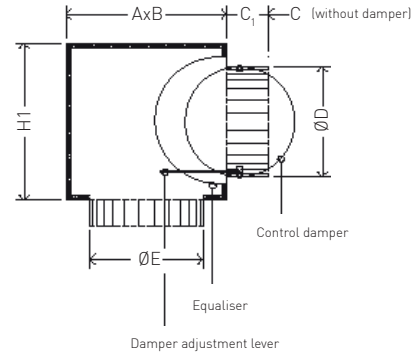


CRV/CRVB

Variable geometry diffuser

PLENUM

Model mm	AxB mm	H1 mm	C mm	C1 mm	D mm	E mm
200	300 x 300	300	60	90	196	202
250	350 x 350	350	60	90	246	252
315	400 x 400	400	60	90	311	317
400	500 x 500	500	90	90	396	402
500	600 x 600	600	100	100	496	503
630	730 x 730	730	100	100	600	633



SELECTION TABLES

Terminal velocity $V_t=0.37$ m/s, isothermal air, blades at 0° . For $\Delta T +10^\circ\text{C}$ (heating) $L_{vert.}=L_{vert.max.} \times 0.25$ noise expressed as L_w at 1 m from the diffuser without room acoustic attenuation

TECHNICAL DATA FOR DIFFUSER WITH BLADES AT 45° - HEATING DN200

Max vertical throw without equalizer [m]	3,40	5,10	6,80	8,50	10,20	11,90	13,60	15,30	17,00
Max vertical throw with equalizer [m]	2,40	3,60	4,80	6,00	7,20	8,40	9,60	10,80	12,00
Outlet Velocity [m/s]	2	3	4	5	6	7	8	9	10
Flow rate [m ³ /h]	222	332	443	554	665	776	886	997	1108
Pressure drop without equalizer [Pa]	10	19	31	44	59	75	92	111	130
Pressure drop with equalizer [Pa]	18	37	63	94	131	173	220	272	329
Noise level (without equalizer) [dB(A)]	28	31	34	37	40	43	46	49	52
Noise level (with equalizer) [dB(A)]	29	33	36	39	42	45	48	51	55

TECHNICAL DATA FOR DIFFUSER WITH BLADES AT 67.5° - COOLING DN200

Max vertical throw without equalizer [m]	3,40	5,10	6,80	8,50	10,20	11,90	13,60	15,30	17,00
Max vertical throw with equalizer [m]	2,40	3,60	4,80	6,00	7,20	8,40	9,60	10,80	12,00
Outlet Velocity [m/s]	2	3	4	5	6	7	8	9	10
Flow rate [m ³ /h]	222	332	443	554	665	776	886	997	1108
Pressure drop without equalizer [Pa]	16	33	55	81	111	145	183	224	269
Pressure drop with equalizer [Pa]	24	51	87	131	183	243	311	386	469
Noise level (without equalizer) [dB(A)]	29	32	35	38	42	45	48	51	56
Noise level (with equalizer) [dB(A)]	30	33	37	41	45	48	51	54	59

TECHNICAL DATA FOR DIFFUSER WITH BLADES AT 45° - HEATING DN250



Max vertical throw without equalizer [m]	3,60	5,40	7,20	9,00	10,80	12,60	14,40	16,20	17,90
Max vertical throw with equalizer [m]	2,50	3,80	5,10	6,30	7,60	8,90	10,10	11,40	12,70
Outlet Velocity [m/s]	2	3	4	5	6	7	8	9	10
Flow rate [m ³ /h]	348	521	695	869	1043	1217	1390	1564	1738
Pressure drop without equalizer [Pa]	12	23	37	53	71	91	112	135	160
Pressure drop with equalizer [Pa]	20	41	69	103	143	189	240	297	359
Noise level (without equalizer) [dB(A)]	36	39	42	45	48	51	54	57	60
Noise level (with equalizer) [dB(A)]	37	41	44	47	50	53	56	59	63

TECHNICAL DATA FOR DIFFUSER WITH BLADES AT 67.5° - COOLING DN250

Max vertical throw without equalizer [m]	3,60	5,40	7,20	9,00	10,80	12,60	14,40	16,20	17,90
Max vertical throw with equalizer [m]	2,50	3,80	5,10	6,30	7,60	8,90	10,10	11,40	12,70
Outlet Velocity [m/s]	2	3	4	5	6	7	8	9	10
Flow rate [m ³ /h]	521	695	869	1043	1217	1390	1564	1738	1738
Pressure drop without equalizer [Pa]	20	42	70	104	143	187	237	292	351
Pressure drop with equalizer [Pa]	28	60	102	153	215	285	365	453	551
Noise level (without equalizer) [dB(A)]	37	40	43	46	50	53	56	59	63
Noise level (with equalizer) [dB(A)]	38	41	45	49	53	56	59	62	66

TECHNICAL DATA FOR DIFFUSER WITH BLADES AT 45° - HEATING DN315

Max vertical throw without equalizer [m]	3,60	5,40	7,20	9,00	10,80	12,60	14,40	16,20	17,90
Max vertical throw with equalizer [m]	2,50	3,80	5,10	6,30	7,60	8,90	10,10	11,40	12,70
Outlet Velocity [m/s]	2	3	4	5	6	7	8	9	10
Flow rate [m ³ /h]	554	831	1107	1384	1661	1938	2215	2492	2769
Pressure drop without equalizer [Pa]	13	27	43	62	84	108	135	163	193
Pressure drop with equalizer [Pa]	21	45	75	112	156	206	262	325	393
Noise level (without equalizer) [dB(A)]	35	38	41	44	47	50	53	56	59
Noise level (with equalizer) [dB(A)]	37	40	44	47	51	54	58	61	64

TECHNICAL DATA FOR DIFFUSER WITH BLADES AT 67.5° - COOLING DN315

Max vertical throw without equalizer [m]	3,60	5,40	7,20	9,00	10,80	12,60	14,40	16,20	17,90
Max vertical throw with equalizer [m]	2,50	3,80	5,10	6,30	7,60	8,90	10,10	11,40	12,70
Outlet Velocity [m/s]	2	3	4	5	6	7	8	9	10
Flow rate [m³/h]	554	831	1107	1384	1661	1938	2215	2492	2769
Pressure drop without equalizer [Pa]	25	53	88	131	182	239	303	374	451
Pressure drop with equalizer [Pa]	33	71	120	181	254	337	431	535	650
Noise level (without equalizer) [dB(A)]	36	39	42	46	49	53	56	60	63
Noise level (with equalizer) [dB(A)]	38	42	45	49	53	57	61	65	68

TECHNICAL DATA FOR DIFFUSER WITH BLADES AT 45° - HEATING DN400

Max vertical throw without equalizer [m]	3,60	5,40	7,20	9,00	10,80	12,60	14,40	16,20	17,90
Max vertical throw with equalizer [m]	2,50	3,80	5,10	6,30	7,60	8,90	10,10	11,40	12,70
Outlet Velocity [m/s]	2	3	4	5	6	7	8	9	10
Flow rate [m³/h]	895	1343	1791	2238	2686	3134	3581	4029	4476
Pressure drop without equalizer [Pa]	16	31	50	73	99	128	160	195	231
Pressure drop with equalizer [Pa]	24	49	82	123	171	226	288	356	431
Noise level (without equalizer) [dB(A)]	33	37	41	46	51	56	61	66	71
Noise level (with equalizer) [dB(A)]	35	41	47	52	57	62	67	72	78

TECHNICAL DATA FOR DIFFUSER WITH BLADES AT 67.5° - COOLING DN400

Max vertical throw without equalizer [m]	3,60	5,40	7,20	9,00	10,80	12,60	14,40	16,20	17,90
Max vertical throw with equalizer [m]	2,50	3,80	5,10	6,30	7,60	8,90	10,10	11,40	12,70
Outlet Velocity [m/s]	2	3	4	5	6	7	8	9	10
Flow rate [m³/h]	895	1343	1791	2238	2686	3134	3581	4029	4476
Pressure drop without equalizer [Pa]	32	66	111	165	229	302	384	474	573
Pressure drop with equalizer [Pa]	40	84	143	215	301	400	512	636	772
Noise level (without equalizer) [dB(A)]	34	38	43	48	53	58	63	68	73
Noise level (with equalizer) [dB(A)]	36	42	48	54	60	65	70	76	81



TECHNICAL DATA FOR DIFFUSER WITH BLADES AT 45° - HEATING DN500

Max vertical throw without equalizer [m]	3,60	5,40	7,20	9,00	10,80	12,60	14,40	16,20	17,90
Max vertical throw with equalizer [m]	2,50	3,80	5,10	6,30	7,60	8,90	10,10	11,40	12,70
Outlet Velocity [m/s]	2	3	4	5	6	7	8	9	10
Flow rate [m³/h]	1402	2103	2803	3504	4205	4906	5607	6308	7009
Pressure drop without equalizer [Pa]	18	35	58	84	115	149	186	227	270
Pressure drop with equalizer [Pa]	26	53	90	134	187	247	314	338	470
Noise level (without equalizer) [dB(A)]	32	36	40	45	50	55	60	65	70
Noise level (with equalizer) [dB(A)]	34	40	46	51	56	61	66	71	77

TECHNICAL DATA FOR DIFFUSER WITH BLADES AT 67.5° - COOLING DN500

Max vertical throw without equalizer [m]	3,60	5,40	7,20	9,00	10,80	12,60	14,40	16,20	17,90
Max vertical throw with equalizer [m]	2,50	3,80	5,10	6,30	7,60	8,90	10,10	11,40	12,70
Outlet Velocity [m/s]	2	3	4	5	6	7	8	9	10
Flow rate [m³/h]	1402	2103	2803	3504	4205	4906	5607	6308	7009
Pressure drop without equalizer [Pa]	39	81	136	203	282	372	473	585	707
Pressure drop with equalizer [Pa]	47	99	167	253	354	470	601	747	907
Noise level (without equalizer) [dB(A)]	33	37	42	47	52	57	62	67	72
Noise level (with equalizer) [dB(A)]	35	41	47	53	59	64	69	75	80

TECHNICAL DATA FOR DIFFUSER WITH BLADES AT 45° - HEATING DN600

Max vertical throw without equalizer [m]	3,60	5,40	7,20	9,00	10,80	12,60	14,40	16,20	17,90
Max vertical throw with equalizer [m]	2,50	3,80	5,10	6,30	7,60	8,90	10,10	11,40	12,70
Outlet Velocity [m/s]	2	3	4	5	6	7	8	9	10
Flow rate [m³/h]	2229	3344	4458	5573	6687	7802	8916	10031	11145
Pressure drop without equalizer [Pa]	20	40	66	97	132	172	216	263	314
Pressure drop with equalizer [Pa]	28	58	98	147	204	270	343	425	514
Noise level (without equalizer) [dB(A)]	38	42	46	51	56	61	66	71	76
Noise level (with equalizer) [dB(A)]	40	44	48	53	58	63	68	73	78

CRV/CRVB

Variable geometry diffuser

TECHNICAL DATA FOR DIFFUSER WITH BLADES AT 67.5° - COOLING DN600

Max vertical throw without equalizer [m]	3,60	5,40	7,20	9,00	10,80	12,60	14,40	16,20	17,90
Max vertical throw with equalizer [m]	2,50	3,80	5,10	6,30	7,60	8,90	10,10	11,40	12,70
Outlet Velocity [m/s]	2	3	4	5	6	7	8	9	10
Flow rate [m³/h]	2229	3344	4458	5573	6687	7802	8916	10031	11145
Pressure drop without equalizer [Pa]	47	98	166	249	346	457	582	720	871
Pressure drop with equalizer [Pa]	55	116	198	298	418	555	710	882	1071
Noise level (without equalizer) [dB(A)]	39	43	48	53	58	63	68	73	78
Noise level (with equalizer) [dB(A)]	41	47	53	59	65	70	75	81	86

For the motorised version (CRV M), Belimo (or similar brand) actuator is recommended in the following models.

FOR MODELS UP TO Ø 315

BELIMO LM 24 A - ON/OFF

BELIMO LM 24 ASR - MODULATING

FOR MODELS Ø 400 AND Ø 500

BELIMO NM 24 A - ON/OFF

BELIMO NM 24 ASR - MODULATING

FOR MODELS Ø 630

BELIMO SM 24 A - ON/OFF

BELIMO SM 24 ASR - MODULATING

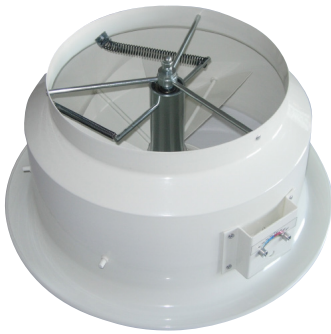
CRVT

Variable geometry diffuser with thermostatic actuator



Diffusion

Components
for perfect air
distribution in HVAC
systems



Product

CRVT

Application

Duct, ceiling or plenum mounted
Installation height: 3.5-26 m

Construction

Aluminium bell and steel blades
Finish: white RAL 9010 epoxy powder coating

SPECIFICATION

Variable geometry diffuser with thermostatic actuator.

The diffuser blade adjustment is automatic, without the need for electrical power, by means of a thermostatic actuator made of special Nickel-Titanium shape memory materials

The CRVT has the advantage of not requiring any initial pre-adjustment

OPERATION

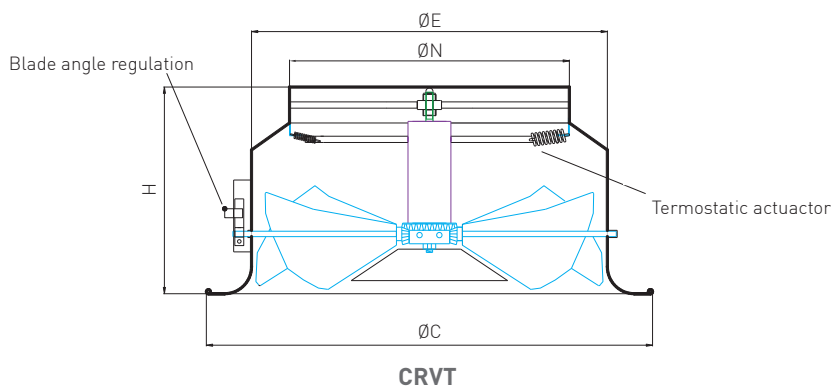
Deflection angle adjustment by means of mechanical stop limits assisted by a coloured graduated scale. When the supply air is warm (heating) the actuator will direct the flow ver

OPERATING TEMPERATURE

Temperature range 15-40°C

DIMENSIONS

CRVT Model	Ø N mm	Ø C mm	Ø E mm	Ø H mm
200	198	350	248	180
250	248	400	298	205
315	313	500	398	230
400	398	615	465	270
500	498	780	565	320
630	628	935	665	390

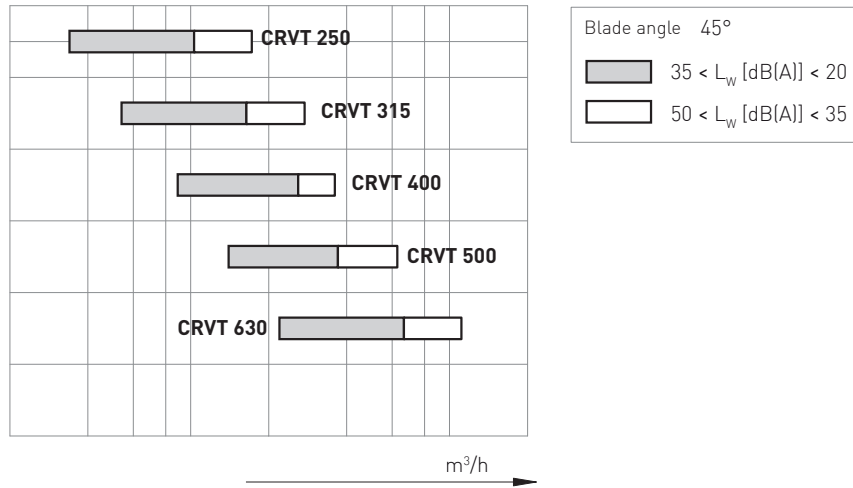


CRVT

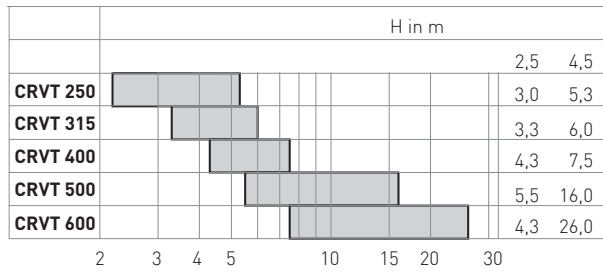
Variable geometry diffuser with thermostatic actuator

QUICK SELECTION DIAGRAM

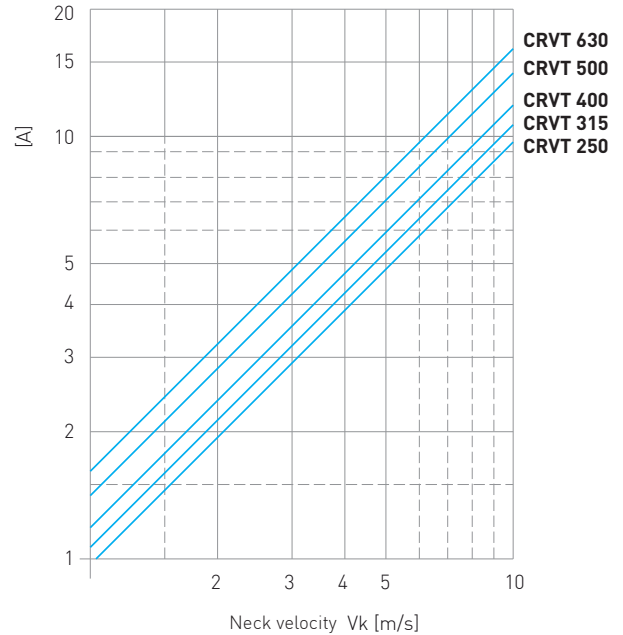
SOUND POWER LEVEL AND FLOW RATE



NOMINAL MOUNTING HEIGHT

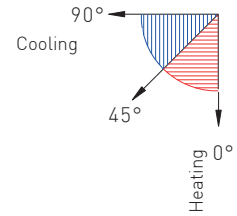


MINIMUM DISTANCE [A]

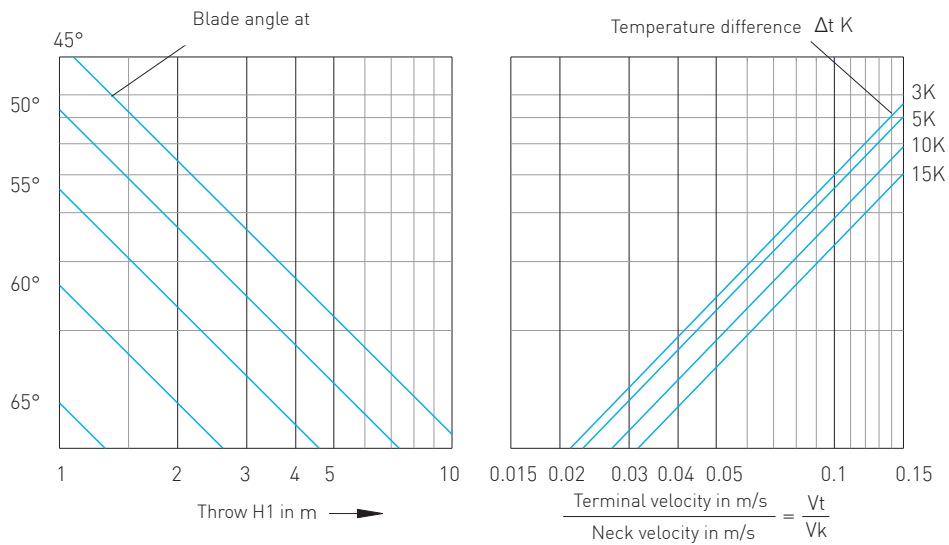




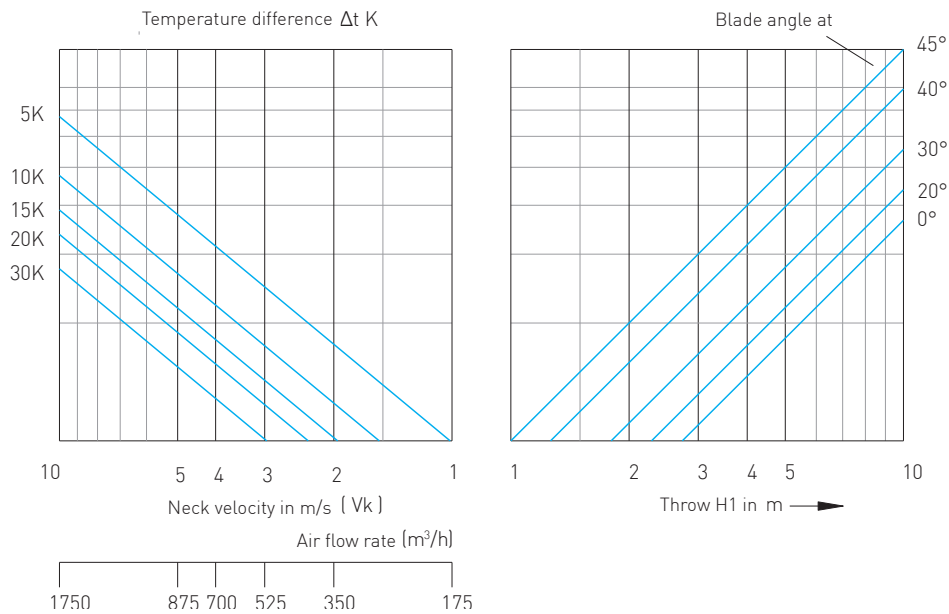
BLADE ANGLE SELECTION CRVT 250



COOLING



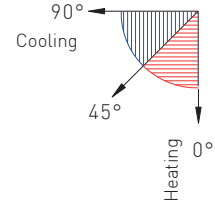
HEATING



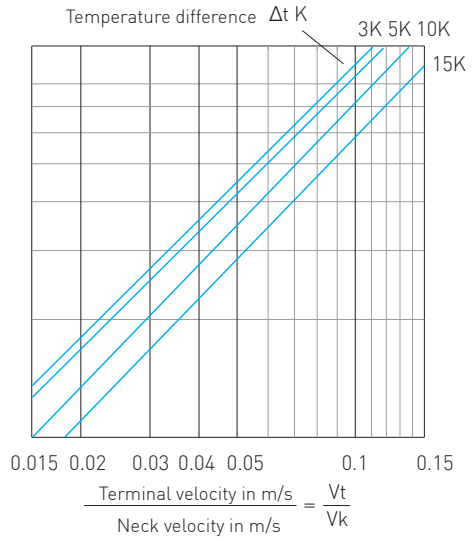
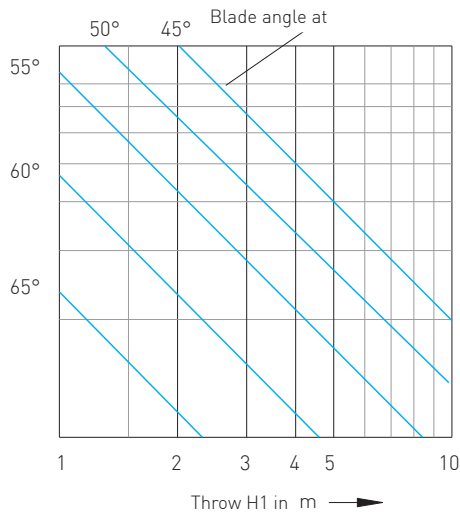
CRVT

Variable geometry diffuser with thermostatic actuator

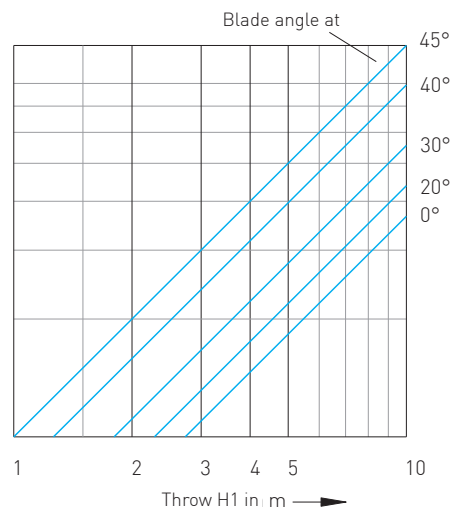
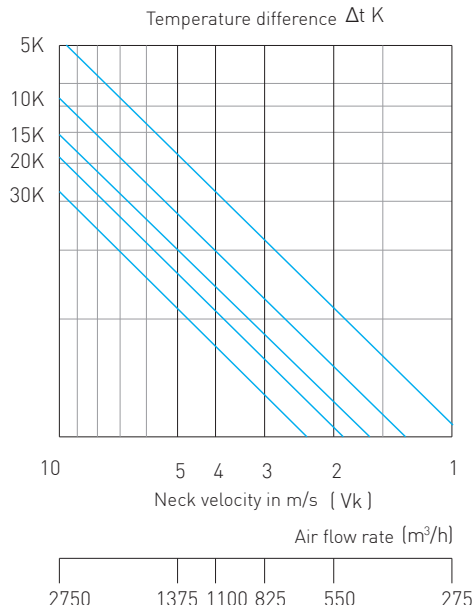
BLADE ANGLE SELECTION CRVT 315



COOLING

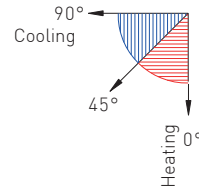


HEATING

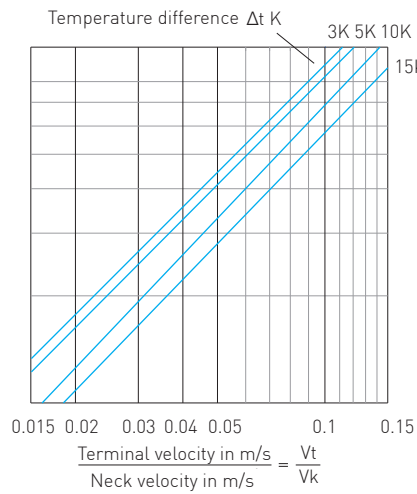
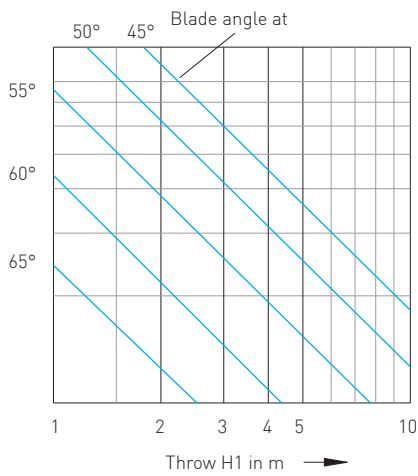




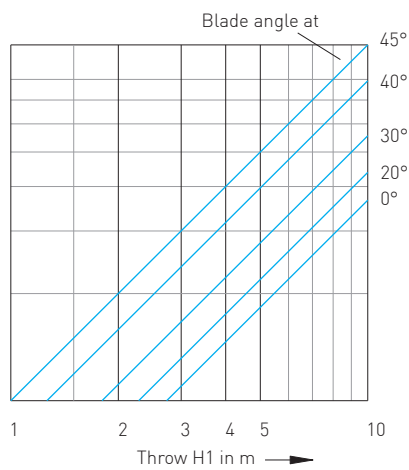
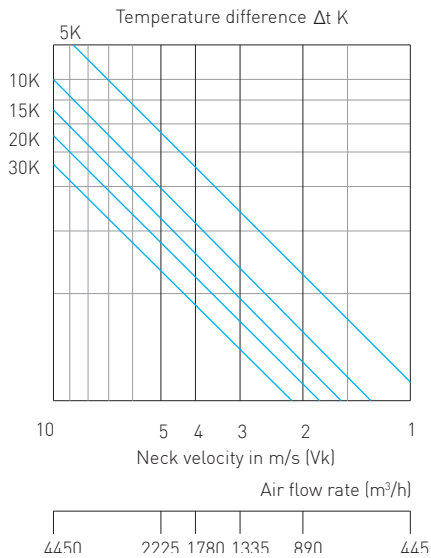
BLADE ANGLE SELECTION CRVT 400



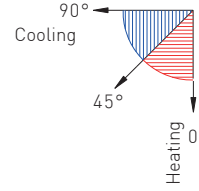
COOLING



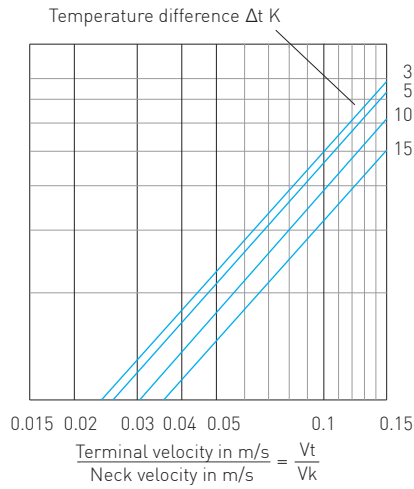
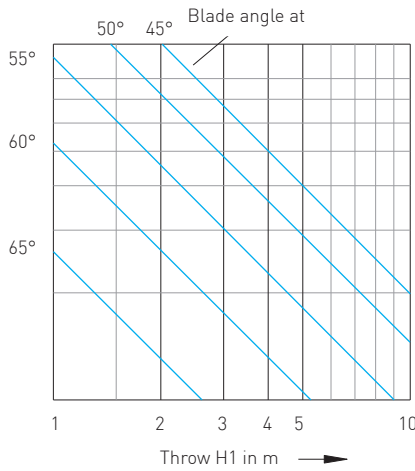
HEATING



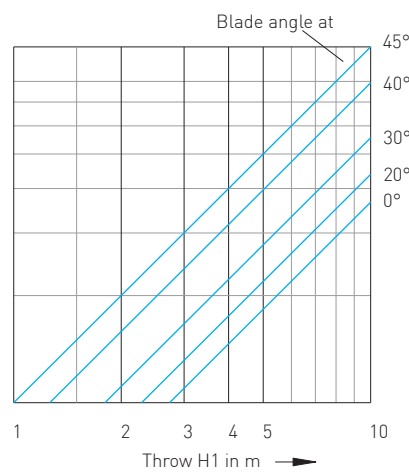
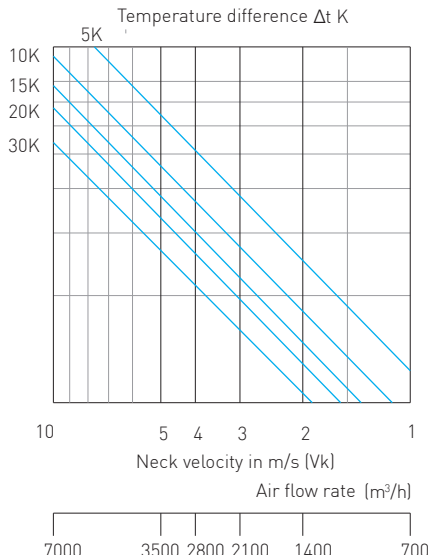
BLADE ANGLE SELECTION CRVT 500



COOLING

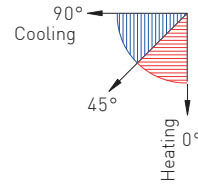


HEATING

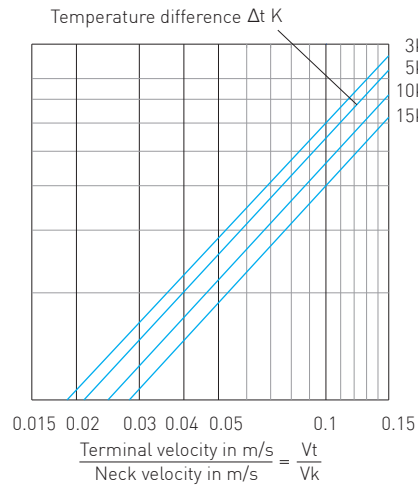
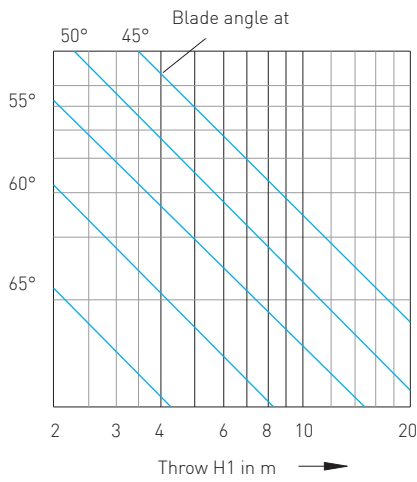




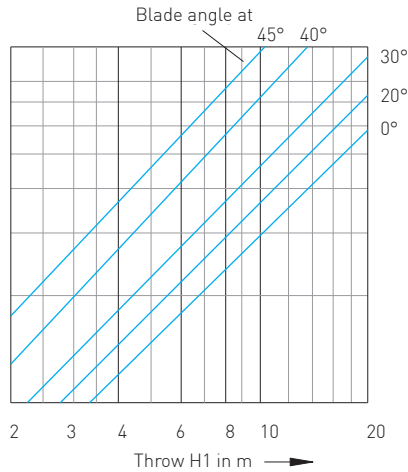
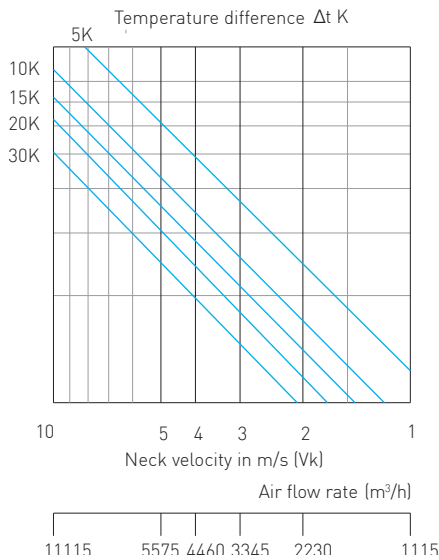
BLADE ANGLE SELECTION CRVT 630



COOLING

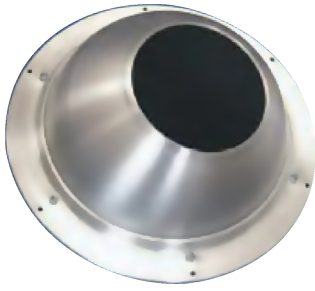


HEATING



ULG

Long-throw nozzle diffuser



Product

ULG

Application

Wall or ceiling mounted, supply

Construction

Made in aluminium, weld-free
Natural satin with transparent primer

SPECIFICATION

Long-throw nozzle diffuser.
Deep manually adjustable
In any direction with a maximum angle of 30°.

MOUNTING

Front screw mounting directly on duct,
with circular duct adapter or flexible duct
adapter.

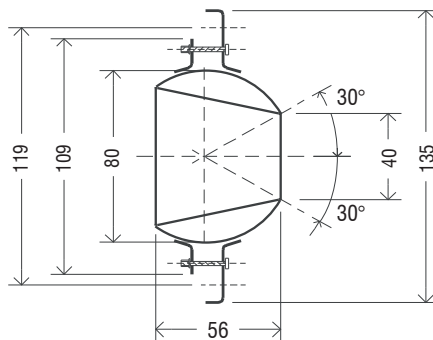
ACCESSORIES

Actuator (ULGM)
Double disc perforated damper
Screw cover ring
Twist
Circular duct adapter
Flexible duct adapter

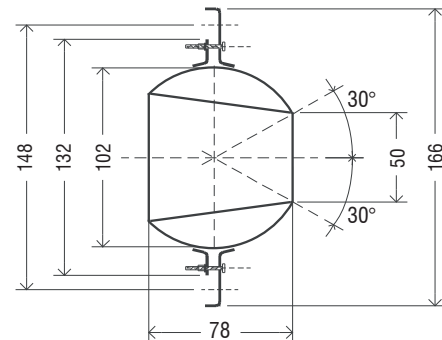
OPTIONS

RAL 9010 painting on request

DIMENSIONS



ULG 40

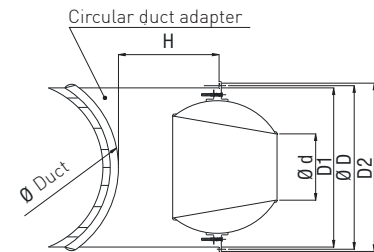


ULG 50



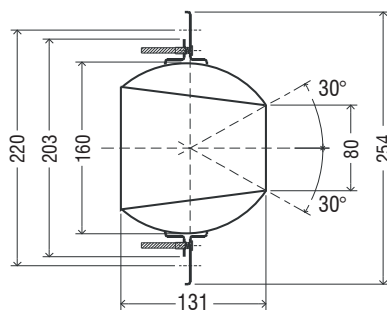
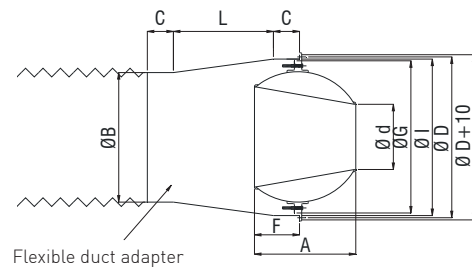
DIMENSIONS FOR CIRCULAR DUCT ADAPTER

Model	360° holes n.	D mm	d mm	D1 mm	D2 mm	H mm	Ø Duct mm
ULG 40	3F Ø4,2	119	40	109	129	150	160-450
ULG 50	3F Ø4,2	148	50	138	158	150	200-500

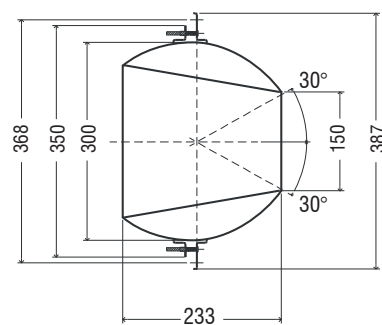


DIMENSIONS FOR FLEXIBLE DUCT ADAPTER

Model	D mm	d mm	A mm	F mm	B mm	G mm	I mm	L mm	C mm
ULG 40	119	40	56	22	78	109	113	40	40
ULG 50	148	50	78	30	98	132	138	40	60



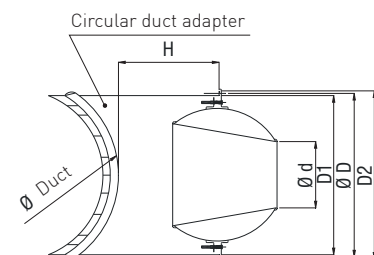
ULG 80



ULG 150

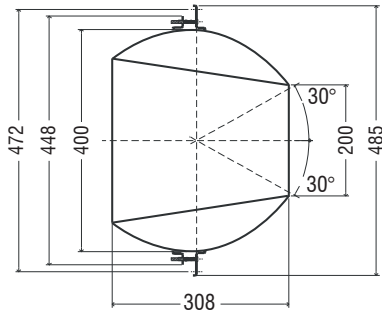
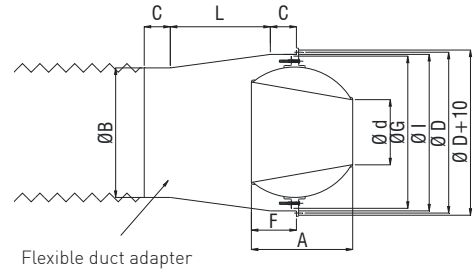
DIMENSIONS FOR CIRCULAR DUCT ADAPTER

Model	360° holes n.	D mm	d mm	D1 mm	D2 mm	H mm	Ø Duct mm
ULG 80	3F Ø5	220	80	210	230	200	160-450
ULG 150	3F Ø5	368	150	358	378	300	500-800

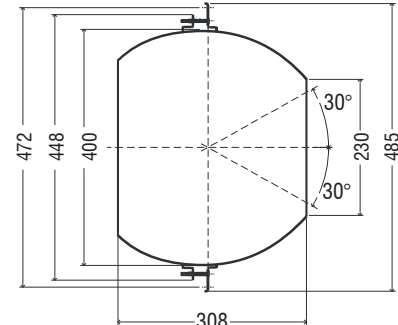


DIMENSIONS FOR FLEXIBLE DUCT ADAPTER

Model	D	d	A	F	B	G	I	L	C
	mm	mm	mm	mm	mm	mm	mm	mm	mm
ULG 80	220	80	131	57	158	203	210	100	60
ULG 150	368	150	233	103	288	350	358	170	60



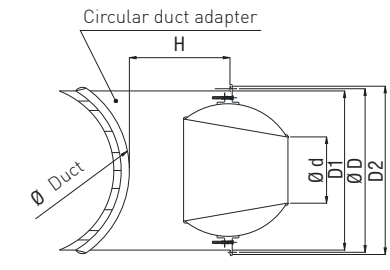
ULG 200



ULG 230

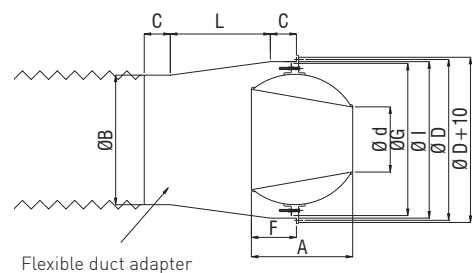
DIMENSIONS FOR CIRCULAR DUCT ADAPTER

Model	360° holes	D	d	D1	D2	H	Ø Duct
	n.	mm	mm	mm	mm	mm	mm
ULG 200	6F Ø5	472	200	460	480	350	500-1000
ULG 230	6F Ø5	472	230	460	480	350	500-1000



DIMENSIONS FOR FLEXIBLE DUCT ADAPTER

Model	D	d	A	F	B	G	I	L	C
	mm	mm	mm	mm	mm	mm	mm	mm	mm
ULG 200	472	200	308	141	398	448	462	170	230
ULG 230	472	230	308	141	398	448	462	170	230





Diffusion

Components
for perfect air
distribution in HVAC
systems

QUICK SELECTION TABLE

Throw [m]	8	10	12	15	20	25	30
Noise level NR dB	12	17	22	27	32	37	42
Churches/libraries							
Open offices, exhibitions							
Industrial buildings							
Velocity VK [m/s]	5	6	7	8	10	12	14
Pressure Drop [Pa]	30	38	48	60	85	120	170
Flow rate [m ³ /h]							
ULG 40	20	27	31	36	45	54	
ULG 50	40	48	55	64	81	97	
ULG 80	90	110	130	140	180	220	
ULG 150	320	380	450	510	640	760	
ULG 200	570	680	790	900	1130	1360	1580
ULG 230	600	865	970	1154	1442	1730	2019

		ULG 40	ULG 50	ULG 80	ULG 150	ULG 200	ULG 230
Minimum distance	mm	150	150	350	500	600	600
Minimum height	m	2,0	2,0	2,8	3,0	3,5	3,5
Maximum height	m	3,8	4,0	4,0	7,0	8,0	11,0

ULGL

Long-throw nozzle diffuser with extended neck



Product

ULGL

Application

Wall or ceiling mounted, supply

Construction

Made in aluminium, weld-free
Natural satin with transparent primer

SPECIFICATION

Long-throw nozzle diffuser
deep manually adjustable
In any direction with a maximum angle of 30°.

MOUNTING

Front screw mounting
directly on duct, with
circular duct connector or with
flexible duct adapter

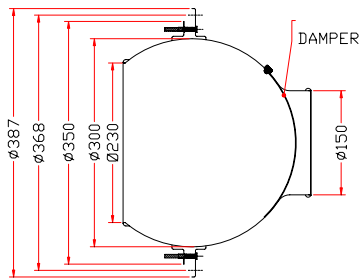
ACCESSORIES

Damper (ULGLS)
Screw cover ring
Twist
Circular duct adapter
Flexible duct adapter

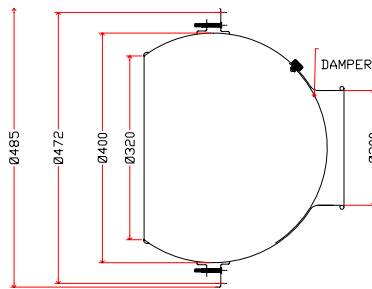
OPTIONS

RAL 9010 painting on request

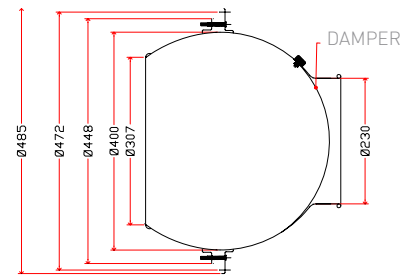
DIMENSIONS



ULGL 150



ULGL 200



ULGL 230



ULGL 150

QUICK SELECTION TABLE

Noise level	Nr dB	< 20	20	25	30	35	40	45	50	> 55
Churches, libraries		██████████		██████████		██████████		██████████		██████████
Hospitals		██████████		██████████		██████████		██████████		██████████
Apartments, offices		██████████		██████████		██████████		██████████		██████████
Commercial buildings		██████████		██████████		██████████		██████████		██████████

Installation height (m)	min	2.6	2.7	2.8	3	3.2	3.4	3.6	3.8	4.2
	max	5.2	5.4	5.6	5.8	6	6.2	6.4	6.6	7
Outlet velocity V _k	m/s	2	4	6	8	10	12	14	16	20
Pressure drop	Pa	2	10	23	42	68	99	136	180	287
Flow rate	mc/h	129	258	387	516	644	773	902	1031	1289
Throw	m	4,0	8,0	11,9	15,9	19,9	23,9	27,8	31,8	39,8

Terminal velocity V_t=0.37 m/s)

ULGL 200

QUICK SELECTION TABLE

Noise level	Nr dB	< 20	20	25	30	35	40	45	50	> 55
Churches, libraries		██████████		██████████		██████████		██████████		██████████
Hospitals		██████████		██████████		██████████		██████████		██████████
Apartments, offices		██████████		██████████		██████████		██████████		██████████
Commercial buildings		██████████		██████████		██████████		██████████		██████████

Installation height (m)	min	3.4	3.6	3.8	4	4.2	4.4	4.6	4.8	5.2
	max	6.6	7.7	8.7	9.4	10	10.5	11	11.5	11.5
Outlet velocity V _k	m/s	2	4	6	8	10	12	14	16	20
Pressure drop	Pa	2	9	21	38	60	89	122	161	257
Flow rate	mc/h	221	443	664	886	1107	1329	1550	1772	2214
Throw	m	5,2	10,5	15,7	21,0	26,2	31,5	36,7	41,9	52,4

Terminal velocity V_t=0.37 m/s)

ULGL

Long-throw nozzle diffuser with extended neck

ULGL 230

QUICK SELECTION TABLE

Noise level	Nr dB	< 20	20	25	30	35	40	45	50	> 55
Churches, libraries		████████████████████								
Hospitals		████████████████████								
Apartments, offices			████████████████████							
Commercial buildings				████████████████████						

Installation height (m)	min	3.4	3.6	3.8	4	4.2	4.4	4.6	4.8	5.2
	max	6.6	7.7	8.7	9.4	10	10.5	11	11.5	11.5
Outlet velocity V _k	m/s	2	4	6	8	10	12	14	16	20
Pressure drop	Pa	2	8	19	35	56	81	112	149	237
Flow rate	mc/h	289	577	866	1155	1444	1732	2021	2310	2887
Throw	m	6,0	11,9	17,9	23,8	29,8	35,7	41,7	47,6	59,5

Terminal velocity V_t=0.37 m/s)

ULGT

Long-throw nozzle diffuser with thermostatic actuator



Diffusion

Components
for perfect air
distribution in HVAC
systems



Product

ULGT

Application

Wall or ceiling mounted, supply

Construction

Made in aluminium, weld-free
Natural satin with transparent primer

SPECIFICATION

Adjustable nozzle diffuser
in any direction with an inclination
maximum of 30°, adjustment
is automatic by means of a
thermostatic actuator

MOUNTING

Front screw mounting
directly on duct, with
circular duct connector or with
flexible duct adapter

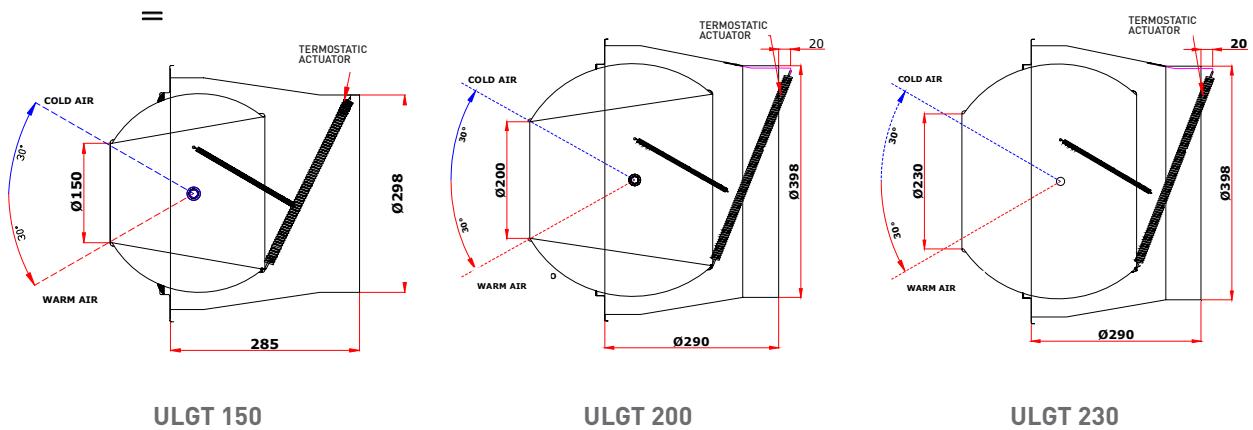
ACCESSORIES

Circular duct adapter
Rectangular duct connector

OPTIONS

RAL 9010 painting on request

DIMENSIONS



ULGT

Long-throw nozzle diffuser with thermostatic actuator

ULGT 150

QUICK SELECTION TABLE

Noise level	Nr dB	< 20	20	25	30	35	40	45	50	> 55
Churches, libraries		■		■		■		■		■
Hospitals		■			■			■		■
Apartments, offices		■				■			■	
Commercial buildings		■					■			
Installation height (m)	min	2.6	2.7	2.8	3	3.2	3.4	3.6	3.8	4.2
	max	5.2	5.4	5.6	5.8	6	6.2	6.4	6.6	7
Outlet velocity V _k	m/s	2	4	6	8	10	12	14	16	20
Pressure drop	Pa	2	8	19	35	56	82	113	149	238
Flow rate	mc/h	129	257	386	514	643	771	900	1029	1286
Throw	m	4.3	8.5	12.8	17	21.3	25.5	29.8	34	42.5

Terminal velocity V_t=0.37 m/s)

ULGT 200

QUICK SELECTION TABLE

Noise level	Nr dB	< 20	20	25	30	35	40	45	50	> 55
Churches, libraries		■		■		■		■		■
Hospitals		■			■			■		■
Apartments, offices		■				■			■	
Commercial buildings		■					■			
Installation height (m)	min	3.4	3.6	3.8	4	4.2	4.4	4.6	4.8	5.2
	max	6.6	7.7	8.7	9.4	10	10.5	11	11.5	11.5
Outlet velocity V _k	m/s	2	4	6	8	10	12	14	16	20
Pressure drop	Pa	2	7	17	31	49	72	99	131	210
Flow rate	mc/h	221	443	664	886	1107	1329	1550	1772	2214
Throw	m	4.3	8.6	13	13.6	17.3	26	30.2	34.6	43.2

Terminal velocity V_t=0.37 m/s)



ULGT 230

QUICK SELECTION TABLE

Noise level	Nr dB	< 20	20	25	30	35	40	45	50	> 55	
Churches, libraries		██████████									
Hospitals		██████████████████									
Apartments, offices		██████████████████████████████									
Commercial buildings		██									

Installation height (m)	min	3.4	3.6	3.8	4	4.2	4.4	4.6	4.8	5.2
	max	6.6	7.7	8.7	9.4	10	10.5	11	11.5	11.5
Outlet velocity V _k	m/s	2	4	6	8	10	12	14	16	20
Pressure drop	Pa	2	7	16	29	46	68	93	123	197
Flow rate	mc/h	288	577	865	1154	1442	1730	2019	2307	2884
Throw	m	4.6	9.1	13.7	18.2	22.8	27.4	31.9	36.5	45.6

Terminal velocity V_t=0.37 m/s

QUICK SELECTION TABLE

Throw [m]	8	10	12	15	20	25	30
Noise level NR dB	12	17	22	27	32	37	42
Churches/libraries	██████████████████						
Open offices, exhibitions	██████████████████████████████						
Industrial buildings							
Velocity V _K [m/s]	5	6	7	8	10	12	14
Pressure Drop [Pa]	30	38	48	60	85	120	170
Flow rate [m ³ /h]							
ULGT 150	320	380	450	510	640	760	
ULGT 200	570	680	790	900	1130	1360	1580
ULGT 230	600	865	970	1154	1442	1730	2019

		ULGT 150	ULGT 200	ULGT 230
Minimum distance	mm	500	600	600
Minimum height	m	3,0	3,5	3,5
Maximum height	m	7,0	8,0	11,0

SAPZ

Long-throw nozzle diffuser



Product

SAPZ

Application

Wall or ceiling mounted, supply

Construction

Made of aluminium and epoxy powder coated in RAL9010

SPECIFICATION

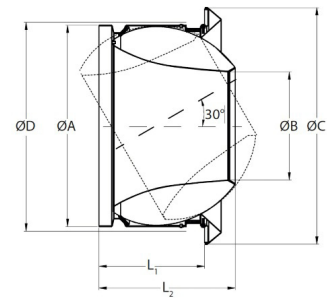
Long throw nozzle diffuser
adjustable with a maximum angle of 30°

MOUNTING

Concealed screw fixing.

DIMENSIONS

Model mm	Ø A mm	Ø B mm	Ø C mm	Ø D mm	L1 mm	L2 mm
125	123	60	175	130	72	100
160	158	80	210	165	90	120
200	198	105	266	205	109	143
250	248	128	315	255	135	180
315	313	165	395	320	173	230
400	398	210	500	405	195	260



SAPZ



Diffusion

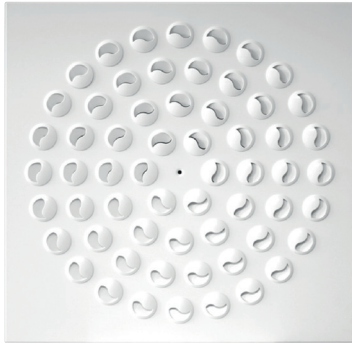
Components
for perfect air
distribution in HVAC
systems

SELECTION TABLE

Flow rate MC/H	Ø AEFF (M2)	125 0,0028	160 0,005	200 0,0087	250 0,0129	315 0,0214	400 0,0346
60	VEFF [m/s]	6	3,3				
	LTH [m]	15	9				
	PS (PA)	18	6				
	LW (DBA)	<25	<25	3,2			
100	VEFF [m/s]	9,9	5,6				
	LTH [m]	39	14	12,40			
	PS (PA)	45	18	8			
	LW (DBA)	<25	<25	<25	4,3		
200	VEFF [m/s]		11,1	6,4			
	LTH [m]		28	24,50	19,40		
	PS (PA)		75	33	13		
	LW (DBA)		26	<25	<25		
300	VEFF [m/s]			9,6	6,5	3,9	
	LTH [m]			37	29	22,60	
	PS (PA)			73	21	11	
	LW (DBA)			26	<25	<25	
400	VEFF [m/s]			12,8	8,6	5,2	
	LTH [m]			49	38	30	
	PS (PA)			130	52	19	
	LW (DBA)			34	<25	<25	
600	VEFF [m/s]				12,9	7,8	4,8
	LTH [m]				58	45	33
	PS (PA)				118	43	12
	LW (DBA)				33	<25	<25
800	VEFF [m/s]				17,2	10,4	6,4
	LTH [m]				77	60	43
	PS (PA)				210	77	21
	LW (DBA)				41	31	<25
1000	VEFF [m/s]					13	8
	LTH [m]					75	54
	PS (PA)					120	33
	LW (DBA)					38	27
1250	VEFF [m/s]					16,2	10
	LTH [m]					94	68
	PS (PA)					188	52
	LW (DBA)					44	33
1500	VEFF [m/s]						12
	LTH [m]						82
	PS (PA)						75
	LW (DBA)						38
2000	VEFF [m/s]						16,1
	LTH [m]						>100
	PS (PA)						133
	LW (DBA)						46

DURCP

Diffuser with adjustable nozzles



Product

DURCP

Application

Ceiling mounted, supply. Installation height: 2.6 - 4.1 m

Construction

White RAL 9016 painted steel, white RAL 9016 ABS micro-nozzles

SPECIFICATION

Diffuser with adjustable nozzles on panel

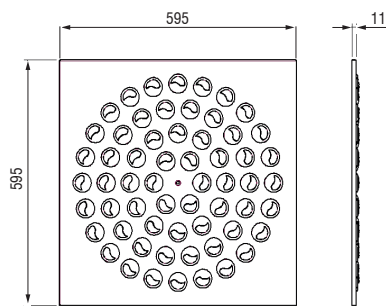
MOUNTING

Side screw or centre screw mounting on mounting bridge (on request)

OPTIONS

PQOS/PQVS Standard or insulated galvanised steel plenum.
PQOP Polystyrene plenum

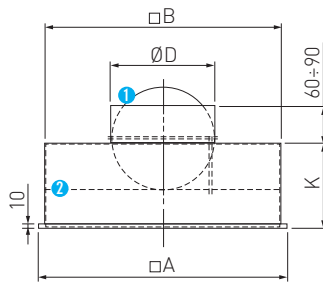
DRAWINGS



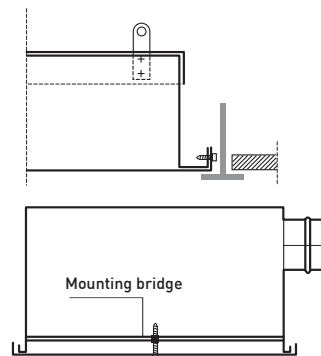
DURCP

LEGEND

- 1 Damper control
- 2 Grid equalizer



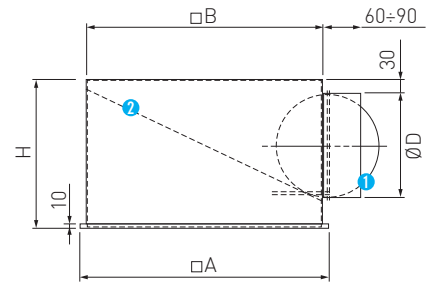
PQVS-PQVI



MOUNTING DETAIL

LEGEND

- 1 Control damper
- 2 Grid equalizer



PQOS-PQOI

DURP

Diffuser with adjustable nozzles



Product

DURP

Application

Ceiling mounted, supply. Installation height: 2.6 - 4.1 m

Construction

White RAL 9016 painted steel, white RAL 9016 ABS micro-nozzles

SPECIFICATION

Diffuser with adjustable nozzles on panel

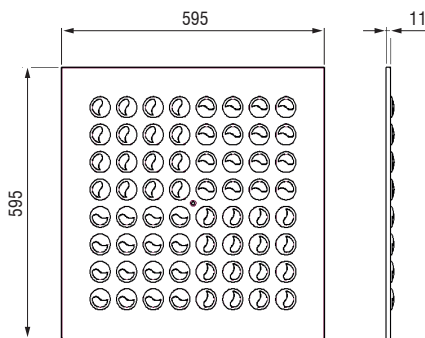
MOUNTING

Side screw or centre screw mounting on mounting bridge (on request)

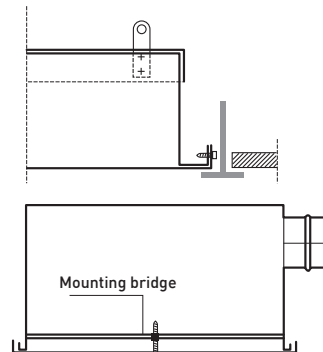
OPTIONS

PQOS/PQVS Standard or insulated galvanized steel plenum, with or without equalizer grid, balancing damper and mounting bridge (on request).
PQOP Polystyrene plenum

DRAWINGS



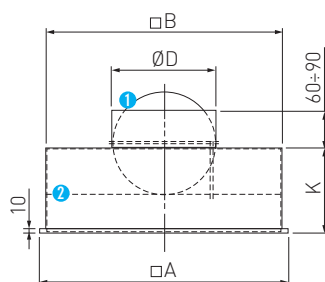
DURP



MOUNTING DETAIL

LEGEND

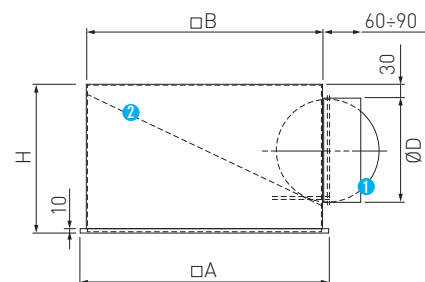
- 1 Damper control
- 2 Grid equalizer



PQVS-PQVI

LEGEND

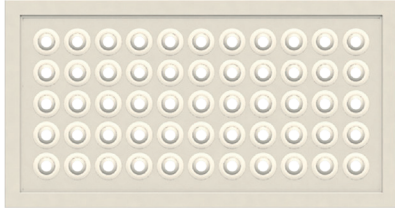
- 1 Damper control
- 2 Grid equalizer



PQOS-PQOI

DMURP

Diffuser with adjustable micro-nozzles



Product

DMURP

Construction

Material: Steel plate, aluminium frame, white nylon nozzles

Finish

White RAL 9016

SPECIFICATION

Adjustable micro nozzle diffuser on rectangular panel

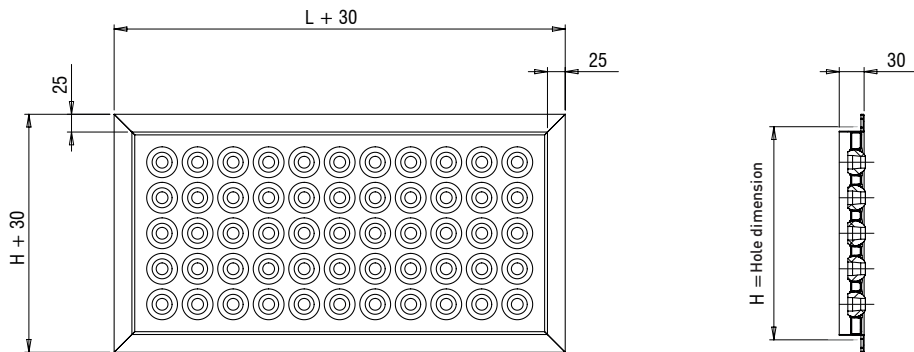
MOUNTING

Installation by screws (standard), clips (on request)

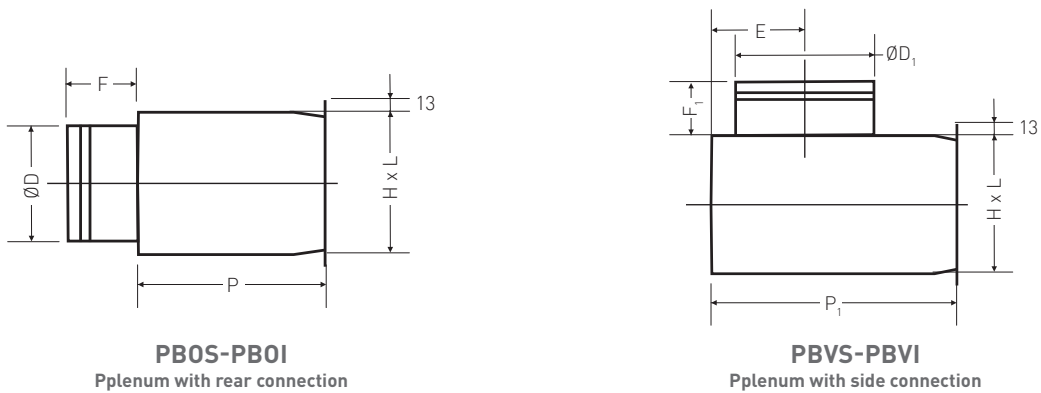
ACCESSORIES

Standard and insulated galvanised steel plenum.
Galvanised steel balancing damper with opposed blade movement.
Galvanised steel sheet mounting counter-frame

DRAWINGS



DMURP



PBOS-PBOI

Plenum with rear connection

PBVS-PBVI

Plenum with side connection



Diffusion

Components
for perfect air
distribution in HVAC
systems

SELECTION TABLE

Model	Q [m ³ /h]		L _{WA} [dB(A)]		X _(0,25) - Y _(0,25) [m]		Dpt [Pa]	
	min	max	min	max	min	max	min	max
200x100	5	50	21	29	1,7	6,7	5	55
300x100	10	80	21	29	1,7	6,7	5	55
400x100	15	120	21	29	1,7	6,7	5	55
500x100	20	150	21	29	1,7	6,7	5	55
600x100	25	190	21	29	1,7	6,7	5	55
700x100	25	220	21	29	1,7	6,7	5	55
800x100	30	250	21	29	1,7	6,7	5	55
1000x100	40	320	21	29	1,7	6,7	5	55
1200x100	45	390	21	29	1,7	6,7	5	55
300x150	20	170	23	32	1,9	6,9	5	55
400x150	30	240	23	32	1,9	6,9	5	55
500x150	35	300	23	32	1,9	6,9	5	55
600x150	45	375	23	32	1,9	6,9	5	55
700x150	50	440	23	32	1,9	6,9	5	55
800x150	60	510	23	32	1,9	6,9	5	55
1000x150	75	645	23	32	1,9	6,9	5	55
1200x150	90	780	23	32	1,9	6,9	5	55
300x200	30	255	25	34	2,1	7,3	5	55
400x200	40	360	25	34	2,1	7,3	5	55
500x200	55	460	25	34	2,1	7,3	5	55
600x200	65	560	25	34	2,1	7,3	5	55
700x200	80	660	25	34	2,1	7,3	5	55
800x200	90	765	25	34	2,1	7,3	5	55
1000x200	115	960	25	34	2,1	7,3	5	55
1200x200	140	1170	25	34	2,1	7,3	5	55
400x250	55	475	27	36	2,4	7,7	5	55
500x250	70	610	27	36	2,4	7,7	5	55
600x250	90	750	27	36	2,4	7,7	5	55
700x250	100	880	27	36	2,4	7,7	5	55
800x250	120	1020	27	36	2,4	7,7	5	55
1000x250	150	1290	27	36	2,4	7,7	5	55
1200x250	185	1560	27	36	2,4	7,7	5	55
500x300	90	760	29	38	2,6	7,9	5	55
600x300	110	930	29	38	2,6	7,9	5	55
700x300	130	1100	29	38	2,6	7,9	5	55
800x300	150	1270	29	38	2,6	7,9	5	55
1000x300	190	1620	29	38	2,6	7,9	5	55
1200x300	230	1950	29	38	2,6	7,9	5	55

DCU

Combined diffuser for supply and return in a single module



Product	DCU
Application	Ceiling, supply and return in single module
Construction	Aluminium diffuser
Finish	White RAL 9003

SPECIFICATION

Combined supply/return or supply-only module for ceiling or 600x600 panel installation. 4-way Coanda effect supply diffuser complete with single plenum (supply only) or with two c

CHARACTERISTICS

- Ideal for small and medium spaces
- Suitable for both cooling and heating (ΔT : ± 12 °C)
- Suitable for CAV and VAV systems
- Ceiling mounting, installation heights from 2.7 to 4 m

ACCESSORIES

Standard or insulated galvanised sheet metal plenum.

OPERATION

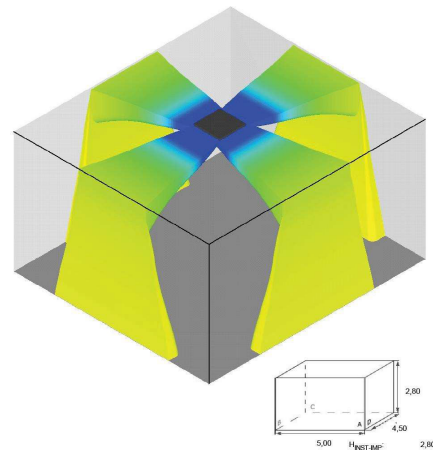
Air supply with Coanda effect occurs in 4 directions through the perimeter slots.

The throw towards surrounding walls does not invade the area beneath the diffuser, avoiding annoying air draughts.

They incorporate 2 plenums with independent connections, avoiding airflow mixing.

- The supply connection ensures air delivery through the diffuser.
- The return connection ensures extraction through the central grille.

Room air return occurs through the central intake. The return air, mixed, envelops the occupants during the upward movement towards the intake. occupants during the upward





MODELS

DCU

Diffuser with continuous perimeter slot
Available with 2 and 3 slots

DCUK

Combined diffuser with perimeter supply slot and
integrated return in the perforated front section.
Available from 1 to 4 slots

SELECTION TABLE IN ISOTHERMAL CONDITIONS:

DCU

Slots	Q [m ³ /h]	L _{WA} [dB(A)]	Dpt [Pa]	X [m]
1	250	24	9	2,0
	335	32	16	2,6
	400	36	22	3,1
2	350	24	6	2,3
	400	28	15,5	2,7
	600	40	20	4,2
3	500	28	15,5	3,0
	600	32	11	3,4
	800	38	18	4,6
4	485	24	4	2,0
	600	25	4	2,0
	900	40	13	3,6

LEGEND

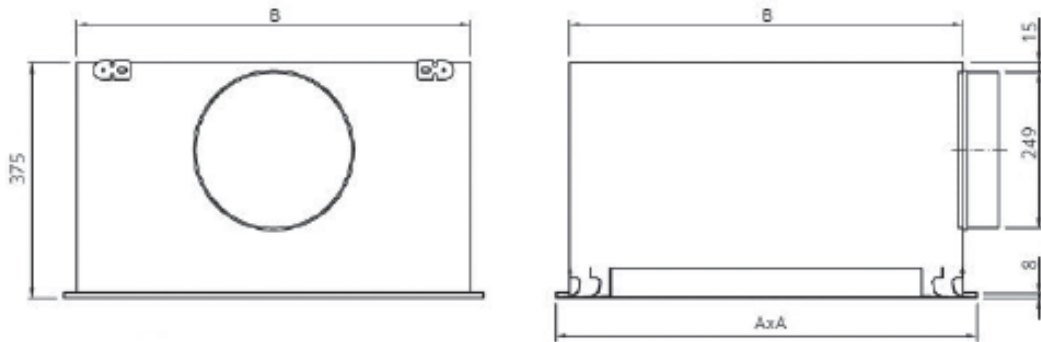
Q	m ³ /h	Flow rate
Dpt	Pa	Total pressure drop
L _{WA}	dB(A)	Sound power
X	m	Horizontal throw at 0.25 m/s velocity in the occupied zone with DT =0°C

DCU

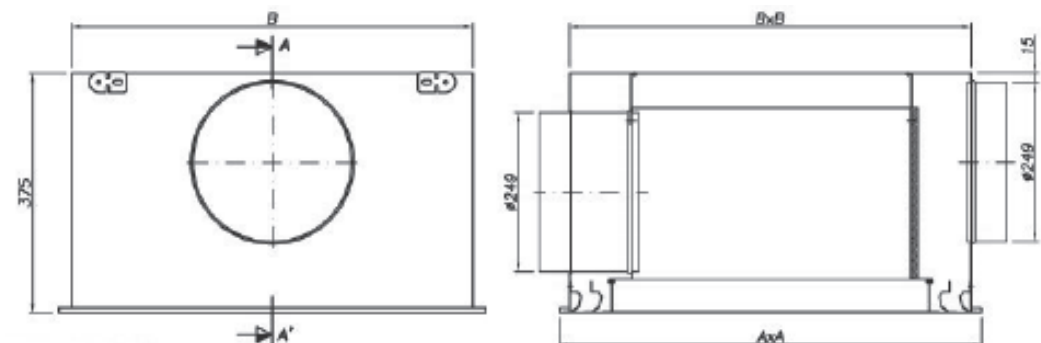
Combined diffuser for supply and return in a single module

DIMENSIONS

DCU WITH PLENUM



DCUK WITH PLENUM



Slots	Dimensions (mm)	
	A	B
1	595	566
2	595	566
3	595	566
4	595	566

DAC

Curved blade diffuser



Diffusion

Components
for perfect air
distribution in HVAC
systems



Product

DAC

Application

Ceiling/wall, supply
Installation height: 2.4 - 3.2 m

Construction

Anodised aluminium DBC white RAL 9016

SPECIFICATION

Diffuser with adjustable curved blades

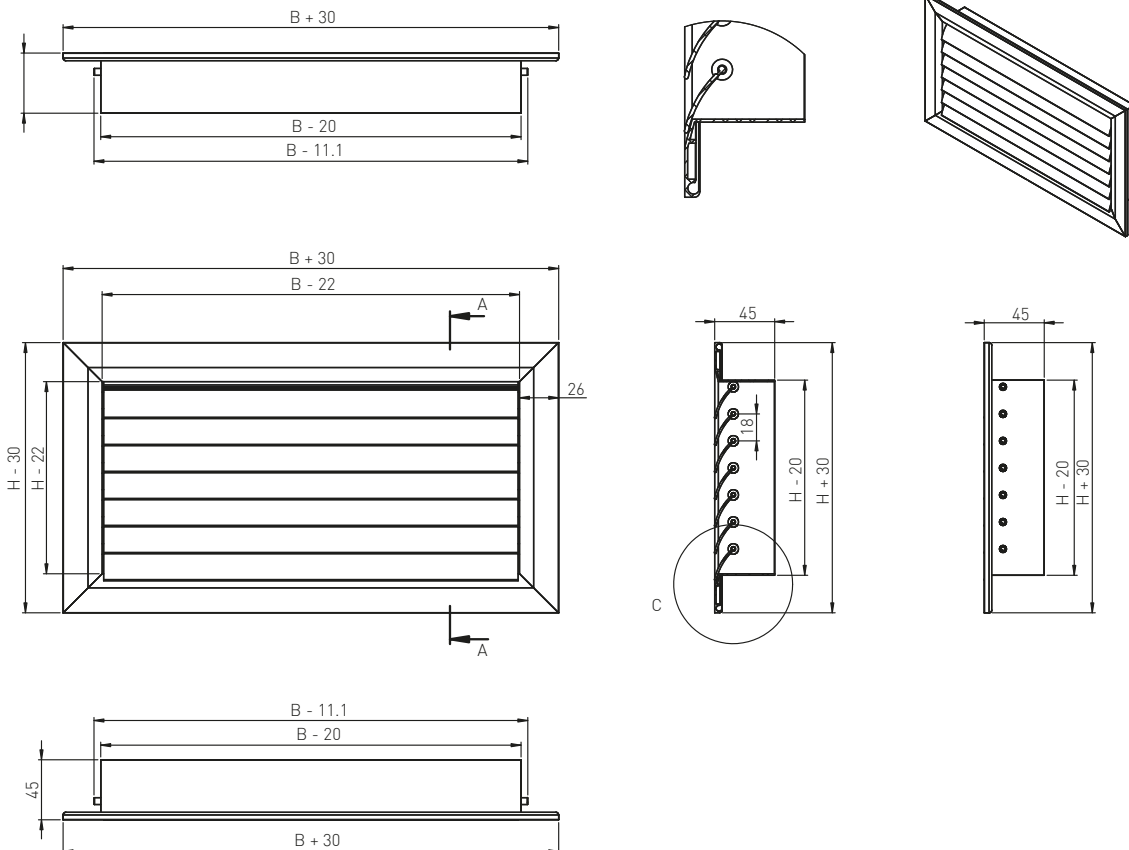
CHARACTERISTICS

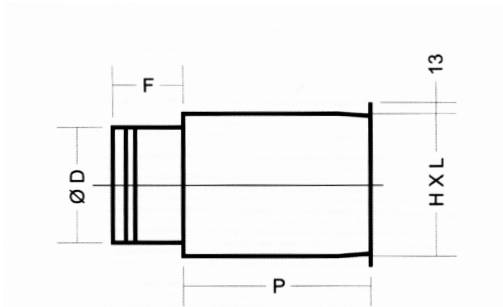
Fixing by clips or front screws (on request)

ACCESSORIES

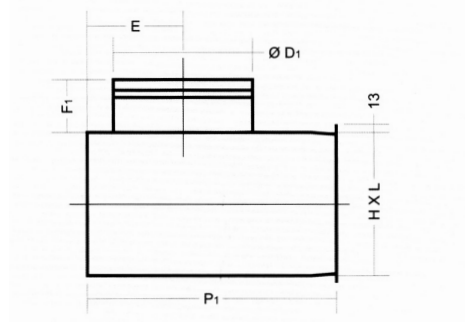
KSEL Galvanised steel balancing damper with
opposed blade movement
PBOS/PBOI Standard or insulated galvanised
steel plenum, with or without equalising mesh

DRAWINGS





PBOS-PBOI PLENUM WITH HORIZONTAL COLLAR



PBVS-PBVI PLENUM WITH VERTICAL COLLAR

SELECTION TABLE

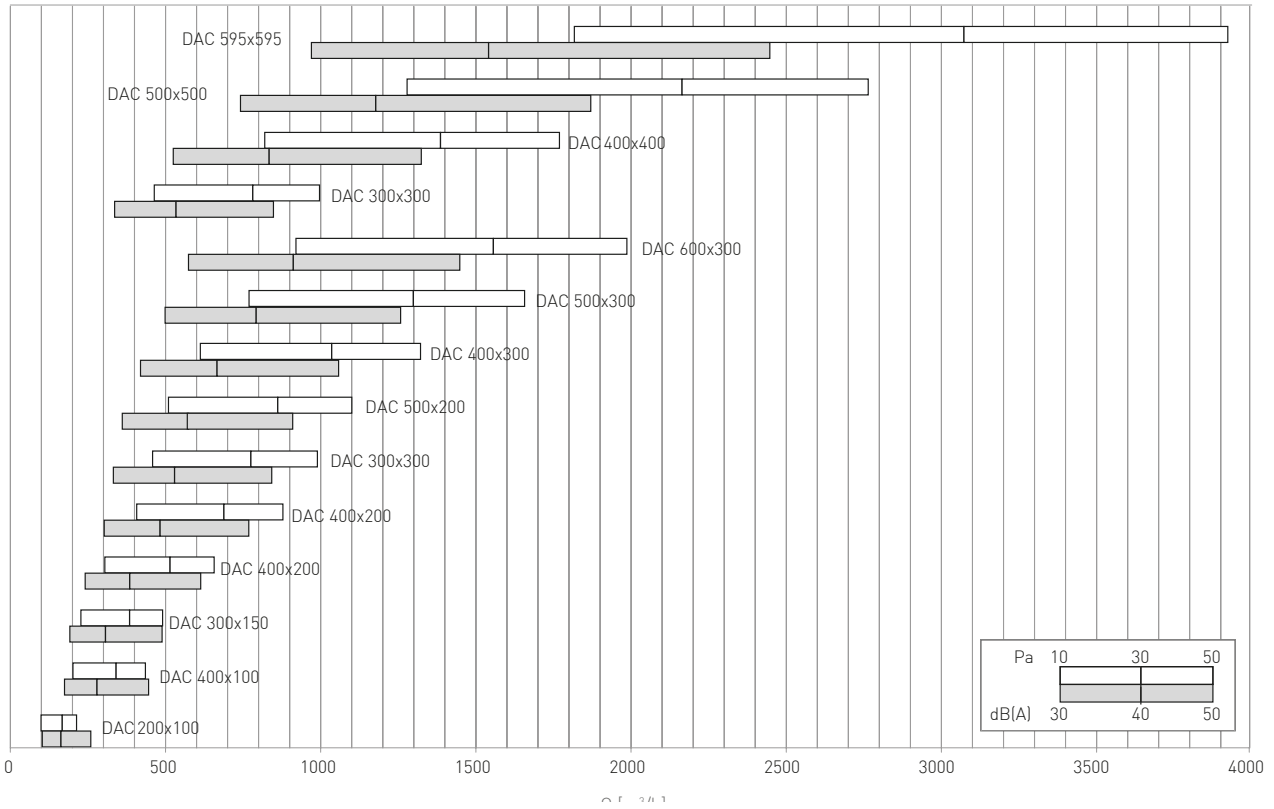
DAC Model	A _k m ²	Q [m ³ /h]		L _{WA} [dB(A)]		X _(0,25) - Y _(0,25) [m]		D _{pt} [Pa]	
		min	max	min	max	min	max	min	max
DAC 200x100	0,0068	100	210	29	45	1,7-2,5	4,3-5,3	10	50
DAC 300x100	0,0104	150	320	31	48	2,5-3,0	5,1-7,4	10	50
DAC 400x100	0,0139	200	440	33	50	3,0-3,8	6,0-9,5	10	50
DAC 300x150	0,0157	230	490	34	50	3,2-4,3	6,2-10,3	10	50
DAC 500x100	0,0174	250	550	34	51	3,3-4,6	6,6-11,2	10	50
DAC 600x100 400x150 300x200	0,0210	300	660	34	51	3,5-5,3	7,2-12,8	10	50
DAC 500x150	0,0263	380	820	36	52	3,9-6,5	7,9-15,0	10	50
DAC 800x100 400x200	0,0281	410	880	36	53	4,0-6,9	8,2-15,8	10	50
DAC 600x150 300x300	0,0316	460	990	37	53	4,2-7,5	8,6-17,2	10	50
DAC 500x200	0,0351	510	1100	37	54	4,4-8,1	9,0-18,5	10	50
DAC 800x150 600x200 400x300	0,0422	610	1320	38	55	4,8-9,3	9,8-21,1	10	50
DAC 1000x150 500x300	0,0528	770	1650	39	56	5,3-11,0	10,9-24,7	10	50
DAC 800x200	0,0564	820	1770	40	56	5,5-11,6	11,3-26,0	10	50
DAC 600x300	0,0634	920	1990	40	57	5,7-12,6	11,9-28,2	10	50
DAC 1000x200	0,0705	1020	2210	41	57	6,0-13,5	12,5-30,4	10	50
DAC 800x300	0,0847	1230	2650	42	58	6,5-15,5	13,6-34,5	10	50
DAC 1000x300	0,1059	1540	3320	43	59	7,3-18,3	15,1-40,4	10	50
DAC 800x400	0,1130	1640	3540	43	60	7,5-19,1	15,6-42,3	10	50
DAC 595x595	0,1250	1810	3920	44	60	7,8-20,5	16,3-45,4	10	50
1000x400 800x500	0,1413	2050	4430	44	61	8,3-22,4	17,3-49,4	10	50
DAC 1000x500	0,1767	2560	5530	45	62	9,1-26,2	19,2-57,6	10	50
DAC 300x300	0,0317	460	990	37	53	1,3-2,7	2,7-5,5	10	50
DAC 400x400	0,0565	820	1770	40	56	1,7-3,4	3,5-7,0	10	50
DAC 500x500	0,0884	1280	2770	42	58	2,0-4,1	4,3-8,5	10	50
DAC 595x595	0,1252	1820	3920	44	60	2,4-4,7	4,9-9,9	10	50



Diffusion

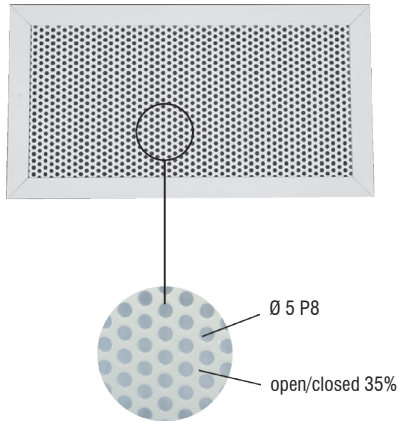
Components
for perfect air
distribution in HVAC
systems

QUICK SELECTION CHART



GRF

Perforated screen return grille



SPECIFICATION

Perforated screen return grille

Product

GRF

Application

Wall mounted, return

Construction

Aluminium painted frame white RAL 9016

Steel sheet screen painted white RAL 9016

MOUNTING

Fixing with clips or front screws (on request)

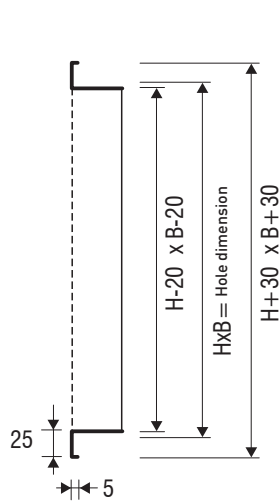
ACCESSORIES

PBOS/PBOI Standard or insulated galvanised steel plenum.

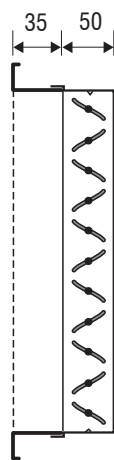
KSEL Balancing damper with opposed blade movement.

KCTC Galvanised steel sheet mounting counter-frame

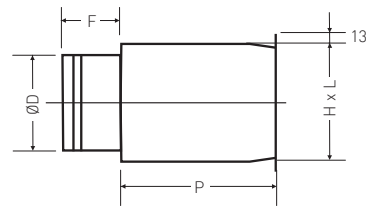
DRAWINGS



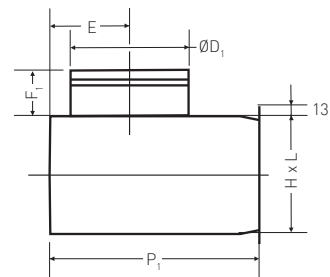
GRF



GRF + KSEL



PBOS-PBOI
Plenum with rear connection



PBVS-PBVI
Plenum with side connection



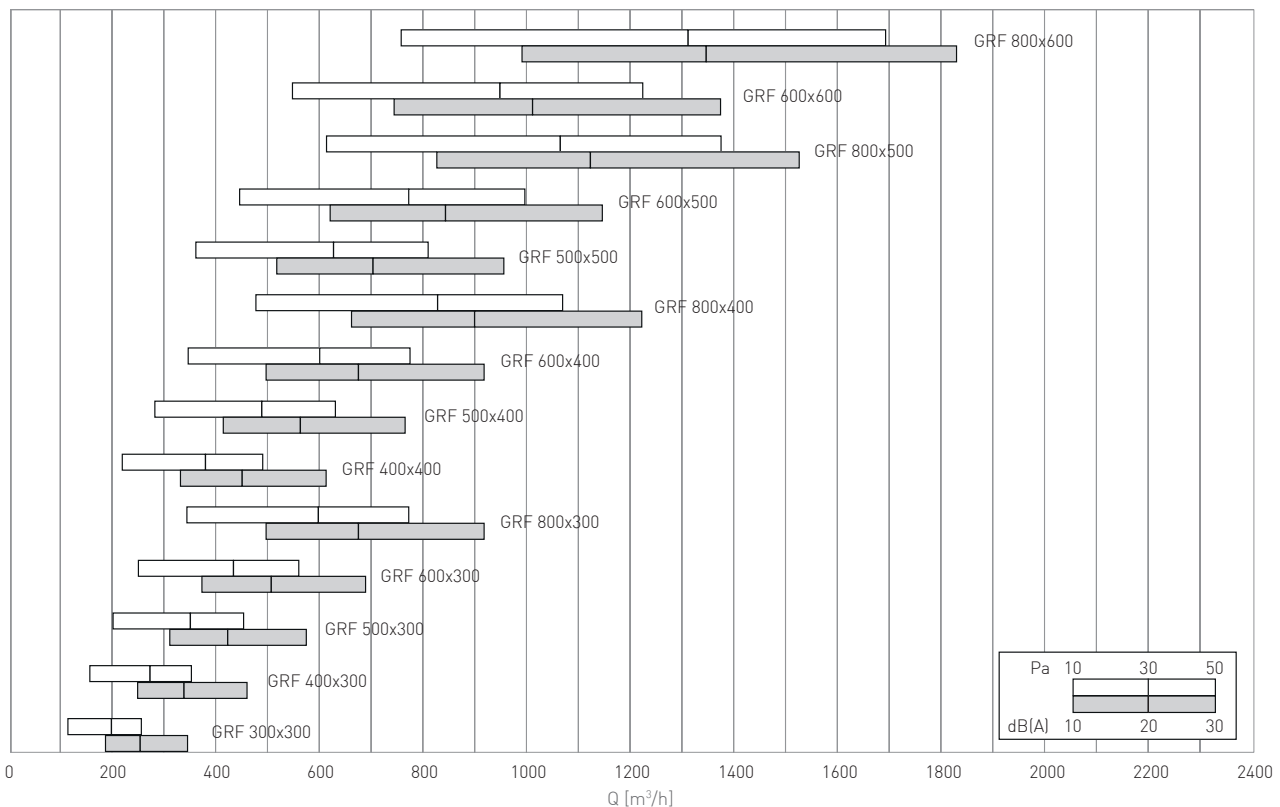
Diffusion

Components
for perfect air
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SELECTION TABLE

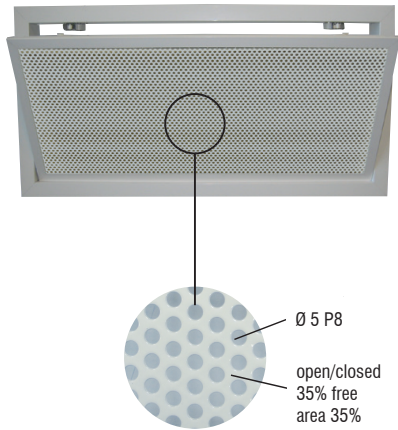
GRF Model	A _k m ²	Q [m ³ /h]		L _{WA} [dB(A)]		Dpt [Pa]	
		min	max	min	max	min	max
300x300	0,0305	120	260	-	21	10	50
400x300	0,0422	160	360	-	22	10	50
500x300	0,0543	200	460	-	23	10	50
600x300	0,0668	250	560	-	23	10	50
800x300	0,0924	350	780	-	25	10	50
1000x300	0,1190	450	1000	-	26	10	50
400x400	0,0584	220	490	-	23	10	50
500x400	0,0752	280	630	-	24	10	50
600x400	0,0924	350	780	-	25	10	50
800x400	0,1280	480	1070	-	26	10	50
1000x400	0,1647	620	1380	-	27	10	50
500x500	0,0968	360	810	-	25	10	50
600x500	0,1190	450	1000	-	26	10	50
800x500	0,1647	620	1380	-	27	10	50
1000x500	0,2120	790	1770	-	28	10	50
600x600	0,1462	550	1220	-	26	10	50
800x600	0,2025	760	1690	-	27	10	50
1000x600	0,2606	980	2180	-	28	10	50

QUICK SELECTION CHART



GRFFC

Perforated screen filter-holding grille



Product

GRFFC

Application

Wall/ceiling, return

Construction

Aluminium painted frame RAL 9016
Steel sheet screen painted RAL 9016

SPECIFICATION

Perforated screen grille with fully extractable counter-frame for filter housing and replacement

MOUNTING

With clips (screws on request)

FILTERS

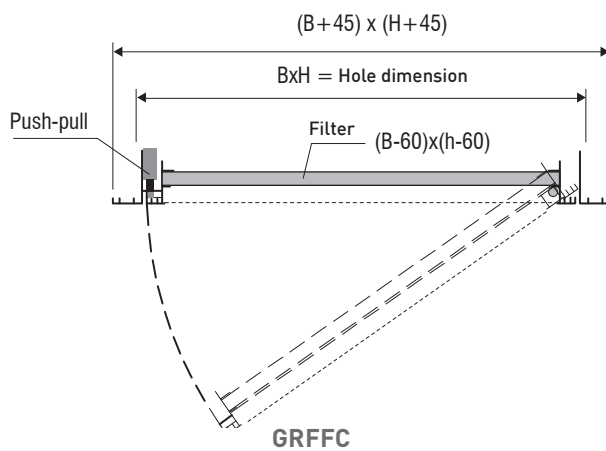
Flat filter efficiency G2

CLOSURE

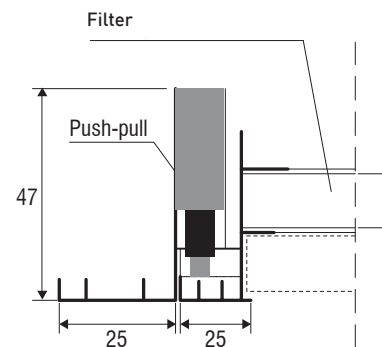
With screw and hinges (standard)
With push/pull (on request)

FILTER DIMENSIONS

◇	200	300	400	500	600	800	1000
H mm	mm	mm	mm	mm	mm	mm	mm
200	152x152	252x152	352x152	452x152	552x152	752x152	952x152
300	152x252	252x252	352x252	452x252	552x252	752x252	952x252
400	152x352	252x352	352x352	452x352	552x352	752x352	952x352
500	152x452	252x452	352x452	452x452	552x452	752x452	952x452
600	152x552	252x552	352x552	452x552	552x552	752x552	952x552



GRFFC



PUSH/PULL CLOSURE



Diffusion

Components
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systems

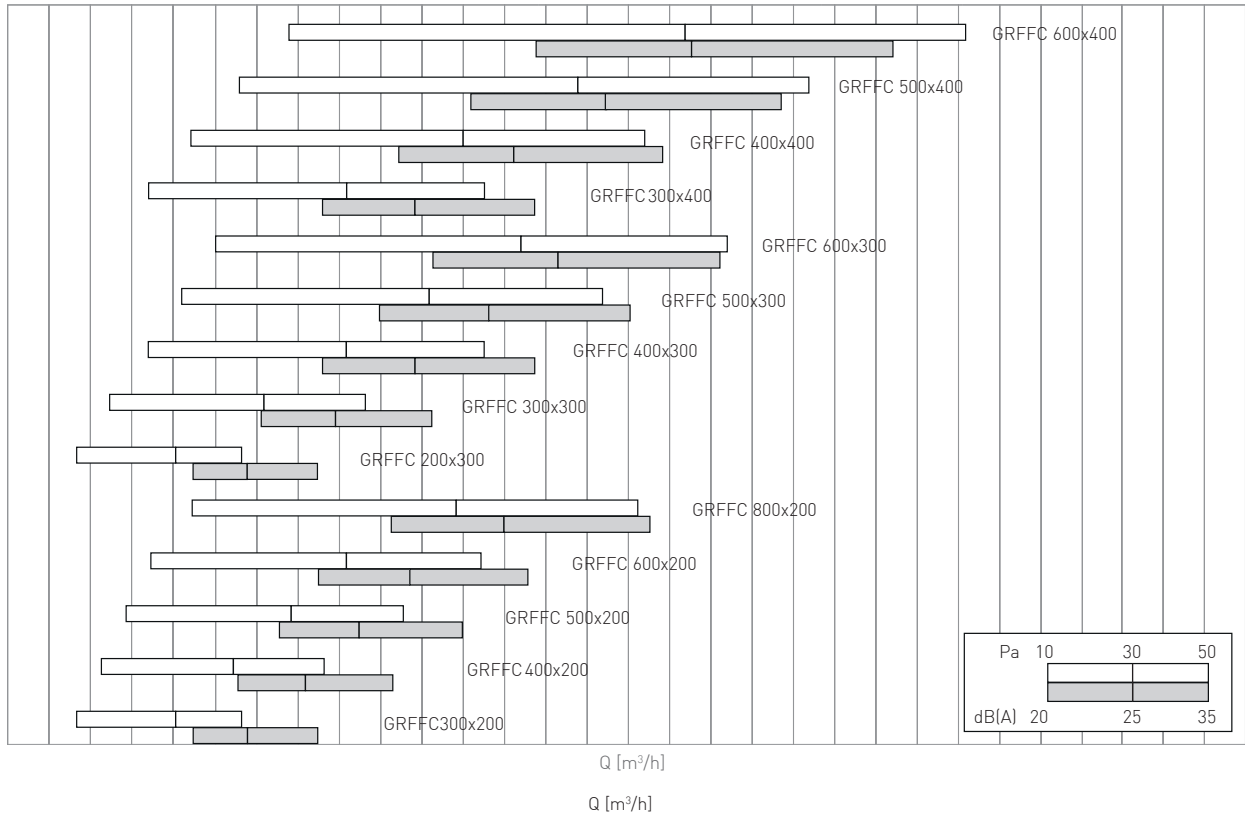
SELECTION TABLE

GRFFC Model	A _k m ²	Q [m ³ /h]		L _{WA} [dB(A)]		Dpt [Pa]	
		min	max	min	max	min	max
200x200	0,0227	50	190	-	23	10	50
300x200	0,0353	80	280	-	24	10	50
400x200	0,0478	110	380	-	26	10	50
500x200	0,0604	140	480	-	27	10	50
600x200	0,0730	170	570	-	28	10	50
800x200	0,0982	220	760	-	30	10	50
200x300	0,0352	80	280	-	24	10	50
300x300	0,0548	120	430	-	27	10	50
400x300	0,0744	170	580	-	28	10	50
500x300	0,0940	210	720	-	29	10	50
600x300	0,1136	250	870	-	30	10	50
800x300	0,1528	330	1160	-	32	10	50
200x400	0,0478	110	380	-	26	10	50
300x400	0,0744	170	580	-	28	10	50
400x400	0,1010	220	770	-	29	10	50
500x400	0,1276	280	970	-	31	10	50
600x400	0,1542	340	1160	-	32	10	50
800x400	0,2073	460	1560	-	33	10	50
200x500	0,0603	140	480	-	27	10	50
300x500	0,0939	210	720	-	29	10	50
400x500	0,1275	280	960	-	31	10	50
500x500	0,1611	350	1210	-	32	10	50
600x500	0,1947	420	1460	-	33	10	50
800x500	0,2619	560	1960	-	34	10	50
200x600	0,0729	160	570	-	28	10	50
300x600	0,1135	250	870	-	30	10	50
400x600	0,1541	340	1160	-	32	10	50
500x600	0,1947	430	1460	-	33	10	50
600x600	0,2353	510	1760	-	34	10	50
800x600	0,3165	690	2350	-	35	10	50
200x800	0,0980	220	760	-	30	10	50
300x800	0,1526	330	1160	-	32	10	50
400x800	0,2072	440	1560	-	33	10	50
500x800	0,2618	560	1960	-	34	10	50
600x800	0,3164	680	2350	-	35	10	50
800x800	0,4256	910	3150	-	37	10	50

GRFFC

Perforated screen grille with filter holder

QUICK SELECTION CHART





Product

VVP

Construction

White RAL 9016 polypropylene with fixing collar

SPECIFICATION

Supply and return valve

APPLICATION

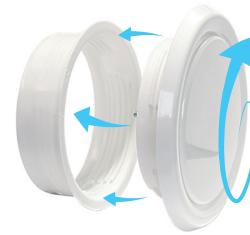
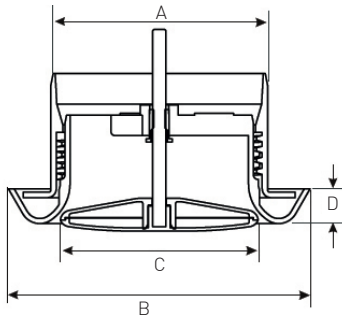
Ceiling mounted, return

INSTALLATION HEIGHT

2,5 - 3,0 m

DIMENSIONS

VVP Model	A mm	B mm	C mm	D mm
100	99	149	89	20
125	124	165	109	20
160	158	195	130	20
200	199	230	177	20



VVP

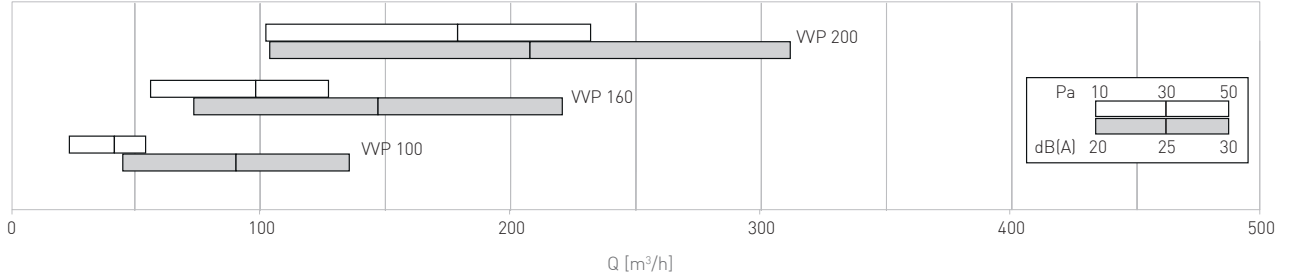
SELECTION TABLE

VVP Model	Air flow m ³ /h	Air flow l/s	Opening mm	Delta Pt (Pa)	dBA
VVP 100	54	15	15	25	25
	72	20	18	40	30
	108	30	20	80	38
VVP 125	72	20	9	58	38
	108	30	17	68	35
	144	40	23	70	35
VVP 160	108	30	10	70	40
	144	40	18	68	35
	180	50	25	70	33
VVP 200	108	30	17	60	38
	144	40	22	68	35
	180	50	25	72	35

VVP

Polypropylene supply and return valve

QUICK SELECTION CHART





VVAR



VVAM

Product

VVA

Construction

White RAL 9010 steel with fixing collar

SPECIFICATION

VAR: Steel return valve with fixing collar.

VAM: Steel supply valve with fixing collar

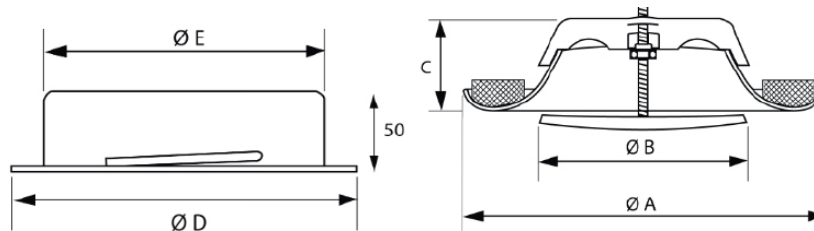
APPLICATION

Ceiling, return or supply

INSTALLATION HEIGHT

2,5 - 3,0 m

DIMENSIONS



VVAR: STEEL RETURN VALVE

Dn mm	A mm	B mm	C mm	D mm	E mm
VVAR 80	116	60	38	105	79
VVAR 100	140	76	38	125	99
VVAR 125	166	100	45	150	124
VVAR 150	203	120	50	175	149
VVAR 160	210	130	50	186	159
VVAR 200	250	160	56	225	199

VVAM: STEEL SUPPLY VALVE

Dn mm	A mm	B mm	C mm	D mm	E mm
VVAM 80	116	80	38	105	79
VVAM 100	140	93	38	125	99
VVAM 125	166	112	45	150	124
VVAM 150	203	137	50	175	149
VVAM 160	210	148	50	186	159
VVAM 200	250	195	56	225	199

SELECTION TABLE

VVAR Model	m ³ /h	Opening S mm	Pressure drop (Pa)	dBa	
VVAR 80	40	3	35	22	
		0	80	31	
	60	9	40	30	
		6	55	32	
		3	100	38	
VVAR 100	80	8	35	25	
		6	55	30	
		4	85	34	
	100	10	58	33	
		8	72	36	
		120	10	68	36
VVAR 125	100	6	35	23	
		3	50	26	
		0	90	34	
	140	15	28	25	
		12	34	27	
		9	45	28	
		6	65	33	
		3	100	36	
		180	15	45	32
			12	50	33
VVAR 160	160	9	70	35	
		10	25	20	
		5	42	23	
		2	70	30	
	200	0	90	35	
		10	40	24	
		5	68	30	
	250	2	95	35	
		15	38	26	
10		59	30		
5		95	36		
VVAR 200		300	15	25	25
	12		35	27	
	9		50	30	
	6		68	32	
	3		100	35	
	350	20	35	30	
		15	55	33	
		12	70	35	
	400	20	50	34	
		15	65	36	



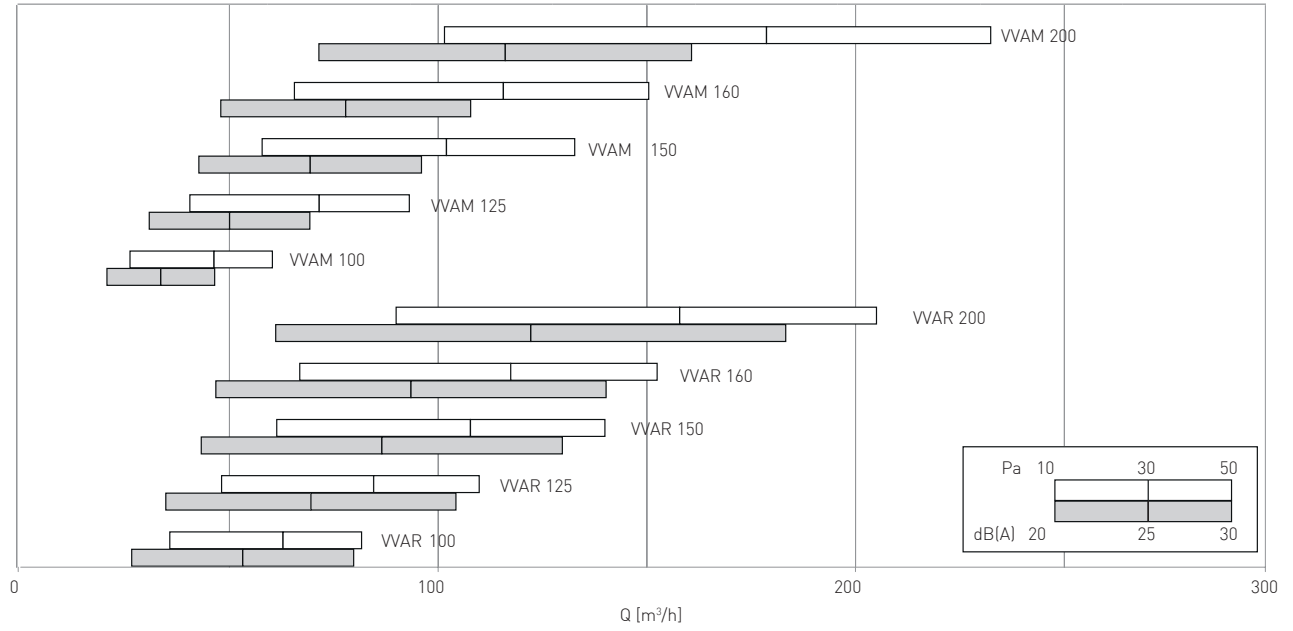
Diffusion

Components
for perfect air
distribution in HVAC
systems

SELECTION TABLE

VVAM Model	m ³ /h		Opening S mm	Pressure drop (Pa)	dBA
VVAM 80	60	17	6	36	23
			3	45	26
			0	68	31
	80	22	9	45	28
			6	60	30
			3	76	34
	100	36	0	120	37
			12	80	35
			10	50	25
VVAM 100	100	28	5	90	28
			0	180	35
			10	70	28
	125	36	5	140	34
			10	100	33
	120	42	5	200	38
6			38	21	
VVAM 125	130	36	3	48	24
			0	70	28
			-3	100	31
	160	44	6	55	27
			3	75	28
			0	110	34
	190	53	9	70	30
			6	110	34
			5	46	22
VVAM 160	160	44	0	70	24
			-5	120	30
			5	70	25
	190	53	0	100	28
			-5	180	35
			10	55	24
	220	61	5	85	28
			0	130	32
			-5	180	35
250	69	10	70	27	
		5	130	32	
		0	180	35	
VVAM 200	300	83	10	35	22
			0	65	32
			-5	88	30
	350	97	-10	140	36
			10	49	26
			0	100	34
	400	111	10	55	28
			0	120	35

QUICK SELECTION CHART





Product

DGFI

Application

Ceiling mounted
Installation height: 2.6-4 m

Construction

Constructed in painted steel sheet RAL 9010 gloss 80 (RAL 9003 on request)

SPECIFICATION

Panel diffuser with fixed stamped deflectors.
Swirl flow geometry with high induction effect.
Diffuser suitable for heating and cooling, even with temperature differences high between supply air and room air

VERSIONS

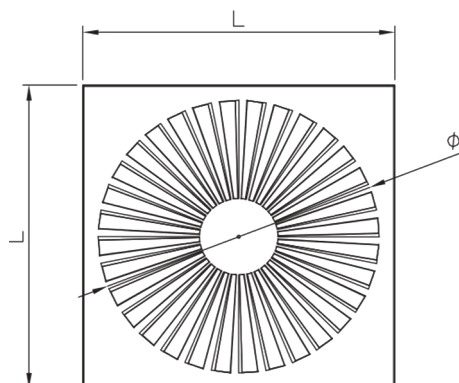
DGFIP Panel 595x595

ACCESSORIES

PQOS/PQOI Steel plenum galvanized with side connection.
PQVS/PQVI Steel plenum galvanized with top connection.
PQOP Polystyrene plenum. available for 595x595 panel

DIMENSIONS

DGFI Model	L mm	Ø mm
300	298	236
400	398	336
500	498	436
600	595	536
P300	595	236
P400	595	336
P500	595	436



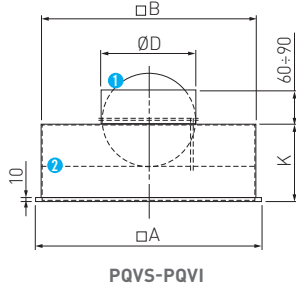
PLENUM

Model	A mm	B mm	D mm	K mm	H mm
PQV/O_300	295	260	156	200	350
PQV/O_400	390	360	196	200	350
PQV/O_500	490	460	196	200	350
PQV/O_600	590	560	246	200	350

Galvanised/insulated sheet metal plenum

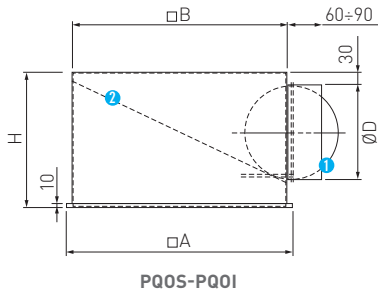
LEGEND

- 1 Damper control
- 2 Grid equalizer

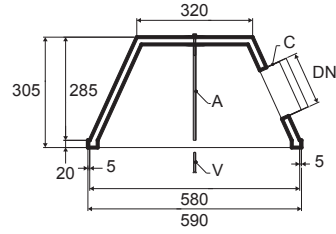


LEGEND

- 1 Damper control
- 2 Grid equalizer



Polystyrene plenum



* connection hole selectable from 4 sizes pre-cut as shown in Fig. 1

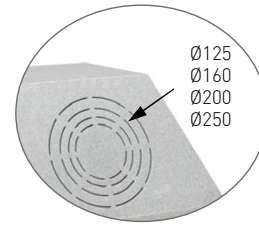


FIG. 1

SELECTION TABLE

DGFI Model	Ak m ²	Q [m ³ /h]		L _w [dB(A)]		X _(0,25) [m]		D _{pt} [Pa]	
		min	max	min	max	min	max	min	max
300	0,010	125	250	25	45	1,5	3	5	22
400	0,016	175	380	25	45	1,8	4	7	32
500	0,033	275	600	25	45	1,8	4,5	8	37
600	0,049	400	800	25	45	1,8	4	7	30

DHQ

Fixed geometry diffuser



Diffusion

Components
for perfect air
distribution in HVAC
systems



Product

DHQ

Application

Ceiling mounted, supply
Installation height from 2.8m to 4.6m

Construction

Epoxy powder coated steel white
RAL 9010

SPECIFICATION

Fixed geometry pressed diffuser with swirl effect.

VERSIONS

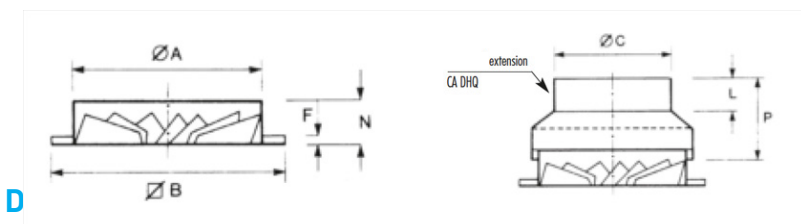
Fixing secured by screws on the diffuser neck or central screw.

ACCESSORIES

Adapter with equalizer grid, SF butterfly damper on adapter, insulated and non-insulated plenum PCOI/PCOS.

OPTIONS

Available in 595x595 panel version DHQP and circular version DHQC



D

DHQ Model	Ø A	B	C	F	L	N	P
DHQ 125	123	171	98	7	40	50	100
DHQ 160	158	214	123	7	40	50	100
DHQ 200	198	264	148	7	40	50	100
DHQ 250	248	326	178	7	40	50	100
DHQ 315	313	405	198	7	40	50	100
DHQ 400	398	500	248	7	40	50	100

QUICK SELECTION TABLE

Height (mm)	2,4	2,55	2,7	2,85	3	3,15	3,3	3,45	3,6	3,75	3,9
	2,7	2,9	3,1	3,3	3,5	3,7	3,9	4,1	4,3	4,5	4,7

Noise level Nr dB	< 20	20	23	26	29	32	35	38	41	44	47
Churches, libraries	█										
Hospitals		█									
Apartments, offices			█								
Commercial buildings				█							

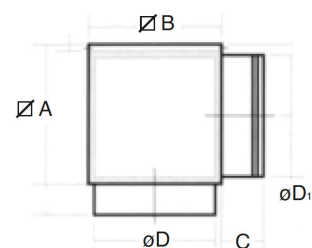
Flow rate (m ³ /h)	60	60	70	80	80	90	100	100	110	120	120
DHQ 125	90	100	120	130	140	150	160	170	180	190	200
DHQ 160	150	160	180	200	210	230	250	270	280	300	320
DHQ 200	230	260	280	310	340	360	390	420	440	470	490
DHQ 250	360	410	450	490	530	570	620	660	720	740	790
DHQ 315	590	660	720	790	860	930	990	1060	1130	1200	1270

Velocity (m/s)	1,3	1,45	1,6	1,75	1,9	2,05	2,2	2,35	2,5	2,65	2,8

Pressure drop (Pa)	10	10	11	12	14	17	21	27	34	43	53

PLENUM OVERALL DIMENSIONS

	DN	A	B	Ø D INT	Ø D EXT
DHQ 125	125	225	225	127	120
DHQ 160	160	250	250	162	155
DHQ 200	200	300	300	202	195
DHQ 250	250	350	350	252	245
DHQ 315	315	400	400	317	310
DHQ 400	400	500	500	402	395





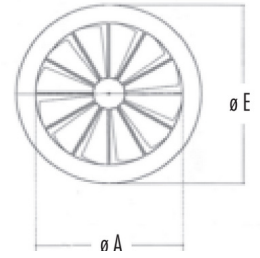
Diffusion

Components
for perfect air
distribution in HVAC
systems

DHQC

CIRCULAR VERSION

Flow rate (m ³ /h)	Ø A	Ø E	N
DHQC 125	122	171	55
DHQC 160	157	214	55
DHQC 200	197	264	55
DHQC 250	247	326	55
DHQC 315	312	404	55
DHQC 400	397	500	55



DPIQR

High induction diffuser with adjustable closed square



Product

DPIQR

Application

Ceiling mounted
Installation height: 2.5-4.5 m

Construction

Steel structure
Finish: white RAL 9010 epoxy powder coating

SPECIFICATION

Ceiling diffuser with front screen, closed square, adjustable in 3 positions.

MOUNTING

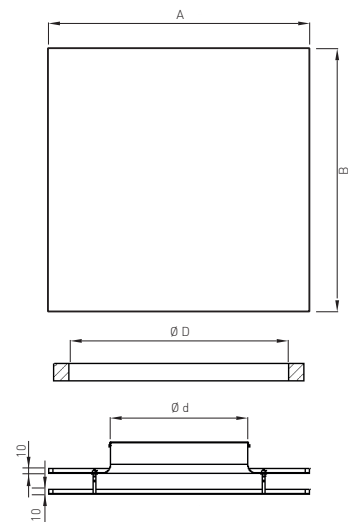
Fixing by screws positioned on the diffuser neck.

ACCESSORIES

Insulated and non-insulated plenum PCOS/PCOI.
Damper installed on plenum.
Equaliser installed on plenum.

DIMENSIONS

DPIQR Model	A x B mm	Ø D mm	Ø d mm
125	230x230	160	123
160	280x280	200	158
200	371x370	300	198
250	480x480	400	248
315	595x595	500	313
400	595x595	500	398



SELECTION TABLE

DPIQR Model	Q [m³/h]		L _w [dB(A)]		Throw [m]		D _{pt} [Pa]	
	min	max	min	max	min	max	min	max
125	50	450	<20	45	0,8	6,4	2	93
160	100	500	<20	41	1,0	5,8	4	90
200	250	650	<20	37	2,6	6,8	6	39
250	350	750	<20	34	3,2	6,8	7	33
315	450	850	<20	32	3,2	6,0	8	28
400	550	950	<20	36	3,1	5,3	11	31

Diffuser mounted on plenum with open damper, terminal velocity VT=0,25 m/s

DFIQR

High induction diffuser with adjustable perforated frame



Diffusion

Components for perfect air distribution in HVAC systems



Product

DFIQR

Application

Ceiling mounted
Installation height: 2.5-4.5 m

Construction

Steel structure
Finish: white RAL 9010 epoxy powder coating

SPECIFICATION

Ceiling diffuser with front screen, perforated frame, solid frame, adjustable in 3 positions

MOUNTING

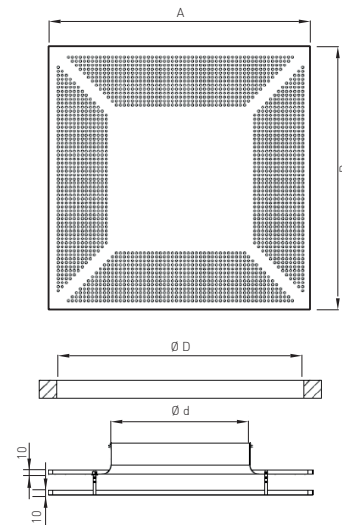
Screw mounting on the diffuser neck

ACCESSORIES

Insulated and non-insulated plenum PCOI/PCOS
Damper installed on plenum
Equalizer installed on plenum

DIMENSIONS

DFIQR Model	A x B mm	Ø D mm	Ø d mm
125	230x230	220	123
160	280x280	260	158
200	371x370	330	198
250	480x480	460	248
315	595x595	555	313
400	595x595	555	398



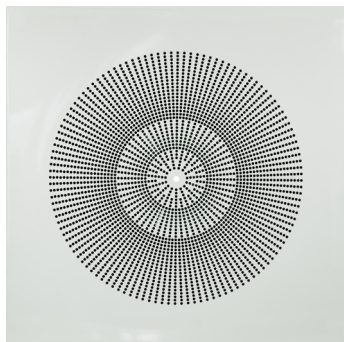
SELECTION TABLE

DFIQR Model	Q [m³/h]		L _w [dB(A)]		Throw [m]		D _{pt} [Pa]	
	min	max	min	max	min	max	min	max
125	50	450	<20	45	0,7	5,8	2	93
160	100	500	<20	51	1,0	5,2	4	90
200	250	650	<20	37	2,4	6,2	6	39
250	350	750	<20	34	2,9	6,2	7	33
315	450	850	<20	32	2,9	5,5	8	28
400	550	950	<20	36	2,8	4,8	11	31

Diffuser mounted on plenum with open damper, terminal velocity VT=0,25 m/s

DFIP

Impulse diffuser



Product

DFIP/DFIPC

Application

Ceiling mounted
Installation height: 2.1-4.2 m

Construction

Front plate: perforated steel sheet, powder coated epoxy powder, white RAL 9010
Bell and saucer: aluminium epoxy powder coated black RAL 9005

SPECIFICATION

Impulse diffuser with horizontal air throw and high "Coanda" effect.

Impulse flow that promotes complete and effective air exchange thanks to a high induction coefficient

MOUNTING

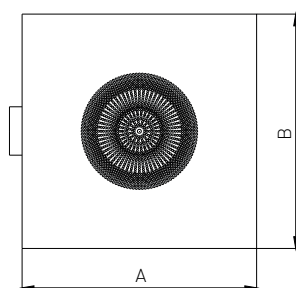
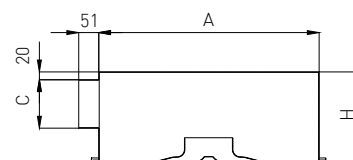
Side screw mounting

ACCESSORIES

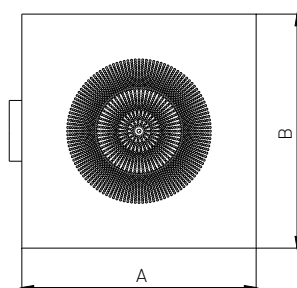
PQOP Polystyrene plenum for panelled 595x595 diffusers only

DIMENSIONS

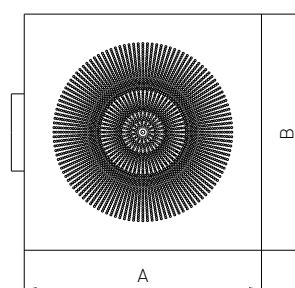
DFI Model	A x B mm	C mm	H mm
125	595x595	123	230
160	595x595	155	260
200	595x595	195	300
250	595x595	245	350



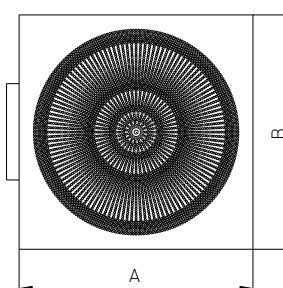
DFIP 125



DFIP 160



DFIP 200



DFIP 250



Diffusion

Components
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systems

SELECTION TABLE

DFIP Model	Q [m ³ /h]		L _w [dB(A)]		Throw [m]		D _{pt} [Pa]		Velocity V _k [m/s]	
	min	max	min	max	min	max	min	max	min	max
125	80	200	<26	53	0,2	8,5	14	71	1,0	2,6
160	100	350	<11	49	1,5	3,4	6	70	0,9	3,3
200	300	600	<26	54	2,3	6,2	18	67	1,8	3,6
250	400	800	<26	53	2,2	4,4	22	82	1,4	2,8

Diffuser mounted on plenum with open damper and equalising mesh, terminal velocity VT=0,37 m/s

DPICR

Closed circular high induction diffuser



Product

DPICR

Application

Ceiling mounted
Installation height: 2.5-4.5 m

Construction

Steel structure
Finish: white RAL 9010 epoxy powder coating

SPECIFICATION

Ceiling diffuser with front screen, closed circular, adjustable in 3 positions

MOUNTING

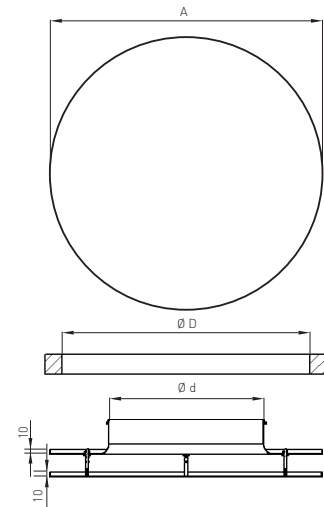
Screw mounting on the diffuser neck

ACCESSORIES

Insulated and non-insulated plenum PCOI/PCOS
Damper installed on plenum
Equalizer installed on plenum

DIMENSIONS

DPICR Model	A x B mm	Ø D mm	Ø d mm
125	210x210	160	123
160	250x250	200	158
200	350x350	300	198
250	450x450	400	248
315	550x550	500	313
400	595x595	500	398



SELECTION TABLE

DPICR Model	Q [m³/h]		L _w [dB(A)]		Throw [m]		D _{pt} [Pa]	
	min	max	min	max	min	max	min	max
125	50	450	<20	45	0,8	6,4	2	93
160	100	500	<20	41	1,1	5,8	4	90
200	250	300	<20	37	2,4	6,2	6	39
250	350	750	<20	34	3,2	6,8	7	33
315	450	850	<20	32	2,9	5,5	8	28
400	550	950	<20	36	3,1	5,3	11	31

Diffuser mounted on plenum with open damper, terminal velocity VT=0,25 m/s

DFICR

Perforated circular high induction diffuser



Diffusion

Components
for perfect air
distribution in HVAC
systems



Product

DFICR

Application

Ceiling mounted
Installation height: 2.5-4.5 m

Construction

Steel structure
Finish: white RAL 9010 epoxy powder coating

SPECIFICATION

Ceiling diffuser with front screen, perforated circular, adjustable in 3 positions

MOUNTING

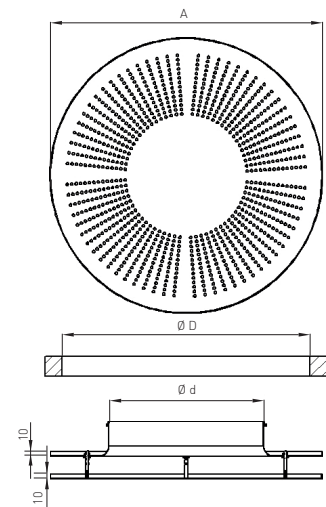
Screw mounting on the diffuser neck

ACCESSORIES

Insulated and non-insulated plenum PCOI/PCOS
Damper installed on plenum
Equalizer installed on plenum

DIMENSIONS

DFICR Model	A x B mm	Ø D mm	Ø d mm
125	210x210	160	123
160	250x250	200	158
200	350x350	300	198
250	450x450	400	248
315	550x500	500	313
400	550x500	500	398



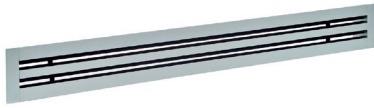
SELECTION TABLE

DFICR Model	Q [m³/h]		L _w [dB(A)]		Throw [m]		D _{pt} [Pa]	
	min	max	min	max	min	max	min	max
125	50	450	<20	45	0,7	5,8	2	93
160	100	500	<20	51	1,0	5,2	4	90
200	250	650	<20	37	2,4	6,2	6	39
250	350	750	<20	34	2,9	6,2	7	33
315	450	850	<20	32	2,9	5,5	8	28
400	550	950	<20	36	2,8	4,8	11	31

Diffuser mounted on plenum with open damper, terminal velocity VT=0,25 m/s

TDLA/TDLB

Linear slot diffuser



Product

TDLA/TDLB

Construction

Extruded anodised aluminium or RAL 9016 (TDLB)

SPECIFICATION

Linear diffuser with one or more slots, anodised aluminium (TDLA) or white (TDLB)

ON REQUEST

TDLA/TDLB with 5, 6, 7 and 8 slots.

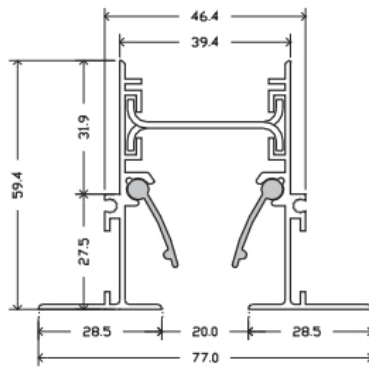
MOUNTING

Fixing by internal screws and brackets (S3), by suspension (S2) or bracket (CVL)

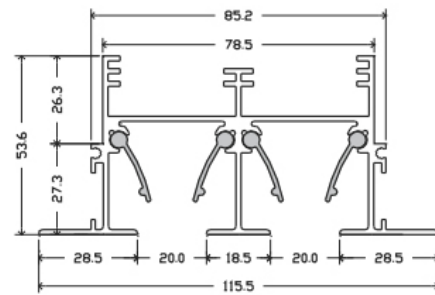
ACCESSORIES

D - Adjustable black polypropylene deflector.
S - Damper (mounted on linear diffuser).
E - Equaliser (mounted on linear diffuser).
KIT DLA - Mounting kit for continuous linear diffusers.
Galvanised steel connection plenum (PDLA), with external insulation (PIDLA).
GDLA - Angle joint

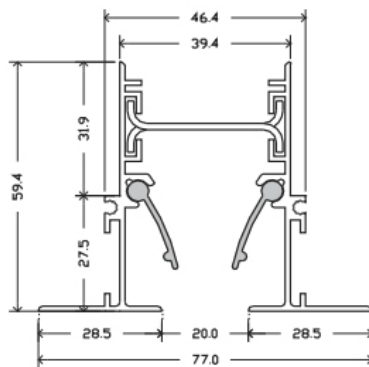
LINEAR DIFFUSER DIMENSIONS



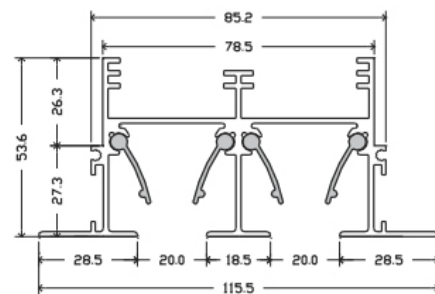
1 SLOT



2 SLOTS



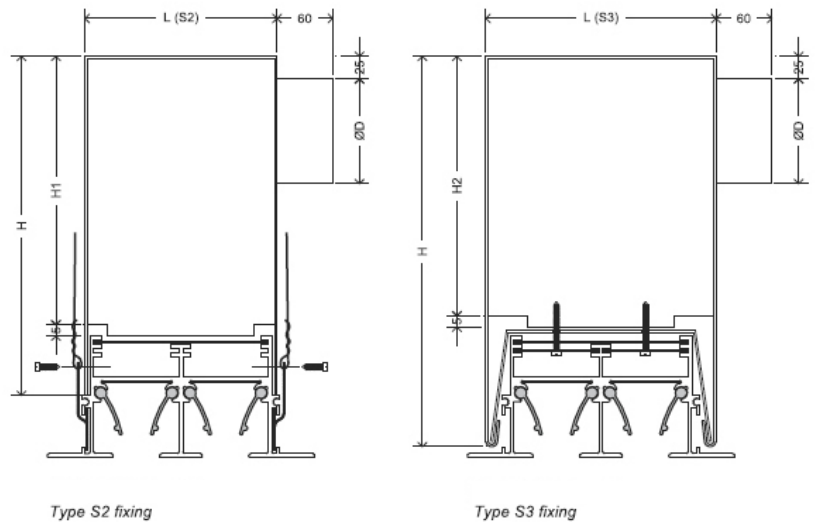
3 SLOTS



4 SLOTS



PLENUM DIMENSIONS AND INSTALLATION EXAMPLES



NR. SLOTS	DN	H	H1	H2	L (S2)	L (S3)
1	156	300	270	240	45	60
2	196	300	270	240	83	98
3	496	300	270	240	121	137
4	246	300	270	240	160	175

SELECTION TABLE

LINEAR DIFFUSER TDLA 1F L= 1000

Noise level	Nr dB	< 20	20	28	35	40	45	50	55	> 55
Churches, libraries										
Hospitals										
Apartments, offices										
Commercial buildings										

Installation height (m)	min	2.4								
	max	3.2								
Outlet velocity V_k	m/s	2	3	4	5	6	7	8	9	10
Flow rate	mc/h	62	93	124	154	185	216	247	278	309
Pressure drop	Pa	7	15	26	39	54	72	92	114	139
Throw	m	1.8	2.7	3.6	4.5	5.4	6.3	7.2	8.1	9

TDLA/TDLB

Linear slot diffuser

SELECTION TABLE

LINEAR DIFFUSER TDLA 2F L= 1000

Noise level	Nr dB	< 20	25	30	35	40	45	50	55	> 55
Churches, libraries		██████████								
Hospitals			██████████							
Apartments, offices				██████████						
Commercial buildings					██████████					

Installation height (m)	min									
	max	2.4 3.2								
Outlet velocity V _k	m/s	2	3	4	5	6	7	8	9	10
Flow rate	mc/h	152	227	303	379	455	530	606	682	758
Pressure drop	Pa	9	19	33	49	69	91	116	145	175
Throw	m	2.5	3.8	5	6.3	7.5	8.8	10	11.3	12.5

SELECTION TABLE

LINEAR DIFFUSER TDLA 3F L= 1000

Noise level	Nr dB	< 20	28	35	40	45	50	55	> 55	> 55
Churches, libraries		██████████								
Hospitals		██████████								
Apartments, offices			██████████							
Commercial buildings			██████████							

Installation height (m)	min									
	max	2.4 3.2								
Outlet velocity V _k	m/s	2	3	4	5	6	7	8	9	10
Flow rate	mc/h	256	384	512	640	769	897	1025	1153	1281
Pressure drop	Pa	11	22	37	56	79	105	134	166	202
Throw	m	31	47	62	78	93	109	124	14	155



Diffusion

Components
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SELECTION TABLE

LINEAR DIFFUSER TDLA 4F L= 1000

Noise level	Nr dB	22	28	33	38	43	48	53	> 55	> 55
Churches, libraries		█								
Hospitals			█							
Apartments, offices				█						
Commercial buildings					█					

Installation height (m)	min									
	max	2.4								
Outlet velocity V _k	m/s	2	3	4	5	6	7	8	9	10
Flow rate	mc/h	372	558	744	930	1115	1301	1487	1673	1859
Pressure drop	Pa	12	24	41	62	87	116	148	183	222
Throw	m	3.6	5.4	7.2	9	10.8	12.6	14.4	16.2	18

TDLS

Concealed high induction diffuser



Product

TDLS

Application

Wall or ceiling, supply or return

Construction

Extruded anodised aluminium or white RAL 9016 with deflectors RAL 9005

SPECIFICATION

High induction linear diffuser made of extruded monobloc aluminium without frame with 100mm individually adjustable deflector)

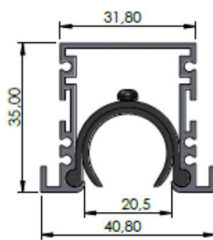
MOUNTING

By internal screws and bracket on plenum.

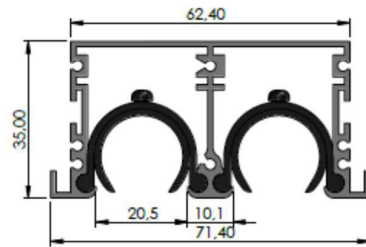
ACCESSORIES

equaliser, sliding damper, aluminium profile for ceiling mounting, insulated or non-insulated plenum.

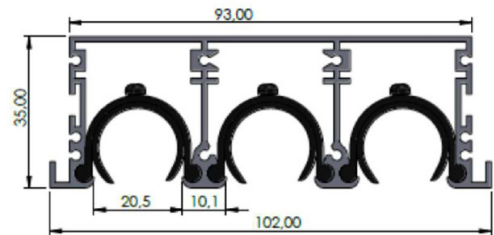
DIMENSIONS



TDLS1F



TDLS2F



TDLS3F



SELECTION TABLE TDLS1F

TDLS1F mc/h	dT values Dim Ak(m ²)	+10k					Vertical throw					+10k					Horizontal throw					
		600	800	1000	1200	1500	1800	2000	600	800	1000	1200	1500	1800	2000	600	800	1000	1200	1500	1800	2000
		-1F	-1F	-1F	-1F	-1F	-1F	-1F	-1F	-1F	-1F	-1F	-1F	-1F	-1F	-1F	-1F	-1F	-1F	-1F	-1F	-1F
		0,008	0,011	0,014	0,017	0,021	0,025	0,028	0,008	0,011	0,014	0,017	0,021	0,025	0,028	0,008	0,011	0,014	0,017	0,021	0,025	0,028
60	Vk (m/s)	2	1,5	1,2	1	0,8			2	1,5	1,2	1	0,8			2	1,5	1,2	1	0,8		
	X0,25 (m)	1,1	0,9	0,7	0,6	0,5			2,4	2	1,8	1,6	1,4			2,4	2	1,8	1,6	1,4		
	Ps(Pa)	7	<5	<5	<5	<5			8	5	<5	<5	<5			8	5	<5	<5	<5		
	Lw(A)	26	20	<20	<20	<20			25	20	<20	<20	<20			25	20	<20	<20	<20		
80	Vk (m/s)	2,6	2	1,5	1,3	1	0,9	0,8	2,6	2	1,5	1,3	1	0,9	0,8	2,6	2	1,5	1,3	1	0,9	0,8
	X0,25 (m)	1,6	1,2	1	0,8	0,7	0,6	0,5	3,2	2,8	2,4	1,9	1,9	1,6	1,5	3,2	2,8	2,4	1,9	1,9	1,6	1,5
	Ps(Pa)	13	7	5	<5	<5	<5	<5	15	8	5	<5	<5	<5	<5	15	8	5	<5	<5	<5	<5
	Lw(A)	34	27	23	<20	<20	<20	<20	32	27	24	<20	<20	<20	<20	32	27	24	<20	<20	<20	<20
100	Vk (m/s)	3,3	2,5	2	1,6	1,3	1,1	1	3,3	2,5	2	1,6	1,3	1,1	1	3,3	2,5	2	1,6	1,3	1,1	1
	X0,25 (m)	2	1,6	1,3	1	0,9	0,7	0,6	4	3,5	3	2,7	2,4	2,1	2	4	3,5	3	2,7	2,4	2,1	2
	Ps(Pa)	20	11	7	5	<5	<5	<5	23	13	8	6	<5	<5	<5	23	13	8	6	<5	<5	<5
	Lw(A)	39	33	28	24	20	<20	<20	38	33	30	26	22	<20	<20	38	33	30	26	22	<20	<20
120	Vk (m/s)	4	3	2,4	2	1,6	1,3	1,2	4	3	2,4	2	1,6	1,3	1,2	4	3	2,4	2	1,6	1,3	1,2
	X0,25 (m)	2,5	1,9	1,5	1,3	1,1	0,9	0,8	5	4	3,7	3,3	2,9	2,5	2,4	5	4	3,7	3,3	2,9	2,5	2,4
	Ps(Pa)	29	16	10	7	5	<5	<5	34	19	12	8	5	<5	<5	34	19	12	8	5	<5	<5
	Lw(A)	44	38	33	29	24	20	<20	43	38	35	31	27	24	22	43	38	35	31	27	24	22
150	Vk (m/s)	5	3,7	3	2,5	2	1,6	1,5	5	3,7	3	2,5	2	1,6	1,5	5	3,7	3	2,5	2	1,6	1,5
	X0,25 (m)	3,2	2,4	2	1,7	1,3	1,1	1	6	5,3	4,6	4,1	3,6	3,2	3	6	5,3	4,6	4,1	3,6	3,2	3
	Ps(Pa)	45	25	16	11	7	5	<5	53	30	19	13	8	6	5	53	30	19	13	8	6	5
	Lw(A)	50	44	39	35	30	26	24	49	44	40	37	33	30	28	49	44	40	37	33	30	28
200	Vk (m/s)			4	3,3	2,6	2,2	2			4	3,3	2,6	2,2	2			4	3,3	2,6	2,2	2
	X0,25 (m)			2,7	2,2	1,8	1,5	1,4			6,2	5,5	4,8	4,3	4			6,2	5,5	4,8	4,3	4
	Ps(Pa)			29	20	13	9	8			34	23	15	10	8			34	23	15	10	8
	Lw(A)			46	42	38	34	31			48	44	40	37	36			48	44	40	37	36
250	Vk (m/s)			5	4,1	3,3	2,8	2,5			4,1	3,3	2,8	2,5				4,1	3,3	2,8	2,5	
	X0,25 (m)			3,4	2,9	2,3	2	1,8			7	6	5,4	5				7	6	5,4	5	
	Ps(Pa)			45	31	20	14	11			36	26	16	13				36	26	16	13	
	Lw(A)			52	48	43	39	37			50	46	43	42				50	46	43	42	

SELECTION TABLE

NOISE WITHOUT ROOM ABSORPTION IN LW(DBA)

Vertical throw multiplication factor				
DT	+10	+8	+4	1
KX	1	1,12	1,6	3,1
LDT+8=LDT+10* 1.12				

Horizontal throw multiplication factor						
DT	-10	-8	-4	0	+5	+10
KX	1	1,05	1,15	1,3	1,4	1,5
LDT-8=LDT-10* 1.05						

SELECTION TABLE TDLS2F

TDLS2F mc/h	dT values Dim Ak(m ²)	Vertical throw							Horizontal throw						
		+10k 600 2F 0,017	800 2F 0,022	1000 2F 0,028	1200 2F 0,034	1500 2F 0,042	1800 2F 0,050	2000 2F 0,056	+10k 600 2F 0,017	800 2F 0,022	1000 2F 0,028	1200 2F 0,034	1500 2F 0,042	1800 2F 0,050	2000 2F 0,056
100	Vk (m/s)	1,6	1,2	1					1,6	1,2	1	0,8			
	X0,25 (m)	1,1	0,9	0,7					3,4	2,4	1,7	1,3			
	Ps(Pa)	4	<5	<5					10	6	<5	<5			
	Lw(A)	24	<20	<20					30	24	21	<20			
120	Vk (m/s)	2	1,5	1,2	1	0,8			2	1,5	1,2	1	0,8		
	X0,25 (m)	1,3	1	0,8	0,7	0,5			4,7	3,3	2,4	1,9	1,4		
	Ps(Pa)	6	<5	<5	<5	<5			15	8	5	<5	<5		
	Lw(A)	29	23	<20	<20	<20			34	29	25	22	<20		
150	Vk (m/s)	2,5	1,9	1,5	1,2	1	0,8	0,7	2,5	1,9	1,5	1,2	1	0,8	0,7
	X0,25 (m)	1,7	1,3	1	0,8	0,7	0,6	0,5	6,6	4,8	3,6	2,8	2	1,6	1,3
	Ps(Pa)	9	5	<5	<5	<5	<5	<5	23	13	8	6	<5	<5	<5
	Lw(A)	35	29	24	20	<20	<20	<20	40	35	31	28	24	21	<20
200	Vk (m/s)	3,3	2,5	2	1,6	1,3	1,1	1		2,5	2	1,6	1,3	1,1	1
	X0,25 (m)	2,2	1,7	1,4	1,2	1	0,8	0,7		7,5	5,9	4,7	3,5	2,7	2,3
	Ps(Pa)	17	9	6	<5	<5	<5	<5		23	15	10	7	5	<5
	Lw(A)	42	36	31	27	22	<20	<20		42	39	36	31	28	27
250	Vk (m/s)	4,1	3,1	2,5	2	1,6	1,4	1,2			2,5	2	1,6	1,4	1,2
	X0,25 (m)	2,8	2,1	1,8	1,5	1,2	1	0,9			8,3	6,7	5,1	4	3,4
	Ps(Pa)	26	15	9	7	<5	<5	<5			23	16	10	7	6
	Lw(A)	48	42	37	33	28	24	22			44	41	37	34	32
300	Vk (m/s)	5	3,7	3	2,5	2	1,6	1,5			3	2,5	2	1,6	1,5
	X0,25 (m)	3,3	2,6	2,1	1,8	1,5	1,2	1,1			10,8	9	6,9	5,5	4,7
	Ps(Pa)	38	21	14	9	6	<5	<5			33	23	15	10	8
	Lw(A)	53	47	42	38	33	29	27			49	46	42	39	37
350	Vk (m/s)		4,3	3,5	2,9	2,3	1,9	1,7				2,9	2,3	1,9	1,7
	X0,25 (m)		3,1	2,5	2	1,7	1,5	1,3				11	8,8	7	6,1
	Ps(Pa)		29	18	13	8	6	5				31	20	14	11
	Lw(A)		51	46	42	37	33	31				50	46	43	41
400	Vk (m/s)			4	3,3	2,6	2,2	2				3,3	2,6	2,2	2
	X0,25 (m)				2,8	2,4	2	1,65	1,5			13	10,8	8,7	7,7
	Ps(Pa)				24	17	11	7	6			41	26	18	15
	Lw(A)				49	45	40	37	34			54	49	46	45

SELECTION TABLE

NOISE WITHOUT ROOM ABSORPTION IN LW(DBA)

Vertical throw multiplication factor				
DT	+10	+8	+4	1
KX	1	1,12	1,6	3
LDT+8=LDT+10* 1.12				

Horizontal throw multiplication factor						
DT	-10	-8	-4	0	+5	+10
KX	1	1,1	1,25	1,4	1,6	1,8
LDT-8=LDT-10* 1.1						



SELECTION TABLE TDLS3F

TDLS3F mc/h	dT values Dim Ak(m ²)	Vertical throw						Horizontal throw							
		+10k		Vertical throw				+10k		Horizontal throw					
		600 3F 0,025	800 3F 0,034	1000 2F 0,042	1200 3F 0,050	1500 3F 0,063	1800 3F 0,076	2000 3F 0,084	600 3F 0,025	800 3F 0,034	1000 3F 0,042	1200 3F 0,050	1500 3F 0,063	1800 3F 0,076	2000 3F 0,084
200	Vk (m/s)	2,2	1,6	1,3	1,1	0,9		2,2	1,6	1,3	1,1	0,9			
	250	1,5	1,2	0,9	0,8	0,6		8,1	5,6	4,6	3,9	3,2			
	Ps(Pa)	7	<5	<5	<5	<5		8	5	<5	<5	<5			
	Lw(A)	33	27	22	<20	<20		30	26	23	<20	20			
250	Vk (m/s)	2,8	2	1,6	1,4	1,1	0,9	2,8	2	1,6	1,4	1,1	0,9	0,8	
	X0,25 (m)	2	1,5	1,2	1,1	0,8	0,6	15	8,1	6,1	5,2	4,2	3,6	3,1	
	Ps(Pa)	11	6	<5	<5	<5	<5	13	7	5	<5	<5	<5	<5	
	Lw(A)	39	33	28	24	<20	<20	36	31	28	24	20	<20	<20	
300	Vk (m/s)	3,3	2,5	2	1,6	1,3	1,1	1		2,5	2	1,6	1,3	1,1	1
	X0,25 (m)	2,3	1,8	1,5	1,3	1	0,9	0,7		12,4	8,2	6,6	5,3	4,5	4,1
	Ps(Pa)	16	9	6	<5	<5	<2	<5		11	7	5	<5	<5	<5
	Lw(A)	44	37	32	28	24	20	<20		36	33	29	25	22	21
350	Vk (m/s)	3,9	2,9	2,3	1,9	1,5	1,3	1,2			2,3	1,9	1,5	1,3	1,2
	X0,25 (m)	2,7	2,1	1,7	1,4	1,2	1	0,9			11,4	8,5	6,6	5,5	5
	Ps(Pa)	22	12	8	6	<5	<5	<5			9	6	<5	<5	<5
	Lw(A)	48	41	36	32	28	24	21			37	33	29	26	25
400	Vk (m/s)	4,4	3,3	2,6	2,2	1,8	1,5	1,3			2,6	2,2	1,8	1,5	1,3
	X0,25 (m)	3,1	2,4	2	1,7	1,4	1,1	1			16,4	11	8	6,6	6
	Ps(Pa)	29	16	10	7	5	<5	<5			12	8	5	<5	<5
	Lw(A)	51	45	40	36	31	27	25			41	36	32	30	29
450	Vk (m/s)		3,7	3	2,5	2	1,6	1,5				2,5	2	1,6	1,5
	X0,25 (m)		2,8	2,2	1,9	1,6	1,3	1,2				14,7	9,7	7,7	7
	Ps(Pa)		21	13	9	6	<5	<5				11	7	5	<5
	Lw(A)		48	43	39	34	30	28				39	36	33	32
500	Vk (m/s)		4,1	3,3	2,7	2,2	1,8	1,6				2,7	2,2	1,8	1,6
	X0,25 (m)		3	2,5	2,1	1,7	1,4	1,3				20	12	9,1	8,1
	Ps(Pa)		25	16	11	7	5	<5				13	8	6	5
	Lw(A)		51	46	42	37	33	31				42	38	36	34

SELECTION TABLE

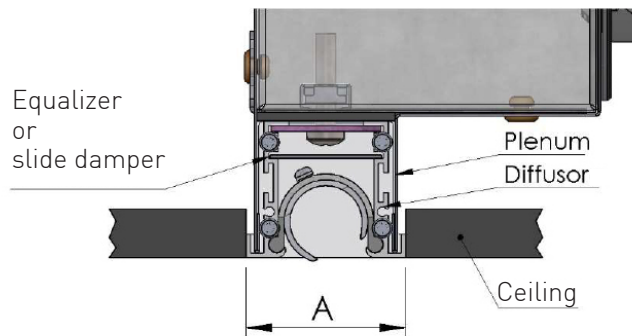
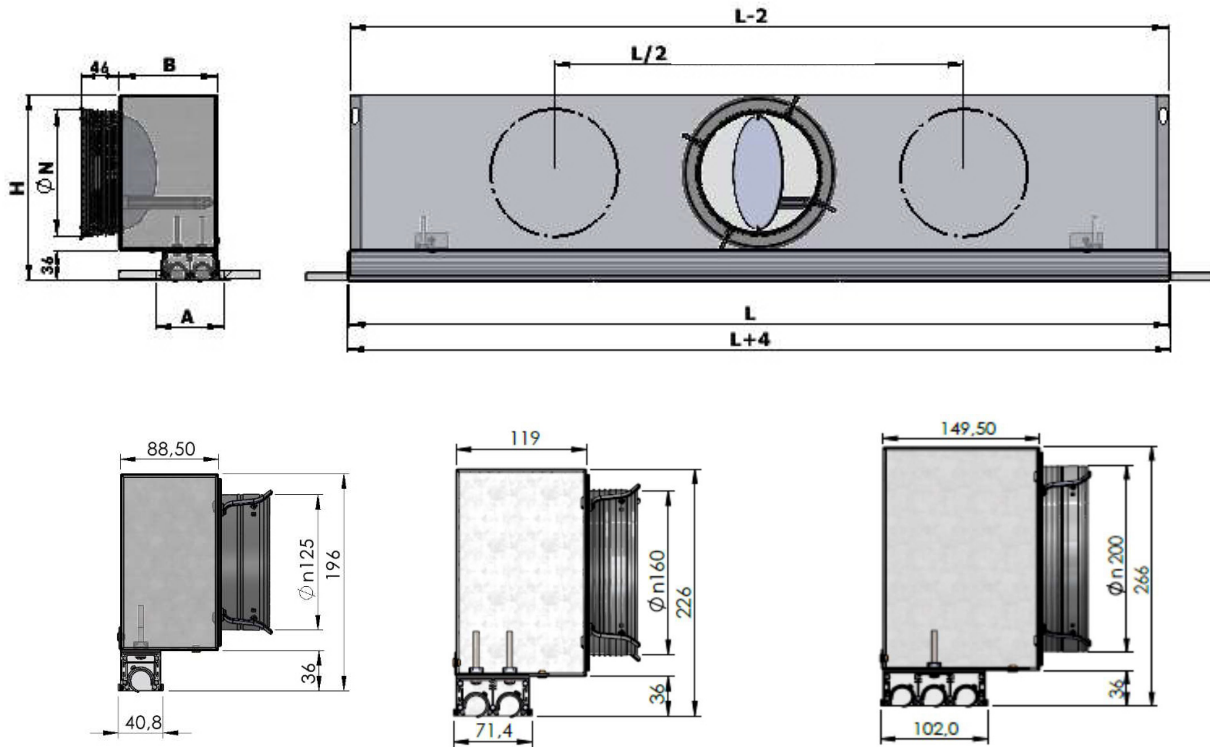
NOISE WITHOUT ROOM ABSORPTION IN LW(DBA)

Vertical throw multiplication factor				
DT	+10	+8	+4	0
KX	1	1,1	1,5	3
LDT+8=LDT+10* 1.1				

Horizontal throw multiplication factor						
DT	-10	-8	-4	0	+5	+10
KX	1	1,1	1,25	1,4	1,6	1,8
LDT-8=LDT-10* 1.1						

TDLS

Concealed high induction diffuser



MODEL	A	B	H	ØN	L	L+4
1 SLOT	40,8	88,5	196	125	Diffuser length	Diffuser length + end caps + screws
2 SLOTS	71,4	119,0	226	160	Diffuser length	Diffuser length + end caps + screws
3 SLOTS	102,0	149,5	266	200	Diffuser length	Diffuser length + end caps + screws

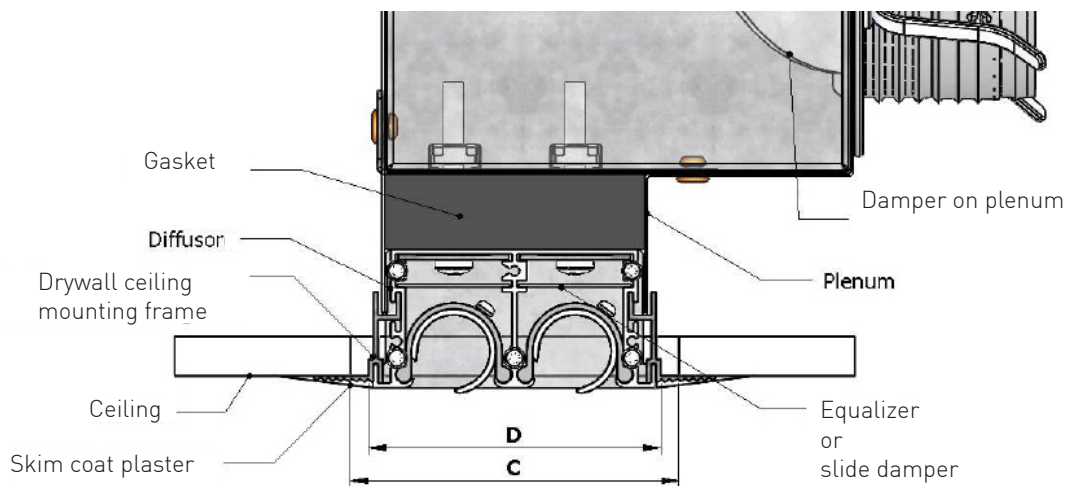
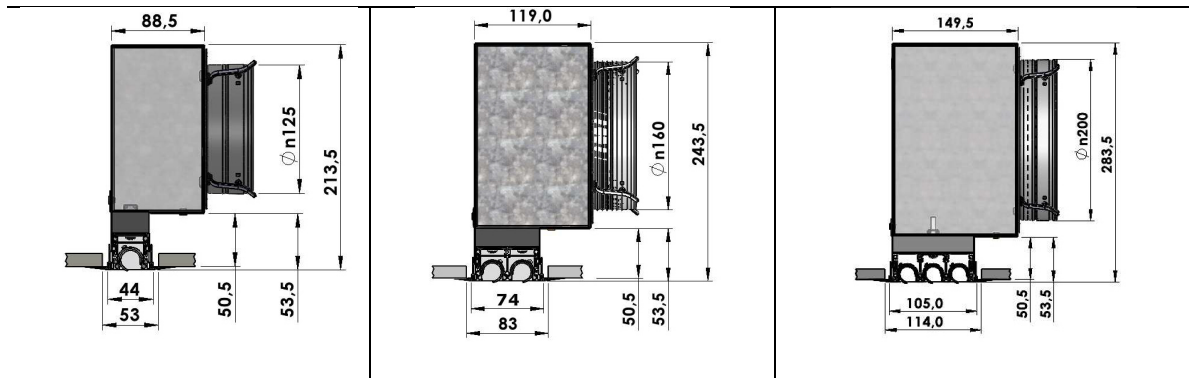
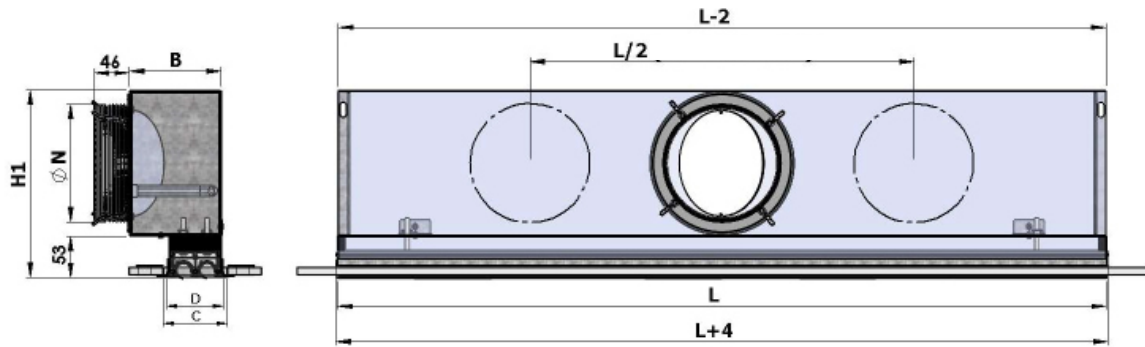
For lengths →1500 mm 2 connections



Diffusion

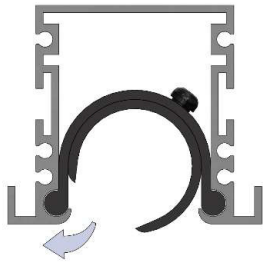
Components
for perfect air
distribution in HVAC
systems

DIFFUSER WITH DRYWALL PROFILE

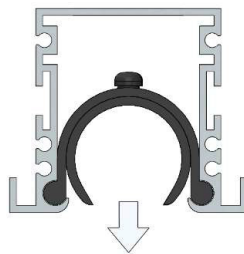


MODEL	B	C	D	H1	ØN	L	L+4
1 SLOT	88,5	53	44	213,5	125	Diffuser length	Diffuser length + end caps + screws
2 SLOTS	119	83	74	243,5	160	Diffuser length	Diffuser length + end caps + screws
3 SLOTS	149,5	114	105	283,5	200	Diffuser length	Diffuser length + end caps + screws

AIRFLOW DIRECTION MANAGEMENT



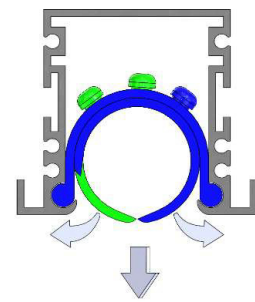
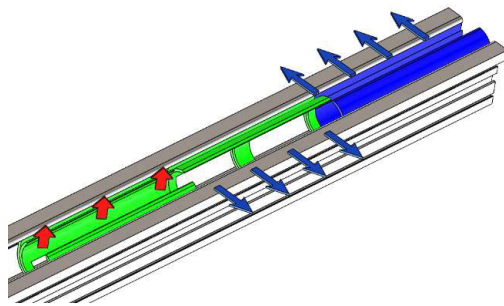
Airflow Left



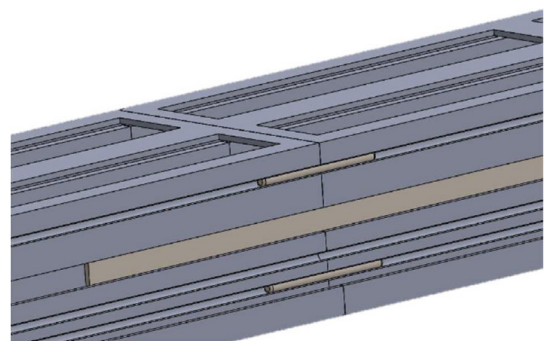
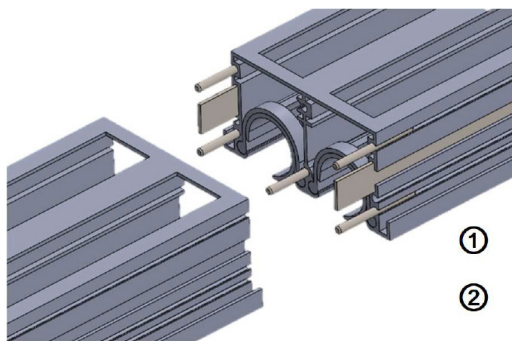
Vertical Airflow



Airflow Right



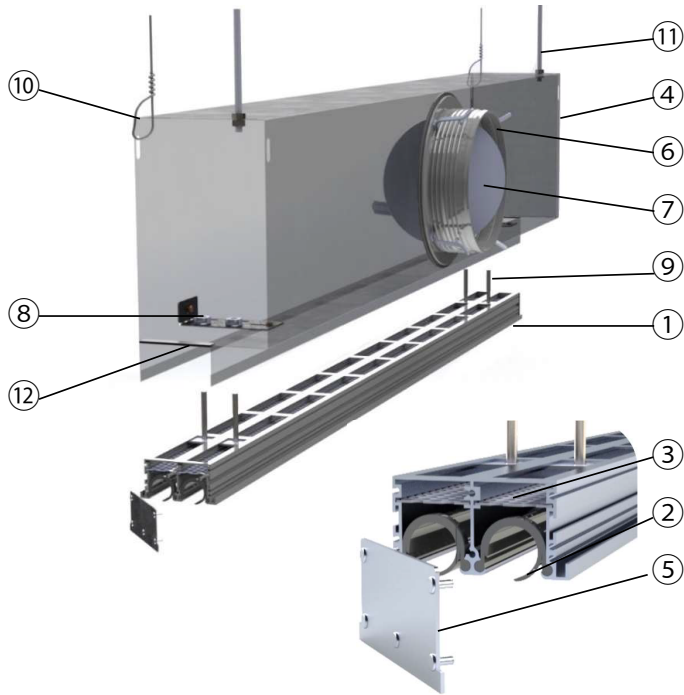
DIFFUSION LINE JUNCTION



- 1 Junction bar
- 2 Spring pin

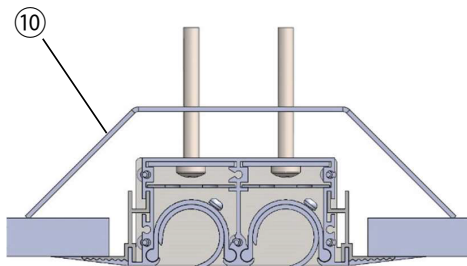
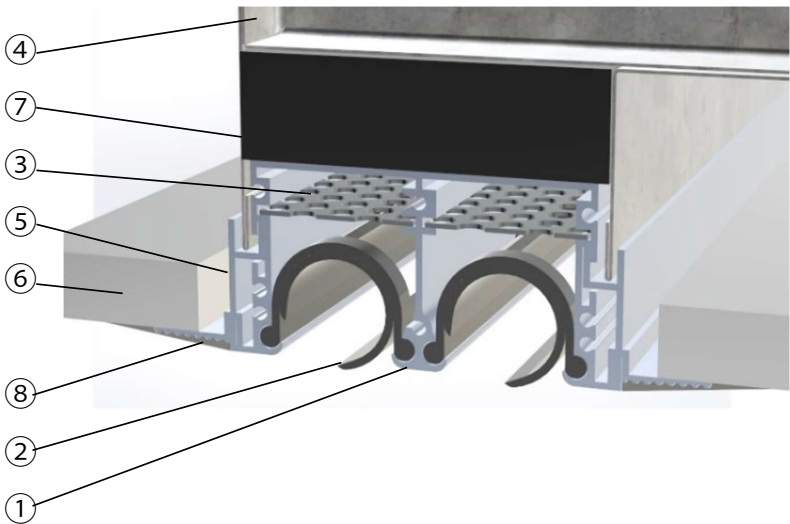


- 1 Diffuser
- 2 Deflector
- 3 Equalizer or sliding damper
- 4 Plenum
- 5 End cap
- 6 Spigot
- 7 Plenum damper
- 8 Plenum bridge
- 9 Screw for diffuser to plenum mounting
- 10 Hanger for plenum to ceiling mounting
- 11 Threaded rod for plenum to ceiling mounting
- 12 Gasket



CONFIGURATION FOR CLOSED CEILING

- 1 Diffuser
- 2 Deflector
- 3 Equalizer or sliding damper
- 4 Plenum
- 5 Profile for drywall ceiling mounting
- 6 Ceiling
- 7 Gasket
- 8 Finishing putty
- 9 Aluminium deflector
- 10 Bracket for ceiling mounting without plenum



Linear slot diffuser with adjustable aluminium deflectors



Product

DLR

Application

Wall or ceiling supply with deflectors or return without deflectors

Construction

Frame and deflectors in extruded anodised aluminium
Other paint finishes on request

SPECIFICATION

Linear slot diffuser with adjustable aluminium deflectors with a high induction ratio (mixing capacity) between supply air and room air. Made of coupled aluminium profiles to obtain multiple slots housing adjustable aluminium deflectors. The supply airflow can be directed right, left or alternating, by varying the deflector position.

MOUNTING

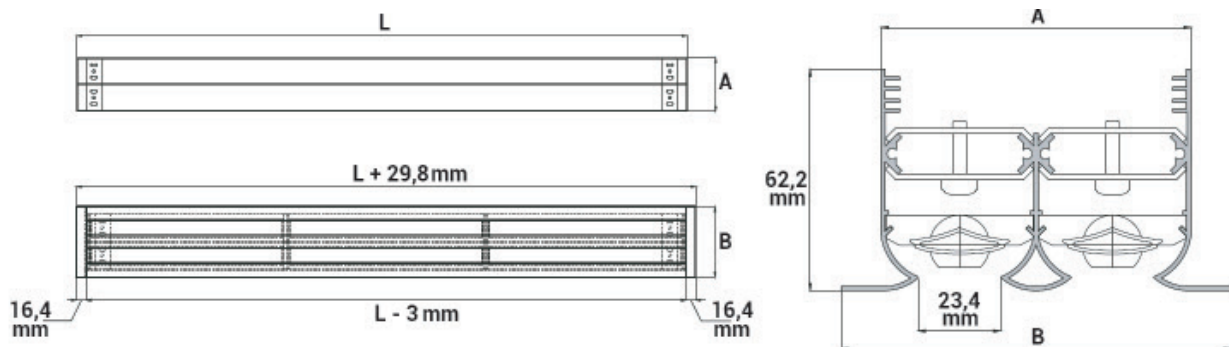
With side screws or centre screw on the plenum mounting bridge. Installation height from 2.5 to 4

ACCESSORIES

Galvanised plenum, insulated plenum, 90° connection angle and continuity kit.

VERSIONS

DLR-10 return diffusers (without deflectors).
DLR-20 supply diffusers with ALUMINIUM deflectors.
DLRB-20 supply diffusers painted white RAL9010 with white ALUMINIUM deflectors.
DLR-40 supply diffusers with ALUMINIUM deflectors and sliding damper.
DLRB-40 white RAL9010 painted supply diffusers with white ALUMINIUM deflectors and sliding damper.
DLR-50 supply diffusers with ALUMINIUM deflectors, equaliser and sliding damper.
DLRB-50 white RAL9010 painted supply diffusers with white ALUMINIUM deflectors, equalizer and damper sliding.





OPERATING DATA

LINEAR DIFFUSER DLR				
No. of SLOTS	L	A	B	NUMBER OF BRIDGES
1 SLOT	800	44,4	67	2
2 SLOTS		87,6	110,2	2
3 SLOTS		130,8	153,4	2
4 SLOTS		174	196,6	2
1 SLOT	1000	44,4	67	2
2 SLOTS		87,6	110,2	2
3 SLOTS		130,8	153,4	2
4 SLOTS		174	196,6	2
1 SLOT	1500	44,4	67	3
2 SLOTS		87,6	110,2	3
3 SLOTS		130,8	153,4	3
4 SLOTS		174	196,6	3
1 SLOT	2000	44,4	67	4
2 SLOTS		87,6	110,2	4
3 SLOTS		130,8	153,4	4
4 SLOTS		174	196,6	4

All dimensions are in mm

OPERATING DATA

No. of SLOTS	effective section m ²	AIR FLOW RATE, THROW AND PRESSURE DROP							
		m ³ /h	72	107	143	179	215	251	287
1 SLOT	0,0099	Pa	4	9	15	24	35	47	61
		Lo(m)	2,6	4,0	5,3	6,6	7,9	9,2	10,5
		Lv(m)	1,8	2,8	3,7	4,6	5,5	6,5	7,4
		m ³ /h	143	215	287	358	430	501	573
2 SLOTS	0,0199	Pa	5	10	18	29	41	56	74
		Lo(m)	3,8	5,6	7,5	9,4	11,3	13,2	15,1
		Lv(m)	2,6	4,0	5,3	6,6	7,9	9,2	10,5
		m ³ /h	215	322	430	537	645	752	860
3 SLOTS	0,0298	Pa	6	14	26	40	58	79	103
		Lo(m)	4,4	6,7	8,9	11,1	13,3	15,6	17,8
		Lv(m)	3,1	4,7	6,2	7,8	9,3	10,9	12,4
		m ³ /h	287	430	573	716	860	1003	1146
4 SLOTS	0,0398	Pa	10	23	41	64	92	125	163
		Lo(m)	5,0	7,6	10,1	12,6	15,1	17,6	20,2
		Lv(m)	3,5	5,3	7,1	8,8	10,6	12,4	14,1
		Vk	m/s	2	3	4	5	6	7
NOISE LEVEL INDEX		dB(A)	25-30	30-35	35-40	40-45	42-48	45-50	50-55

Data for 1m length diffusers

Vk: effective velocity (m/s)

m³/h: air flow rate

Pa: pressure drop in Pascal

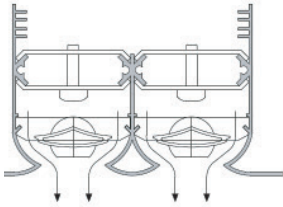
Lo(m): horizontal throw in metres calculated with flush ceiling installation and 0.25 m/s terminal velocity

Lv(m): vertical throw in metres calculated with flush ceiling installation and 0.25 m/s terminal velocity

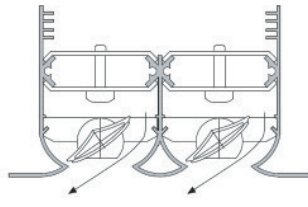
dB(A): noise level index



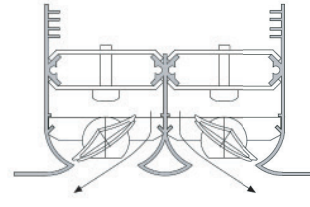
THROW CHARACTERISTICS



VERTICAL THROW



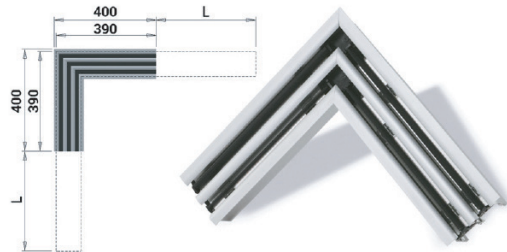
HORIZONTAL THROW 1 WAY



HORIZONTAL THROW 2 WAY

CONNECTION ANGLE

Aesthetic connecting element between the two lines of linear diffusers at 90° angle and 400 length mm per side.
All dimensions are expressed in mm.

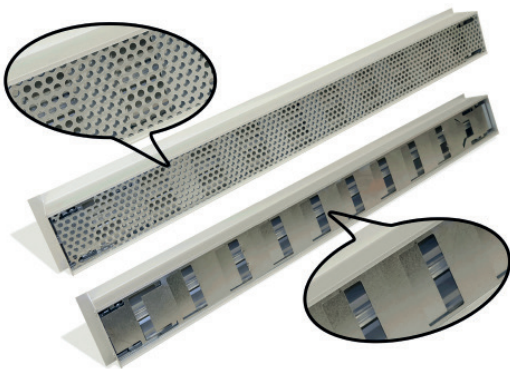


CONTINUITY KIT

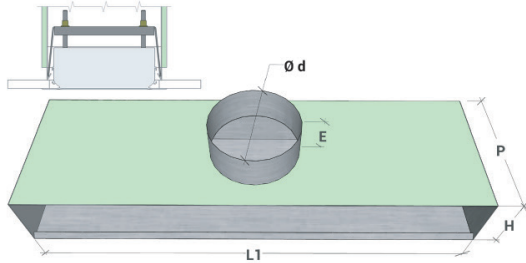
Aesthetic connecting element between the two lines of linear diffusers at 90° angle and 400 length mm per side.
All dimensions are expressed in mm.



EQUALISING MESH AND SLIDING DAMPER



PLENUM DIMENSIONS AND MOUNTING SYSTEM WITH FIXING BRIDGES



No. of SLOTS	L	PLENUM DIMENSIONS					
		L1	Number of branches	Ø d	P	H	E
1 SLOT	800	815	1	123	200	59	80
	1000	1015	1				
	1500	1515	2				
	2000	2015	2				
2 SLOTS	800	815	1	123	240	102	80
	1000	1015	1				
	1500	1515	2				
	2000	2015	2				
3 SLOTS	800	815	1	123	240	145	80
	1000	1015	1				
	1500	1515	2				
	2000	2015	2				
4 SLOTS	800	815	1	123	285	189	80
	1000	1015	1				
	1500	1515	2				
	2000	2015	2				

MOUNTING DIAGRAM

Installation, adjustments and maintenance are easy. Fixing to the plenum is carried out by side screws or concealed central bridge.

The **regulation** of the air flow distribution is done by manually acting on the deflectors which are equipped with snap movement that allows position maintenance during operation.



FIG. 1
BRIDGE MOUNTING TO PLENUM FIXED TO CEILING



FIG. 1

- hang the plenum from the ceiling using appropriate brackets or chains fixed to the plenum whose outer edge can be perforated;
- insert the flexible duct onto the connection spigot securing it with the appropriate hose clamp;
- rotate the diffuser deflector to vertical position as shown in the figure near the fixing bridge;
- screw the screw to the plenum fixing bridge by inserting it into the appropriate brackets inside the diffuser frame;
- perform preliminary damper adjustment by acting on the pin with Allen key and tightening the hexagonal screw pin mounting;
- rotate the blades to the desired position;

FIG. 2
MOUNTING WITH SIDE SCREWS TO PLENUM FIXED TO CEILING



FIG. 2

- hang the plenum from the ceiling using appropriate brackets or chains fixed to the plenum whose outer edge can be perforated;
- insert the flexible duct onto the connection spigot securing it with the appropriate hose clamp;
- rotate the diffuser deflector to vertical position as shown in the figure near the fixing bridge;
- screw the screw to the plenum fixing bridge by inserting it into the appropriate brackets inside the diffuser frame;
- perform preliminary damper adjustment by acting on the pin with Allen key and tightening the hexagonal screw pin mounting;
- rotate the blades to the desired position;

FIG. 3
ADJUSTMENT OF MOVABLE DEFLECTORS

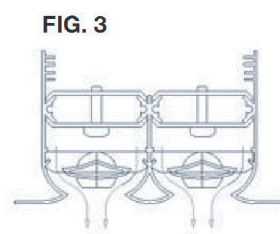
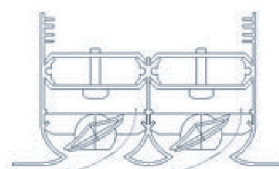


FIG. 3

Deflector position
for maximum
vertical throw



Deflector position
for maximum
horizontal throw

- The adjustable deflectors can be regulated from 0° angle, maximum vertical throw position (used in heating) to a maximum angle, maximum horizontal throw position (used in cooling).

The deflectors are equipped with a snap positioning device to guarantee precision and always correct positioning even at high flow rates and velocities.

DLS

Concealed linear slot diffuser with 20 or 30 mm slots with aluminium aerodynamic profile and adjustable deflectors



Product

DLS

Application

Supply or return, concealed

Construction

Frame and deflectors in aluminium painted RAL 9005 and RAL 9016 (DLSB)

SPECIFICATION

Concealed linear diffusers with 20 mm or 30 mm slots with aluminium aerodynamic profile and adjustable deflectors, for optimal airflow control.

MOUNTING

By plenum with bridge mounting system. Anti-creak tape positioning on frame and subsequent plaster finishing.

ACCESSORIES

Galvanised plenum, insulated plenum, mounting bridges and continuity kit. From 1 to 3 slots

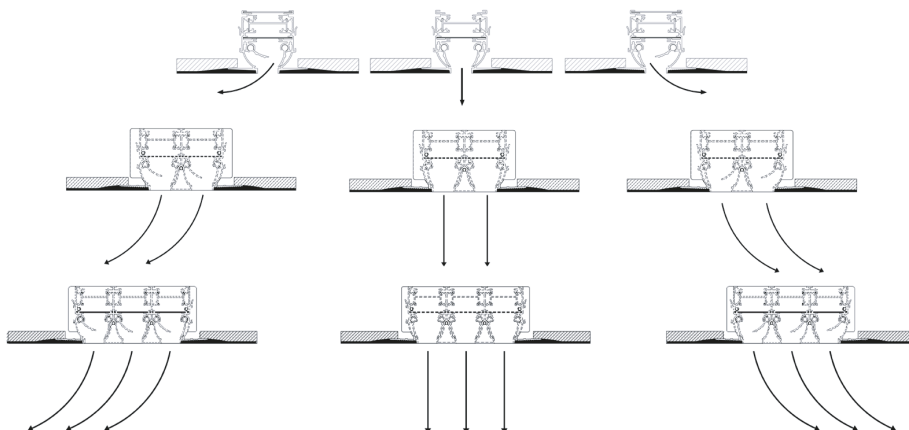
Dimensions available in single piece:

- minimum length 300 mm;
- maximum length 2000 mm

VARIANTS

- DLS20/DLS20B: concealed linear diffusers without deflectors with 20 mm slot.
- DLS20D/DLS20BD: concealed linear diffusers with deflectors and 20 mm slot.
- DLS20SE/DLS20BSE: concealed linear diffusers without deflectors, with damper and 20 mm slot.
- DLS20DSE/DLS20BDSE: concealed linear diffusers with deflectors, damper and 20 mm slot.
- DLS30/DLS30B: concealed linear diffusers without deflectors with 30 mm slot.
- DLS30D/DLS30BD: concealed linear diffusers with deflectors and 30 mm slot.
- DLS30SE/DLS30BSE: concealed linear diffusers without deflectors, with damper and 30 mm slot.
- DLS30DSE/DLS30BDSE: concealed linear diffusers with deflectors, damper and 30 mm slotmm

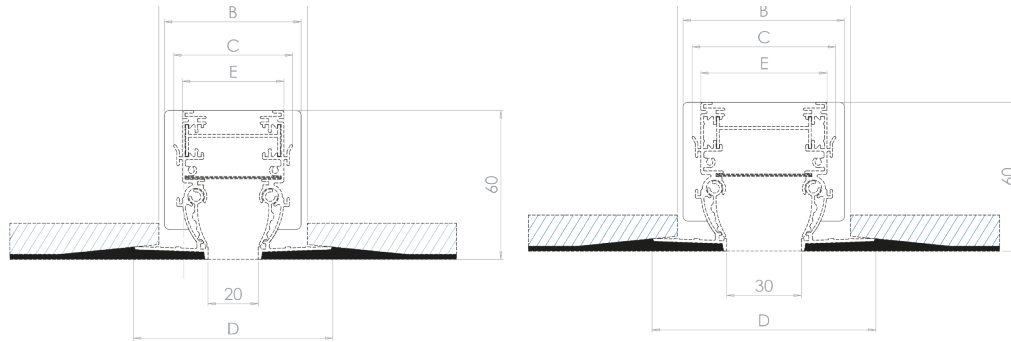
THROW CHARACTERISTICS





DIFFUSER DIMENSIONS

1F



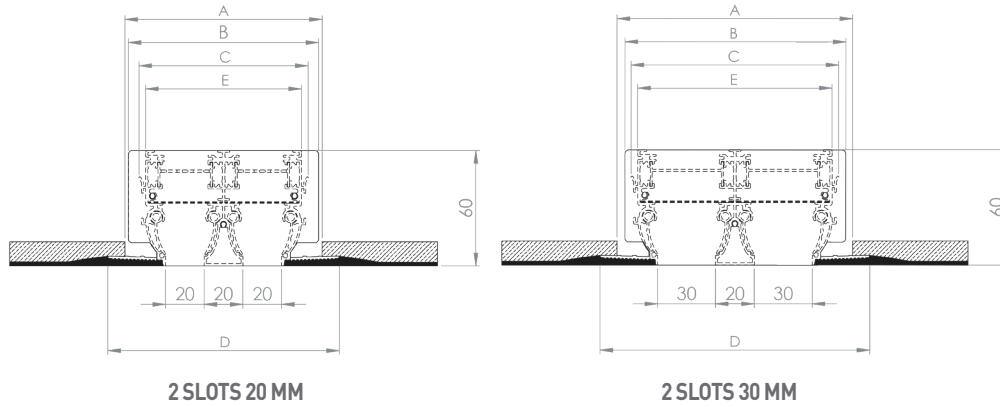
20 MM SLOT

30 MM SLOT

SLOT	L	A	B	C	E	D	number of bridges mounting
SLOT FROM 20 mm	800						2
	1000						2
	1200	60	55	48	41	80	2
	1500						2
	2000						2
SLOT FROM 30 mm	800						2
	1000						2
	1200	70	65	58	51	90	2
	1500						2
	2000						2

DIFFUSER DIMENSIONS

2F

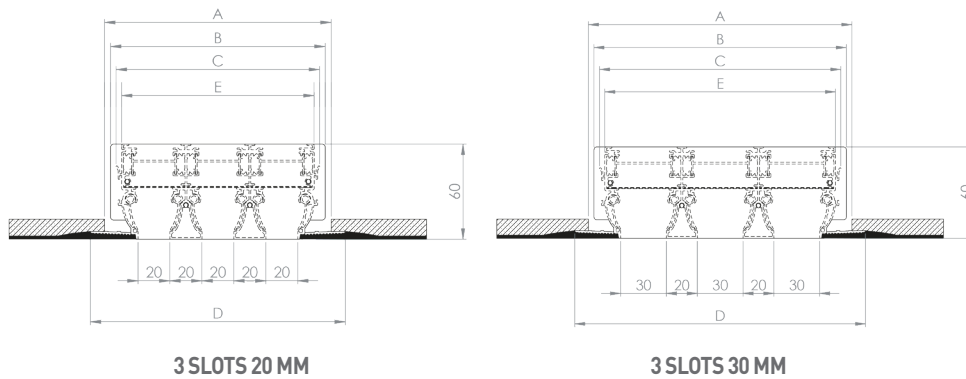


2 SLOTS	L	A	B	C	D	E	number of bridges mounting
SLOTS FROM 20 mm	800						2
	1000						2
	1200	100	95	88	120	81	2
	1500						2
	2000						2
SLOTS FROM 30 mm	800						2
	1000						2
	1200	120	115	108	140	101	2
	1500						2
	2000						2



DIFFUSER DIMENSIONS

3F



3 SLOTS	L	A	B	C	D	E	number of bridges mounting
SLOTS FROM 20 mm	800						2
	1000						2
	1200	140	135	128	160	121	2
	1500						2
	2000						3
SLOTS FROM 30 mm	800						2
	1000						2
	1200	170	165	158	190	151	2
	1500						2
	2000						3

OPERATING DATA

Data referred to 1m long diffusers, with terminal velocity $V_t=0.25$ m/s and temperature differential of 10/12 °C, flush ceiling mounted with lateral throw.

Values referred to diffuser without damper or with open sliding damper. Values referred to diffuser with deflectors in working position with 50% surface utilisation of

The deflector position reduces the effective section. With deflectors fully open or if the diffuser is used for return, the flow rates in m³/h shown in the table can be

Vk: effective velocity (m/s)

m³/h: air flow rate

Pa: pressure drop in Pascal

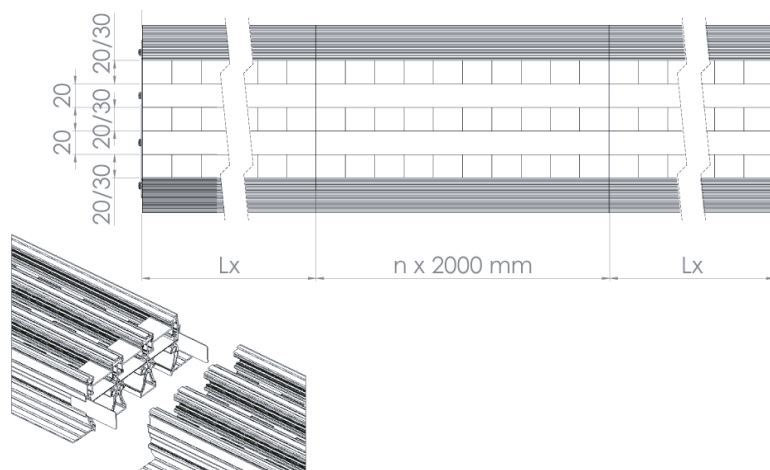
L(m): throw in metres

dB(A): noise level index

SLOTS	DIMENSIONS SLOTS	EFFECTIVE SECTION M ²	AIR FLOW RATE AND THROW						
			m ³ /h	70	105	140	175	210	245
1 SLOT	SLOT from 20 mm	0,0097	L(m)	1.8	2.7	3.6	4.5	5.4	6.3
			m ³ /h	105	158	210	262	315	368
	SLOT from 30 mm	0,0146	L(m)	1,6	2,5	3,4	4,2	5	5,8
			noise level index	dB(A)	<20	22	32	37	44
2 SLOTS	SLOT from 20 mm	0,0194	L(m)	2,6	3,9	5,1	6,4	7,7	9,0
			m ³ /h	210	316	420	524	630	736
	SLOT from 30 mm	0,0292	L(m)	2,3	3,6	4,9	6,0	7,1	8,3
			noise level index	dB(A)	<20	24	34	39	46
3 SLOTS	SLOT from 20 mm	0,0291	L(m)	3,9	5,8	7,7	9,6	11,6	13,5
			m ³ /h	210	315	420	525	630	735
	SLOT from 30 mm	0,0438	L(m)	3,4	5,4	7,3	9,0	10,7	12,4
			m ³ /h	315	474	630	786	945	1104
		noise level index	dB(A)	<20	26	36	41	48	52
Vk			m/s	2	3	4	5	6	7
PRESSURE DROPS			Pa	7	15	26	41	59	80

CONTINUITY KIT

The continuity kit is a necessary accessory for creating continuous linear diffuser lines longer than 2 metres. It consists of two junction plates that allow





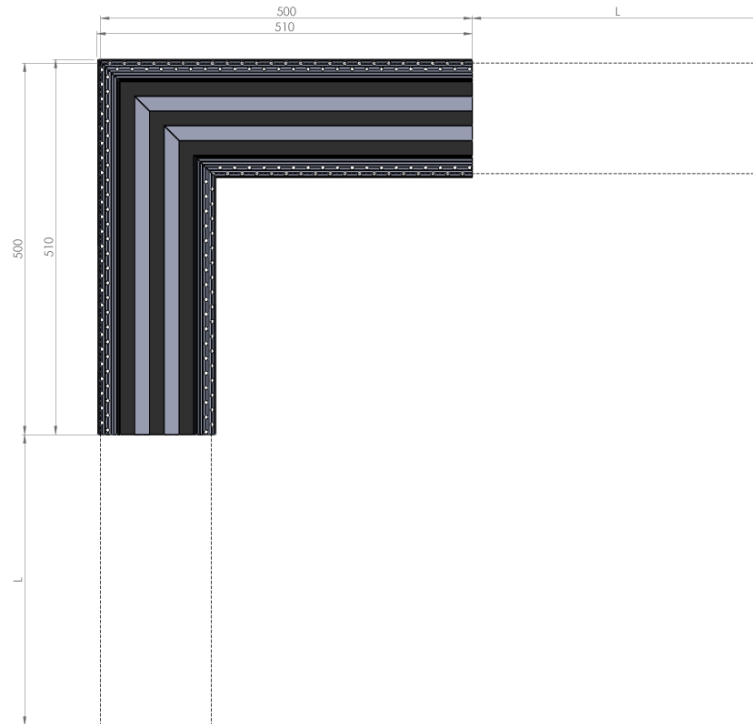
CONNECTION ANGLE

DIMENSIONS DETAILS

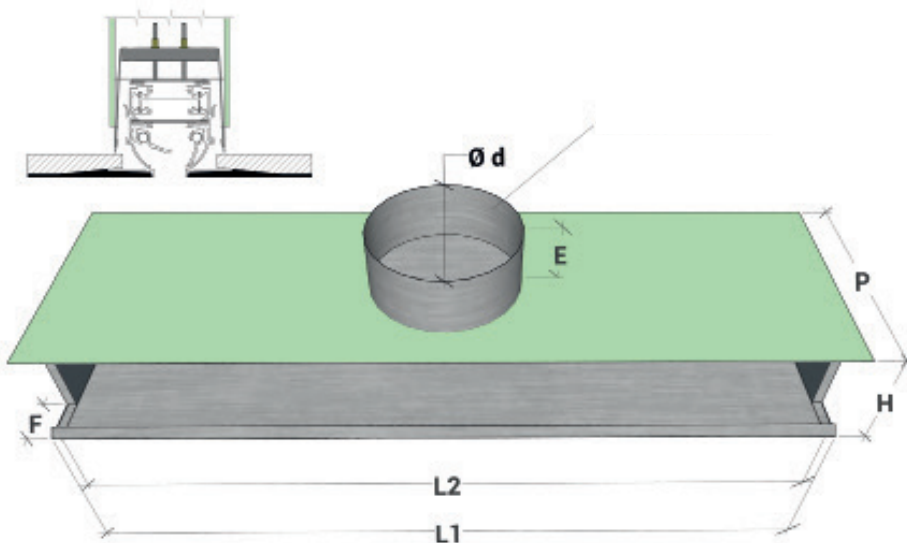
3-SLOT DIFFUSER

Aesthetic connection element between two linear diffuser lines at 90° angle and 500 mm length per side. It has no ventilation function.

All dimensions are expressed in mm.



PLENUM DIMENSIONS AND MOUNTING SYSTEM WITH FIXING BRIDGES



1 SLOT	PLENUM DIMENSIONS								
	L	L1	L2	Number branches	Ø d	P	H	E	F
SLOT from 20 mm	800	800	770	1	145	240	60	80	56
	1000	1000	970	1					
	1200	1200	1170	2					
	1500	1500	1470	2					
	2000	2000	1970	2					
SLOT from 30 mm	800	800	770	1	145	240	70	80	56
	1000	1000	970	1					
	1200	1200	1170	2					
	1500	1500	1470	2					
	2000	2000	1970	2					

2 SLOTS	PLENUM DIMENSIONS								
	L	L1	L2	Number branches	Ø d	P	H	E	F
SLOT from 20 mm	800	800	770	2	145	300	100	80	56
	1000	1000	970	2					
	1200	1200	1170	2					
	1500	1500	1470	2					
	2000	2000	1970	2					
SLOT from 30 mm	800	800	770	2	198	300	120	80	56
	1000	1000	970	2					
	1200	1200	1170	2					
	1500	1500	1470	2					
	2000	2000	1970	2					

3 SLOTS	PLENUM DIMENSIONS								
	L	L1	L2	Number branches	Ø d	P	H	E	F
SLOT from 20 mm	800	800	770	2	198	300	140	80	56
	1000	1000	970	2					
	1200	1200	1170	2					
	1500	1500	1470	2					
	2000	2000	1970	2					
SLOT from 30 mm	800	800	770	2	198	300	160	80	56
	1000	1000	970	2					
	1200	1200	1170	2					
	1500	1500	1470	2					
	2000	2000	1970	2					

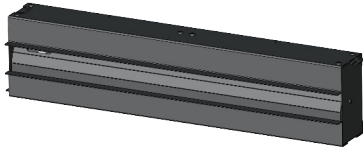
TDLMS

Concealed single-slot diffuser



Diffusion

Components
for perfect air
distribution in HVAC
systems



Product

TDLMS

Application

On closed suspended ceilings

Construction

Painted steel RAL 9005

SPECIFICATION

High induction single-slot linear diffuser designed without frame for concealed installation in suspended ceilings.

MOUNTING

To plenum with side screws

Dimensions

P7 = 40 mm SLOT

P8 = 60 mm SLOT

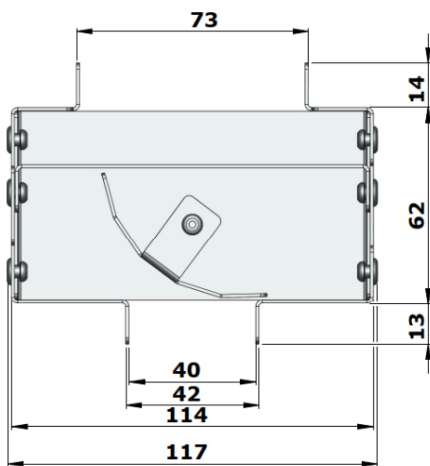
ACCESSORIES

Damper, equaliser and plenum

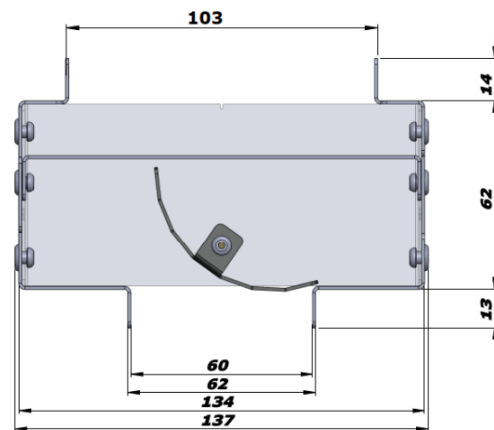
AVAILABLE LENGTHS:

L=500

L=1000



TDLMS1F***P7



TDLMS1F***P8

TDLMS

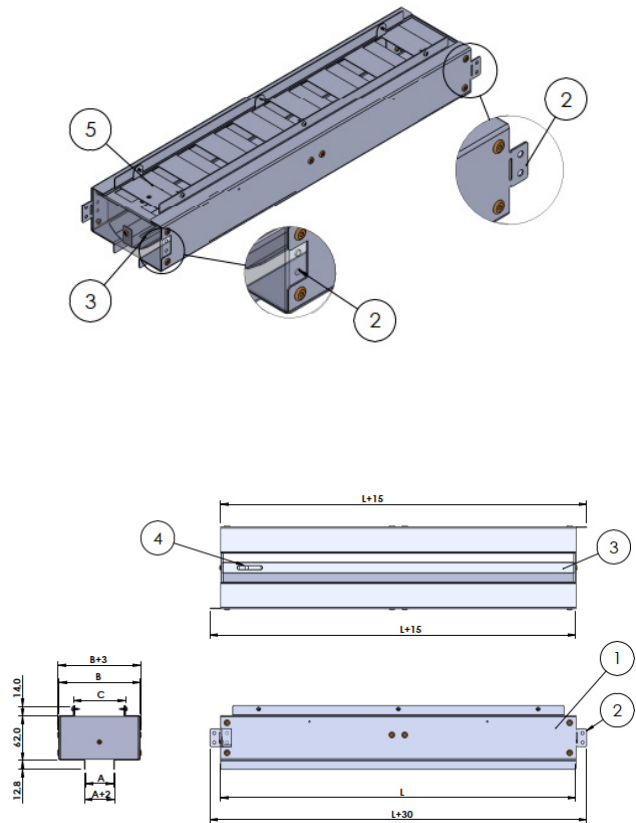
Concealed single-slot diffuser

IN-LINE MOUNTING

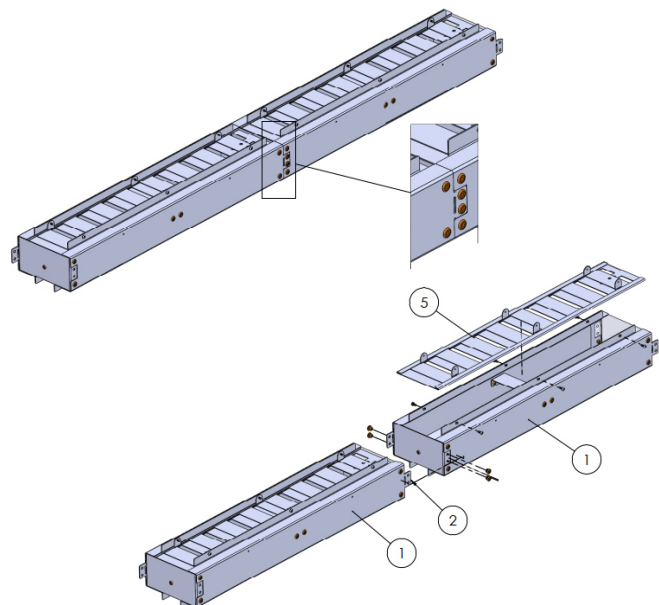
DIFFUSER COMPONENTS

Pos.	Description
1	Diffuser
2	Line junction element
3	Deflector
4	Slot for damper adjustment
5	Damper / Equalizer
6	Ceiling
7	Connection
8	Plenum

A (mm)	B (mm)	C (mm)
40	114	73
60	134	103

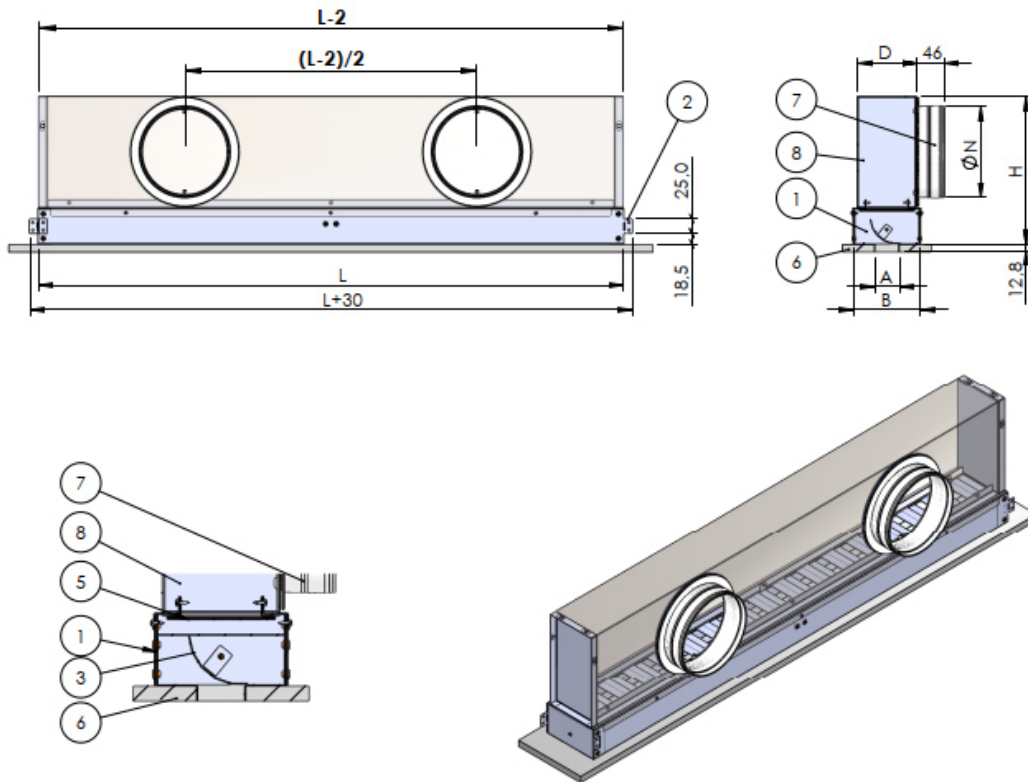


Pos.	Description
1	Diffuser
2	Line junction element
5	Damper / Equalizer





PLENUM DIMENSIONS:



	A (mm)	B (mm)	D (mm)	ØN (mm)	H (mm)	L (mm)
TDLMS1FxxxP7	40	114	101	160	252	diffuser length (xxx)
TDLMS1FxxxP8	60	134	103	200	292	diffuser length (xxx)

No. Connections	
diffuser length (500mm)	1
diffuser length (1000mm)	2

Symbol	Description
Q	Air flow rate in m ³ /h
A _k	Effective section (free area) in m ²
V _k	Average velocity at diffuser outlet in m/s
X _{0,25}	Throw length L in m at a terminal velocity VL of 0.25 m/s under isothermal conditions free from obstacles.
P _{st}	Static pressure loss in Pa, of Diffuser + Plenum
L _w (A)	Sound Power in dB(A)

TDLMS 40 SELECTION TABLE WITHOUT DAMPER

dT values: 0 K		Vertical throw			Horizontal throw		
Q	Dim	500	1000	1000	500	1000	1000
(m ³ /h)	Dim Ak(m ²)	0,01	0,02	0,02	0,0075	0,015F	0,015F
80	Vk (m/s)	2,2	1,1	3,0	1,5		
	X0,25 (m)	2,8	1,60	1,9	1,0		
	Ps(Pa)	6,0	<5	9,0	<5		
	Lw(A)	<20	<20	<20	<20		
100	Vk (m/s)	2,8	1,4	3,7	1,9		
	X0,25 (m)	4,4	2,50	3,0	1,6		
	Ps(Pa)	9,0	<5	14,0	<5		
	Lw(A)	<20	<20	23,0	<20		
120	Vk (m/s)	3,3	1,7	4,4	2,2		
	X0,25 (m)	6,3	3,60	4,3	2,2		
	Ps(Pa)	13,0	<5	20,0	5,0		
	Lw(A)	25,0	<20	29,0	<20		
150	Vk (m/s)	4,2	2,1	5,6	2,8		
	X0,25 (m)	9,9	5,60	6,7	3,4		
	Ps(Pa)	20,0	5,0	32,0	8,0		
	Lw(A)	31,0	<20	36,0	<20		
200	Vk (m/s)	5,6	2,8		3,7		
	X0,25 (m)	17,5	9,90		6,0		
	Ps(Pa)	36,0	9,0		14,0		
	Lw(A)	40,0	19,0		23,0		
250	Vk (m/s)		3,5		4,6		
	X0,25 (m)		15,00		9,4		
	Ps(Pa)		14,0		22,0		
	Lw(A)		26,0		30,0		
350	Vk (m/s)				6,5		
	X0,25 (m)				18,0		
	Ps(Pa)				43,0		
	Lw(A)				40,0		
450	Vk (m/s)				8,3		



TDLMS 60 SELECTION TABLE WITHOUT DAMPER

dT values: 0 K		Vertical throw			Horizontal throw		
Q (m ³ /h)	Dim	Dim Ak(m ²)	500	1000	500	1000	
			0,0142	0,028	0,0145	0,029F	
150	Vk (m/s)		2,9	1,5	2,9	1,4	
	X0,25 (m)		3,4	2,00	3,0	1,9	
	Ps(Pa)		9,0	<5	8,0	<5	
	Lw(A)		20,0	<20	22,0	<20	
200	Vk (m/s)		3,9	2,0	3,8	1,9	
	X0,25 (m)		6,2	3,50	4,3	3,4	
	Ps(Pa)		16,3	4,1	14,0	<5	
	Lw(A)		25,0	<20	31,0	<20	
250	Vk (m/s)		4,9	2,4	4,8	2,4	
	X0,25 (m)		9,5	5,40	6,7	5,3	
	Ps(Pa)		25,4	6,4	22,5	6,0	
	Lw(A)		35,0	<20	38,0	<20	
300	Vk (m/s)		5,9	2,9	5,7	2,9	
	X0,25 (m)		14,0	7,80	6,7	7,7	
	Ps(Pa)		36,6	9,0	32,5	8,0	
	Lw(A)		41,0	23,0	43,0	25,0	
350	Vk (m/s)			3,4	6,7	3,4	
	X0,25 (m)			10,60	6,7	10,5	
	Ps(Pa)			12,5	44,0	11,0	
	Lw(A)			27,0	48,0	30,0	
400	Vk (m/s)			3,9		3,8	
	X0,25 (m)			13,90		13,7	
	Ps(Pa)			16,3		14,5	
	Lw(A)			31,0		34,0	
500	Vk (m/s)			4,9		4,8	
	X0,25 (m)			21,00		21,0	
	Ps(Pa)			25,5		23,0	
	Lw(A)			38,0		41,0	
600	Vk (m/s)					5,7	
	X0,25 (m)					30,7	
	Ps(Pa)					33,0	
	Lw(A)					46,0	
700	Vk (m/s)					6,7	
	X0,25 (m)					41,8	
	Ps(Pa)					45,0	
	Lw(A)					51,0	

DIP

Floor diffuser



Product

DIP

Application

Floor-mounted

Construction

Epoxy powder coated steel matt RAL 9005

SPECIFICATION

The DIP diffuser is suitable for floor-level installation in environments requiring particular thermal and acoustic comfort conditions

FUNCTIONS

The floor diffuser has a high capacity to reduce the temperature difference between the supply air and the required room temperature

MOUNTING

Fixing by support ring suitable for the floor type.
If the floor is not sealed, the use of a plenum is required

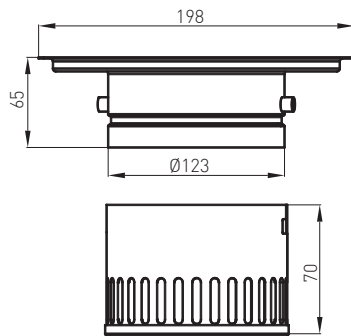
VERSIONS

DIP125 IX with stainless steel grille (on request)

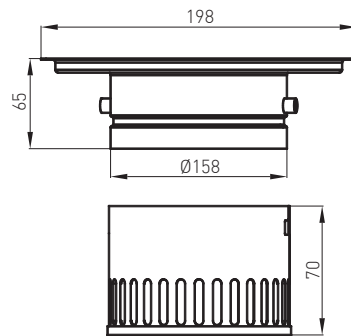
ACCESSORIES

Dust collection basket.
Basket damper.
Support ring for raised floor installation.
Support ring for concrete floor installation.
Galvanised sheet metal plenum with side connection \varnothing 125

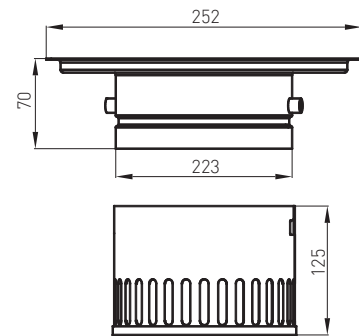
DIMENSIONS



DIP125



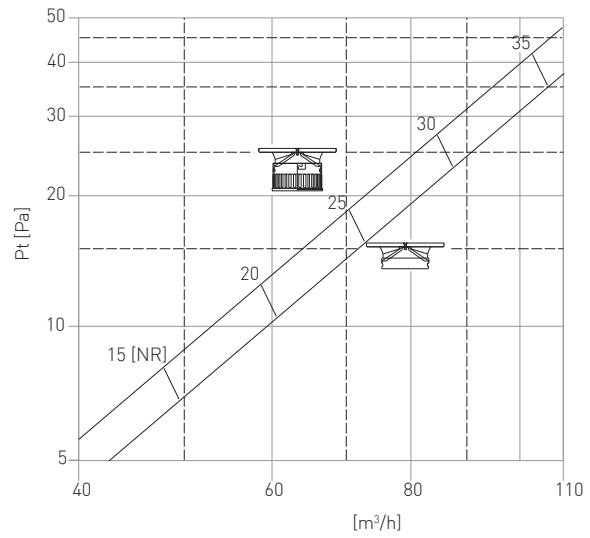
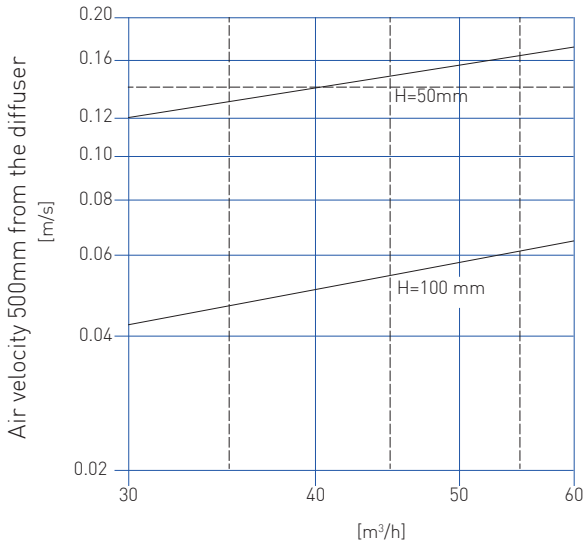
DIP160



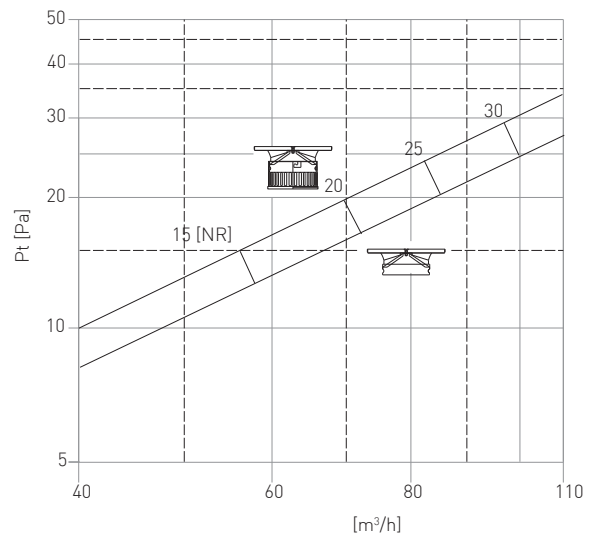
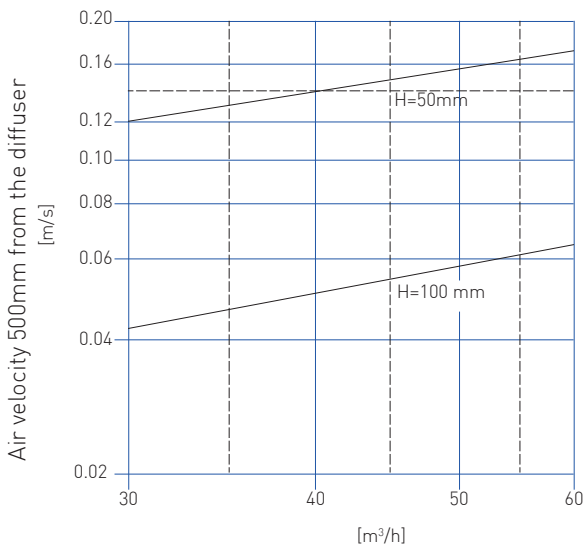
DIP225



PERFORMANCE TABLES



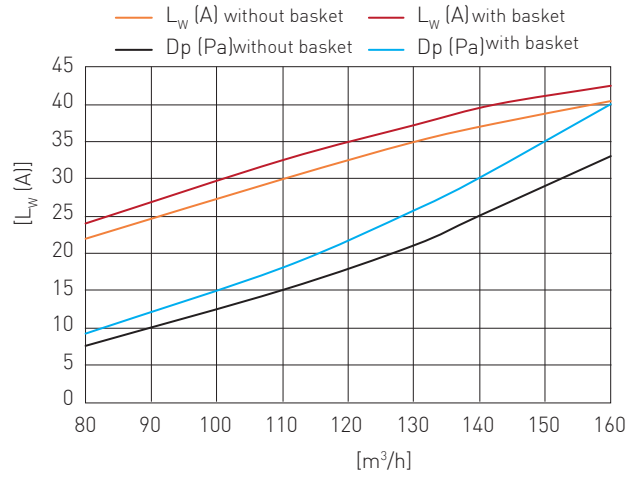
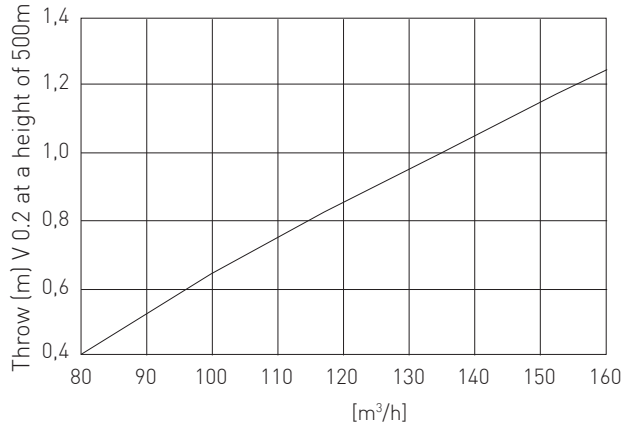
DIP125



DIP160

DIP

Floor diffuser



DIP225

DSP

Under-seat diffuser



Diffusion

Components
for perfect air
distribution in HVAC
systems

DIFFUSERS



Product

DSP

Application

Chair-supported or floor-mounted

Construction

Perforated cylinder, truncated cone, diffuser with adjustable blades, seat adapter support, floor fixing collar: powder coated steel epoxy

SPECIFICATION

The DSP diffuser is used in large rooms, cinemas, theatres, conference halls. Built to ensure low pressure drops, minimum noise and maximum comfort near people

FUNCTIONS

Under-seat diffusers are used to replace a traditional air conditioning system over the entire room volume, generating a microclimate effect in specific areas

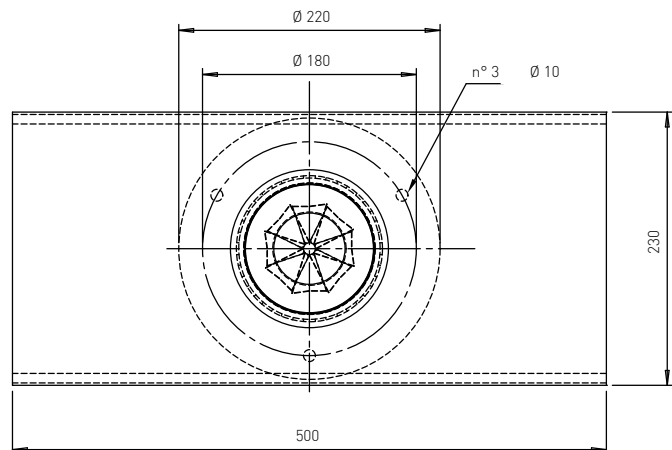
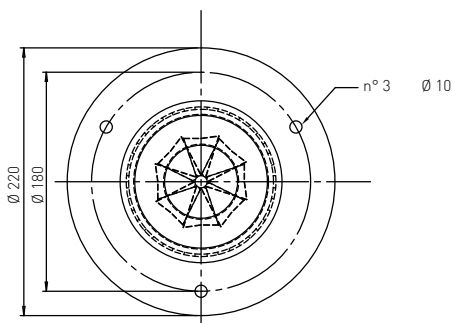
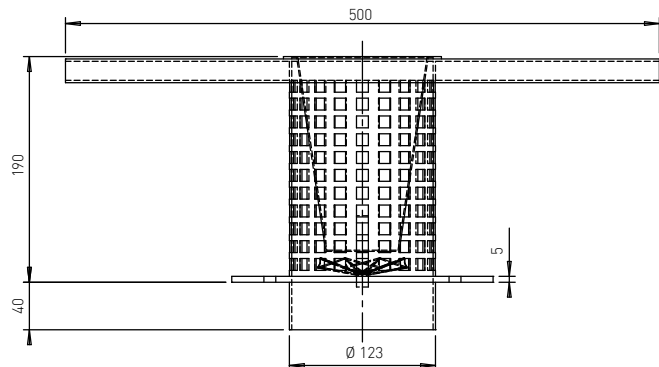
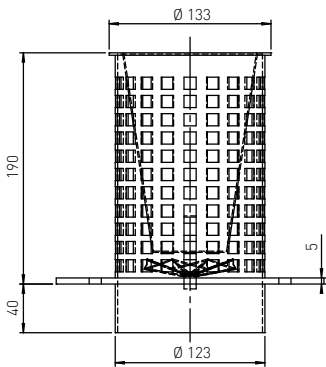
VERSIONS

DSP/A Under-seat diffuser without support

ACCESSORIES

Support plate

DIMENSIONS



STANDARD DIFFUSER

DIFFUSER WITH SUPPORT PLATE

TECHNICAL CHARACTERISTICS

Air flow rate	Pressure drop pressure drop	Induced secondary air	Velocity air at 25 cm from diffuser	Temperature a 25 cm from diffuser	Velocity air at 1 m in height	Temperature a 1 m from diffuser
m ³ /h	Pa	m ³ /h	cm/s	°C	cm/s	°C
35	8	9	25	20,4	9	22,4
45	10	12	28	20,4	8	22,5
55	18	14	30	20,5	8	22,4

SOUND POWER LEVEL

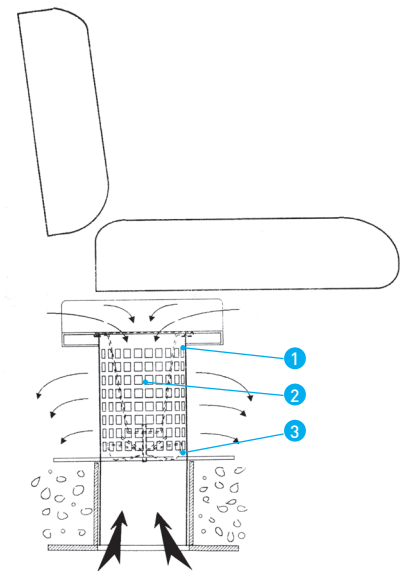
f (Hz)	63	125	250	500	1000	2000	4000	8000
Bottom	36	29	26	11	6	7	10	12
35 m ³ /h	*	*	*	*	*	*	*	*
45 m ³ /h	*	*	32	21	*	*	*	*
55 m ³ /h	*	32	33	33	24	13	*	*

* The noise level does not exceed background noise

OPERATION

Primary air is introduced from the bottom of the cylinder (1) through the diffuser with adjustable blades (3) which, by changing the air direction, convey it towards the perforated walls of the

This airflow creates a depression zone at the centre of the diffuser where an inverted cone (2) is placed, which draws air from the room and mixes it with the primary air. A pre



CMI SERIES

Circular or semicircular inductive micro-perforated ducts



Diffusion

Components
for perfect air
distribution in HVAC
systems



CMIC



CMIS

Product

CMI/CMIS

Construction

Galvanized sheet (CMIZ)
Stainless Steel AISI 304 (CMIX)
Fabric (CMIT)

SPECIFICATION

Micro-perforated air distribution duct with inductive effect

DESCRIPTION

Micro-perforated duct ideal for air distribution and ventilation systems. Designed to minimise system noise and ensure the absence of condensation even in extreme environmental conditions.

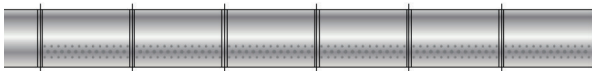
VERSIONS

CMIC circular ducts. They can be supplied at constant diameter or variable diameter.

CMIS semi-circular ducts

DUCT TYPES

CONSTANT DIAMETER DUCT



VARIABLE DIAMETER DUCT



CMI SERIES

Circular or semicircular inductive micro-perforated ducts

DIMENSIONS

CMIC	Flow rate
Ø mm	m ³ /h
200	790
250	1235
300	1780
350	2425
400	3165
450	4005
500	4945
550	5985
600	7120
650	8360
700	9695
750	11125
800	12660
850	14290
900	16025
950	17885
1000	19782
1100	23935
1250	30910

Quick Selection

Velocity 6-7 m/s

Double throw approx. 240-260 m² x ml

Single throw approximately 120-130 m² x ml

CMIS	Flow rate
Ø mm	m ³ /h
200	395
250	617
300	890
350	1212
400	1582
450	2002
500	2472
550	2992
600	3560
650	4180
700	4847
750	5562
800	6330
850	7145
900	8012
950	8942
1000	9891
1100	11967
1250	15455

Quick Selection

Double throw approx. 240-260 m² x ml




















Single throw approximately 120-130 m² x ml

GRILLES



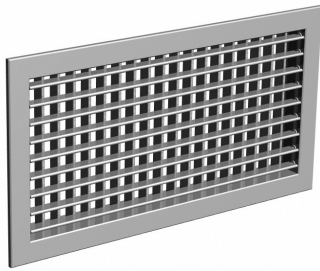
Diffusion

Components for perfect
air distribution in HVAC
systems

	BMA Supply grille with adjustable blades	p. 136		PBOS/PBOI Plenum	p. 166
	GRA25 Fixed blade return grille	p. 139		BPA Walk-on grille	p. 168
	GRA25FC Filter-holding return grille	p. 143		BMAI Industrial aluminium supply grille	p. 171
	GTA Aluminium transfer grille	p. 146		GRAI Industrial aluminium return grille	p. 175
	BCZ Grille for circular ducts	p. 149		GRZ50 Outdoor air intake grille pitch 50	p. 179
	BMF Fixed blade grille	p. 152		GRZ100 Industrial galvanised return grille pitch 100	p. 180
	BDR Square mesh grille	p. 156		BDM Pressed intake grilles	p. 181
	BDRFC Square mesh filter-holding grille	p. 161		BDMC Pressed circular grille	p. 182
	KSEL Damper for GRILLES	p. 164		GRC Circular grille with mesh	p. 183
	KCTC Sub-frame for grilles	p. 165			

BMA

Aluminium supply grille with adjustable blades



Product

BMA

Construction

Aluminium (stainless steel on request).
Finish: natural anodized
BMB white RAL 9016 (other RAL on request)

Fixing

Standard with clips (screws on request)

SPECIFICATION

Aluminium supply grille with individually adjustable blades, 20 mm pitch, single or double row. For wall application, generally for supply

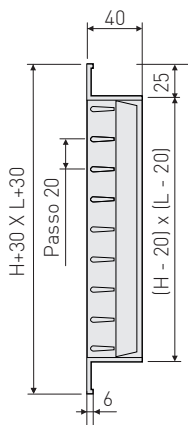
MODELS AND ACCESSORIES

The grille is available in versions with one row of horizontal or vertical blades, or with two rows of blades, with vertical or horizontal front blades

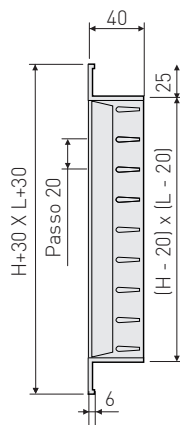
ACCESSORIES

KSEL opposed-blade balancing damper.
KCTC mounting sub-frame.
PBOS/PBOI Standard or insulated galvanised steel plenum

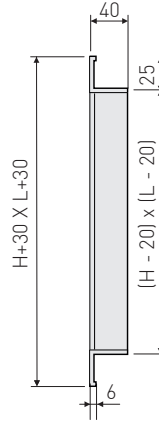
DRAWINGS



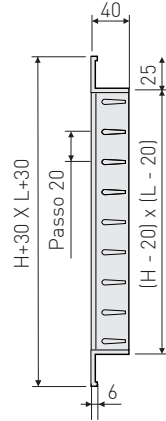
BMA2V
Standard construction



BMA20
First horizontal row
second vertical

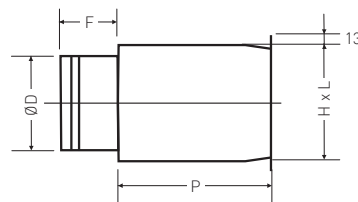
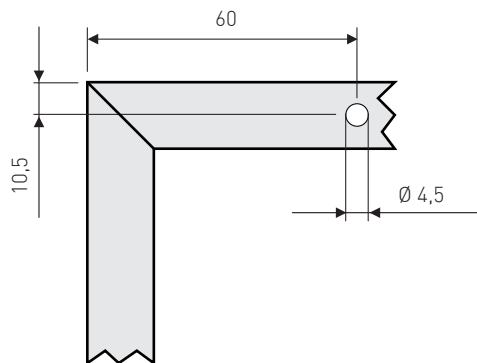


BMA1V

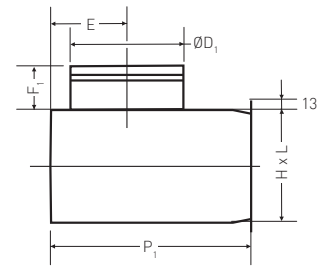


BMA10

SCREW FIXING HOLES DETAIL



PBOS-PBOI
Plenum with rear connection



PBVS-PBVI
Plenum with side connection



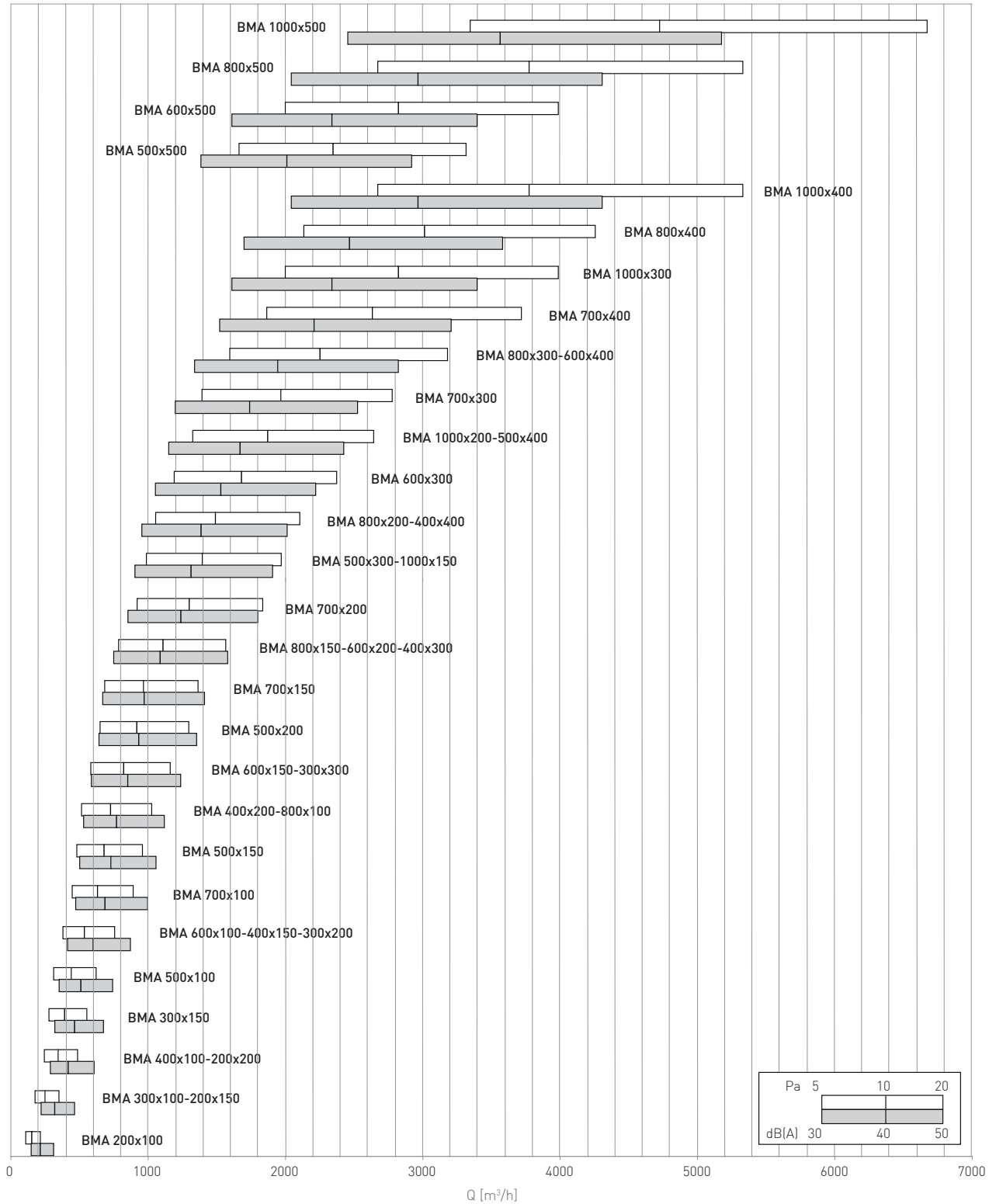
Diffusion

Components
for perfect air
distribution in HVAC
systems

SELECTION TABLE

BMA Model	A _v m ²	Q [m ³ /h]		L _{WA} [dB(A)]		X _(0,25) [m]		Dpt [Pa]	
		min	max	min	max	min	max	min	max
200x100	0,0088	110	220	22	41	2,4	4,8	5	20
300x100	0,0144	180	350	25	42	3,1	6,0	5	20
400x100	0,0200	240	490	25	44	3,5	7,2	5	20
500x100	0,0256	310	620	27	45	4,0	8,0	5	20
600x100	0,0311	380	760	28	46	4,5	8,9	5	20
700x100	0,0367	450	890	29	47	4,9	9,6	5	20
800x100	0,0423	510	1030	29	48	5,1	10,4	5	20
200x150	0,0144	180	350	25	42	3,1	6,0	5	20
300x150	0,0228	280	550	26	45	3,8	7,5	5	20
400x150	0,0311	380	760	28	46	4,5	8,9	5	20
500x150	0,0395	480	960	29	47	5,0	10,0	5	20
600x150	0,0479	580	1160	30	48	5,5	11,0	5	20
700x150	0,0562	680	1360	30	49	5,9	11,9	5	20
800x150	0,0646	780	1570	31	50	6,3	12,8	5	20
1000x150	0,0813	990	1970	32	51	7,2	14,3	5	20
200x200	0,0200	240	490	25	44	3,5	7,2	5	20
300x200	0,0311	380	760	28	46	4,5	8,9	5	20
400x200	0,0423	510	1030	29	48	5,1	10,4	5	20
500x200	0,0534	650	1300	30	49	5,8	11,6	5	20
600x200	0,0646	780	1570	31	50	6,3	12,8	5	20
700x200	0,0757	920	1830	32	50	6,9	13,8	5	20
800x200	0,0869	1050	2100	33	51	7,4	14,7	5	20
1000x200	0,1092	1320	2640	34	52	8,3	16,5	5	20
300x300	0,0479	580	1160	30	48	5,5	11,0	5	20
400x300	0,0646	780	1570	31	50	6,3	12,8	5	20
500x300	0,0813	990	1970	32	51	7,2	14,3	5	20
600x300	0,0980	1190	2370	33	52	7,9	15,7	5	20
700x300	0,1147	1390	2780	34	53	8,5	17,0	5	20
800x300	0,1315	1590	3180	35	53	9,1	18,1	5	20
1000x300	0,1649	2000	3990	36	54	10,2	20,3	5	20
400x400	0,0869	1050	2100	33	51	7,4	14,7	5	20
500x400	0,1092	1320	2640	34	52	8,3	16,5	5	20
600x400	0,1315	1590	3180	35	53	9,1	18,1	5	20
700x400	0,1537	1860	3720	35	54	9,8	19,6	5	20
800x400	0,1760	2130	4260	36	55	10,5	21,0	5	20
1000x400	0,2206	2670	5330	37	56	11,8	23,5	5	20
500x500	0,1370	1660	3320	35	53	9,3	18,5	5	20
600x500	0,1649	2000	3990	36	54	10,2	20,3	5	20
800x500	0,2206	2670	5330	37	56	11,8	23,5	5	20
1000x500	0,2764	3340	6670	38	57	13,1	26,2	5	20

QUICK SELECTION CHART



GRA25

Fixed blade return grille



Diffusion

Components
for perfect air
distribution in HVAC
systems



Product

GRA25

Application

Wall mounted, return

Construction

Anodised aluminium or GRB25 white RAL 9016

SPECIFICATION

Return grille with 45° inclined fixed blades pitch 25 mm

MOUNTING

Standard with clips (screws on request)

ACCESSORIES

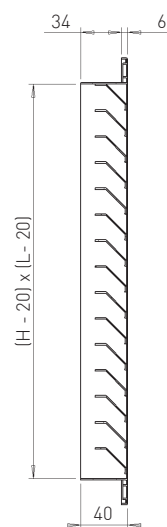
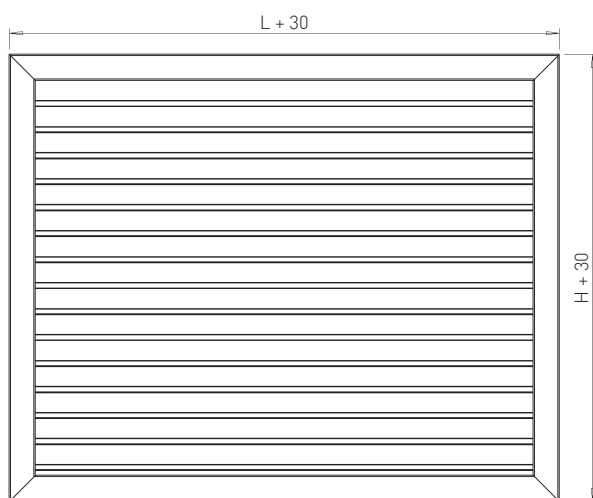
KSEL opposed-blade balancing damper.

KCTC mounting sub-frame.

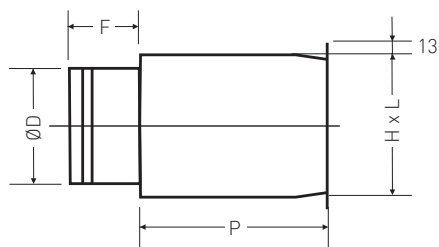
PBOS/PBOI Standard or insulated galvanised steel plenum.

R bird screen

DRAWINGS

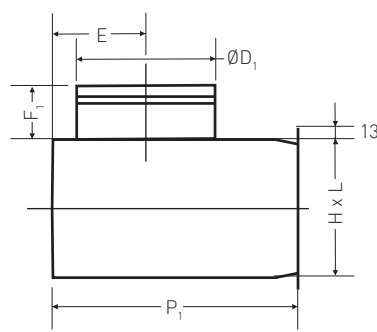


GRA25



PBOS-PBOI

Plenum with rear connection



PBVS-PBVI

Plenum with side connection

GRA25

Fixed blade return grille

SELECTION TABLE

GRA25 Model	A _k m ²	Q [m ³ /h]		L _{WA} [dB(A)]		Dpt [Pa]	
		min	max	min	max	min	max
200x100	0,0101	50	120	-	25	5	30
300x100	0,0157	70	180	-	27	5	30
400x100	0,0213	100	240	-	28	5	30
500x100	0,0269	120	310	-	30	5	30
600x100	0,0325	150	370	-	31	5	30
800x100	0,0437	200	500	-	33	5	30
1000x100	0,0548	250	620	-	34	5	30
1200x100	0,0660	310	750	-	35	5	30
200x150	0,0164	80	190	-	27	5	30
300x150	0,0255	120	290	-	30	5	30
400x150	0,0346	160	390	-	31	5	30
500x150	0,0437	200	500	-	33	5	30
600x150	0,0528	250	600	-	34	5	30
800x150	0,0709	330	810	-	35	5	30
1000x150	0,0891	410	1010	-	36	5	30
1200x150	0,1073	500	1220	20	38	5	30
200x200	0,0227	110	260	-	29	5	30
300x200	0,0353	160	400	-	31	5	30
400x200	0,0478	220	540	-	33	5	30
500x200	0,0604	280	690	-	34	5	30
600x200	0,0730	340	830	-	35	5	30
800x200	0,0982	460	1120	-	37	5	30
1000x200	0,1234	570	1400	21	38	5	30
1200x200	0,1486	690	1690	22	39	5	30
200x300	0,0352	160	400	-	31	5	30
300x300	0,0548	250	620	-	34	5	30
400x300	0,0744	350	850	-	36	5	30
500x300	0,0940	440	1070	-	37	5	30
600x300	0,1136	530	1290	21	38	5	30
800x300	0,1528	710	1740	22	40	5	30
1000x300	0,1920	890	2190	23	41	5	30
1200x300	0,2312	1070	2630	24	42	5	30
200x400	0,0478	220	540	-	33	5	30
300x400	0,0744	350	850	-	36	5	30
400x400	0,1010	470	1150	-	37	5	30
500x400	0,1276	590	1450	21	38	5	30
600x400	0,1542	720	1750	22	39	5	30
800x400	0,2073	960	2360	24	41	5	30
1000x400	0,2605	1210	2970	25	42	5	30
1200x400	0,3137	1460	3570	26	43	5	30



Diffusion

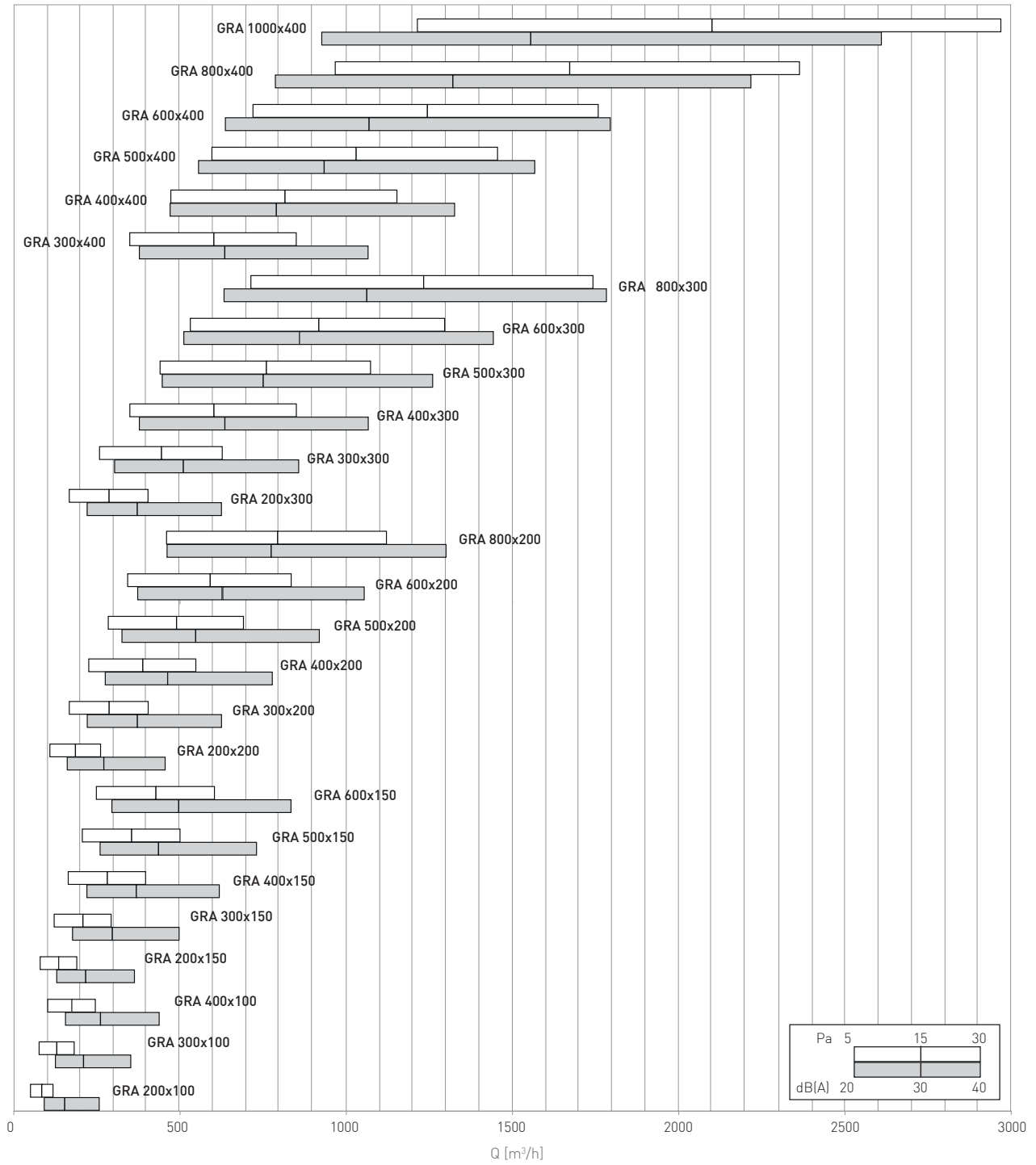
Components
for perfect air
distribution in HVAC
systems

GRA25 Model	A _k m ²	Q [m ³ /h]		L _{WA} [dB(A)]		Dpt [Pa]	
		min	max	min	max	min	max
200x500	0,0603	280	690	-	34	5	30
300x500	0,0939	440	1070	-	37	5	30
400x500	0,1275	590	1450	21	38	5	30
500x500	0,1611	750	1830	23	40	5	30
600x500	0,1947	900	2220	23	41	5	30
800x500	0,2619	1220	2980	25	42	5	30
1000x500	0,3291	1530	3750	26	44	5	30
1200x500	0,3963	1840	4510	27	45	5	30
200x600	0,0729	340	830	-	35	5	30
300x600	0,1135	530	1290	21	38	5	30
400x600	0,1541	720	1750	22	40	5	30
500x600	0,1947	900	2220	23	41	5	30
600x600	0,2353	1090	2680	25	42	5	30
800x600	0,3165	1470	3600	26	44	5	30
1000x600	0,3977	1850	4530	28	45	5	30
1200x600	0,4789	2230	5450	29	46	5	30
200x800	0,0980	460	1120	-	37	5	30
300x800	0,1526	710	1740	22	40	5	30
400x800	0,2072	960	2360	24	41	5	30
500x800	0,2618	1220	2980	25	42	5	30
600x800	0,3164	1470	3600	26	44	5	30
800x800	0,4256	1980	4850	28	45	5	30
1000x800	0,5348	2490	6090	29	46	5	30
1200x800	0,6440	2990	7330	30	47	5	30
595x595	0,1957	910	2230	24	41	5	30

GRA25

Fixed blade return grille

QUICK SELECTION CHART



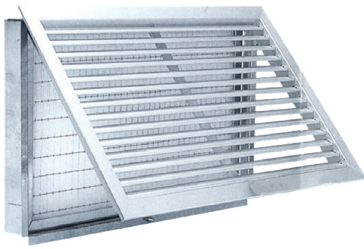
GRA25FC

Filter-holding return grille



Diffusion

Components
for perfect air
distribution in HVAC
systems



Product

GRA25FC

Application

Wall mounted, return

Construction

Aluminium grille, galvanised steel counter-frame
GRB25FC White filter holder grille RAL 9016

SPECIFICATION

Return grille with 45° inclined fixed blades pitch 25 mm, filter holder with hinge for ceiling installation, with 12 mm thick filter (on request).

Used for extraction

On request, grilles can be fitted with a rear guide that allows

housing and filter replacement by sliding it

MOUNTING

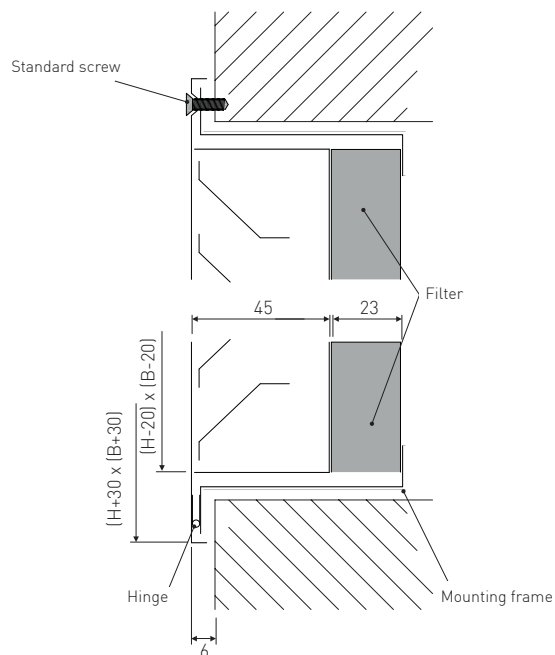
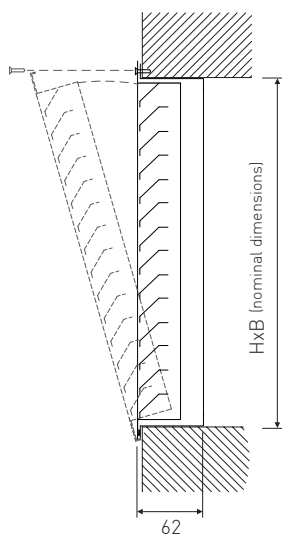
Fixing by screws on filter holder counter-frame

ACCESSORIES

The filter-holding grille is available in versions with hinge and centre screw, push&pull or with double frame (on request).

KF0812 flat filter cell th. 12 mm

DRAWINGS



GRA25FC

Filter-holding return grille

SELECTION TABLE

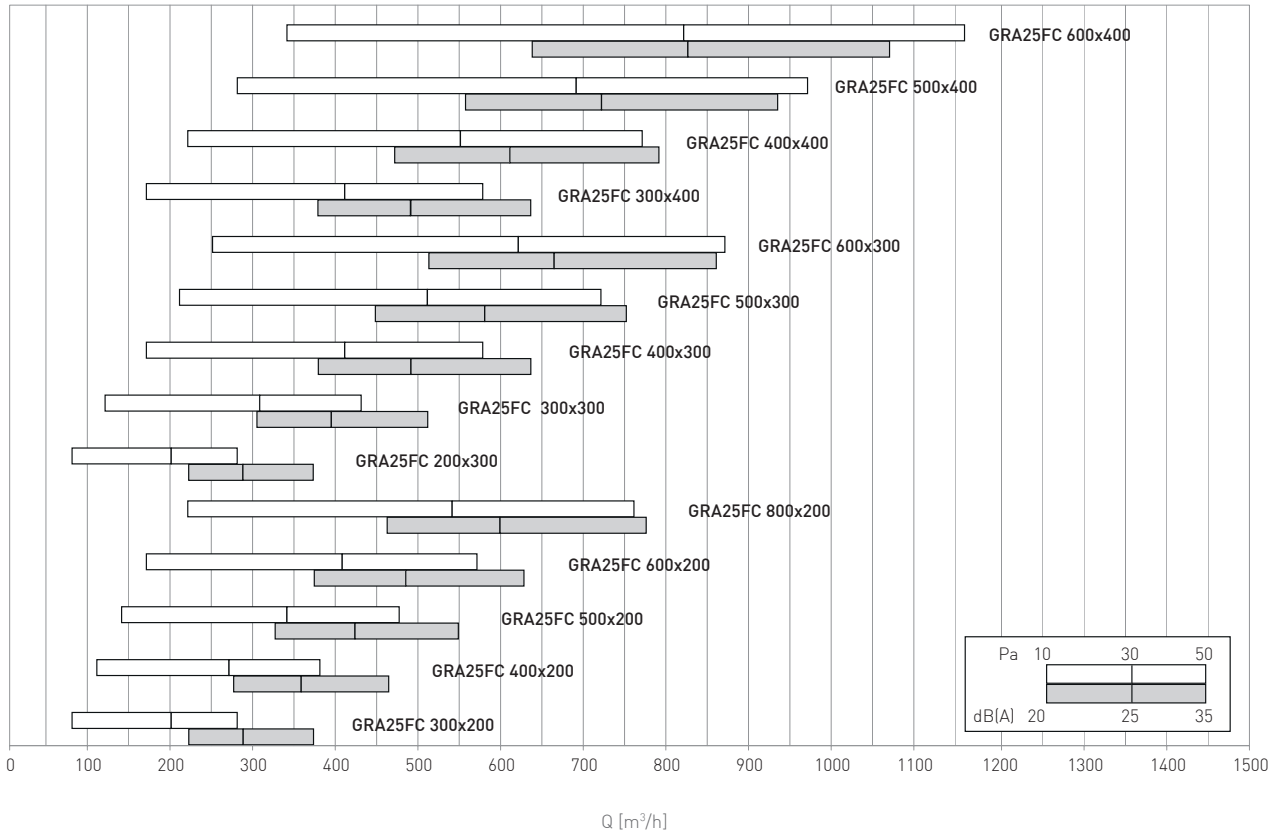
GRA25FC Model	A _k m ²	Q [m ³ /h]		L _{WA} [dB(A)]		Dpt [Pa]	
		min	max	min	max	min	max
200x200	0,0227	50	190	-	23	10	50
300x200	0,0353	80	280	-	24	10	50
400x200	0,0478	110	380	-	26	10	50
500x200	0,0604	140	480	-	27	10	50
600x200	0,0730	170	570	-	28	10	50
800x200	0,0982	220	760	-	30	10	50
200x300	0,0352	80	280	-	24	10	50
300x300	0,0548	120	430	-	27	10	50
400x300	0,0744	170	580	-	28	10	50
500x300	0,0940	210	720	-	29	10	50
600x300	0,1136	250	870	-	30	10	50
800x300	0,1528	330	1160	-	32	10	50
200x400	0,0478	110	380	-	26	10	50
300x400	0,0744	170	580	-	28	10	50
400x400	0,1010	220	770	-	29	10	50
500x400	0,1276	280	970	-	31	10	50
600x400	0,1542	340	1160	-	32	10	50
800x400	0,2073	460	1560	-	33	10	50
200x500	0,0603	140	480	-	27	10	50
300x500	0,0939	210	720	-	29	10	50
400x500	0,1275	280	960	-	31	10	50
500x500	0,1611	350	1210	-	32	10	50
600x500	0,1947	420	1460	-	33	10	50
800x500	0,2619	560	1960	-	34	10	50
200x600	0,0729	160	570	-	28	10	50
300x600	0,1135	250	870	-	30	10	50
400x600	0,1541	340	1160	-	32	10	50
500x600	0,1947	430	1460	-	33	10	50
600x600	0,2353	510	1760	-	34	10	50
800x600	0,3165	690	2350	-	35	10	50
200x800	0,0980	220	760	-	30	10	50
300x800	0,1526	330	1160	-	32	10	50
400x800	0,2072	440	1560	-	33	10	50
500x800	0,2618	560	1960	-	34	10	50
600x800	0,3164	680	2350	-	35	10	50
800x800	0,4256	910	3150	-	37	10	50



Diffusion

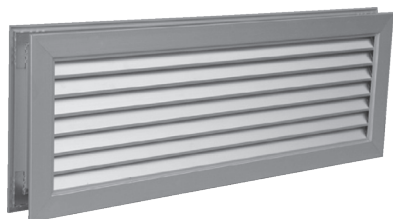
Components
for perfect air
distribution in HVAC
systems

QUICK SELECTION CHART



GTA

Aluminium transfer grille



Product

GTA

Construction

Anodized aluminium
GTB Transfer grille painted white RAL 9016

SPECIFICATION

Transfer grille with counter-frame

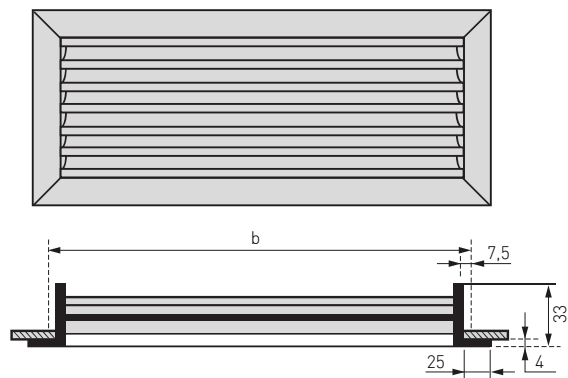
APPLICATION

For air passage through doors or on drywall walls

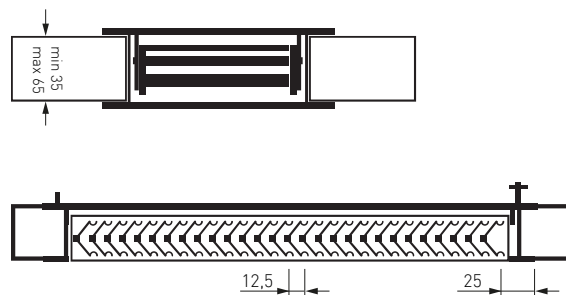
MOUNTING

Screw mounting

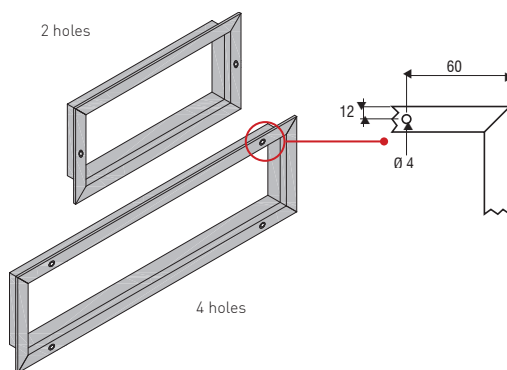
DRAWINGS



GTA



BLADE PITCH



HOLES

NUMBER OF HOLES FOR FIXING SCREWS

Shorter side mm	Longer side				
	200	250	300	350	≥ 400
100	2	2	2	4	4
150	2	2	2	4	4
200	2	2	2	4	4
≥250	2	2	2	4	4



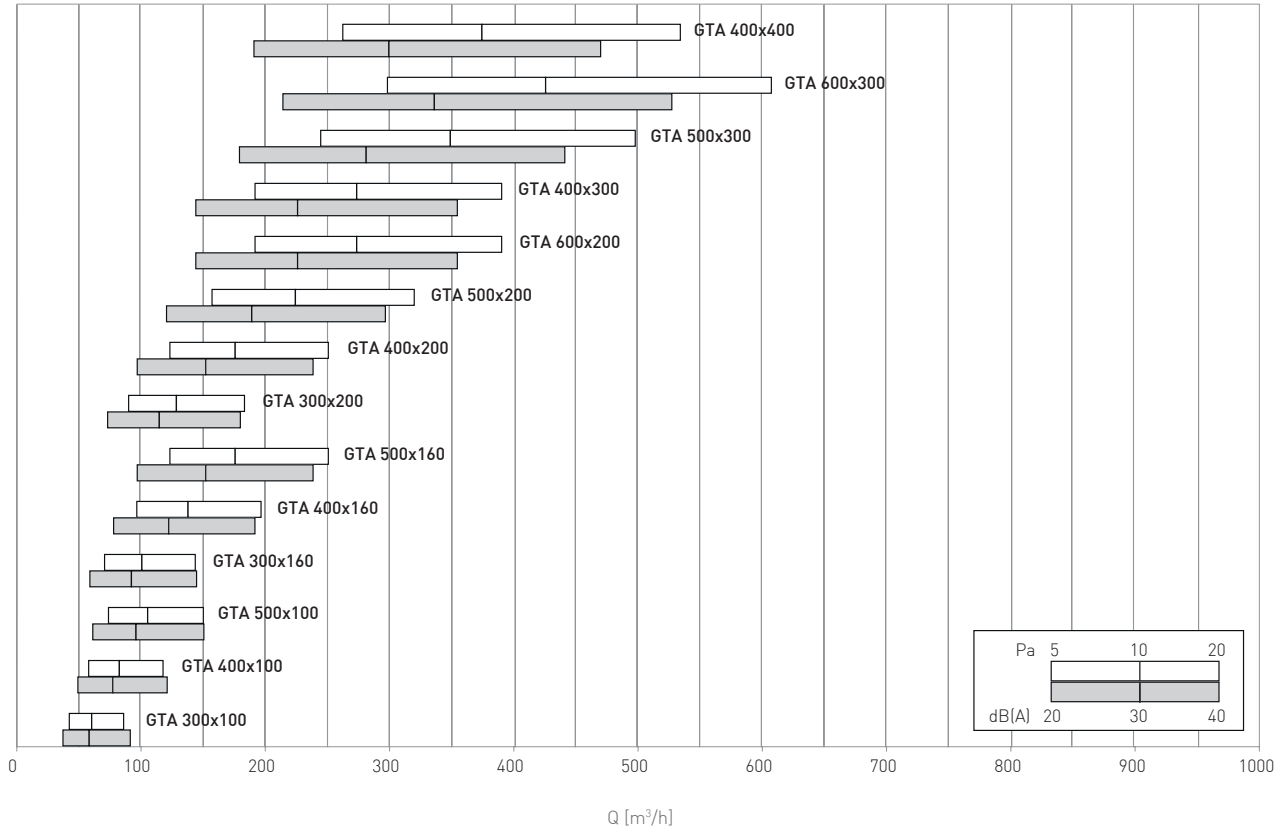
Diffusion

Components
for perfect air
distribution in HVAC
systems

SELECTION TABLE

GTA Model	A _k m ²	Q [m ³ /h]		L _{WA} [dB(A)]		Dpt [Pa]	
		min	max	min	max	min	max
200x100	0,0140	30	60	24	39	5	20
300x100	0,0209	40	90	22	40	5	20
400x100	0,0276	60	120	24	40	5	20
500x100	0,0344	70	150	23	40	5	20
600x100	0,0411	90	180	25	40	5	20
700x100	0,0478	110	220	26	41	5	20
300x160	0,0330	70	140	24	39	5	20
400x160	0,0438	100	200	26	41	5	20
500x160	0,0545	120	250	25	41	5	20
600x160	0,0651	150	310	26	42	5	20
700x160	0,0757	180	360	26	42	5	20
200x200	0,0276	60	120	24	40	5	20
300x200	0,0411	90	180	25	40	5	20
400x200	0,0545	120	250	25	41	5	20
500x200	0,0678	160	320	26	42	5	20
600x200	0,0810	190	390	26	42	5	20
700x200	0,0942	230	460	27	42	5	20
300x300	0,0611	140	290	26	42	5	20
400x300	0,0810	190	390	26	42	5	20
500x300	0,1007	240	500	26	43	5	20
600x300	0,1204	300	610	27	43	5	20
400x400	0,1073	260	530	27	43	5	20
500x400	0,1335	330	680	27	43	5	20
600x400	0,1595	410	830	28	44	5	20
700x400	0,1855	480	980	28	44	5	20

QUICK SELECTION CHART



N.B. Grilles are always available with counter-frame included

BCZ

Grille for circular ducts



Diffusion

Components
for perfect air
distribution in HVAC
systems



Product

BCZ

Application

Circular duct, supply and return
Installation height: 2.5 - 3.5 m

Construction

Galvanised steel, or painted RAL 9010, RAL 9016,
RAL 7035. Stainless steel AISI 304 constructions available on
request in 2B or BA finishes

SPECIFICATION

Curved grille for circular ducts

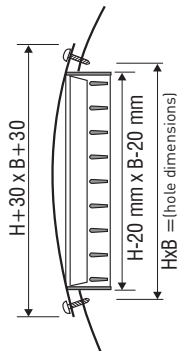
MOUNTING

Front screw mounting

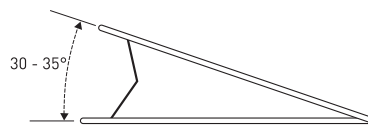
ACCESSORIES

KSEL Galvanized steel balancing damper with
opposed-blade movement.
SB Flag damper

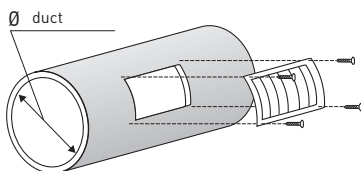
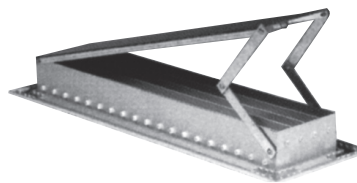
DRAWINGS



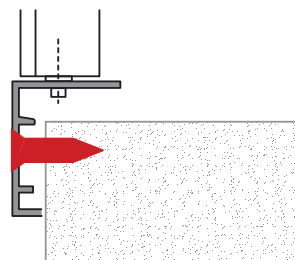
BCZ



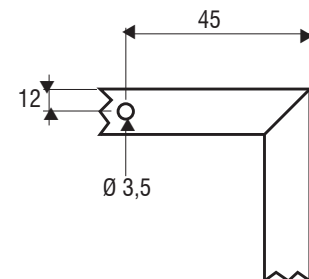
SB



APPLICATION



Standard
SCREW MOUNTING







HOLES

BCZ

Grille for circular ducts

INSTALLATION DUCT DIMENSIONS

 BxH mm	Ø Duct mm	 BxH mm	Ø Duct mm	 BxH mm	Ø Duct mm	 BxH mm	Ø Duct mm
200x75		200x100		300x150		400x200	
300x75		300x100		400x150	500	500x200	900
400x75	150	400x100	300	500x150	600	600x200	1000
500x75	200	500x100	350	600x150	700	*800x200	1100
600x75	250	600x100	400	*800x150	800	*1000x200	1200
800x75		*800x100	450	*1000x150			
		*1000x100					

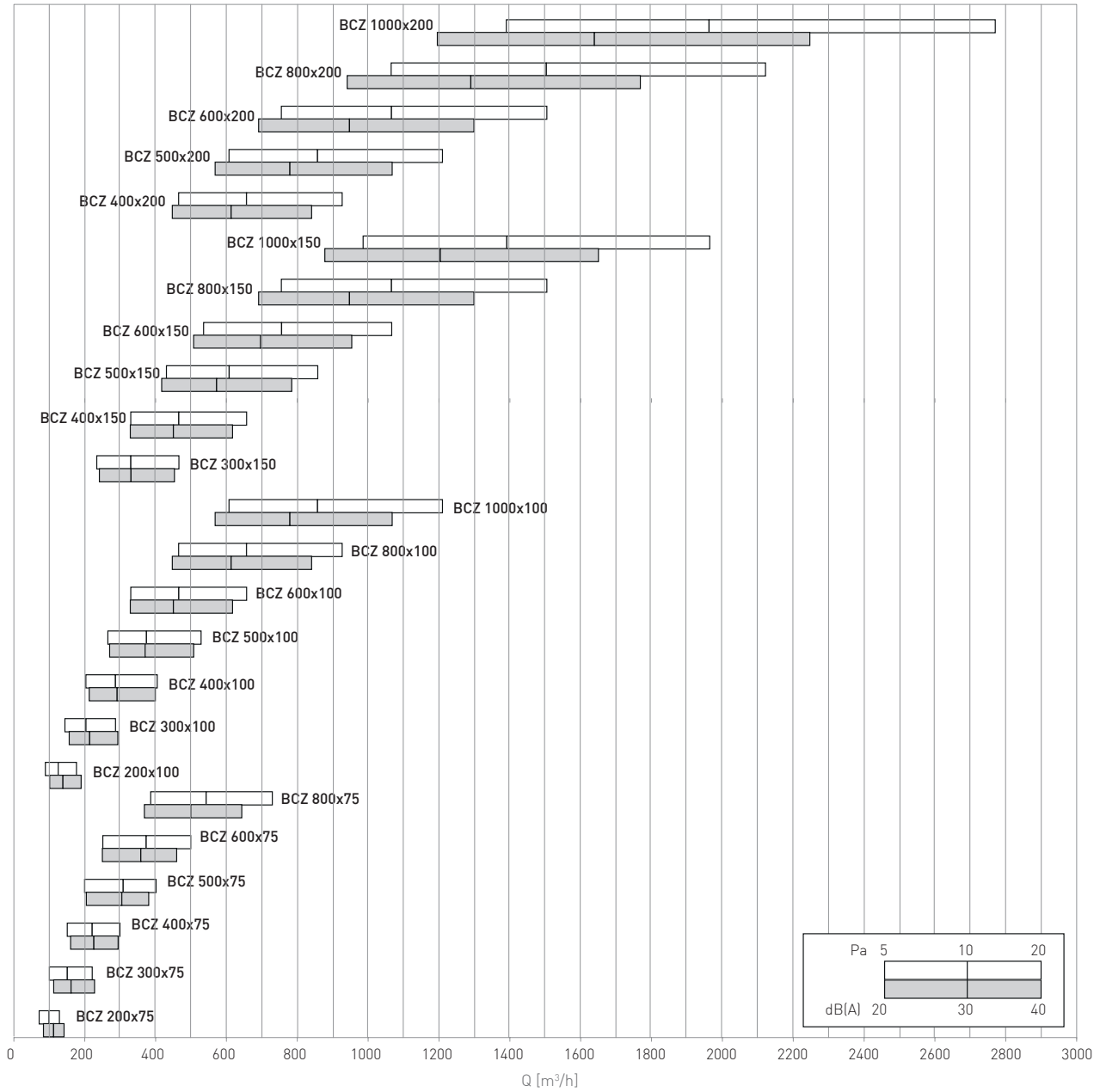
• Intermediate reinforcement

SELECTION TABLE

BCZ Model	A _k m ²	Q [m ³ /h]		L _{WA} [dB(A)]		X _(0,25) [m]		Dpt [Pa]	
		min	max	min	max	min	max	min	max
200x75	0,007275	70	135	-	37	2	2,8	5	20
300x75	0,011775	100	220	-	38	2,3	3,3	5	20
400x75	0,016575	150	300	-	40	2,5	3,7	5	20
500x75	0,216750	200	400	-	40	2,7	4,2	5	20
600x75	0,026925	250	500	20	41	3	4,6	5	20
800x75	0,038025	370	730	22	42	3,4	5,4	5	20
200x100	0,0097	90	180	-	38	2,6	3,5	5	20
300x100	0,0157	140	290	-	40	2,8	4,0	5	20
400x100	0,0221	200	400	-	40	3,1	4,4	5	20
500x100	0,0289	270	530	-	41	3,3	4,9	5	20
600x100	0,0359	330	660	20	42	3,5	5,3	5	20
800x100	0,0507	470	930	22	43	3,9	6,1	5	20
1000x100	0,0662	610	1210	22	44	4,2	6,7	5	20
300x150	0,0255	230	470	-	41	3,2	4,7	5	20
400x150	0,0359	330	660	20	42	3,5	5,3	5	20
500x150	0,0469	430	860	21	43	3,8	5,9	5	20
600x150	0,0584	540	1070	22	44	4,1	6,4	5	20
800x150	0,0823	760	1500	23	45	4,6	7,3	5	20
1000x150	0,1074	990	1960	24	45	5,0	8,2	5	20
400x200	0,0507	470	930	22	43	3,9	6,1	5	20
500x200	0,0662	610	1210	22	44	4,2	6,7	5	20
600x200	0,0823	760	1500	23	45	4,6	7,3	5	20
800x200	0,1161	1060	2120	24	46	5,1	8,5	5	20
1000x200	0,1515	1390	2770	25	47	5,7	9,6	5	20



QUICK SELECTION CHART



BMF

Fixed blade grille



Product

BMF

Application

Wall or fan-coil, supply and return
Installation height: 2.5 - 3.1 m

Construction

Anodised aluminium or BMFB white RAL 9016

SPECIFICATION

Fixed blade grille with 0/15° deflection

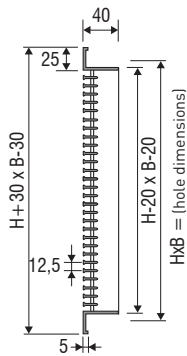
MOUNTING

Standard with clips.
Screw holes on request

ACCESSORIES

KSEL Galvanized steel balancing damper with opposed-blade movement.
KCTC Mounting sub-frame in galvanized steel sheet.
PBOS/PBVI Standard or insulated galvanised steel plenum

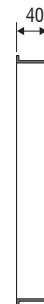
DRAWINGS



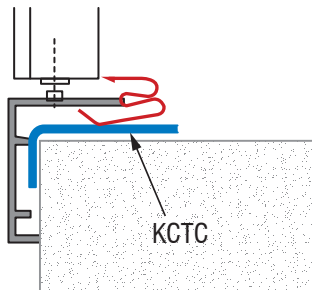
BMF



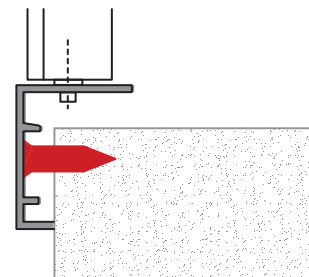
KSEL



KCTC



Standard
CLIP MOUNTING



SCREW MOUNTING

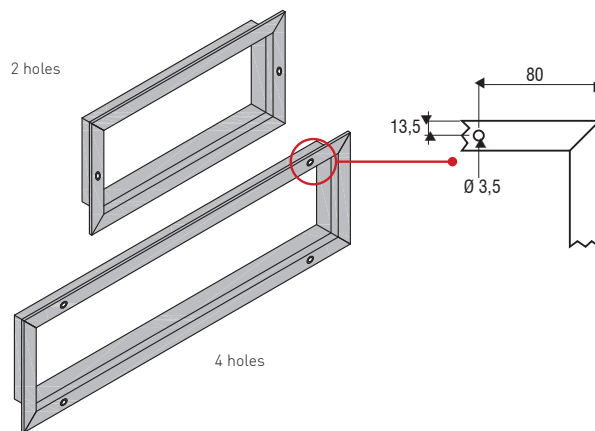


Diffusion

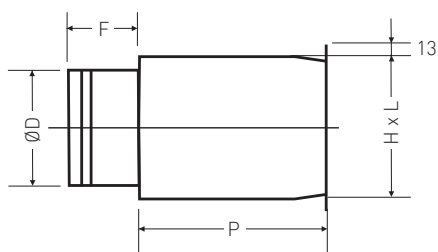
Components
for perfect air
distribution in HVAC
systems

NUMBER OF HOLES FOR FIXING SCREWS

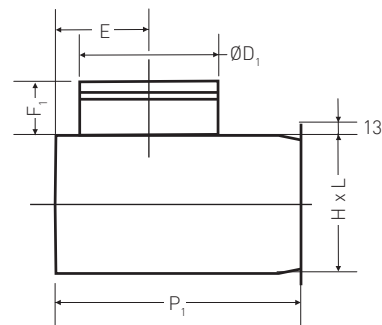
Shorter side mm	Longer side				
	200	250	300	350	≥ 400
100	2	2	2	4	4
150	2	2	2	4	4
200	2	2	2	4	4
≥250	2	2	2	4	4



PLENUM



PBOS-PBOI
Plenum with rear connection



PBVS-PBVI
Plenum with side connection

SELECTION TABLE

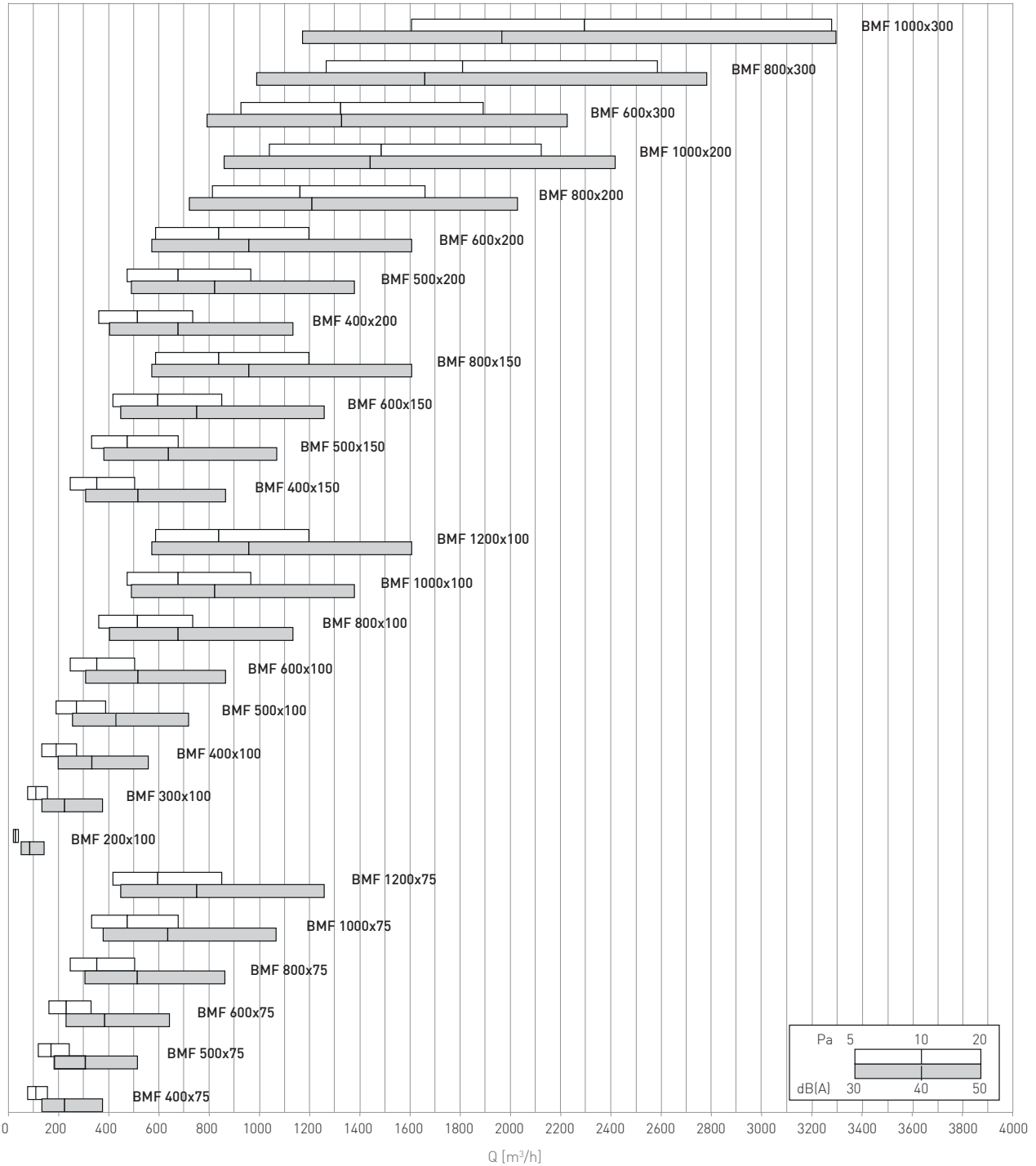
BMF Model	A _k m ²	Q [m ³ /h]		L _{WA} [dB(A)]		X _(0,25) [m]		Dpt [Pa]	
		min	max	min	max	min	max	min	max
400x75	0,0083	80	160	20	34	3,5	6,6	5	20
500x75	0,0129	120	240	22	35	4,2	8,0	5	20
600x75	0,0176	160	330	23	37	4,8	9,4	5	20
800x75	0,0268	250	500	26	39	6,1	11,7	5	20
1000x75	0,0361	330	680	27	41	6,9	13,8	5	20
1200x75	0,0453	420	850	29	42	7,9	15,5	5	20
200x100	0,0021	20	40	-	25	1,9	3,3	5	20
300x100	0,0083	80	160	20	34	3,5	6,6	5	20
400x100	0,0145	130	270	22	36	4,3	8,5	5	20
500x100	0,0206	190	390	24	38	5,3	10,3	5	20
600x100	0,0268	250	500	26	39	6,1	11,7	5	20
800x100	0,0392	360	730	28	41	7,3	14,2	5	20
1000x100	0,0515	470	970	29	43	8,3	16,6	5	20
1200x100	0,0638	590	1200	31	44	9,4	18,6	5	20
400x125	0,0206	190	390	24	38	5,3	10,3	5	20
500x125	0,0284	260	530	26	40	6,1	12,1	5	20
600x125	0,0361	330	680	27	41	6,9	13,8	5	20
800x125	0,0515	470	970	29	43	8,3	16,6	5	20
1000x125	0,0669	610	1250	31	45	9,5	19,0	5	20
1200x125	0,0823	760	1540	32	46	10,7	21,2	5	20
300x150	0,0176	160	330	23	37	4,8	9,4	5	20
400x150	0,0268	250	500	26	39	6,1	11,7	5	20
500x150	0,0361	330	680	27	41	6,9	13,8	5	20
600x150	0,0453	420	850	29	42	7,9	15,5	5	20
800x150	0,0638	590	1200	31	44	9,4	18,6	5	20
1000x150	0,0823	760	1540	32	46	10,7	21,2	5	20
1200x150	0,1008	930	1890	33	47	11,9	23,7	5	20
300x200	0,0268	250	500	26	39	6,1	11,7	5	20
400x200	0,0392	360	730	28	41	7,3	14,2	5	20
500x200	0,0515	470	970	29	43	8,3	16,6	5	20
600x200	0,0638	590	1200	31	44	9,4	18,6	5	20
800x200	0,0885	810	1660	32	46	11,0	22,1	5	20
1000x200	0,1132	1040	2120	34	47	12,6	25,2	5	20
1200x200	0,1379	1270	2590	35	49	14,0	28,0	5	20
400x300	0,0638	590	1200	31	44	9,4	18,6	5	20
500x300	0,0823	760	1540	32	46	10,7	21,2	5	20
600x300	0,1008	930	1890	33	47	11,9	23,7	5	20
800x300	0,1379	1270	2590	35	49	14,0	28,0	5	20



Diffusion

Components for perfect air distribution in HVAC systems

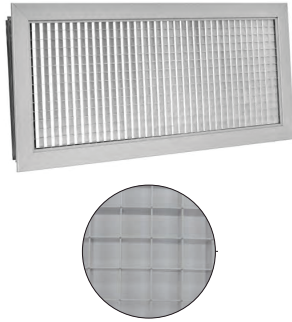
QUICK SELECTION CHART



GRILLES

BDR

Square mesh grille



Product

BDR

Application

Wall-mounted, supply or return

Construction

Anodised aluminium or BDRB white RAL 9016

SPECIFICATION

Square mesh grille 13x13 mm

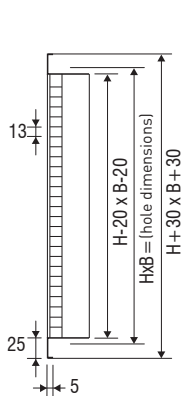
MOUNTING

Standard with clips.
Screw holes on request

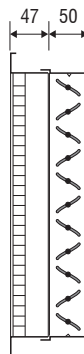
ACCESSORIES

KSEL Galvanized steel balancing damper with opposed-blade movement.
KCTC Mounting sub-frame in galvanized steel sheet.
PBOS/PBOI Standard and insulated galvanized steel plenum

DRAWINGS



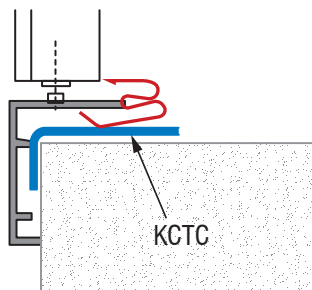
BDR



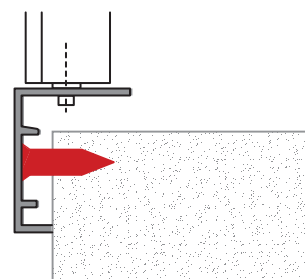
BDR + KSEL



KCTC



Standard
CLIP MOUNTING



SCREW MOUNTING

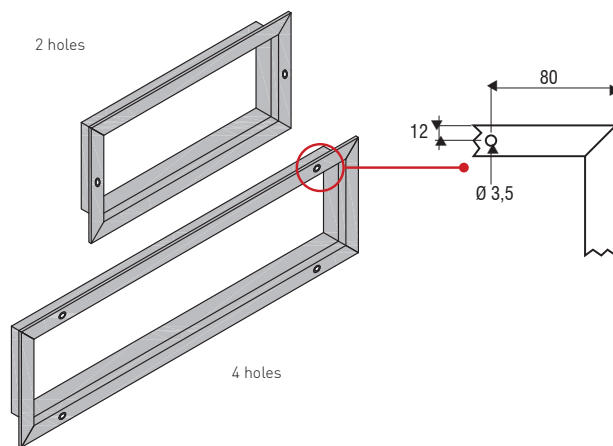


Diffusion

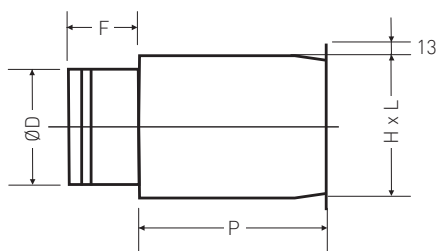
Components
for perfect air
distribution in HVAC
systems

NUMBER OF HOLES FOR FIXING SCREWS

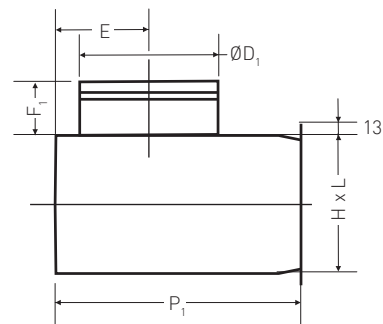
Shorter side mm	Longer side				
	200	250	300	350	≥ 400
100	2	2	2	4	4
150	2	2	2	4	4
200	2	2	2	4	4
≥250	2	2	2	4	4



PLENUM



PBOS-PB0I
Plenum with rear connection



PBVS-PBVI
Plenum with side connection

SELECTION TABLE

BDR Model	A _k m ²	Q [m ³ /h]		L _{WA} [dB(A)]		Dpt [Pa]	
		min	max	min	max	min	max
200x100	0,0111	140	270	-	38	5	20
300x100	0,0176	220	430	22	41	5	20
400x100	0,0245	300	590	23	42	5	20
500x100	0,0316	390	760	24	43	5	20
600x100	0,0390	480	940	25	44	5	20
800x100	0,0542	660	1300	26	46	5	20
1000x100	0,0700	850	1670	27	47	5	20
1200x100	0,0863	1040	2060	28	48	5	20
200x150	0,0176	220	430	22	41	5	20
300x150	0,0280	340	680	23	43	5	20
400x150	0,0390	480	940	25	44	5	20
500x150	0,0504	610	1210	26	45	5	20
600x150	0,0621	750	1490	27	46	5	20
800x150	0,0863	1040	2060	28	48	5	20
1000x150	0,1115	1340	2650	29	49	5	20
1200x150	0,1374	1650	3250	30	50	5	20
200x200	0,0245	300	590	23	42	5	20
300x200	0,0390	480	940	25	44	5	20
400x200	0,0542	660	1300	26	46	5	20
500x200	0,0700	850	1670	27	47	5	20
600x200	0,0863	1040	2060	28	48	5	20
800x200	0,1201	1440	2850	30	49	5	20
1000x200	0,1550	1860	3660	31	50	5	20
1200x200	0,1911	2280	4500	32	51	5	20
200x300	0,0390	480	940	25	44	5	20
300x300	0,0621	750	1490	27	46	5	20
400x300	0,0863	1040	2060	28	48	5	20
500x300	0,1115	1340	2650	29	49	5	20
600x300	0,1374	1650	3250	30	50	5	20
800x300	0,1911	2280	4500	32	51	5	20
1000x300	0,2468	2940	5790	33	52	5	20
1200x300	0,3042	3610	7110	34	53	5	20



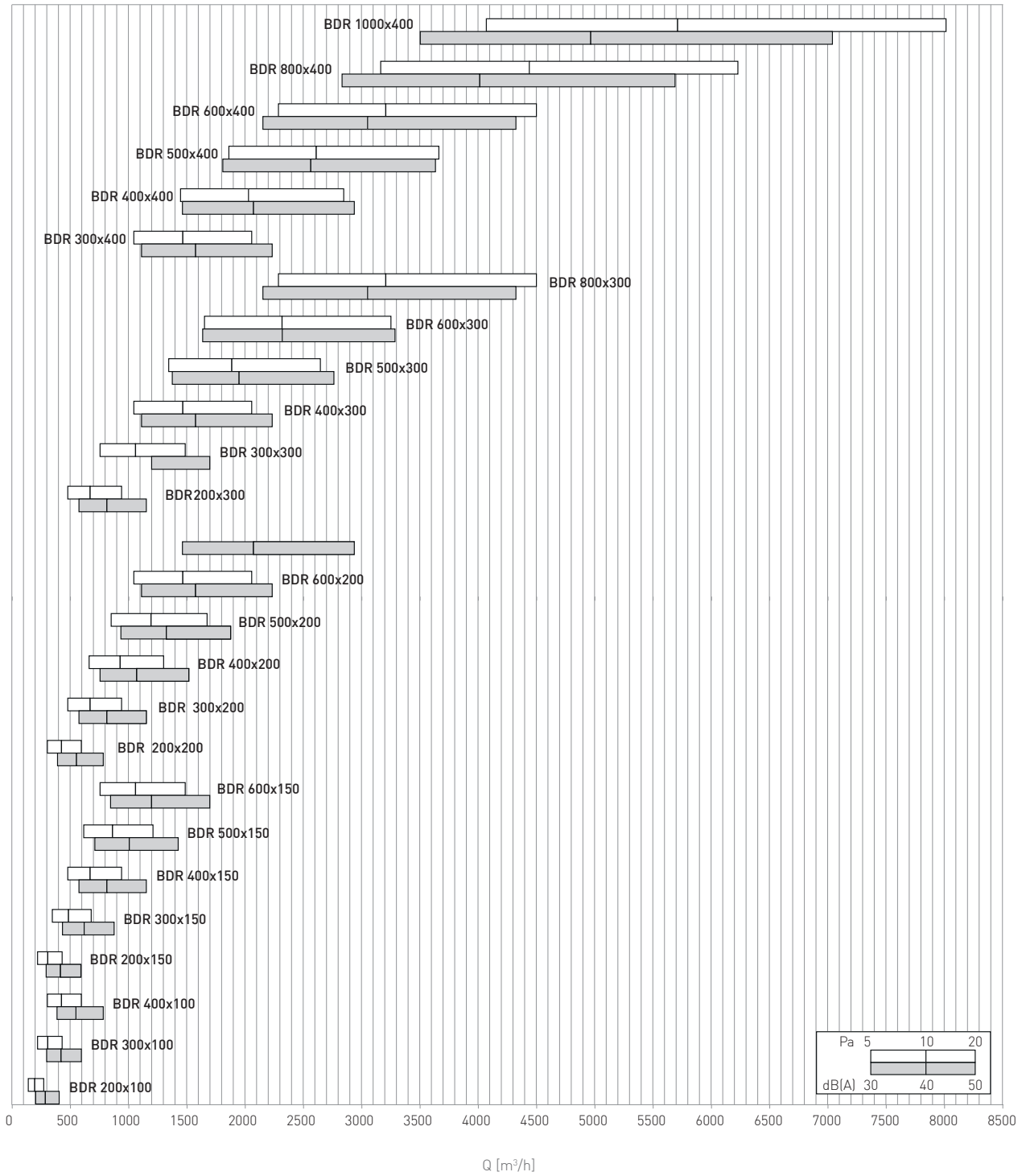
Diffusion

Components
for perfect air
distribution in HVAC
systems

SELECTION TABLE

BDR Model	A _k m ²	Q [m ³ /h]		L _{WA} [dB(A)]		Dpt [Pa]	
		min	max	min	max	min	max
200x400	0,0542	660	1300	26	46	5	20
300x400	0,0863	1040	2060	28	48	5	20
400x400	0,1201	1440	2850	30	49	5	20
500x400	0,1550	1860	3660	31	50	5	20
600x400	0,1911	2280	4500	32	51	5	20
800x400	0,2657	3160	6230	33	53	5	20
1000x400	0,3432	4070	8010	34	54	5	20
1200x400	0,4230	5000	9850	35	55	5	20
200x500	0,0700	850	1670	27	47	5	20
300x500	0,1115	1340	2650	29	49	5	20
400x500	0,1550	1860	3660	31	50	5	20
500x500	0,2002	2390	4710	32	51	5	20
600x500	0,2468	2940	5790	33	52	5	20
800x500	0,3432	4070	8010	34	54	5	20
1000x500	0,4433	5240	10310	35	55	5	20
1200x500	0,5463	6430	12670	36	56	5	20
200x600	0,0863	1040	2060	28	48	5	20
300x600	0,1374	1650	3250	30	50	5	20
400x600	0,1911	2280	4500	32	51	5	20
500x600	0,2468	2940	5790	33	52	5	20
600x600	0,3042	3610	7110	34	53	5	20
800x600	0,4230	5000	9850	35	55	5	20
1000x600	0,5463	6430	12670	36	56	5	20
1200x600	0,6733	7910	15570	37	57	5	20
200x800	0,1201	1440	2850	30	49	5	20
300x800	0,1911	2280	4500	32	51	5	20
400x800	0,2657	3160	6230	33	53	5	20
500x800	0,3432	4070	8010	34	54	5	20
600x800	0,4230	5000	9850	35	55	5	20
800x800	0,5883	6920	13630	37	56	5	20
1000x800	0,7597	8910	17540	38	57	5	20
1200x800	0,9363	10940	21550	39	58	5	20
595x595EC	0,2639	3140	6190	33	53	5	20

QUICK SELECTION CHART



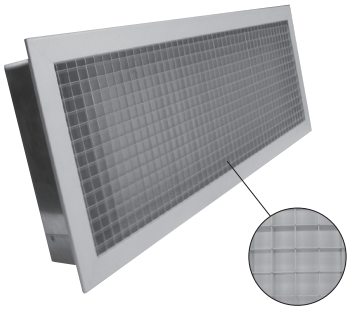
BDRFC

Square mesh filter-holding grille



Diffusion

Components
for perfect air
distribution in HVAC
systems



Product

BDRFC

Application

Wall mounted, return

Construction

Anodised aluminium or BDRBFC white RAL 9016

SPECIFICATION

13x13 mm square mesh filter-holding grille with removable sub-frame for filter housing and replacement

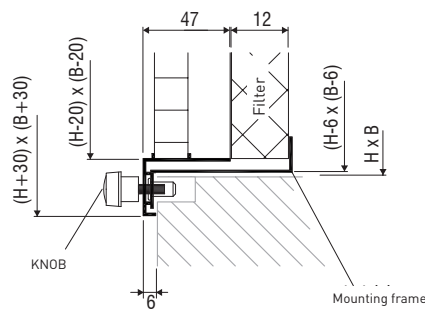
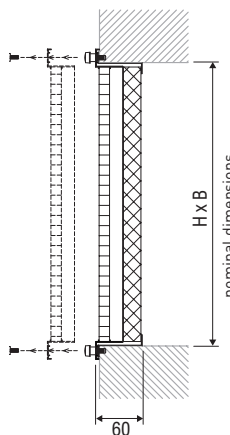
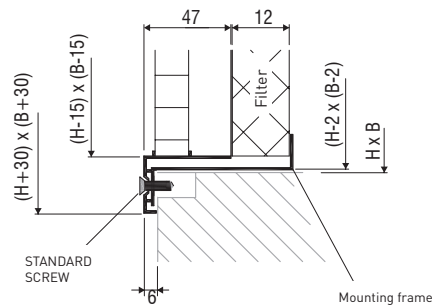
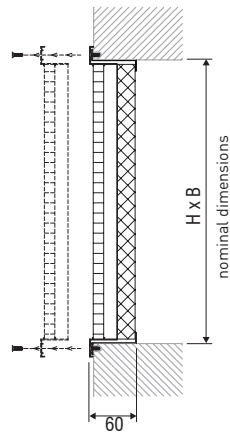
MOUNTING

With visible screws

ACCESSORIES

The square mesh filter-holding grille is available in versions with hinge and centre screw, push&pull or with double frame (on request).
KF0812 flat filter cell th. 12 mm

DRAWINGS



BDRFC

SELECTION TABLE

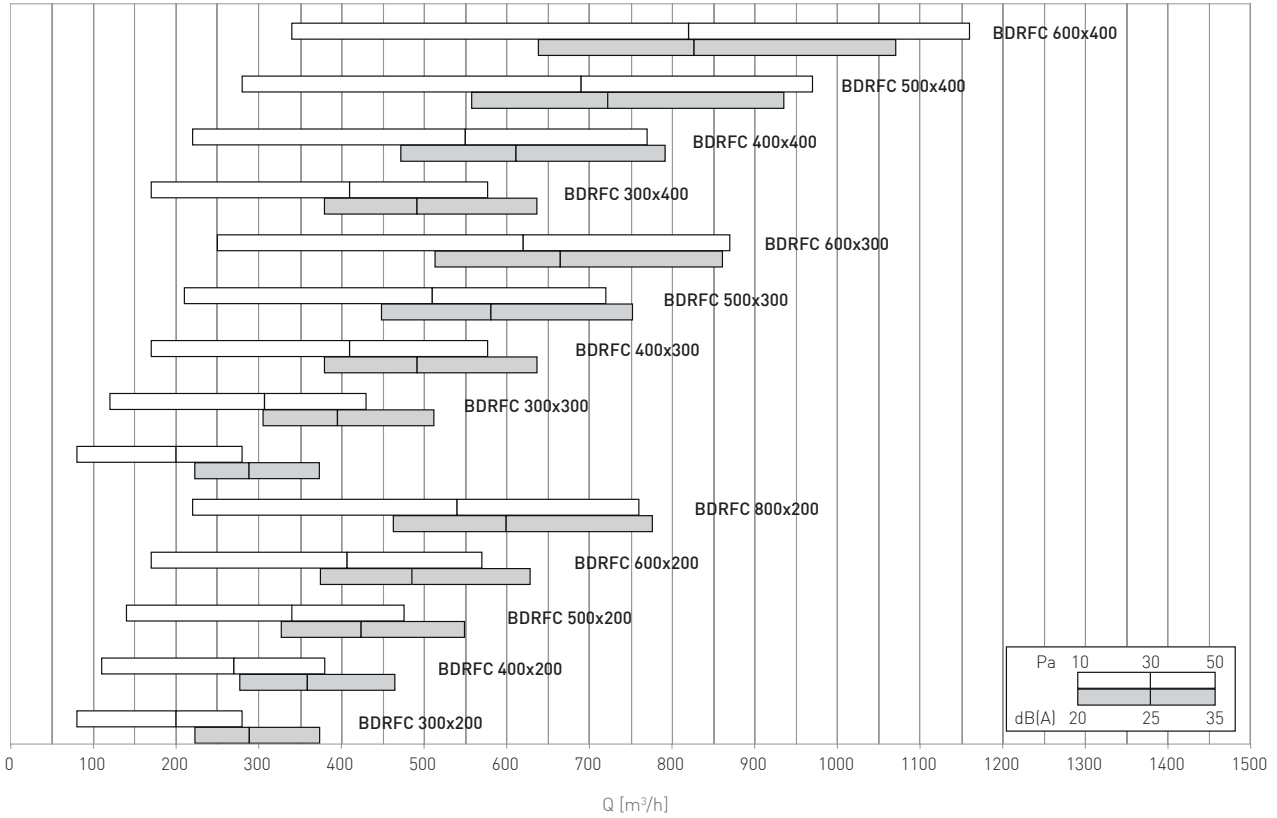
BDRFC Model	A _k m ²	Q [m ³ /h]		L _{WA} [dB(A)]		Dpt [Pa]	
		min	max	min	max	min	max
200x200	0,0227	50	190	-	23	10	50
300x200	0,0353	80	280	-	24	10	50
400x200	0,0478	110	380	-	26	10	50
500x200	0,0604	140	480	-	27	10	50
600x200	0,0730	170	570	-	28	10	50
800x200	0,0982	220	760	-	30	10	50
200x300	0,0352	80	280	-	24	10	50
300x300	0,0548	120	430	-	27	10	50
400x300	0,0744	170	580	-	28	10	50
500x300	0,0940	210	720	-	29	10	50
600x300	0,1136	250	870	-	30	10	50
800x300	0,1528	330	1160	-	32	10	50
200x400	0,0478	110	380	-	26	10	50
300x400	0,0744	170	580	-	28	10	50
400x400	0,1010	220	770	-	29	10	50
500x400	0,1276	280	970	-	31	10	50
600x400	0,1542	340	1160	-	32	10	50
800x400	0,2073	460	1560	-	33	10	50
200x500	0,0603	140	480	-	27	10	50
300x500	0,0939	210	720	-	29	10	50
400x500	0,1275	280	960	-	31	10	50
500x500	0,1611	350	1210	-	32	10	50
600x500	0,1947	420	1460	-	33	10	50
800x500	0,2619	560	1960	-	34	10	50
200x600	0,0729	160	570	-	28	10	50
300x600	0,1135	250	870	-	30	10	50
400x600	0,1541	340	1160	-	32	10	50
500x600	0,1947	430	1460	-	33	10	50
600x600	0,2353	510	1760	-	34	10	50
800x600	0,3165	690	2350	-	35	10	50
200x800	0,0980	220	760	-	30	10	50
300x800	0,1526	330	1160	-	32	10	50
400x800	0,2072	440	1560	-	33	10	50
500x800	0,2618	560	1960	-	34	10	50
600x800	0,3164	680	2350	-	35	10	50
800x800	0,4256	910	3150	-	37	10	50



Diffusion

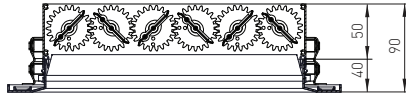
Components for perfect air distribution in HVAC systems

QUICK SELECTION CHART



KSEL

Damper for GRILLES



Product

KSEL

Application

Used as an accessory on residential grilles or registers

Construction

Aluminium frame and blades

SPECIFICATION

Opposed action balancing damper with front control and opposed blade movement.

FINISH

Aluminium

MOUNTING

By clips on the grille or register

DIMENSIONS

H mm		B mm						
100	200	300	400	500	600	800	1000	
150	200	300	400	500	600	800	1000	
200	200	300	400	500	600	800	1000	
300	-	300	400	500	600	800	1000	
400	-	-	400	500	600	800	1000	
500	-	-	-	500	600	800	1000	

Note: For lengths over 700 mm the damper is divided into two parts

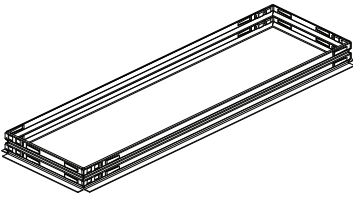
KCTC

Sub-frame for grilles



Diffusion

Components
for perfect air
distribution in HVAC
systems



Product

KCTC

Application

Used as an accessory on residential grilles or registers

Construction

Galvanized steel

SPECIFICATION

Galvanised steel mounting counter-frame

FINISH

Galvanized steel

MOUNTING

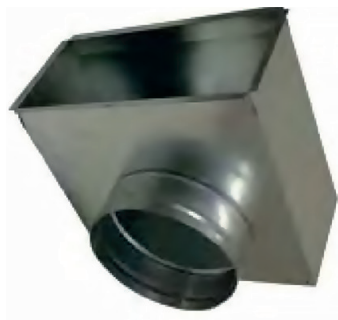
Screw mounting

DIMENSIONS

H mm		B mm						
100	200	300	400	500	600	800	1000	
150	200	300	400	500	600	800	1000	
200	200	300	400	500	600	800	1000	
300	-	300	400	500	600	800	1000	
400	-	-	400	500	600	800	1000	
500	-	-	-	500	600	800	1000	

PBOS/PBOI

Plenum



Product

PBOS/PBOI Horizontal/rear connection
PBVS/PBVI Vertical/side connection

SPECIFICATION

Plenum for grilles, registers and diffusers

CONSTRUCTION

Galvanized steel, insulated in 6 mm polyethylene

ACCESSORIES

Plenums can be supplied with rear or side connection, with or without insulation

DIMENSIONAL

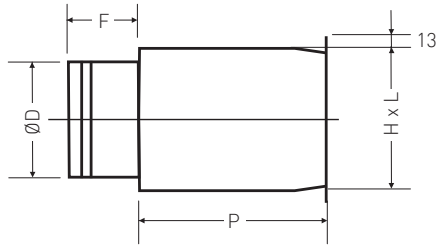
LxH mm	P mm	P ¹ mm	Ø D mm	Ø D ¹ mm	E mm	F mm	F ¹ m
200x100	200	220	100	100	85	75	75
300x100	200	220	100	100	85	75	75
400x100	200	270	2x100	150	110	75	75
500x100	200	270	3x100	150	110	75	75
600x100	200	270	2x100	150	110	75	75
200x150	200	270	160	100	85	75	75
300x150	200	270	160	150	110	75	75
400x150	200	270	2x125	150	110	75	75
500x150	200	320	2x125	200	135	75	75
600x150	200	320	2x125	200	135	75	75
200x200	200	270	200	150	110	75	75
300x200	200	270	200	150	110	75	75
400x200	200	320	200	200	135	75	75
500x200	200	320	200	200	135	75	75
600x200	200	320	2x200	200	135	75	100
800x200	200	370	2x200	250	160	75	100
1000x200	200	420	2x200	300	185	75	100
300x300	200	320	250	200	135	75	75
400x300	200	320	300	200	135	75	75
500x300	200	370	300	250	160	75	100
600x300	200	370	2x200	250	160	75	100
800x300	200	420	2x200	300	185	75	100
1000x300	200	470	2x200	350	210	75	100
400x400	200	370	2x200	250	160	100	100
500x400	200	420	2x200	300	185	75	100
600x400	200	420	250	300	185	75	100
800x400	200	470	2x250	350	210	100	100
1000x400	200	470	2x315	350	210	100	100
595x595	300	550	250	250	235	100	100

• Other sizes on request

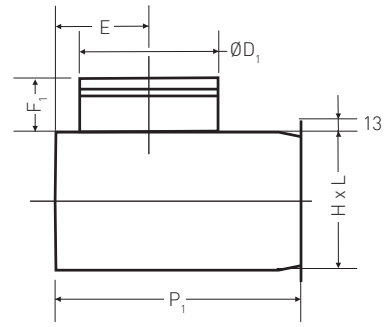


Diffusion

Components
for perfect air
distribution in HVAC
systems



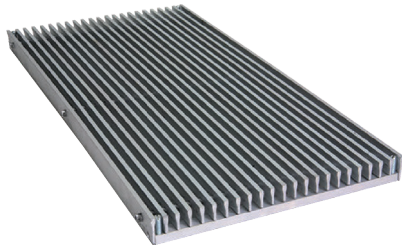
PBOS-PB0I
Plenum with rear connection



PBVS-PBVI
Plenum with side connection

BPA

Walk-on grille



Product	BPA
Application	Floor-mounted
Construction	Anodized aluminium

SPECIFICATION

Walkable grille with fixed horizontal bars pitch
12.5 mm for raised floors
BPAR adjustable 30-50 mm
BPA 30 mm thick

MOUNTING

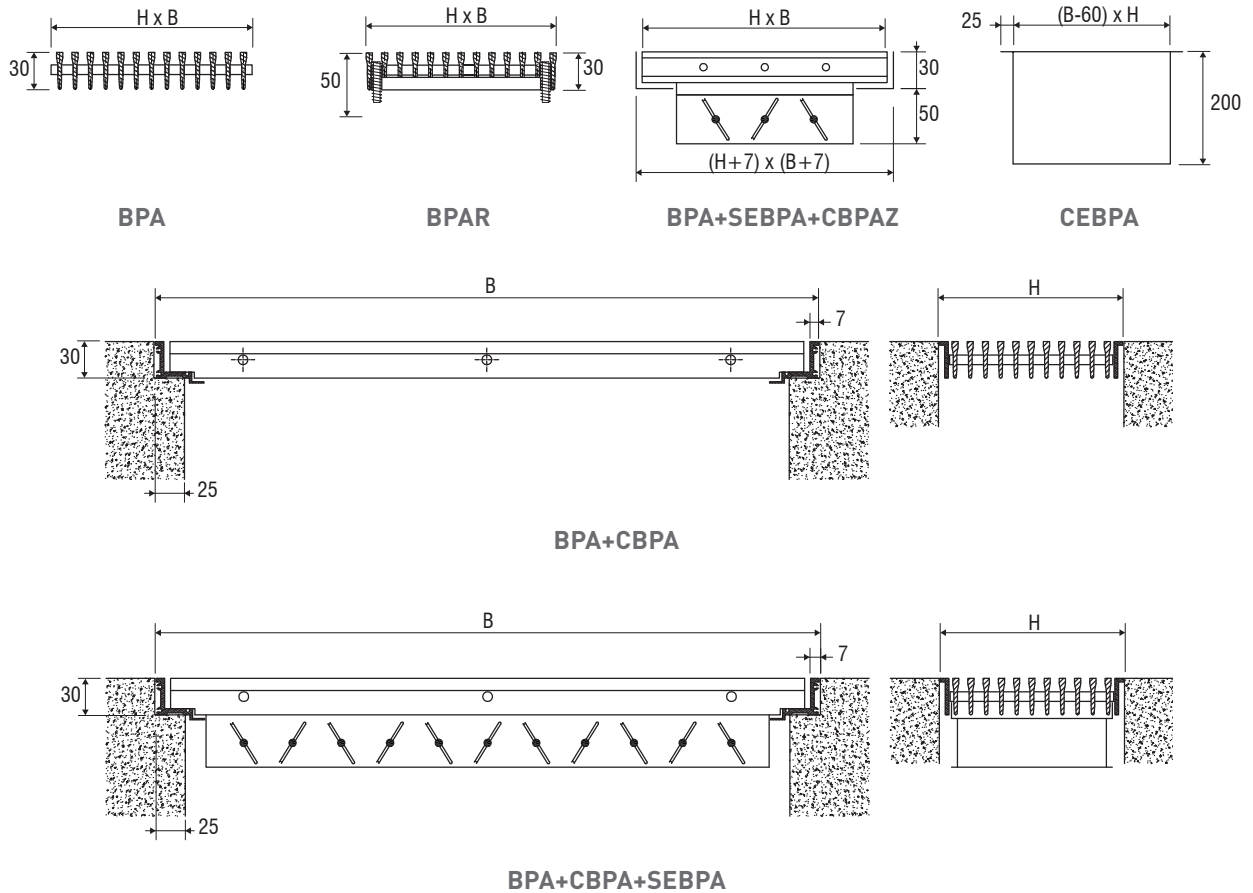
With screws

NB: The nominal grille dimensions are smaller when combined with the aluminium counter-frame. When using the galvanised steel counter-frame, consider a hole of dimensions H+7 B

ACCESSORIES

CEBPA Dust collection basket
SEBPA Galvanised steel balancing damper with opposed blade movement
CBPA/CBPAZ/CBPAR Galvanised steel sheet or extruded aluminium mounting counter-frame

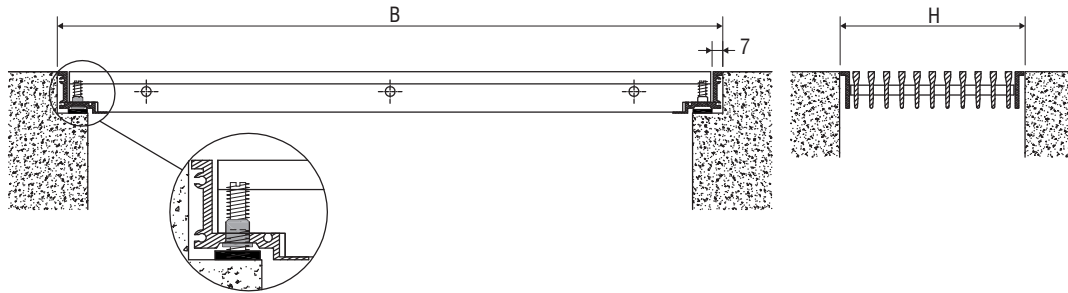
DRAWINGS





Diffusion

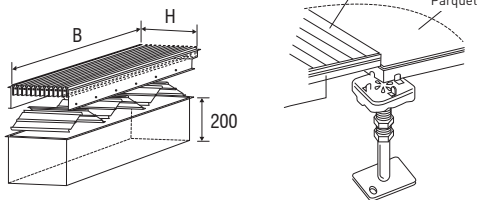
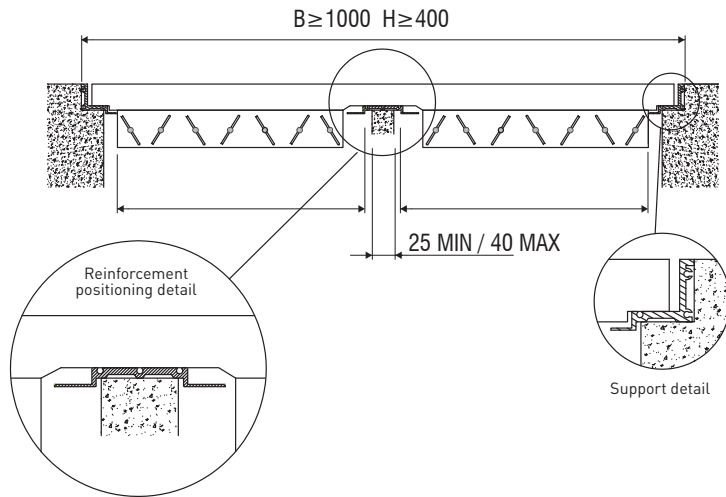
Components
for perfect air
distribution in HVAC
systems



BPAR+CBPAR

ADJUSTMENT SCREWS TABLE

H mm	Screws per side n.
100	2
150	2
200	2
≥250	2

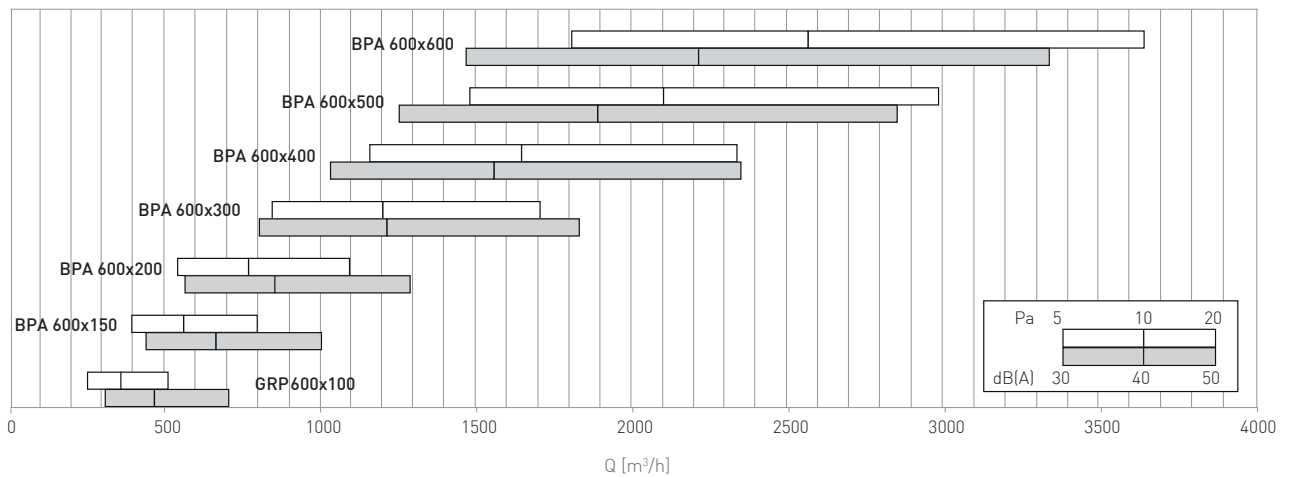


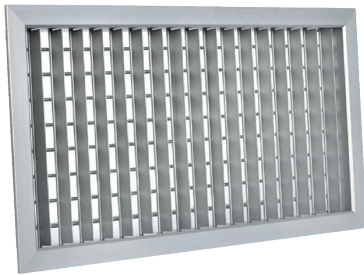
SELECTION TABLE

BPA Model	Ak m2	Q [m3/h]		LWA [dB(A)]		Y(0,25) [m]		Dpt [Pa]	
		min	max	min	max	min	max	min	max
300x100	0,0126	120	240	21	38	2,2	4,9	5	20
400x100	0,0172	160	330	22	40	2,6	5,9	5	20
500x100	0,0220	210	420	24	41	3,2	6,7	5	20
600x100	0,0268	250	510	25	42	3,5	7,4	5	20
800x100	0,0368	350	700	27	44	4,2	8,8	5	20
1000x100	0,0470	450	900	28	45	4,9	10,0	5	20
300x150	0,0196	190	370	24	40	3,1	6,3	5	20
400x150	0,0268	250	510	25	42	3,5	7,6	5	20
500x150	0,0343	320	650	26	43	4,1	8,6	5	20

BPA Model	Ak m ²	Q [m ³ /h]		LWA [dB(A)]		Y(0,25) [m]		Dpt [Pa]	
		min	max	min	max	min	max	min	max
600x150	0,0418	400	800	28	44	4,7	9,6	5	20
800x150	0,0573	540	1100	29	46	5,4	11,3	5	20
1000x150	0,0732	690	1400	30	47	6,2	12,7	5	20
400x200	0,0368	350	700	27	44	4,4	9,1	5	20
500x200	0,0470	450	900	28	45	5,0	10,3	5	20
600x200	0,0573	540	1100	29	46	5,5	11,4	5	20
800x200	0,0785	740	1500	30	48	6,5	13,3	5	20
1000x200	0,1003	950	1920	32	49	7,4	15,1	5	20
500x300	0,0732	690	1400	30	47	6,4	13,1	5	20
600x300	0,0893	850	1710	31	48	7,1	14,5	5	20
800x300	0,1224	1160	2340	33	50	8,3	16,9	5	20
1000x300	0,1563	1480	2990	34	51	9,4	19,1	5	20
600x400	0,1224	1160	2340	33	50	8,4	17,1	5	20
800x400	0,1677	1590	3200	34	51	9,8	20,0	5	20
1000x400	0,2141	2030	4090	36	53	11,1	22,5	5	20
600x500	0,1563	1480	2990	34	51	9,6	19,5	5	20
800x500	0,2141	2030	4090	36	53	11,2	22,7	5	20
1000x500	0,2733	2590	5220	37	54	12,6	25,6	5	20
600x600	0,1908	1810	3650	35	52	10,7	21,7	5	20
800x600	0,2613	2480	5000	37	54	12,5	25,3	5	20
1000x600	0,3336	3160	6380	38	55	14,0	28,5	5	20

QUICK SELECTION CHART





Product	BMAI
Application	Wall mounted, supply
Construction	Anodized aluminium

SPECIFICATION

Large capacity industrial grille with adjustable blades pitch 50 mm

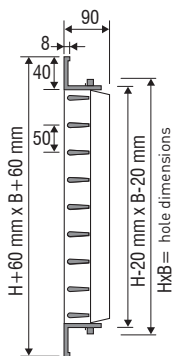
MOUNTING

With clips (front screws on request)

ACCESSORIES

- Galvanised steel balancing damper with opposed blade movement.
- Galvanised steel sheet mounting counter-frame.
- Standard or insulated galvanised steel plenum

DRAWINGS



BMAI-20
Horizontal front blades, vertical rear blades



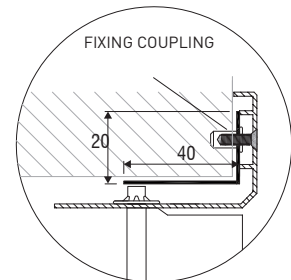
BMAI-2V
STANDARD VERSION
Vertical front blades, horizontal rear blades



BMAI-1V
1 row vertical blades

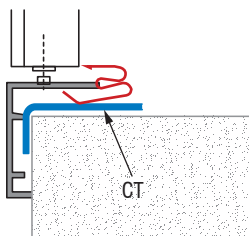


SE2



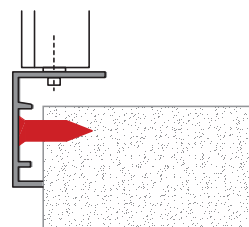
Frame with fixing lugs

CTV2-BMAI

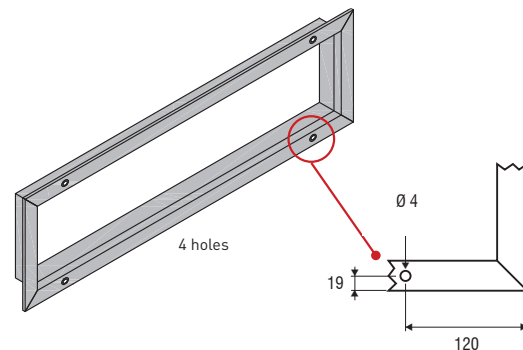


Standard

CLIP MOUNTING



SCREW MOUNTING



HOLES

SELECTION TABLE

BMAI Model	A _k m ²	Q [m ³ /h]		L _{wa} [dB(A)]		X _(0,25) [m]		Dpt [Pa]	
		min	max	min	max	min	max	min	max
500x200	0,0776	690	1370	29	45	7,7	15,2	5	20
600x200	0,0938	830	1660	29	46	8,4	16,9	5	20
700x200	0,1101	980	1950	30	47	9,3	18,5	5	20
800x200	0,1265	1120	2240	31	48	9,9	19,9	5	20
900x200	0,1430	1270	2530	32	48	10,7	21,3	5	20
1000x200	0,1596	1410	2830	32	49	11,3	22,7	5	20
1200x200	0,1929	1710	3420	33	50	12,5	25,1	5	20
1400x200	0,2265	2010	4010	34	50	13,7	27,4	5	20
1500x200	0,2434	2160	4310	34	51	14,3	28,5	5	20
1800x200	0,2942	2610	5210	35	52	15,8	31,6	5	20
500x300	0,1183	1050	2100	31	47	9,6	19,3	5	20
600x300	0,1430	1270	2530	32	48	10,7	21,3	5	20
700x300	0,1679	1490	2970	32	49	11,6	23,2	5	20
800x300	0,1929	1710	3420	33	50	12,5	25,1	5	20
900x300	0,2181	1930	3860	33	50	13,4	26,8	5	20
1000x300	0,2434	2160	4310	34	51	14,3	28,5	5	20
1200x300	0,2942	2610	5210	35	52	15,8	31,6	5	20
1400x300	0,3454	3060	6120	36	52	17,2	34,5	5	20
1500x300	0,3711	3290	6570	36	53	17,9	35,8	5	20
1800x300	0,4486	3970	7950	37	54	19,8	39,8	5	20
500x400	0,1596	1410	2830	32	49	11,3	22,7	5	20
600x400	0,1929	1710	3420	33	50	12,5	25,1	5	20
700x400	0,2265	2010	4010	34	50	13,7	27,4	5	20
800x400	0,2603	2300	4610	34	51	14,7	29,5	5	20
900x400	0,2942	2610	5210	35	52	15,8	31,6	5	20
1000x400	0,3283	2910	5820	35	52	16,8	33,6	5	20
1200x400	0,3969	3510	7030	36	53	18,6	37,2	5	20
1400x400	0,4659	4130	8250	37	54	20,3	40,6	5	20
1500x400	0,5006	4430	8870	37	54	21,1	42,2	5	20
1800x400	0,6052	5360	10720	38	55	23,4	46,8	5	20
2000x400	0,6753	5980	11960	39	56	24,8	49,7	5	20
500x500	0,2013	1780	3570	33	50	12,8	25,7	5	20
600x500	0,2434	2160	4310	34	51	14,3	28,5	5	20
700x500	0,2857	2530	5060	35	51	15,5	31,1	5	20



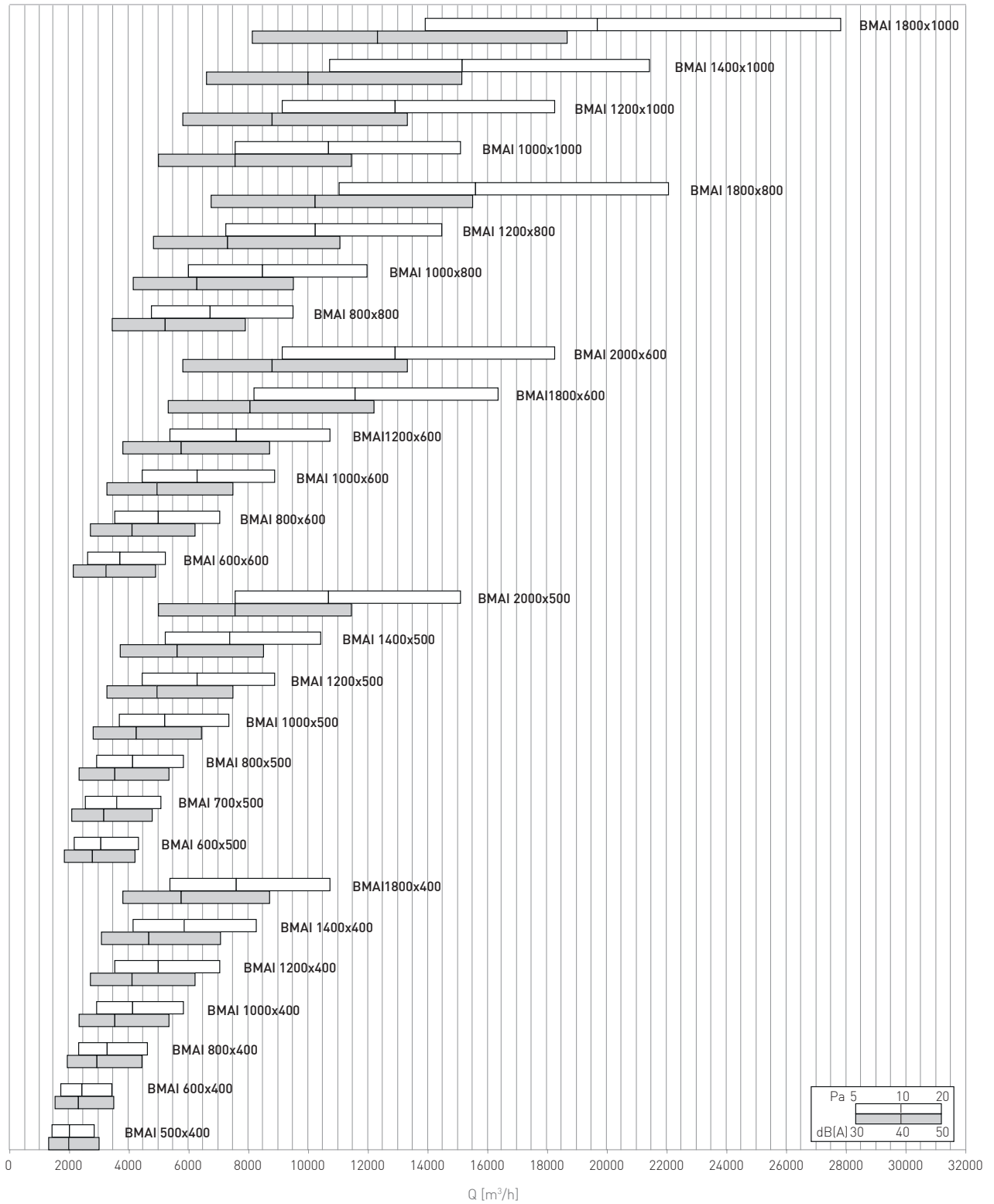
Diffusion

Components
for perfect air
distribution in HVAC
systems

SELECTION TABLE

BMAI Model	A _x m ²	Q [m ³ /h]		L _{WA} [dB(A)]		X _(0,25) [m]		Dpt [Pa]	
		min	max	min	max	min	max	min	max
800x500	0,3283	2910	5820	35	52	16,8	33,6	5	20
900x500	0,3711	3290	6570	36	53	17,9	35,8	5	20
1000x500	0,4141	3670	7340	37	53	19,0	38,1	5	20
1200x500	0,5006	4430	8870	37	54	21,1	42,2	5	20
1400x500	0,5877	5200	10410	38	55	23,0	46,1	5	20
1500x500	0,6315	5590	11190	39	55	23,9	47,9	5	20
1800x500	0,7634	6760	13520	39	56	26,5	53,1	5	20
2000x500	0,8518	7540	15090	40	57	28,2	56,4	5	20
600x600	0,2942	2610	5210	35	52	15,8	31,6	5	20
800x600	0,3969	3510	7030	36	53	18,6	37,2	5	20
900x600	0,4486	3970	7950	37	54	19,8	39,8	5	20
1000x600	0,5006	4430	8870	37	54	21,1	42,2	5	20
1200x600	0,6052	5360	10720	38	55	23,4	46,8	5	20
1400x600	0,7105	6290	12590	39	56	25,5	51,1	5	20
1500x600	0,7634	6760	13520	39	56	26,5	53,1	5	20
1800x600	0,9228	8170	16350	40	57	29,4	58,9	5	20
2000x600	1,0298	9120	18240	41	58	31,2	62,5	5	20
800x800	0,5354	4740	9480	38	54	21,9	43,8	5	20
900x800	0,6052	5360	10720	38	55	23,4	46,8	5	20
1000x800	0,6753	5980	11960	39	56	24,8	49,7	5	20
1200x800	0,8164	7230	14460	40	56	27,5	55,1	5	20
1400x800	0,9584	8490	16980	41	57	30,1	60,1	5	20
1500x800	1,0298	9120	18240	41	58	31,2	62,5	5	20
1800x800	1,2449	11020	22050	42	58	34,6	69,3	5	20
2000x800	1,3891	12300	24610	42	59	36,8	73,6	5	20
1000x1000	0,8518	7540	15090	40	57	28,2	56,4	5	20
1200x1000	1,0298	9120	18240	41	58	31,2	62,5	5	20
1400x1000	1,2089	10710	21410	42	58	34,1	68,2	5	20
1500x1000	1,2989	11500	23010	42	59	35,5	71,0	5	20
1800x1000	1,5703	13910	27810	43	60	39,3	78,7	5	20
2000x1000	1,7522	15520	31040	43	60	41,8	83,5	5	20

QUICK SELECTION CHART



GRAI

Industrial aluminium return grille



Diffusion

Components
for perfect air
distribution in HVAC
systems



Product

GRAI

Application

Wall mounted, for outdoor air intake or exhaust

Construction

Anodized aluminium

SPECIFICATION

Industrial return grille with 45° inclined fixed blades pitch 50 mm

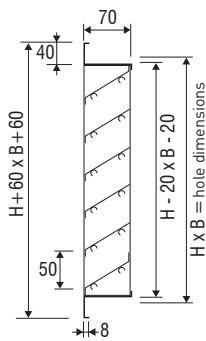
MOUNTING

With clips (front screws on request)

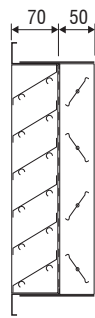
ACCESSORIES

SE2 Galvanized steel balancing damper with opposed-blade movement.
CTV2 Mounting sub-frame in galvanized steel sheet.
R/RI Bird or insect screen
SSA Gravity overpressure damper

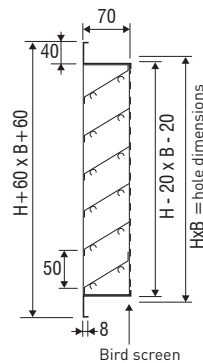
DRAWINGS



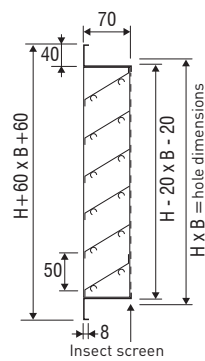
GRAI



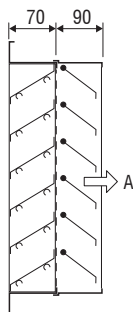
GRAI+SE2



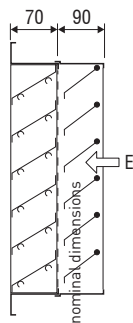
GRAI-R



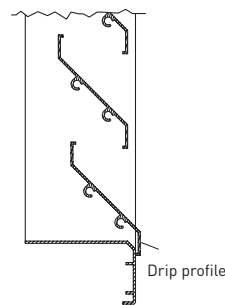
GRAI-R-I



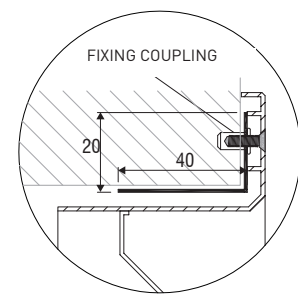
GRAI-R-SSA-I



GRAI-R-SSA-E



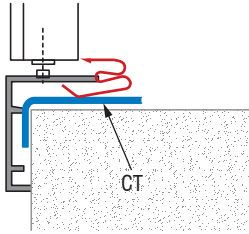
GRAI + TEG



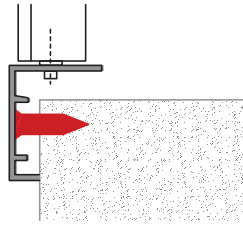
CTV2-GRAI

GRAI

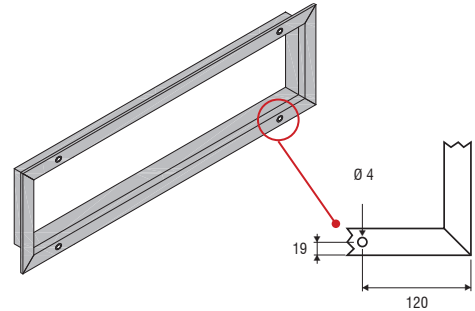
Industrial aluminium return grille



Standard
CLIP MOUNTING



SCREW MOUNTING



HOLES

SELECTION TABLE

GRAI Model	A _t m ²	Q [m ³ /h]		L _{WA} [dB(A)]		Dpt [Pa]	
		min	max	min	max	min	max
400x400	0,0771	480	970	25	45	5	20
600x400	0,1153	720	1450	25	45	5	20
800x400	0,1535	960	1930	25	45	5	20
1000x400	0,1917	1200	2410	25	45	5	20
1200x400	0,2299	1440	2880	25	45	5	20
1400x400	0,2681	1670	3360	25	45	5	20
1600x400	0,3063	1910	3840	25	45	5	20
1800x400	0,3445	2150	4320	25	45	5	20
2000x400	0,3827	2390	4800	25	45	5	20
400x500	0,1068	670	1340	25	45	5	20
500x500	0,1335	830	1670	25	45	5	20
600x500	0,1602	1000	2010	25	45	5	20
800x500	0,2135	1330	2680	25	45	5	20
1000x500	0,2669	1670	3350	25	45	5	20
1200x500	0,3203	2000	4020	25	45	5	20
1400x500	0,3736	2330	4690	25	45	5	20
1600x500	0,4270	2670	5360	25	45	5	20
1800x500	0,4804	3000	6030	25	45	5	20
2000x500	0,5338	3330	6700	25	45	5	20
400x600	0,1365	850	1710	25	45	5	20
600x600	0,2050	1280	2570	25	45	5	20
800x600	0,2735	1710	3430	25	45	5	20
1000x600	0,3421	2140	4290	25	45	5	20
1200x600	0,4106	2560	5150	25	45	5	20
1400x600	0,4792	2990	6010	25	45	5	20
1600x600	0,5477	3420	6870	25	45	5	20
1800x600	0,6162	3850	7730	25	45	5	20
2000x600	0,6848	4270	8590	25	45	5	20

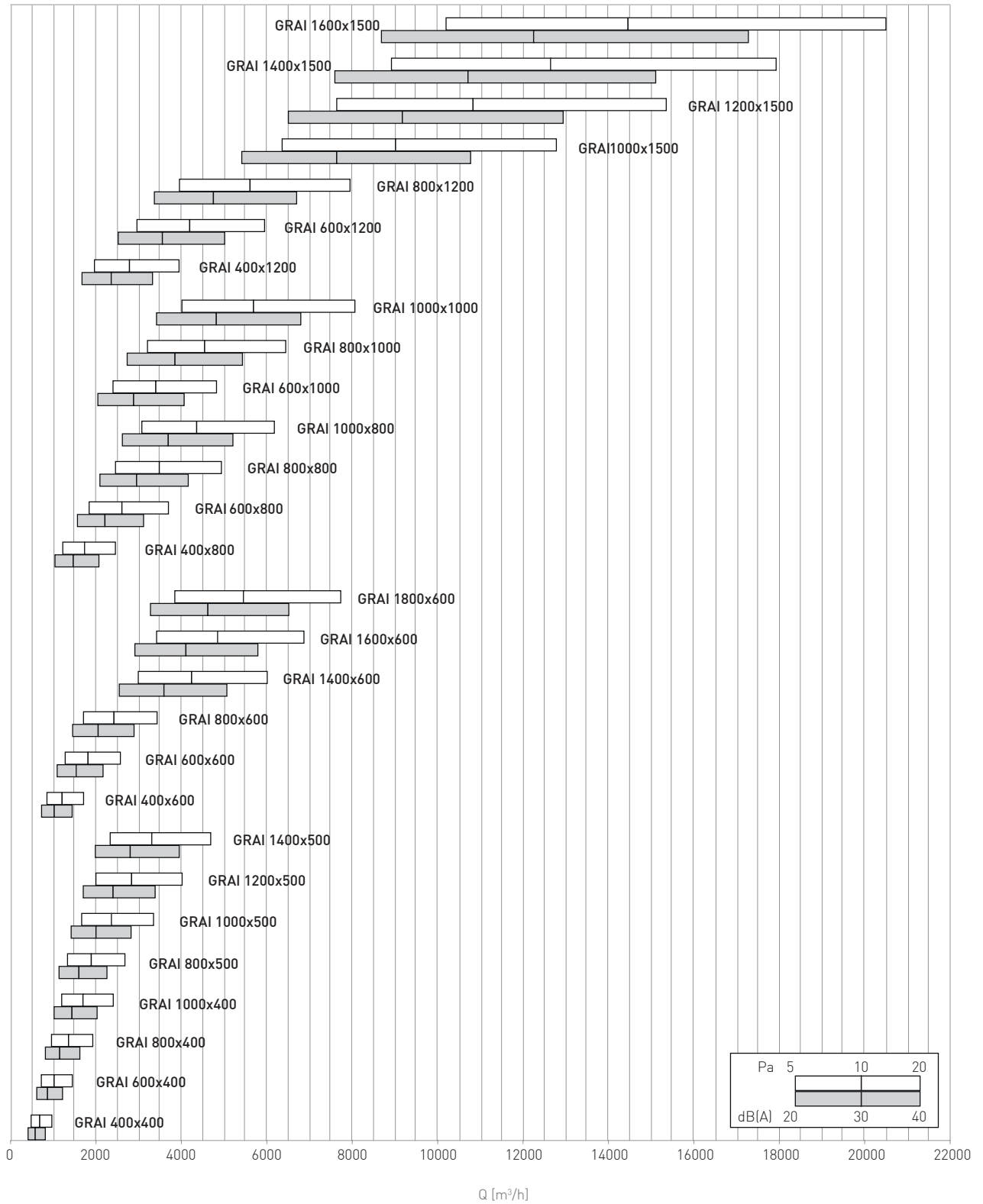


Diffusion

Components
for perfect air
distribution in HVAC
systems

GRAI Model	A _g m ²	Q [m ³ /h]		L _{wa} [dB(A)]		Dpt [Pa]	
		min	max	min	max	min	max
400x800	0,1958	1220	2460	25	45	5	20
600x800	0,2947	1840	3700	25	45	5	20
800x800	0,3936	2460	4940	25	45	5	20
1000x800	0,4924	3070	6180	25	45	5	20
1200x800	0,5913	3690	7420	25	45	5	20
1400x800	0,6902	4310	8660	25	45	5	20
1600x800	0,7890	4920	9900	25	45	5	20
1800x800	0,8879	5540	11140	25	45	5	20
2000x800	0,9868	6160	12380	25	45	5	20
400x1000	0,2552	1590	3200	25	45	5	20
600x1000	0,3844	2400	4820	25	45	5	20
800x1000	0,5136	3210	6440	25	45	5	20
1000x1000	0,6428	4010	8070	25	45	5	20
1200x1000	0,7720	4820	9690	25	45	5	20
1400x1000	0,9012	5620	11310	25	45	5	20
1600x1000	1,0304	6430	12930	25	45	5	20
1800x1000	1,1596	7240	14550	25	45	5	20
2000x1000	1,2888	8040	16170	25	45	5	20
400x1200	0,3146	1960	3950	25	45	5	20
600x1200	0,4741	2960	5950	25	45	5	20
800x1200	0,6336	3950	7950	25	45	5	20
1000x1200	0,7932	4950	9950	25	45	5	20
1200x1200	0,9527	5950	11950	25	45	5	20
1400x1200	1,1122	6940	13950	25	45	5	20
1600x1200	1,2718	7940	15960	25	45	5	20
1800x1200	1,4313	8930	17960	25	45	5	20
2000x1200	1,5908	9930	19960	25	45	5	20
400x1500	0,4036	2520	5060	25	45	5	20
600x1500	0,6086	3800	7640	25	45	5	20
800x1500	0,8137	5080	10210	25	45	5	20
1000x1500	1,0187	6360	12780	25	45	5	20
1200x1500	1,2237	7640	15350	25	45	5	20
1400x1500	1,4288	8920	17930	25	45	5	20
1600x1500	1,6338	10200	20500	25	45	5	20
1800x1500	1,8388	11480	23070	25	45	5	20
2000x1500	2,0439	12760	25640	25	45	5	20
2000x1600	2,1949	13700	27540	25	45	5	20
2000x2000	2,7989	17470	35120	25	45	5	20

QUICK SELECTION CHART



GRZ50

Outdoor air intake grille pitch 50



Diffusion

Components
for perfect air
distribution in HVAC
systems



Product

GRZ50

Application

Wall mounted, for outdoor air intake or exhaust

Construction

Galvanized steel

Stainless steel AISI 304 constructions available on request

SPECIFICATION

Industrial galvanised steel return grille with 45° inclined fixed blades pitch 50 mm.

MOUNTING

With front screws.

ACCESSORIES

SE2 Galvanized steel balancing damper with opposed-blade movement.

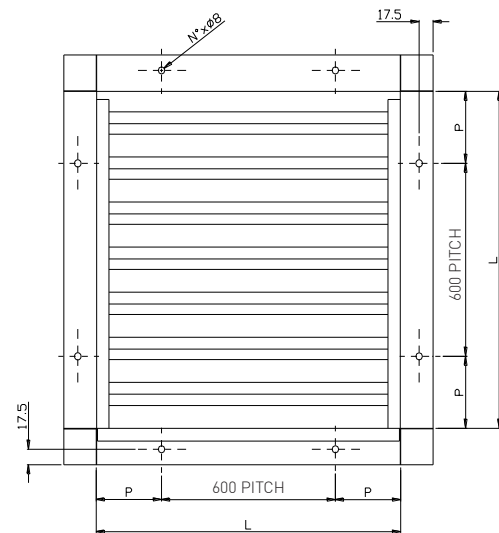
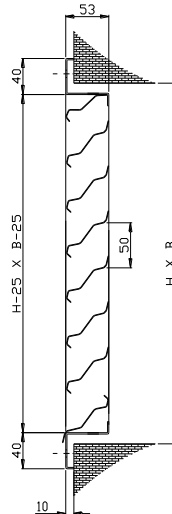
CTV2 Mounting sub-frame in galvanized steel sheet.

R-RI Bird or insect screen.

SSA Gravity overpressure damper.

DIMENSIONAL

DIM. NOM (B;H)	L [mm]	P [mm]	N°xø8
200	175	87,5	1
300	275	137,5	1
400	375	187,5	1
500	475	237,5	1
600	575	287,5	1
700	675	37,5	2
800	775	87,5	2
900	875	137,5	2
1000	975	187,5	2
1100	1075	237,5	2
1200	1175	287,5	2
1300	1275	37,5	3
1400	1375	87,5	3
1500	1475	137,5	3
1600	1575	187,5	3
1700	1675	237,5	3
1800	1775	287,5	3
1900	1875	37,5	4
2000	1975	87,5	4



GRZ100

Outdoor air intake grille pitch 100



Product

GRZ100

Application

Wall mounted, for outdoor air intake or exhaust

Construction

Galvanized steel

Stainless steel AISI 304 constructions available on request

SPECIFICATION

Industrial galvanised steel return grille with 45° inclined fixed blades pitch 100 mm.

MOUNTING

With front screws

ACCESSORIES

SE2 Galvanized steel balancing damper with opposed-blade movement.

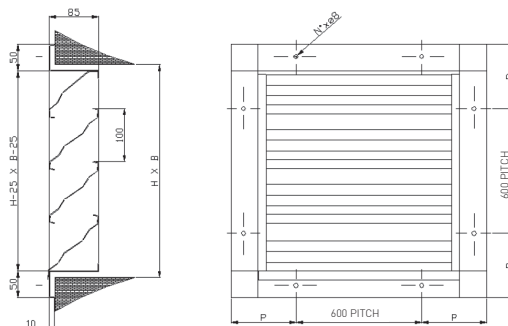
CTV2 Mounting sub-frame in galvanized steel sheet.

R-RI Bird or insect screen

SSA Gravity overpressure damper

DIMENSIONAL

DIM. NOM			DIM. NOM		
(B;H)	P [mm]	N°xø8	(B;H)	P [mm]	N°xø8
200	137,5	1	1600	237,5	3
300	187,5	1	1700	287,5	3
400	237,5	1	1800	337,5	3
500	287,5	1	1900	87,5	4
600	337,5	1	2000	137,5	4
700	87,5	2	2100	187,5	4
800	137,5	2	2200	237,5	4
900	187,5	2	2300	287,5	4
1000	237,5	2	2400	337,5	4
1100	287,5	2	2500	87,5	5
1200	337,5	2	2600	137,5	5
1300	87,5	3	2700	187,5	5
1400	137,5	3	2800	237,5	5
1500	187,5	3	2900	287,5	5
			3000	337,5	5



PRESSURE DROP AND GENERATED NOISE

Pressure loss and sound power level

V (m/s)	Dpt [Pa]	LwA dB(A)
1,0	7	25
1,5	16	36
2,0	28	44
2,5	46	50
3,0	64	56
3,5	88	60
4,0	113	63
4,5	145	67
5,0	170	70

V: velocity referred to the section (B-25)x(H-125) [m/s].

Dpt: total pressure drop [Pa].

LwA: sound power level [dB(A)].



Product	BDM
Application	Supply or return
Construction	In grey painted steel

SPECIFICATION

Pressed aluminium recessed grille

MOUNTING

Visible screws

OPERATING DATA

Vk: effective velocity (m/s)

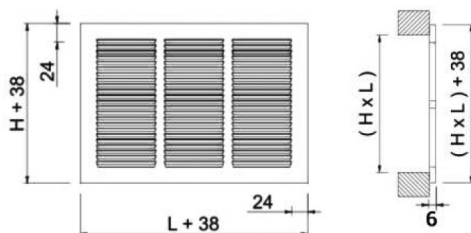
m³/h: flow rate

Pa: pressure drop in Pascal

dB(A): noise level index

DIMENSIONAL

Model LxH	Effective section m ²	Flow rate m ³ /h			
		Vk 2 m/s	Vk 3 m/s	Vk 4 m/s	Vk 5 m/s
200x100	0,014	100	150	200	250
300x100	0,021	151	227	302	378
400x100	0,029	209	313	418	522
150x150	0,017	61	122	183	245
300x150	0,033	238	356	475	594
400x150	0,044	317	475	633	792
200x200	0,029	209	313	418	522
300x200	0,043	310	465	620	774
400x200	0,058	418	626	835	1044
300x300	0,065	468	702	936	1170
400x300	0,087	626	940	1253	1566
Pa		3	6	10	15
dB(A)		20/25	25/30	30/35	35/40



BDM

BDMC

Pressed circular grille



Product

BDMC

Construction

Circular aluminium intake or exhaust grilles, supplied with transparent anti-scratch film with mesh

SPECIFICATION

Pressed circular recessed aluminium grille with mesh

APPLICATION

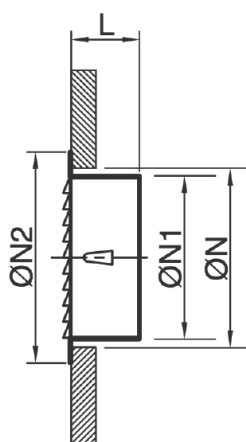
Wall mounted for exhaust

MOUNTING

Recessed

DIMENSIONAL

Model	Ø N (mm)	Ø N 1 (mm)	Ø N 2 (mm)	L (mm)
100	100	98	126	45
125	125	123	151	45
150	150	148	176	45
160	160	157	187	45
200	200	197	226	45
250	250	248	276	45
315	315	313	343	45



BDMC

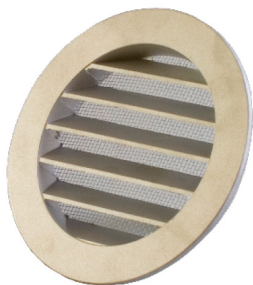
GRC

Circular grille with mesh



Diffusion

Components
for perfect air
distribution in HVAC
systems



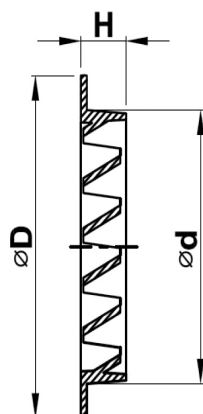
Product	GRC
Application	Supply or return
Construction	Aluminium

SPECIFICATION
Circular grille with aluminium mesh

MOUNTING
By collar

DIMENSIONAL

Model	d (mm)	D (mm)	H (mm)
GRC 100	100	124	19
GRC 125	125	150	19
GRC 150	150	179	17
GRC 160	160	182	18
GRC 200	200	223	20
GRC 250	250	275	20
GRC 315	315	345	21
GRC 400	400	439	40



GRC

CONTROL DAMPERS



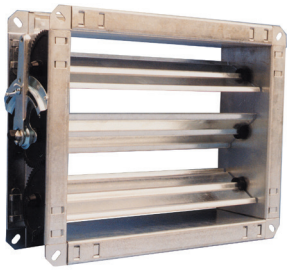
Diffusion

Components for perfect air distribution in HVAC systems

	SR100 Control damper pitch 100	p. 186
	SR50T Control damper pitch 50 with interlocking blades	p. 191
	SR100T Control damper pitch 100 with interlocking blades	p. 195
	SR150T Control damper pitch 150 with hollow blades	p. 199
	SR200T Control damper pitch 200 with interlocking blades	p. 202
	SR100HT High temperature control damper in galvanised steel pitch 100 mm	p. 205
	SRC/SRCM Circular balancing damper	p. 207
	SITZ Airtight shut-off damper with hollow blades	p. 209
	SRCT Circular airtight shut-off damper	p. 212
	SSZ100C Duct overpressure damper pitch 100	p. 215
	SSA50 E/ SSA50 I Wall overpressure damper pitch 50	p. 217
	SSC Overpressure damper	p. 218
	SIRIS Iris damper	p. 220
	ACTUATORS FOR DAMPERS	p. 222

SR100

Control damper pitch 100



Product

SR100

Construction

Frame and blades in galvanised steel, nylon rotation pins

SPECIFICATION

Control damper pitch 100 mm

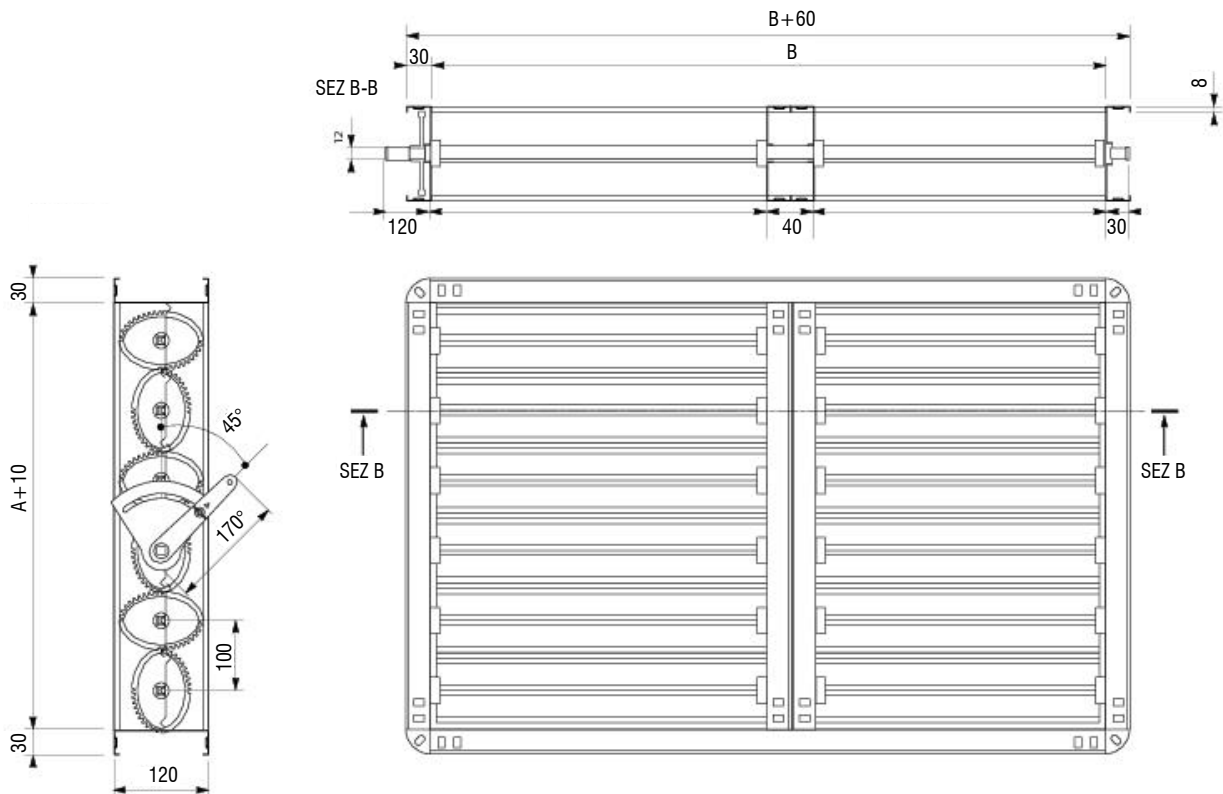
ACTUATION

Opposed or parallel movement manually operated with CMP manual control or with actuator

MOUNTING

By rivets at flange corners

DRAWINGS



SR100



Diffusion

Components
for perfect air
distribution in HVAC
systems

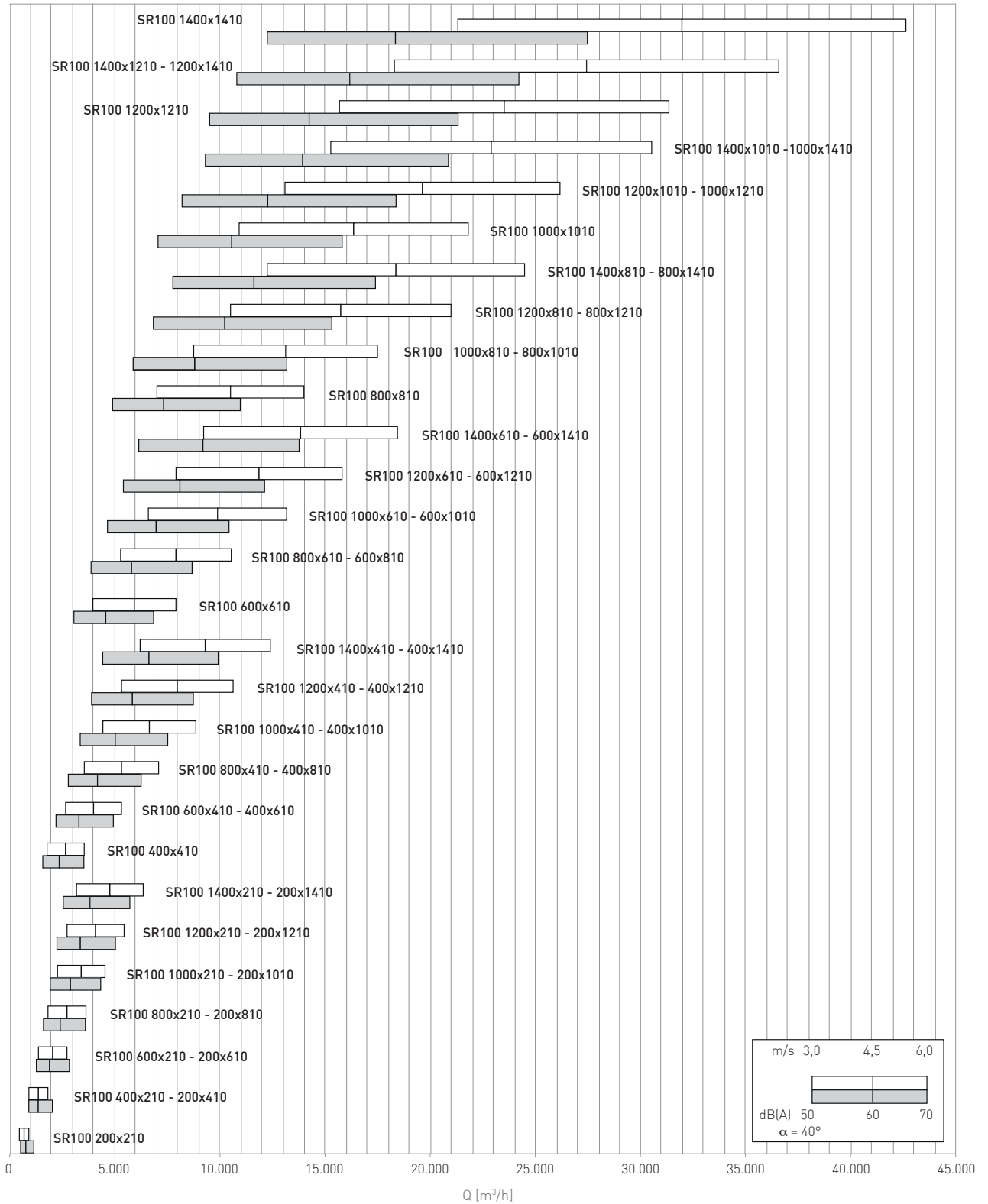
SELECTION TABLE

SR100 Model (BxH)	A _k m ²	v [m/s]		Q [m ³ /h]		Dp [α=40°] [Pa]		L _{WA} [dB(A)]	
		min	max	min	max	min	max	min	max
200x210	0,0420	3	6	450	910	64	255	47	64
200x410	0,0840	3	6	910	1810	64	255	50	67
200x610	0,1260	3	6	1360	2720	64	255	52	69
200x810	0,1680	3	6	1810	3630	64	255	53	70
200x1010	0,2100	3	6	2270	4540	64	255	54	71
200x1210	0,2520	3	6	2720	5440	64	255	55	72
200x1410	0,2940	3	6	3180	6350	64	255	55	73
400x210	0,0840	3	6	910	1810	64	255	50	67
400x410	0,1640	3	6	1770	3540	64	255	53	70
400x610	0,2460	3	6	2660	5310	64	255	55	72
400x810	0,3280	3	6	3540	7080	64	255	56	73
400x1010	0,4100	3	6	4430	8860	64	255	57	74
400x1210	0,4920	3	6	5310	10630	64	255	58	75
400x1410	0,5740	3	6	6200	12400	64	255	58	76
600x210	0,1260	3	6	1360	2720	64	255	52	69
600x410	0,2460	3	6	2660	5310	64	255	55	72
600x610	0,3660	3	6	3950	7910	64	255	56	74
600x810	0,4880	3	6	5270	10540	64	255	58	75
600x1010	0,6100	3	6	6590	13180	64	255	59	76
600x1210	0,7320	3	6	7910	15810	64	255	59	77
600x1410	0,8540	3	6	9220	18450	64	255	60	77
800x210	0,1680	3	6	1810	3630	64	255	53	70
800x410	0,3280	3	6	3540	7080	64	255	56	73
800x610	0,4880	3	6	5270	10540	64	255	58	75
1000x210	0,2100	3	6	2270	4540	64	255	54	71
1000x410	0,4100	3	6	4430	8860	64	255	57	74
1000x610	0,6100	3	6	6590	13180	64	255	59	76
1000x1010	1,0100	3	6	10910	21820	64	255	61	78
1200x610	0,7320	3	6	7910	15810	64	255	59	77
1400x610	0,8540	3	6	9220	18450	64	255	60	77
800x810	0,6480	3	6	7000	14000	64	255	59	76
800x1010	0,8100	3	6	8750	17500	64	255	60	77
800x1210	0,9720	3	6	10500	21000	64	255	61	78
800x1410	1,1340	3	6	12250	24490	64	255	61	78
1000x810	0,8100	3	6	8750	17500	64	255	60	77
1000x1210	1,2120	3	6	13090	26180	64	255	62	79
1000x1410	1,4140	3	6	15270	30540	64	255	62	79
1200x210	0,2520	3	6	2720	5440	64	255	55	72
1200x410	0,4920	3	6	5310	10630	64	255	58	75
1200x810	0,9720	3	6	10500	21000	64	255	61	78
1200x1010	1,2120	3	6	13090	26180	64	255	62	79
1200x1210	1,4520	3	6	15680	31360	64	255	62	80
1200x1410	1,6940	3	6	18300	36590	64	255	63	80
1400x210	0,2940	3	6	3180	6350	64	255	55	73
1400x410	0,5740	3	6	6200	12400	64	255	58	76
1400x810	1,1340	3	6	12250	24490	64	255	61	78
1400x1010	1,4140	3	6	15270	30540	64	255	62	79
1400x1210	1,6940	3	6	18300	36590	64	255	63	80
1400x1410	1,9740	3	6	21320	42640	64	255	64	81

SR100

Control damper pitch 100

QUICK SELECTION CHART





Diffusion

Components
for perfect air
distribution in HVAC
systems

ACTUATOR SIZE IDENTIFICATION CHART

Height H m ²	Base B													
	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
210	0,04	0,06	0,08	0,11	0,13	0,15	0,17	0,19	0,21	0,23	0,25	0,27	0,29	0,32
310	0,06	0,09	0,12	0,16	0,19	0,22	0,25	0,28	0,31	0,34	0,37	0,4	0,43	0,47
410	0,08	0,12	0,16	0,21	0,25	0,29	0,33	0,37	0,41	0,45	0,49	0,53	0,57	0,62
510	0,1	0,15	0,2	0,26	0,31	0,36	0,41	0,46	0,51	0,56	0,61	0,66	0,71	0,77
610	0,12	0,18	0,24	0,31	0,37	0,43	0,49	0,55	0,61	0,67	0,73	0,79	0,85	0,92
710	0,14	0,21	0,28	0,36	0,43	0,5	0,57	0,64	0,71	0,78	0,85	0,92	0,99	1,07
810	0,16	0,24	0,32	0,41	0,49	0,57	0,65	0,73	0,81	0,89	0,97	1,05	1,13	1,22
910	0,18	0,27	0,36	0,46	0,55	0,64	0,73	0,82	0,91	1	1,09	1,18	1,27	1,37
1010	0,2	0,3	0,4	0,51	0,61	0,71	0,81	0,91	1,01	1,11	1,21	1,31	1,41	1,52
1110	0,22	0,33	0,44	0,56	0,67	0,78	0,89	1	1,11	1,22	1,33	1,44	1,55	1,67
1210	0,24	0,36	0,48	0,61	0,73	0,85	0,97	1,09	1,21	1,33	1,45	1,57	1,69	1,82
1310	0,26	0,39	0,52	0,66	0,79	0,92	1,05	1,18	1,31	1,44	1,57	1,7	1,83	1,97
1410	0,28	0,42	0,56	0,71	0,85	0,99	1,13	1,27	1,41	1,55	1,69	1,83	1,97	2,12
1510	0,3	0,45	0,6	0,76	0,91	1,06	1,21	1,36	1,51	1,66	1,81	1,96	2,11	2,27
1610	0,32	0,48	0,64	0,81	0,97	1,13	1,29	1,45	1,61	1,77	1,93	2,09	2,25	2,42
1710	0,34	0,51	0,68	0,86	1,03	1,2	1,37	1,54	1,71	1,88	2,05	2,22	2,39	2,57
1810	0,36	0,54	0,72	0,91	1,09	1,27	1,45	1,63	1,81	1,99	2,17	2,35	2,53	2,72
1910	0,38	0,57	0,76	0,96	1,15	1,34	1,53	1,72	1,91	2,1	2,29	2,48	2,67	2,87
2010	0,4	0,6	0,8	1,01	1,21	1,41	1,61	1,81	2,01	2,21	2,41	2,61	2,81	3,02
2110	0,42	0,63	0,84	1,06	1,27	1,48	1,69	1,9	2,11	2,32	2,53	2,74	2,95	3,17
2210	0,44	0,66	0,88	1,11	1,33	1,55	1,77	1,99	2,21	2,43	2,65	2,87	3,09	3,32
2310	0,46	0,69	0,92	1,16	1,39	1,62	1,85	2,08	2,31	2,54	2,77	3	3,23	3,47
2410	0,48	0,72	0,96	1,21	1,45	1,69	1,93	2,17	2,41	2,65	2,89	3,13	3,37	3,62
2510	0,5	0,75	1	1,26	1,51	1,76	2,01	2,26	2,51	2,76	3,01	3,26	3,51	3,77
2610	0,52	0,78	1,04	1,31	1,57	1,83	2,09	2,35	2,61	2,87	3,13	3,39	3,65	3,92
2710	0,54	0,81	1,08	1,36	1,63	1,9	2,17	2,44	2,71	2,98	3,25	3,52	3,79	4,07
2810	0,56	0,84	1,12	1,41	1,69	1,97	2,25	2,53	2,81	3,09	3,37	3,65	3,93	4,22
2910	0,58	0,87	1,16	1,46	1,75	2,04	2,33	2,62	2,91	3,2	3,49	3,78	4,07	4,37
3010	0,6	0,9	1,2	1,51	1,81	2,11	2,41	2,71	3,01	3,31	3,61	3,91	4,21	4,52

SR100

Control damper pitch 100

Height H m ²	Base B															
	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	
210	0,34	0,36	0,38	0,4	0,42	0,44	0,46	0,48	0,5	0,53	0,55	0,57	0,59	0,61	0,63	
310	0,5	0,53	0,56	0,59	0,62	0,65	0,68	0,71	0,74	0,78	0,81	0,84	0,87	0,9	0,93	
410	0,66	0,7	0,74	0,78	0,82	0,86	0,9	0,94	0,98	1,03	1,07	1,11	1,15	1,19	1,23	
510	0,82	0,87	0,92	0,97	1,02	1,07	1,12	1,17	1,22	1,28	1,33	1,38	1,43	1,48	1,53	
610	0,98	1,04	1,1	1,16	1,22	1,28	1,34	1,4	1,46	1,53	1,59	1,65	1,71	1,77	1,83	
710	1,14	1,21	1,28	1,35	1,42	1,49	1,56	1,63	1,7	1,78	1,85	1,92	1,99	2,06	2,13	
810	1,3	1,38	1,46	1,54	1,62	1,7	1,78	1,86	1,94	2,03	2,11	2,19	2,27	2,35	2,43	
910	1,46	1,55	1,64	1,73	1,82	1,91	2	2,09	2,18	2,28	2,37	2,46	2,55	2,64	2,73	
1010	1,62	1,72	1,82	1,92	2,02	2,12	2,22	2,32	2,42	2,53	2,63	2,73	2,83	2,93	3,03	
1110	1,78	1,89	2	2,11	2,22	2,33	2,44	2,55	2,66	2,78	2,89	3	3,11	3,22	3,33	
1210	1,94	2,06	2,18	2,3	2,42	2,54	2,66	2,78	2,9	3,03	3,15	3,27	3,39	3,51	3,63	
1310	2,1	2,23	2,36	2,49	2,62	2,75	2,88	3,01	3,14	3,28	3,41	3,54	3,67	3,8	3,93	
1410	2,26	2,4	2,54	2,68	2,82	2,96	3,1	3,24	3,38	3,53	3,67	3,81	3,95	4,09	4,23	
1510	2,42	2,57	2,72	2,87	3,02	3,17	3,32	3,47	3,62	3,78	3,93	4,08	4,23	4,38	4,53	
1610	2,58	2,74	2,9	3,06	3,22											
1710	2,74	2,91	3,08	3,25	3,42											
1810	2,9	3,08	3,26	3,44	3,62											
1910	3,06	3,25	3,44	3,63	3,82											
2010	3,22	3,42	3,62	3,82	4,02											

Calculated area in m ²	Dampers with surface <2 m ²
Dampers with surface <0.4 m ²	Dampers with surface >2/<4 m ²
Dampers with surface <1 m ²	Dampers with surface >4/<8 m ²

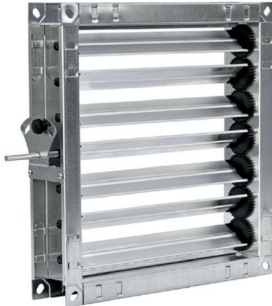
SR50T

Control damper pitch 50 with interlocking blades



Diffusion

Components for perfect air distribution in HVAC systems



Product

SR50T

Construction

Galvanised steel sheet frame
Hollow blades in galvanised steel sheet
Blade pitch 50 mm
Internal nylon control gears
Control pins \varnothing 8 mm galvanised
Maximum operating temperature: 50°C

Actuation

Opposed or parallel movement manually operated with CM-10 manual control or with actuator (both on request)

SPECIFICATION

Galvanised steel control damper pitch 50 mm

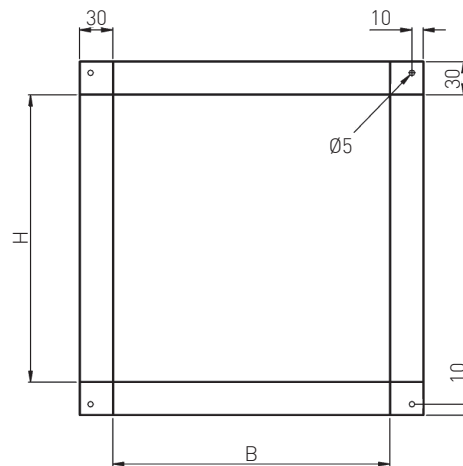
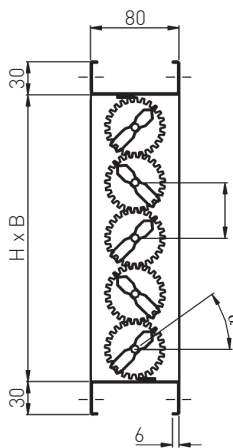
MOUNTING

By bolts at flange corners

ACCESSORIES

Manual control CM-10
Actuator 24V or 230V

DRAWINGS



SR50T



CM-10
Manual control



ACTUATOR

DIMENSIONS

B mm	110	160	210	260	310	360	410	460	510	560	610	660	710
H mm	110	160	210	260	310	360	410	460	510	560	610	660	710

SR50T

Control damper pitch 50 with interlocking blades

PERFORMANCE

SR50T	Pressure drop and generated noise					
	V (m/s)	$\alpha 0^\circ$		$\alpha 30^\circ$		$\alpha 60^\circ$
ΔP_t Pa		LwA dB(A)	ΔP_t Pa	LwA dB(A)	ΔP_t Pa	LwA dB(A)
1	<5	<20	<5	<20	14	24
2	<5	23	<5	25	56	44
3	<5	33	7	37	130	58
4	5	42	12	44	230	67
5	9	48	20	52	360	74
6	13	53	29	57	550	80
7	18	58	39	62	650	84
8	22	62	50	66	1000	88
9	27	65	64	69	>1000*	92
10	35	68	80	72	>1000*	95

SELECTION TABLE

A_k m ²	v [m/s]		Q [m ³ /h]	
	min	max	min	max
0,0220	3	6	240	480
0,0330	3	6	360	710
0,0440	3	6	480	950
0,0550	3	6	590	1190
0,0660	3	6	710	1430
0,0770	3	6	830	1660
0,0420	3	6	450	910
0,0630	3	6	680	1360
0,0840	3	6	910	1810
0,1050	3	6	1130	2270
0,1260	3	6	1360	2720
0,1470	3	6	1590	3180
0,0930	3	6	1000	2010
0,1240	3	6	1340	2680
0,1550	3	6	1670	3350
0,1860	3	6	2010	4020
0,2170	3	6	2340	4690
0,1640	3	6	1770	3540
0,2050	3	6	2210	4430
0,2460	3	6	2660	5310
0,2870	3	6	3100	6200
0,2550	3	6	2750	5510
0,3060	3	6	3300	6610
0,3570	3	6	3860	7710
0,3660	3	6	3950	7910
0,4270	3	6	4610	9220
0,4970	3	6	5370	10740



Diffusion

Components
for perfect air
distribution in HVAC
systems

ACTUATOR SIZE IDENTIFICATION CHART

Height H m ²	Base B													
	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
210	0,04	0,06	0,08	0,11	0,13	0,15	0,17	0,19	0,21	0,23	0,25	0,27	0,29	0,32
310	0,06	0,09	0,12	0,16	0,19	0,22	0,25	0,28	0,31	0,34	0,37	0,4	0,43	0,47
410	0,08	0,12	0,16	0,21	0,25	0,29	0,33	0,37	0,41	0,45	0,49	0,53	0,57	0,62
510	0,1	0,15	0,2	0,26	0,31	0,36	0,41	0,46	0,51	0,56	0,61	0,66	0,71	0,77
610	0,12	0,18	0,24	0,31	0,37	0,43	0,49	0,55	0,61	0,67	0,73	0,79	0,85	0,92
710	0,14	0,21	0,28	0,36	0,43	0,5	0,57	0,64	0,71	0,78	0,85	0,92	0,99	1,07
810	0,16	0,24	0,32	0,41	0,49	0,57	0,65	0,73	0,81	0,89	0,97	1,05	1,13	1,22
910	0,18	0,27	0,36	0,46	0,55	0,64	0,73	0,82	0,91	1	1,09	1,18	1,27	1,37
1010	0,2	0,3	0,4	0,51	0,61	0,71	0,81	0,91	1,01	1,11	1,21	1,31	1,41	1,52
1110	0,22	0,33	0,44	0,56	0,67	0,78	0,89	1	1,11	1,22	1,33	1,44	1,55	1,67
1210	0,24	0,36	0,48	0,61	0,73	0,85	0,97	1,09	1,21	1,33	1,45	1,57	1,69	1,82
1310	0,26	0,39	0,52	0,66	0,79	0,92	1,05	1,18	1,31	1,44	1,57	1,7	1,83	1,97
1410	0,28	0,42	0,56	0,71	0,85	0,99	1,13	1,27	1,41	1,55	1,69	1,83	1,97	2,12
1510	0,3	0,45	0,6	0,76	0,91	1,06	1,21	1,36	1,51	1,66	1,81	1,96	2,11	2,27
1610	0,32	0,48	0,64	0,81	0,97	1,13	1,29	1,45	1,61	1,77	1,93	2,09	2,25	2,42
1710	0,34	0,51	0,68	0,86	1,03	1,2	1,37	1,54	1,71	1,88	2,05	2,22	2,39	2,57
1810	0,36	0,54	0,72	0,91	1,09	1,27	1,45	1,63	1,81	1,99	2,17	2,35	2,53	2,72
1910	0,38	0,57	0,76	0,96	1,15	1,34	1,53	1,72	1,91	2,1	2,29	2,48	2,67	2,87
2010	0,4	0,6	0,8	1,01	1,21	1,41	1,61	1,81	2,01	2,21	2,41	2,61	2,81	3,02
2110	0,42	0,63	0,84	1,06	1,27	1,48	1,69	1,9	2,11	2,32	2,53	2,74	2,95	3,17
2210	0,44	0,66	0,88	1,11	1,33	1,55	1,77	1,99	2,21	2,43	2,65	2,87	3,09	3,32
2310	0,46	0,69	0,92	1,16	1,39	1,62	1,85	2,08	2,31	2,54	2,77	3	3,23	3,47
2410	0,48	0,72	0,96	1,21	1,45	1,69	1,93	2,17	2,41	2,65	2,89	3,13	3,37	3,62
2510	0,5	0,75	1	1,26	1,51	1,76	2,01	2,26	2,51	2,76	3,01	3,26	3,51	3,77
2610	0,52	0,78	1,04	1,31	1,57	1,83	2,09	2,35	2,61	2,87	3,13	3,39	3,65	3,92
2710	0,54	0,81	1,08	1,36	1,63	1,9	2,17	2,44	2,71	2,98	3,25	3,52	3,79	4,07
2810	0,56	0,84	1,12	1,41	1,69	1,97	2,25	2,53	2,81	3,09	3,37	3,65	3,93	4,22
2910	0,58	0,87	1,16	1,46	1,75	2,04	2,33	2,62	2,91	3,2	3,49	3,78	4,07	4,37
3010	0,6	0,9	1,2	1,51	1,81	2,11	2,41	2,71	3,01	3,31	3,61	3,91	4,21	4,52

SR50T

Control damper pitch 50 with interlocking blades

Height H m ²	Base B															
	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	
210	0,34	0,36	0,38	0,4	0,42	0,44	0,46	0,48	0,5	0,53	0,55	0,57	0,59	0,61	0,63	
310	0,5	0,53	0,56	0,59	0,62	0,65	0,68	0,71	0,74	0,78	0,81	0,84	0,87	0,9	0,93	
410	0,66	0,7	0,74	0,78	0,82	0,86	0,9	0,94	0,98	1,03	1,07	1,11	1,15	1,19	1,23	
510	0,82	0,87	0,92	0,97	1,02	1,07	1,12	1,17	1,22	1,28	1,33	1,38	1,43	1,48	1,53	
610	0,98	1,04	1,1	1,16	1,22	1,28	1,34	1,4	1,46	1,53	1,59	1,65	1,71	1,77	1,83	
710	1,14	1,21	1,28	1,35	1,42	1,49	1,56	1,63	1,7	1,78	1,85	1,92	1,99	2,06	2,13	
810	1,3	1,38	1,46	1,54	1,62	1,7	1,78	1,86	1,94	2,03	2,11	2,19	2,27	2,35	2,43	
910	1,46	1,55	1,64	1,73	1,82	1,91	2	2,09	2,18	2,28	2,37	2,46	2,55	2,64	2,73	
1010	1,62	1,72	1,82	1,92	2,02	2,12	2,22	2,32	2,42	2,53	2,63	2,73	2,83	2,93	3,03	
1110	1,78	1,89	2	2,11	2,22	2,33	2,44	2,55	2,66	2,78	2,89	3	3,11	3,22	3,33	
1210	1,94	2,06	2,18	2,3	2,42	2,54	2,66	2,78	2,9	3,03	3,15	3,27	3,39	3,51	3,63	
1310	2,1	2,23	2,36	2,49	2,62	2,75	2,88	3,01	3,14	3,28	3,41	3,54	3,67	3,8	3,93	
1410	2,26	2,4	2,54	2,68	2,82	2,96	3,1	3,24	3,38	3,53	3,67	3,81	3,95	4,09	4,23	
1510	2,42	2,57	2,72	2,87	3,02	3,17	3,32	3,47	3,62	3,78	3,93	4,08	4,23	4,38	4,53	
1610	2,58	2,74	2,9	3,06	3,22											
1710	2,74	2,91	3,08	3,25	3,42											
1810	2,9	3,08	3,26	3,44	3,62											
1910	3,06	3,25	3,44	3,63	3,82											
2010	3,22	3,42	3,62	3,82	4,02											

Calculated area in m ²	Dampers with surface <2 m ²
Dampers with surface <0.4 m ²	Dampers with surface >2/<4 m ²
Dampers with surface <1 m ²	Dampers with surface >4/<8 m ²

SR100T

Control damper pitch 100 with interlocking blades



Diffusion

Components for perfect air distribution in HVAC systems



Product

SR100T

Construction

Galvanised steel sheet frame, 1.0 mm thick
 Interlocking blades in galvanized steel sheet, thickness 0.5+0.5 mm (0.6+0.6 mm for base exceeding 1.0 m)
 Blade pitch 100 mm
 External galvanised control levers
 Nylon bushings resistant up to 70 °C
 Control pins Ø 12 mm galvanised
 Side sealing with aluminium blades

SPECIFICATION

Steel control damper galvanised pitch 100 mm with hollow blades

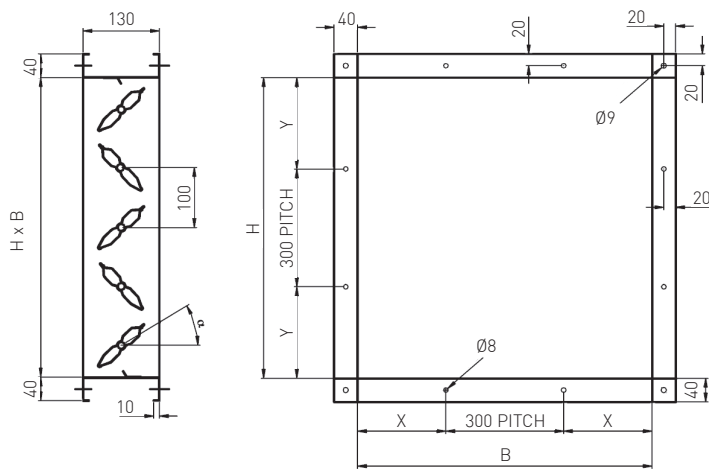
MOUNTING

By bolts along the flanges

ACCESSORIES

Manual control CM-11
 Actuator 24V or 230V

DRAWINGS



SR100T



CM-11
Manual control



ACTUATOR

DIMENSIONS

B mm	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700
No. of Holes Ø 8	/	/	1	1	1	2	2	2	3	3	3	4	4	4	5	5
X mm	/	/	200	250	300	200	250	300	200	250	300	200	250	300	200	250

H mm	210	310	410	510	610	710	810	910	1010	1110	1210	1310	1410	1510	1610	1710	1810	1910	2010
No. of Holes Ø 8	/	/	1	1	1	2	2	2	3	3	3	4	4	4	5	5	5	6	6
Y mm	/	/	205	255	305	205	255	305	205	255	305	205	255	305	205	255	305	205	255

SR100T

Control damper pitch 100 with interlocking blades

PERFORMANCE

SR100T	Pressure drop and generated noise					
	α 0°		α 30°		α 60°	
	V (m/s)	ΔP_t Pa	LwA dB(A)	ΔP_t Pa	LwA dB(A)	ΔP_t Pa
1	< 5	< 20	5	27	78	29
2	< 5	23	23	43	320	50
3	< 5	35	52	54	780	63
4	< 5	43	90	62	1350	72
5	< 5	49	150	66	> 1500*	78
6	< 5	53	240	71	> 1500*	84
7	7	58	330	74	> 1500*	90
8	8	62	420	78	> 1500*	93
9	11	65	520	82	> 1500*	97
10	14	68	640	84	> 1500*	>100
11	17	71	800	86	> 1500*	>100
12	20	73	960	89	> 1500*	>100
13	23	75	1090	91	> 1500*	>100
14	27	77	1270	93	> 1500*	>100
15	32	79	1470	94	> 1500*	>100

SELECTION TABLE

A_t m ²	v [m/s]		Q [m ³ /h]	
	min	max	min	max
0,0420	3	6	450	910
0,0840	3	6	910	1810
0,1260	3	6	1360	2720
0,1680	3	6	1810	3630
0,2100	3	6	2270	4540
0,2520	3	6	2720	5440
0,2940	3	6	3180	6350
0,1640	3	6	1770	3540
0,2460	3	6	2660	5310
0,3280	3	6	3540	7080
0,4100	3	6	4430	8860
0,4920	3	6	5310	10630
0,5740	3	6	6200	12400
0,3660	3	6	3950	7910
0,4880	3	6	5270	10540
0,6100	3	6	6590	13180
0,7320	3	6	7910	15810
0,8540	3	6	9220	18450
0,6480	3	6	7000	14000
0,8100	3	6	8750	17500
0,9720	3	6	10500	21000
1,1340	3	6	12250	24490
1,0100	3	6	10910	21820
1,2120	3	6	13090	26180
1,4140	3	6	15270	30540
1,4520	3	6	15680	31360
1,6940	3	6	18300	36590
1,9740	3	6	21320	42640



Diffusion

Components
for perfect air
distribution in HVAC
systems

ACTUATOR SIZE IDENTIFICATION CHART

Height H m ²	Base B													
	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
210	0,04	0,06	0,08	0,11	0,13	0,15	0,17	0,19	0,21	0,23	0,25	0,27	0,29	0,32
310	0,06	0,09	0,12	0,16	0,19	0,22	0,25	0,28	0,31	0,34	0,37	0,4	0,43	0,47
410	0,08	0,12	0,16	0,21	0,25	0,29	0,33	0,37	0,41	0,45	0,49	0,53	0,57	0,62
510	0,1	0,15	0,2	0,26	0,31	0,36	0,41	0,46	0,51	0,56	0,61	0,66	0,71	0,77
610	0,12	0,18	0,24	0,31	0,37	0,43	0,49	0,55	0,61	0,67	0,73	0,79	0,85	0,92
710	0,14	0,21	0,28	0,36	0,43	0,5	0,57	0,64	0,71	0,78	0,85	0,92	0,99	1,07
810	0,16	0,24	0,32	0,41	0,49	0,57	0,65	0,73	0,81	0,89	0,97	1,05	1,13	1,22
910	0,18	0,27	0,36	0,46	0,55	0,64	0,73	0,82	0,91	1	1,09	1,18	1,27	1,37
1010	0,2	0,3	0,4	0,51	0,61	0,71	0,81	0,91	1,01	1,11	1,21	1,31	1,41	1,52
1110	0,22	0,33	0,44	0,56	0,67	0,78	0,89	1	1,11	1,22	1,33	1,44	1,55	1,67
1210	0,24	0,36	0,48	0,61	0,73	0,85	0,97	1,09	1,21	1,33	1,45	1,57	1,69	1,82
1310	0,26	0,39	0,52	0,66	0,79	0,92	1,05	1,18	1,31	1,44	1,57	1,7	1,83	1,97
1410	0,28	0,42	0,56	0,71	0,85	0,99	1,13	1,27	1,41	1,55	1,69	1,83	1,97	2,12
1510	0,3	0,45	0,6	0,76	0,91	1,06	1,21	1,36	1,51	1,66	1,81	1,96	2,11	2,27
1610	0,32	0,48	0,64	0,81	0,97	1,13	1,29	1,45	1,61	1,77	1,93	2,09	2,25	2,42
1710	0,34	0,51	0,68	0,86	1,03	1,2	1,37	1,54	1,71	1,88	2,05	2,22	2,39	2,57
1810	0,36	0,54	0,72	0,91	1,09	1,27	1,45	1,63	1,81	1,99	2,17	2,35	2,53	2,72
1910	0,38	0,57	0,76	0,96	1,15	1,34	1,53	1,72	1,91	2,1	2,29	2,48	2,67	2,87
2010	0,4	0,6	0,8	1,01	1,21	1,41	1,61	1,81	2,01	2,21	2,41	2,61	2,81	3,02
2110	0,42	0,63	0,84	1,06	1,27	1,48	1,69	1,9	2,11	2,32	2,53	2,74	2,95	3,17
2210	0,44	0,66	0,88	1,11	1,33	1,55	1,77	1,99	2,21	2,43	2,65	2,87	3,09	3,32
2310	0,46	0,69	0,92	1,16	1,39	1,62	1,85	2,08	2,31	2,54	2,77	3	3,23	3,47
2410	0,48	0,72	0,96	1,21	1,45	1,69	1,93	2,17	2,41	2,65	2,89	3,13	3,37	3,62
2510	0,5	0,75	1	1,26	1,51	1,76	2,01	2,26	2,51	2,76	3,01	3,26	3,51	3,77
2610	0,52	0,78	1,04	1,31	1,57	1,83	2,09	2,35	2,61	2,87	3,13	3,39	3,65	3,92
2710	0,54	0,81	1,08	1,36	1,63	1,9	2,17	2,44	2,71	2,98	3,25	3,52	3,79	4,07
2810	0,56	0,84	1,12	1,41	1,69	1,97	2,25	2,53	2,81	3,09	3,37	3,65	3,93	4,22
2910	0,58	0,87	1,16	1,46	1,75	2,04	2,33	2,62	2,91	3,2	3,49	3,78	4,07	4,37
3010	0,6	0,9	1,2	1,51	1,81	2,11	2,41	2,71	3,01	3,31	3,61	3,91	4,21	4,52

SR100T

Control damper pitch 100 with interlocking blades

Height H m ²	Base B															
	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	
210	0,34	0,36	0,38	0,4	0,42	0,44	0,46	0,48	0,5	0,53	0,55	0,57	0,59	0,61	0,63	
310	0,5	0,53	0,56	0,59	0,62	0,65	0,68	0,71	0,74	0,78	0,81	0,84	0,87	0,9	0,93	
410	0,66	0,7	0,74	0,78	0,82	0,86	0,9	0,94	0,98	1,03	1,07	1,11	1,15	1,19	1,23	
510	0,82	0,87	0,92	0,97	1,02	1,07	1,12	1,17	1,22	1,28	1,33	1,38	1,43	1,48	1,53	
610	0,98	1,04	1,1	1,16	1,22	1,28	1,34	1,4	1,46	1,53	1,59	1,65	1,71	1,77	1,83	
710	1,14	1,21	1,28	1,35	1,42	1,49	1,56	1,63	1,7	1,78	1,85	1,92	1,99	2,06	2,13	
810	1,3	1,38	1,46	1,54	1,62	1,7	1,78	1,86	1,94	2,03	2,11	2,19	2,27	2,35	2,43	
910	1,46	1,55	1,64	1,73	1,82	1,91	2	2,09	2,18	2,28	2,37	2,46	2,55	2,64	2,73	
1010	1,62	1,72	1,82	1,92	2,02	2,12	2,22	2,32	2,42	2,53	2,63	2,73	2,83	2,93	3,03	
1110	1,78	1,89	2	2,11	2,22	2,33	2,44	2,55	2,66	2,78	2,89	3	3,11	3,22	3,33	
1210	1,94	2,06	2,18	2,3	2,42	2,54	2,66	2,78	2,9	3,03	3,15	3,27	3,39	3,51	3,63	
1310	2,1	2,23	2,36	2,49	2,62	2,75	2,88	3,01	3,14	3,28	3,41	3,54	3,67	3,8	3,93	
1410	2,26	2,4	2,54	2,68	2,82	2,96	3,1	3,24	3,38	3,53	3,67	3,81	3,95	4,09	4,23	
1510	2,42	2,57	2,72	2,87	3,02	3,17	3,32	3,47	3,62	3,78	3,93	4,08	4,23	4,38	4,53	
1610	2,58	2,74	2,9	3,06	3,22											
1710	2,74	2,91	3,08	3,25	3,42											
1810	2,9	3,08	3,26	3,44	3,62											
1910	3,06	3,25	3,44	3,63	3,82											
2010	3,22	3,42	3,62	3,82	4,02											

Calculated area in m ²	Dampers with surface <2 m ²
Dampers with surface <0.4 m ²	Dampers with surface >2/<4 m ²
Dampers with surface <1 m ²	Dampers with surface >4/<8 m ²

SR150T

Control damper pitch 150 with interlocking blades



Diffusion

Components for perfect air distribution in HVAC systems



Product

SR150T

Construction

Galvanised steel sheet frame, 1.5 mm thick
Hollow blades in galvanised steel sheet, 0.6+0.6 mm thick
Blade pitch 150 mm
External galvanised levers for damper control
Nylon bushings resistant up to 70°C
Control pins $\varnothing 12$ mm galvanised
Side sealing with aluminium blades

SPECIFICATION

Steel control damper galvanised pitch 150 mm with hollow blades

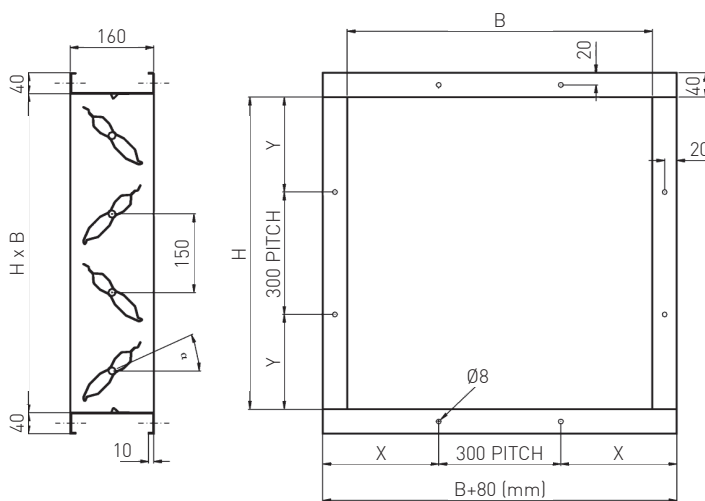
MOUNTING

By bolts along the flanges

ACCESSORIES

Manual control CM-20
Actuator 24V or 230V

DRAWINGS



SR150T



CM-20
Manual control



ACTUATOR

DIMENSIONS

B mm	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
No. of Holes $\varnothing 8$	1	1	1	2	2	2	3	3	3	4	4	4	5	5	5	6	6
X mm	240	290	340	240	290	340	240	290	340	240	290	340	240	290	340	240	290
H mm	610	760	910	1060	1210	1360	1510	1660	1810	1960	2110	2260	2410				
No. of Holes $\varnothing 8$	1	2	2	3	3	4	4	5	5	6	6	7	7				
Y mm	305	230	305	230	305	230	305	230	305	230	305	230	305				

SR150T

Control damper pitch 150 with hollow blades

PERFORMANCE

SR150T	Pressure drop and generated noise						
	V (m/s)	α 0°		α 30°		α 60°	
		ΔP_t Pa	LwA dB(A)	ΔP_t Pa	LwA dB(A)	ΔP_t Pa	LwA dB(A)
1	< 5	< 20	5	32	65	47	
2	< 5	23	18	48	270	63	
3	< 5	34	44	57	625	72	
4	< 5	43	75	64	1110	77	
5	< 5	48	120	70	> 1500*	83	
6	< 5	54	170	74	> 1500*	87	
7	5	58	240	77	> 1500*	90	
8	7	62	320	80	> 1500*	93	
9	9	66	400	83	> 1500*	95	
10	11	69	480	85	> 1500*	98	
11	13	72	590	88	> 1500*	100	
12	15	75	700	90	> 1500*	> 100	
13	18	77	820	92	> 1500*	> 100	
14	21	79	950	93	> 1500*	> 100	
15	25	81	1120	95	> 1500*	> 100	

SELECTION TABLE

A_t m ²	v [m/s]		Q [m ³ /h]	
	min	max	min	max
0,0930	3	6	1000	2010
0,1860	3	6	2010	4020
0,2790	3	6	3010	6030
0,3720	3	6	4020	8040
0,4650	3	6	5020	10040
0,5580	3	6	6030	12050
0,6200	3	6	6700	13390
0,3660	3	6	3950	7910
0,5490	3	6	5930	11860
0,7320	3	6	7910	15810
0,9150	3	6	9880	19760
1,0980	3	6	11860	23720
1,2200	3	6	13180	26350
0,8190	3	6	8850	17690
1,0920	3	6	11790	23590
1,3650	3	6	14740	29480
1,6380	3	6	17690	35380
1,8200	3	6	19660	39310
1,4520	3	6	15680	31360
1,8150	3	6	19600	39200
2,1780	3	6	23520	47040
2,4200	3	6	26140	52270
2,2650	3	6	24460	48920
2,7180	3	6	29350	58710
3,0200	3	6	32620	65230
3,2580	3	6	35190	70370
3,6200	3	6	39100	78190
3,9200	3	6	42340	84670



Diffusion

Components
for perfect air
distribution in HVAC
systems

ACTUATOR SIZE IDENTIFICATION CHART

Height H	Base B													
	m ²	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400
310	0,06	0,09	0,12	0,16	0,19	0,22	0,25	0,28	0,31	0,34	0,37	0,4	0,43	0,47
460	0,09	0,14	0,18	0,23	0,28	0,32	0,37	0,41	0,46	0,51	0,55	0,6	0,64	0,69
610	0,12	0,18	0,24	0,31	0,37	0,43	0,49	0,55	0,61	0,67	0,73	0,79	0,85	0,92
760	0,15	0,23	0,3	0,38	0,46	0,53	0,61	0,68	0,76	0,84	0,91	0,99	1,06	1,14
910	0,18	0,27	0,36	0,46	0,55	0,64	0,73	0,82	0,91	1	1,09	1,18	1,27	1,37
1060	0,21	0,32	0,42	0,53	0,64	0,74	0,85	0,95	1,06	1,17	1,27	1,38	1,48	1,59
1210	0,24	0,36	0,48	0,61	0,73	0,85	0,97	1,09	1,21	1,33	1,45	1,57	1,69	1,82
1360	0,27	0,41	0,54	0,68	0,82	0,95	1,09	1,22	1,36	1,5	1,63	1,77	1,9	2,04
1510	0,3	0,45	0,6	0,76	0,91	1,06	1,21	1,36	1,51	1,66	1,81	1,96	2,11	2,27
1660	0,33	0,5	0,66	0,83	1	1,16	1,33	1,49	1,66	1,83	1,99	2,16	2,32	2,49
1810	0,36	0,54	0,72	0,91	1,09	1,27	1,45	1,63	1,81	1,99	2,17	2,35	2,53	2,72
1960	0,39	0,59	0,78	0,98	1,18	1,37	1,57	1,76	1,96	2,16	2,35	2,55	2,74	2,94
2110	0,42	0,63	0,84	1,06	1,27	1,48	1,69	1,9	2,11	2,32	2,53	2,74	2,95	3,17
2260	0,45	0,68	0,9	1,13	1,36	1,58	1,81	2,03	2,26	2,49	2,71	2,94	3,16	3,39
2410	0,48	0,72	0,96	1,21	1,45	1,69	1,93	2,17	2,41	2,65	2,89	3,13	3,37	3,62
2560	0,51	0,77	1,02	1,28	1,54	1,79	2,05	2,3	2,56	2,82	3,07	3,33	3,58	3,84
2710	0,54	0,81	1,08	1,36	1,63	1,9	2,17	2,44	2,71	2,98	3,25	3,52	3,79	4,07
2860	0,57	0,86	1,14	1,43	1,72	2	2,29	2,57	2,86	3,15	3,43	3,72	4	4,29
3010	0,6	0,9	1,2	1,51	1,81	2,11	2,41	2,71	3,01	3,31	3,61	3,91	4,21	4,52

Height H	Base B														
	m ²	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900
310	0,5	0,53	0,56	0,59	0,62	0,65	0,68	0,71	0,74	0,78	0,81	0,84	0,87	0,9	0,93
460	0,74	0,78	0,83	0,87	0,92	0,97	1,01	1,06	1,1	1,15	1,2	1,24	1,29	1,33	1,38
610	0,98	1,04	1,1	1,16	1,22	1,28	1,34	1,4	1,46	1,53	1,59	1,65	1,71	1,77	1,83
760	1,22	1,29	1,37	1,44	1,52	1,6	1,67	1,75	1,82	1,9	1,98	2,05	2,13	2,2	2,28
910	1,46	1,55	1,64	1,73	1,82	1,91	2	2,09	2,18	2,28	2,37	2,46	2,55	2,64	2,73
1060	1,7	1,8	1,91	2,01	2,12	2,23	2,33	2,44	2,54	2,65	2,76	2,86	2,97	3,07	3,18
1210	1,94	2,06	2,18	2,3	2,42	2,54	2,66	2,78	2,9	3,03	3,15	3,27	3,39	3,51	3,63
1360	2,18	2,31	2,45	2,58	2,72	2,86	2,99	3,13	3,26	3,4	3,54	3,67	3,81	3,94	4,08
1510	2,42	2,57	2,72	2,87	3,02										
1660	2,66	2,82	2,99	3,15	3,32			Calculated area in m ²				Dampers with surface <2 m ²			
1810	2,9	3,08	3,26	3,44	3,62			Dampers with surface <0.4 m ²				Dampers with surface >2/<4 m ²			
1960	3,14	3,33	3,53	3,72	3,92			Dampers with surface <1 m ²				Dampers with surface >4/<8 m ²			

SR200T

Control damper pitch 200 with interlocking blades



Product

SR200T

Construction

Galvanised steel sheet frame, 1.5mm thick
 Hollow blades in galvanised steel sheet, 0.8+0.8 mm thick
 Blade pitch 200 mm
 External levers for damper control
 Nylon bushings resistant up to 70°C
 Control pins Ø 12 mm galvanised
 Side sealing with aluminium blades

SPECIFICATION

Steel control damper
 galvanised pitch 200 mm with hollow blades

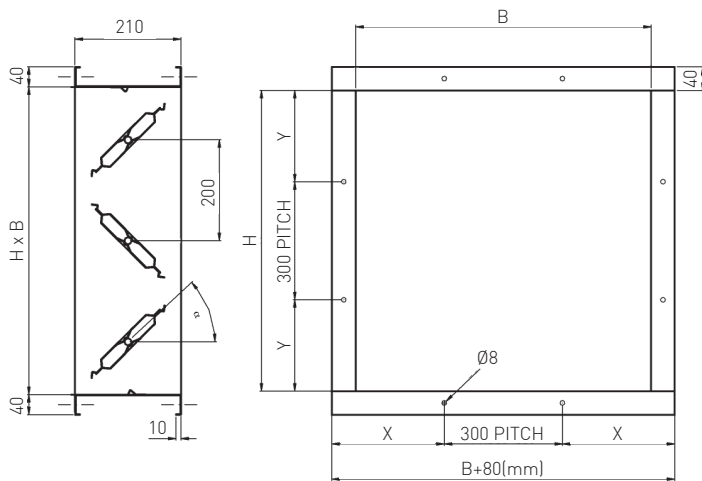
MOUNTING

By bolts along the flanges

ACCESSORIES

Manual control CM-20
 Actuator 24V or 230V

DRAWINGS



SR200T



CM-20
Manual control



ACTUATOR

DIMENSIONS

B mm	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
No. of Holes Ø 8	1	1	2	2	2	3	3	3	4	4	4	5	5	5	6	6	6	7	7
X mm	140	190	90	140	190	90	140	190	90	140	190	90	140	190	90	140	190	90	140

H mm	410	610	810	1010	1210	1410	1610	1810	2010
No. of Holes Ø 8	1	1	2	3	3	4	5	5	6
Y mm	205	305	255	205	305	255	205	305	255



Diffusion

Components
for perfect air
distribution in HVAC
systems

PERFORMANCE

SR200T		Pressure drop and generated noise					
V (m/s)	α 0°		α 30°		α 60°		
	ΔP _t Pa	LwA dB(A)	ΔP _t Pa	LwA dB(A)	ΔP _t Pa	LwA dB(A)	
1	< 5	< 20	6	32	130	49	
2	< 5	23	23	49	520	69	
3	< 5	34	52	58	1185	76	
4	< 5	42	94	66	1350	83	
5	< 5	48	145	71	> 1500*	87	
6	< 5	53	215	75	> 1500*	92	
7	7	57	290	79	> 1500*	95	
8	9	61	380	83	> 1500*	98	
9	11	64	480	86	> 1500*	> 100	
10	13	68	580	88	> 1500*	> 100	
11	16	71	700	91	> 1500*	> 100	
12	19	73	830	93	> 1500*	> 100	
13	22	75	975	95	> 1500*	> 100	
14	25	77	1130	97	> 1500*	> 100	
15	27	79	1300	99	> 1500*	> 100	

SELECTION TABLE

A _t m ²	v [m/s]		Q [m ³ /h]	
	min	max	min	max
0,1640	3	6	1770	3540
0,2460	3	6	2660	5310
0,3280	3	6	3540	7080
0,4100	3	6	4430	8860
0,4920	3	6	5310	10630
0,5740	3	6	6200	12400
0,6150	3	6	6640	13280
0,3660	3	6	3950	7910
0,4880	3	6	5270	10540
0,6100	3	6	6590	13180
0,7320	3	6	7910	15810
0,8540	3	6	9220	18450
0,9150	3	6	9880	19760
0,6480	3	6	7000	14000
0,8100	3	6	8750	17500
0,9720	3	6	10500	21000
1,1340	3	6	12250	24490
1,2150	3	6	13120	26240
1,0100	3	6	10910	21820
1,2120	3	6	13090	26180
1,4140	3	6	15270	30540
1,5150	3	6	16360	32720
1,4520	3	6	15680	31360
1,6940	3	6	18300	36590
1,8150	3	6	19600	39200
1,9740	3	6	21320	42640
2,1150	3	6	22840	45680
2,4150	3	6	26080	52160

SR200T

Control damper pitch 200 with interlocking blades

ACTUATOR SIZE IDENTIFICATION CHART

Height H m ²	Base B													
	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
410	0,08	0,12	0,16	0,21	0,25	0,29	0,33	0,37	0,41	0,45	0,49	0,53	0,57	0,62
610	0,12	0,18	0,24	0,31	0,37	0,43	0,49	0,55	0,61	0,67	0,73	0,79	0,85	0,92
810	0,16	0,24	0,32	0,41	0,49	0,57	0,65	0,73	0,81	0,89	0,97	1,05	1,13	1,22
1010	0,2	0,3	0,4	0,51	0,61	0,71	0,81	0,91	1,01	1,11	1,21	1,31	1,41	1,52
1210	0,24	0,36	0,48	0,61	0,73	0,85	0,97	1,09	1,21	1,33	1,45	1,57	1,69	1,82
1410	0,28	0,42	0,56	0,71	0,85	0,99	1,13	1,27	1,41	1,55	1,69	1,83	1,97	2,12
1610	0,32	0,48	0,64	0,81	0,97	1,13	1,29	1,45	1,61	1,77	1,93	2,09	2,25	2,42
1810	0,36	0,54	0,72	0,91	1,09	1,27	1,45	1,63	1,81	1,99	2,17	2,35	2,53	2,72
2010	0,4	0,6	0,8	1,01	1,21	1,41	1,61	1,81	2,01	2,21	2,41	2,61	2,81	3,02
2210	0,44	0,66	0,88	1,11	1,33	1,55	1,77	1,99	2,21	2,43	2,65	2,87	3,09	3,32
2410	0,48	0,72	0,96	1,21	1,45	1,69	1,93	2,17	2,41	2,65	2,89	3,13	3,37	3,62
2610	0,52	0,78	1,04	1,31	1,57	1,83	2,09	2,35	2,61	2,87	3,13	3,39	3,65	3,92
2810	0,56	0,84	1,12	1,41	1,69	1,97	2,25	2,53	2,81	3,09	3,37	3,65	3,93	4,22
3010	0,6	0,9	1,2	1,51	1,81	2,11	2,41	2,71	3,01	3,31	3,61	3,91	4,21	4,52

Height H m ²	Base B														
	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000
210	0,34	0,36	0,38	0,4	0,42	0,44	0,46	0,48	0,5	0,53	0,55	0,57	0,59	0,61	0,63
410	0,66	0,7	0,74	0,78	0,82	0,86	0,9	0,94	0,98	1,03	1,07	1,11	1,15	1,19	1,23
610	0,98	1,04	1,1	1,16	1,22	1,28	1,34	1,4	1,46	1,53	1,59	1,65	1,71	1,77	1,83
810	1,3	1,38	1,46	1,54	1,62	1,7	1,78	1,86	1,94	2,03	2,11	2,19	2,27	2,35	2,43
1010	1,62	1,72	1,82	1,92	2,02	2,12	2,22	2,32	2,42	2,53	2,63	2,73	2,83	2,93	3,03
1210	1,94	2,06	2,18	2,3	2,42	2,54	2,66	2,78	2,9	3,03	3,15	3,27	3,39	3,51	3,63
1410	2,26	2,4	2,54	2,68	2,82	2,96	3,1	3,24	3,38	3,53	3,67	3,81	3,95	4,09	4,23
1610	2,58	2,74	2,9	3,06	3,22										
1810	2,9	3,08	3,26	3,44	3,62										
2010	3,22	3,42	3,62	3,82	4,02										

Calculated area in m ²	Dampers with surface <2 m ²
Dampers with surface <0.4 m ²	Dampers with surface >2/<4 m ²
Dampers with surface <1 m ²	Dampers with surface >4/<8 m ²

SR100HT

High temperature control damper
in galvanised steel pitch 100 mm



Diffusion

Components
for perfect air
distribution in HVAC
systems



Product

SR100HT

Construction

Frame, blades and external levers in galvanised steel sheet
Control pin $\varnothing 12$ mm in galvanised steel.
Brass bushings

Application

Service temperature -20°C $+150^{\circ}\text{C}$

SPECIFICATION

Rectangular high temperature galvanized steel control dampers, 100 mm pitch with steel rotation pins on brass bushings resistant to temperatures up to 150°C

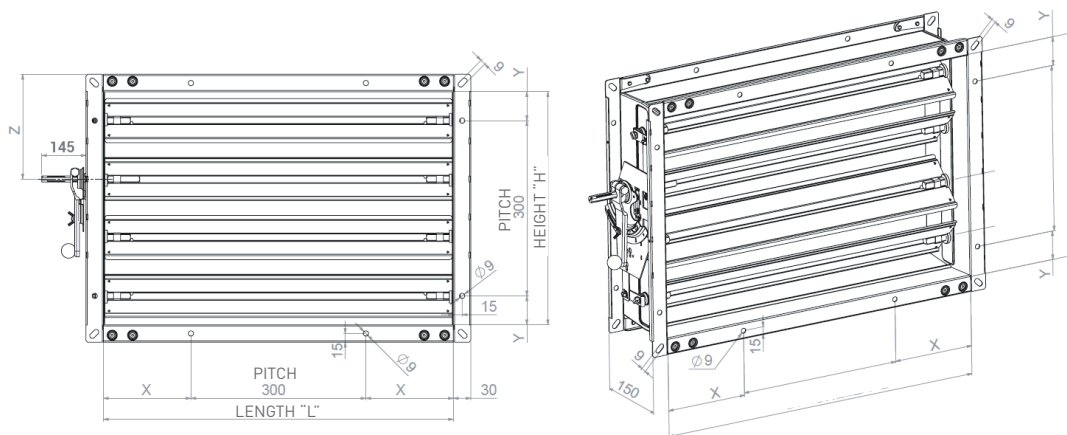
APPLICATION

Used for regulating and balancing air flow rates and pressures, in air conditioning systems, ventilation systems and air handling units.

ACCESSORIES

Manual control.
Actuator 24V or 230V

DIMENSIONAL



SR100HT

SRH100T

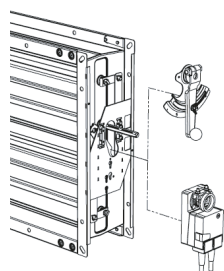
High temperature control dampers in galvanised steel pitch 100 mm

H (mm)	y (mm)	Z (mm)	H (mm)	y (mm)	Z (mm)	H (mm)	y (mm)	Z (mm)	L (mm)	x (mm)	L (mm)	x (mm)	L (mm)	x (mm)
-	-	-	1100	100	550	2100	150	1050	-	-	1100	100	2100	150
200	-	50	1200	150	550	2200	200	1050	200	-	1200	150	2200	200
300	-	150	1300	200	650	2300	100	1150	300	-	1300	200	2300	100
400	200	150	1400	100	650	2400	150	1150	400	200	1400	100	2400	150
500	100	250	1500	150	750	2500	200	1250	500	100	1500	150	2500	200
600	150	250	1600	200	750	2600	100	1250	600	150	1600	200	2600	100
700	200	350	1700	100	850	2700	150	1350	700	200	1700	100	2700	150
800	100	350	1800	150	850	2800	200	1350	800	100	1800	150	2800	200
900	150	450	1900	200	950	2900	100	1450	900	150	1900	200	2900	100
1000	200	450	2000	100	950	3000	150	1450	1000	200	2000	100	3000	150

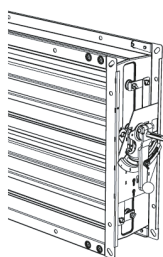
Width L (mm)									
-	200	300	400	500	600	700	800	900	1000
1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
2100	2200	2300	2400	2500	2600	2700	2800	2900	3000

Height H (mm)									
-	200	300	400	500	600	700	800	900	1000
1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
2100	2200	2300	2400	2500	2600	2700	2800	2900	3000

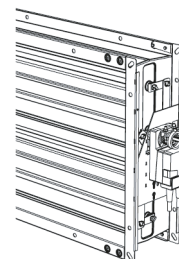
ACCESSORIES



Universal pin and plate
(standard)



Manual control



Actuator

SRC/SRCM

Circular balancing damper



Diffusion

Components
for perfect air
distribution in HVAC
systems



Product

SRC/SRCM

Application

Duct-mounted

Actuation

With manual control or actuator

SPECIFICATION

Circular galvanised steel balancing damper

CONSTRUCTION

Casing and blade in galvanised steel

VERSIONS

SRC Damper with manual control mounted.

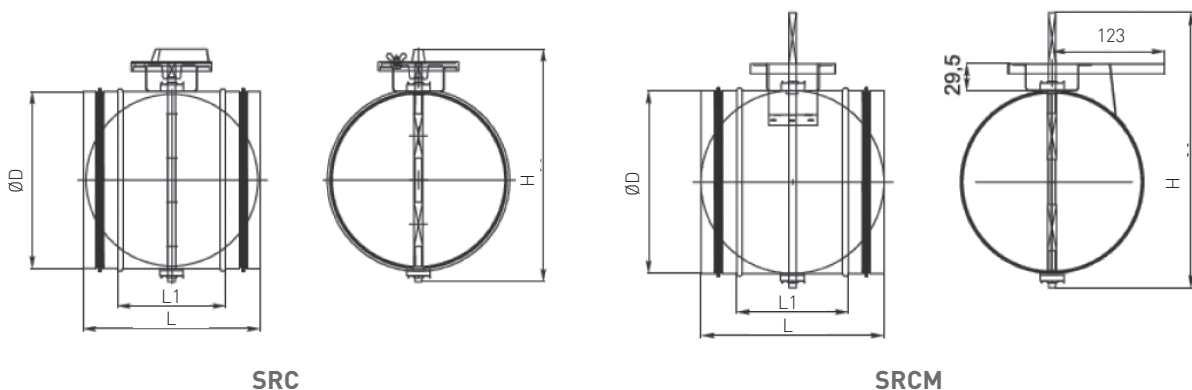
SRCM Galvanised damper prepared for actuator.

Heavy version up to Ø1200mm

DIMENSIONAL

SRC Model	ØD mm	L1 mm	L mm	H mm	SRCM Model	ØD mm	L1 mm	L mm	H mm
100	98	100	200	165	100	98	100	200	230
125	123	100	200	190	125	123	100	200	255
160	158	100	200	225	160	158	100	200	290
200	198	100	200	265	200	198	100	200	330
250	248	100	200	315	250	248	100	200	380
315	313	140	240	380	315	313	140	240	445
355	353	140	240	420	355	353	140	240	485
400	398	140	240	470	400	398	140	240	535
450	448	140	240	515	450	448	140	240	580
500	498	140	240	565	500	498	140	240	630

DRAWINGS



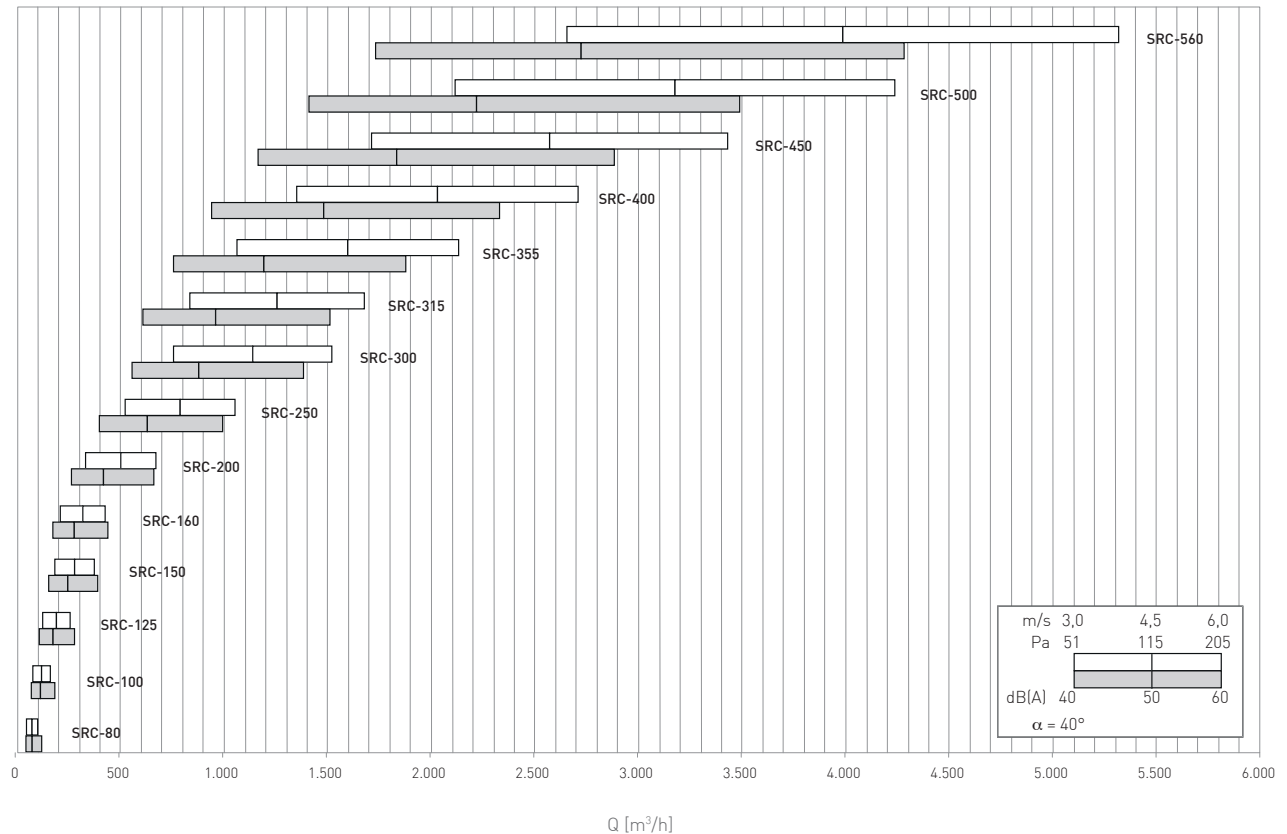
SRC/SRCM

Circular balancing damper

SELECTION TABLE

BxH mm	A _k m ²	v [m/s]		Q [m ³ /h]		Dp [α=40°] [Pa]		L _{WA} [α=40°] [dB(A)]	
		min	max	min	max	min	max	min	max
SRC-80	0,0050	3	6	50	110	51	205	41	58
SRC-100	0,0079	3	6	80	170	51	205	42	58
SRC-125	0,0123	3	6	130	270	51	205	43	58
SRC-150	0,0177	3	6	190	380	51	205	44	58
SRC-160	0,0201	3	6	220	430	51	205	44	58
SRC-180	0,0254	3	6	270	550	51	205	45	58
SRC-200	0,0314	3	6	340	680	51	205	45	61
SRC-224	0,0394	3	6	430	850	51	205	45	61
SRC-250	0,0491	3	6	530	1060	51	205	46	61
SRC-300	0,0707	3	6	760	1530	51	205	47	61
SRC-315	0,0779	3	6	840	1680	51	205	47	61
SRC-355	0,0990	3	6	1070	2140	51	205	47	61
SRC-400	0,1257	3	6	1360	2710	51	205	48	62
SRC-450	0,1590	3	6	1720	3440	51	205	48	62
SRC-500	0,1963	3	6	2120	4240	51	205	49	62
SRC-560	0,2463	3	6	2660	5320	51	205	49	62
SRC-600	0,2827	3	6	3050	6110	51	205	50	62
SRC-630	0,3117	3	6	3370	6730	51	205	50	63

QUICK SELECTION CHART





Product

SITZ

Construction

- Galvanised steel sheet frame, 1.5 mm thick
- Interlocking blades in galvanized steel sheet, thickness 0.8+0.8 mm, with special profile for gasket housing
- Blade pitch 200 mm
- External levers for damper control
- Nylon bushings resistant up to 70°C
- Control pins $\varnothing 12$ mm galvanised
- Side sealing with aluminium blades

SPECIFICATION

Airtight shut-off damper, pitch 200 mm.
 Self-generated noise tests according to UNI EN 25135 and ISO 23741.
 Leakage test according to EN 1751 DIN 1946/4

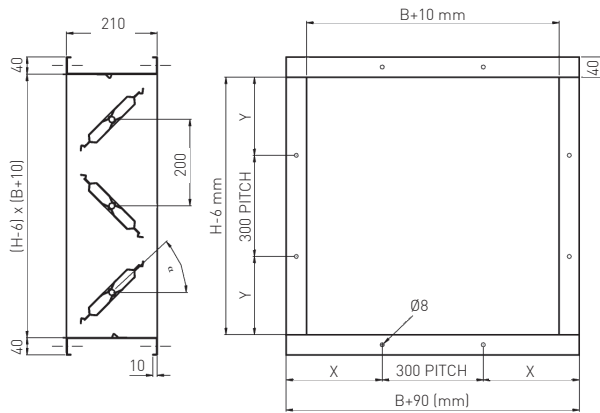
MOUNTING

By screws along the flanges

ACCESSORIES

Manual control CM-20
 Actuator

DRAWINGS



SITZ



CM-20
Manual control



ACTUATOR

DIMENSIONS

B mm	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
No. of Holes $\varnothing 8$	1	1	2	2	2	3	3	3	4	4	4	5	5	5	6	6	6	7	7
X mm	140	190	90	140	190	90	140	190	90	140	190	90	140	190	90	140	190	90	140
H mm	410	610	810	1010	1210	1410	1610	1810	2010										
No. of Holes $\varnothing 8$	1	1	2	3	3	4	5	5	6										
Y mm	205	305	255	205	305	255	205	305	255										

PERFORMANCE

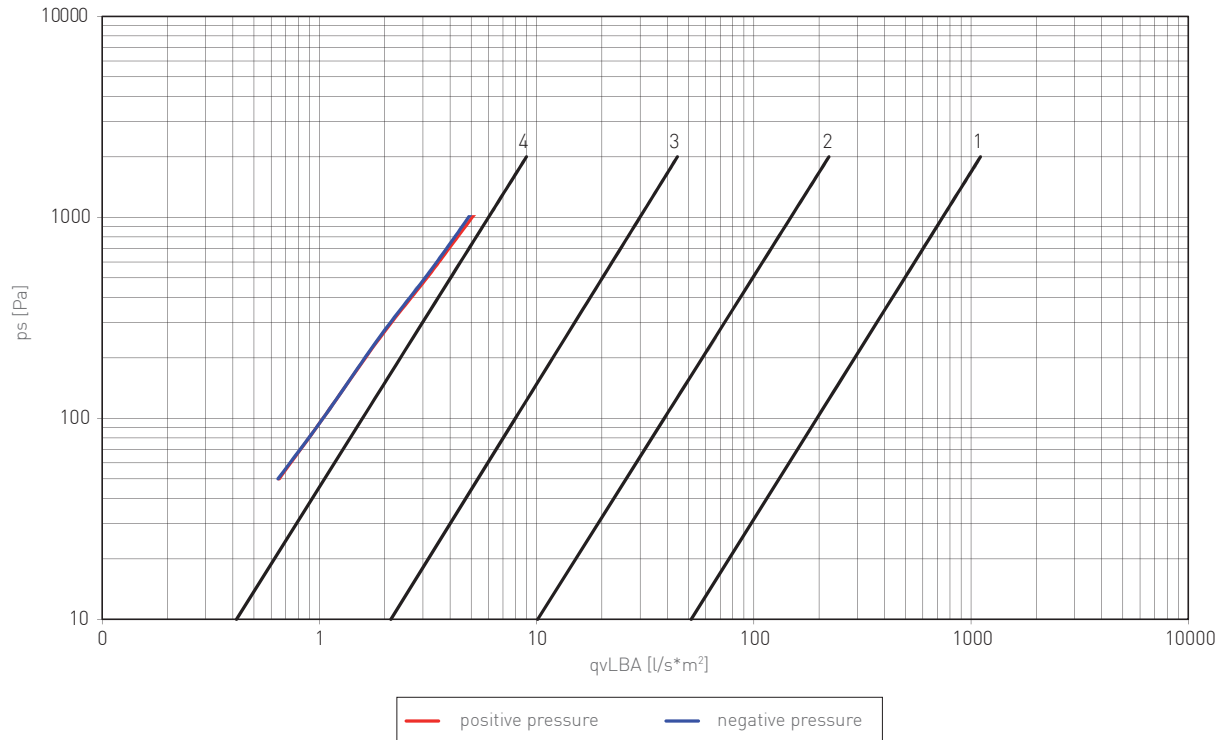
SITZ	Pressure drop and generated noise						
	V (m/s)	α 0°		α 30°		α 60°	
		ΔP_t Pa	LwA dB(A)	ΔP_t Pa	LwA dB(A)	ΔP_t Pa	LwA dB(A)
1	< 5	< 20	6	32	130	49	
2	< 5	23	23	49	520	69	
3	< 5	34	52	58	1185	76	
4	< 5	42	94	66	1350	83	
5	< 5	48	145	71	> 1500*	87	
6	< 5	53	215	75	> 1500*	92	
7	7	57	290	79	> 1500*	95	
8	9	61	380	83	> 1500*	98	
9	11	64	480	86	> 1500*	> 100	
10	13	68	580	88	> 1500*	> 100	
11	16	71	700	91	> 1500*	> 100	
12	19	73	830	93	> 1500*	> 100	
13	22	75	975	95	> 1500*	> 100	
14	25	77	1130	97	> 1500*	> 100	
15	27	79	1300	99	> 1500*	> 100	

SELECTION TABLE

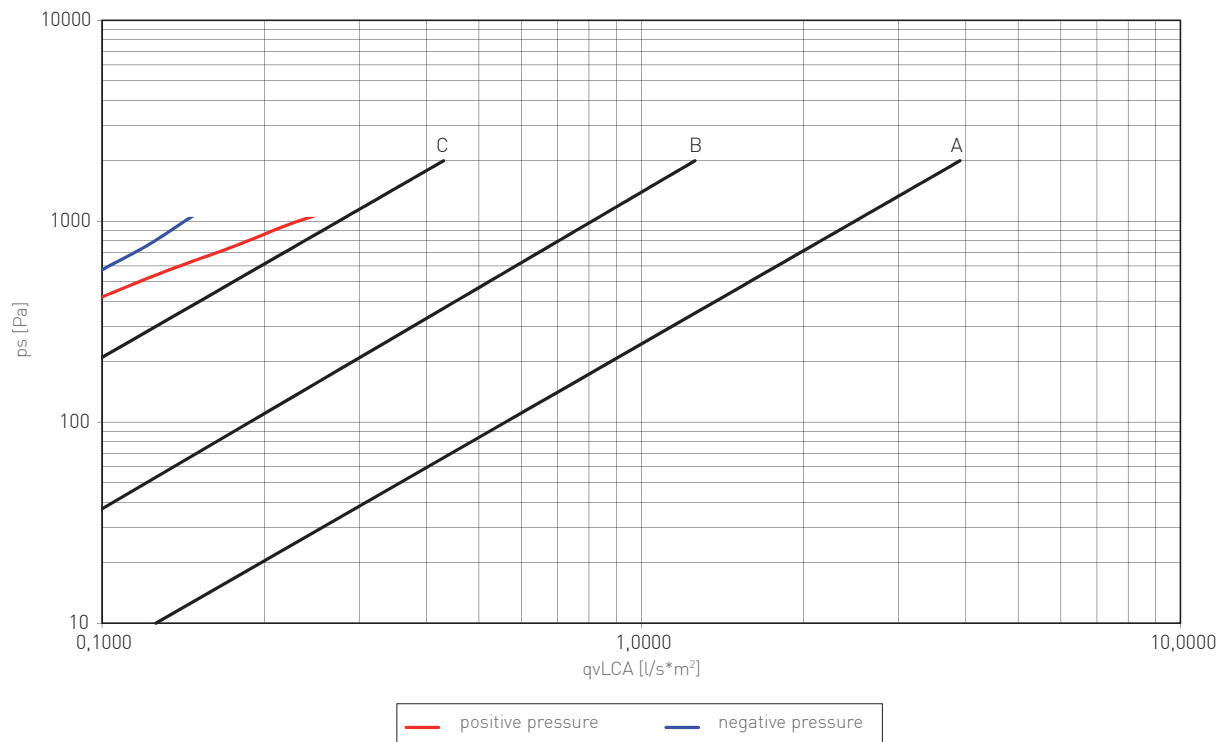
A_t m ²	v [m/s]		Q [m ³ /h]	
	min	max	min	max
0,0420	3	6	450	910
0,0840	3	6	910	1810
0,1260	3	6	1360	2720
0,1680	3	6	1810	3630
0,2100	3	6	2270	4540
0,2520	3	6	2720	5440
0,2940	3	6	3180	6350
0,1640	3	6	1770	3540
0,2460	3	6	2660	5310
0,3280	3	6	3540	7080
0,4100	3	6	4430	8860
0,4920	3	6	5310	10630
0,5740	3	6	6200	12400
0,3660	3	6	3950	7910
0,4880	3	6	5270	10540
0,6100	3	6	6590	13180
0,7320	3	6	7910	15810
0,8540	3	6	9220	18450
0,6480	3	6	7000	14000
0,8100	3	6	8750	17500
0,9720	3	6	10500	21000
1,1340	3	6	12250	24490
1,0100	3	6	10910	21820
1,2120	3	6	13090	26180
1,4140	3	6	15270	30540
1,4520	3	6	15680	31360
1,6940	3	6	18300	36590
1,9740	3	6	21320	42640



BLADE AIR TIGHTNESS

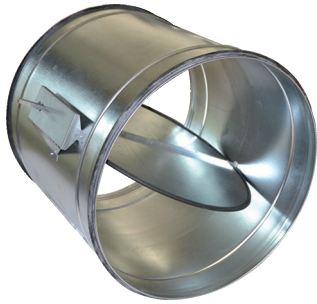


FRAME AIR TIGHTNESS



SRCT

Circular shut-off damper airtight



Product

SRCT

Construction

Galvanized steel casing
Galvanized steel blade with airtight gasket

Actuation

Prepared for manual control or actuator

SPECIFICATION

Certified circular airtight shut-off damper class 4 according to EN 1751.

Self-generated noise tests according to UNI EN 25135

and ISO 23741.

Leakage test according to EN 1751 DIN 1946/4

MOUNTING

Push-in with sealing gaskets

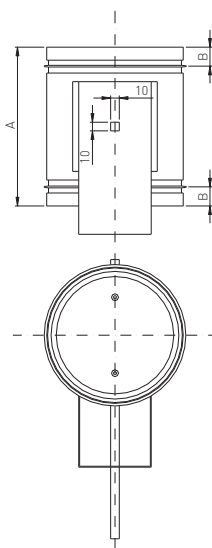
ACCESSORIES

Manual control.

Actuator 24V or 230V

DIMENSIONAL

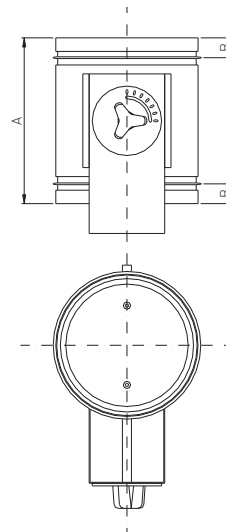
Ø d mm	A mm	B mm	H mm	Casing mm	Blade mm
100	200	21	70	8/10	8/10
125	200	21	70	8/10	8/10
160	200	21	75	8/10	8/10
200	200	21	75	8/10	8/10
250	200	21	75	8/10	8/10
315	200	21	75	8/10	10/10
400	255	25	80	10/10	15/10
500	255	25	80	10/10	15/10
630	255	25	80	10/10	15/10



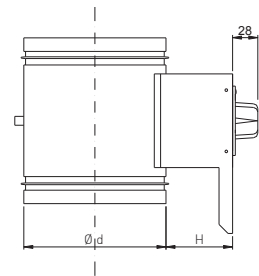
MOTORIZED



ACTUATOR



WITH MANUAL CONTROL



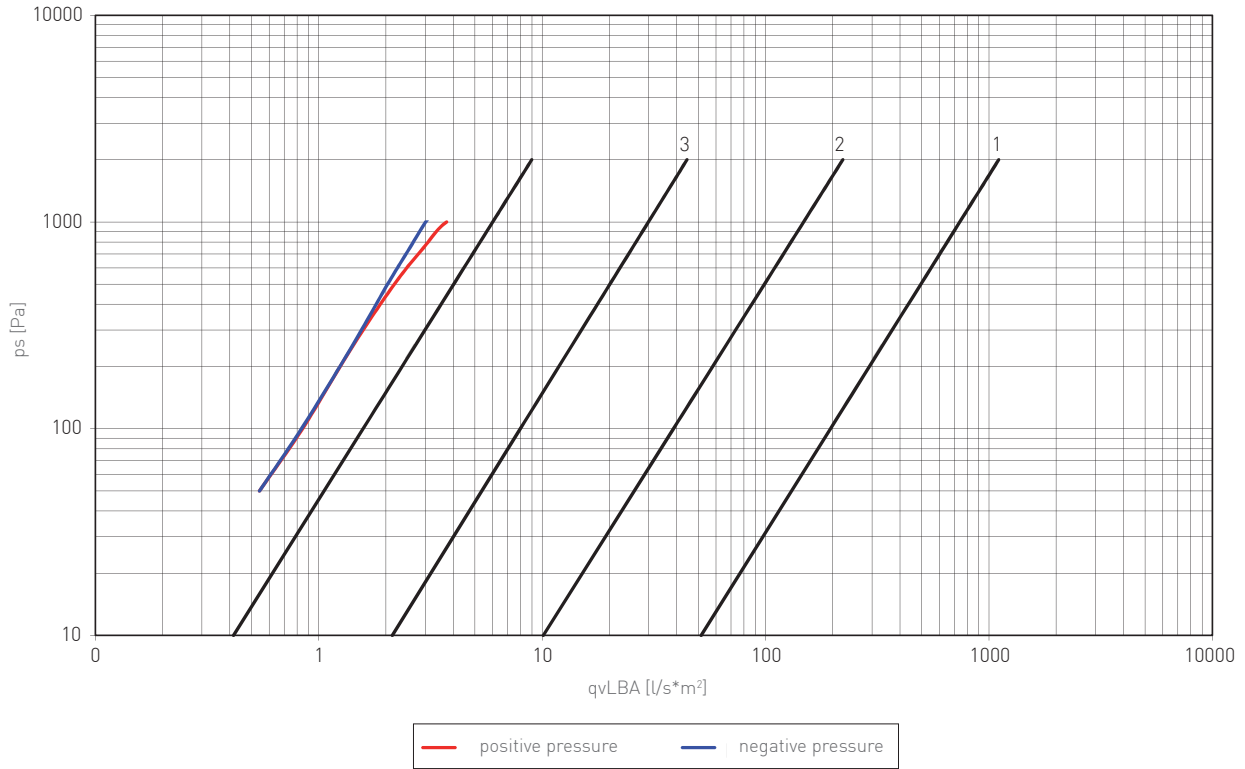
CM-10T
MANUAL CONTROL



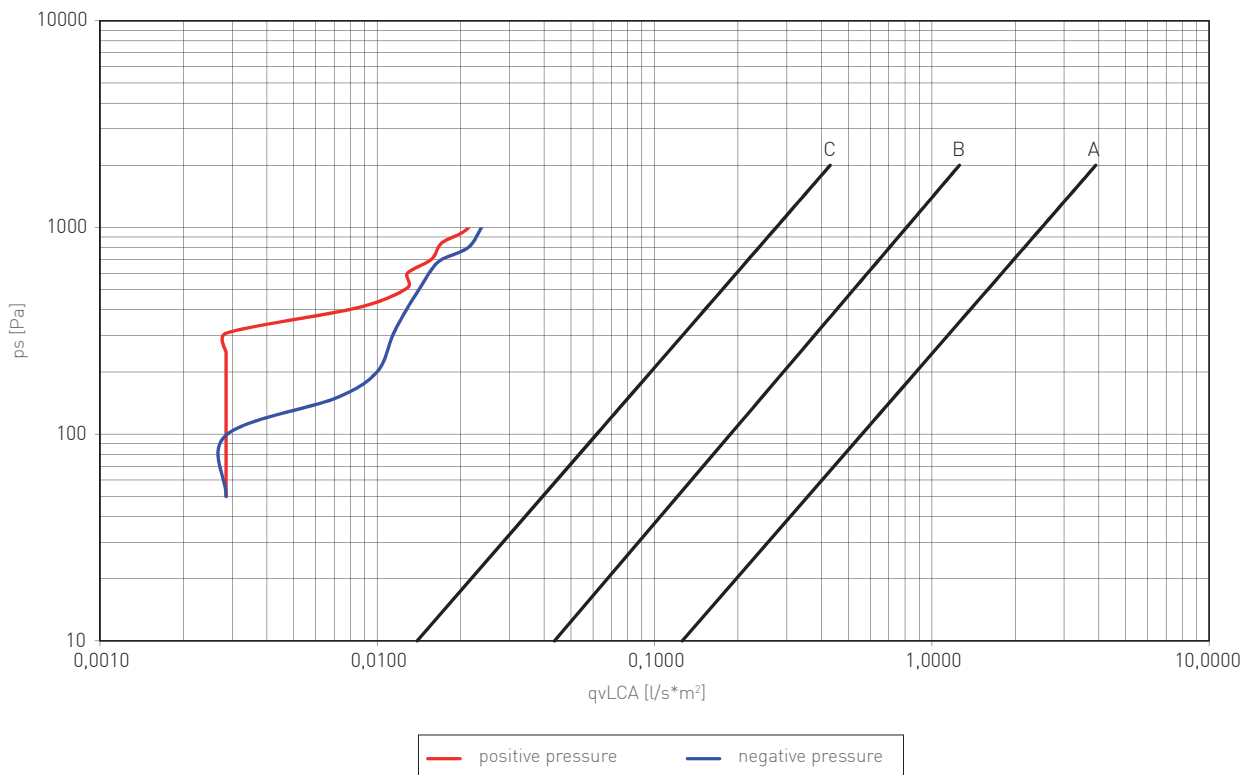
Diffusion

Components
for perfect air
distribution in HVAC
systems

BLADE AIR TIGHTNESS



FRAME AIR TIGHTNESS



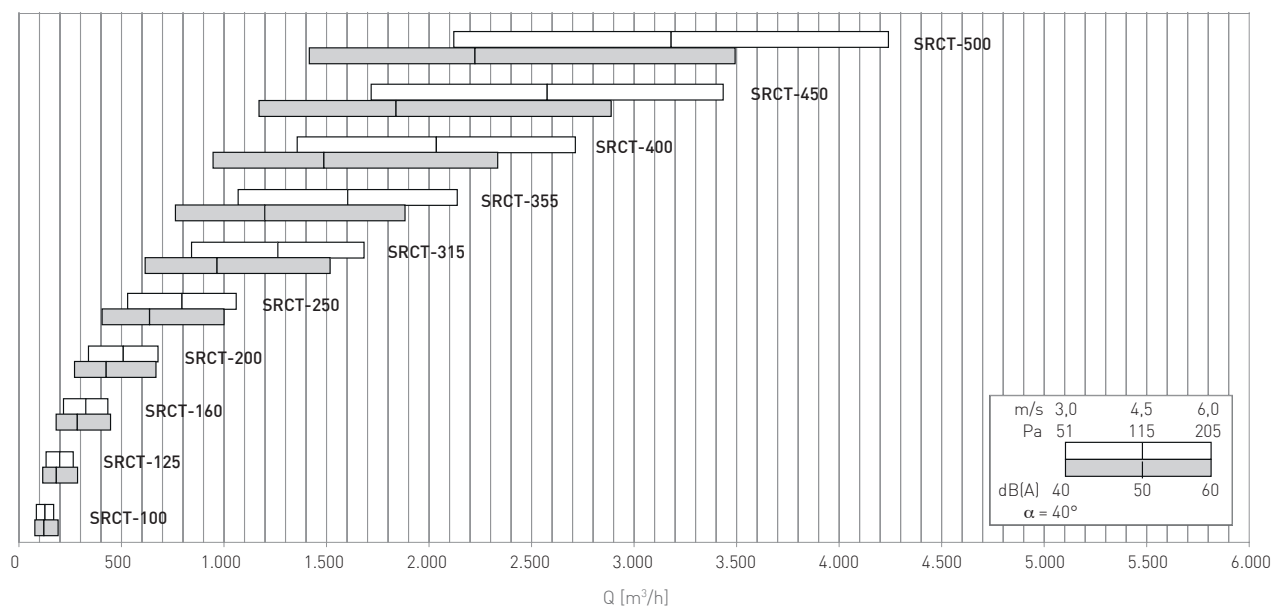
SRCT

Circular airtight shut-off damper

SELECTION TABLE

SRCT Model	A _k m ²	v [m/s]		Q [m ³ /h]		Dp [α=40°] [Pa]		L _{WA} [α=40°] [dB(A)]	
		min	max	min	max	min	max	min	max
100	0,0079	3	6	80	170	51	205	42	58
125	0,0123	3	6	130	270	51	205	43	58
160	0,0201	3	6	220	430	51	205	44	58
200	0,0314	3	6	340	680	51	205	45	61
250	0,0491	3	6	530	1060	51	205	46	61
315	0,0779	3	6	840	1680	51	205	47	61
355	0,0990	3	6	1070	2140	51	205	47	61
400	0,1257	3	6	1360	2710	51	205	48	62
450	0,1590	3	6	1720	3440	51	205	48	62
500	0,1963	3	6	2120	4240	51	205	49	62
630	0,3117	3	6	3370	6730	51	205	50	63

QUICK SELECTION CHART



SSZ100C

Duct overpressure damper
pitch 100



Diffusion

Components
for perfect air
distribution in HVAC
systems



Product

SSZ100C

Construction

Galvanised steel sheet frame, 1.0 mm thick
Natural aluminium blades 0.7 mm thick
Blade pitch 100 mm
Nylon bushings and pins
Upper and lower stop in galvanised steel
Longitudinal adhesive gasket on blades

SPECIFICATION

Galvanised sheet metal duct overpressure damper with aluminium blades pitch 100mm.

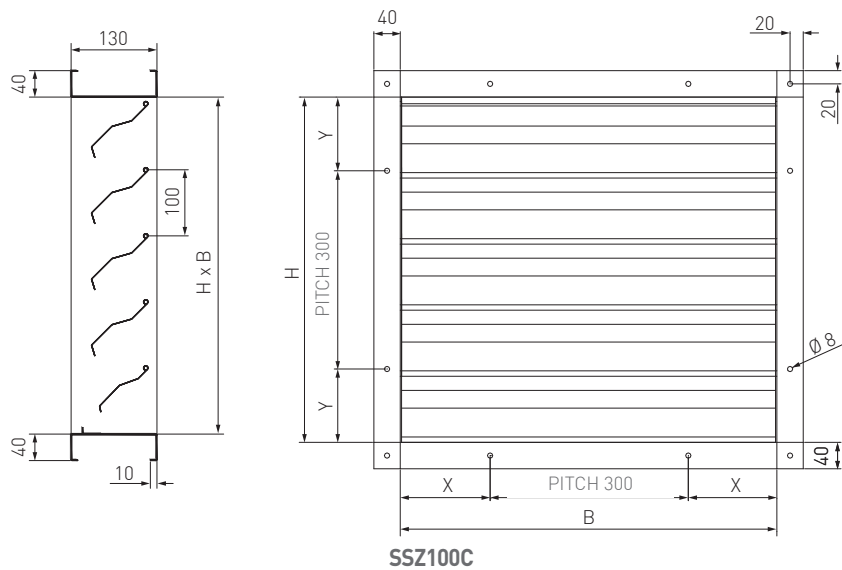
MOUNTING

By screws along the flanges

EXECUTION

Through-pins.
Interlocking blades.
Stainless steel (on request).
Bronze bushings

DRAWINGS



DIMENSIONS

B mm	400	500	600	700	800	900	1000	1100	1200
No. of Holes Ø 8	1	1	1	2	2	2	3	3	3
X mm	200	250	300	200	250	300	200	250	300

H mm	510	610	710	810	910	1010	1110	1210	1310	1410	1510	1610	1710	1810	1910	2010
No. of Holes Ø 8	1	1	2	2	2	3	3	3	4	4	4	5	5	5	6	6
Y mm	255	305	205	255	305	205	255	305	205	255	305	205	255	305	205	255

SSZ100C

Duct overpressure damper pitch 100

PRESSURE DROPS

V (m/s)	ΔP_t Pa
1	12
2	18
3	23
4	28
5	34
6	48
7*	65
8*	88
9*	110
10*	140

V: velocity referred to the section (B-25)x(H-25) (m/s)

ΔP_t : total pressure drop [Pa]

* Operation not guaranteed

SELECTION TABLE

A_k m ²	V [m/s]		Q [m ³ /h]	
	min	max	min	max
0,0840	4,9	7,8	1490	2350
0,1260	4,7	7,4	2130	3360
0,1680	4,5	7,1	2740	4320
0,2100	4,4	6,9	3330	5250
0,2520	4,3	6,8	3910	6160
0,2940	4,2	6,7	4480	7050
0,1640	4,5	7,2	2680	4230
0,2460	4,3	6,8	3830	6030
0,3280	4,2	6,6	4930	7760
0,4100	4,1	6,4	5990	9440
0,4920	4,0	6,3	7030	11070
0,5740	3,9	6,1	8040	12680
0,6560	3,8	6,0	9040	14250
0,3660	4,1	6,5	5420	8550
0,4880	4,0	6,3	6980	11000
0,6100	3,9	6,1	8480	13370
0,7320	3,8	6,0	9950	15690
0,8540	3,7	5,8	11390	17960
0,9760	3,6	5,7	12810	20190
0,6480	3,8	6,0	8950	14100
0,8100	3,7	5,9	10880	17140
0,9720	3,6	5,7	12760	20110
1,1340	3,6	5,6	14610	23020
1,2960	3,5	5,5	16420	25880
1,0100	3,6	5,7	13200	20800
1,2120	3,6	5,6	15490	24400
1,4140	3,5	5,5	17730	27930
1,6160	3,4	5,4	19930	31400

SSA50 E/ SSA50 I

Wall overpressure damper
pitch 50



Diffusion

Components
for perfect air
distribution in HVAC
systems



Product

SSA50E/SSA50I

Application

Wall-mounted, exhaust or intake

Construction

Aluminium frame and blades
Blades pitch 50 mm in natural aluminium 10/10 mm thick
Nylon bushings and pins

SPECIFICATION

Wall overpressure dampers pitch 50 mm, model SSA50E (exhaust) and SSA50I (supply)

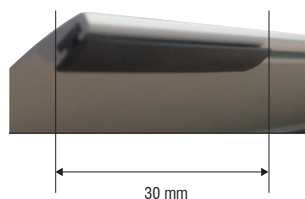
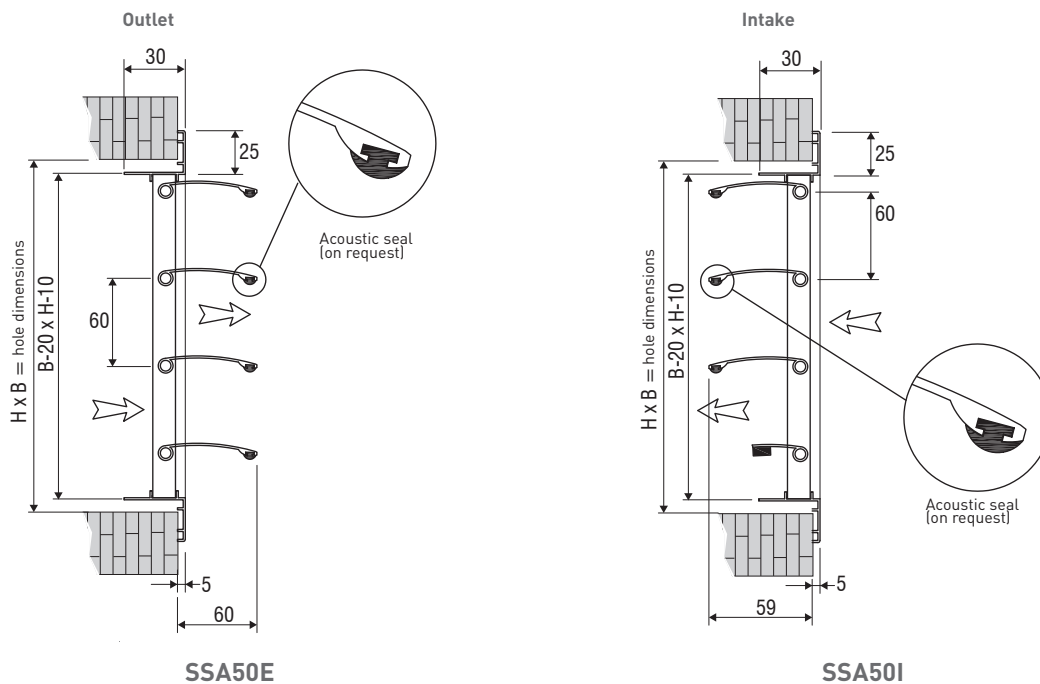
MOUNTING

With clips (front screws on request)

ACCESSORIES

KCTC Mounting sub-frame in galvanized steel sheet.
R Bird screen.
RI Insect screen
Damper with blades on request pitch 100 (SSA100)

DRAWINGS



STANDARD STOPS AS SHOWN

Overpressure damper



Product

SSC

Construction

Galvanized steel sheet casing, aluminium opening blades with spring actuation and internally fixed rubber gasket

SPECIFICATION

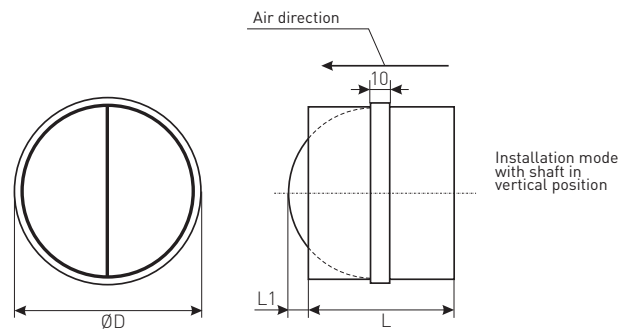
Circular duct overpressure damper

MOUNTING

Push-in

DIMENSIONAL

mm	Ø D mm	L mm	L1 mm	Wt. kg
100	98	88	26	0,13
125	123	88	19	0,17
150	148	88	31	0,22
160	158	88	36	0,24
200	198	88	56	0,29
250	248	128	61	0,68
315	313	128	94	0,81
400	398	198	94	1,68



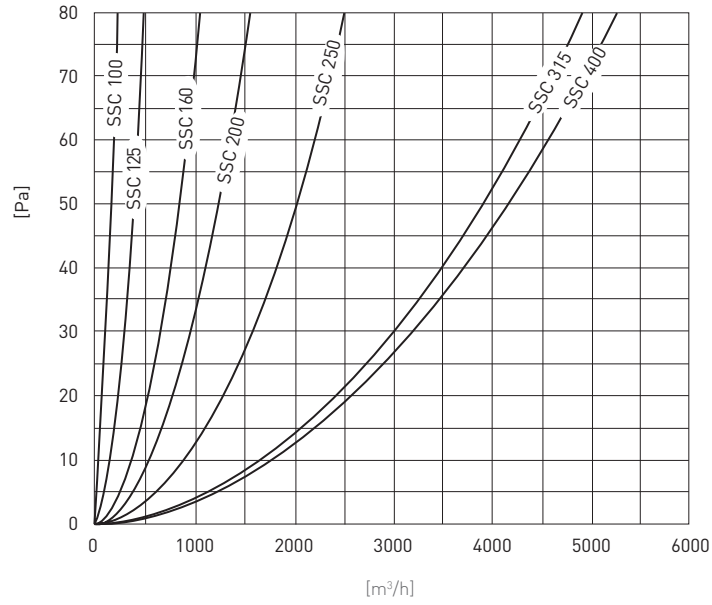
SSC



Diffusion

Components
for perfect air
distribution in HVAC
systems

SELECTION DIAGRAM



SIRIS

Iris damper



Product

SIRIS

Application

In supply and return

Construction

Galvanized steel

SPECIFICATION

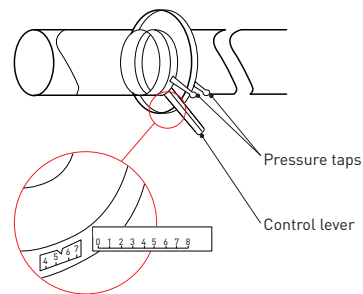
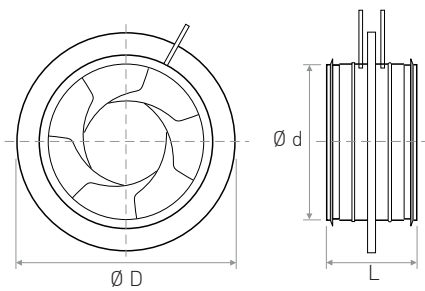
Iris control damper made of galvanized steel

MOUNTING

Push-in

DIMENSIONAL

IRIS mm	Ø d mm	Ø D mm	L mm	Wt. kg
100	99	165	110	0,5
125	124	210	110	0,7
160	159	230	110	0,9
200	199	285	110	1,4
250	249	335	135	2,1
315	314	410	135	3,5



IRIS



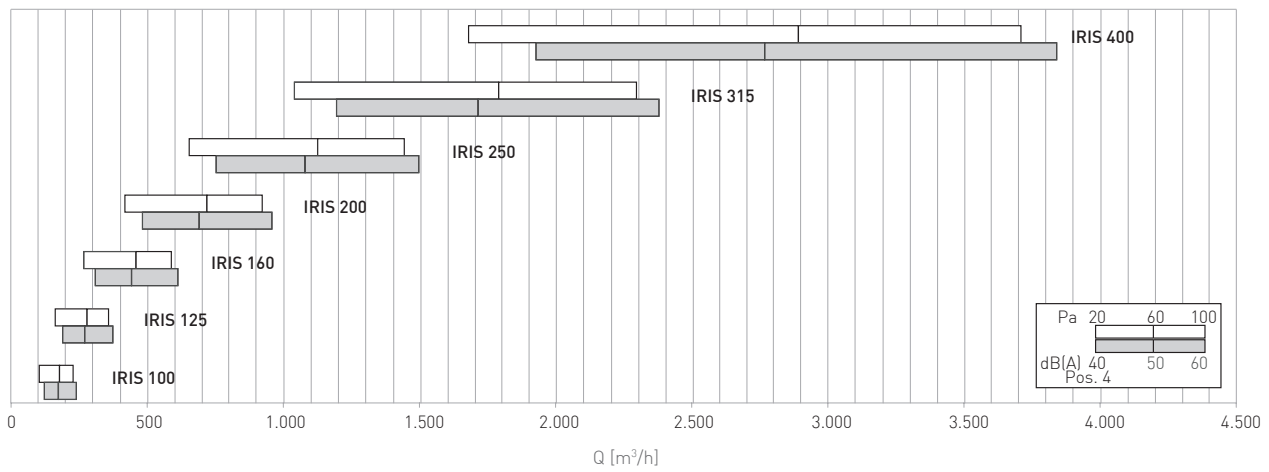
Diffusion

Components
for perfect air
distribution in HVAC
systems

SELECTION TABLE

IRIS Model	A _k m ²	v [m/s]		Q [m ³ /h]		Dp [α=40°] [Pa]		L _{WA} [α=40°] [dB(A)]	
		min	max	min	max	min	max	min	max
100	0,0077	3	6	80	170	13	52	30	50
125	0,0121	3	6	130	260	13	52	30	50
160	0,0199	3	6	210	430	13	52	30	50
200	0,0311	3	6	340	670	13	52	30	50
250	0,0487	3	6	530	1050	13	52	30	50
315	0,0774	3	6	840	1670	13	52	30	50
400	0,1250	3	6	1350	2700	13	52	30	50
500	0,1956	3	6	2110	4220	13	52	30	50
630	0,3107	3	6	3360	6710	13	52	30	50
800	0,5014	3	6	5420	10830	13	52	30	50

QUICK SELECTION CHART



ACTUATORS FOR DAMPER

WITHOUT SPRING RETURN

Code	Voltage	Control
CM24-L	24V	On/Off/3 p
CM230-L	230V	On/Off/3 p
CM24-SR-L	24V	Proportional



CM for dampers
up to 0.4 m² 2 Nm

Code	Voltage	Control
LM24A	24V	On/Off/3 p
LM24A-S	24V	On/Off/3 p
LM24A-SR	24V	Proportional
LM230A	230V	On/Off
LM230A-S	230V	On/Off
LM230A-SR	230V	Proportional



LM for dampers
up to 1 m² 5 Nm

Code	Voltage	Control
NM24A	24V	On/Off/3 p
NM24A-SR	24V	Proportional
NM230A	230V	On/Off



NM for dampers
up to 2 m² 10 Nm

Code	Voltage	Control
SM24A	24V	On/Off/3 p
SM24A-SR	24V	Proportional
SM230A	230V	On/Off/3 p
SM230A-SR	230V	Proportional



SM for dampers
up to 4 m² 20 Nm

Code	Voltage	Control
GM24A	24V	On/Off/3 p
GM24A-SR	24V	Proportional
GM230A	230V	On/Off/3 p



GM for dampers
up to 8 m² 40 Nm

Code	No. contacts	Simultaneous regulation	Application on
S1A	1 x SPDT	1 mA...3 (0,5)A 250 V c.a.	LN - MN - SM - GM-/24V-230V
S2A	2 x SPDT	1 mA...3 (0,5)A 250 V c.a.	LN - MN - SM - GM-/24V-230V



S1A



S2A

Code	No. contacts	Simultaneous regulation	Application on
SGA24	AC/DC 24V	Max 10 motors	LN - MN - SM - GM-/24V-230V
SGF24	AC/DC 24V	Max 10 motors	LN - MN - SM - GM-/24V-230V



SGA24



SGF24



Diffusion

Components
for perfect air
distribution in HVAC
systems

WITH SPRING RETURN

Code	Voltage	Control
TF24	24V	On/Off
TF24-S	24V	On/Off
TF230	230V	On/Off
TF230-S	230V	On/Off
TF24-SR	24V	Proportional



TF for dampers
up to 0.4 m² 2 Nm

Code	Voltage	Control
LF24	24V	On/Off
LF24-S	24V	On/Off
LF230	230V	On/Off
LF230-S	230V	On/Off
LF24-SR	24V	Proportional



LF for dampers
up to 0.8 m² 5 Nm

Code	Voltage	Control
NF230A	230 VAC	On/Off
NF230A-S2	230 VAC	On/Off
NF24A	24 VAC/DC	On/Off
NF24A-S2	24 VAC/DC	On/Off
NF24A-SR	24 VAC/DC	Proportional
NF24A-SR-S2	24 VAC/DC	Proportional



NF for dampers
up to approx. 2 m² 10 Nm

Code	Voltage	Control
SF230A	230 VAC	On/Off
SF230A-S2	230 VAC	On/Off
SF24A	24 VAC/DC	On/Off
SF24A-S2	24 VAC/DC	On/Off
SF24A-SR	24 VAC/DC	Proportional
SF24A-SR-S2	24 VAC/DC	Proportional



SF for dampers
up to approx. 4 m² 20 Nm

Code	Voltage	Control
EF230A	230 VAC	On/Off
EF230A-S2	230 VAC	On/Off
EF24A	24 VAC/DC	On/Off
EF24A-S2	24 VAC/DC	On/Off
EF24A-SR	24 VAC/DC	Proportional
EF24A-SR-S2	24 VAC/DC	Proportional



EF for dampers
up to approx. 6 m² 30 Nm

FLOW RATE REGULATORS



Diffusion

Components for perfect air distribution in HVAC systems



RPMKR

Circular constant flow rate regulator

p. 226



RPMV

Circular variable flow rate regulator

p. 228



RPMCK

Rectangular constant flow rate regulator

p. 230



RPMCV

Rectangular variable value flow regulator

p. 232



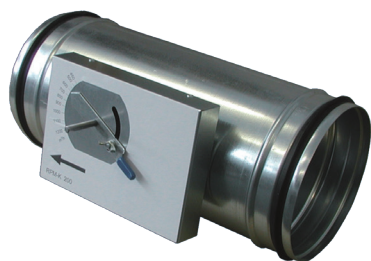
KVRR

Constant flow rate membrane regulator

p. 235

RPMKR

Circular constant flow rate regulator



Product

RPMKR

Construction

Body and finish in galvanized steel
Thickness acc. EN 1751 Tightness Class C

Actuation

Manual mechanical operation

SPECIFICATION

Constant flow rate regulator.
Nominal size DN 80 ÷ DN 400.
Length L = 450 mm.
Flow rate 50 ÷ 4500 m³/h.
Precision ±15-20% for velocities below
4m/s, ±10% for higher velocities

APPLICATIONS

Maintains constant flow rate within a
differential pressure range

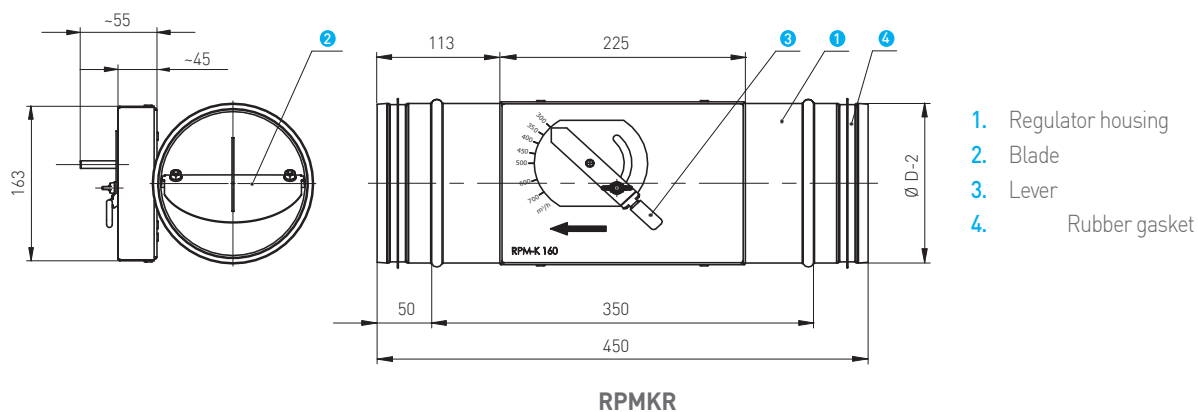
WORKING CONDITIONS

Correct regulator operation is ensured
under the following conditions:

- Maximum airflow velocity 10 m/s
- Maximum duct pressure 1000 Pa.

Operating limits -20° / 70°C

DRAWINGS



AIR FLOW RATE VALUES

Dimension	Min. air flow rate m ³ /h ⁻¹	Max. air flow rate m ³ /h ⁻¹
80	50	200
100	80	300
125	125	500
160	200	900
200	300	1300
250	500	2000
315	850	2800
400	1200	4500



Diffusion

Components
for perfect air
distribution in HVAC
systems

PARAMETERS

Dimensions	Air flow rate m ³ /h	Maximum precision %	Min. pressure difference Pa	Dimensions	Air flow rate m ³ /h	Maximum precision %	Min. pressure difference Pa
80	50	20	100	200	300	18	50
	100	15	100		500	15	60
	150	10	100		900	10	70
	200	10	120		1300	10	80
100	80	18	50	250	500	15	50
	150	15	60		800	12	70
	250	10	80		1200	10	80
	300	10	90		2000	10	90
125	125	18	50	315	800	15	50
	200	15	60		1200	10	70
	350	10	70		2000	10	80
	500	10	90		2800	10	90
160	200	18	50	400	1200	15	50
	400	15	70		2000	10	70
	700	10	80		3000	10	80
	900	10	90		4500	10	90

RPMV

Circular variable flow rate regulator



Product

RPMV

Construction

Body and finish in galvanized steel
Thickness acc. EN 1751 Tightness Class C

Actuation

0-10 Volt signal.
Power supply 24 Volt

SPECIFICATION

Variable flow rate regulator.
Nominal size DN 80 ÷ DN 630.
Length L = 450/600 mm.
Flow rate 35 ÷ 13500 m³/h.
Precision ±8% for velocities below 3m/s,
±5% for higher velocities

APPLICATIONS

Allows regulation of supply or exhaust
air flow in ventilation systems.
Possibility to manage regulation through
flow rate control, or pressure control in
a duct or room

WORKING CONDITIONS

Correct regulator operation is ensured
under the following conditions:

- maximum air flow velocity 12 m/s
- maximum duct pressure 1000 Pa

DIMENSIONAL

Dimensions mm	Ø D mm	L mm	L ₁ mm	N mm	N ₁ mm	W mm	M mm	Belimo actuator Model
80	80	450	344	179	22	66	71	LM 24A-V / 227 VM-024-05
100	100	450	344	179	22	66	71	LM 24A-V / 227 VM-024-05
125	125	450	344	179	22	66	71	LM 24 A-V / 227 VM-024-05
140	140	450	344	179	22	66	71	LM 24A-V / 227 VM-024-05
160	160	450	344	179	22	66	71	LM 24 A-V / 227 VM-024-05
180	180	450	344	179	22	66	71	LM 24 A-V / 227 VM-024-05
200	200	450	344	179	22	66	71	LM 24 A-V / 227 VM-024-05
225	225	450	344	179	22	66	71	LM 24 A-V / 227 VM-024-05
250	250	450	344	179	22	66	71	LM 24 A-V / 227 VM-024-05
280	280	450	344	179	22	66	71	LM 24 A-V / 227 VM-024-05
315	315	450	344	179	22	66	71	LM 24 A-V / 227 VM-024-05
355	355	450	344	187	25	80	72	NM 24 A-V / 227 VM-024-10
400	400	450	344	187	25	80	72	NM 24 A-V / 227 VM-024-10
500	500	600	494	187	25	80	72	NM 24 A-V / 227 VM-024-10
630	630	600	494	202	30	1,353846	0,973684	SM 24 A-V / 227 VM-024-15

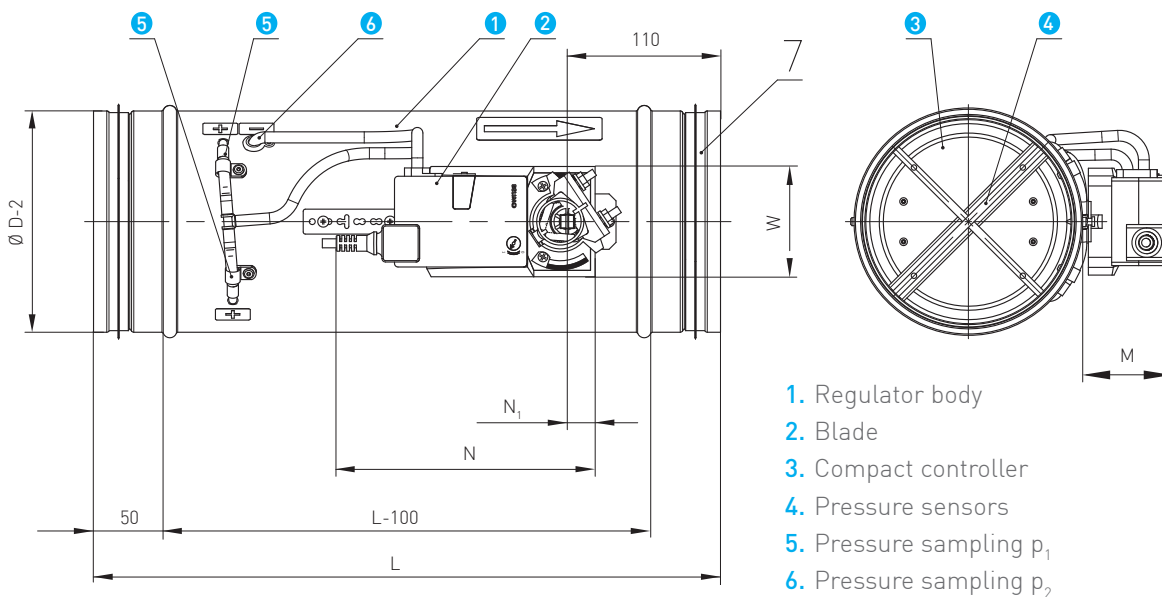


Diffusion

Components
for perfect air
distribution in HVAC
systems

PERFORMANCE DATA

Dimensions mm	Air Flow Rate					
	Minimum ($w \approx 1\text{m/s}$)	Standard values Maximum ($w \approx 7\text{m/s}$)	V_{nom}	Minimum ($w \approx 1\text{m/s}$)	Maximum values Maximum ($w \approx 12\text{m/s}$)	V_{nom}
80	18	125	125	18	220	220
100	30	200	200	30	350	350
125	45	310	310	45	550	550
140	55	400	400	55	700	700
160	70	500	500	70	900	900
180	90	650	650	90	1200	1200
200	115	800	800	115	1400	1400
225	145	1000	1000	145	1800	1800
250	180	1250	1250	180	2200	2200
280	220	1550	1550	220	2800	2800
315	280	2000	2000	280	3500	3500
355	355	2500	2500	355	4500	4500
400	455	3200	3200	455	5800	5800
500	710	5000	5000	710	8500	8500
630	1120	7900	7900	1120	13500	13500



RPMV

RPMCK

Rectangular constant flow rate regulator



Product

RPMCK

Construction

Body and finish in galvanized steel
Thickness acc. EN 1751 Tightness Class C

Actuation

Manual mechanical operation

SPECIFICATION

Constant flow rate regulator.
Nominal size 200x100 ÷ 600x600.
Length L = 350 mm.
Air flow volume
250 ÷ 12000 m³/h.
Precision 10% -15% (at min./max.
positions 20%).

APPLICATIONS

Maintains constant flow rate within a
differential pressure range

WORKING CONDITIONS

Correct regulator operation is ensured
under the following conditions:

- maximum air flow velocity 12 m/s
- maximum duct pressure 1000 Pa
- operating limits 0° / 50°C

ON REQUEST: Version with 50 mm
acoustic insulation

DIMENSIONAL

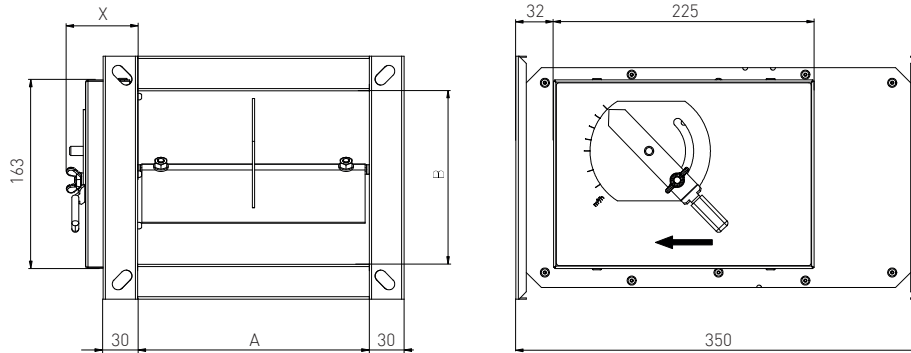
AxB	X	Air flow rate		AxB	X	Air flow rate	
		min. m ³ /h	max. m ³ /h			min. m ³ /h	max. m ³ /h
mm	mm			mm	mm		
200 x 100	62	250	700	500 x 200	81	1100	3400
200 x 150	62	400	1000	500 x 250	87	1500	4200
200 x 200	62	500	1300	500 x 300	120	1800	4800
300 x 100	62	400	1000	500 x 400	*81	2200	6800
300 x 150	62	500	1500	500 x 500	*87	3000	8400
300 x 200	62	600	2000	600 x 200	120	1500	4000
300 x 250	62	800	2500	600 x 250	120	1800	5000
300 x 300	81	1000	3000	600 x 300	120	2100	6000
400 x 200	81	900	2700	600 x 400	*120	3000	8000
400 x 250	87	1200	3400	600 x 500	*120	3600	10000
400 x 300	81	1500	4200	600 x 600	*120	4200	12000
400 x 400	*81	1800	5400				

* For B ≥ 400 the regulator consists of two units assembled in the same casing

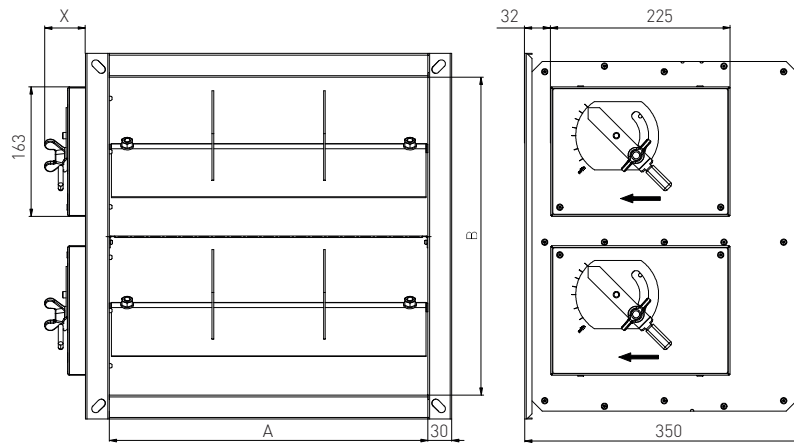


Diffusion

Components
for perfect air
distribution in HVAC
systems



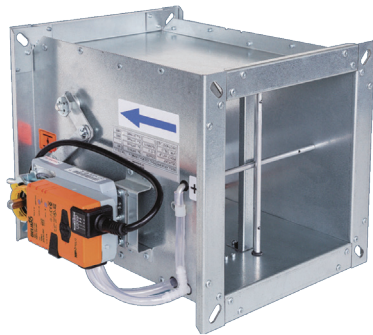
RPMCK



RPMCK B ≥ 400

RPMCV

Rectangular variable value flow regulator



Product

RPMCV

Construction

Body and finish in galvanized steel
Thickness acc. EN 1751 Tightness Class C

Actuation

0-10 Volt signal.
Power supply 24 Volt

SPECIFICATION

Variable flow rate regulator.
Nominal size 200x100 ÷ 1000x1000.
Length L = 300 mm.
Air flow rate 90 ÷ 43000 m³/h.
Flow rate 50 ÷ 4500 m³/h.
Precision ± 8% for velocities up to 3 m/s and
± 5% for higher velocities

APPLICATIONS

Allows regulation of supply or exhaust
air flow in ventilation systems.
Possibility to manage regulation through
flow rate control, or pressure control in
a duct or room

WORKING CONDITIONS

Correct regulator operation is ensured
under the following conditions:

- maximum air flow velocity 12 m/s
- maximum duct pressure 1000 Pa

DIMENSIONAL

Dimensions mm	N mm	N ₁ mm	W mm	M mm	Dimensions mm	N mm	N ₁ mm	W mm	M mm
200x100	179	22	66	71	700x200	187	25	80	72
200x200	187	25	80	72	700x300	187	25	80	72
300x100	179	22	66	71	700x400	187	25	80	72
300x200	187	25	80	72	700x500	202	30	88	74
300x300	187	25	80	72	800x200	187	25	80	72
400x100	179	22	66	71	800x300	187	25	80	72
400x200	187	25	80	72	800x400	202	30	88	74
400x300	187	25	80	72	800x500	202	30	88	74
400x400	187	25	80	72	800x600	202	30	88	74
500x100	187	25	80	72	800x800	202	30	88	74
500x200	187	25	80	72	900x300	187	25	80	72
500x300	187	25	80	72	900x400	202	30	88	74
500x400	187	25	80	72	900x500	202	30	88	74
500x500	202	30	88	74	1000x300	187	25	80	72
600x100	187	25	80	72	1000x400	202	30	88	74
600x200	187	25	80	72	1000x500	202	30	88	74
600x300	187	25	80	72	1000x600	202	30	88	74
600x400	187	25	80	72	1000x800	202	30	88	74
600x500	202	30	88	74	1000x1000	202	30	88	74
600x600	202	30	88	74					

Values valid for Belimo actuators



Diffusion

Components
for perfect air
distribution in HVAC
systems

PERFORMANCE DATA

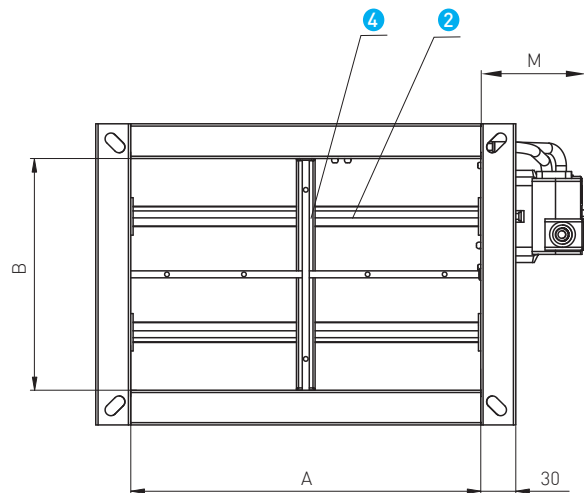
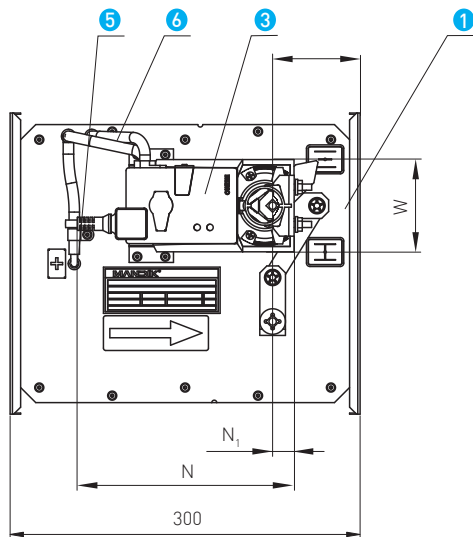
Dimensions mm	Air Flow Rate					
	Minimum (w ≈ 1m/s)	Standard values Maximum (w ≈ 7m/s)	V _{nom}	Minimum (w ≈ 1m/s)	Maximum values Maximum (w ≈ 12m/s)	V _{nom}
200x100	70	500	500	70	900	900
200x200	145	1000	1000	145	1800	1800
300x100	110	750	750	110	1300	1300
300x200	215	1500	1500	215	2600	2600
300x300	325	2300	2300	325	3900	3900
400x100	145	1000	1000	145	1800	1800
400x200	290	2000	2000	290	3500	3500
400x300	430	3100	3100	430	5200	5200
400x400	580	4100	4100	580	7000	7000
500x100	180	1250	1250	180	2200	2200
500x200	360	2500	2500	360	4400	4400
500x300	540	3800	3800	540	6500	6500
500x400	720	5100	5100	720	8700	8700
500x500	900	6400	6400	900	11000	11000
600x100	215	1500	1500	215	2600	2600
600x200	430	3100	3100	430	5200	5200
600x300	650	4600	4600	650	7800	7800
600x400	865	6200	6200	865	10500	10500
600x500	1080	7700	7700	1080	13000	13000
600x600	1300	9200	9200	1300	16000	16000
700x200	500	3600	3600	500	6000	6000
700x300	800	5400	5400	800	9000	9000
700x400	1000	7200	7200	1000	12000	12000
700x500	1250	9000	9000	1250	15000	15000
800x200	580	4100	4100	580	7000	7000
800x300	870	6200	6200	870	10500	10500
800x400	1150	8200	8200	1150	14000	14000
800x500	1450	10500	10500	1450	17500	17500
800x600	1730	12500	12500	1730	21000	21000
800x800	2300	16500	16500	2300	28000	28000
900x300	980	6900	6900	980	12000	12000
900x400	1300	9200	9200	1300	16000	16000
900x500	1620	12000	12000	1620	20000	20000

FLOW RATE REGULATORS

RPMCV

Rectangular variable value flow regulator

Dimensions mm	Air Flow Rate					
	Minimum ($w \approx 1\text{m/s}$)	Standard values Maximum ($w \approx 7\text{m/s}$)	V_{nom}	Minimum ($w \approx 1\text{m/s}$)	Maximum values Maximum ($w \approx 12\text{m/s}$)	V_{nom}
1000x300	1080	7700	7700	1080	13000	13000
1000x400	1440	10500	10500	1440	17500	17500
1000x500	1800	13000	13000	1800	22000	22000
1000x600	2160	15500	15500	2160	26000	26000
1000x800	2880	21000	21000	2880	35000	35000
1000x1000	3600	26000	26000	3600	43000	43000



1. Regulator body
2. Blade
3. Compact controller
4. Pressure sensors
5. Pressure sampling p_1
6. Pressure sampling p_2

RPMCV



Product

KVRR

Construction

PVC regulation module
PVC blade

SPECIFICATION

PVC regulation module placed in a sleeve plastic, with sealing gasket. The regulating element consists of a PVC blade with a balancing spring and a damping piston

APPLICATIONS

Maintaining constant flow rate within a pressure range between 50 and 250 Pa

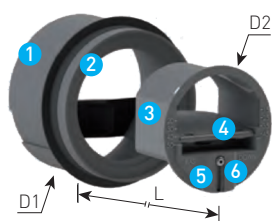
FLOW RATE SETTING

Flow rate adjustable (within the operating range) by loosening the front screw and manually moving the regulation element. The graduated scale on the sides of the opening indicates the set flow rate

DIMENSIONAL

KVRR 80-100

$\emptyset D$ mm	D1 mm	D2 mm	L mm
80	76	76	57
100	96	93	68



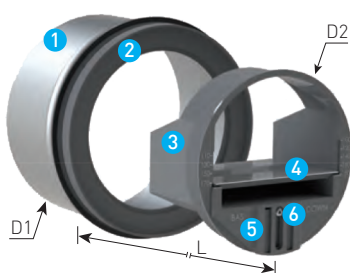
1. Sleeve with gasket
2. Adapter (according to air flow rate)
3. Regulator housing
4. Regulator
5. Air flow setting
6. Screw to fix the air flow rate

KVRR

Constant flow rate membrane regulator

KVRR 125-250

Ø D mm	D1 mm	D2 mm	L mm
125	120	117	86
150	148	148	85
160	148	148	85
200	190	195	91
250	244	245	120



1. Sleeve with gasket
2. Adapter (according to air flow rate)
3. Regulator housing
4. Regulator
5. Air flow setting
6. Screw to fix the air flow rate

FLOW RATE VALUES

Model	Min. air flow rate m ³ /h	Max. air flow rate m ³ /h	Regulation step m ³ /h
KVRR 80	15	50	2,5
KVRR 100 A	15	50	2,5
KVRR 100 B	50	100	5
KVRR 125 A	15	50	2,5
KVRR 125 B	50	100	5
KVRR 125 C	100	180	5
KVRR 150 A	15	50	2,5
KVRR 150 B	50	100	5
KVRR 150 C	100	180	5
KVRR 150 D	180	300	5
KVRR 160 A	15	50	2,5
KVRR 160 B	50	100	5
KVRR 160 C	100	180	5
KVRR 160 D	180	300	5
KVRR 200 A	15	50	2,5
KVRR 200 B	50	100	5
KVRR 200 C	100	180	5
KVRR 200 D	180	300	5
KVRR 200 E	300	500	10
KVRR 250 A	50	100	5
KVRR 250 B	100	180	5
KVRR 250 C	180	300	5
KVRR 250 D	300	500	10
KVRR 250 E	450	750	25

ACOUSTIC PROTECTION



Diffusion

Components for perfect air distribution in HVAC systems



GRSIL

Galvanized steel acoustic outdoor air intake grille

p. 238



SIC/SIV

Circular silencer in galvanized steel

p. 240



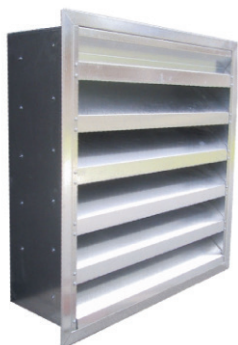
SIR

Rectangular silencer in galvanized steel

p. 243

GRSIL

Galvanized steel acoustic outdoor air intake grille



Product

GRSIL

Construction

Galvanised steel sheet frame, 1.5 mm thick
Galvanised steel sheet blades pitch 150, 1.0 mm thick

Execution

In natural or anodised aluminium

SPECIFICATION

Acoustic outdoor air intake grilles used to combine the normal air intake and exhaust function with noise reduction

LABORATORY TESTS

Pressure drop tests performed according to the standard UNI CTI 8728 at the Giordano Institute (test report N. 136363).

Attenuation tests carried out according to EN ISO 11691 at the Giordano Institute (Test Report No. 149876)

ACCESSORIES

Bird screen

VERSIONS

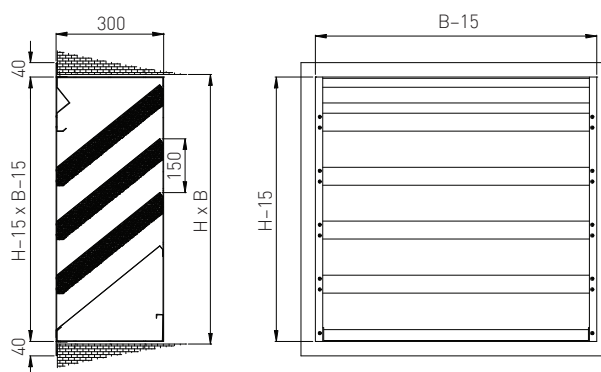
- thickness 300 or 600 with blade pitch 150
- thickness 140 or 280 with blade pitch 100

WARNING - The 3 m/s limit depends on water droplet entrainment. Laboratory tests have shown that up to this velocity, water droplets fall along the profile by gravity while

DIMENSIONAL

Nominal "B" values range from 300 mm to 2500 mm in 100 mm intervals.

Nominal "H" values range from 450 mm to 2250 mm in 150 mm intervals.



GRSIL



PRESSURE DROP

V ms	ΔP_t Pa
1,0	7
1,5	16
2,0	28
2,5	46
3,0	66

V: velocity referred to the section (B-35)x(H-215) [m/s]

Δp_t : total pressure drop [Pa]

ATTENUATION

Frequency Hz	Single execution dB	Double execution dB
125	6	8
250	8	14
500	10	16
1000	14	26
2000	18	33
4000	16	28
8000	15	27

SIC/SIV

Circular silencer in galvanized steel



Product

SIC/SIV

Construction

Galvanised steel sheet frame, 0.8 mm thick up to Ø 1250 and 1.0 mm above
Mounting flange with threaded inserts

Versions

SIC: version without cone
SIV: version with internal ogive to increase silencer attenuation

SPECIFICATION

Circular galvanised steel silencer with or without ogive.
Stainless steel execution available on request.
Bayonet connection version on request

SOUND-ABSORBING MATERIAL

Rock wool density 70 Kg/m³, coated against flaking with black glass veil, fire resistance class MO and micro-expanded mesh

ATTENUATION TESTS

Attenuation tests carried out according to ISO 7235 at CETIAT Lyon, test report No. 95 80180

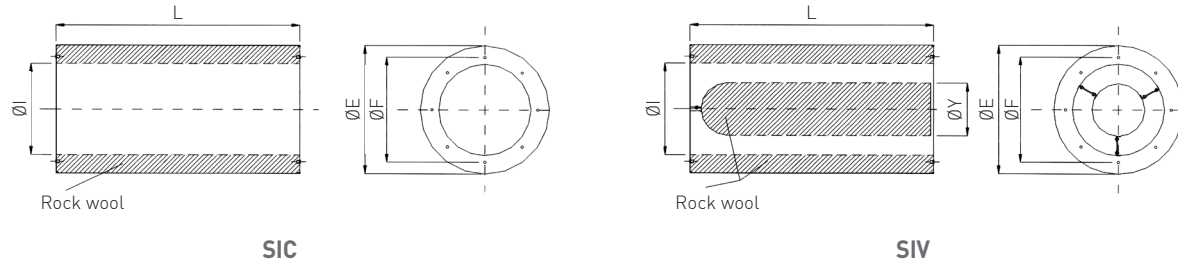
DIMENSIONAL

DN mm	Ø I mm	Ø E mm	Ø F mm	Holes n.	Ø Holes mm	Ø Insert mm	Ø Y mm	Ø I x 1 mm	Ø I x 1,5 mm	Ø I x 2 mm
250	250	390	280	4	11	M8	120	250	375	500
300	300	440	340	8	11	M8	140	300	450	600
315	315	455	355	8	11	M8	140	315	472,5	630
350	350	490	390	8	11	M8	200	350	525	700
355	355	495	395	8	11	M8	200	355	532,5	710
400	400	540	450	8	12	M10	200	400	600	800
450	450	610	500	8	12	M10	245	450	675	900
500	500	660	560	12	12	M10	245	500	750	1000
560	560	720	620	12	12	M10	295	560	840	1120
600	600	760	660	12	12	M10	295	600	900	1200
630	630	790	690	12	12	M10	295	630	945	1260
650	650	810	710	12	12	M10	295	650	975	1300
700	700	860	760	16	12	M10	380	700	1050	1400
710	710	870	770	16	12	M10	380	710	1065	1420
750	750	950	810	16	12	M10	380	750	1125	1500
800	800	1000	860	16	12	M10	380	800	1200	1600
850	850	1050	920	16	15	M12	380	850	1275	1700
900	900	1100	970	16	15	M12	380	900	1350	1800
1000	1000	1200	1070	16	15	M12	650	1000	1500	2000
1120	1120	1320	1190	20	15	M12	650	1120	1680	2240
1200	1200	1400	1270	20	15	M12	650	1200	1800	2400
1250	1250	1450	1320	20	15	M12	650	1250	1875	2500
1300	1300	1500	1370	20	15	M12	650	1300	1950	2600
1400	1400	1600	1470	20	15	M12	650	1400	2100	2800
1500	1500	1700	1580	24	15	M12	650	1500	2250	3000
1600	1600	1800	1680	24	15	M12	650	1600	2400	3200
1700	1700	1900	1780	24	15	M12	650	1700	2550	3400
1800	1800	2000	1880	24	15	M12	650	1800	2700	3600
1900	1900	2100	1980	24	15	M12	650	1900	2850	3800
2000	2000	2200	2080	24	15	M12	650	2000	3000	4000



Diffusion

Components
for perfect air
distribution in HVAC
systems



ATTENUATION TABLE

Model	Length mm	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
SIC 250	10	1	4	6	11	13	9	6
	15	0	6	9	23	16	11	10
	20	1	8	14	24	21	13	12
SIC 315	10	1	3	8	14	9	8	7
	15	2	5	12	19	13	11	8
	20	6	6	16	26	17	13	9
SIV 315	10	1	4	9	16	17	13	10
	15	4	5	13	23	26	18	12
	20	6	7	17	32	33	22	17
SIC 355	10	0	3	9	14	10	8	6
	15	0	5	12	21	13	11	9
	20	2	6	15	25	16	12	10
SIV 355	10	0	4	11	22	21	15	12
	15	1	7	15	33	32	22	17
	20	2	8	19	40	39	27	20
SIC 400	10	0	4	10	13	8	8	5
	15	1	5	14	19	12	10	8
	20	2	7	18	24	15	12	9
SIV 400	10	1	4	11	20	18	14	11
	15	2	6	15	31	27	19	14
	20	2	9	20	37	35	23	16
SIC 450	10	1	4	12	12	9	6	6
	15	1	6	17	17	13	9	8
	20	1	7	21	21	15	10	8
SIV 450	10	1	6	14	21	19	13	9
	15	2	7	19	31	28	18	12
	20	3	10	23	39	36	21	15
SIC 500	10	0	4	13	11	9	6	5
	15	1	6	18	17	12	9	7
	20	2	8	23	21	14	11	8
SIV 500	10	2	5	13	20	16	11	8
	15	3	7	19	29	24	14	10
	20	3	10	24	38	32	18	12
SIC 560	10	0	4	14	11	8	5	4
	15	2	7	20	15	11	8	5
	20	1	9	24	19	14	10	7

LENGTH: 10 = 1 x Diameter; 15 = 1.5 x Diameter; 20 = 2 x Diameter

SIC/SIV

Circular silencer in galvanized steel

Model	Length mm	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
SIV 560	10	1	6	15	21	17	11	8
	15	3	9	22	32	27	15	11
	20	2	12	27	41	35	18	12
SIC 630	10	1	5	14	10	9	5	5
	15	2	7	20	14	12	8	6
	20	2	9	25	17	14	10	7
SIV 630	10	1	6	15	19	16	10	8
	15	2	9	22	29	23	14	10
	20	3	11	27	37	29	15	12
SIC 710	10	1	5	12	9	7	5	5
	15	2	7	18	11	9	6	7
	20	4	9	24	14	11	8	8
SIV 710	10	2	7	15	20	18	12	10
	15	3	11	22	31	25	13	11
	20	5	14	29	41	32	18	15
SIC 800	10	3	7	9	8	6	5	4
	15	5	10	13	12	9	7	7
	20	6	13	22	14	10	9	7
SIV 800	10	3	9	12	17	15	9	8
	15	6	13	18	26	22	12	11
	20	6	16	29	35	26	15	12
SIC 900	10	3	7	13	8	6	5	4
	15	5	11	16	11	7	7	5
	20	6	14	23	13	9	7	6
SIV 900	10	4	8	15	16	11	8	7
	15	5	12	20	24	16	10	9
	20	7	17	30	34	20	12	11
SIC 1000	10	3	8	12	8	4	4	4
	15	5	12	17	10	6	6	5
	20	6	16	23	12	7	7	6
SIV 1000	10	8	14	20	24	21	14	10
	15	10	22	30	37	29	16	12
	20	13	28	39	47	38	19	13
SIC 1120	10	3	8	13	7	5	4	3
	15	5	12	18	8	6	5	4
	20	6	15	23	10	7	6	6
SIV 1120	10	6	13	20	21	14	8	7
	15	10	19	29	33	20	11	10
	20	14	26	36	42	24	13	11
SIC 1250	10	3	9	13	7	4	4	3
	15	6	12	17	8	5	5	4
	20	8	17	22	10	6	6	5
SIV 1250	10	7	12	18	19	10	6	6
	15	10	18	26	29	14	9	7
	20	13	25	35	37	17	11	9

LENGTH: 10 = 1 x Diameter; 15 = 1.5 x Diameter; 20 = 2 x Diameter



Product

SIR

Construction

Galvanised steel sheet frame, 1.0 mm thick

Versions

Execution with partitions covered by expanded mesh or Ø 5 perforated sheet

Version with melinex-coated partitions and micro-expanded mesh, suitable for special installations such as pharmaceutical industries, research laboratories, microelectronics industry, etc.

SPECIFICATION

Silencers used for noise reduction in air conditioning or ventilation systems.
Partition thickness 100, 200, 300 mm with aerodynamic profile option

SOUND-ABSORBING MATERIAL

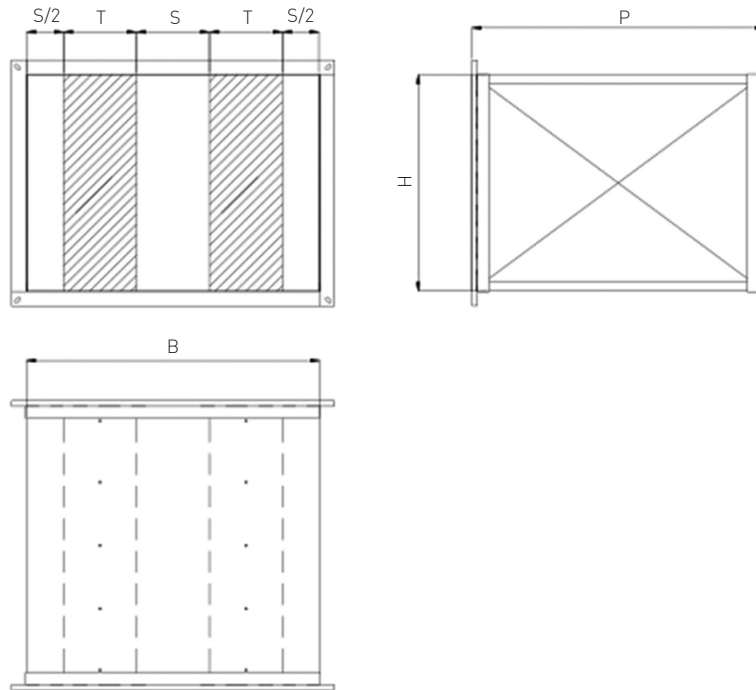
Rock wool density 60 kg/m³ covered against flaking with black glass veil, fire resistance class M0 and non-combustible in class A, B and C according to Directive 96/98/EC Marine Equipment (Ri)

OPTIONS

Sound-absorbing material can be covered with glass fibre fabric.
Stainless steel execution on request

DIMENSIONAL

Base mm	T mm	Partitions n.	S mm	Air passages n.	S/2 mm	Air passages S/2 n.
300	200	1	/	/	50	2
600	200	2	100	1	50	2
900	200	3	100	2	50	2
1200	200	4	100	3	50	2
1500	200	5	100	4	50	2
1800	200	6	100	5	50	2
2100	200	7	100	6	50	2
2400	200	8	100	7	50	2
2700	200	9	100	8	50	2
3000	200	10	100	9	50	2
350	200	1	/	/	75	2
700	200	2	150	1	75	2
1050	200	3	150	2	75	2
1400	200	4	150	3	75	2
1750	200	5	150	4	75	2
2100	200	6	150	5	75	2
2450	200	7	150	6	75	2
2800	200	8	150	7	75	2
400	200	1	/	/	100	2
800	200	2	200	1	100	2
1200	200	3	200	2	100	2
1600	200	4	200	3	100	2
2000	200	5	200	4	100	2
2400	200	6	200	5	100	2
2800	200	7	200	6	100	2



SIR

ATTENUATION TABLE

Partition thickness mm	Partition distance mm	Length mm	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
200	100	500	7	13	16	21	21	13	10
		1000	11	20	28	36	35	21	16
		1500	15	30	41	50	50	31	23
		2000	18	37	50	50	50	39	29
200	150	500	6	9	12	16	13	9	7
		1000	13	15	19	27	26	15	10
		1500	16	21	28	40	36	21	14
		2000	23	27	35	50	49	27	17
200	200	500	5	8	10	13	9	7	5
		1000	10	11	16	22	18	11	8
		1500	12	16	23	32	24	15	11
		2000	17	19	29	41	33	19	13

Partition surface fully covered with black glass veil

FIRE DAMPERS



Diffusion

Components for perfect air distribution in HVAC systems



FDMBS

Rectangular single-blade fire damper

p. 246



FDMBR

Circular fire damper

p. 248



FDMQ

Extended casing fire damper

p. 251



FDML

Multi-blade fire damper

p. 253



CFDM

Fire terminal valve

p. 254

ACCESSORIES

For fire dampers

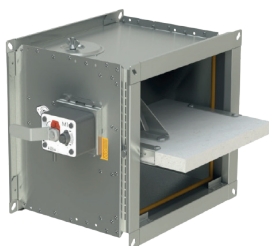
p. 255

FDMBS

Rectangular single-blade fire damper



**FDMBS
with actuator**



**FDMBS
with manual control**

Product

FDMBS

Construction

Galvanized sheet metal damper, calcium silicate blade with adequate fixing pins allowing both horizontal and vertical installation

On request

- Atex version with Atex actuator
- Ganged execution to achieve larger dimensions
- Manual version.
- Version with electromagnet
- Version with 24V or 230V actuator
- Thermal fuse at 72°, 104° and 147°
- Limit switch in OPEN, CLOSED (standard) or OPEN/CLOSED position.
- Optical smoke detector
- BKN and BKS actuators for simultaneous control of multiple fire dampers

SPECIFICATION

EI120 fire damper CE marked and certified UNI EN15650 and UNI EN1366-2.

Equipped with manual control or actuator

CHARACTERISTICS

Galvanized steel frame, calcium silicate blade, spring-operated via a lever mechanism.

Thermo-expanding gaskets placed on the sides of the fire damper.

The manual control version is supplied as standard with a 72°C rated fuse, release mechanism and microswitch.

The actuator version is available in both 24V and 230V

WORKING CONDITIONS

Correct damper operation is ensured under the following conditions:

- maximum air velocity: 12 m/s; $\Delta P = 1200$ Pa
- the blade can only be closed when the fan or air handling unit is switched off

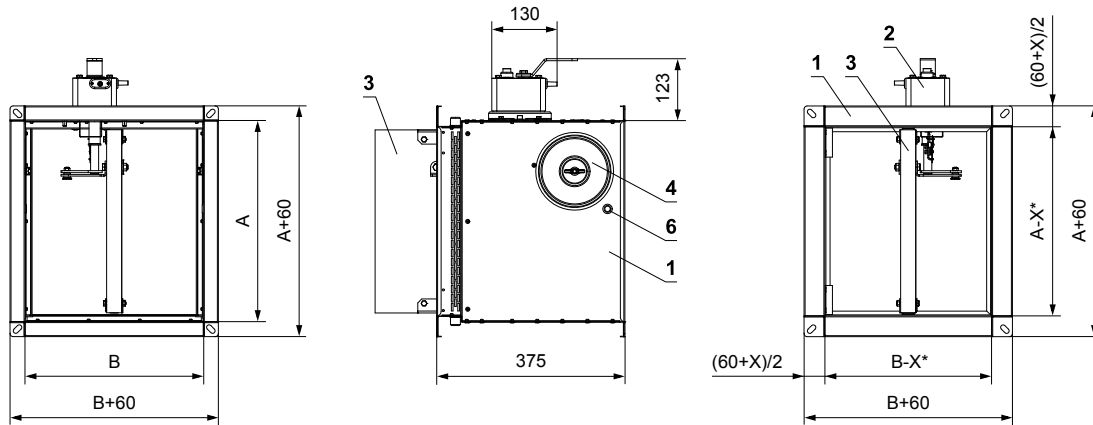
FDMBR DIMENSIONS (RECTANGULAR FIRE DAMPER)

Model	Description	B x H mm
FDMBS01V	EU FDMBS manual rectangular fire damper	
FDMBS11V2	Fire damper EU FDMBS manual rectangular with 1 contact for closed damper signalling	
FDMBS40000	EU FDMBS rectangular motorised fire damper 230 V	200x200 - 1000x500
FDMBS50000	EU FDMBS rectangular motorised fire damper 24 V	
FDMBS80V2	EU fire damper FDMBS manual rectangular with 2 contacts for open or closed damper indication	



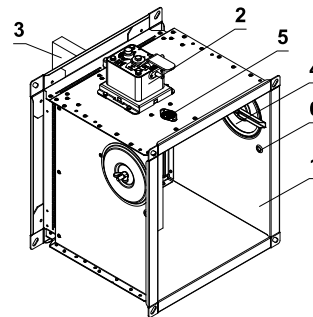
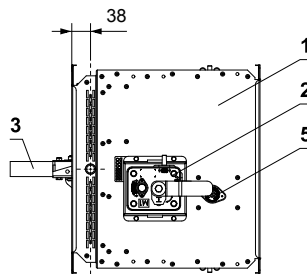
Diffusion

Components
for perfect air
distribution in HVAC
systems

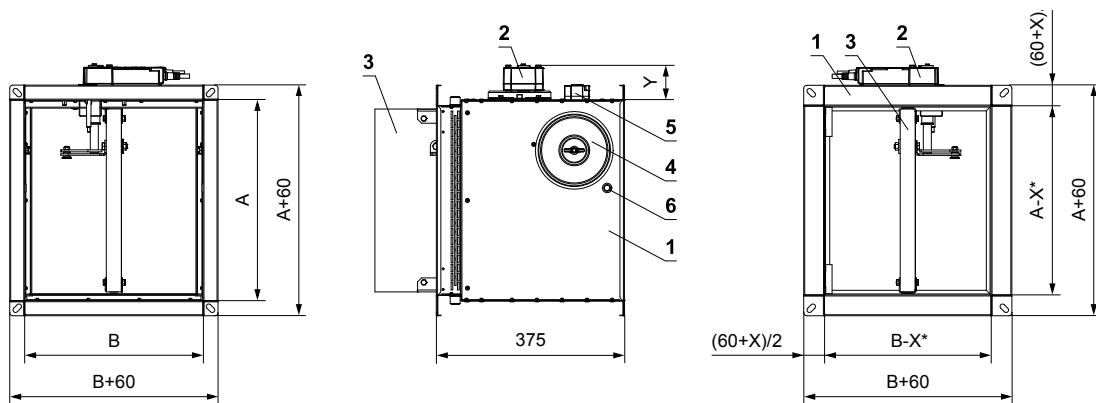


- * X=14 (A<160 or B<160)
- * X=23 (AxB≤500x400)
- * X=36 (AxB>500x400)

- 1 Housing
- 2 Manual control
- 3 Damper blade
- 4 Inspection door
- 5 Sensor
- 6 Inspection hole

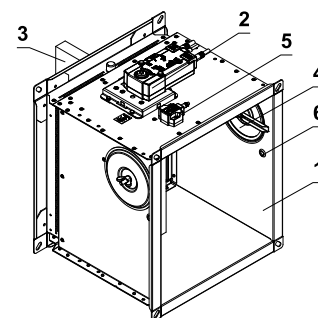
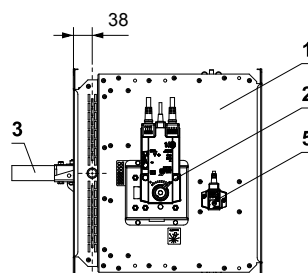


FDMBS with manual control



- * X=14 (A<160 or B<160) Y=72 (BFL)
- * X=23 (AxB≤500x400) Y=76 (BFN)
- * X=36 (AxB>500x400) Y=83 (BF)

- 1 Housing
- 2 Spring-return actuator
- 3 Damper blade
- 4 Inspection door
- 5 Thermal fuse for actuators
- 6 Inspection hole



FDMBS with spring-return actuator

FDMBR

Circular fire damper



**FDMBR
with actuator**



**FDMBR
with manual control**

Product

FDMBR

Construction

Galvanized sheet metal damper, calcium silicate blade with adequate fixing pins allowing both horizontal and vertical installation

On request

Atex version with Atex actuator

- Ganged execution to achieve larger dimensions
- Manual version
- Version with electromagnet
- Version with 24V or 230V actuator
- Thermal fuse at 72°, 104° and 147°
- Limit switch in OPEN, CLOSED (standard) or OPEN/CLOSED position
- Optical smoke detector
- BKN and BKS actuators for simultaneous control of multiple fire dampers
- Version EI60 and EI180

SPECIFICATION

EI120 fire damper CE marked and certified UNI EN15650 and UNI EN1366-2.

Equipped with manual control or actuator

CHARACTERISTICS

Galvanized steel frame, calcium silicate blade, spring-operated via a lever mechanism.

Thermo-expanding gaskets placed on the sides of the fire damper.

The manual control version is supplied as standard with a 72°C rated fuse, release mechanism and microswitch.

The actuator version is available in both 24V and 230V.

WORKING CONDITIONS

Correct damper operation is ensured under the following conditions:

- maximum air velocity: 12 m/s; $\Delta P = 1200$ Pa
- the blade can only be closed when the fan or air handling unit is switched off.

FDMBR DIMENSIONS (CIRCULAR FIRE DAMPER)

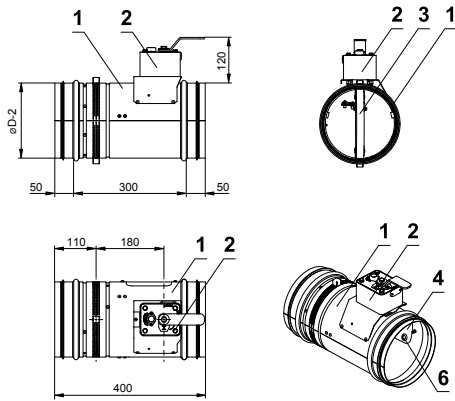
Model	Description	Ø mm
FDMBR01V	EU FDMBR manual circular fire damper	
FDMBR11V2	Fire damper EU FDMBR manual circular with contact for closed damper signalling	100 - 800
FDMBR40000	EU fire damper FDMBR motorized circular 230 V	
FDMBR50000	EU fire damper FDMBR motorized circular 24 V	
FDMBR80V2	EU fire damper FDMBR manual circular with 2 contacts for open or closed damper signalling	



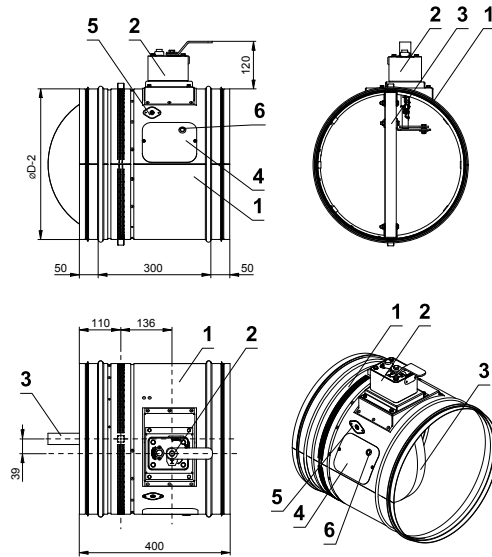
Diffusion

Components
for perfect air
distribution in HVAC
systems

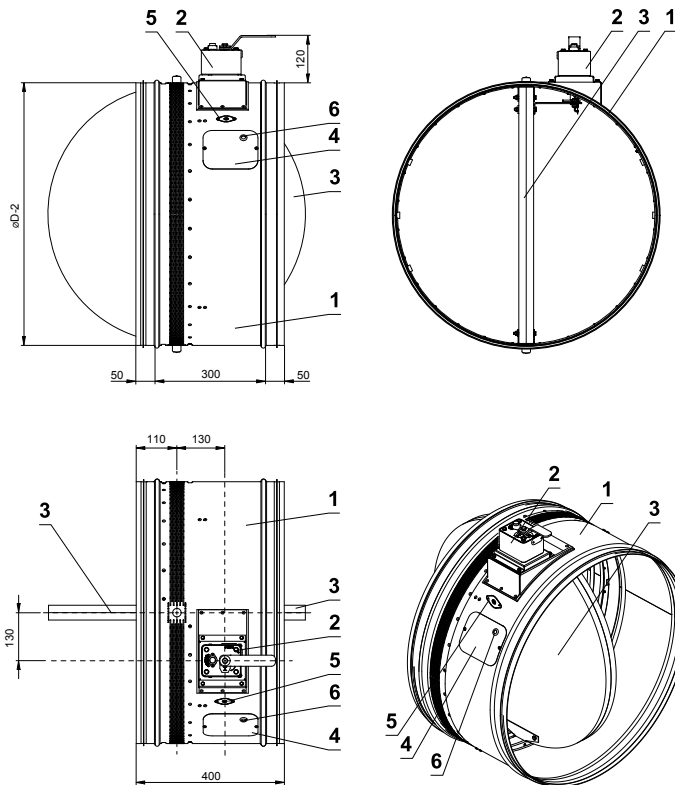
DN 100 - DN 315



DN 350 - DN 500



DN 560 - DN 800



- 1 Housing
- 2 Manual control
- 3 Damper blade
- 4 Inspection door
- 5 Sensor
- 6 Inspection hole

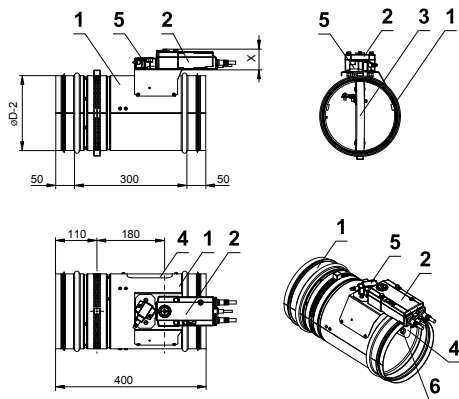
FDMBR with manual control

FDMBR

Circular fire damper

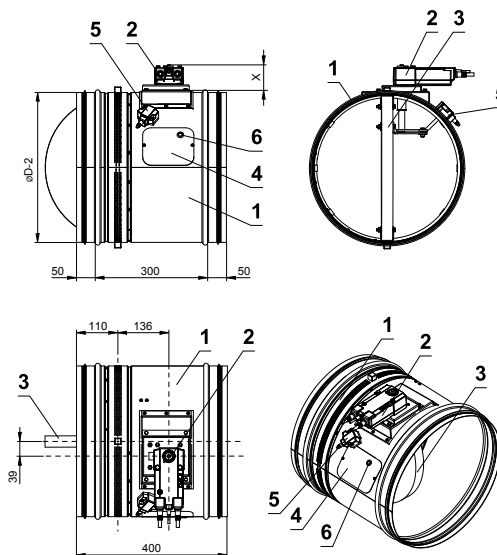
DN 100 - DN 315

The actuator cannot be rotated



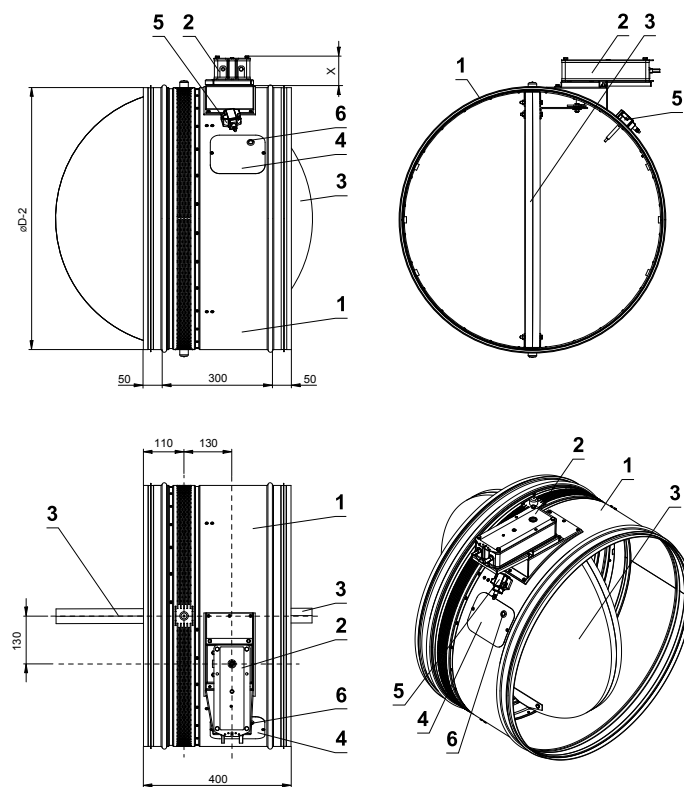
DN 350 - DN 500

The actuator can be rotated 90°



DN 560 - DN 800

The actuator can be rotated 90°



- 1 Housing
- 2 Spring-return actuator
- 3 Damper blade
- 4 Inspection door
- 5 Thermal fuse for actuators
- 6 Inspection hole

FDMBR with spring-return actuator



**FDMQ
with actuator**



**FDMQ
with manual control**

Product

FDMQ

Construction

Galvanised sheet metal casing and calcium silicate blade

On request

- Ganged execution to achieve larger dimensions
- Manual version
- Version with electromagnet
- Version with 24V or 230V actuator
- Atex version with Atex actuator
- Thermal fuse at 72°, 104° and 147°
- Limit switch in OPEN, CLOSED (standard) or OPEN/CLOSED position
- Optical smoke detector -BKN and BKS actuators for simultaneous control of multiple fire dampers
- Version EI90 and E180

SPECIFICATION

EI120 fire damper CE marked and certified UNI EN15650 and UNI EN1366-2. Equipped with manual control or actuator

CHARACTERISTICS

Galvanized steel frame, calcium silicate blade, spring-operated via a lever mechanism.

Thermo-expanding gaskets placed on the sides of the fire damper.

The manual control version is supplied as standard with a 72°C rated fuse, release mechanism and microswitch.

The actuator version is available in both 24V and 230V

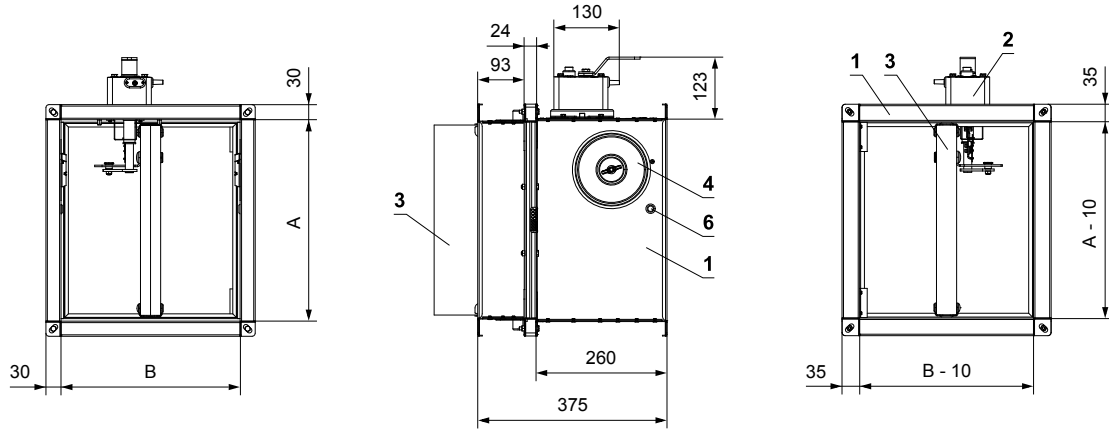
WORKING CONDITIONS

Correct damper operation is ensured under the following conditions:

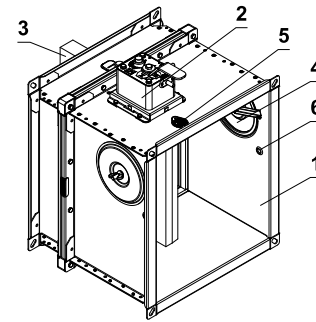
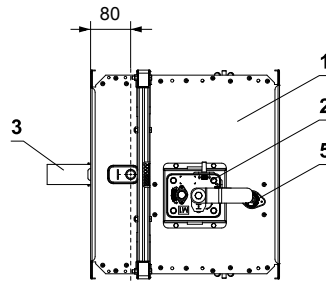
- maximum air velocity: 12 m/s; $\Delta P = 1200$ Pa
- the blade can only be closed when the fan or air handling unit is switched off

FDMQ

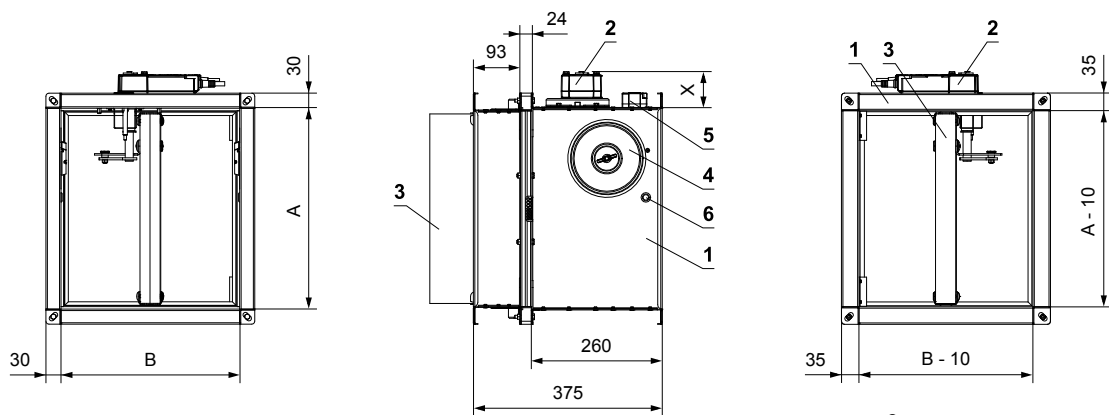
Extended casing fire damper



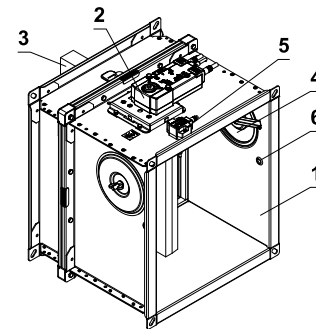
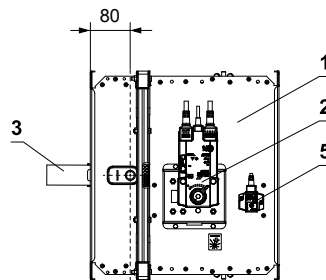
- 1 Housing
- 2 Manual control
- 3 Damper blade
- 4 Inspection door
- 5 Sensor
- 6 Inspection hole



FDMQ with manual control



- 1 Housing
- 2 Spring-return actuator
- 3 Damper blade
- 4 Inspection door
- 5 Thermal fuse for actuators
- 6 Inspection hole



FDMQ with actuator



Product

FDML

Construction

Galvanised sheet metal damper, calcium silicate blades and galvanised fasteners

On request

- Multiple unit execution
- Version with 24V or 230V actuator
- Thermal fuse at 72°, 104° and 147°
- Limit switch in OPEN, CLOSED (standard) or OPEN/CLOSED position
- Optical smoke detector
- Min. dimension 200x300
- Max. dimension 1000x900

SPECIFICATION

Multi-blade fire damper for use without ventilation duct with cover grilles for ventilation openings in partition walls, constructions, lift shafts and other ducts, or cond

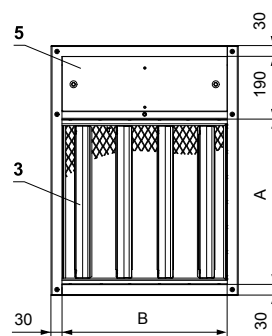
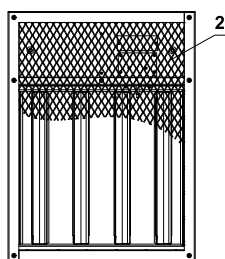
CHARACTERISTICS

The damper blades automatically close the air duct using a spring-return actuator.

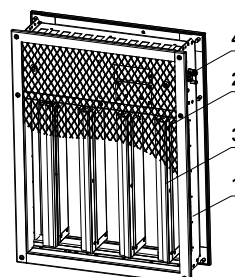
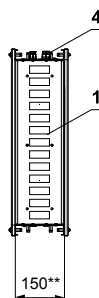
The actuator return spring is activated when a thermoelectric activation device BAT is triggered, when a test button on BAT is pressed, or when the power supply of the

WORKING CONDITIONS

- Maximum air velocity 12 m/s.
- Maximum pressure difference 1500 Pa.
- The damper can be installed with the blade axis in vertical or horizontal position, the temperature sensor (BAT) must always be located in the upper part of the damper.



- 1 Housing
- 2 Protection grid
- 3 Blade
- 4 Cable glands
- 5 Actuator protection



CFDM

Fire terminal valve



Product

CFDM

Construction

Galvanized sheet metal housing

Application

Ideal for installation in HVAC system ducts and near ventilation valves

SPECIFICATION

Fire valve with 72°C thermal fuse and option to insert open and/or close micro-switch.
Sealant to improve blade seal.
Available sizes 100, 125, 160, 200 mm.

CERTIFICATIONS

- CE certified according to EN 15650.
- Tested according to EN 1366-2.
- Classified according to EN 13501-3 + A1.
- Fire resistance EIS 90.
- Internal leakage class 2 according to EN 1751, external leakage equals the duct system.
- Corrosion resistant according to EN 15650.
- ES Certificate No. 1391-CPR-2021/0075.
- Declaration of Performance No. PM/CFDM250/01/21/1.
- Hygienic evaluation of fire dampers - Report No. 1.6/pos/19/19b.

WORKING CONDITIONS

Correct damper operation is ensured under the following conditions:

- a) Maximum air circulation velocity: 12 m/s.
Maximum pressure difference: 1200 Pa
- b) Air circulation across the entire damper section must be constantly ensured.

Surface.

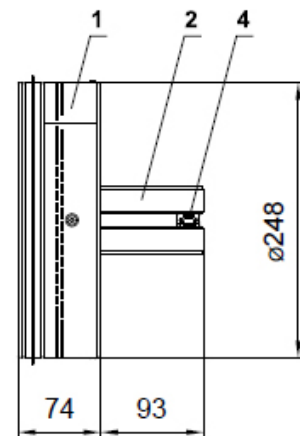
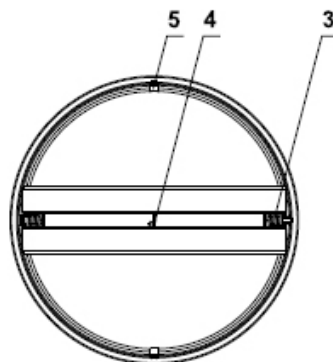
Damper operation does not depend on air circulation direction.

Dampers can only be installed in vertical ducts.

DIMENSIONS

CFDM DN.250

- 1 - Casing
- 2 - Damper blade
- 3 - Closing spring
- 4 - Thermal fuse
- 5 - Locking pin



ACCESSORIES

FOR FIRE DAMPERS



Diffusion

Components
for perfect air
distribution in HVAC
systems



BKS24-9A

Communication unit for control and monitoring of up to 9 motorised fire dampers in combination with communication and power supply units BKN230-24 or BKN230-24-C-MP

- Signals operating positions and any faults from the connected fire dampers.
- Reduced wiring costs thanks to 2-wire communication
- Group alarm propagation and damper position to a system via auxiliary contacts
- Panel mounting (DIN rail)



BKN230-24

Communication and power supply unit for motorised fire dampers.

- Communication via BACnet MS/TP and Modbus RTU (RS-485).
- AC 230 V power supply via plug.
- Actuator power supply via plug (galvanically isolated, DC 24 V)
- Simple integration of a smoke detector without additional power supply.
- Suitable actuators:
BF24.. - ST, BFN24.. - ST, BFL24.. - SAN



MCS-B

Unit for monitoring and controlling up to 240 motorized fire dampers, compatible with all standard 24 V or 230 V actuators.

The system consists of communication modules and a central control unit, which communicates with individual communication modules via RS-485 Bus communication.

The entire system works on the Master & Slave principle, where the communication modules (Slave) set through the Dip switch, the central control unit (Master) automatically detects the

SMOKE DAMPERS



Diffusion

Components for perfect air distribution in HVAC systems



SEDS

Single compartment single-blade smoke damper p. 258



SEDS-R

Single-compartment circular smoke damper p. 259



SEDS-L

Single-compartment multi-blade smoke damper p. 260



SEDM

Multi-compartment single-blade smoke damper p. 261



SEDM-L

Multi-compartment multi-blade smoke damper p. 263



MSD

Multi-compartment smoke damper p. 265

SEDS

Single compartment single-blade smoke damper



Product

SEDS

Construction

Galvanised sheet metal damper with calcium silicate blades

Actuation

By actuator 24V or 230V
ATEX version on request

SPECIFICATION

Single compartment smoke damper.
Certified to allow opening in case of fire
and ensure smoke extraction from the
compartment.

Nominal size from
180 x 180 mm a 1600 x 1000 mm

CERTIFICATIONS

CE certified according to EN 12101-8
Tested according to EN 1366-10
Classified according to EN 13501-4ES
90/600, AAE activation
Classified as
 $E_{600} 90 (v_{ed}=i \leftrightarrow o) S1000C_{300} AA$ single

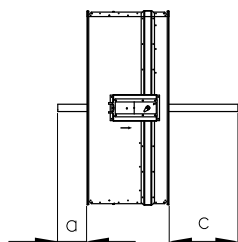
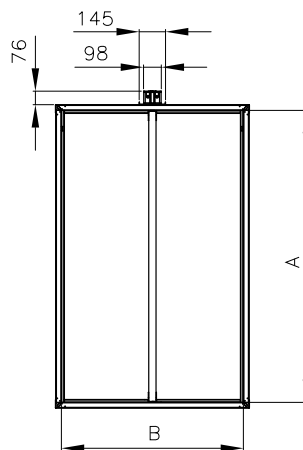
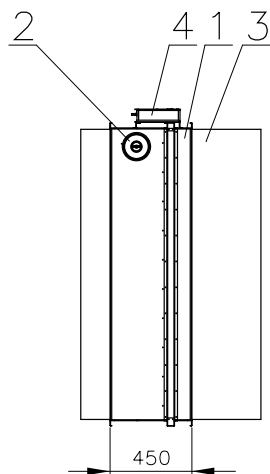
WORKING CONDITIONS

Correct damper operation is ensured
under the following conditions:

- maximum air flow velocity 15 m/s
- maximum allowable pressure 500 Pa
- maximum depression 1000 Pa

DIMENSIONAL

- 1 Damper body
- 2 Damper blade
- 3 Inspection hole
- 4 Actuator



SEDS-L

Single-compartment multi-blade smoke damper



Diffusion

Components
for perfect air
distribution in HVAC
systems



Product

SEDS-L

Construction

The damper and blades are made in galvanized sheet metal

Actuation

By actuator 24V or 230V

SPECIFICATION

Single compartment multi-blade smoke damper.

Certified to allow opening in case of fire and ensure smoke extraction from the compartment.

Nominal size from

200 x 200 mm a 1200 x 1200 mm

CERTIFICATIONS

CE certified according to EN 12101-8.

Tested according to EN 1366-10.

Classified according to EN 13501-4

and classified as

$E_{600} 120 (v_e=i \leftrightarrow o)$ S1500CMA single

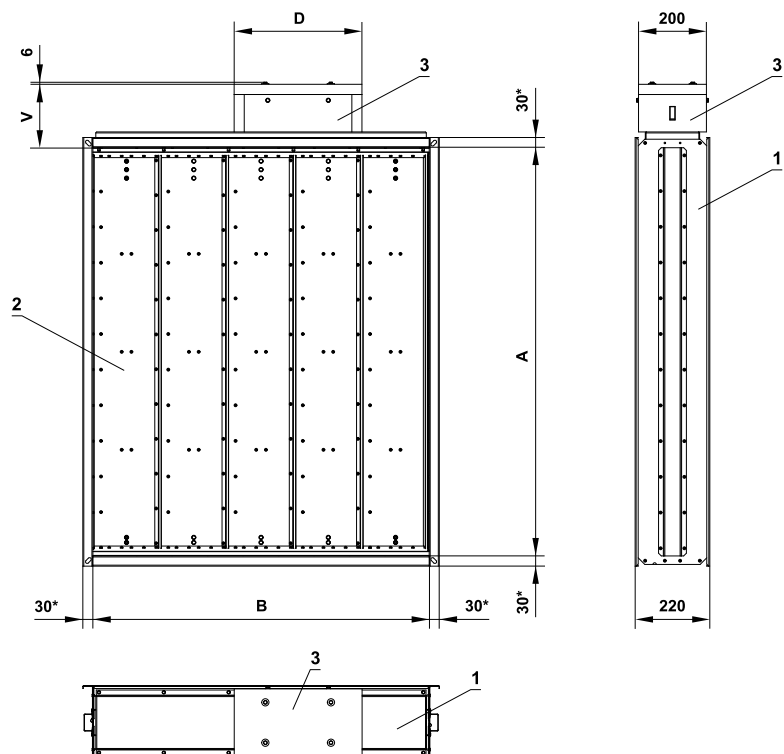
WORKING CONDITIONS

Correct damper operation is ensured under the following conditions:

- maximum air flow velocity 12 m/s
- maximum allowable pressure 500 Pa
- maximum depression 1500 Pa

DIMENSIONAL

- 1 Damper body
- 2 Damper blades
- 3 Actuator cover

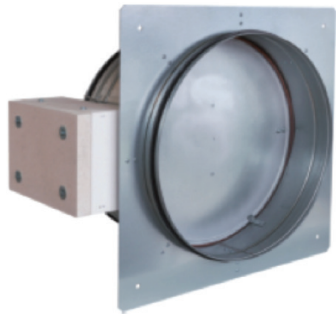


* standard flange height

SERVOMOTORS	Vmm	Dmm
BEN/BEE	176.5	315
BE	186.5	380

SEDS-R

Single-compartment circular smoke damper



Product

SEDS-R

Construction

The damper and blade are made of galvanised sheet metal

Actuation

By actuator 24V or 230V

SPECIFICATION

Single compartment circular smoke damper.
Certified to allow opening in case of fire and ensure smoke extraction from the compartment.
Nominal size from $\varnothing 100$ a $\varnothing 630$.

CERTIFICATIONS

CE certified according to EN 12101-8. Tested according to EN 1366-10.
Classified according to EN 13501-4ES 120/600, activation AA/MA.
Classified as $E_{600} 120 (v_{ed}=i \leftrightarrow o) S1000C_{300} AA_{single}$

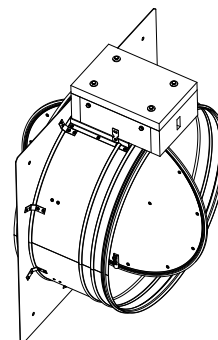
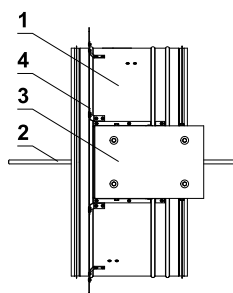
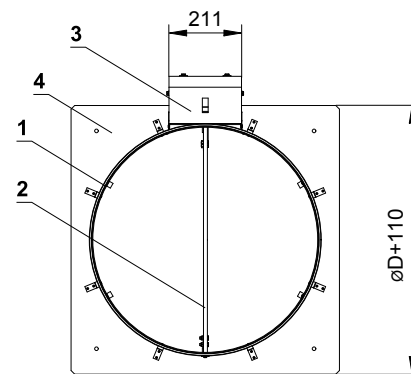
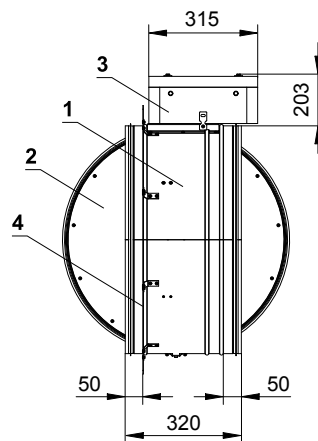
WORKING CONDITIONS

Correct damper operation is ensured under the following conditions:

- maximum air flow velocity 15 m/s
- maximum allowable pressure 500 Pa
- maximum depression 1500 Pa

DIMENSIONAL

- 1 Damper body
- 2 Damper blade
- 3 Actuator cover
- 4 Installation flange



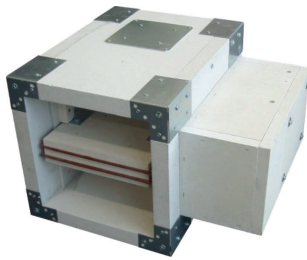
SEDM

Multi-compartment single-blade smoke damper



Diffusion

Components
for perfect air
distribution in HVAC
systems



Product

SEDM

Construction

Damper and blade made of calcium silicate

Actuation

By actuator 24V or 230V
ATEX version on request

SPECIFICATION

Multi-compartment smoke damper. Certified to allow opening in case of fire and ensure smoke extraction from the compartment. Dimensions from 180 x 180 mm to 1600 x 1000 mm

CERTIFICATIONS

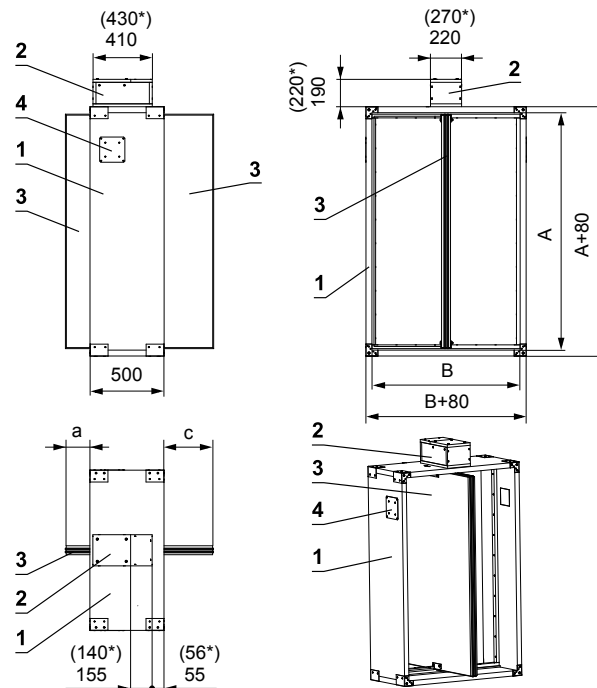
CE certified according to EN 12101-8
Tested according to EN 1366-10
Classified according to EN 13501-4

WORKING CONDITIONS

Correct damper operation is ensured under the following conditions:

- maximum air flow velocity 15 m/s
- maximum allowable pressure 500 Pa
- maximum depression 1500 Pa

DIMENSIONAL



SEDM WITHOUT FLANGES

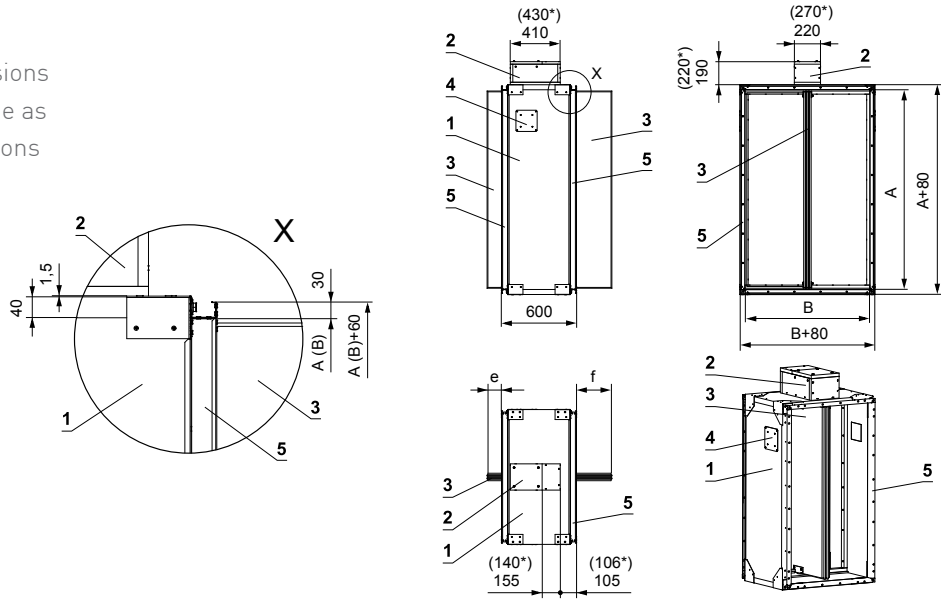
SEDM

Multi-compartment single-blade smoke damper

DIMENSIONAL

- External flange dimensions A(B) + 60 are not the same as external damper dimensions

- 1 SEDM
- 2 Actuator
- 3 Damper blade
- 4 Inspection door
- 5 Flange**



SEDM WITH FLANGES

- *Dimensions with InMax 50.75S actuation mechanism.
- **If necessary, any flange can be removed.

SEDM-L

Multi-compartment multi-blade smoke damper



Diffusion

Components
for perfect air
distribution in HVAC
systems



Product

SEDM-L

Construction

Damper and blade made of calcium silicate

Actuation

By 24V or 230V actuator
Protection grille on request

SPECIFICATION

Multi-compartment multi-blade smoke damper.

Certified to allow opening in case of fire and ensure smoke extraction from the compartment.

Nominal size from 200 x 430 mm to 1200 x 2030 mm.

CERTIFICATIONS

CE certified according to EN 12101-8.

Tested according to EN 1366-10.

Classified according to EN 13501-4.

WORKING CONDITIONS

Correct damper operation is ensured under the following conditions:

- maximum air flow velocity 12 m/s
- maximum allowable pressure 500 Pa
- maximum depression 1000 Pa



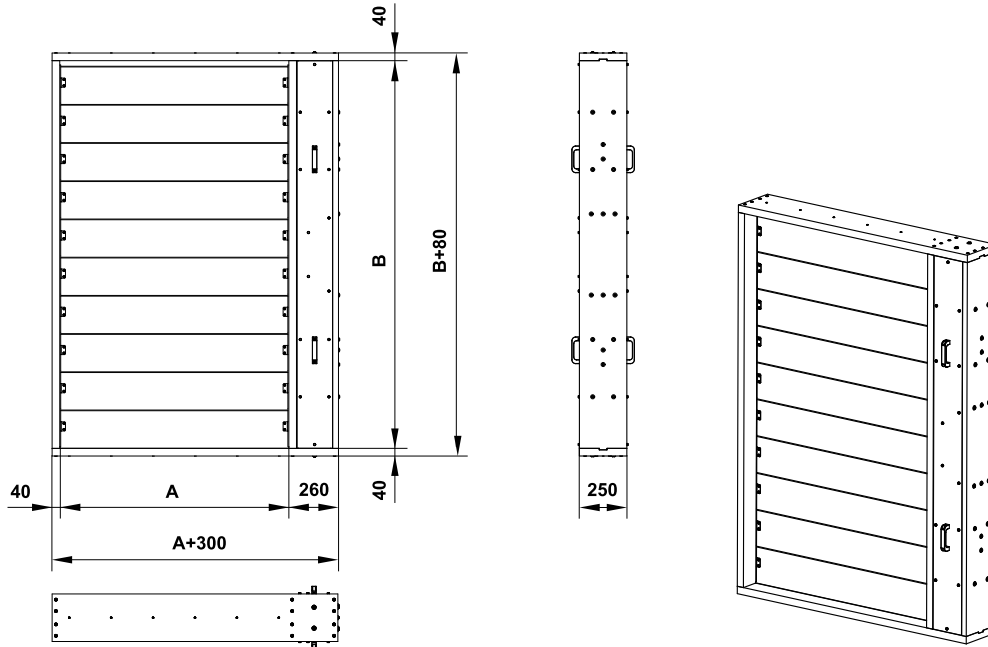
PROTECTIVE GRILLE

- Standard grilles can be used to close smoke control dampers.
- Maximum size is 2400x2400mm.
- The free area value is 78%

SEDM-L

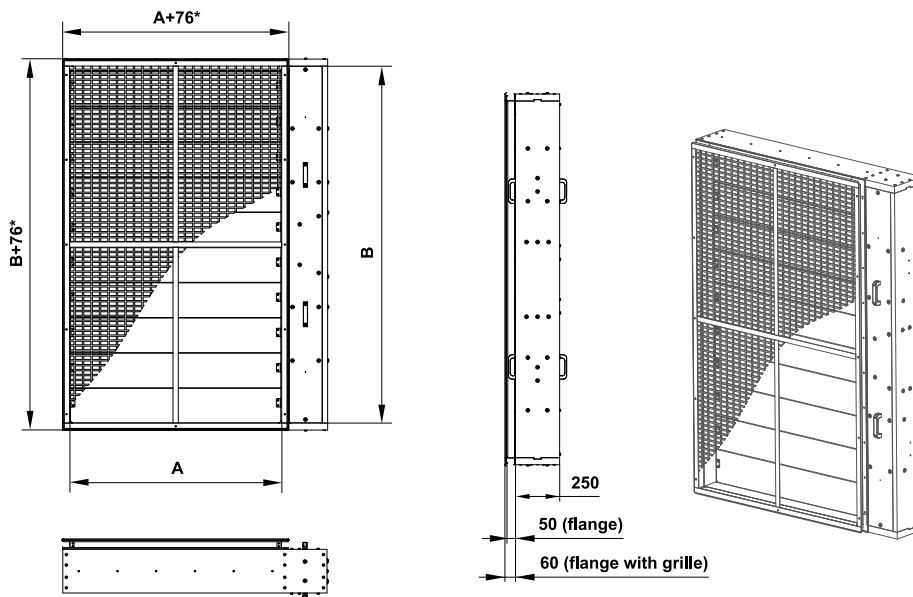
Multi-compartment multi-blade smoke damper

DIMENSIONAL



Blade spacing is 200mm

SEDM-L WITHOUT FLANGE AND PROTECTION GRILLE



SEDM-L WITH FLANGE AND PROTECTION GRILLE

* External grille dimension



Product

MSD

Construction

Damper made of galvanised sheet metal and calcium silicate blades

Actuation

By actuator 24V or 230V

SPECIFICATION

Multi-compartment smoke damper. Certified to allow opening in case of fire and ensure smoke extraction from the compartment.

Dimensions:

Square dampers from 160 x 180 mm to 1500 x 800 mm.

Circular dampers from $\varnothing 180$ to 630 mm

CERTIFICATIONS

- CE certified according to EN 12101-8.
- Tested according to EN 1366-10.
- Classified according to EN 13501-4

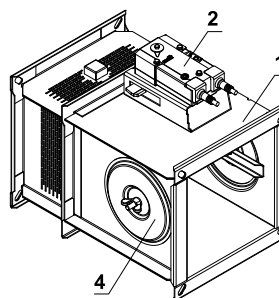
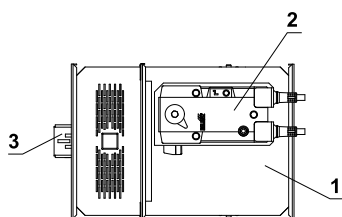
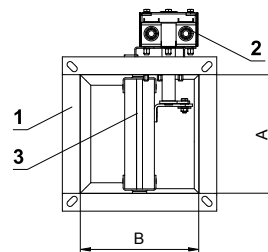
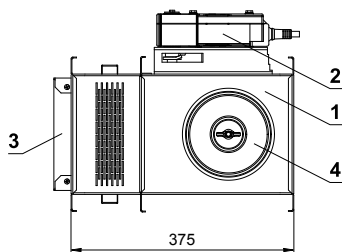
WORKING CONDITIONS

Correct damper operation is ensured under the following conditions:

- maximum air flow velocity 15 m/s
- maximum allowable pressure 500 Pa
- maximum depression 1500 Pa

DIMENSIONAL

- 1 MSD
- 2 Actuator
- 3 Damper blade
- 4 Inspection door



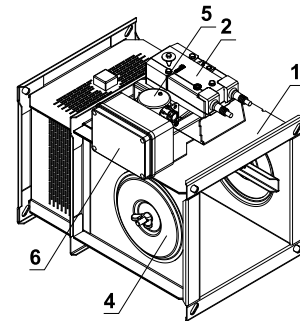
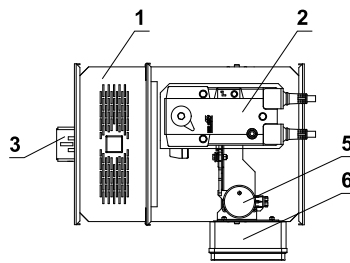
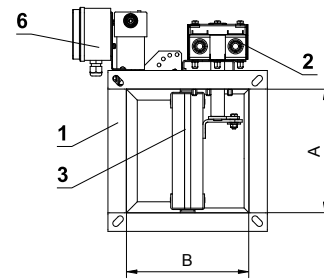
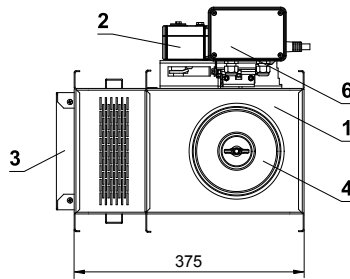
MSD SQUARE WITH SERVOMOTOR

MSD

Multi-compartment smoke damper

DIMENSIONAL

- 1 MSD
- 2 Actuator
- 3 Damper blade
- 4 Inspection door



MSD CIRCULAR WITH SERVOMOTOR

AIR CURTAINS



Diffusion

Components for perfect
air distribution in HVAC
systems



BLA

Air curtain for installation up to 2.5 m

p. 268



BLA1

Air curtain for installation up to 4 m

p. 271



BLA2

Air curtain for installation up to 4-5 m

p. 278



BLA3

Air curtain for suspended ceiling up to 4-5 m

p. 284



BLAV

Vertical air curtain

p. 292



BLAI

Industrial air curtain

p. 296

BLA

Air curtain for height up to 2.5 m



Product

BLA

Length

Nominal length 100 – 150 – 200 cm

Air flow rate

Up to 2600 m³/h

SPECIFICATION

Simple and complete air curtain, suitable for installation on doors of commercial establishments, bars and restaurants

APPLICATION

Can be installed on doors of maximum height 2.5 metres

CHARACTERISTICS

- Wall mounting by brackets (supplied).
- E: Electric heating.
- S: Without heating.
- Electric heating elements with immediate heating, without inertia.
- Airflow adjustable outward by 15°.
- Infrared ON-OFF remote control with air flow and heating regulation (if present).
- Standard colour RAL 9016 (any RAL colour on request)

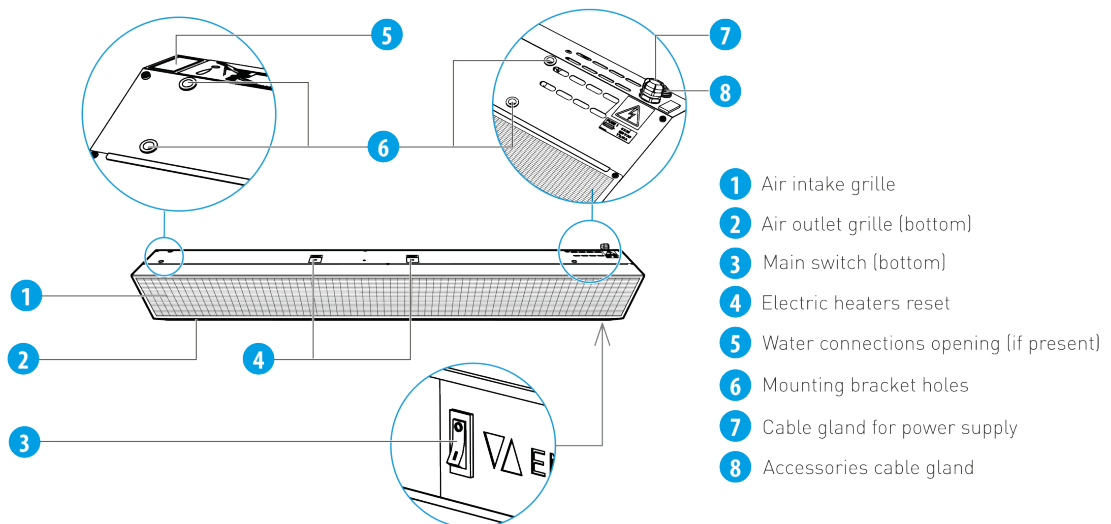


ELECTRIC HEATING



WITHOUT HEATING

MAIN PARTS



BLA



Diffusion

Components
for perfect air
distribution in HVAC
systems

PERFORMANCE DATA

Model	BLA 50 Hz					
	Air flow rate m ³ /h			Sound pressure at 3 m dB(A)		
	Speed 3	Speed 2	Speed 1	Speed 3	Speed 2	Speed 1
BLA-100-E	1330	1220	1050	49,3	47,9	44,5
BLA-100-S	1330	1220	1050	50,6	47,9	44
BLA-150-E	2100	1550	1150	54,1	49,1	39,4
BLA-150-S	2100	1550	1150	54,5	47,0	38,0
BLA-200-E	2420	1950	1450	54,1	49,0	40,4
BLA-200-S	2450	1850	1360	53,8	43,5	35,7

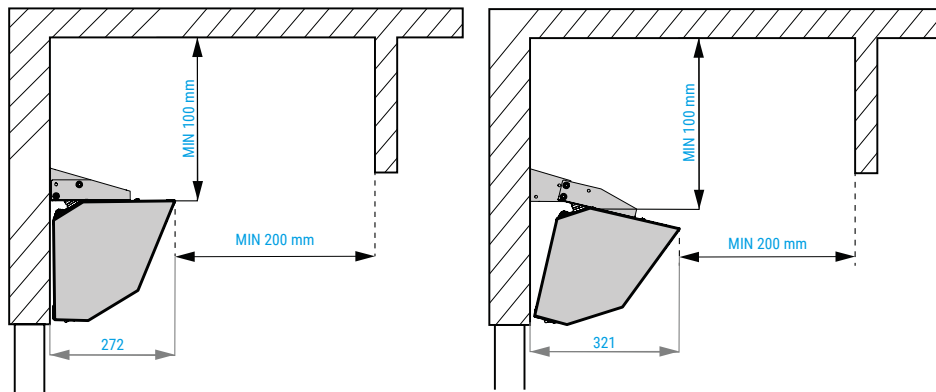
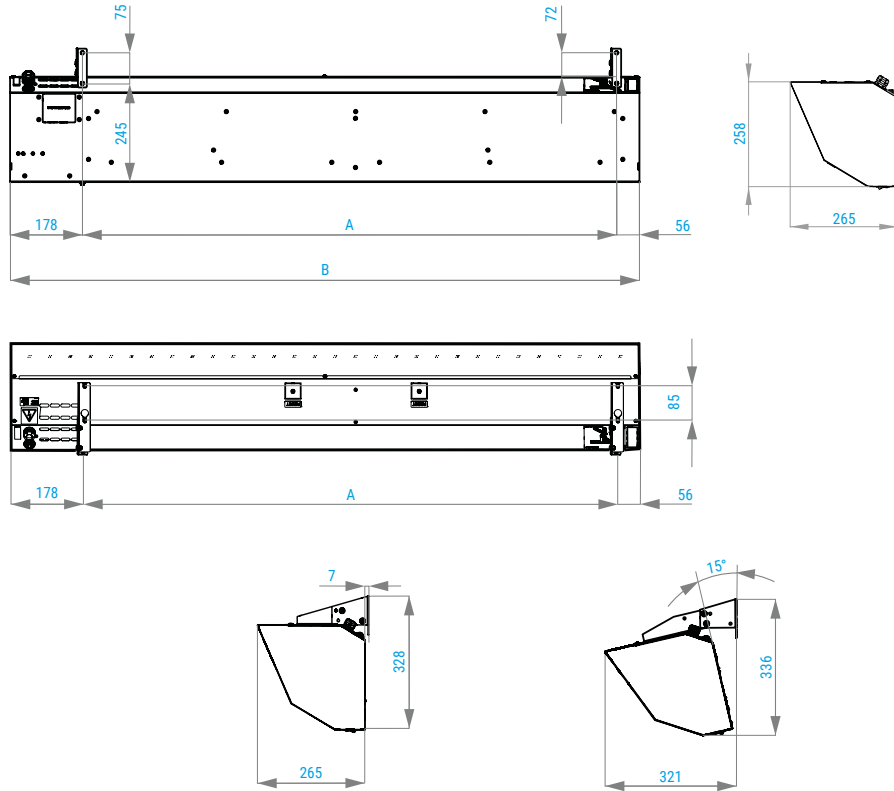
Model	Thermal output kW		Consumption total V/A	Motor consumption V/A	Increase temperature °C	Wt. Kg
	1 level	2 levels				
BLA-100-E	3,4	6,6	400 / 14,8	230 / 0,6	14,6	16
BLA-100-S	-	-	230 / 0,7	230 / 0,7	-	15
BLA-150-E	5,1	9,8	400 / 22,5	230 / 0,9	13,7	22
BLA-150-S	-	-	230 / 0,9	230 / 0,9	-	21
BLA-200-E	6,6	12,9	400 / 28,7	230 / 0,8	15,7	27
BLA-200-S	-	-	230 / 0,8	230 / 0,8	-	26

DIMENSIONS

Model	Dimensions (mm)	
	A	B
BLA-100...	809	1042
BLA-150...	1309	1542
BLA-200...	1809	2042

BLA

Air curtain for height up to 2.5 m



DISTANCES TO BE OBSERVED

ACCESSORIES



TER-P
ROOM THERMOSTAT



DK-B-3
DOOR SWITCH
OPENING CONTACT

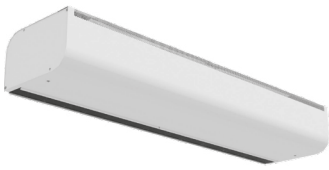
BLA1

Air curtain for installation up to 3.2 m



Diffusion

Components
for perfect air
distribution in HVAC
systems



Product	BLA1
Length	100, 150, 200 e 250 cm
Air flow rate	Up to 3500 m ³ /h

SPECIFICATION

Air curtain recommended for applications on industrial doors, entrances, loading warehouses, etc...

APPLICATION

Installation height up to 3.2 metres

CHARACTERISTICS

- V: Water heating.
- E0, E1: Electric heating.
- S: Without heating.
- Choice of multiple control module types:
 - BASIC with manual switches.
 - PRIME with touch screen, integrated thermostat, remote management via APP and ModBus control capability.
- Possibility to chain multiple air curtains under the same panel (with PRIME).
- Supply adjustable grille outward from 3° to 15°.
- Standard colour RAL 9016 (any RAL colour on request).
- EC version on request



WATER HEATING

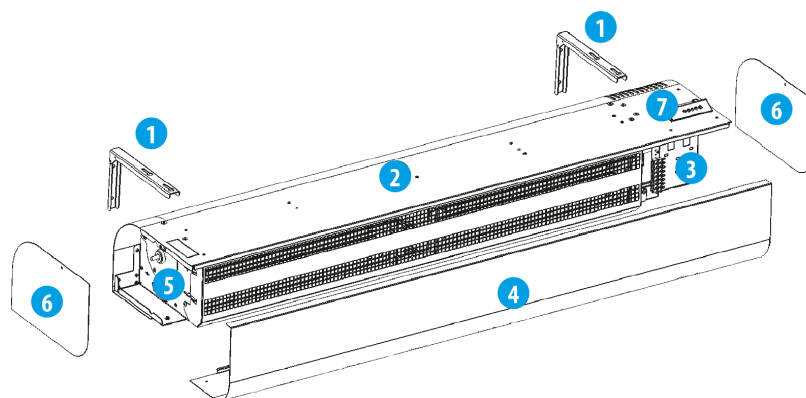


ELECTRIC HEATING



WITHOUT HEATING

MAIN PARTS



- | | |
|--------------------------|----------------------------------|
| 1 Mounting brackets | 5 Water connections (if present) |
| 2 Top closure. | 6 Side covers |
| 3 Control module housing | 7 Power supply inlet |
| 4 Air intake grille. | |

BLA1

BLA1

Air curtain for installation up to 3.2 m

PERFORMANCE DATA

OPERATING DATA AT 50 HZ

Model	BLA 50 Hz						Power sound dB(A)
	Air flow rate m ³ /h			Sound pressure at 3 m dB(A)			
	Speed 3	Speed 2	Speed 1	Speed 3	Speed 2	Speed 1	
BLA 1 100-E0	1350	900	700	48	38	29	69
BLA 1 150-E0	2200	1550	1150	50	54	35	71
BLA 1 200-E0	3000	2200	1450	51	45	34	72
BLA 1 250-E0	3500	3200	2350	52	52	45	74
BLA 1 100-E1	1350	900	700	48	38	29	69
BLA 1 150-E1	2200	1550	1150	50	54	35	71
BLA 1 200-E1	3000	2200	1450	51	45	34	72
BLA 1 250-E1	3500	3200	2350	52	52	45	74
BLA 1 100-V	1300	900	700	47	40	37	68
BLA 1 150-V	2000	1500	1150	49	44	37	71
BLA 1 200-V	2950	2300	1650	51	48	39	73
BLA 1 250-V	3700	3200	2350	52	52	44	74
BLA 1 100-S	1350	900	700	48	38	29	69
BLA 1 150-S	2200	1550	1150	50	54	35	71
BLA 1 200-S	3000	2200	1450	51	45	34	72
BLA 1 250-S	3500	3200	2350	52	52	45	74



Diffusion

Components
for perfect air
distribution in HVAC
systems

PERFORMANCE DATA

OPERATING DATA AT 50 HZ

Model	Thermal output kW		Consumption total V/A	Motor consumption V/A	Increase temperature °C	Wt. Kg
	1 level	2 levels				
BLA 1 100-E0	3,2	4,7	400 / 13,7	230 / 0,6	10,3	23,0
BLA 1 150-E0	3,8	7,5	400 / 11,9	230 / 0,9	10,1	29,0
BLA 1 200-E0	4,8	9,5	400 / 15,8	230 / 1,4	9,4	37,0
BLA 1 250-E0	6,9	12,2	400 / 19,4	230 / 1,4	10,4	44,0
BLA 1 100-E1	3,2	6,3	400 / 14,4	230 / 0,6	13,9	23,0
BLA 1 150-E1	5	10	400 / 21,3	230 / 0,9	13,5	29,0
BLA 1 200-E1	6,3	12,6	400 / 27,9	230 / 1,4	12,5	37,0
BLA 1 250-E1	8,2	16,3	400 / 26	230 / 1,4	13,8	44,0
BLA 1 100-V	16,00	16,00	230 / 0,6	230 / 0,6	36,4	25,0
BLA 1 150-V	23,6	23,6	230 / 0,9	230 / 0,9	35,0	31,0
BLA 1 200-V	34,00	34,00	230 / 1,4	230 / 1,4	34,1	41,0
BLA 1 250-V	42,9	42,9	230 / 1,4	230 / 1,4	34,3	48,0
BLA 1 100-S	-	-	230 / 0,6	230 / 0,6	-	22,0
BLA 1 150-S	-	-	230 / 0,9	230 / 0,9	-	28,0
BLA1 200-S	-	-	230 / 1,4	230 / 1,4	-	36,0
BLA 1 250-S	-	-	230/1,4	230/1,4	-	42,0

THERMAL OUTPUT WITH WATER 90/70°C

Model	Air flow rate m ³ /h	Thermal output kW	Outlet temperature °C	Pressure drop kPa	Water flow rate l/s
BLA 1 100-V	1300	16,0	54,4	14,8	0,20
BLA 1 150-V	2000	23,6	53,0	10,5	0,29
BLA 1 200-V	2950	34,0	52,1	14,6	0,42
BLA 1 250-V	3700	42,9	52,3	24,4	0,53

THERMAL OUTPUT WITH WATER 80/60°C

Model	Air flow rate m ³ /h	Thermal output kW	Outlet temperature °C	Pressure drop kPa	Water flow rate l/s
BLA 1 100-V	1300	13,2	48,0	10,5	0,16
BLA 1 150-V	2000	19,4	46,7	7,3	0,24
BLA 1 200-V	2950	27,9	46,0	10,2	0,34
BLA 1 250-V	3700	35,3	46,3	17,2	0,43

BLA1

Air curtain for installation up to 3.2 m

THERMAL OUTPUT WITH WATER 70/50°C

Model	Air flow rate m ³ /h	Thermal output kW	Outlet temperature °C	Pressure drop kPa	Water flow rate l/s
BLA 1 100-V	1300	10,3	41,5	6,9	0,12
BLA 1 150-V	2000	15,1	40,4	4,7	0,18
BLA 1 200-V	2950	21,8	39,9	6,5	0,27
BLA 1 250-V	3700	27,7	40,2	11,1	0,34

THERMAL OUTPUT WITH WATER 60/40°C

Model	Air flow rate m ³ /h	Thermal output kW	Outlet temperature °C	Pressure drop kPa	Water flow rate l/s
BLA 1 100-V	1300	8,27	34,5	4,12	0,1
BLA 1 150-V	2000	11,86	33,8	2,75	0,14
BLA 1 200-V	2950	17,26	33,7	4,02	0,2
BLA 1 250-V	3800	21,33	34,8	6,47	0,26

WATER COIL REGULATION

DEVIATION (WITH CAPILLARY)

The thermostatic valve V135-3/4B regulates the flow rate by diverting water to the coil or to the return circuit to the boiler, depending on the temperature detected by the capillary at the outlet of the

A valve must be installed for each air curtain.



DEVIATION (ON-OFF)

The three-way valve ZV3 with servo control receives the room thermostat signal TER-P; the valve channels water to the coil or to the return circuit to the boiler depending on room temperature.

A valve must be installed for each air curtain.





CONTROLS

There are two types of control panel: a manual switch or a touchscreen panel.

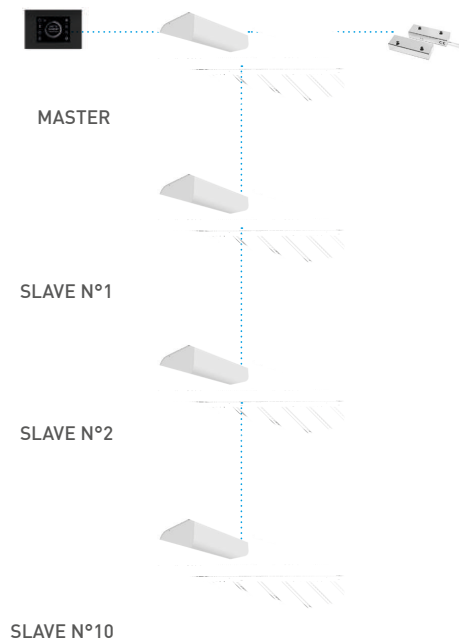
BASIC (BA) MANUAL SWITCHES use standard 230V cables (not supplied).

PRIME (PR) CONTROL PANELS use UTP communication cables (not supplied).

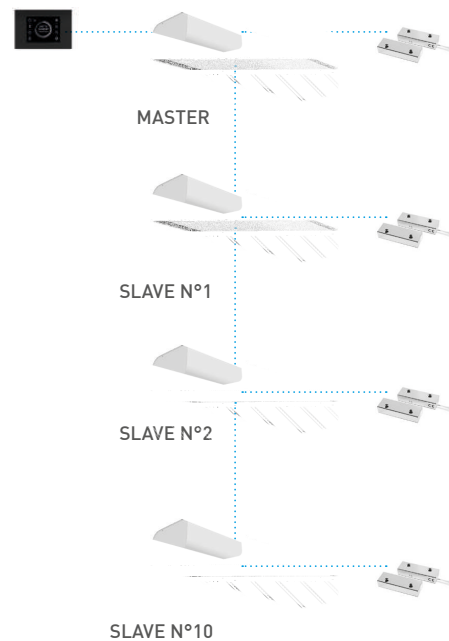
This control allows setting many control functions and air curtain settings via WIFI connection to the dedicated APP.

NOTE: with the PRIME panel it is possible to manage 2 or more concatenated air curtains, i.e. managed by the same control.

CHAINING MULTIPLE AIR CURTAINS PRIME CONTROL



EXAMPLE 1
Door switch mounted on one opening only



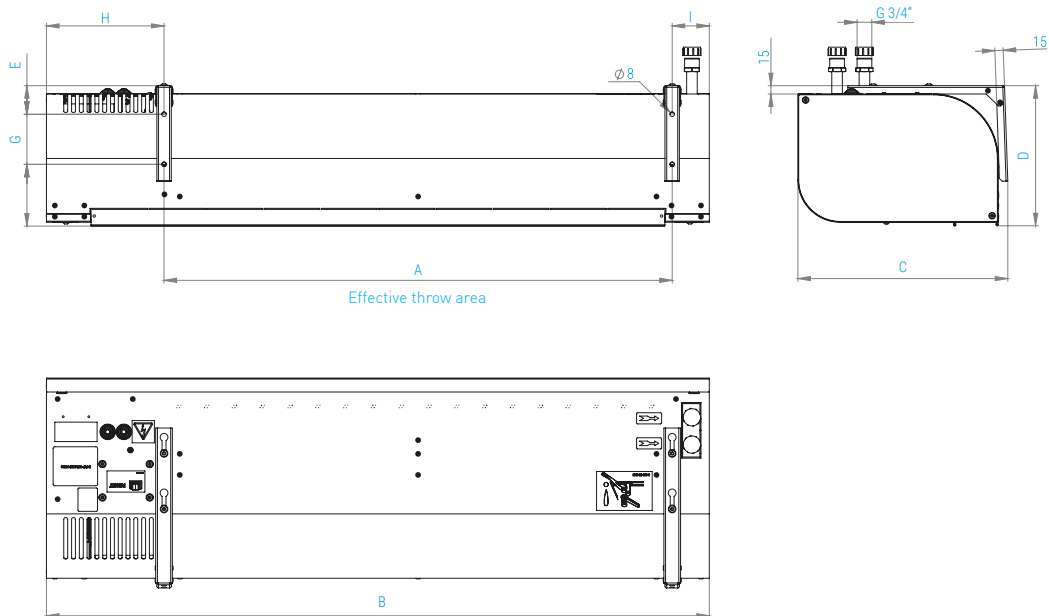
EXAMPLE 2
Door switch mounted on all openings

BLA1

Air curtain for installation up to 3.2 m

DIMENSIONS

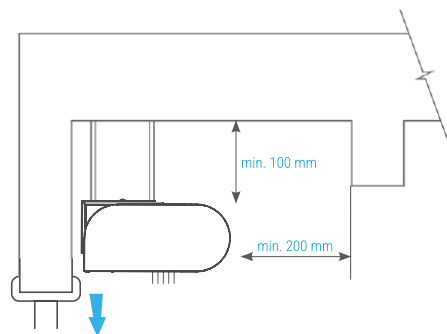
Model	A	B	C	D	E	F	G	H	I
BLA 1 100	916	1252	407	252	51	111	90	240	95
BLA 1 150	1325	1660	407	252	51	111	90	240	95
BLA 1 200	1825	2160	407	252	51	111	90	240	95
BLA 1 250	2235	2570	407	252	51	111	90	240	95



DISTANCES TO BE OBSERVED

The air curtain can only be installed in horizontal position and must be positioned as close as possible to the upper edge of the door.

For optimal operation, the air curtain width should exceed the door width by 100 mm on both sides. Observe the distances shown in the adjacent drawing. To hang the air curtain, use the brackets included in the supply.







Diffusion

Components
for perfect air
distribution in HVAC
systems

CONTROL TYPES

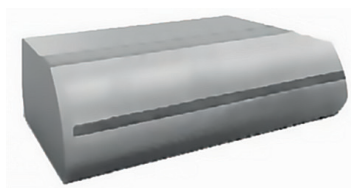
Model	BASIC	PRIME
		
Summary of available functions		
Control type	Switch	Touch-screen
Mode	Manual	Manual/automatic
Air flow regulation	3 speeds	3 speeds
Electric heater regulation	Off/level 1/ level	Temperature setting °C
Water heater regulation	On/off	On/off
Possibility to connect a door contact	•	•
Regulation possibility based on external signals	• n. 2	• more than 1
Room temperature measurement	-	•
Concatenation	-	• (maximum 10+1)
Selected function indication	•	• (display)
BMS connection	-	• (modbus RTU)
Error indication	-	•

* Room thermostat.

** Room thermostat - remote on/off.

BLA2

Air curtain for installation up to 4-5 m



Product	BLA2
Length	100 – 150 – 200 e 250 cm.
Air flow rate	Up to 6300 m ³ /h

SPECIFICATION

High performance air curtain, used in representative buildings such as airports, theatres, museums, administrative offices, hotels.

BLA 2 is available in two ranges, to be selected based on the opening height to be protected:

BLA 2 B for installation height up to 4.0 m

BLA 2 C for installation height up to 5.0 m



WATER HEATING



ELECTRIC HEATING



WITHOUT HEATING

APPLICATION

Installation height up to 4-5 m

CHARACTERISTICS

- FACE 2 in 1: the micro-perforated suction grille has a filter function.
- Adjustable supply grille.
- V: Water heating.
- E: Electric heating.
- S: Without heating.
- Electric heating elements with immediate heating, without inertia.
- Electric heating versions: power supply V400/3/50.
- Water or no heating versions: power supply V230/1/50.
- Choice of multiple control module types: manual switching. (BASIC) or touch-screen (COMFORT).
- Possibility to chain multiple air curtains under the same panel.
- Standard colour RAL 9016; any RAL colour on request



**PERFORMANCE UNDER STANDARD CONDITIONS****BLA2-B MAXIMUM INSTALLATION HEIGHT 4.0 METRES**

Model	Air flow rate m ³ /h			Sound pressure at 3 m dB(A)			Increase Temp. °C	Power [kW/A]	Wt. kg
	Speed 3	Speed 2	Speed 1	Speed 3	Speed 2	Speed 1			
BLA 2 B-10S	1626	1182	813	56,0	47,9	39,8	-	0,65 / 2,85	42
BLA 2 B-15S	2513	1774	1256	58,7	50,9	43,2	-	1 / 4,4	59
BLA 2 B-20S	3362	2328	1626	59,7	51,8	43,8	-	1,3 / 5,7	76
BLA 2 B-25S	4065	2956	2106	60,8	53,4	44,8	-	1,6 / 7,0	93
BLA 2 B-10E	1589	1145	813	56,0	47,9	39,8	17,8	10,3 / 16,6	46
BLA 2 B-15E	2476	1700	1219	58,7	50,9	43,2	18,05	10,3 / 16,6	63
BLA 2 B-20E	3362	2291	1589	59,7	51,8	43,8	16,84	20,3 / 33,2	81
BLA 2 B-25E	3991	2919	2069	60,8	53,4	44,8	18,3	26,1 / 42,0	99
BLA 2 B-10V	1552	1109	776	55,8	47,9	39,7	39,5	0,65 / 2,85	48
BLA 2 B-15V	2439	1663	1182	57,6	49,4	41,6	40,6	1,0 / 4,4	65
BLA 2 B-20V	3252	2180	1552	59,3	51,0	42,9	41,5	1,3 / 5,7	83
BLA 2 B-25V	3880	2734	1884	60,6	52,7	45,4	42	1,6 / 7,0	97

BLA2-C MAXIMUM INSTALLATION HEIGHT 5.0 METRES

Model	Air flow rate m ³ /h			Sound pressure at 3 m dB(A)			Increase Temp. °C	Power [kW/A]	Wt. kg
	Speed 3	Speed 2	Speed 1	Speed 3	Speed 2	Speed 1			
BLA 2 C-10S	2303	1656	1172	59,6	51,7	43,6	-	0,95 / 4,0	48
BLA 2 C-15S	3353	2424	1737	60,0	52,1	44,2	-	1,35 / 5,6	64
BLA 2 C-20S	4161	2990	2101	60,3	52,6	44,5	-	1,7 / 7,0	80
BLA 2 C-25S	5090	3636	2666	61,1	53,4	45,6	-	2,0 / 8,7	98
BLA 2 C-10E	2262	1616	1131	59,6	51,7	43,6	12,5	10,6 / 17,6	53
BLA 2 C-15E	3272	2384	1697	60,0	52,1	44,2	13,66	17,0 / 27,5	68
BLA 2 C-20E	4080	2949	2060	60,3	52,6	44,5	13,88	20,8 / 34,2	86
BLA 2 C-25E	4888	3555	2586	61,1	53,4	45,6	14,94	20,8 / 34,2	110
BLA 2 C-10V	2222	1576	1115	59,1	51,4	42,9	35,1	0,95 / 4,0	55
BLA 2 C-15V	3151	2182	1616	59,7	52,2	43,9	37,3	1,35 / 5,6	70
BLA 2 C-20V	3878	2788	1939	60,2	52,6	44,8	39,3	1,7 / 7,0	88
BLA 2 C-25V	4808	3434	2424	60,7	53,3	45,5	40,8	2,0 / 8,7	108

BLA2

Air curtain for installation up to 4-5 m

WATER COIL PARAMETERS FOR TEMPERATURE DIFFERENCE 90/70°C

Model	Air flow rate m ³ /h	Thermal output kW	Outlet temperature °C	Water flow rate l/s	Pressure drop kPa
BLA 2 B-10V	1552	20,5	57,5	0,25	6
BLA 2 B-15V	2439	33,2	58,6	0,40	17
BLA 2 B-20V	3252	45,2	59,5	0,55	39
BLA 2 B-25V	3880	54,6	60	0,67	56
BLA 2 C-10V	2222	26,1	53,1	0,32	10
BLA 2 C-15V	3151	39,5	55,4	0,48	21
BLA 2 C-20V	3878	51	57,3	0,63	49
BLA 2 C-25V	4808	63,4	57,3	0,77	72

WATER COIL PARAMETERS FOR TEMPERATURE DIFFERENCE 80/60°C

Model	Air flow rate m ³ /h	Thermal output kW	Outlet temperature °C	Water flow rate l/s	Pressure drop kPa
BLA 2 B-10V	1552	16,9	50,4	0,2	5
BLA 2 B-15V	2439	27,5	51,6	0,27	12
BLA 2 B-20V	3252	37,6	52,5	0,46	28
BLA 2 B-25V	3880	45,5	53	0,55	42
BLA 2 C-10V	2222	21,4	46,7	0,26	7
BLA 2 C-15V	3151	32,6	48,9	0,4	17
BLA 2 C-20V	3878	42,4	50,6	0,51	36
BLA 2 C-25V	4808	52,8	50,8	0,64	54

WATER COIL PARAMETERS FOR TEMPERATURE DIFFERENCE 70/50°C

Model	Air flow rate m ³ /h	Thermal output kW	Outlet temperature °C	Water flow rate l/s	Pressure drop kPa
BLA 2 B-10V	1552	13,1	43,3	0,16	3
BLA 2 B-15V	2439	21,7	44,6	0,26	9
BLA 2 B-20V	3252	29,9	45,4	0,36	19
BLA 2 B-25V	3880	36,3	46	0,44	28
BLA 2 C-10V	2222	16,6	40,3	0,2	4
BLA 2 C-15V	3151	25,7	42,4	0,31	11
BLA 2 C-20V	3878	33,7	43,9	0,41	24
BLA 2 C-25V	4808	42	44,1	0,51	37



WATER COIL PARAMETERS FOR TEMPERATURE DIFFERENCE 60/40°C

Model	Air flow rate m ³ /h	Thermal output kW	Outlet temperature °C	Water flow rate l/s	Pressure drop kPa
BLA 2 B-10V	1552	9,37	36	0,11	2
BLA 2 B-15V	2439	15,9	37,4	0,19	7
BLA 2 B-20V	3252	22,1	38,3	0,26	11
BLA 2 B-25V	3880	27	38,8	0,33	18
BLA 2 C-10V	2222	11,8	33,8	0,14	2
BLA 2 C-15V	3151	18,7	35,7	0,23	7
BLA 2 C-20V	3878	24,8	37,1	0,3	14
BLA 2 C-25V	4808	31,2	37,4	0,37	23

WATER COIL REGULATION

We recommend one of these methods: DIVERSION (WITH CAPILLARY) The thermostatic valve V135-3/4B regulates the flow rate by diverting water to the coil or to the return circuit to the boiler, depending on



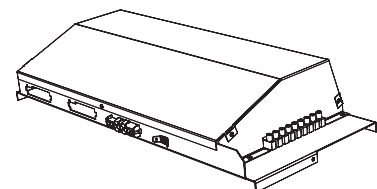
DEVIATION (ON-OFF)

The three-way valve ZV3 with actuator receives the signal from the room thermostat TER-P; the valve channels water to the coil or to the return circuit to the boiler depending on the



CONTROLS

BLA2 air curtains require a control module, to be inserted in the curtain body but supplied separately. The supply will therefore include the curtain and the control module, complete with r



CONTROL MODULE

BASIC (BA) MANUAL SWITCHES use standard 230V cables (not supplied).
COMFORT TOUCH SCREEN (CO) CONTROL PANELS use UTP communication cables (not supplied).

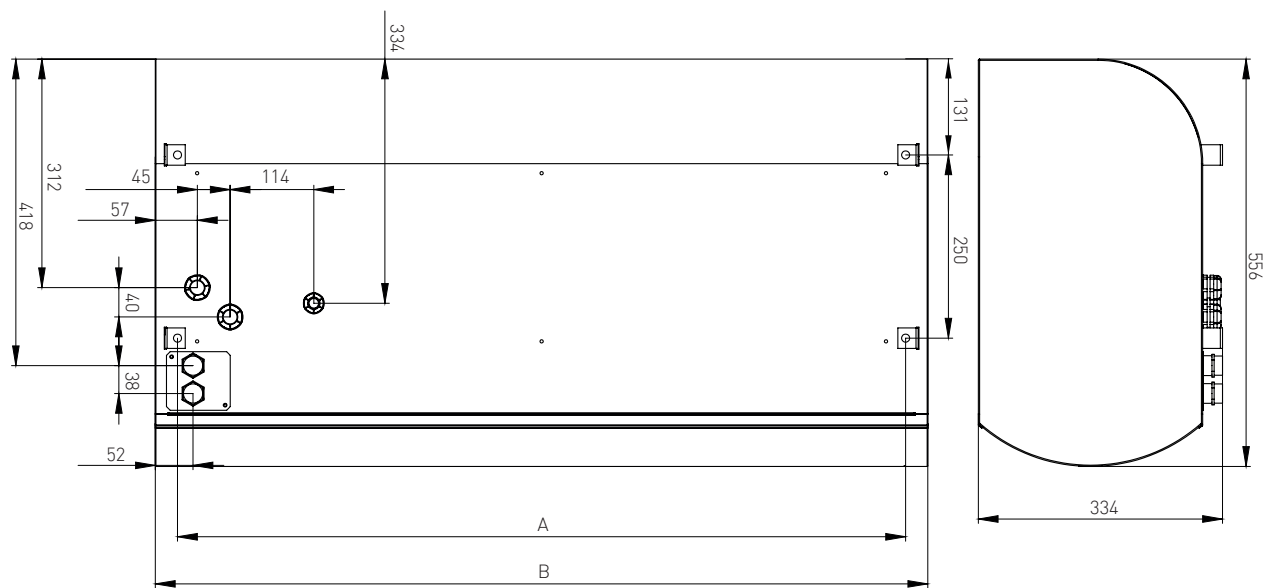
BLA2

Air curtain for installation up to 4-5 m

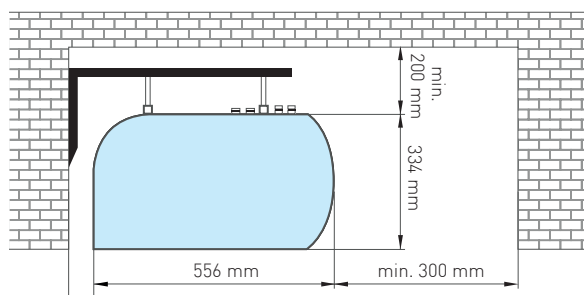
NOTE: with the COMFORT panel it is possible to control 2 or more linked air curtains, i.e. controlled by the same command. In this case, a MASTER control module (...MA) must be ordered, to be installed in the first air curtain, and as many SLAVE modules (...SL) as there are linked air curtains beyond the first one. The MASTER supply includes the control module and the command panel.

DIMENSIONAL

Model	Mounting hole distance A mm	Width B mm
BLA2x-10x-x..	994	1054
BLA2x-15x-x..	1494	1554
BLA2x-20x-x..	1994	2054
BLA2x-25x-x..	2394	2454



BLA2



DISTANCES TO BE OBSERVED



The air curtain can only be installed in horizontal position, and must be positioned as close as possible to the upper edge of the door.

For optimal operation, the air curtain width should exceed the door width by 100 mm on both sides.

Observe the distances indicated in the adjacent drawing. To hang the air curtain, use the appropriate brackets.



CONTROL TYPES

Model	BASIC	COMFORT
		
Without heating: CODE →	RGJ-BLA-BA-S	RGJ-BLA-CO-S
Water heating: CODE →	RGJ-BLA-BA-V	RGJ-BLA-CO-V
Electric heating: CODE →	RGJ-BLA-BA-E	RGJ-BLA-CO-E

Summary of available functions

Control type	Switch	Touch-screen
Mode	Manual	Manual/automatic
Air flow regulation	3 speeds	3 speeds
Electric heater regulation	Off/level 1/ level 2	Off/level 1/ level 2
Water heater regulation	On/off	On/off
Possibility to connect a door contact	• (230V)	• (12V)
Regulation possibility based on external signals	•*	•**
Room temperature measurement	-	•
Concatenation	-	• (maximum 10+1)
Selected function indication	•	• (display)
BMS connection	-	• (modbus RTU)
Error indication	-	•

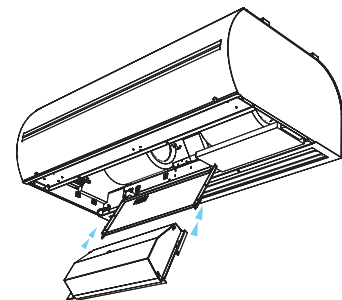
* Room thermostat.

** Room thermostat - remote on/off.

PARTS NOMENCLATURE AND CODING

A BLA2 air curtain is supplied in three parts:

- The AIR CURTAIN BODY, whose dimensional and operating characteristics are described in the previous pages.
- CONTROL MODULE, to be selected from the models shown on this page. The control module must be fixed to the air curtain at the time of installation as per the drawing.
- CONTROL PANEL (supplied with the control module), whose functions are described in the previous page.



BLA3

Air curtain for suspended ceiling installation up to 4-5 m



Product	BLA3
Length	100, 150, 200 e 250 cm.
Air flow rate	Up to 6600 m ³ /h

SPECIFICATION

High performance air curtains used in buildings such as airports, theatres, museums, administrative buildings, hotels, as well as commercial and industrial buildings.

BLA 3 is available in two ranges, to be selected based on the height of the opening to be protected:

- **BLA3 B** for installation height up to 4.0 m.
- **BLA3 C** for installation height up to 5.0 m.



WATER HEATING



ELECTRIC HEATING



WITHOUT HEATING

APPLICATION

Installation height up to 4-5 m

CHARACTERISTICS

- Suspended ceiling installation.
- V: Water heating.
- E: Electric heating.
- S: Without heating.
- FACE 2 in 1: the micro-perforated suction grille has a filter function.
- Adjustable supply grille
- Electric heating elements with immediate heating, without inertia.
- Choice between multiple control module types: manual switching (BASIC) or with touchscreen, integrated thermostat, remote management via APP and ModBus control capability (PRIME).
- Possibility to concatenate multiple air curtains under the same control unit (PRIME version controls).
- Standard colour RAL 9016; any RAL colour on request.
- Electric heating versions: power supply V400/3/50.
- Water or no heating versions: power supply V230/1/50.
- EC version on request



Diffusion

Components
for perfect air
distribution in HVAC
systems

PERFORMANCE UNDER STANDARD CONDITIONS

BLA3-B MAXIMUM INSTALLATION HEIGHT 4.0 METRES

Model	Air flow rate m ³ /h			Sound pressure at 3 m dB(A)			Increase Temp. °C	Power [kW/A]	Wt. kg
	Speed 3	Speed 2	Speed 1	Speed 3	Speed 2	Speed 1			
BLA 3-B-100-E	1778	1217	814	57,9	49,6	41,5	15,7	10,1 / 16,3	39,5
BLA 3-B-150-E	2552	1738	1130	60,2	52,1	42,6	17,5	16,0 / 26,1	54,5
BLA 3-B-200-E	3444	2307	1485	61,2	53,3	44,3	16,4	20,5 / 32,4	71,0
BLA 3 B-250-E	4187	2844	1880	62,8	54,5	45,3	17,4	26,1 / 42,2	85,0
BLA 3 B-100-V	1691	1146	758	57,5	49,6	41,2	36,2	0,63 / 2,75	41,0
BLA 3 B-150-V	2449	1643	1082	59,6	51,6	42,3	38,1	0,9 / 4,0	56,0
BLA 3 B-200-V	3381	2267	1422	61,0	53,3	44,1	37,6	1,2 / 5,3	73,0
BLA 3 B-250-V	4061	2765	1825	62,5	54,4	45,3	37,3	1,5 / 6,5	87,0
BLA 3 B-100-S	1793	1225	822	58,3	50,3	42,3	-	0,63 / 2,75	37,5
BLA 3 B-150-S	2591	1770	1193	60,2	52,1	42,8	-	0,9 / 4,0	51,0
BLA 3 B-200-S	3476	2402	1659	61,5	53,7	44,6	-	1,2 / 5,3	66,0
BLA 3 B-250-S	4313	2899	1959	62,7	54,4	45,3	-	1,5 / 6,5	80,0

BLA3-C MAXIMUM INSTALLATION HEIGHT 5.0 METRES

Model	Air flow rate m ³ /h					Sound pressure at 3 m dB(A)					Increase Temp. °C	Power [kW/A]	Wt. kg
	Speed 5	Speed 4	Speed 3	Speed 2	Speed 1	Speed 5	Speed 4	Speed 3	Speed 2	Speed 1			
	BLA 3 -C-100-E...EC	2800	2600	2400	2150	1750	58	56	54	51			
BLA 3 -C-150-E...EC	3850	3550	3200	2700	1950	58	57	54	49	42	12,3	15,72/26	48
BLA 3 -C-200-E...EC	4900	4600	4050	3450	2500	59	57	55	51	43	10	19,9/32	65
BLA 3 -C-250-E...EC	6600	6300	5200	4400	3250	61	59	56	52	43	11,4	25,7/42	77
BLA 3 -C-100-V...EC	2650	2500	2300	2050	1650	58	56	54	51	45	34,5	0,53/3,5	36
BLA 3 -C-150-V...EC	3750	3500	3100	2600	1900	58	57	54	49	42	34,7	0,71/4,2	48
BLA 3 -C-200-V...EC	4650	4400	3800	3250	2300	59B	57	55	51	43	36,7	0,9/5,4	65
BLA 3 -C-250-V...EC	6400	6100	5150	4300	3050	61	59	56	52	43	36,1	1,2/7,3	78
BLA 3 -C-100-W...EC	2450	2300	2100	1900	1500	57	55	53	50	45	16	0,53/3,4	41
BLA 3 -C-150-W...EC	3300	3200	2850	2400	1650	58	58	55	49	42	17	0,71/4,4	58
BLA 3 -C-200-W...EC	4450	4150	3600	3050	2200	58	56	54	50	42	17	0,85/5,3	77
BLA 3 -C-250-W...EC	5900	5600	4750	4000	2800	60	59	56	52	43	17	1,18/7,3	95
BLA 3 -C-100-S...EC	2800	2600	2400	2150	1750	56	56	53	50	47	-	0,55/3,5	33

BLA3

Air curtain for suspended ceiling installation up to 4-5 m

Model	Air flow rate m ³ /h					Sound pressure at 3 m dB(A)					Increase Temp. °C	Power [kW/A]	Wt. kg
	Speed 5	Speed 4	Speed 3	Speed 2	Speed 1	Speed 5	Speed 4	Speed 3	Speed 2	Speed 1			
	BLA 3 -C-150-S...EC	3850	3550	3200	2700	1950	58	56	53	52			
BLA 3 -C-200-S...EC	4900	4600	4050	3450	2500	58	57	54	51	42	-	0,9/5,3	58
BLA 3 -C-250-S...EC	6600	6300	5200	4400	3250	59	59	56	50	43	-	1,2/7,3	67

WATER COIL PARAMETERS FOR TEMPERATURE DIFFERENCE 80/60°C

Model	Air flow rate m ³ /h	Thermal output kW	Outlet temperature °C	Water flow rate l/s	Pressure drop kPa
BLA 3 -B-100-V	1691	16,8	47,7	0,2	8
BLA 3 -B-150-V	2449	25,9	49,5	0,32	16
BLA 3 -B-200-V	3381	35,1	49	0,43	13
BLA 3 -B-250-V	4061	41,8	48,7	0,51	10
BLA 3 -C-100-V...EC	2650	22,4	43,1	0,99	11,4
BLA 3 -C-150-V...EC	3750	33,1	44,1	1,46	11,1
BLA 3 -C-200-V...EC	4650	42,7	45,2	1,89	11,7
BLA 3 -C-250-V...EC	6400	56,3	44,1	2,49	21,1

WATER COIL PARAMETERS FOR TEMPERATURE DIFFERENCE 70/50°C

Model	Air flow rate m ³ /h	Thermal output kW	Outlet temperature °C	Water flow rate l/s	Pressure drop kPa
BLA 3 -B-100-V	1691	13,1	41,1	0,16	5
BLA 3 -B-150-V	2449	20,4	42,9	0,25	11
BLA 3 -B-200-V	3381	27,6	42,4	0,33	9
BLA 3 -B-250-V	4061	32,8	42,1	0,4	8
BLA 3 -C-100-V...EC	2650	17,3	37,3	0,76	7,1
BLA 3 -C-150-V...EC	3750	25,5	38,2	1,12	6,9
BLA 3 -C-200-V...EC	4650	33	39	1,45	7,3
BLA 3 -C-250-V...EC	6400	43,8	38,3	1,93	13,4



WATER COIL PARAMETERS FOR TEMPERATURE DIFFERENCE 60/40°C

Model	Air flow rate m ³ /h	Thermal output kW	Outlet temperature °C	Water flow rate l/s	Pressure drop kPa
BLA 3 -B-100-V	1691	9,3	34,4	0,11	4
BLA 3 -B-150-V	2449	14,9	36,1	0,66	8
BLA 3 -B-200-V	3381	20	35,7	0,24	6
BLA 3 -B-250-V	4061	23,7	35,4	0,28	5
BLA 3 -C-100-V...EC	2650	12,1	31,5	0,53	3,7
BLA 3 -C-150-V...EC	3750	17,9	32,1	0,78	3,6
BLA 3 -C-200-V...EC	4650	23,2	32,8	1,02	3,8
BLA 3 -C-250-V...EC	6400	31,1	32,4	1,36	7,2

To allow optimal use of low temperature water, only for BLA3 - C models, the W version is available which features 3-row coils instead of 2-row coils. Below we indicate

WATER COIL PARAMETERS FOR TEMPERATURE DIFFERENCE 40/30°C

Model	Air flow rate m ³ /h	Thermal output kW	Outlet temperature °C	Water flow rate l/s	Pressure drop kPa
BLA 3 -C-100-V...EC	2450	13,2	34	1,15	13,9
BLA 3 -C-150-V...EC	3300	18,7	34,8	1,62	15,9
BLA 3 -C-200-V...EC	4450	24,9	34,6	2,16	14,1
BLA 3 -C-250-V...EC	5900	32,9	34,5	2,85	25,7

WATER COIL PARAMETERS FOR TEMPERATURE DIFFERENCE 35/25°C

Model	Air flow rate m ³ /h	Thermal output kW	Outlet temperature °C	Water flow rate l/s	Pressure drop kPa
BLA 3 -C-100-V...EC	2450	8,9	28,8	0,77	6,9
BLA 3 -C-150-V...EC	3300	12,8	29,5	1,11	8,1
BLA 3 -C-200-V...EC	4450	16,9	29,3	1,47	7
BLA 3 -C-250-V...EC	5900	22,5	29,3	1,95	12,9

BLA3

Air curtain for suspended ceiling installation up to 4-5 m

WATER COIL REGULATION

We recommend one of these methods:

DEVIATION (WITH CAPILLARY)

The thermostatic valve V135-3/4B regulates the flow rate by diverting water to the coil or to the return circuit to the boiler, depending on the temperature detected by the capillary at the outlet of the



DEVIATION (ON-OFF)

The three-way valve ZV3 with actuator receives the signal from the room thermostat TER-P; the valve channels water to the coil or to the return circuit to the boiler depending on the

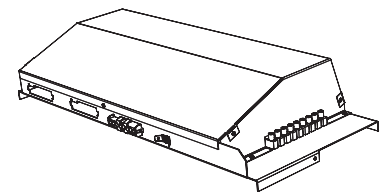


CONTROLS

BLA 3 air curtains require a control module, to be inserted in the curtain body but supplied separately. The supply will therefore include the curtain and the control module, complete with relati

There are two types of control panel: a manual switch or a touch screen panel.

BASIC (BA) MANUAL SWITCHES use standard 230V cables (not supplied).
PRIME TOUCH SCREEN (PR) CONTROL PANELS use UTP communication cables (not supplied).

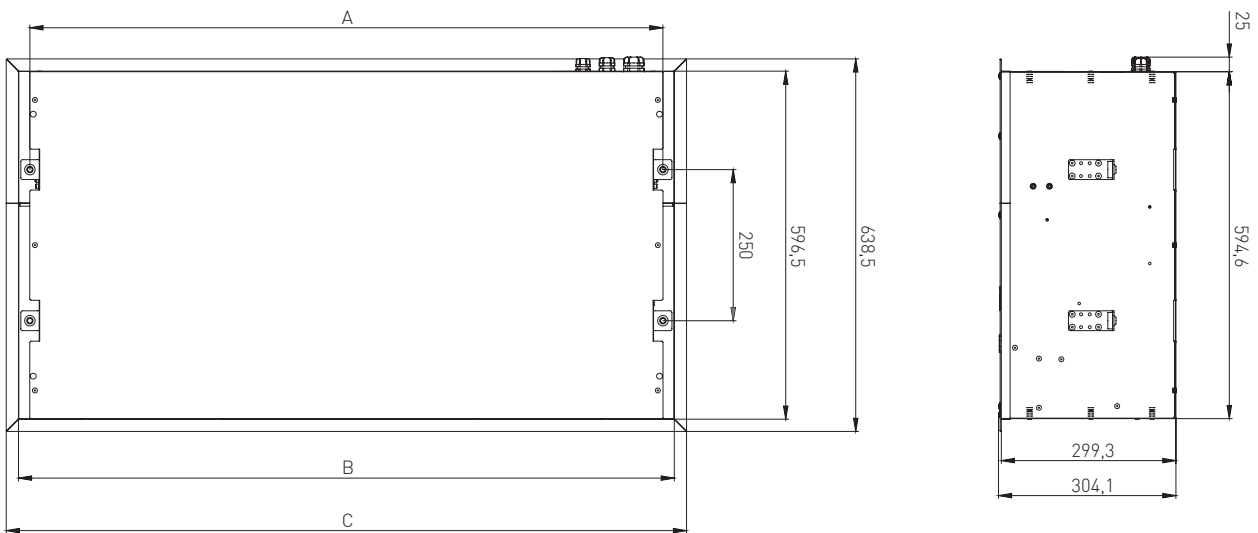


CONTROL MODULE

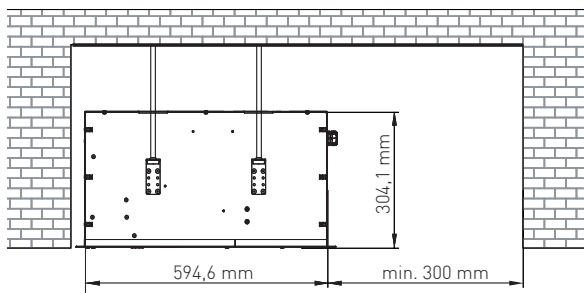


DIMENSIONAL

Model	Mounting hole distance A mm	Inner frame B mm	Width C mm
BLA 3-x-100-x-...	1085	1124	1166
BLA 3 -x-150-x-...	1585	1624	1666
BLA 3 -x-200-x-...	2085	2124	2166
BLA 3 -x-250-x-...	2465	2504	2546



BLA3



DISTANCES TO BE OBSERVED

The air curtain can only be installed in horizontal position, and must be positioned as close as possible to the upper edge of the door.

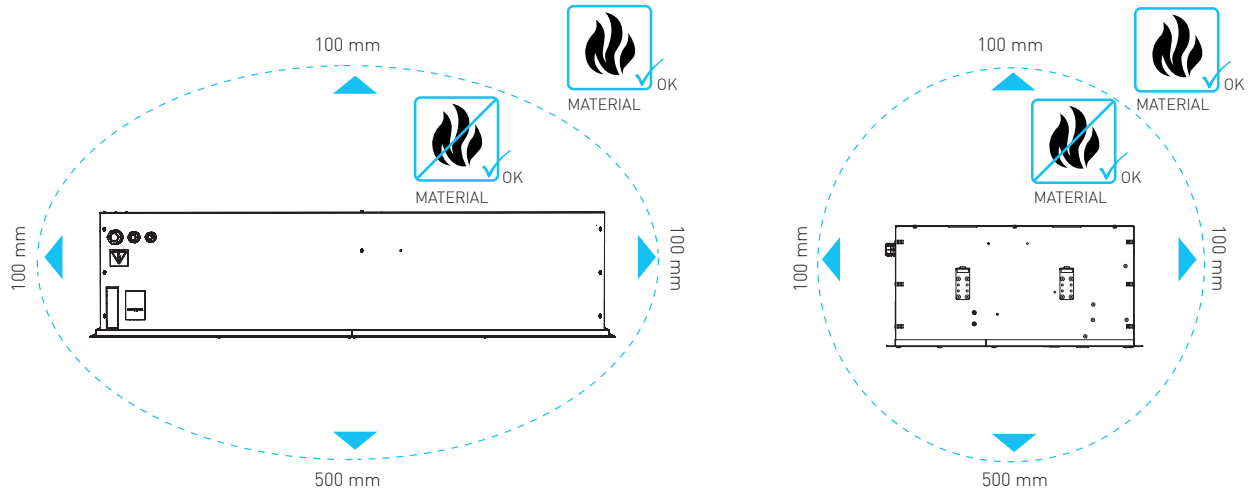
For optimal operation, the air curtain width should exceed the door width by 100 mm on both sides.

Observe the distances shown in the adjacent drawing.

Use threaded rods to hang the air curtain.

BLA3

Air curtain for suspended ceiling installation up to 4-5 m



Model	BASIC	PRIME

Summary of available functions

Control type	Switch	Touch-screen
Mode	Manual	Manual/automatic
Air flow regulation	3 speeds	3 speeds
Electric heater regulation	Off/level 1/ level 2	Temperature setting °C
Water heater regulation	On/off	On/off
Possibility to connect a door contact	•	•
Regulation possibility based on external signals	• n.2	• more than 1
Room temperature measurement	-	•
Chaining (with PR controls + PS boards)	-	• (maximum 10+1)
Selected function indication	•	• (display)
BMS connection	-	• (modbus RTU)
Error indication	-	•



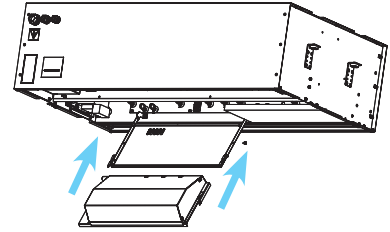
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PARTS NOMENCLATURE AND CODING

A BLA3 air curtain is supplied in three parts:

- Body AIR CURTAIN whose dimensional and operating characteristics are described in the previous pages
- CONTROL MODULE, to be selected from the models shown on this page. The control module must be fixed to the air curtain at the time of installation as per the drawing
- CONTROL PANEL (supplied with the control module), whose functions are described in the previous page.



BLAV

Vertical air curtain



Product	BLAV
Height	250 cm
Air flow rate	Up to 4700 m ³ /h

SPECIFICATION

High performance, quiet and elegant air curtains used in buildings such as banks, museums, luxury shops, libraries, airports, theatres, administrative buildings

APPLICATION

The air throw effectively protects openings up to 4 metres wide. Therefore, installing two air curtains on both sides of the door, openings up to 8 metres wide are protected

CHARACTERISTICS

Standard colour RAL 9010 (any RAL colour on request).
Left or right installation possible.

W: Water heating
E: Electric heating
S: Without heating



WATER HEATING



ELECTRIC HEATING



WITHOUT HEATING

PERFORMANCE UNDER STANDARD CONDITIONS

BLAV FOR DOORS UP TO 4 M WIDE

Model	Air flow rate m ³ /h			Sound pressure at 3 m dB(A)			Increase Temp. °C	Power [kW/A]	Wt. kg
	Speed 3	Speed 2	Speed 1	Speed 3	Speed 2	Speed 1			
BLAV 25S	4700	3400	2450	54,9	48,8	41,0	-	1,65 / 7,0	95,0
BLAV 25E	4600	3300	2400	54,5	48,3	40,4	15,5	25,65 / 42,0	103
BLAV 25W	4350	3100	2200	54,0	47,7	39,6	34,4	1,65 / 7,0	104

WATER COIL PARAMETERS FOR TEMPERATURE DIFFERENCE 90/70°C

Model	Air flow rate m ³ /h	Thermal output kW	Outlet temperature °C	Water flow rate l/s	Pressure drop kPa
BLAV 25W	4350	50,1	52,0	0,6	73,0

WATER COIL PARAMETERS FOR TEMPERATURE DIFFERENCE 80/60°C

Model	Air flow rate m ³ /h	Thermal output kW	Outlet temperature °C	Water flow rate l/s	Pressure drop kPa
BLAV 25W	4350	41,5	46,5	0,5	52,0

WATER COIL PARAMETERS FOR TEMPERATURE DIFFERENCE 70/50°C

Model	Air flow rate m ³ /h	Thermal output kW	Outlet temperature °C	Water flow rate l/s	Pressure drop kPa
BLAV 25W	4350	33,9	40,6	0,4	34,0

WATER COIL PARAMETERS FOR TEMPERATURE DIFFERENCE 60/40°C

Model	Air flow rate m ³ /h	Thermal output kW	Outlet temperature °C	Water flow rate l/s	Pressure drop kPa
BLAV 25W	4350	24,2	34,6	0,3	19,0

WATER COIL REGULATION

DEVIATION (WITH CAPILLARY)

The thermostatic valve V135-3/4B regulates the flow rate by diverting water to the coil or to the return circuit to the boiler, depending on the temperature detected by the capillary at the outlet of the

A valve must be installed for each air curtain.



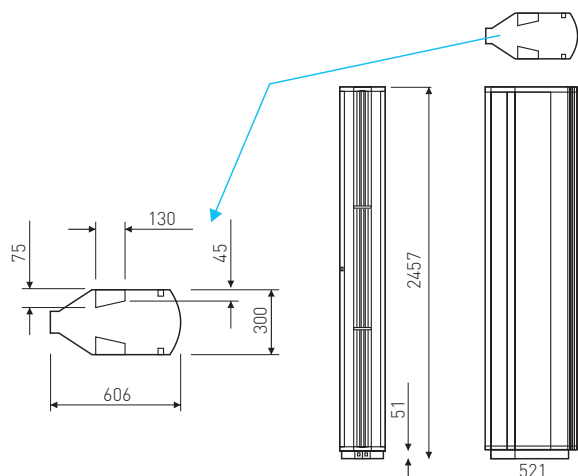
DEVIATION (ON-OFF)

The three-way valve ZV3 with servo control receives the room thermostat signal TER-P; the valve channels water to the coil or to the return circuit to the boiler depending on room temperature.

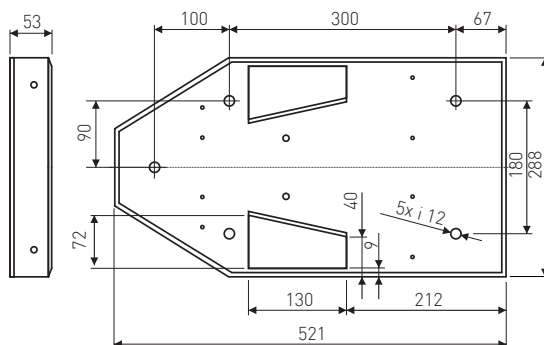
A valve must be installed for each air curtain.





DIMENSIONS (mm)



AIR CURTAIN DIMENSIONS



FIXING PLATE DIMENSIONS

Model	COMFORT	SUPERIOR
		
CODE →	VCS-R3-C0	VCS-R3-SU
Summary of available functions		
Control type	Touch screen	Touch screen
Mode	Manual/automatic	Manual/automatic
Air flow regulation	3 speeds	3 speeds (AC)
Electric heater regulation	Off/level 1/ level	• (PWM)
Water heater regulation	ON/OFF	0-10V
Frost protection	•	•
Possibility to connect a door contact	• (12V)	• (12V)
External control	•	•
Room temperature measurement	• (NTC)*	• (NTC)*
Concatenation	• (max 10+1)	• (max 10+1)
Selected function indication	• (display)	• (display)
Self learning mode	-	•
BMS connection	Modbus RTU	Modbus RTU, Modbus TCP, BACnet
Error indication	•	•
2nd control panel ready	•	•

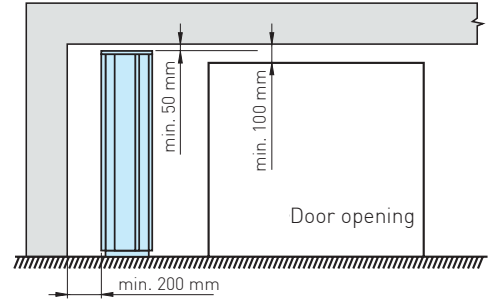
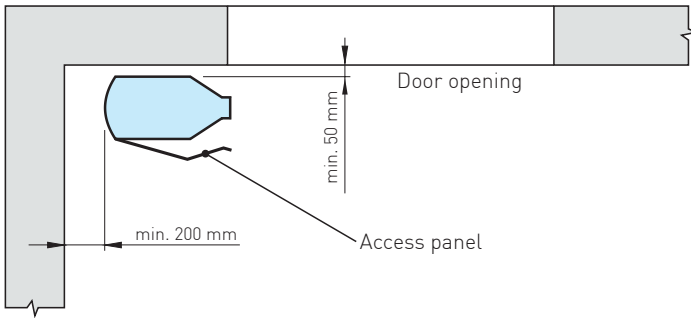
* Temperature sensor included in supply



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DISTANCES TO BE OBSERVED



BLAI

Industrial air curtain



Product	BLAI
Lengths	165, 220 e 275 cm
Air flow rate	Up to 18,500 m ³ /h

SPECIFICATION

High performance air curtains, for use in industrial buildings, storage areas, hangars, garages, warehouses refrigerated.

The curtain effect is maximized thanks to the exclusive "straw system" which gives the air a linear, straight motion, with modest lateral deviations.

APPLICATION

Modular structure designed for installation in industrial environments with dedicated assembly and support.

In the electric heating version, wire electric heating elements are used, without inertia, with virtually immediate heating.

Various types of air velocity and heating system control are available.

CHARACTERISTICS

- Galvanised steel structure painted RAL 9010 (any RAL colour on request).
 - Horizontal and vertical installation.
- In the case of vertical installation beside the door, installing two opposed air curtains protects openings up to 12 m wide.
- The supply can be completed with wall or ceiling mounting brackets that also allow the airflow direction of the air curtain to be adjusted to better counteract the incoming air force
 - W: Water heating.
 - E: Electric heating.
 - S: without heating.
- The air throw effectively protects openings up to 6 m wide.



WATER HEATING



ELECTRIC HEATING



WITHOUT HEATING

**PERFORMANCE UNDER STANDARD CONDITIONS****MAXIMUM INSTALLATION HEIGHT/WIDTH 6M**

Model	Air flow rate m ³ /h	Sound pressure* dB(A)		Heating power kW	Heater electric V/A	Motors V/A	Wt. kg
		3 m	4m				
BLAI-150-S	11550	67,5	63,0	-	-	230/3,6	51
BLAI-150-V	10300	67,5	63,1	75,2**	-	230/3,7	60
BLAI-150-E	11550	67,5	63,0	24,3	400/35,2	230/3,6	55
BLAI-200-S	15100	69,3	64,9	-	-	230/4,8	69
BLAI-200-V	13700	68,4	64,0	101,0**	-	230/5,0	78
BLAI-200-E	15100	69,3	64,9	32,4	400/47,0	230/4,8	74
BLAI-250-S	18500	71,1	66,7	-	-	230/6,0	83
BLAI-250-V	17000	70,0	65,5	127,0**	-	230/6,3	98
BLAI-250-E	18500	71,1	66,7	40,5	400/58,6	230/6,0	89

* Sound pressure according to EN ISO 11203. Values measured at 3 or 5 m distance from the unit with directional coefficient Q = 2

** With water temperature 90-70 °C and inlet air temperature = 15 °C

ELECTRIC COIL PARAMETERS

Model	Air flow rate m ³ /h	Heating power kW	Air temperature increase* °C
BLAI-150-S	11550	24,3	6,3
BLAI-200-V	15100	32,4	6,4
BLAI-250-E	18500	40,5	6,5

* At maximum air flow rate, and with maximum electrical power

WATER COIL PARAMETERS FOR TEMPERATURE DIFFERENCE 90/70°C

Model	Air flow rate m ³ /h	Thermal output kW	Outlet temperature °C	Pressure drop kPa	Water flow rate l/s
BLAI-150-V	10300	75,2	38,1	24	0,92
BLAI-200-V	13700	101	38,4	17	1,24
BLAI-250-V	17000	127	38,7	15	1,55

Note: with inlet air temperature +15°C

WATER COIL PARAMETERS FOR TEMPERATURE DIFFERENCE 80/60°C

Model	Air flow rate m ³ /h	Thermal output kW	Outlet temperature °C	Pressure drop kPa	Water flow rate l/s
BLAI-150-V	10300	62,9	34,1	18	0,76
BLAI-200-V	13700	84,6	34,3	14	1,03
BLAI-250-V	17000	106	34,5	11	1,29

* With air inlet temperature +15°C.

WATER COIL PARAMETERS FOR TEMPERATURE DIFFERENCE 70/50°C

Model	Air flow rate m ³ /h	Thermal output kW	Outlet temperature °C	Pressure drop kPa	Water flow rate l/s
BLAI-150-V	10300	50,4	30,1	13	0,61
BLAI-200-V	13700	67,6	30,2	9	0,82
BLAI-250-V	17000	84,5	30,4	9	1,03

* With air inlet temperature +15°C.

WATER COIL PARAMETERS FOR TEMPERATURE DIFFERENCE 60/40°C

Model	Air flow rate m ³ /h	Thermal output kW	Outlet temperature °C	Pressure drop kPa	Water flow rate l/s
BLAI-150-V	10300	37,6	26,1	8	0,45
BLAI-200-V	13700	50,2	26,2	7	0,61
BLAI-250-V	17000	62,7	26,2	5	0,76

* With air inlet temperature +15°C.



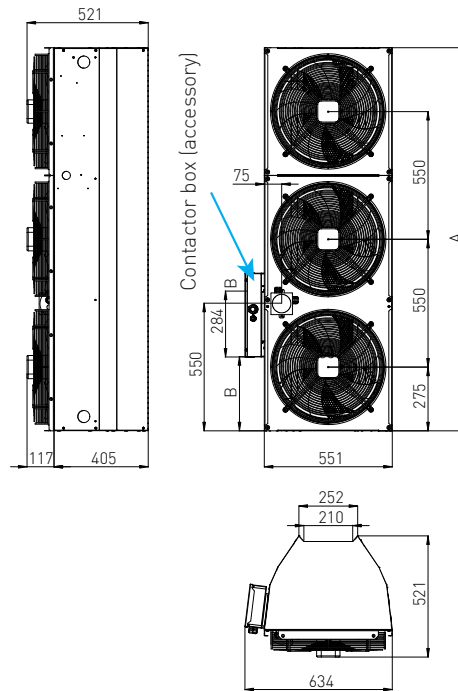
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DIMENSIONS

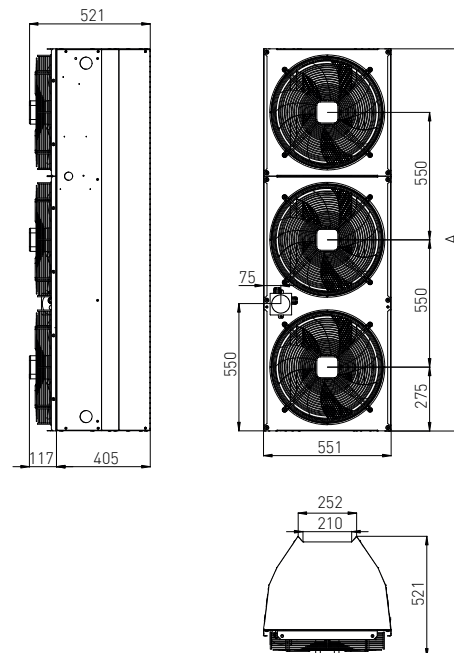
1A...E1...

Model	A mm	B mm
150	1650	320
200	2200	870
250	2750	870



1A...S0...

Model	A mm
150	1650
200	2200
250	2750

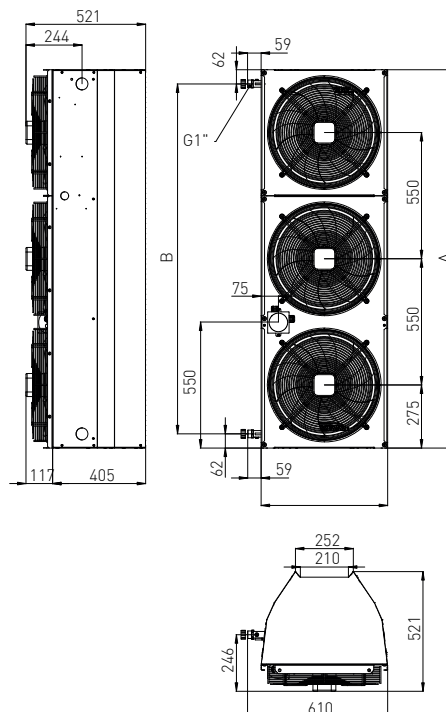


BLAI

Industrial air curtain

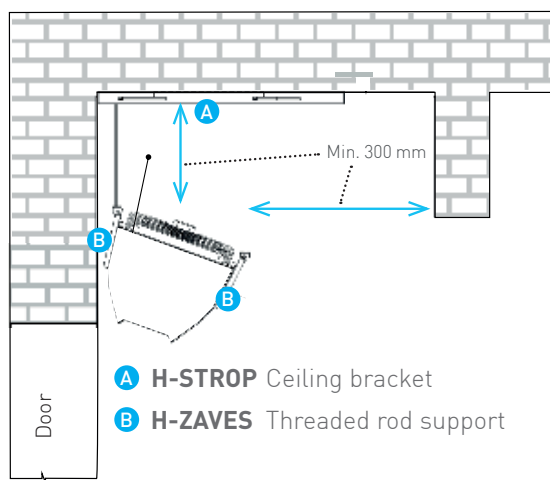
1A...V2...

Model	A mm	B mm
150	1650	1526
200	2200	2076
250	2750	2626



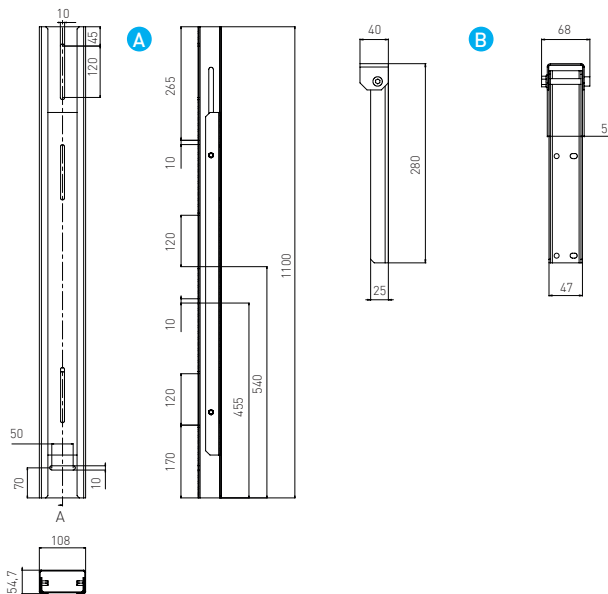
INSTALLATION

HORIZONTAL CEILING MOUNTING (THREADED RODS NOT SUPPLIED)



- A** H-STROP Ceiling bracket
- B** H-ZAVES Threaded rod support

H-STROP Kit consisting of 1 ceiling bracket **A** and 2 supports for threaded rod **B**



Number of modules connected in line	1	2	3	4	5	6	7	...	N
Number of support kits required	2	3	4	5	6	7	8	...	N+1

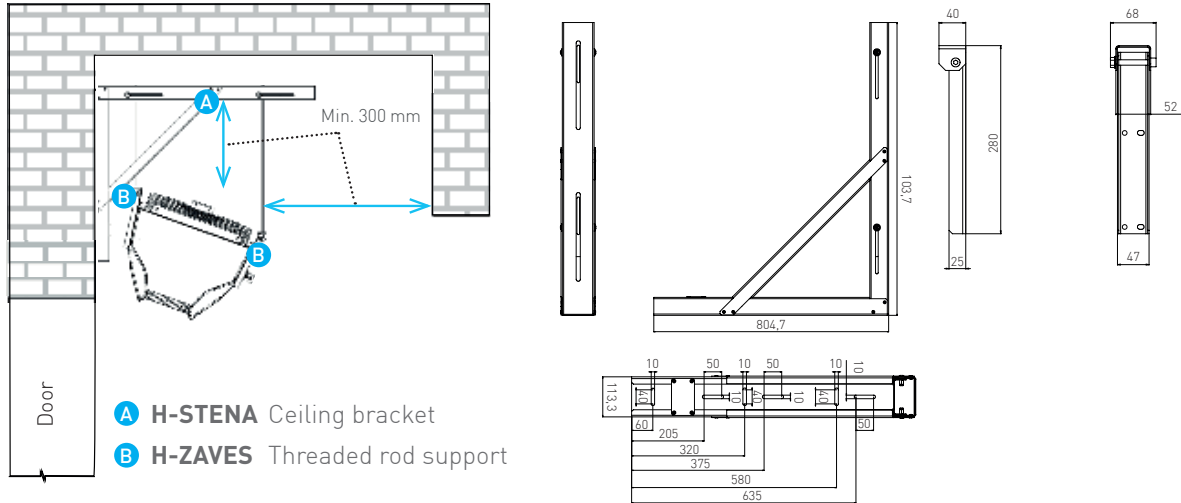
Code: 1-KOT-H-STROP-0 (0 = standard RAL9010; 1 = galvanized sheet; 2 = any special RAL)



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HORIZONTAL WALL MOUNTING (THREADED RODS NOT SUPPLIED)



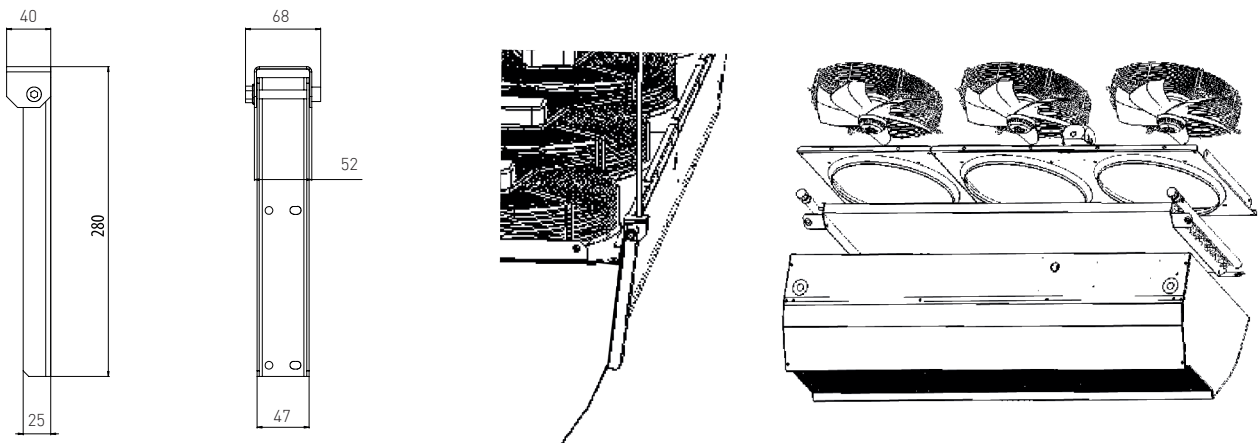
- A** H-STENA Ceiling bracket
- B** H-ZAVES Threaded rod support

H-STENA Wall support kit consisting of 1 bracket at 90° **A** and 2 supports for threaded rod **B**

Number of modules connected in line	1	2	3	4	5	6	7	...	N
Number of support kits required	2	3	4	5	6	7	8	...	N+1

Code: 1-KOT-H-STROP-0 (0 = standard RAL9010; 1 = galvanized sheet; 2 = any special RAL)

HORIZONTAL MOUNTING (THREADED RODS NOT SUPPLIED)



H-ZAVES Threaded rod support

If no horizontal support kit has been ordered (see above) it is nevertheless possible to order the brackets for threaded rod attachment

Number of modules connected in line	1	2	3	...	N
Number of brackets	4	6	8	...	N*2+2

Code: KOT-H-ZAVES-0 (0 = standard RAL9010; 1 = galvanized sheet; 2 = any special RAL)

PIPES



Diffusion

Components for perfect
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T12 SERIES

Aluminium flexible ducts

p. 304



SPECIAL PIPES

High temperature fume and dust extraction flexible duct

p. 306



STRIP

Hose clamp tape rolls

p. 307



NA

Adhesive tapes for flexible ducts

p. 308

T12 SERIES

Aluminium flexible ducts

T12N



SPECIFICATION

Civil, industrial and marine air conditioning and ventilation systems; plenum connections and return/supply terminal (e.g. grilles, registers, diffusers).

Colour: aluminium

Multi-layer internal duct in non-toxic aluminium. Reinforced with steel harmonic spiral

Product

T12N

Material

Multi-layer - Aluminium/polyester/aluminium

TECHNICAL CHARACTERISTICS

Fire reaction	B-s1,d0
Nominal internal duct thickness	70 μ
Diameters	from 82 to 610 mm
Internal operating temperature	-20°C +140°C
Minimum bending radius	0,6 x \emptyset
Maximum air velocity	32 m/s
Maximum operating pressure	2500 Pa
Standard length per package	10 m

T12INV



SPECIFICATION

Civil, industrial and marine air conditioning and ventilation systems; plenum connections and return/supply terminal (e.g. grilles, registers, diffusers).

Colour: aluminium.

Multi-layer internal duct in non-toxic aluminium with glass wool insulation. Reinforced with steel harmonic spiral.

Product

T12INV

Material

Multi-layer - aluminium/polyester/aluminium micro-perforated insulated glass wool

TECHNICAL CHARACTERISTICS

Fire reaction	B-s1,d0
Nominal internal duct thickness	150 μ
Glass wool insulation	25 mm
Diameters	From 82 to 610 mm
Internal operating temperature	-30°C +250°C
Minimum bending radius	0,6 x \emptyset
Maximum air velocity	32 m/s
Maximum operating pressure	3000 Pa
Standard length per package	10 m



Diffusion

Components
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systems

T12IANP



Product

T12IANP

Material

Multi-layer - aluminium/polyester/aluminium micro-perforated insulated soundproofing polyester

SPECIFICATION

Civil, industrial and marine air conditioning and ventilation systems; plenum connections and return/supply terminal (e.g. grilles, registers, diffusers).

Colour: aluminium

Internal multilayer duct in non-toxic aluminium (3 layers) and polyester (2 layers).

Reinforced with steel harmonic spiral

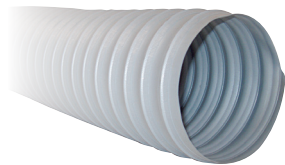
TECHNICAL CHARACTERISTICS

Fire reaction	B-s1,d0
Nominal internal duct thickness	70 μ
Polyester fibre insulation	14 kg/m ³
Diameters	from 82 to 315 mm
Internal operating temperature	-20°C +140°C
Minimum bending radius	0,6 x \emptyset
Maximum air velocity	32 m/s
Maximum operating pressure	3000 Pa
Standard length per package	10 m

SPECIAL PIPES

SERIES T18

FLEXIBLE DUCT FOR FUME AND DUST EXTRACTION



Product

T18

Material

Self-extinguishing PVC sheet. Steel wire spiral

Characteristics

Operating temperature: From -15°C to +70°C
Diameters: from 20 mm to 710 mm
Available lengths: 10, 15, 20 m

SERIES T20

FLEXIBLE DUCT FOR EXTRACTION AND MATERIAL TRANSPORT



Product

T20

Material

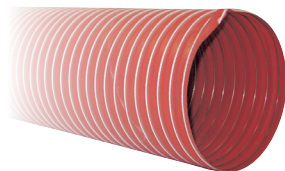
Transparent polyurethane coated with non-toxic polyester. Steel wire spiral structure

Characteristics

Operating temperature: From -40°C to +90°C.
Diameters: from 25 mm to 710 mm.
Available lengths: 10, 15, 20 m

SERIES T36

HIGH TEMPERATURE FUME AND DUST EXTRACTION FLEXIBLE DUCT



Product

T36

Material

Fibreglass fabric, with single silicone coating. Steel wire spiral structure

Characteristics

Operating temperature: from -90°C to +300°C
Diameters: from Ø 25 mm to Ø 305 mm
Available lengths: 4 m sections

STRIP

Hose clamp tape rolls



Diffusion

Components
for perfect air
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Product

STRIP

Material

Stainless steel to DIN 3017, class W2

SPECIFICATION

Hose clamp made from continuous stainless steel 430 strip. Uniflex 30 m system packed in plastic boxes.

They are the best solution for fixing all flexible ducts.

They adapt to all types of pipe without damaging the surface.

Release (STRIPGAN) pull-type in stainless steel.

Practical locking system.

TECHNICAL CHARACTERISTICS

Composition	Steel tape AISI 430/DIN 1.4016 (9 x 0.6 mm)
Upper drawers and lower	Low carbon steel, nickel plating treatment
Pull hook	Stainless steel AISI 430
Screw Key	7 mm, cross-head screwdriver slot, galvanised steel
Max. tightening torque	4 Nm

DESCRIPTION

Model mm	Description
STR30250000GAN	PACK OF 25 HOSE CLAMP HOOKS
STR30000000ROT	HOSE CLAMP ROLL 30 m

NA

Adhesive tapes for flexible ducts



Product	NA
Material	Aluminium

SPECIFICATION

Protection, insulation and fixing of flexible ducts.

NAA: shiny aluminium, standard purity very ductile.

NAAR: reinforced chequered aluminium.

The adhesive tape for flexible ducts NAA-NAAR series is supplied in rolls of 50 m each

TECHNICAL CHARACTERISTICS

	NAA00000030050	NAAR0000000050	NAAR0000000075
Thickness	30 µ	30 µ	30 µ
Height	50 mm	50 mm	75 mm
Length	50 mm	50 mm	50 mm
Temperature	-10/+80°C	-10/+80°C	-10/+80°C
Resistance pull-type	60-65 N/25 mm	150-160 N/25 mm	150-160 N/25 mm

DESCRIPTION

Model	Description
NAA00000030050	ADHESIVE TAPE FOR DUCTS
NAAR0000000050	ADHESIVE TAPE FOR FLEXIBLE DUCTS NAAR 50
NAAR0000000075	ADHESIVE TAPE FOR FLEXIBLE DUCTS NAAR 75

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Ventilation



Filtration



VMC



Fire&Smoke



Industrial

