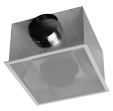
Chapter 2 Ceiling Diffusers

Perforated



PTVD 176
Supply
Surface mounted

PRVD 178
Return
Surface mounted

PTVI/PRVI 180
Supply/return
Poured concrete version

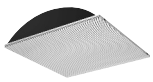
PTVM 182
Supply
Tee-Bar mounted

PRVM 184
Return
Tee-Bar mounted

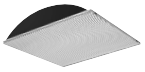
PRFM 186
Return
With filter

CTVM 188
Supply
Clean diffuser

CRVM 190
Return
Clean diffuser



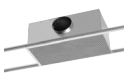
CRVMION 192
Return, Non vision, light thight



PRIMON 194
Return
Non-vision, Light tight

PTVS 196
Supply
Removable face plate

PRVS 198
Return
Removable face plate



P-VT 200
Supply
Tee-bar mounted

PDVM 202
Supply
Tee-bar mounted
Down-flow

Louvre-face

LTVD 204
Supply
Surface mounted

LRVD 206
Return
Surface mounted

LTVM 208
Supply
Tee-bar mounted

LRVM 210
Return
Tee-bar mounted

LTVF 212
Supply
Full front

LRVF 214
Return
Full front

RTLD 216
Multi cone
Supply

Linear

STAD 218
Slot diffuser
Supply

SVOD 224
Slot diffuser
Vertical supply

SROD 232
Slot diffuser
Return

STBR 238
Slot diffuser
Supply, thin line

Swirl

RTBD 244
Supply
Surface mounted

RRBD 246
Return
Surface mounted

RTBM 248
Supply
Tee-bar mounted

RRBM 250
Return
Tee-bar mounted

RTBC 252
Supply
Round

RRBC 254
Return
Round

Swirl adjustable

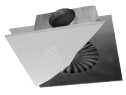
RT-- 256
Supply
Surface mounted

RR-- 258
Return
Surface mounted

RTGC 260
Supply
Round, surface mounted

RRGC 262
Return
Round, surface mounted

Swirl perforated front



RTPM 264
Supply
Tee-bar mounted

Swirl conical

RTFO 266
Fixed
Round

RTFM 268
Fixed
Round
tee-bar mounted

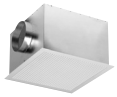
Swirl conical adjustable

RTWK 270
Adjustable
Comfort

High capacity

TTHA / TTPA 272
High capacity
Supply
High induction

RTDO 274
Round
Supply
Perforated

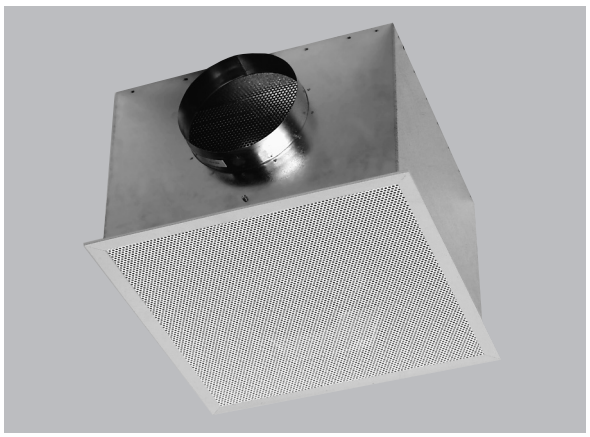


HREC 276
Lattice
Return

Valves

RTSV 278
Valve
Supply

RRSV 280
Valve
Return



PTVD

- **Perforated diffuser**
- **Supply**

Application:

The perforated diffuser type PTVD is suited for supplying cooled and heated air with a large temperature differential with respect to the room temperature.
The diffuser can be mounted in the ceiling and can be fitted with a plenum box which can be delivered ready assembled, including a stabilisation plate. The diffuser has a removable face plate located on the visible side. The four in-built pattern blades enable a free choice of the discharge direction, also after mounting.
Prior to adjustment refer to the performance data. The high induction effect enables a high number of air changes. The precise radial pattern minimises ceiling smudging. The very shallow inflow pattern also makes the diffuser type PTVD suited for somewhat lower spaces.
Interface with various ceiling systems is possible, for detail information contact Solid Air Climate Solutions sales office.

Features:

Max. air exchanges:	up to 15 x
Under temperature:	up to 10 K
Over temperature:	up to 15 K
Free area	50%

Dimensional data:

model	B	A	D1	D2	T	P
250	249	242	123	123	70	235
300	313	307	158	158	70	270
400	388	382	198	198	75	315
500	483	477	248	198	85	325
550	556	551	313	248	105	395

Weights:

model	type		∅
	OA	OR	vcd
250	1.4	2.6	0.1
300	1.9	3.8	0.2
400	2.5	5.4	0.3
500	3.6	7,4	0.4
550	4.6	9.9	0.5

Remarks:

The dimensions are given in mm.
Weights are given in kg.
Connection “D” is actual O.D.

Design:

Perforated diffuser:

flange:	extruded aluminium
face plate:	steel
finish:	epoxy powder
colour:	white RAL 9010

Plenum box:

material:	steel galvanised sendzimir
lining:	1/2” ductliner
finish:	none

Damper:

material:	steel galvanised sendzimir
finish:	none

Optional:

plenum box:	dropped

Available types:

P T - D - -

P perforated ceiling diffuser
T supply

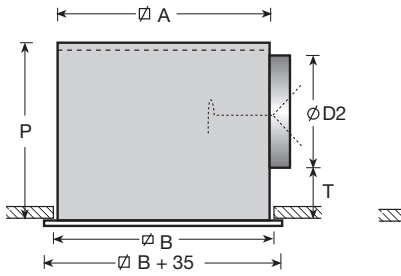
- face plate
V flat
D dropped 13 mm

D flange

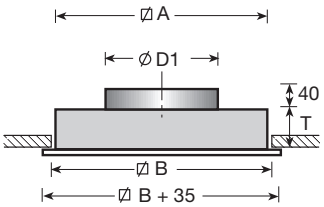
- accessories
O none
V damper

- available as options
A round top connection
R lined plenum box (assembled)
U un-lined plenum box (assembled)
L lined top connection

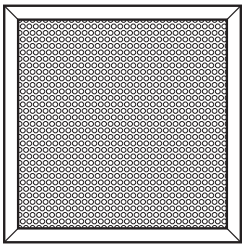
Dimensions:

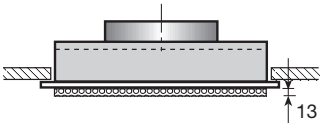


PTVDVR



PTVDOA





PTDDOA (dropped face plate)

Performance data PTVD:

air volume		model	air volume														
			4-way			3-way			2-way opposite.			2-way corner			1-way		
m^3/s	m^3/h		T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp
0.015	54	**250**	**0.4**	1	-	**0.4**	1	-	**0.6**	2	3	**0.6**	3	5	**0.9**	7	13
0.020	72	**250**	**0.6**	1	5	**0.6**	2	7	**0.7**	4	10	**0.7**	4	12	**1.2**	12	21
0.025	90	**250**	**0.7**	2	11	**0.7**	3	13	**0.9**	5	16	**0.9**	7	18	**1.5**	19	27
		300	**0.6**	1	-	**0.6**	1	4	**0.8**	3	7	**0.8**	3	19	**1.3**	9	19
0.030	108	**250**	**0.8**	3	16	**0.9**	4	18	**1.1**	8	21	**1.1**	10	23	**2.0**	28	31
		300	**0.7**	1	2	**0.7**	2	8	**0.9**	4	12	**0.9**	5	14	**1.5**	13	23
0.040	144	**250**	**1.1**	4	23	**1.2**	6	25	**1.5**	13	28	**1.5**	17	29	**2.5**	49	39
		300	**0.9**	3	14	**1.0**	3	16	**1.2**	6	19	**1.2**	8	21	**2.0**	23	31
		400	**0.8**	1	6	**0.8**	2	8	**1.0**	3	12	**1.0**	4	12	**1.7**	11	22
0.050	180	**250**	**1.4**	6	29	**1.5**	10	31	**1.9**	20	34	**1.9**	25	34			
		300	**1.2**	4	20	**1.2**	5	22	**1.5**	10	25	**1.5**	13	27	**2.5**	34	36
		400	**1.0**	2	12	**1.0**	3	14	**1.3**	5	17	**1.3**	6	18	**2.1**	17	28
0.060	216	**250**	**1.7**	8	34	**1.8**	13	36	**2.2**	28	39	**2.2**	35	41			
		300	**1.5**	6	24	**1.5**	8	26	**1.8**	14	30	**1.8**	19	32	**3.0**	51	41
		400	**1.1**	3	17	**1.3**	4	19	**1.5**	7	21	**1.5**	8	23	**2.5**	24	32
		500													**2.1**	13	25
0.080	288	**300**	**1.8**	11	32	**1.9**	14	34	**2.4**	26	37	**2.4**	33	39			
		400	**1.5**	6	24	**1.7**	7	25	**2.0**	13	29	**2.0**	15	30	**3.4**	43	40
		500	**1.3**	4	17	**1.4**	5	19	**1.8**	8	22	**1.8**	10	24	**2.8**	23	32
		550													**2.4**	13	27
0.100	360	**300**	**2.3**	17	38	**2.4**	21	40									
		400	**1.9**	9	30	**2.1**	11	32	**2.6**	20	32	**2.6**	23	36			
		500	**1.6**	4	22	**1.8**	8	25	**2.2**	12	28	**2.2**	15	30	**3.5**	35	38
		550	**1.4**	4	16	**1.6**	4	19	**1.9**	7	21	**1.9**	8	23	**3.1**	21	32
0.125	450	**400**	**2.4**	13	36	**2.6**	18	35									
		500	**2.0**	10	28	**2.3**	12	30	**2.8**	19	34	**2.8**	23	36			
		550	**1.8**	6	22	**2.0**	7	24	**2.4**	10	27	**2.4**	13	29	**3.8**	32	38
0.150	540	**400**	**2.9**	19	40												
		500	**2.5**	15	33	**2.7**	17	35	**3.4**	28	38	**3.4**	34	41			
		550	**2.2**	8	27	**2.4**	10	29	**2.9**	15	32	**2.9**	19	34	**4.6**	47	43
0.200	720	**500**	**3.3**	25	40	**3.6**	30	43									
		550	**2.9**	14	34	**3.2**	18	37	**3.0**	27	40	**3.0**	33	41			
0.250	900	**550**	**3.6**	22	40	**4.0**	27	42	**4.9**	42	45	**4.9**	50	46			
0.300	1080	**550**	**4.3**	32	45												

Spread pattern

4-way

3-way

2-way corner

2-way opposite

1-way

pattern blade “closed”

pattern blade “open”

Throw correction factor

V_{end} m/s	throw factor
0.15	1.67
0.20	1.25
0.25	1.00
0.35	0.71
0.50	0.50

Throw figures are based on 0.25 m/s end velocity. In case other end velocities are required correct according to table.

General:

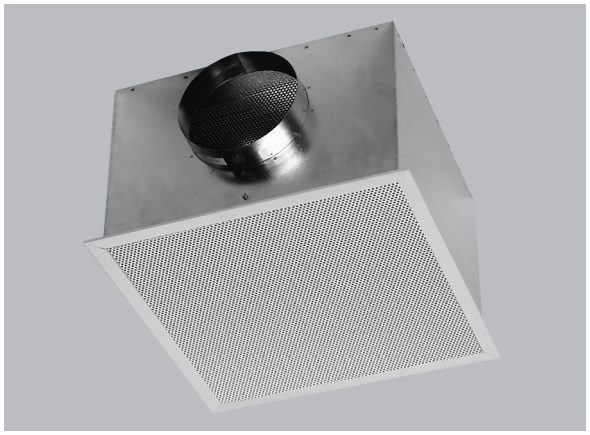
The throw applies to flush mounted in a horizontal dropped ceiling.
- throw T in metres.
- static pressure drop Ps in Pa.

The assumed room absorption is 10 dB.
- sound pressure Lp in dB(A).

Intermediate values may be interpolated.

Lined Plenums:

model	middle frequency bands					
	125	250	500	1K	2K	4K
250	5	0	3	10	5	11
300	3	1	6	7	7	9
400	2	2	9	7	7	9
500	2	4	9	7	7	10
550	0	6	7	7	6	9



PRVD

- **Perforated diffuser**
- **Return**

Application:

The perforated diffuser type PRVD is suited for return air and its external appearance is the same as the PTVD supply diffuser. The free area is 50%.
The diffuser can be mounted in the ceiling and fitted with a (lined) plenum box which is delivered ready assembled. The diffuser has a removable face plate located on the visible side.

Dimensional data:

model	B	A	D1	D2	T	P
250	249	242	123	123	70	235
300	313	307	158	158	70	270
400	388	382	198	198	75	315
500	483	477	248	198	85	325
550	556	551	313	248	105	395

Weights:

model	type			Ø
	OA	OR	OZ	vcd
250	0.9	2.1	0.6	0.1
300	1.2	3.0	0.8	0.2
400	1.6	4.3	1.1	0.3
500	2.2	5.8	1.5	0.4
550	2.9	7.8	1.8	0.5

Remarks:

The dimensions are given in mm.
Weights are given in kg.
Connection “D” is actual O.D.

Design:

Perforated diffuser:

flange:	extruded aluminium
face plate:	steel
finish:	epoxy powder
colour:	white RAL 9010

Plenum box:

material:	steel galvanised sendzimir
lining:	1/2” ductliner
finish:	none

Damper:

material:	steel galvanised sendzimir
finish:	none

Optional:

plenum box:	dropped

Available types:

P R - D - -

P perforated ceiling diffuser
R return

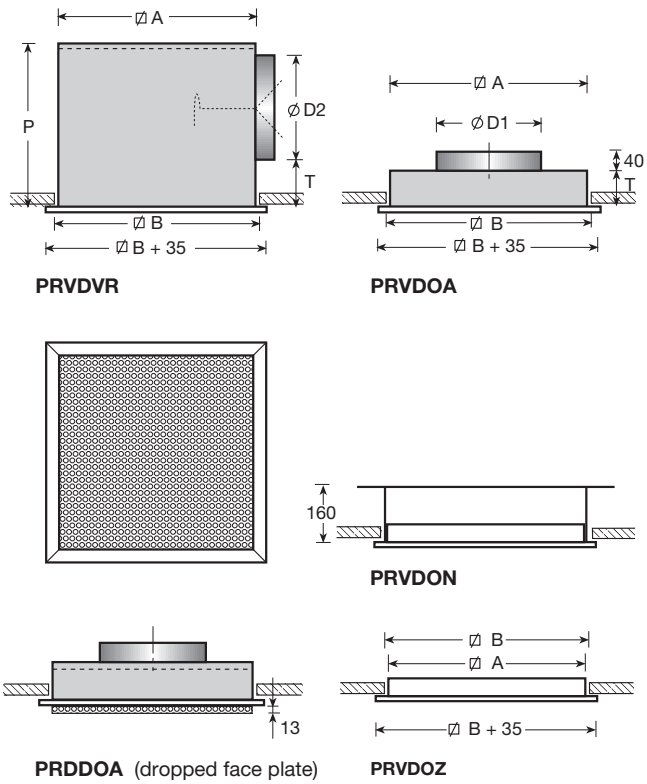
- face plate
V flat
D dropped 13 mm (other drops available)

D flange

- accessories
O none
V damper

- available as options
A round top connection
Z square top connection
R lined plenum box (assembled)
U un-lined plenum box (assembled)
L lined top connection
N square top, non vision plate (separate)

Dimensions:



Performance data:

PRVDOR and PRVDOA:

air volume		round connection		
m³/s	m³/h	model	Ps	Lp
0.015	54	**250**	1	-
0.020	72	**250**	3	-
0.025	90	**250**	4	-
		300	1	-
0.030	108	**250**	6	-
		300	2	-
0.040	144	**250**	11	-
		300	4	-
		400	1	-
0.050	180	**250**	16	12
		300	6	-
		400	2	-
0.060	216	**250**	24	17
		300	9	-
		400	3	-
		500	3	-
0.080	288	**300**	15	13
		400	6	-
		500	5	-
		550	3	-
0.100	360	**300**	24	19
		400	9	-
		500	8	-
		550	4	-
0.125	450	**400**	14	15
		500	12	15
		550	6	-
0.150	540	**400**	21	20
		500	18	20
		550	9	10
0.200	720	**500**	31	27
		550	16	17
0.250	900	**550**	25	23
0.300	1080	**550**	35	28

PRVDOZ and PRVDON:

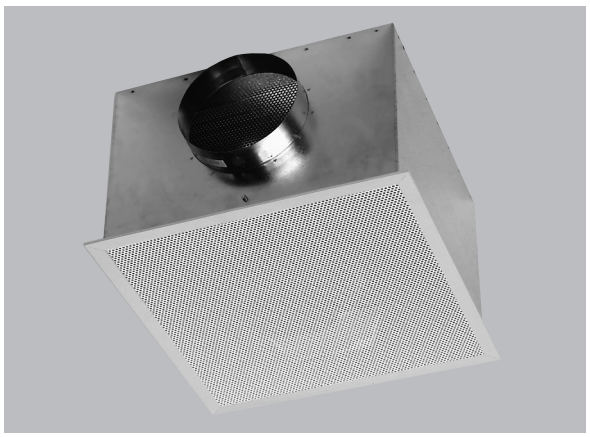
air volume		square connection		
m³/s	m³/h	model	Ps	Lp
0.080	288	**250**	9	10
		300	3	-
0.100	360	**250**	13	15
		300	5	-
		400	2	-
0.125	450	**250**	21	21
		300	8	11
		400	3	-
0.150	540	**250**	30	25
		300	11	15
		400	4	-
		500	2	-
0.200	720	**250**	54	32
		300	20	22
		400	8	13
		500	3	-
		550	2	-
0.300	1080	**300**	45	32
		400	18	23
		500	7	14
		550	3	-
0.400	1440	**300**	79	39
		400	32	30
		500	13	21
		550	6	14
0.500	1800	**400**	49	35
		500	20	26
		550	10	19
0.600	2160	**400**	71	39
		500	29	31
		550	14	23
0.800	2880	**500**	51	37
		550	24	30
1.000	3600	**550**	38	36

General:

The pressure drop applies to fully opened damper.
• static pressure drop Ps in Pa.
The assumed room absorption is 10 dB.
• sound pressure Lp in dB(A).
Intermediate values may be interpolated.

Lined Plenums:

model	middle frequency bands					
	125	250	500	1K	2K	4K
250	5	0	3	10	5	11
300	3	1	6	7	7	9
400	2	2	9	7	7	9
500	2	4	9	7	7	10
550	0	6	7	7	6	9



PTVI / PRVI

- **Perforated diffuser**
- **Supply / Return**
- **Poured concrete version**

Design:

Perforated diffuser:

flange:	extruded aluminium
face plate:	steel
finish:	epoxy powder
colour:	white RAL 9010

Plenum box:

material:	steel galvanised sendzimir
lining:	1/2” ductliner
finish:	none

Available types:

P - V I O - -

P perforated ceiling diffuser

- supply/return
T supply
R return

V flat face plate (removable)
I poured concrete version
O not applicable

- available as options:
round side connection
R lined plenum box
U un-lined plenum box

rectangular side connection
T lined plenum box
S un-lined plenum box

Application:

The perforated diffuser type PTVI is suited for supplying cooled and heated air with a large temperature differential with respect to the room temperature. The perforated diffuser type PRVI is suited for return air.
The four in-built pattern blades enable a free choice of the discharge direction, also after mounting. Prior to adjustment refer to the performance data. The high induction effect enables a high number of air changes. The precise radial pattern minimises ceiling smudging. The very shallow inflow pattern also makes the diffuser type PTVI suited for somewhat lower spaces.

Dimensional data:

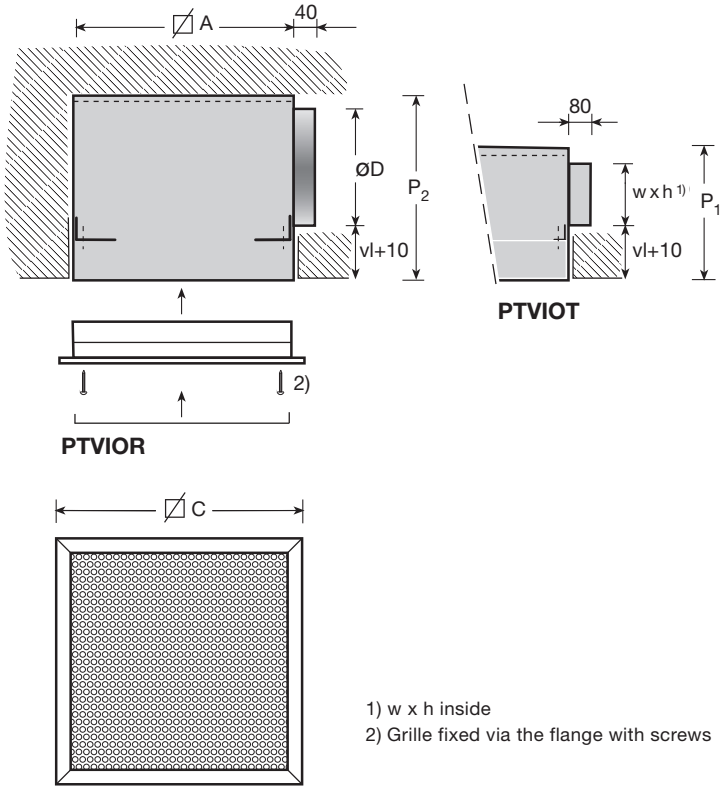
Rectangular connection type P-VIOT / P-VIOS

model	C	A	b	h	P_1
250	283	252	172	72	102 + vl
300	348	320	222	82	112 + vl

Round connection type P-VIOU / P-VIOR

model	C	A	D	P_2
250	283	252	123	153 + vl
300	348	320	158	188 + vl

Dimensions:



1) w x h inside
2) Grille fixed via the flange with screws

Remarks:

The dimensions are given in mm.
Weights are given in kg.
Dimensions P1 and P2 are dictated by the thickness of the concrete floor “VL”.
Connection “D” is actual O.D.

Performance data PTVI:

air volume		model	air volume														
			4-way			3-way			2-way opposite.			2-way corner			1-way		
m^3/s	m^3/h		T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp
0.015	54	**250**	**0.4**	1	-	**0.4**	1	-	**0.6**	2	6	**0.6**	3	8	**0.9**	7	16
0.020	72	**250**	**0.6**	1	8	**0.6**	2	10	**0.7**	4	13	**0.7**	4	15	**1.2**	12	24
0.025	90	**250**	**0.7**	2	14	**0.7**	3	16	**0.9**	5	19	**0.9**	7	21	**1.5**	19	30
		300	**0.6**	1	-	**0.6**	1	7	**0.8**	3	10	**0.8**	3	22	**1.3**	9	22
0.030	108	**250**	**0.8**	3	19	**0.9**	4	21	**1.1**	8	24	**1.1**	10	26	**2.0**	28	34
		300	**0.7**	1	5	**0.7**	2	11	**0.9**	4	15	**0.9**	5	17	**1.5**	13	26
0.040	144	**250**	**1.1**	4	26	**1.2**	6	28	**1.5**	13	31	**1.5**	17	32	**2.5**	49	42
		300	**0.9**	3	17	**1.0**	3	19	**1.2**	6	22	**1.2**	8	24	**2.0**	23	34
0.050	180	**250**	**1.4**	6	32	**1.5**	10	34	**1.9**	20	37	**1.9**	25	37			
		300	**1.2**	4	23	**1.2**	5	25	**1.5**	10	28	**1.5**	13	30	**2.5**	34	39
0.060	216	**250**	**1.7**	8	37	**1.8**	13	39	**2.2**	28	42	**2.2**	35	44			
		300	**1.5**	6	27	**1.5**	8	29	**1.8**	14	33	**1.8**	19	35	**3.0**	51	44
0.080	288	**300**	**1.8**	11	35	**1.9**	14	37	**2.4**	26	40	**2.4**	33	42			
0.100	360	**300**	**2.3**	17	41	**2.4**	21	43									

Performance data PRVI:

air volume				
m^3/s	m^3/h	model	Ps	Lp
0.015	54	**250**	1	-
0.020	72	**250**	3	-
0.025	90	**250**	4	-
		300	1	-
0.030	108	**250**	6	-
		300	2	-
0.040	144	**250**	11	-
		300	4	-
0.050	180	**250**	16	15
		300	6	-
0.060	216	**250**	24	20
		300	9	-
0.080	288	**300**	15	16
0.100	360	**300**	24	22

Throw correction factor

V_{end} m/s	throw factor
0.15	1.67
0.20	1.25
0.25	1.00
0.35	0.71
0.50	0.50

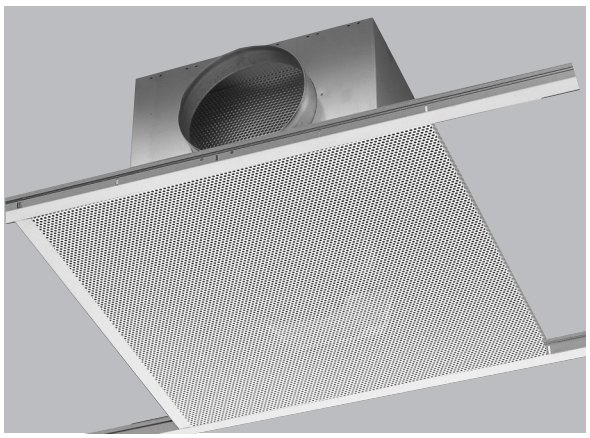
Throw figures are based on 0.25 m/s end velocity. In case other end velocities are required correct according to table.

General:

The pressure drop applies to fully opened damper.
• static pressure drop Ps in Pa.
The assumed room absorption is 10 dB.
• sound pressure Lp in dB(A).
Intermediate values may be interpolated.

Lined Plenums:

model	middle frequency bands					
	125	250	500	1K	2K	4K
250	5	0	3	10	5	11
300	3	1	6	7	7	9



PTVM

- Perforated diffuser
- Supply
- For Tee-bar mounting

Application:

The perforated diffuser type PTVM is suited for supplying cooled and heated air with a large temperature differential with respect to the room temperature.
The diffuser can be Tee-bar mounted in a ceiling with a module size of 600 mm and can be fitted with a plenum box which can be delivered ready assembled, and includes a stabilisation plate. The perforated diffuser type PTTM is fitted with a 13 mm dropped face plate. The four in-built pattern blades enable a free choice of the discharge direction. Prior to adjustment refer to the performance data.
The high induction effect enables a high number of air changes. The precise radial pattern minimises ceiling smudging.
The very shallow inflow pattern also makes the diffuser type PTVM suited for somewhat lower spaces.
Interface with various ceiling systems is possible, for detail information contact Solid Air Climate Solutions sales office.

Design:

Perforated diffuser:
face plate: steel
finish: epoxy powder
colour: white RAL 9010

Plenum box:
material: steel
galvanised
sendzimir
lining: 1/2" ductliner
finish: none

Damper:
material: steel
galvanised
sendzimir
finish: none

Optional:
panel size: to 750 mm
plenum box: dropped

Available types:

P T - M - - -

P perforated diffuser
T supply

- **face plate**
  V flat
  T tegular

MI suited for standard Tee-bar mounting module size 600 mm

- **accessories**
  O none
  V damper

- **available as options**
  A round top connection
  R lined plenum box (assembled)
  U un-lined plenum box (assembled)
  L lined top connection

Features:

Max. air exchanges:	up to 15 x
Under temperature:	up to 10 K
Over temperature:	up to 15 K
Free area	50%

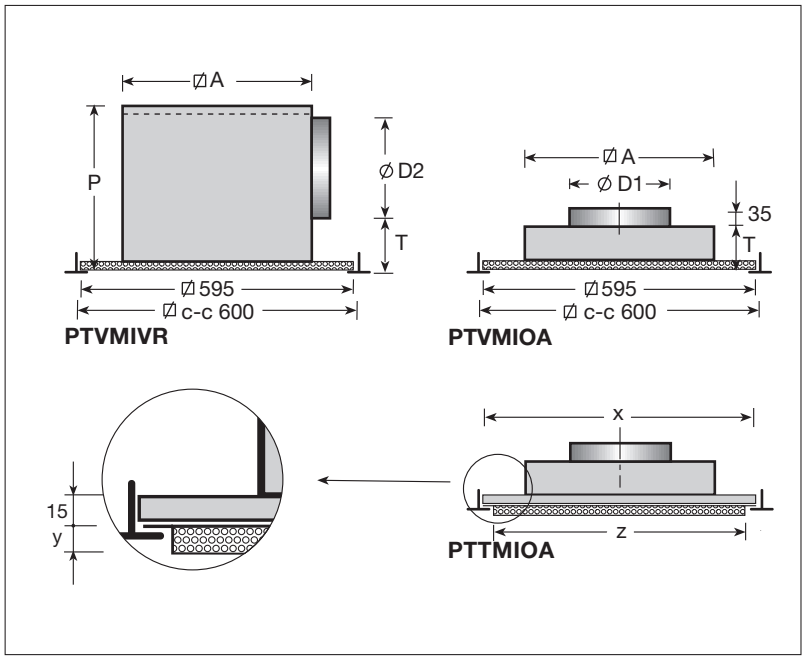
Dimensional data:

model	A	D1	D2	T	P
250	242	123	123	70	235
300	307	158	158	70	270
400	382	198	198	75	315
500	477	248	198	85	325
550	551	313	248	105	395

Weights:

model	type		∅
	OA	OR	vcd
250	3.6	4.8	0.1
300	3.6	5.6	0.2
400	3.7	6.6	0.3
500	3.8	7.7	0.4
550	4.0	9.3	0.5

Dimensions:



Performance data PTVM:

air volume		model	spread pattern													
			4-way			3-way			2-way opposite			2-way corner			1-way		
m^3/s	m^3/h		T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp
0.015	54	**250**	**0.4**	1	-	**0.4**	1	-	**0.6**	2	3	**0.6**	3	5	**0.9**	7	13
0.020	72	**250**	**0.6**	1	5	**0.6**	2	7	**0.7**	4	10	**0.7**	4	12	**1.2**	12	21
0.025	90	**250**	**0.7**	2	11	**0.7**	3	13	**0.9**	5	16	**0.9**	7	18	**1.5**	19	27
		300	**0.6**	1		**0.6**	1	4	**0.8**	3	7	**0.8**	3	19	**1.3**	9	19
0.030	108	**250**	**0.8**	3	16	**0.9**	4	18	**1.1**	8	21	**1.1**	10	23	**2.0**	28	31
		300	**0.7**	1	2	**0.7**	2	8	**0.9**	4	12	**0.9**	5	14	**1.5**	13	23
0.040	144	**250**	**1.1**	4	23	**1.2**	6	25	**1.5**	13	28	**1.5**	17	29	**2.5**	49	39
		300	**0.9**	3	14	**1.0**	3	16	**1.2**	6	19	**1.2**	8	21	**2.0**	23	31
		400	**0.8**	1	6	**0.8**	2	8	**1.0**	3	12	**1.0**	4	12	**1.7**	11	22
0.050	180	**250**	**1.4**	6	29	**1.5**	10	31	**1.9**	20	34	**1.9**	25	34			
		300	**1.2**	4	20	**1.2**	5	22	**1.5**	10	25	**1.5**	13	27	**2.5**	34	36
		400	**1.0**	2	12	**1.0**	3	14	**1.3**	5	17	**1.3**	6	18	**2.1**	17	28
0.060	216	**250**	**1.7**	8	34	**1.8**	13	36	**2.2**	28	39	**2.2**	35	41			
		300	**1.5**	6	24	**1.5**	8	26	**1.8**	14	30	**1.8**	19	32	**3.0**	51	41
		400	**1.1**	3	17	**1.3**	4	19	**1.5**	7	21	**1.5**	8	23	**2.5**	24	32
		500													**2.1**	13	25
0.080	288	**300**	**1.8**	11	32	**1.9**	14	34	**2.4**	26	37	**2.4**	33	39			
		400	**1.5**	6	24	**1.7**	7	25	**2.0**	13	29	**2.0**	15	30	**3.4**	43	40
		500	**1.3**	4	17	**1.4**	5	19	**1.8**	8	22	**1.8**	10	24	**2.8**	23	32
		550													**2.4**	13	27
0.100	360	**300**	**2.3**	17	38	**2.4**	21	40									
		400	**1.9**	9	30	**2.1**	11	32	**2.6**	20	32	**2.6**	23	36			
		500	**1.6**	4	22	**1.8**	8	25	**2.2**	12	28	**2.2**	15	30	**3.5**	35	38
		550	**1.4**	4	16	**1.6**	4	19	**1.9**	7	21	**1.9**	8	23	**3.1**	21	32
0.125	450	**400**	**2.4**	13	36	**2.6**	18	35									
		500	**2.0**	10	28	**2.3**	12	30	**2.8**	19	34	**2.8**	23	36			
		550	**1.8**	6	22	**2.0**	7	24	**2.4**	10	27	**2.4**	13	29	**3.8**	32	38
0.150	540	**400**	**2.9**	19	40												
		500	**2.5**	15	33	**2.7**	17	35	**3.4**	28	38	**3.4**	34	41			
		550	**2.2**	8	27	**2.4**	10	29	**2.9**	15	32	**2.9**	19	34	**4.6**	47	43
0.200	720	**500**	**3.3**	25	40	**3.6**	30	43									
		550	**2.9**	14	34	**3.2**	18	37	**3.0**	27	40	**3.0**	33	41			
0.250	900	**550**	**3.6**	22	40	**4.0**	27	42	**4.9**	42	45	**4.9**	50	46			
0.300	1080	**550**	**4.3**	32	45												

Spread pattern

4-way

3-way

2-way corner

2-way opposite

1-way

blade pattern “closed”

blade pattern “open”

Throw correction factor

V_{end} m/s	throw factor
0.15	1.67
0.20	1.25
0.25	1.00
0.35	0.71
0.50	0.50

Throw figures are based on 0.25 m/s end velocity. In case other end velocities are required correct according to table.

General:

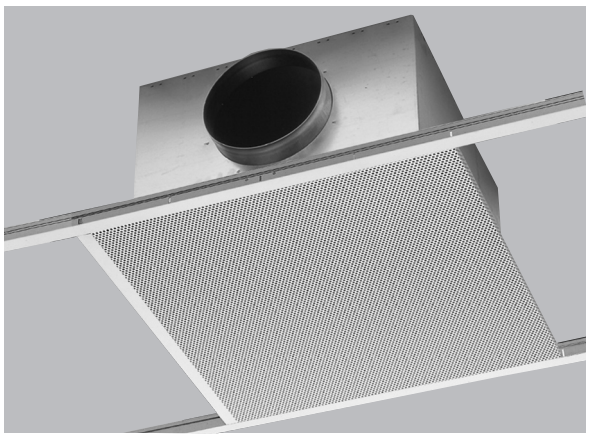
The throw applies to flush mounted in a horizontal dropped ceiling.
• throw T in metres.
• static pressure drop Ps in Pa.
The assumed room absorption is 10 dB.
• sound pressure Lp in dB(A).
Intermediate values may be interpolated.

Remarks:

The dimensions are given in mm.
Connection “D” is actual O.D.
Weights are given in kg.
For the diffuser with a tegular edge PTTM-- the dimensions x, y and z must be provided when ordered.
x - z = 12 minimum.
y = 6 minimum.

Lined Plenums:

model	middle frequency bands					
	125	250	500	1K	2K	4K
250	5	0	3	10	5	11
300	3	1	6	7	7	9
400	2	2	9	7	7	9
500	2	4	9	7	7	10
550	0	6	7	7	6	9



PRVM

- Perforated diffuser
- Return
- For Tee-bar mounting

Application:

The perforated diffuser type PRVM is suited for return air and its external appearance is the same as the PTVM supply diffuser. The free area is 50%.
The diffuser can be Tee-bar mounted in a ceiling with a 600 mm module size and can be supplied with a plenum box which is delivered ready assembled.
Interface with various ceiling systems is possible, for detail information contact Solid Air Climate Solutions sales office.

Design:

Perforated diffuser:
face plate: steel
finish: epoxy powder
colour: white RAL 9010

Plenum box:
material: steel
galvanised
sendzimir
lining: 1/2" ductliner
finish: none

Damper:
material: steel
galvanised
sendzimir
finish: none

Optional:
panel size: to 750 mm
plenum box: dropped

Available types:

P R - M - -

P perforated ceiling diffuser
R exhaust

- face plate
V flat
T tegular

MI suited for standard modular ceiling module size 600 mm

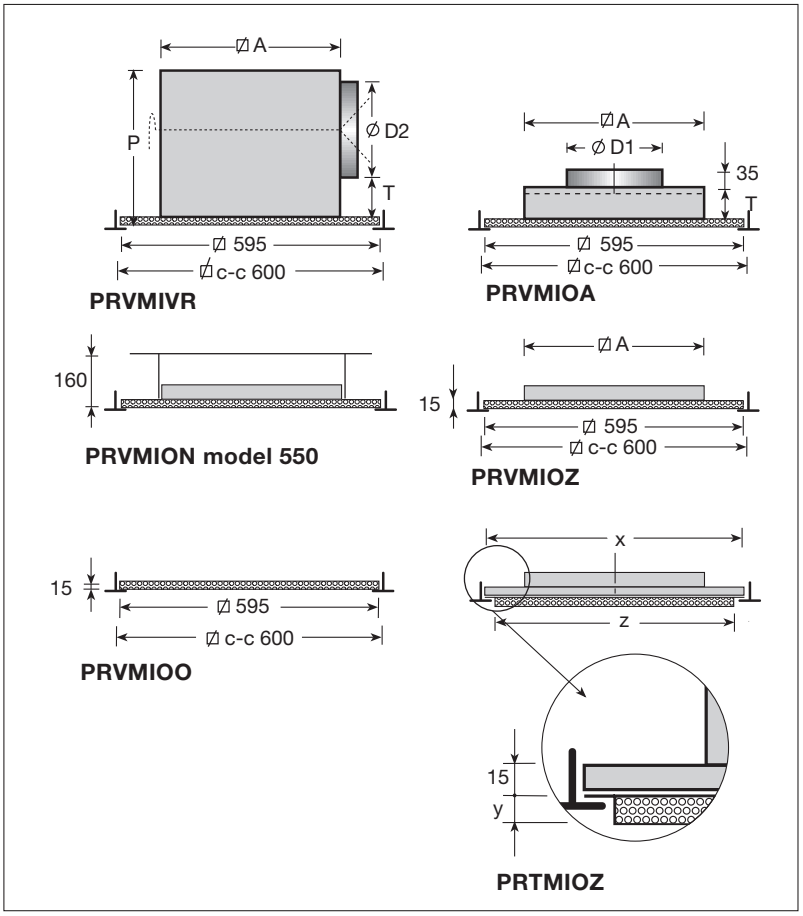
- accessories
O none
V damper

- available as options
A round top connection
Z square top connection
R lined plenum box (assembled)
U un-lined plenum box (assembled)
L lined top connection
O face plate only
N square top, non vision plate, model 550 only (seperate)

Dimensional data:

model	A	D1	D2	T	P
250	242	123	123	70	235
300	307	158	158	70	270
400	382	198	198	75	315
500	477	248	198	85	325
550	551	313	248	105	395

Dimensions:



Remarks:

The dimensions are given in mm.
Weights are given in kg.
Connection "D" is actual O.D.

For the diffuser with a tegular edge PRTM-- the dimensions x, y and z must be provided when ordered.
x - z = 12 minimum.
y = 6 minimum.

Performance data:

PRVM-OR and PRVM-OA:

air volume		round connection		
m³/s	m³/h	model	Ps	Lp
0.015	54	250	1	-
0.020	72	250	3	-
0.025	90	250	4	-
		300	1	-
0.030	108	250	6	-
		300	2	-
0.040	144	250	11	-
		300	4	-
		400	1	-
0.050	180	250	16	12
		300	6	-
		400	2	-
0.060	216	250	24	17
		300	9	-
		400	3	-
		500	3	-
0.080	288	300	15	13
		400	6	-
		500	5	-
		550	3	-
0.100	360	300	24	19
		400	9	-
		500	8	-
		550	4	-
0.125	450	400	14	15
		500	12	15
		550	6	-
0.150	540	400	21	20
		500	18	20
		550	9	10
0.200	720	500	31	27
		550	16	17
0.250	900	550	25	23
0.300	1080	550	35	28

PRVM-OZ and PRVM-ON (550 only):

air volume		square connection		
m³/s	m³/h	model	Ps	Lp
0.080	288	250	9	10
		300	3	-
0.100	360	250	13	15
		300	5	-
		400	2	-
0.125	450	250	21	21
		300	8	11
		400	3	-
0.150	540	250	30	25
		300	11	15
		400	4	-
		500	2	-
0.200	720	250	54	32
		300	20	22
		400	8	13
		500	3	-
		550	2	-
0.300	1080	300	45	32
		400	18	23
		500	7	14
		550	3	-
0.400	1440	300	79	39
		400	32	30
		500	13	21
		550	6	14
0.500	1800	400	49	35
		500	20	26
		550	10	19
0.600	2160	400	71	39
		500	29	31
		550	14	23
0.800	2880	500	51	37
		550	24	30
1.000	3600	550	38	36

PRVMIOO face plate only⌀ 595:

air volume				
m³/s	m³/h	model	Ps	Lp
0,200	720	550	2	-
0,300	1080	550	3	-
0,400	1440	550	6	14
0,500	1800	550	10	19
0,600	2160	550	14	23
0,800	2880	550	24	30
1,000	3600	550	38	36

General:

The pressure drop applies to fully opened damper.
• static pressure drop Ps in Pa.
The assumed room absorption is 10 dB.
• sound pressure Lp in dB(A)
Intermediate values may be interpolated.

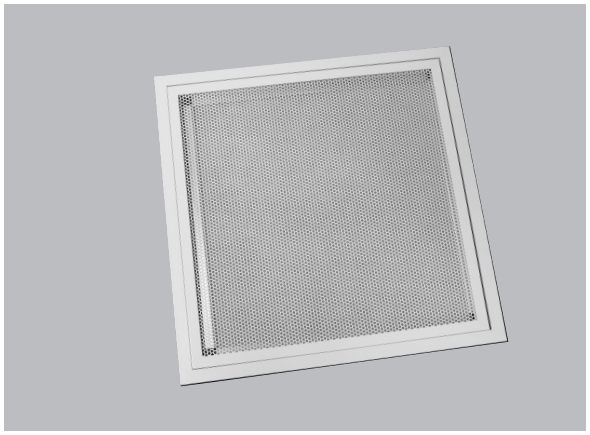
Weights:

model	type		⌀ vcd
	OA	OR	
250	3.2	4.4	0.1
300	3.1	4.8	0.2
400	2.9	5.5	0.3
500	2.6	6.1	0.4
550	2.5	7.2	0.5

PRVMIOO perforated only : 1.2 kg

Lined Plenums:

model	middle frequency bands					
	125	250	500	1K	2K	4K
250	5	0	3	10	5	11
300	3	1	6	7	7	9
400	2	2	9	7	7	9
500	2	4	9	7	7	10
550	0	6	7	7	6	9



PRFM

- Perforated diffuser
- Return
- Easy filter change

Application:

The perforated grid PRFM is suitable for the extraction of filtered air through the application of an easy changeable filter.
The diffuser can be Tee-bar mounted in a ceiling with a 600 mm module size and can be supplied with a plenum box which is delivered ready assembled.

Design:

Perforated diffuser:

border:	extrudeerd aluminium
face plate:	steel
finish	epoxylak
colour:	white RAL 9010

Plenumbox:

material:	steel
finish:	sendzimir verzinkt
inwendige lining:	1/2” ductliner

Volume damper:

material:	steel
finish:	galvanised-sendzimir

Available types:

P R F M - - -

P perforated diffuser
R return
F filtercassette (interchangeable)
M modulair ceiling module size 600 mm

- **type filter**
  O none (without filter)
  F filter

- **accessoires**
  O none
  V damper (only in combination with plenumbox and adapter)

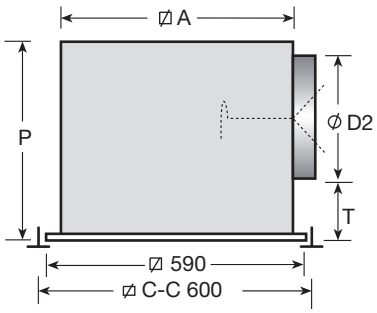
- **available as options**
  A round top connection
  Z square top connection
  R lined plenumbox (mounted)
  U un-lined plenumbox (mounted)

Filtercassette:
Can be ordered separately.

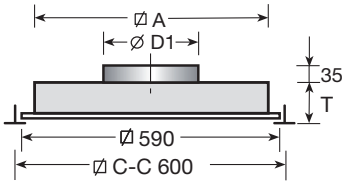
Dimensional data:

model	A	D1	D2	T	P
550	551	313	248	105	395

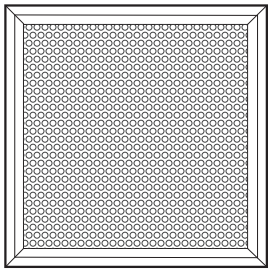
Dimensions:

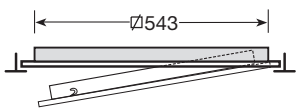


PRFMFOU/R



PRFMFOA





PRFMFOZ

Remarks:

The dimensions are given in mm.

Performance data:

PRFMFOU/R/A:

air volume				
m^3/s	m^3/h	model	Ps	Lp
0.015	54	**550**	1	-
0.020	72	**550**	1	-
0.025	90	**550**	1	-
0.030	108	**550**	1	-
0.040	144	**550**	2	-
0.050	180	**550**	3	-
0.060	216	**550**	4	-
0.080	288	**550**	7	-
0.100	360	**550**	10	-
0.125	450	**550**	14	-
0.150	540	**550**	20	10
0.200	720	**550**	32	16
0.300	1080	**550**	63	26

PRFMOOU/R/A:

air volume				
m^3/s	m^3/h	model	Ps	Lp
0.015	54	**550**	1	-
0.020	72	**550**	1	-
0.025	90	**550**	1	-
0.030	108	**550**	1	-
0.040	144	**550**	1	-
0.050	180	**550**	1	-
0.060	216	**550**	2	-
0.080	288	**550**	3	-
0.100	360	**550**	5	-
0.125	450	**550**	8	-
0.150	540	**550**	11	10
0.200	720	**550**	19	17
0.300	1080	**550**	40	28

PRFMFOZ:

air volume				
m^3/s	m^3/h	model	Ps	Lp
0.200	720	**550**	17	-
0.300	1080	**550**	29	-
0.400	1440	**550**	43	17
0.500	1800	**550**	58	22

PRFMOOZ:

air volume				
m^3/s	m^3/h	model	Ps	Lp
0.200	720	**550**	2	-
0.300	1080	**550**	3	-
0.400	1440	**550**	6	14
0.500	1800	**550**	10	19
0.600	2160	**550**	14	23
0.800	2880	**550**	24	30
1.000	3600	**550**	38	36

CTVM

- Clean perforated diffuser
- Supply
- Flat face plate
- Suited for standard Tee-bar mounting

Application:

The perforated diffuser type CTVM is suited for supplying cooled and heated air with a large temperature differential with respect to the room temperature. The diffuser can be Tee-bar mounted in a ceiling with a module size of 600 mm and can be fitted with a bend or a plenum box.
The high induction effect takes place outside the diffuser and in combination with the precise radial pattern ceiling smudging is kept at a minimum. The very shallow inflow pattern also makes the diffuser type CTVM suited for somewhat lower spaces.
Interface with various ceiling systems is possible, for detail information contact Solid Air Climate Solutions sales office.

Design:

Perforated diffuser:

face plate:	steel/free area 16%
finish:	epoxy powder
colour:	white RAL 9010

Plenum box:

material:	steel
finish:	galvanised sendzimir
lining liner	12 mm duct

Bend:

material:	steel
finish:	galvanised sendzimir

Damper:

material:	steel
finish:	galvanised sendzimir

Available types:

C T V M - - -

C perforated diffuser
T supply
V flat face plate
MI suited for standard Tee-bar mounting

\- **accessories**
O none
V damper (only in combination with a plenumbox)

\- **available as options**
A round top connection
B bend (seperate)
R lined plenum box (supplied loose)
U un-lined plenum box (supplied loose)

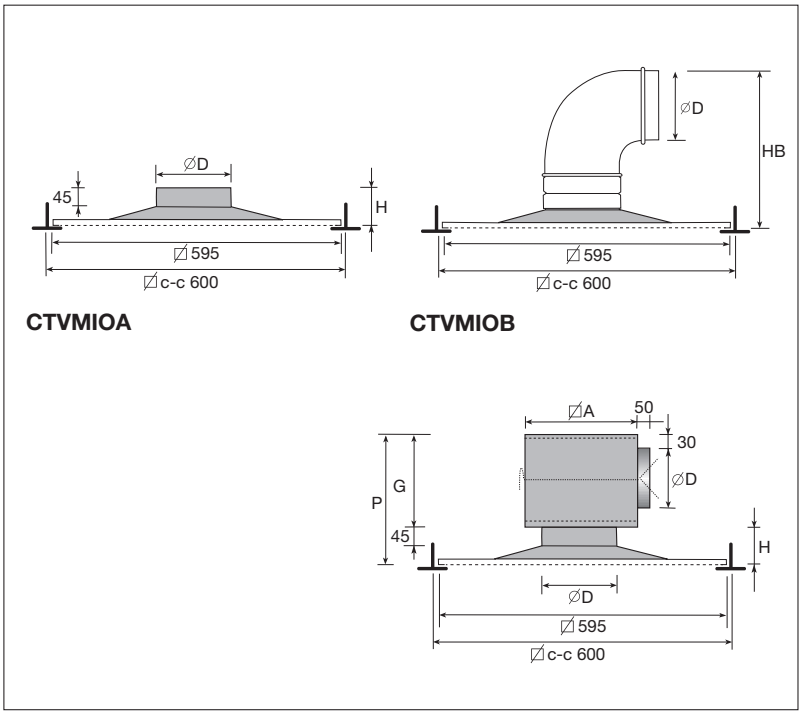
Features:

Max. air exchanges:	up to 15 x
Under temperature:	up to 10 K
Over temperature:	up to 15 K

Dimensional data:

model	A	D	G	P	H	HB
200	184	98	146	210	74	280
250	184	123	171	236	75	320
350	219	158	206	279	83	382
450	259	198	246	327	91	450
550	309	248	296	384	98	535

Dimensions:



Remarks:

The dimensions are given in mm.

Performance data CTVM:

air volume		model			
m^3/s	m^3/h		W	Ps	Lp
0.015	54	**200**	1.2	8	10
0.020	72	**200**	1.5	12	16
0.025	90	**200**	1.8	17	21
		250	1.0	6	13
0.030	108	**200**	2.0	21,6	25
		250	1.2	8	18
0.040	144	**200**	2.2	35	31
		250	1.4	13	24
		350	1.0	6	10
0.050	180	**250**	1.7	18	30
		350	1.2	9	15
0.060	216	**250**	2.5	24	35
		350	1,1	12	20
0.070	252	**350**	1.8	17	24
		450	1.3	8	9
0.080	288	**350**	2,3	21	29
		450	1.6	10	14
0.100	360	**350**	2.9	32	35
		450	1.9	16	20
		550	1.4	11	13
0.125	450	**450**	2.4	25	27
		550	1.8	17	19
0.150	540	**450**	3.0	37	33
		550	2.2	25	24
0.200	720	**550**	2.9	44	30
0.222	800	**550**	3.5	52	35

General:

The throw applies to flush mounted in a flat ceiling.
- throw T in metres.
- static pressure drop Ps in Pa.

The assumed room absorption is 10 dB.
- sound pressure Lp in dB(A).

Intermediate values may be interpolated.

CRVM

- Clean perforated diffuser
- Return
- Flat face plate
- Suited for standard Tee-bar mounting

Application:

The perforated diffuser type CRVM is suited for return air and its external appearance is the same as the CTVM supply diffuser.
The diffuser can be Tee-bar mounted in a ceiling with a 600 mm module size and can be supplied with a bend or lined plenum box which is delivered ready assembled. Interface with various ceiling systems is possible, for detail information contact Solid Air Climate Solutions sales office.

Design:

Perforated diffuser:
face plate: steel/free area 16%
finish: epoxy powder
colour: white RAL 9010

Plenum box:
material: steel
finish: galvanised sendzimir
lining liner 12 mm duct

Bend:
material: steel
finish: galvanised sendzimir

Damper:
material: steel
finish: galvanised sendzimir

Available types:

C R V M - - -

C perforated diffuser
R return
V flat face plate
MI suited for standard Tee-bar mounting

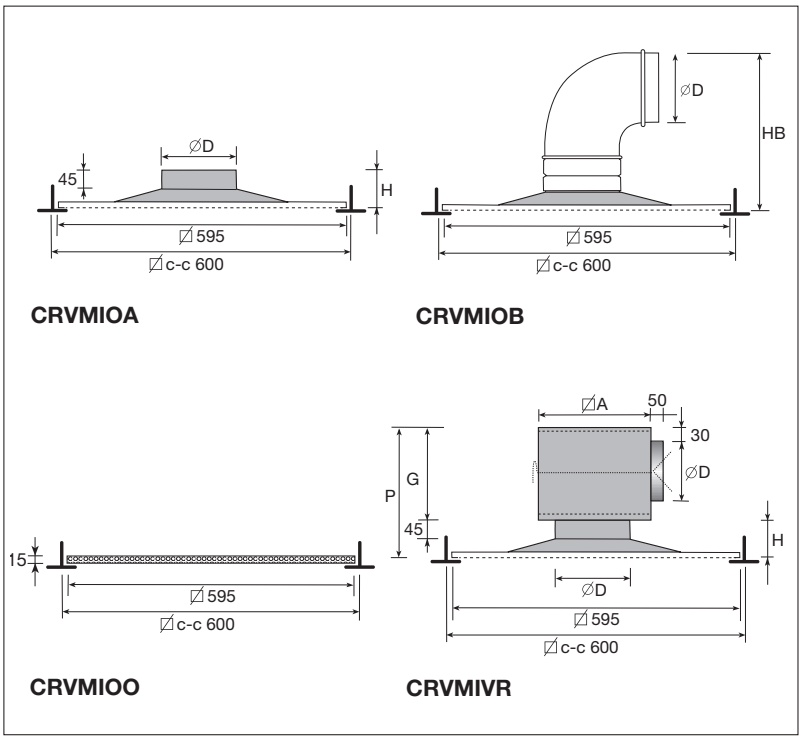
- **accessories**
  O none
  V damper (only in combination with a plenumbox)

- **available as options**
  A round top connection
  B bend (seperate)
  R lined plenum box (assembled)
  U un-lined plenum box (assembled)
  O face plate only

Dimensional data:

model	A	D	G	P	H	HB
200	184	98	146	210	74	280
250	184	123	171	236	75	320
350	219	158	206	279	83	382
450	259	198	246	327	91	450
550	309	248	296	384	98	535

Dimensions:



Remarks:

The dimensions are given in mm.

Performance data CRVM:

CRVM--A / CRVM--B / CRVM--R / CRVM--U:

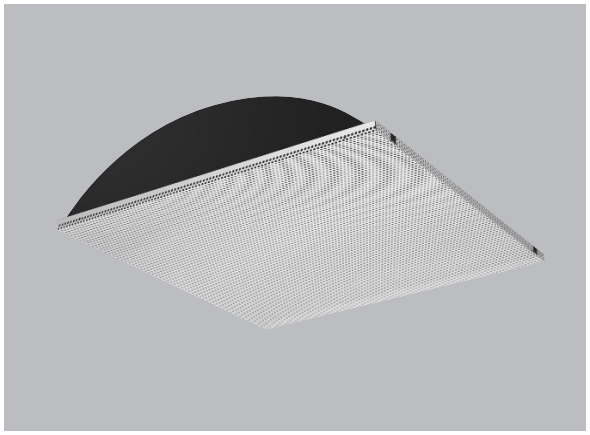
air volume				
m^3/s	m^3/h	model	Ps	Lp
0.015	54	**200**	4	-
0.020	72	**200**	6	-
0.025	90	**200**	8	-
		250	2	-
0.030	108	**200**	9	-
		250	3	-
0.040	144	**200**	11	-
		250	5	-
		350	2	-
0.050	180	**250**	8	-
		350	3	-
0.060	216	**250**	10	12
		350	6	-
0.070	252	**350**	7	-
		450	3	-
0.080	288	**350**	9	-
		450	4	-
0.100	360	**350**	11	14
		450	9	-
		550	4	-
0.125	450	**450**	10	11
		550	7	-
0.150	540	**450**	14	17
		550	11	-
0.200	720	**550**	18	17
0.222	800	**550**	22	21

CRVM-OO:

air volume				
m^3/s	m^3/h	model	Ps	Lp
0.080	288	**550**	2	-
0.100	360	**550**	3	-
0.125	450	**550**	5	-
0.150	540	**550**	5	-
0.200	720	**550**	12	17

General:

• static pressure drop Ps in Pa.
The assumed room absorption is 10 dB.
• sound pressure Lp in dB(A).
Intermediate values may be interpolated.



CRVMION

- **Clean perforated diffuser, transit**
- **Return**
- **Non vision, light thight**
- **Suited for standard Tee-bar mounting**

Application:

The perforated diffuser type CRVMION is non vision. light thight and is suitable for the transition of air the ceiling plenum.

Its external apppearance is the same as the clean perforated diffuser type CTVM and CRVM.
The diffuser can be Tee-bar monted in a ceiling with a 600 mm module size.

Design:

Perforated diffuser:

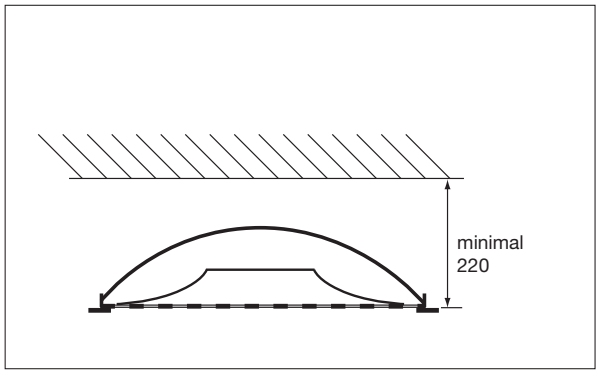
face plate:	steel / free area 16%
finish:	galvanised sendzimir epoxy powder
colour frontplate:	white RAL 9010
colour inside:	black, RAL 9005

Available types:

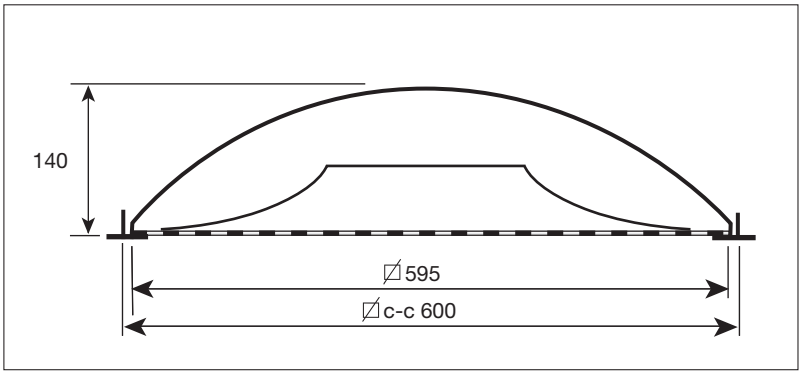
C R V M I O N

C perforated ceiling diffuser
R return
V flat face plate
M suited for standard modular ceiling, module size 600 mm
I T-bar mountable
O not applicable
N non vision plate, light thight

Mounting instructions:



Dimensions:

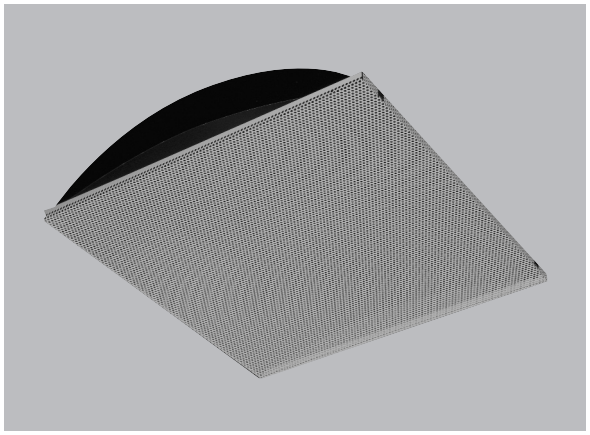


Performance d ata CRVMION:

air volume.				
m³/s	m³/h	model	Ps	Lp
0,080	288	**550**	3	17
0,100	360	**550**	4	19
0,125	450	**550**	6	21
0,150	540	**550**	9	23
0,200	720	**550**	15	24

General:

- Static pressure drop Ps in Pa.
- The assumed room absorption is 10 dB.
- Sound pressure Lp in dB(A).
- Intermediate values may be interpolated.
- The dimensions are given in mm.



PRIMON

- **Perforated diffuser, transit**
- **Return**
- **For Tee-bar mounting**

Application:

The perforated diffuser type PRIM is suited for return air and its external appearance is the same as the PTVM supply diffuser. The free area is 50%.
The diffuser can be Tee-bar mounted in a ceiling with a 600 mm module size and can be supplied with a plenum box which is delivered ready assembled.

Design:

Perforated diffuser:

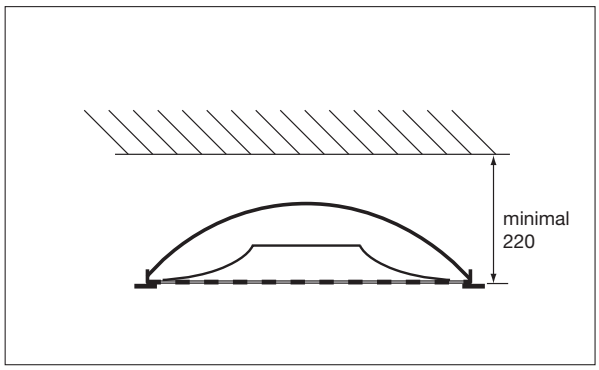
face plate:	steel
finish:	epoxy powder
colour frontplate:	white RAL 9010
colour	black RAL 9005

Available types:

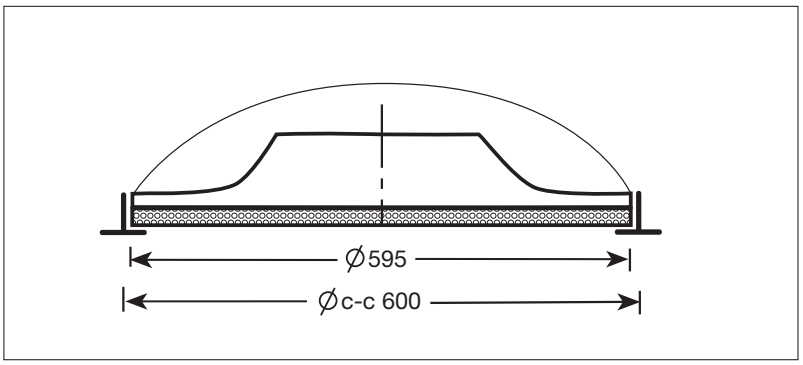
P R I M O -

P perforated ceiling diffuser
R exhaust
I flat face plate
M suited for standard modular ceiling module size 600 mm
O not applicable
N non vision plate, light thight

Mounting instructions:



Dimensions:



Performance data PRIMON:

air volume				
m^3/s	m^3/h	model	Ps	Lp
0.080	288	**550**	2	-
0.100	360	**550**	3	-
0.125	450	**550**	5	-
0.150	540	**550**	7	10
0.200	720	**550**	12	17

General:

• static pressure drop Ps in Pa.
The assumed room absorption is 10 dB.
• sound pressure Lp in dB(A).
Intermediate values may be interpolated.
• The dimensions are given in mm.

PTVS

- **Perforated diffuser, removable face plate**
- **Supply**
- **For Tee-bar mounting**

Application:

The perforated diffuser type PTVS is suited for supplying cooled and heated air with a large temperature differential with respect to the room temperature.
The diffuser has a removable face plate located on the visible side, can be Tee-bar mounted in a ceiling with a 600 mm module size and can be supplied with a plenum box which is delivered ready assembled and includes a stabilisation plate.
The four in-built pattern blades enable a free choice of the spread pattern, also after mounting. Prior to adjustment refer to the performance data. The high induction effect enables a high number of air changes. The precise radial pattern minimises ceiling smudging. The very shallow inflow pattern also makes the diffuser type PTVS suited for somewhat lower spaces. Interface with various ceiling systems is possible, for detail information contact Solid Air Climate Solutions sales office.

Design:

Perforated diffuser:
face plate: steel
finish
visible parts: epoxy powder
colour: white RAL 9010

Plenum box:
material: steel galvanised sendzimir
lining: 1/2" ductliner
finish: none

Damper:
material: steel galvanised sendzimir
finish: none

Optional:
panel size: to 750 mm
plenum box: dropped

Available types:

P T V S - - -

P perforated diffuser
T supply

\- **face plate**
V flat
T tegular (upto model 500)

SI suited for 600 mm sized standard modular ceiling fitted with removable face plate

\- **accessories**
O none
V damper

\- **available as options**
A round top connection
R lined plenum box (assembled)
U un-lined plenum box (assembled)
L lined top connection

Features:

Max. air exchanges:	up to 15 x
Under temperature:	up to 10 K
Over temperature:	up to 15 K
Free area	50%

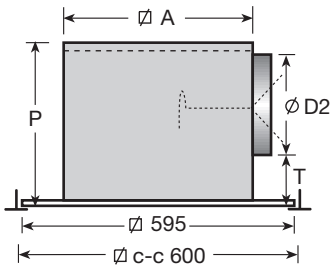
Dimensional data:

model	A	D1	D2	T	P
250	242	123	123	70	235
300	307	158	158	70	270
400	382	198	198	75	315
500	477	248	198	85	325
550	551	313	248	105	395

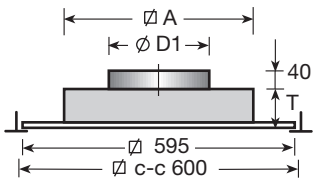
Remarks:

The dimensions are given in mm.
Connection "D" is actual O.D.
Weights are given in kg.
For the diffuser with a tegular edge PTTS-- the dimensions x, y and z must be provided when ordered.
x - z = 12 minimum.
y = 6 minimum.

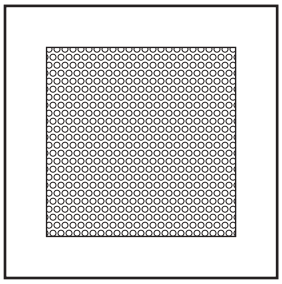
Dimensions:

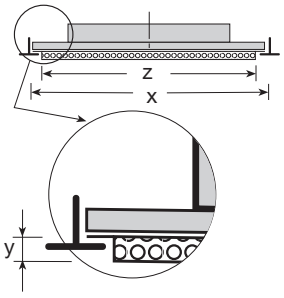


PTVSIVR



PTVSIOA





PTTS-OA

1) model 550 ⌀591: for 15 mm T-bar on request

Performance data PTVS:

air volume		model	spread pattern														
			4-way			3-way			2-way opposite			2-way corner			1-way		
m^3/s	m^3/h		T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp
0.015	54	**250**	**0.4**	1	-	**0.4**	1	-	**0.6**	2	3	**0.6**	3	5	**0.9**	7	13
0.020	72	**250**	**0.6**	1	5	**0.6**	2	7	**0.7**	4	10	**0.7**	4	12	**1.2**	12	21
0.025	90	**250**	**0.7**	2	11	**0.7**	3	13	**0.9**	5	16	**0.9**	7	18	**1.5**	19	27
		300	**0.6**	1	-	**0.6**	1	4	**0.8**	3	7	**0.8**	3	19	**1.3**	9	19
0.030	108	**250**	**0.8**	3	16	**0.9**	4	18	**1.1**	8	21	**1.1**	10	23	**2.0**	28	31
		300	**0.7**	1	2	**0.7**	2	8	**0.9**	4	12	**0.9**	5	14	**1.5**	13	23
0.040	144	**250**	**1.1**	4	23	**1.2**	6	25	**1.5**	13	28	**1.5**	17	29	**2.5**	49	39
		300	**0.9**	3	14	**1.0**	3	16	**1.2**	6	19	**1.2**	8	21	**2.0**	23	31
		400	**0.8**	1	6	**0.8**	2	8	**1.0**	3	12	**1.0**	4	12	**1.7**	11	22
0.050	180	**250**	**1.4**	6	29	**1.5**	10	31	**1.9**	20	34	**1.9**	25	34			
		300	**1.2**	4	20	**1.2**	5	22	**1.5**	10	25	**1.5**	13	27	**2.5**	34	36
		400	**1.0**	2	12	**1.0**	3	14	**1.3**	5	17	**1.3**	6	18	**2.1**	17	28
0.060	216	**250**	**1.7**	8	34	**1.8**	13	36	**2.2**	28	39	**2.2**	35	41			
		300	**1.5**	6	24	**1.5**	8	26	**1.8**	14	30	**1.8**	19	32	**3.0**	51	41
		400	**1.1**	3	17	**1.3**	4	19	**1.5**	7	21	**1.5**	8	23	**2.5**	24	32
		500													**2.1**	13	25
0.080	288	**300**	**1.8**	11	32	**1.9**	14	34	**2.4**	26	37	**2.4**	33	39			
		400	**1.5**	6	24	**1.7**	7	25	**2.0**	13	29	**2.0**	15	30	**3.4**	43	40
		500	**1.3**	4	17	**1.4**	5	19	**1.8**	8	22	**1.8**	10	24	**2.8**	23	32
		550													**2.4**	13	27
0.100	360	**300**	**2.3**	17	38	**2.4**	21	40									
		400	**1.9**	9	30	**2.1**	11	32	**2.6**	20	32	**2.6**	23	36			
		500	**1.6**	4	22	**1.8**	8	25	**2.2**	12	28	**2.2**	15	30	**3.5**	35	38
		550	**1.4**	4	16	**1.6**	4	19	**1.9**	7	21	**1.9**	8	23	**3.1**	21	32
0.125	450	**400**	**2.4**	13	36	**2.6**	18	35									
		500	**2.0**	10	28	**2.3**	12	30	**2.8**	19	34	**2.8**	23	36			
		550	**1.8**	6	22	**2.0**	7	24	**2.4**	10	27	**2.4**	13	29	**3.8**	32	38
0.150	540	**400**	**2.9**	19	40												
		500	**2.5**	15	33	**2.7**	17	35	**3.4**	28	38	**3.4**	34	41			
		550	**2.2**	8	27	**2.4**	10	29	**2.9**	15	32	**2.9**	19	34	**4.6**	47	43
0.200	720	**500**	**3.3**	25	40	**3.6**	30	43									
		550	**2.9**	14	34	**3.2**	18	37	**3.0**	27	40	**3.0**	33	41			
0.250	900	**550**	**3.6**	22	40	**4.0**	27	42	**4.9**	42	45	**4.9**	50	46			
0.300	1080	**550**	**4.3**	32	45												

Spread pattern:

4-way

3-way

2-way corner

2-way opposite

1-way

blade pattern “closed”

blade pattern “open”

Throw correction factor:

V_{end} m/s	throw factor
0.15	1.67
0.20	1.25
0.25	1.00
0.35	0.71
0.50	0.50

Throw figures are based on 0.25 m/s end velocity. In case other end velocities are required correct according to table.

General:

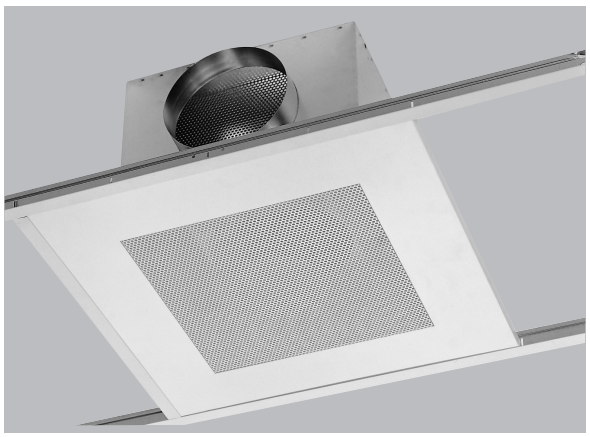
The throw applies to flush mounted in a horizontal dropped ceiling.
- throw T in metres.
- static pressure drop Ps in Pa. The assumed room absorption is 10 dB.
- sound pressure Lp in dB(A). Intermediate values may be interpolated.

Weights:

model	type		Ø vcd
	OA	OR	
250	2.8	4.0	0.1
300	2.9	4.9	0.2
400	3.1	6.0	0.3
500	3.4	7.3	0.4
550	4.0	9.3	0.5

Lined Plenums:

model	middle frequency bands					
	125	250	500	1K	2K	4K
250	5	0	3	10	5	11
300	3	1	6	7	7	9
400	2	2	9	7	7	9
500	2	4	9	7	7	10
550	0	6	7	7	6	9



PRVS

- **Perforated diffuser, removable face plate**
- **Return**
- **For Tee-bar mounting**

Application:

The perforated diffuser type PRVS is suited for return air and its external appearance is the same as the PTVS supply diffuser. The diffuser has a removable face plate (50% free area) located on the visible side, can be Tee-bar mounted in a ceiling with a 600 mm module size and can be supplied with a plenum box which is delivered ready assembled

Design:

Perforated diffuser:
face plate: steel
finish
visible parts: epoxy powder
colour: white RAL 9010

Plenum box:
material: steel
galvanised
sendzimir
lining: 1/2" ductliner
finish: none

Damper:
material: steel
galvanised
sendzimir
finish: none

Optional:
panel size: to 750 mm
plenum box: dropped

Available types:

P R - S - - -

P perforated ceiling diffuser
R return

\- **face plate**
V flat
T tegular (upto model 500)

SI suited for 600 mm module sized modular ceiling, fitted with removable face plate

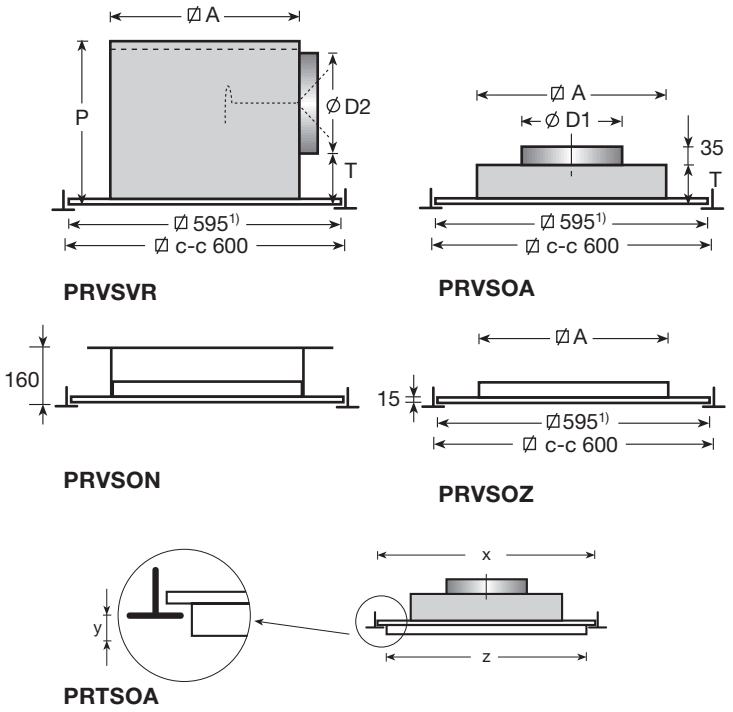
\- **accessories**
O none
V damper
F c/w filter
G c/w filter + damper

\- **available as options**
A round top connection
Z square top connection
R lined plenum box (assembled)
U un-lined plenum box (assembled)
L lined top connection
N square top, non vision plate

Dimensional data:

model	A	D1	D2	T	P
250	242	123	123	70	235
300	307	158	158	70	270
400	382	198	198	75	315
500	477	248	198	85	325
550	551	313	248	105	395

Dimensions:



1) model 550 ⍁591: for 15 mm T-bar on request

Remarks:

The dimensions are given in mm.
Weights are given in kg.
Connection "D" is actual O.D.
Weights are given in kg.

For the diffuser with a tegular edge PTTS-- the dimensions x, y and z must be provided when ordered.
x - z = 12 minimum.

Performance data:

PRVS-OR and PRVS-OA:

air volume		round connection		
m³/s	m³/h	model	Ps	Lp
0.015	54	**250**	1	-
0.020	72	**250**	3	-
0.025	90	**250**	4	-
		300	1	-
0.030	108	**250**	6	-
		300	2	-
0.040	144	**250**	11	-
		300	4	-
		400	1	-
0.050	180	**250**	16	12
		300	6	-
		400	2	-
0.060	216	**250**	24	17
		300	9	-
		400	3	-
		500	3	-
0.080	288	**300**	15	13
		400	6	-
		500	5	-
		550	3	-
0.100	360	**300**	24	19
		400	9	-
		500	8	-
		550	4	-
0.125	450	**400**	14	15
		500	12	15
		550	6	-
0.150	540	**400**	21	20
		500	18	20
		550	9	10
0.200	720	**500**	31	27
		550	16	17
0.250	900	**550**	25	23
0.300	1080	**550**	35	28

PRVS-OZ:

air volume		square connection		
m³/s	m³/h	model	Ps	Lp
0.080	288	**250**	9	10
		300	3	-
0.100	360	**250**	13	15
		300	5	-
		400	2	-
0.125	450	**250**	21	21
		300	8	11
		400	3	-
0.150	540	**250**	30	25
		300	11	15
		400	4	-
		500	2	-
0.200	720	**250**	54	32
		300	20	22
		400	8	13
		500	3	-
		550	2	-
0.300	1080	**300**	45	32
		400	18	23
		500	7	14
		550	3	-
0.400	1440	**300**	79	39
		400	32	30
		500	13	21
		550	6	14
0.500	1800	**400**	49	35
		500	20	26
		550	10	19
0.600	2160	**400**	71	39
		500	29	31
		550	14	23
0.800	2880	**500**	51	37
		550	24	30
1.00	3600	**550**	38	36

General:

The pressure drop applies to fully opened damper.
• static pressure drop Ps in Pa.
The assumed room absorption is 10 dB.
• sound pressure Lp in dB(A)
Intermediate values may be interpolated.

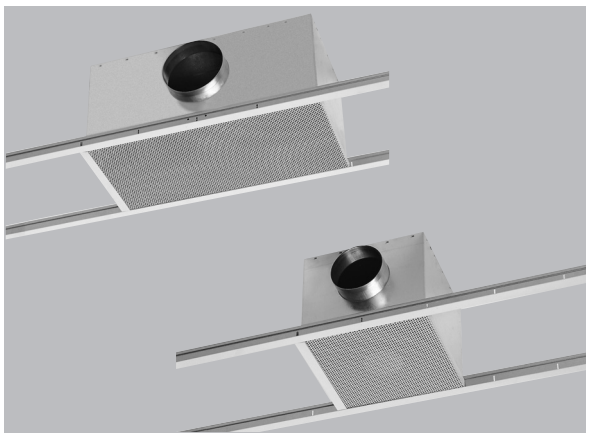
Weights:

model	type		Ø
	OA	OR	vcd
250	2.4	3.2	0.1
300	2.4	4.1	0.2
400	2.3	4.9	0.3
500	2.2	5.7	0.4
550	2.5	7.2	0.5

PRVMOO perforated only: 1.2 kg

Lined Plenums:

model	middle frequency bands					
	125	250	500	1K	2K	4K
250	5	0	3	10	5	11
300	3	1	6	7	7	9
400	2	2	9	7	7	9
500	2	4	9	7	7	10
550	0	6	7	7	6	9



P-VT

- **Perforated diffuser**
- **Supply / return**
- **For Tee-bar mounting**

Application:

The perforated diffuser types PSVT and PTVT are suited for supplying cooled and heated air with a large temperature differential with respect to the room temperature.
The diffuser can be Tee-bar mounted in a ceiling with a module size of 300 mm and can be fitted with a (lined) plenum box which is delivered ready assembled and includes a stabilisation plate.

The type PSVT has a fixed one-way spread pattern. The PTVT type is equipped with pattern adjusting blades that enable a free choice of the discharge direction. Prior to adjustment refer to the performance data. The very shallow inflow pattern also makes these diffusers suited for somewhat lower spaces.
The radial pattern minimises ceiling smudging.

Features:

Max. air exchanges:	up to 15 x
Under temperature:	up to 10 K
Over temperature:	up to 15 K
Free area	50%

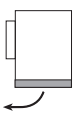
Available dimensions:

	panel	
	600x300	300x300
PSVTOR 160	•	
PTVTOR 125	•	•
PTVTOR 160	•	

Remarks:

The dimensions are given in mm.
Connection “D” is actual O.D.

Type PSVT: The exhaust direction will be in the direction of the connection



Design:

Perforated diffuser:

face plate:	steel
finish	
visible parts:	epoxy powder
colour:	white RAL 9010

Plenum box:

material:	steel galvanised sendzimir
lining:	1/2” ductliner
finish:	none

Damper:

material:	steel galvanised sendzimir
finish:	none

Available types:

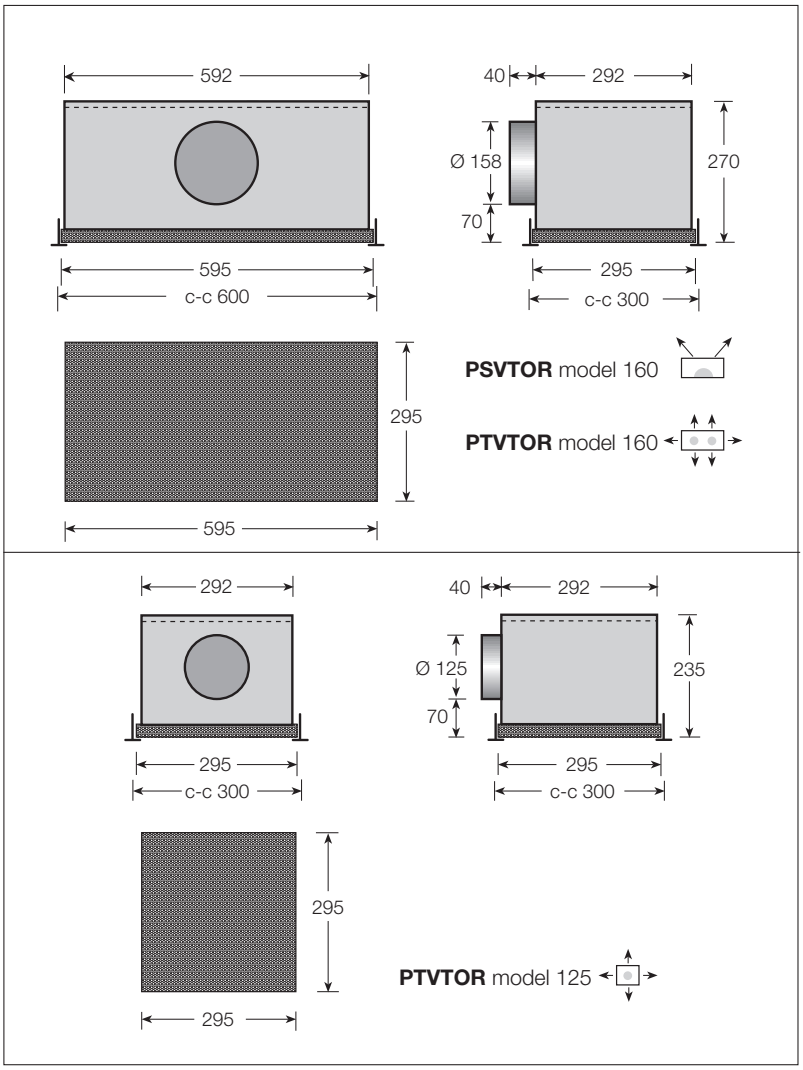
P - V T O R

P perforated ceiling diffuser

- **spread pattern**
- **S** supply, one-way spread pattern (fixed)
- **T** supply, adjustable spread pattern (equipped with pattern blades)
- **R** return

V flat face plate
T suited for standard Tee-bar mounting, module size 300/600 mm
O not applicable
R lined plenum box

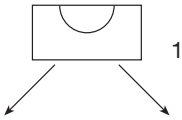
Dimensions:



Performance data:

PSVTOR 160 front 600 x 300

air volume		1-way spread		
m³/s	m³/h	T	Ps	Lp
0.025	90	0.8	2	6
0.030	108	1.0	2	11
0.040	144	1.3	4	19
0.050	180	1.6	7	24
0.060	216	2.0	10	29



1-way spread

PTVTOR 160 front 600 x 300

air volume		4-way			3-way 2K + 1L			3-way 1K + 2L			2-way 1K + 1L		
m³/s	m³/h	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp
0.030	108	0.6	3	-	0.7	4	10	0.6	3	-	0.9	4	10
0.040	144	0.7	6	16	1.0	7	19	0.8	6	17	1.2	7	19
0.050	180	0.9	9	23	1.2	11	26	1.0	10	24	1.4	12	26
0.060	216	1.1	13	28	1.4	16	31	1.2	14	29	1.7	17	31
0.080	288	1.5	23	37	1.9	29	40	1.7	25	38	2.3	29	40
0.100	360	1.8	36	44	2.4	45	47	2.1	39	45	2.9	46	47

air volume		2-way 2L			2-way 2K			1-way 1L			1-way 1K		
m³/s	m³/h	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp
0.020	72	0.5	3	-	0.6	2	-	0.8	2	-	1.1	7	24
0.025	90	0.7	5	-	0.7	3	-	1.0	3	-	1.4	11	30
0.030	108	0.8	7	15	0.8	5	13	1.2	5	13	1.7	16	35
0.040	144	1.0	11	24	1.1	9	22	1.6	9	22	2.2	28	42
0.050	180	1.4	19	31	1.4	13	29	2.0	13	29	2.8	44	48
0.060	216	1.7	30	36	1.7	19	34	2.3	20	34			
0.080	288	2.1	47	46	2.2	34	43	3.1	36	43			

4-way

3-way
2 short + 1 long

3-way
1 short + 2 long

2-way
1 short + 1 long

2-way
2 short

2-way
2 long

1-way
1 short

1-way
1 long

PTVTOR 125 front 300 x 300

air volume		4-way			3-way			2-way opposite			2-way corner			1-way		
m³/s	m³/h	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp
0.015	54	0.4	1	-	0.4	1	-	0.6	2	3	0.6	3	5	0.9	7	13
0.020	72	0.6	1	5	0.6	2	7	0.7	4	10	0.7	4	12	1.2	12	21
0.025	90	0.7	2	11	0.7	3	13	0.9	5	16	0.9	7	18	1.5	19	27
0.030	108	0.8	3	16	0.9	4	18	1.1	8	21	1.1	10	23	2	28	31
0.040	144	1.1	4	23	1.2	6	25	1.5	13	28	1.5	17	29	2.5	49	39
0.050	180	1.4	6	29	1.5	10	31	1.9	20	34	1.9	25	34			
0.060	216	1.7	8	34	1.9	13	36	2.2	28	39	2.2	35	41			

4-way

3-way

2-way corner

2-way opposite

1-way

pattern blade “closed”

pattern blade “open”

Return:

If used as return diffuser please refer to chapter 3 page 179
PSVT and PTVT 160 : performance data PRVDOR 300
PTVT 125 : performance data PRVDOR 250

General:

The throw applies to flush mounted in a horizontal dropped ceiling.
• throw T in metres.
• static pressure drop Ps in Pa.
The assumed room absorption is 10 dB.
• sound pressure Lp in dB(A)
Intermediate values may be interpolated.

Lined Plenums:

model	middle frequency bands					
	125	250	500	1K	2K	4K
300	3	1	6	7	7	9
600	4	0	5	8	7	8

PDVM

- **Perforated**
- **Supply, for Tee-bar mounting**
- **Vertical, down-flow**

Application:

The down-flow ceiling diffuser type PDVM is suited for supplying cooled air with a small temperature differential. The diffuser can be Tee-bar mounted in a ceiling. The diffuser is designed for supply in rooms with a very high number of air changes such as laboratories and computer areas.
Since the final velocity of the air in the occupied zone depends on the temperature differential, the use and layout of the room must be taken into account when installing the supply panels.

Design:

Ceiling diffuser:

bottom and intermediate plates material:	steel
finish bottom plate:	epoxy powder
colour:	white RAL 9010
top section:	
material:	steel galvanised sendzimir
finish:	none

Plenum box:

material:	steel galvanised sendzimir
finish:	none

Available types:

P D V M O -

P perforated ceiling
D supply, vertical pattern
V flat face plate
M modular T-bar ceiling system
O no accessories

- **available as options**
A round top connection
U un-lined plenum box
Z square top connection

Features:

Max. air exchanges:	up to 100 x
Under temperature:	up to 6 K
Over temperature:	up to 0 K
Free area	30%

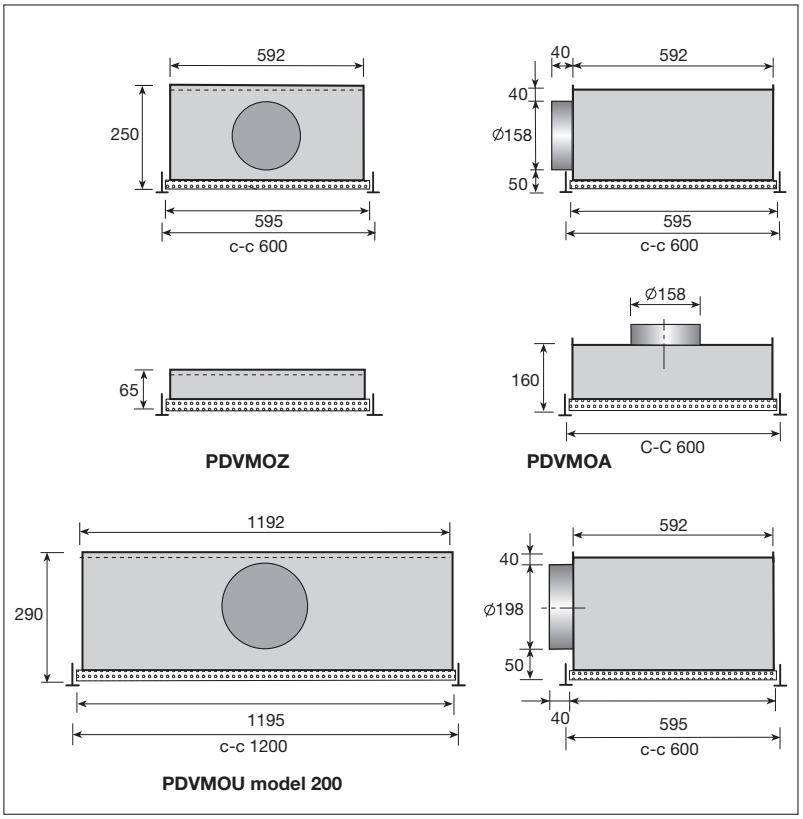
Available dimensions:

	panel	
	600x600	600x1 200
PDVMOU 160	•	
PDVMOU 200		•
PDVMOZ 160	•	
PDVMOZ 200		•
PDVMOA 160	•	
PDVMOA 200		•

Remarks:

The dimensions are given in mm.
Connection “D” is actual O.D.

Dimensions:



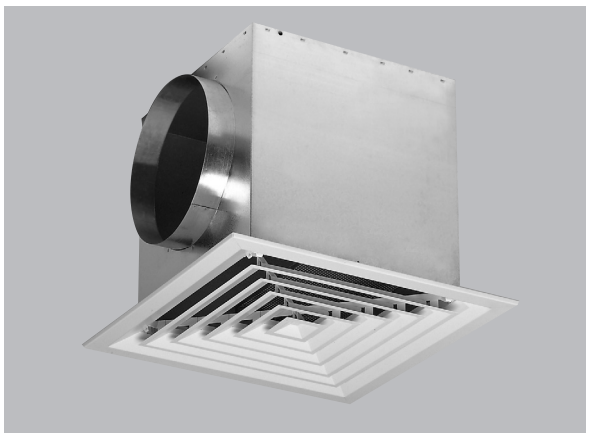
Performance data PDVM:

air volume		dis-tance	panel dimensions					
			600 x 600			1200 x 600		
m^3/s	m^3/h		velocity	Ps	Lp	velocity	Ps	Lp
0.025	90	**0.3**	0.16	3	-			
		0.6	0.16	3	-			
		0.9	0.16	3	-			
		1.2	0.16	3	-			
		1.5	0.16	3	-			
		1.8	0.16	3	-			
0.030	108	**0.3**	0.19	5	-			
		0.6	0.19	5	-			
		0.9	0.19	5	-			
		1.2	0.19	5	-			
		1.5	0.19	5	-			
		1.8	0.19	5	-			
0.040	144	**0.3**	0.26	8	14			
		0.6	0.26	8	14			
		0.9	0.26	8	14			
		1.2	0.26	8	14			
		1.5	0.26	8	14			
		1.8	0.26	8	14			
0.050	180	**0.3**	0.32	13	20	0.16	3	-
		0.6	0.32	13	20	0.16	3	-
		0.9	0.32	13	20	0.16	3	-
		1.2	0.32	13	20	0.16	3	-
		1.5	0.32	13	20	0.16	3	-
		1.8	0.32	13	20	0.16	3	-
0.060	216	**0.3**	0.38	18	25	0.19	5	10
		0.6	0.38	18	25	0.19	5	10
		0.9	0.38	18	25	0.19	5	10
		1.2	0.38	18	25	0.19	5	10
		1.5	0.38	18	25	0.19	5	10
		1.8	0.38	18	25	0.19	5	10
0.080	288	**0.3**	0.51	32	32	0.26	8	17
		0.6	0.51	32	32	0.26	8	17
		0.9	0.51	32	32	0.26	8	17
		1.2	0.51	32	32	0.26	8	17
		1.5	0.51	32	32	0.26	8	17
		1.8	0.51	32	32	0.26	8	17
0.100	360	**0.3**				0.32	13	23
		0.6				0.32	13	23
		0.9				0.32	13	23
		1.2				0.32	13	23
		1.5				0.32	13	23
		1.8				0.32	13	23
0.125	450	**0.3**				0.40	20	29
		0.6				0.40	20	29
		0.9				0.40	20	29
		1.2				0.40	20	29
		1.5				0.40	20	29
		1.8				0.40	20	29

General:

The velocities given in the table apply to an isothermal situation and for separated panels.
The values are to be used as a reference guideline. The final velocity of the descending air column is strongly dependent on the effective differential between the temperatures of the supply and room air. Vertical air patterns can be applied for a high number of air changes.
The exhaust points should preferably be projected above the heat source(s).
In case of a difference greater than 2 K between the room and supply air temperature the panels should not be installed directly above stationary people.
Placement above mobile people (such as passageways, etc.) and above unoccupied areas is much less critical.

• Static pressure drop Ps in Pa.
The assumed room absorption is 10 dB.
• Sound pressure Lp in dB(A).
Intermediate values may be interpolated.



LTVD

- **Louvre-face diffuser**
- **Supply**

Application:

The louvre-face diffuser type LTVD is suited for supplying cooled and heated air with a large temperature differential with respect to the room temperature. The diffuser can be mounted in the ceiling and can be fitted with a plenum box which is delivered ready assembled and includes a stabilisation plate. The long throw also ensures good room ventilation for a low number of air changes.
The choice of five spread patterns enables a great freedom of placement.
The ceiling diffuser type LTVD has a large capacity, regardless of the chosen spread pattern. Blanking plates, to give a 4-way front a 3, 2, or 1 way function are available.

Features:

Max. air exchanges:	up to 8 x
Under temperature:	up to 10 K
Over temperature:	up to 10 K

Design:

Louvre-face diffuser:

flange and internal assembly:	steel
finish:	epoxy powder
colour:	white RAL 9010

Plenum box:

material:	steel galvanised sendzimir
lining:	1/2” ductliner
finish:	none

Damper:
Circular spigot:

material:	steel galvanised sendzimir
finish:	none

Square model:

material:	aluminium
finish:	none

Optional:

plenum box:	dropped

Available types:

L T V D - -

L louvre-face ceiling diffuser
T supply
V fixed louvres
D flange (30 mm)

- accessories
O none
V spigot damper (upto 313)
S neck damper on rear of grille

- available as options
Z square top connection
U fixed assembled un-lined plenum box
R fixed assembled, lined plenum box
A top connection
L lined top connection

Remarks:

Blanking quadrants are available where 4 way appearance is required.

Dimensional data:

model	B	C	D	A	P	T
250	250	290	123	156	265	95
325	325	369	198	233	340	95
400	400	443	248	309	390	100
475	475	520	278	385	420	110
550	550	595	313	461	455	130

For LTVDSA: T+50

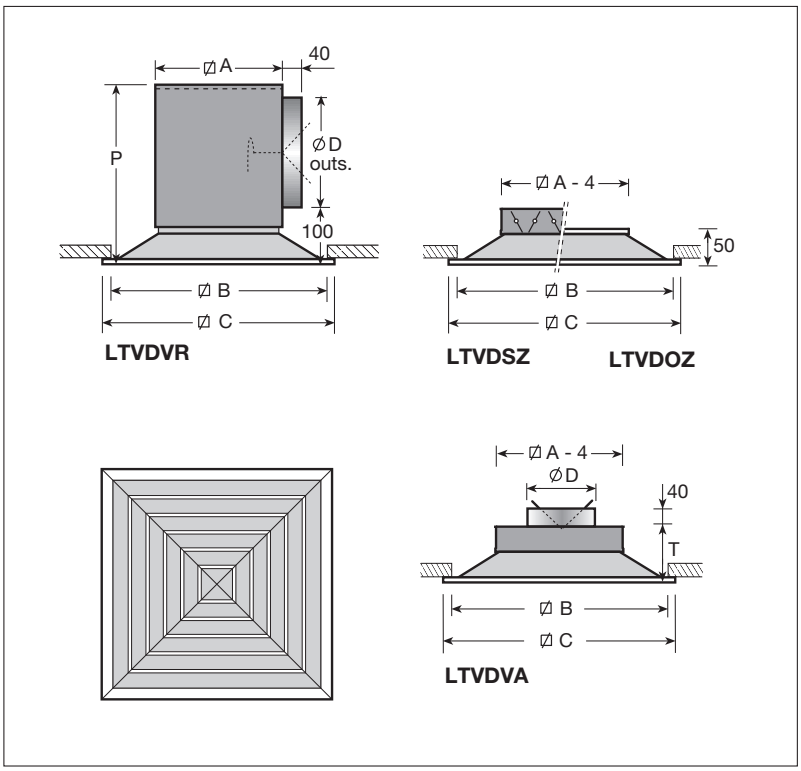
Weights:

model	type				Ø
	OA	OR	OZ	VZ	vcd
250	1.2	1.8	0.7	1.0	0.1
325	1.6	2.9	0.9	1.4	0.3
400	2.2	4.2	1.1	1.9	0.4
475	2.8	5.5	1.3	2.5	0.5
550	3.7	7.1	1.5	3.1	0.6

Remarks:

The dimensions are given in mm.
Weights are given in kg.
Connection “D” is actual O.D.
Unless requested differently core will be 4-way.

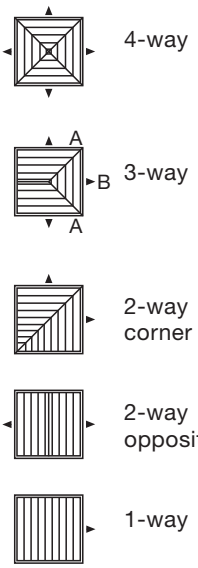
Dimensions:



Performance data LTVD:

air volume		model	spread pattern															
			4-way			3-way				2-way opposite			2-way corner			1-way		
m^3/s	m^3/h		T	Ps	Lp	T(A)	T(B)	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp
0.025	90	**250**	**1.2**	4	-	**1.3**	**1.2**	4	-	**1.5**	5	-	**1.5**	5	-	**2.4**	6	-
0.030	108	**250**	**1.3**	6	-	**1.4**	**1.2**	6	-	**1.7**	7	-	**1.7**	6	-	**2.6**	8	-
0.040	144	**250**	**1.5**	10	23	**1.7**	**1.4**	10	25	**1.9**	12	25	**1.9**	12	26	**3.1**	15	28
		325	**1.2**	2	-	**1.3**	**1.2**	3	-	**1.6**	3	-	**1.6**	3	-	**2.4**	4	-
0.050	180	**250**	**1.6**	15	26	**1.9**	**1.6**	16	26	**2.2**	16	26	**2.2**	16	26	**3.4**	20	28
		325	**1.3**	4	12	**1.5**	**1.2**	5	16	**1.7**	5	14	**1.7**	5	16	**2.6**	6	18
0.060	216	**250**	**1.9**	24	32	**2.2**	**1.9**	24	30	**2.5**	30	32	**2.5**	27	31	**3.7**	35	32
		325	**1.4**	6	17	**1.6**	**1.3**	7	20	**1.8**	7	19	**1.8**	7	20	**2.9**	8	23
0.080	288	**250**	**2.3**	33	38	**2.6**	**2.3**	33	39	**3.0**	38	38	**3.0**	35	40	**4.8**	42	41
		325	**1.7**	10	20	**2.0**	**1.7**	10	22	**2.3**	12	20	**2.3**	12	22	**3.6**	14	24
		400	**1.5**	2	-	**1.7**	**1.5**	2	-	**2.0**	3	-	**2.1**	3	-	**3.2**	4	-
0.100	360	**250**	**2.9**	55	45	**3.3**	**2.8**	56	46	**3.8**	64	46	**3.8**	58	46	**6.0**	73	47
		325	**2.1**	14	26	**2.4**	**2.1**	16	28	**2.8**	17	27	**2.8**	18	27	**4.5**	21	29
		400	**1.9**	3	-	**2.0**	**1.9**	4	17	**2.6**	5	15	**2.6**	4	15	**4.0**	5	17
0.125	450	**325**	**2.7**	21	32	**3.0**	**2.6**	25	33	**3.5**	27	32	**3.5**	28	33	**5.6**	32	34
		400	**2.5**	5	19	**2.7**	**2.4**	6	20	**3.3**	8	20	**3.3**	6	20	**5.0**	8	22
		475	**2.2**	4	-	**2.5**	**2.2**	4	15	**2.9**	4	15	**2.9**	4	12	**4.5**	5	16
0.150	540	**325**	**3.2**	32	37	**3.7**	**3.2**	37	38	**4.2**	38	37	**4.2**	40	38	**6.7**	46	39
		400	**2.9**	8	24	**3.2**	**2.8**	10	27	**3.8**	12	25	**3.8**	9	24	**5.8**	12	26
		475	**2.6**	5	18	**2.8**	**2.5**	6	19	**3.4**	7	20	**3.4**	6	18	**5.2**	7	21
0.200	720	**325**	**4.3**	55	45	**4.9**	**4.2**	65	46	**5.6**	68	46	**5.6**	70	47	**8.9**	85	48
		400	**3.6**	14	31	**4.0**	**3.6**	17	34	**4.8**	21	32	**4.8**	16	32	**7.3**	21	34
		475	**3.2**	10	25	**3.6**	**3.2**	11	26	**4.3**	12	26	**4.3**	12	25	**6.5**	14	28
		550	**2.6**	6	20	**3.0**	**2.6**	6	19	**3.4**	7	20	**3.4**	6	20	**5.4**	8	22
0.250	900	**400**	**4.3**	21	37	**4.8**	**4.3**	26	40	**5.7**	32	37	**5.7**	24	38	**8.7**	32	39
		475	**3.8**	14	30	**4.3**	**3.8**	16	31	**6.2**	17	32	**5.1**	17	32	**7.8**	19	32
		550	**3.3**	8	23	**3.7**	**3.2**	9	24	**4.3**	10	24	**4.3**	10	24	**6.8**	12	27
0.300	1080	**400**	**5.0**	31	42	**5.5**	**4.9**	37	45	**6.6**	46	42	**6.6**	35	43	**10.1**	46	44
		475	**4.5**	21	35	**4.9**	**4.4**	23	36	**5.9**	25	36	**5.9**	24	35	**9.0**	27	38
		550	**3.9**	12	28	**4.4**	**3.9**	13	28	**5.1**	14	30	**5.1**	14	29	**8.1**	17	32
0.400	1440	**475**	**5.6**	35	43	**6.2**	**5.6**	38	44	**7.5**	41	45	**7.5**	40	44	**11.4**	45	46
		550	**5.2**	24	37	**5.9**	**5.2**	26	37	**6.8**	28	38	**6.8**	30	38	**10.8**	32	34

Spread pattern:



When ordering specify pattern.

Throw correction factor:

V_{end} m/s	Throw factor
0.15	1.67
0.20	1.25
0.25	1.00
0.35	0.71
0.50	0.50

Throw figures are based on 0.25 m/s end velocity. In case other end velocities are required correct according to table.

Remark:

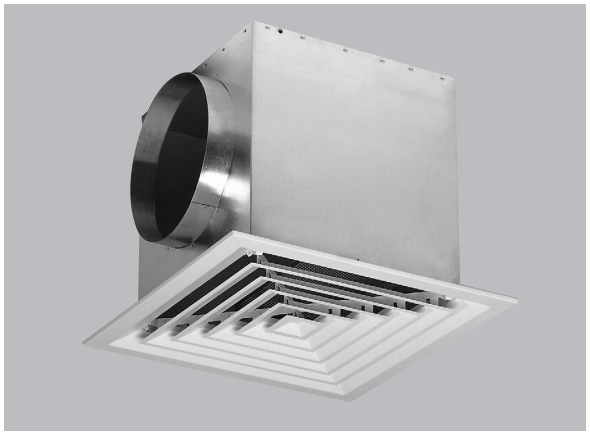
NC is dB(A) minus 7 dB.
NR is dB(A) minus 4 dB.
Without plenum box and optimal connection the Lp values may be reduced by 3 dB.

General:

The throw applies to flush mounted in a horizontal dropped ceiling.
• Throw T in metres.
The pressure drop applies to a fully opened damper.
• Static pressure drop Ps in Pa.
The assumed room absorption is 10 dB.
• Sound pressure Lp in dB(A).
Intermediate values may be interpolated.
For LTV type diffusers counts:
NC is dB(A) minus 7 dB
NR is dB(A) minus 4 dB
Without plenumbox and optimal connection, the Lp vallues may be reduced by 3 dB.

Lined Plenums:

model	middle frequency bands					
	125	250	500	1K	2K	4K
250	5	0	3	10	5	11
325	3	1	6	7	7	9
400	2	2	9	7	7	9
475	2	4	9	7	7	10
550	0	6	7	7	6	9



LRVD

- Louvre-face diffuser
- Return

Application:

The louvre-face diffuser type LRVD is suited for return air and its appearance is the same as the supply diffuser LTVD.
The diffuser can be mounted in the ceiling and can be fitted with a plenum box which is delivered ready assembled.

Design:

Louvre-face diffuser:

flange and internal:	
assembly:	steel
finish:	epoxy powder
colour:	white RAL 9010

Plenum box:

material:	steel galvanised sendzimir
lining:	1/2" ductliner
finish:	none

Damper:
Circular spigot:

material:	steel galvanised sendzimir
finish:	none

Square model:

material:	aluminium
finish:	none

Optional:

plenum box:	dropped

Available types:

L R V D - -

L louvre-face ceiling diffuser
R return
V fixed louvres
D flange (30 mm)

- accessories
O none
V spigot damper (upto 313)
S neck damper on rear of grille

- available as options
Z square top connection
A round top connection
U fixed assembled, un-lined plenum box
R fixed assembled, lined plenum box
L lined top connection
N square top, non vision plate (no VCD)

Remarks:

Blanking quadrants are available where 4 way appearance is required.

Dimensional data:

model	B	C	D	A	P	T
250	250	290	123	156	265	95
325	325	369	198	233	340	95
400	400	443	248	309	390	100
475	475	520	278	385	420	100
550	550	595	313	461	455	130

For LRVDSA: T+50

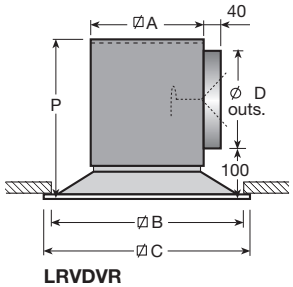
Weights:

model	type				ø vcd
	OA	OR	OZ	VZ	
250	1.2	1.8	0.7	1.0	0.1
325	1.6	2.9	0.9	1.4	0.3
400	2.2	4.2	1.1	1.9	0.4
475	2.8	5.5	1.3	2.5	0.5
550	3.7	7.1	1.5	3.1	0.6

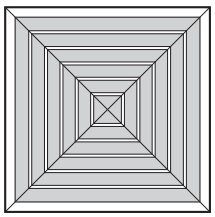
Remarks:

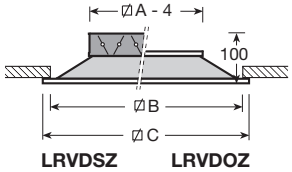
The dimensions are given in mm.
Weights are given in kg.
Connection "D" is actual O.D.
Unless requested differently core will be 4-way.

Dimensions:



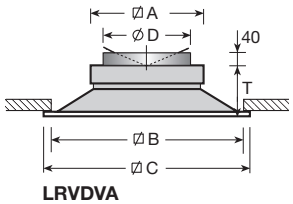
LRVDVR





LRVDSZ LRVDOZ

LRVDON



LRVDVA

Performance data LRVD:

air volume		round and square connection		
m^3/s	m^3/h	model	Ps	Lp
0.015	54	**250**	1	-
0.020	72	**250**	3	-
0.025	90	**250**	4	-
		325	1	-
0.030	108	**250**	6	-
		325	1	-
0.040	144	**250**	10	-
		325	2	-
		400	1	-
0.050	180	**250**	14	12
		325	3	-
		400	2	-
0.060	216	**250**	22	18
		325	3	-
		400	2	-
		475	1	-
0.080	288	**325**	6	-
		400	3	-
		475	2	-
		550	2	-
0.100	360	**325**	9	-
		400	7	-
		475	5	-
		550	4	-
0.125	450	**400**	12	15
		475	8	10
		550	6	-
0.150	540	**400**	18	22
		475	12	15
		550	9	10
0.200	720	**475**	24	23
		550	16	17
0.250	900	**550**	22	22
0.300	1080	**550**	35	28
0.400	1440	**550**	63	35
0.500	1800	**550**	98	41

General:

The pressure drop applies to fully opened damper.
• Static pressure drop Ps in Pa.
The assumed room absorption is 10 dB.
• Sound pressure Lp in dB(A).
Intermediate values may be interpolated.

Lined Plenums:

model	middle frequency bands					
	125	250	500	1K	2K	4K
250	5	0	3	10	5	11
325	3	1	6	7	7	9
400	2	2	9	7	7	9
475	2	4	9	7	7	10
550	0	6	7	7	6	9

LTVM

- **Louvre-face diffuser**
- **Supply**
- **For Tee-bar mounting**

Application:

The louvre-face diffuser type LTVM is suited for supplying cooled and heated air with a large temperature differential with respect to the room temperature. The diffuser can be Tee-bar mounted in a ceiling with a module size of 600 mm and can be fitted with a plenum box which is delivered ready assembled and includes a stabilisation plate.
The long throw also enables good room ventilation for a low number of air changes.
The choice of five spread patterns enables a great freedom of placement.
The ceiling diffuser type LTVM has a large capacity, regardless of the chosen spread pattern. Blanking plates, to give a 4-way front a 3, 2, or 1 way function are available.

Features:

Max. air ex changes:	up to 8 x
Under temperature:	up to 10 K
Over temperature:	up to 10 K

Dimensional data:

Model	A	D	P	T
250	156	123	270	95
325	233	198	345	95
400	309	248	395	100
475	385	278	425	110
550	461	313	460	130

For LTVMSA: T+50

Weights:

model	type				Ø vcd
	OA	OR	OZ	VZ	
250	3.1	3.9	2.6	2.9	0.1
325	3.3	4.6	2.6	3.1	0.3
400	3.6	5.6	2.5	3.3	0.4
475	3.8	6.5	2.3	3.5	0.5
550	3.7	7.1	1.5	3.1	0.6

Remarks:

The dimensions are given in mm.
Weights are given in kg. Connection “D” is actual O.D.
For the diffuser with a tegular edge LTTM-- the dimensions x, y and z must be provided when ordered.
x - z = 12 minimum.
y = 6 minimum.
Unless requested differently core will be 4-way.

Design:

Louvre-face diffuser:

face plate and internal assembly:	steel
finish:	epoxy powder
colour:	white RAL 9010

Plenum box:

material:	steel galvanised sendzimir
lining:	1/2” ductliner
finish:	none

Damper:
Circular model:

material:	steel galvanised sendzimir
finish:	none

Square model:

material:	aluminium
finish:	none

Optional:

panel size:	620 mm
plenum box:	dropped

Available types:

L T - M - -

L louvre-face ceiling diffuser
T supply

- louvres
V fixed louvres
T tegular, fixed (upto model 475)

M suited for a standard modular ceiling module size 600 mm.

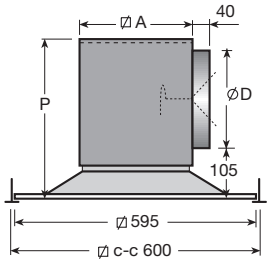
- accessories
O none
V spigot damper (upto 313)
S neck damper on rear of grille

- available as options
Z square top connection
R lined plenum box (assembled)
U un-lined plenum box (assembled)
A top connection
L lined top connection

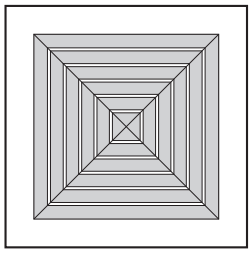
Remarks:

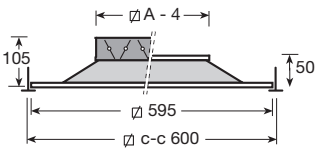
Blanking quadrants are available where 4 way appearance is required.

Dimensions:

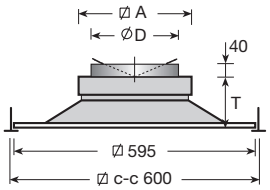


LTVMVR

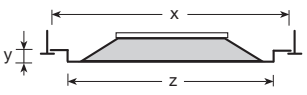




LTVMSZ **LTVMOZ**



LTVMVA

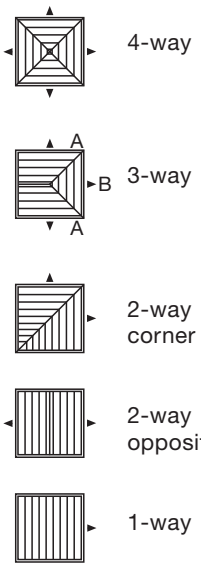


LTTM--

Performance data LTVM:

airvolume		model	spread pattern															
			4-way			3-way				2-way opposite			2-way corner			1-way		
m^3/s	m^3/h		T	Ps	Lp	T(A)	T(B)	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp
0.025	90	**250**	**1.2**	4	-	**1.3**	**1.2**	4	-	**1.5**	5	-	**1.5**	5	-	**2.4**	6	-
0.030	108	**250**	**1.3**	6	-	**1.4**	**1.2**	6	-	**1.7**	7	-	**1.7**	6	-	**2.6**	8	-
0.040	144	**250**	**1.5**	10	23	**1.7**	**1.4**	10	25	**1.9**	12	25	**1.9**	12	26	**3.1**	15	28
		325	**1.2**	2	-	**1.3**	**1.2**	3	-	**1.6**	3	-	**1.6**	3	-	**2.4**	4	-
0.050	180	**250**	**1.6**	15	26	**1.9**	**1.6**	16	26	**2.2**	16	26	**2.2**	16	26	**3.4**	20	28
		325	**1.3**	4	12	**1.5**	**1.2**	5	16	**1.7**	5	14	**1.7**	5	16	**2.6**	6	18
0.060	216	**250**	**1.9**	24	32	**2.2**	**1.9**	24	30	**2.5**	30	32	**2.5**	27	31	**3.7**	35	32
		325	**1.4**	6	17	**1.6**	**1.3**	7	20	**1.8**	7	19	**1.8**	7	20	**2.9**	8	23
0.080	288	**250**	**2.3**	33	38	**2.6**	**2.3**	33	39	**3.0**	38	38	**3.0**	35	40	**4.8**	42	41
		325	**1.7**	10	20	**2.0**	**1.7**	10	22	**2.3**	12	20	**2.3**	12	22	**3.6**	14	24
		400	**1.5**	2	-	**1.7**	**1.5**	2	-	**2.0**	3	-	**2.1**	3	-	**3.2**	4	-
0.100	360	**250**	**2.9**	55	45	**3.3**	**2.8**	56	46	**3.8**	64	46	**3.8**	58	46	**6.0**	73	47
		325	**2.1**	14	26	**2.4**	**2.1**	16	28	**2.8**	17	27	**2.8**	18	27	**4.5**	21	29
		400	**1.9**	3	-	**2.0**	**1.9**	4	17	**2.6**	5	15	**2.6**	4	15	**4.0**	5	17
0.125	450	**325**	**2.7**	21	32	**3.0**	**2.6**	25	33	**3.5**	27	32	**3.5**	28	33	**5.6**	32	34
		400	**2.5**	5	19	**2.7**	**2.4**	6	2	**3.3**	8	20	**3.3**	6	20	**5.0**	8	22
		475	**2.2**	4	-	**2.5**	**2.2**	4	15	**2.9**	4	15	**2.9**	4	12	**4.5**	5	16
0.150	540	**325**	**3.2**	32	37	**3.7**	**3.2**	37	38	**4.2**	38	37	**4.2**	40	38	**6.7**	46	39
		400	**2.9**	8	24	**3.2**	**2.8**	10	27	**3.8**	12	25	**3.8**	9	24	**5.8**	12	26
		475	**2.6**	5	18	**2.8**	**2.5**	6	19	**3.4**	7	20	**3.4**	6	18	**5.2**	7	21
0.200	720	**325**	**4.3**	55	45	**4.9**	**4.2**	65	46	**5.6**	68	46	**5.6**	70	47	**8.9**	85	48
		400	**3.6**	14	31	**4.0**	**3.6**	17	34	**4.8**	21	32	**4.8**	16	32	**7.3**	21	34
		475	**3.2**	10	25	**3.6**	**3.2**	11	26	**4.3**	12	26	**4.3**	12	25	**6.5**	14	28
		550	**2.6**	6	20	**3.0**	**2.6**	6	19	**3.4**	7	20	**3.4**	6	20	**5.4**	8	22
0.250	900	**400**	**4.3**	21	37	**4.8**	**4.3**	26	40	**5.7**	32	37	**5.7**	24	38	**8.7**	32	39
		475	**3.8**	14	30	**4.3**	**3.8**	16	31	**6.2**	17	32	**5.1**	17	32	**7.8**	19	32
		550	**3.3**	8	23	**3.7**	**3.2**	9	24	**4.3**	10	24	**4.3**	10	24	**6.8**	12	27
0.300	1080	**400**	**5.0**	31	42	**5.5**	**4.9**	37	45	**6.6**	46	42	**6.6**	35	43	**10.1**	46	44
		475	**4.5**	21	35	**4.9**	**4.4**	23	36	**5.9**	25	36	**5.9**	24	35	**9.0**	27	38
		550	**3.9**	12	28	**4.4**	**3.9**	13	28	**5.1**	14	30	**5.1**	14	29	**8.1**	17	32
0.400	1440	**475**	**5.6**	35	43	**6.2**	**5.6**	38	44	**7.5**	41	45	**7.5**	40	44	**11.4**	45	46
		550	**5.2**	24	37	**5.9**	**5.2**	26	37	**6.8**	28	38	**6.8**	30	38	**10.8**	32	34

Spread pattern:



When ordering specify spread pattern.

Throw correction factor:

V_{end} m/s	throw factor
0.15	1.67
0.20	1.25
0.25	1.00
0.35	0.71
0.50	0.50

Throw figures are based on 0.25 m/s end velocity. In case other end velocities are required correct according to table.

General:

The throw applies to flush mounted in a horizontal dropped ceiling.
• Throw T in metres.
The pressure drop applies to a fully opened damper.
• Static pressure drop Ps in Pa.
The assumed room absorption is 10 dB.
• Sound pressure Lp in dB(A).
Intermediate values may be interpolated.

Lined Plenums:

model	middle frequency bands					
	125	250	500	1K	2K	4K
250	5	0	3	10	5	11
325	3	1	6	7	7	9
400	2	2	9	7	7	9
475	2	4	9	7	7	10
550	0	6	7	7	6	9

LRVM

- Louvre-face diffuser
- Return
- For Tee-bar mounting

Application:

The louvre-face diffuser type LRVM is suited for return air and its appearance is the same as the supply diffuser LTVM. The diffuser can be Tee-bar mounted in the ceiling and be fitted with a plenum box which is delivered ready assembled.

Dimensional data:

model	A	D	P	T
250	156	123	270	95
325	233	198	345	95
400	309	248	395	100
475	385	278	425	110
550	461	313	460	130

For LRVMSA: T+50

Weights:

model	type				Ø vcd
	OA	OR	OZ	VZ	
250	3.1	3.9	2.6	2.9	0.1
325	3.3	4.6	2.6	3.1	0.3
400	3.6	5.6	2.5	3.3	0.4
475	3.8	6.5	2.3	3.5	0.5
550	3.7	7.1	1.5	3.1	0.6

Remarks:

The dimensions are given in mm.
Weights are given in kg.
Connection “D” is actual O.D.

For the diffuser with a tegular edge LRTM-- the dimensions x, y and z must be provided when ordered.
x - z = 12 minimum.
y = 6 minimum

Unless requested differently core will be 4-way.

Design:

Louvre-face diffuser:
face plate and
internal assembly: steel
finish: epoxy powder
colour: white RAL 9010

Plenum box:
material: steel galvanised sendzimir
lining: 1/2” ductliner
finish: none

Damper:
Circular model:
material: steel galvanised sendzimir
finish: none

Square model:
material: aluminium
finish: none

Optional:
panel size: 620 mm
plenum box: dropped

Available types:

L R - M - -

L louvre-face ceiling diffuser
R return

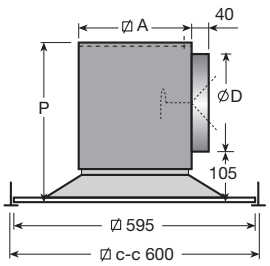
- louvres
V fixed louvres
T tegular, fixed (upto model 475)

M modular ceiling, centre-to-centre 600 mm

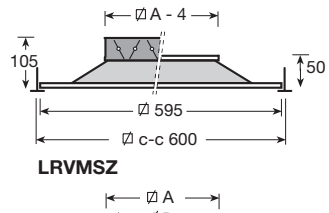
- accessories
O none
V spigot damper (upto 313)
S neck damper on rear of grille

- available as options
Z square top connection
A round top connection
U fixed assembled, un-lined plenum box
R fixed assembled, lined plenum box
L lined top connection
N square top, non vision plate (no VCD)

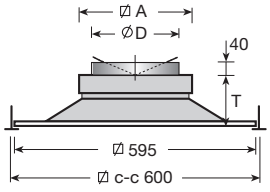
Dimensions:



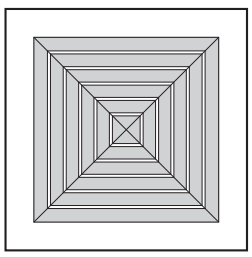
LRVMVR

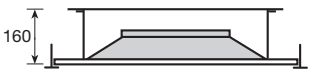


LRVMSZ

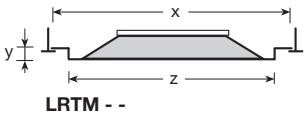


LRVMVA





LRVMON



LRTM - -

Performance data LRVM:

air volume		round & square con.		
m^3/s	m^3/h	model	Ps	Lp
0.015	54	**250**	1	-
0.020	72	**250**	3	-
0.025	90	**250**	4	-
		325	1	-
0.030	108	**250**	6	-
		325	1	-
0.040	144	**250**	10	-
		325	2	-
		400	1	-
0.050	180	**250**	14	12
		325	3	-
		400	2	-
0.060	216	**250**	22	18
		325	3	-
		400	2	-
		475	1	-
0.080	288	**325**	6	-
		400	3	-
		475	2	-
		550	2	-
0.100	360	**325**	9	-
		400	7	-
		475	5	-
		550	4	-
0.125	450	**400**	12	15
		475	8	10
		550	6	-
0.150	540	**400**	18	22
		475	12	15
		550	9	10
0.200	720	**475**	24	23
		550	16	17
0.250	900	**550**	22	22
0.300	1080	**550**	35	28
0.400	1440	**550**	63	35
0.500	1800	**550**	98	41

General:

The pressure drop applies to a fully opened damper.
- throw W in metres.
- static pressure drop Ps in Pa.

The assumed room absorption is 10 dB.
- sound pressure Lp in dB(A).

Intermediate values may be interpolated.

Lined Plenums:

model	middle frequency bands					
	125	250	500	1K	2K	4K
250	5	0	3	10	5	11
325	3	1	6	7	7	9
400	2	2	9	7	7	9
475	2	4	9	7	7	10
550	0	6	7	7	6	9

LTVF

- Louvre-face diffuser
- Supply
- Full front

Application:

The louvre-face diffuser type LTVF is suited for supplying cooled and heated air with a large temperature differential with respect to the room temperature. The diffuser can be mounted in the ceiling, or T-bar mounted in a ceiling with a module size of 600 mm. It can be fitted with a plenum box which is delivered ready assembled and includes a stabilisation plate. The long throw also ensures good room ventilation for a low number of air changes.
The choice of five spread patterns enables a great freedom of placement.
The ceiling diffuser type LTVF has a large capacity, regardless of the chosen spread pattern. Blanking plates, to give a 4-way front a 3, 2, or 1 way function are available.

Features:

Max. air exchanges:	up to 8 x
Under temperature:	up to 10 K
Over temperature:	up to 10 K

Dimensional data:

model	D1	D2	P	A	T
250	123	123	265	156	95
325	198	178	340	233	95
400	248	223	390	309	100
475	278	278	420	385	110
550	313	313	455	461	130

For LTVFSA: T+50

Weights:

model	type			∅ vcd
	OA	OR	VZ	
250	2.0	6.7	1.0	0.1
325	2.2	7.5	1.4	0.3
400	2.6	7.8	1.9	0.4
475	3.0	8.1	2.5	0.5
550	3.7	7.1	3.1	0.6

Remarks:

The dimensions are given in mm.
Weights are given in kg. Connection “D” is actual O.D.
Unless requested differently core will be 4-way.

Design:

Louvre-face diffuser:
flange and internal assembly: steel
finish: epoxy powder
colour: white RAL 9010

Plenum box:
material: steel galvanised sendzimir
lining: 1/2” ductliner
finish: none

Damper:
Circular model:
material: steel galvanised sendzimir
finish: none

Square model:
material: aluminium
finish: none

Available types:

L T V F - -

L louvre-face ceiling diffuser
T supply
V fixed louvres
F full front 595 mm. flange (30 mm) or standard 595 T-bar mounting

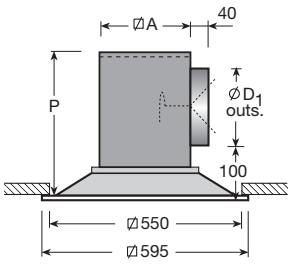
- **accessories**
  O none
  V spigot damper (upto 313)
  S neck damper on rear of grille

- **available as options**
  Z square top connection
  A round top connection
  U fixed assembled un-lined plenum box
  R fixed assembled, lined plenum box
  L lined top connection

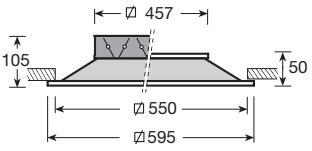
Remarks:

Blanking quadrants are available where 4 way appearance is required

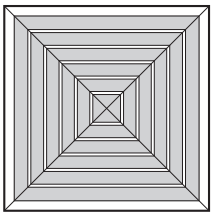
Dimensions:

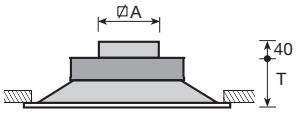


LTVFVR

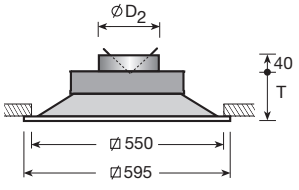


LTVF-Z model 550





LTVF-Z model 250 up to 475

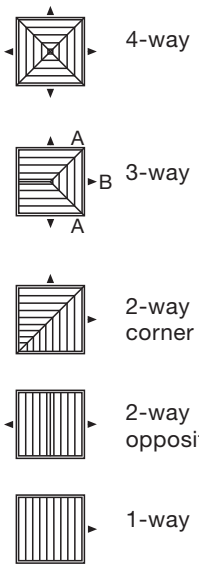


LTVFVA

Performance data LTVF:

air volume		model	spread pattern																
			4-way			3-way				2-way opposite			2-way corner			1-way		
m^3/s	m^3/h		T	Ps	Lp	T(A)	T(B)	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp
0.025	90	**250**	**1.2**	4	-	**1.3**	**1.2**	4	-	**1.5**	5	-	**1.5**	5	-	**2.4**	6	-
0.030	108	**250**	**1.3**	6	-	**1.4**	**1.2**	6	-	**1.7**	7	-	**1.7**	6	-	**2.6**	8	-
0.040	144	**250**	**1.5**	10	23	**1.7**	**1.4**	10	25	**1.9**	12	25	**1.9**	12	26	**3.1**	15	28
		325	**1.2**	2	-	**1.3**	**1.2**	3	-	**1.6**	3	-	**1.6**	3	-	**2.4**	4	-
0.050	180	**250**	**1.6**	15	26	**1.9**	**1.6**	16	26	**2.2**	16	26	**2.2**	16	26	**3.4**	20	28
		325	**1.3**	4	12	**1.5**	**1.2**	5	16	**1.7**	5	14	**1.7**	5	16	**2.6**	6	18
0.060	216	**250**	**1.9**	24	32	**2.2**	**1.9**	24	30	**2.5**	30	32	**2.5**	27	31	**3.7**	35	32
		325	**1.4**	6	17	**1.6**	**1.3**	7	20	**1.8**	7	19	**1.8**	7	20	**2.9**	8	23
0.080	288	**250**	**2.3**	33	38	**2.6**	**2.3**	33	39	**3.0**	38	38	**3.0**	35	40	**4.8**	42	41
		325	**1.7**	10	20	**2.0**	**1.7**	10	22	**2.3**	12	20	**2.3**	12	22	**3.6**	14	24
		400	**1.5**	2	-	**1.7**	**1.5**	2	-	**2.0**	3	-	**2.1**	3	-	**3.2**	4	-
0.100	360	**250**	**2.9**	55	45	**3.3**	**2.8**	56	46	**3.8**	64	46	**3.8**	58	46	**6.0**	73	47
		325	**2.1**	14	26	**2.4**	**2.1**	16	28	**2.8**	17	27	**2.8**	18	27	**4.5**	21	29
		400	**1.9**	3	-	**2.0**	**1.9**	4	17	**2.6**	5	15	**2.6**	4	15	**4.0**	5	17
0.125	450	**325**	**2.7**	21	32	**3.0**	**2.6**	25	33	**3.5**	27	32	**3.5**	28	33	**5.6**	32	34
		400	**2.5**	5	19	**2.7**	**2.4**	6	20	**3.3**	8	20	**3.3**	6	20	**5.0**	8	22
		475	**2.2**	4	-	**2.5**	**2.2**	4	15	**2.9**	4	15	**2.9**	4	12	**4.5**	5	16
0.150	540	**325**	**3.2**	32	37	**3.7**	**3.2**	37	38	**4.2**	38	37	**4.2**	40	38	**6.7**	46	39
		400	**2.9**	8	24	**3.2**	**2.8**	10	27	**3.8**	12	25	**3.8**	9	24	**5.8**	12	26
		475	**2.6**	5	18	**2.8**	**2.5**	6	19	**3.4**	7	20	**3.4**	6	18	**5.2**	7	21
0.200	720	**325**	**4.3**	55	45	**4.9**	**4.2**	65	46	**5.6**	68	46	**5.6**	70	47	**8.9**	85	48
		400	**3.6**	14	31	**4.0**	**3.6**	17	34	**4.8**	21	32	**4.8**	16	32	**7.3**	21	34
		475	**3.2**	10	25	**3.6**	**3.2**	11	26	**4.3**	12	26	**4.3**	12	25	**6.5**	14	28
		550	**2.6**	6	20	**3.0**	**2.6**	6	19	**3.4**	7	20	**3.4**	6	20	**5.4**	8	22
0.250	900	**400**	**4.3**	21	37	**4.8**	**4.3**	26	40	**5.7**	32	37	**5.7**	24	38	**8.7**	32	39
		475	**3.8**	14	30	**4.3**	**3.8**	16	31	**6.2**	17	32	**5.1**	17	32	**7.8**	19	32
		550	**3.3**	8	23	**3.7**	**3.2**	9	24	**4.3**	10	24	**4.3**	10	24	**6.8**	12	27
0.300	1080	**400**	**5.0**	31	42	**5.5**	**4.9**	37	45	**6.6**	46	42	**6.6**	35	43	**10.1**	46	44
		475	**4.5**	21	35	**4.9**	**4.4**	23	36	**5.9**	25	36	**5.9**	24	35	**9.0**	27	38
		550	**3.9**	12	28	**4.4**	**3.9**	13	28	**5.1**	14	30	**5.1**	14	29	**8.1**	17	32
0.400	1440	**475**	**5.6**	35	43	**6.2**	**5.6**	38	44	**7.5**	41	45	**7.5**	40	44	**11.4**	45	46
		550	**5.2**	24	37	**5.9**	**5.2**	26	37	**6.8**	28	38	**6.8**	30	38	**10.8**	32	34

Spread pattern:



When ordering specify pattern or number of blanking-plates.

Throw correction factor:

V_{end} m/s	Throw factor
0.15	1.67
0.20	1.25
0.25	1.00
0.35	0.71
0.50	0.50

Throw figures are based on 0.25 m/s end velocity. In case other end velocities are required correct according to table.

Remarks:

When blanking plates are used to reduce a 4-way front into a 3, 2 or 1 way function, the requested air volume must be multiplied by 1.3, 2 or 4 and read from the 4-way performance data column.
The sound data can be reduced by 1.3 or 6 dB.

General:

The throw applies to flush mounted in a horizontal dropped ceiling.
• throw T in metres.
The pressure drop applies to a fully opened damper.
• static pressure drop Ps in Pa.
The assumed room absorption is 10 dB.
• sound pressure Lp in dB(A).
Intermediate values may be interpolated.

Lined Plenums:

model	middle frequency bands					
	125	250	500	1K	2K	4K
250	5	0	3	10	5	11
325	3	1	6	7	7	9
400	2	2	9	7	7	9
475	2	4	9	7	7	10
550	0	6	7	7	6	9

LRVF

- **Louvre-face diffuser**
- **Return**
- **Full front**

Application:

The louvre-face diffuser type LRVF is suited for return air and its appearance is the same as the supply diffuser LTVF. The diffuser can be Tee-bar mounted in the ceiling and be fitted with a plenum box which is delivered ready assembled.

Design:

Louvre-face diffuser:

flange and internal assembly:	steel
finish:	epoxy powder
colour:	white RAL 9010

Plenum box:

material:	steel galvanised sendzimir
lining:	1/2" ductliner
finish:	none

Damper:

Circular model:	
material:	steel galvanised sendzimir
finish:	none

Square model:

material:	aluminium
finish:	none

Available types:

L R V F - -

L louvre-face ceiling diffuser
R return
V fixed louvres
F full front 595 mm. flange (30 mm) or standard 595 T-bar mounting

- accessories
O none
V spigot damper (upto 313)
S neck damper on rear of grille

- available as options
Z square top connection
A round top connection
U fixed assembled un-lined plenum box
R fixed assembled, lined plenum box
L lined top connection
N square top, non vision plate

Dimensional data:

model	D	P	A	T
250	123	265	156	95
325	198	340	233	95
400	248	390	309	100
475	278	420	385	110
550	313	455	461	130

For LRVFSA: T+50

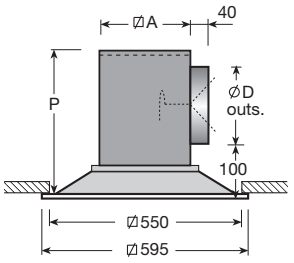
Weights:

model	type			∅ vcd
	OA	OU	VZ	
250	2.0	5.3	1.0	0.1
325	2.2	6.1	1.4	0.3
400	2.6	6.5	1.9	0.4
475	3.0	6.8	2.5	0.5
550	3.7	7.1	3.1	0.6

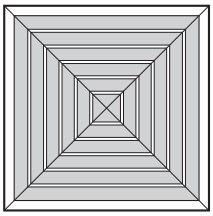
Remarks:

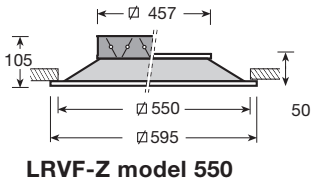
The dimensions are given in mm.
Weights are given in kg.
Connection "D" is actual O.D.
Unless requested differently core will be 4-way.

Dimensions:

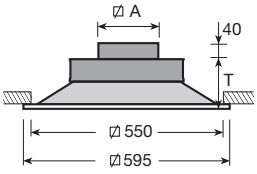


LRVFVR



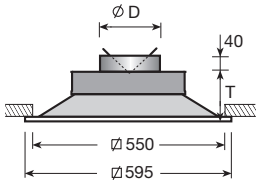


LRVF-Z model 550



LRVF-Z model 250 up to 475

LRVFON



LRVFVA

Performance data LRVF:

air volume		round & square con.		
m^3/s	m^3/h	model	Ps	Lp
0.015	54	**250**	1	-
0.020	72	**250**	3	-
0.025	90	**250**	4	-
		325	1	-
0.030	108	**250**	6	-
		325	1	-
0.040	144	**250**	10	-
		325	2	-
		400	1	-
0.050	180	**250**	14	12
		325	3	-
		400	2	-
0.060	216	**250**	22	18
		325	3	-
		400	2	-
		475	1	-
0.080	288	**325**	6	-
		400	3	-
		475	2	-
		550	2	-
0.100	360	**325**	9	-
		400	7	-
		475	5	-
		550	4	-
0.125	450	**400**	12	15
		475	8	10
		550	6	-
0.150	540	**400**	18	22
		475	12	15
		550	9	10
0.200	720	**475**	24	23
		550	16	17
0.250	900	**550**	22	22
0.300	1080	**550**	35	28
0.400	1440	**550**	63	35
0.500	1800	**550**	98	41

General:

The pressure drop applies to a fully opened damper.
- throw W in metres.
- static pressure drop Ps in Pa.

The assumed room absorption is 10 dB.
- sound pressure Lp in dB(A).

Intermediate values may be interpolated.

Lined Plenums:

model	middle frequency bands					
	125	250	500	1K	2K	4K
250	5	0	3	10	5	11
325	3	1	6	7	7	9
400	2	2	9	7	7	9
475	2	4	9	7	7	10
550	0	6	7	7	6	9

RTLD

- **Multicone diffuser**
- **Supply, adjustable internal assembly**

Application:

The circular diffuser type RTLD is suited for supplying cooled and heated air with a large temperature differential with respect to the room temperature.
The diffuser can be mounted in the ceiling or freely hung. The discs of the internal assembly can be adjusted without using any tools.
An accompanying plenum box with side connection can be supplied.

Features:

Max. air exchanges:	up to 10 x
Under temperature:	up to 10 K
Over temperature:	up to 15 K

Remarks:

The dimensions are given in mm.
Connection “D” is actual O.D.

Design:

Circular diffuser:

face plate:	aluminium
finish:	epoxy powder
colour:	white RAL 9010

Plenum box:

material:	steel galvanised sendzimir
finish:	none
lining:	1/2” ductliner

Available types:

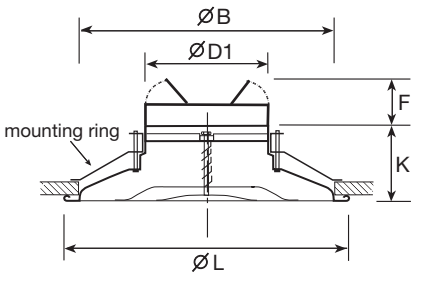
R T L D - -

R circular diffuser
T supply
L adjustable louvres
D surface mounted flange

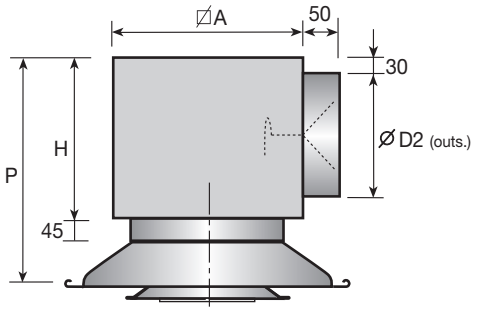
- **accessoires**
  O none
  C mounting ring (only with round top connection)
  V damper
  M damper + mounting ring (only with round top connection)

- **available as options**
  A round top connection
  R lined plenum box (supplied loose)
  U un-lined plenum box (supplied loose)

Dimensions:



RTLDMA



RTLDVR

Dimensional data:

model	A	B	D1	D2	F	H	L	P	K
160	220	303	157	158	62	206	331	324	101
200	260	385	197	198	72	245	425	378	115
250	310	464	247	248	90	296	492	427	114
315	375	564	313	313	105	361	591	514	137
400	460	630	398	398	147	446	662	593	131
500	560	793	497	498	183	546	832	749	163

Performance data RTLD:

air volume					
m^3/s	m^3/h	model	T	Ps	Lp
0.030	108	**160**	**1.3**	3	-
0.040	144	**160**	**1.3**	6	-
0.050	180	**160**	**1.8**	13	-
		200	**1.5**	4	-
0.060	216	**160**	**2.2**	14	23
		200	**1.7**	5	-
0.080	288	**160**	**2.9**	25	32
		200	**2.4**	10	20
		250	**2.0**	4	-
0.100	360	**160**	**3.8**	40	40
		200	**2.9**	15	25
		250	**2.5**	6	-
0.125	450	**200**	**3.8**	25	33
		250	**3.0**	9	20
		315	**2.6**	4	-
0.150	540	**200**	**5.0**	40	39
		250	**3.8**	15	26
		315	**3.2**	6	-
0.200	720	**250**	**4.8**	25	33
		315	**4.0**	10	20
		400	**3.3**	4	-
0.250	900	**250**	**6.0**	40	40
		315	**5.0**	15	25
		400	**4.0**	6	-
0.300	1080	**315**	**6.0**	24	32
		400	**5.2**	9	20
		500	**4.0**	3	-
0.400	1440	**315**	**6.6**	40	42
		400	**6.4**	15	28
		500	**5.6**	7	-
0.500	1800	**400**	**7.2**	35	40
		500	**5.8**	12	24
0.600	2160	**500**	**8.0**	16	30
0.700	2520	**500**	**9.0**	20	37

General:

The throw applies to flush mounting in a horizontal dropped ceiling, if such is not the case one should allow for a throw reduction of 40%.
- throw T in metres.
- static pressure drop Ps in Pa.

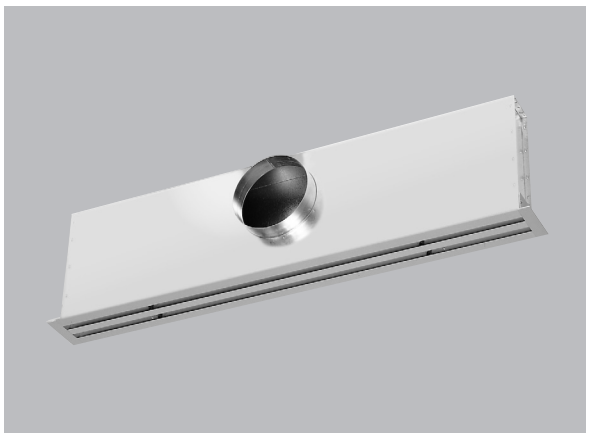
The assumed room absorption is 10 dB.
- sound pressure Lp in dB(A).

Intermediate values may be interpolated.

Throw correction factor:

V_{end} m/s	throw factor
0.15	1.67
0.20	1.25
0.25	1.00
0.35	0.71
0.50	0.50

Throw figures are based on 0.25 m/s end velocity. In case other end velocities are required correct according to table.



STAD

- **Slot diffuser**
- **Supply**

Application:

The slot diffuser type STAD is suited for supplying cooled (and heated) air with large temperature differential in relation to the room temperature. The diffuser can be mounted in the ceiling or wall and has the option of being supplied with a plenum box. Two pattern deflector blades per slot enable the adjustment of the discharge air stream to various configurations. For linear runs of diffusers that are supplied in multiple sections, keys are provided to ensure each length of diffuser aligns with its adjoining section.

Features:

Max. air exchanges:	up to 10 x
Under temperature:	up to 10 K
Over temperature:	up to 15 K

Design:

Slot diffuser:

flange:	extruded aluminium
finish:	RAL 9010 or anodised
pattern blades:	extruded aluminium
finish:	black anodised

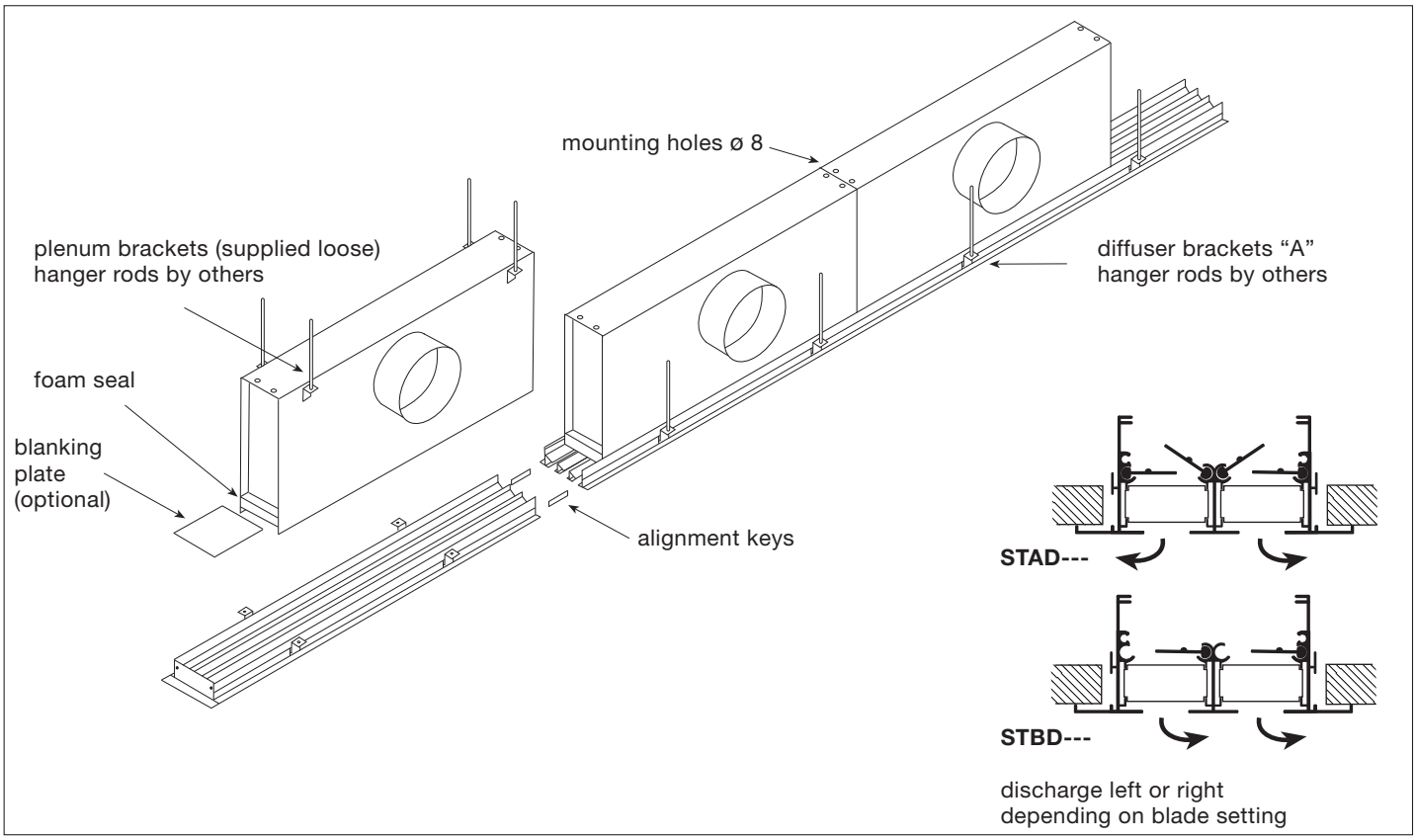
Plenum box:

material:	steel galvanised sendzimir
lining:	1/2” ductliner
finish:	none

Optional:

plenum box:	additional connections oval connections special plenum heights
diffuser:	blanking plate

Arrangement:



Available types:

Diffuser

S T - D - O -

S slot diffuser
T supply

- pattern adjustment blades
A two blades
B one blade
S short blades (300 mm)

D flange 31 mm

- endcaps
A no endcaps
B one endcap
C two endcaps
D two flat end plates(Tee-bar mounting)

O not applicable

- mounting brackets
O no brackets
A diffuser hanger bracket A
B plenum mountingbracket
C plenum “click-in” bracket C (plenum first fix)
D diffuser/ceiling bracket D

Plenum

S O O O - -

S slot diffuser
O plenum only
O not applicable
O not applicable

- plenum & damper
R lined plenum box, no damper
U un-lined plenum box, no damper
Q lined plenum box, spigot damper
W un-lined plenum box, spigot damper

- bracket preparation
O none; straight edge plenum
C prepared for bracket C hemmed plenum

Mitred Corner

S C - D O -

S slot diffuser
C mitred corner 90°

- pattern adjustment blades
A two
B one blade
O none

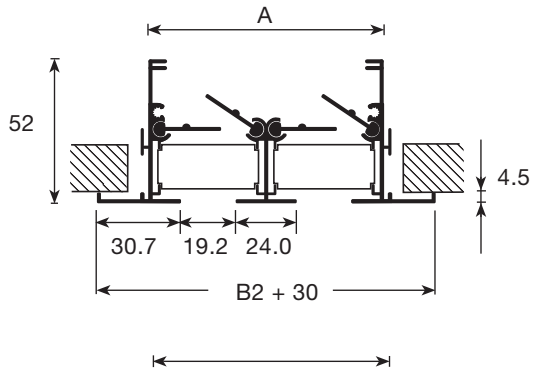
D flange 31 mm
O not applicable

- bracket preparation
A diffuser hanger bracket A
D diffuser/ceiling bracket D

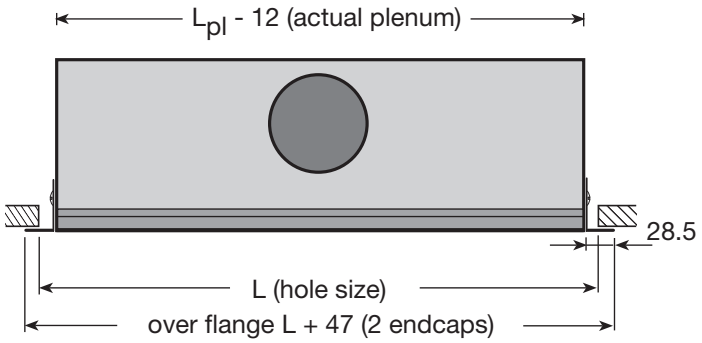
Notes:

For actual or over flange dimensions please state clearly, otherwise nominal length will be supplied.
For continues runs unless otherwise stated Solid Air will determine the section lengths. Standard sections are 1800 mm nominal.
Damper is spigot mounted lever operated
Standard plenum lengths L_{pl} are: 600, 750, 900, 1200, 1500 and 1800 mm.

Connection “D” is actual O.D.



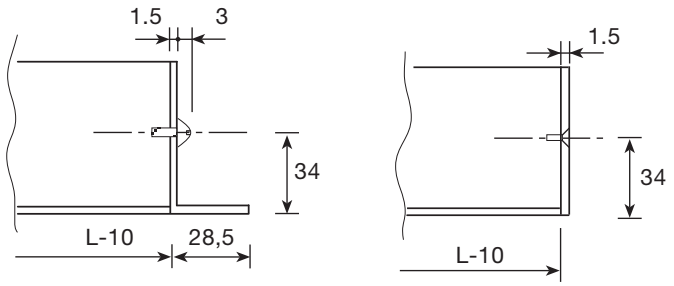
STAD-O- 2 slot



STADCO- + SOOO--

Diffuser

L = nominal length of diffuser

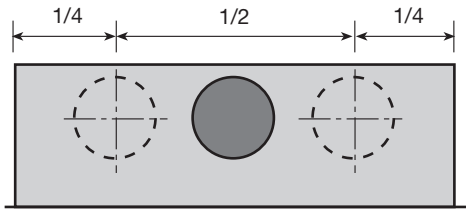


normal endcap (B+C)

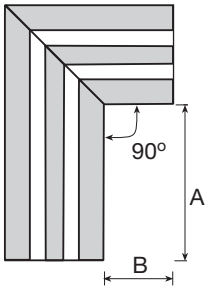
flat end plate (D)

L = nominal length of diffuser (hole size)
L - 10 = cutting length

Endcaps

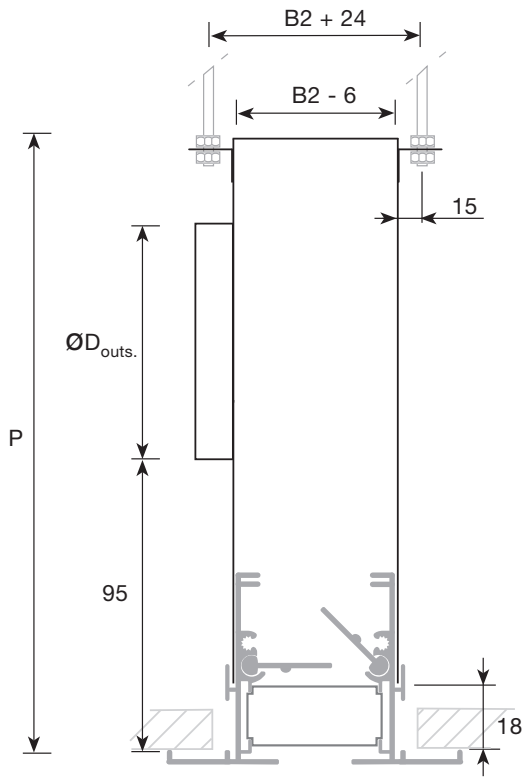


Double spigot

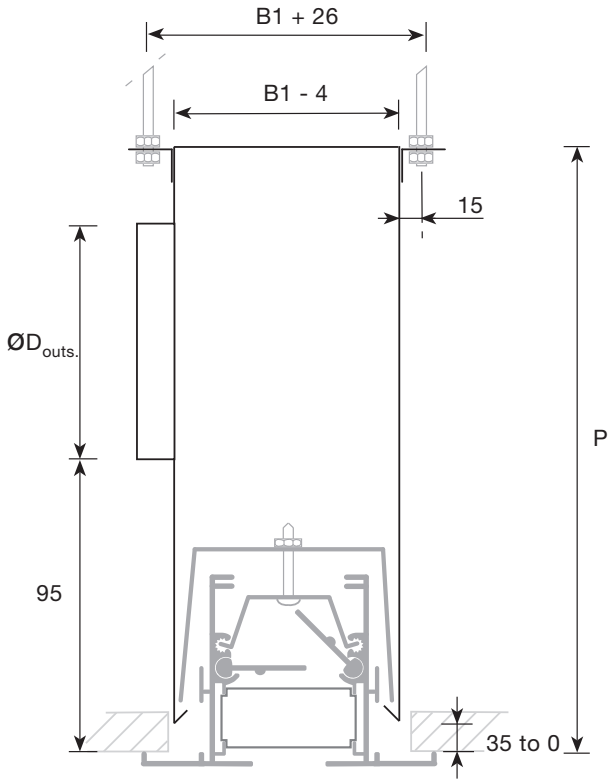


face view

Mitred corner A x B inside leg dimensions
Standard is 500 x 500 mm, 90°.

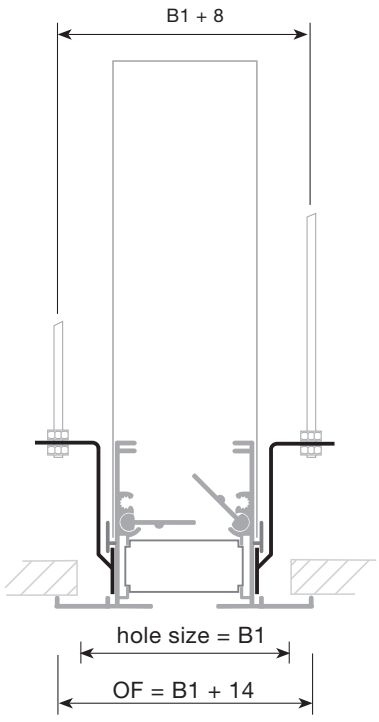


straight edge
hole size = B2

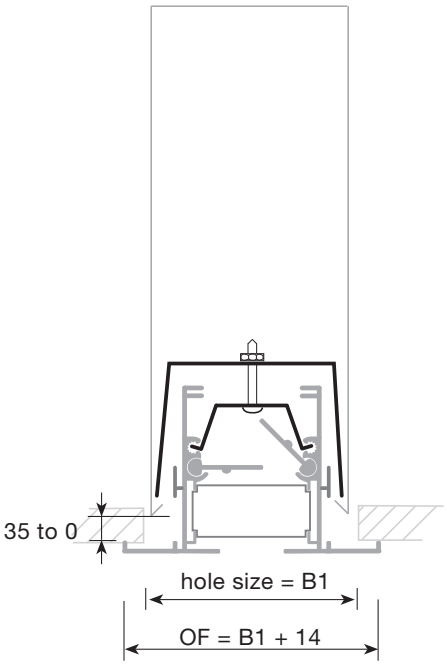


hemmed edge
Hole size = B1

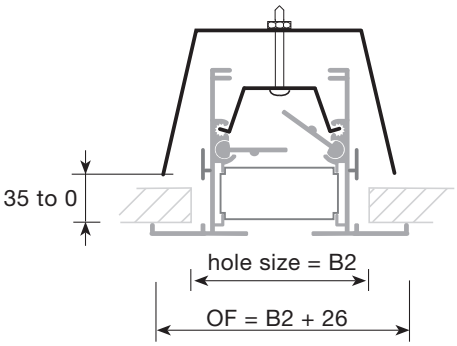
Plenums



Diffuser bracket **A**
Straight edge plenum



Diffuser "click-in" bracket **C**
Hemmed plenum



Diffuser/ceiling bracket **D**

Brackets (drop rods not provided)

Hole size B1 or B2 subject to fixing method see the tables below

Dimensional data:

no. of slots	B1	B2	P	D	A	no. spig.	weights diff.	weights plen.
L = 600								
1	65	52	245	123	46	1	0.8	2.1
2	108	94	280	158	88	1	1.2	2.6
3	151	137	280	158	131	1	1.6	2.7
4	194	180	320	198	174	1	2.0	3.2
5	237	223	370	248	217	1	2.4	3.8
6	281	267	370	248	260	1	2.8	3.9
7	324	310	370	248	303	1	3.2	4.1
8	367	353	435	313	346	1	3.6	4.8
L = 750								
1	65	52	245	123	46	1	1.0	2.7
2	108	94	280	158	88	1	1.5	3.2
3	151	137	280	158	131	1	2.0	3.4
4	194	180	320	198	174	1	2.5	4.0
5	237	223	370	248	217	1	3.0	4.7
6	281	267	370	248	260	1	3.5	4.9
7	324	310	435	313	303	1	4.0	5.7
8	367	353	435	313	346	1	4.5	5.9
L = 900								
1	65	52	245	123	46	1	1.2	3.2
2	108	94	280	158	88	1	1.8	3.9
3	151	137	320	198	131	1	2.4	4.6
4	194	180	320	198	174	1	3.0	4.8
5	237	223	370	248	217	1	3.6	5.6
6	281	267	435	313	260	1	4.2	6.6
7	324	310	435	313	303	1	4.8	6.9
8	367	353	435	313	346	1	5.4	7.1

no. of slots	B1	B2	P	D	A	no. spig.	weights diff.	weights plen.
L = 1200								
1	65	52	280	158	46	1	1.6	4.8
2	108	94	320	198	88	1	2.4	5.8
3	151	137	320	198	131	1	3.2	6.1
4	194	180	370	248	174	1	4.0	7.2
5	237	223	435	313	217	1	4.8	8.5
6	281	267	435	313	260	1	5.6	8.8
7	324	310	370	248	303	2	6.4	8.2
8	367	353	370	248	346	2	7.2	8.5
L = 1500								
1	65	52	280	158	46	1	2.0	6.0
2	108	94	320	198	88	1	3.0	7.2
3	151	137	370	248	131	1	4.0	8.6
4	194	180	370	248	174	1	5.0	9.0
5	237	223	370	248	217	2	6.0	9.4
6	281	267	370	248	260	2	7.0	9.8
7	324	310	435	313	303	2	8.0	11.5
8	367	353	435	313	346	2	9.0	11.9
L = 1800								
1	65	52	320	198	46	1	2.4	8.1
2	108	94	370	248	88	1	3.6	9.8
3	151	137	435	313	131	1	4.8	11.8
4	194	180	435	313	174	1	6.0	12.3
5	237	223	435	313	217	2	7.2	12.8
6	281	267	435	313	260	2	8.4	13.3
7	324	310	435	313	303	2	9.6	13.8
8	367	353	435	313	346	2	10.8	14.3

Weights in Kg.

Performance data STAD:

Air volume		no. of slots	length																
			600			750			900			1200			1500			1800		
m³/s	m³/h		T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp
0.010	36	1	2.2	3	11	2.0	1	5											
0.013	45	1	2.4	5	16	2.3	3	11	2.1	2	6								
0.015	54	1	2.7	6	21	2.5	5	15	2.3	3	11								
0.020	72	1	3.1	12	29	2.9	8	23	2.7	6	18	2.5	4	12	2.3	3	8		
		2	2.8	3	14	2.6	1	8											
0.025	90	1	3.8	18	35	3.2	13	29	3.0	10	24	2.8	6	18	2.6	5	13	2.4	1	10
		2	3.2	4	19	3.0	3	14	2.8	2	9								
		3	3.0	1	9														
0.030	108	1	4.6	26	39	3.8	18	34	3.3	14	29	3.0	9	22	2.8	7	18	2.7	1	14
		2	3.5	6	24	3.2	4	18	3.1	3	14								
		3	3.3	2	14	3.1	1	8											
0.040	144	1							4.4	25	36	3.5	15	30	3.3	12	26	3.1	2	22
		2	4.0	10	32	3.7	7	26	3.5	5	21	3.2	3	15	3.0	2	9			
		3	3.8	4	22	3.6	3	16	3.4	2	13								
		4	3.7	2	16	3.4	1	10											
		5	3.6	1	12														
0.050	180	1										4.3	24	36	3.6	18	32	3.4	3	28
		2	5.1	16	38	4.2	11	32	3.9	8	27	3.6	4	21	3.4	3	15	3.2	1	12
		3	4.3	7	27	4.0	4	22	3.8	3	18	3.4	2	11						
		4	4.1	2	22	3.8	2	16	3.6	2	11								
		5	4.0	1	18	3.7	1	12											
		6	3.9	1	13														
0.060	216	1										5.2	34	41	4.3	26	36	3.8	5	32
		2	6.1	23	42	5.1	15	36	4.3	11	32	3.9	6	26	3.7	4	20	3.5	1	17
		3	4.7	10	32	4.4	6	26	4.1	4	23	3.8	2	16	3.5	2	11			
		4	4.5	5	26	4.2	3	21	4.0	2	16									
		5	4.4	2	22	4.1	1	17	3.9	2	11									
		6	4.3	1	18	4.0	1	12												
		7	4.2	1	14															
0.080	288	1																5.0	8	40
		2							5.8	19	39	4.6	11	33	4.2	8	28	4.0	3	24
		3	6.4	17	40	5.3	11	34	4.7	8	31	4.3	4	24	4.0	3	19	3.8	1	16
		4	5.2	9	34	4.9	6	28	4.6	4	24	4.2	2	18	3.9	1	12			
		5	5.1	3	30	4.7	3	24	4.5	3	18	4.1	1	14						
		6	5.0	3	25	4.6	2	19	4.4	2	15									
		7	4.9	2	21	4.5	1	17												
		8	4.8	1	20	4.5	1	14												
0.100	360	2										5.8	18	39	4.7	12	33	4.5	4	30
		3				6.7	17	40	5.7	12	37	4.8	7	29	4.5	4	25	4.3	2	21
		4	6.7	14	40	5.4	9	34	5.1	6	29	4.7	3	23	4.4	2	18	4.1	1	14
		5	5.7	5	36	5.3	4	30	5.0	5	24	4.6	2	19	4.2	1	15			
		6	5.5	4	31	5.2	3	25	4.9	3	21	4.5	1	15						
		7	5.4	4	27	5.1	2	23	4.8	1	18									
		8	5.4	2	25	5.0	2	20	4.7	1	15									
m³/s	m³/h		T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp

Throw correction factor:

V_{end} m/s	throw factor
0.15	1.67
0.20	1.25
0.25	1.00
0.35	0.71
0.50	0.50

Throw figures are based on 0.25 m/s end velocity. In case other end velocities are required correct according to table.

Performance data STAD:

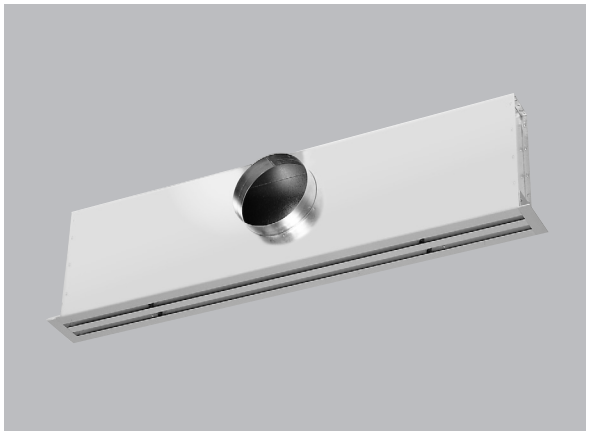
air volume		no. of slots	length																
			600			750			900			1200			1500			1800		
m³/s	m³/h		T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp
0.125	450	2										7.2	28	45	6.0	19	39	5.2	6	36
		3							7.2	19	42	5.7	10	35	5.1	7	31	4.8	3	27
		4	8.4	23	46	7.0	14	40	6.0	9	35	5.2	5	29	4.9	3	24	4.6	2	20
		5	7.4	8	42	5.9	6	36	5.6	8	30	5.1	2	25	4.8	2	20	4.5	1	17
		6	6.6	6	37	5.8	5	31	5.5	4	26	5.0	2	21	4.6	1	16			
		7	6.1	6	33	5.7	3	29	5.4	2	24	4.9	1	17						
		8	6.0	3	31	5.6	2	25	5.3	2	21									
0.150	540	2													7.2	27	44	6.2	9	40
		3										6.8	15	40	5.5	10	35	5.2	4	32
		4				8.4	18	45	7.3	14	40	5.7	8	34	5.3	5	28	5.0	3	25
		5	8.9	11	46	7.4	9	40	6.1	12	35	5.6	4	30	5.2	2	25	4.9	1	22
		6	7.9	9	42	6.3	7	36	6.0	6	31	5.5	3	25	5.1	2	20	4.8	1	17
		7	7.3	8	38	6.2	4	34	5.9	3	29	5.4	2	22	5.0	1	18			
		8	6.6	4	36	6.1	4	30	5.8	3	25	5.3	2	19						
0.200	720	3													7.6	18	43	6.5	7	40
		4										7.7	14	41	6.2	8	36	5.8	5	33
		5							8.5	21	42	6.4	6	37	6.0	4	33	5.7	2	30
		6				8.8	13	43	7.6	11	39	6.3	5	33	5.9	3	28	5.6	2	25
		7	9.7	14	45	8.1	7	41	6.8	6	36	6.2	4	30	5.8	2	26	5.4	1	21
		8	8.9	8	43	7.1	6	38	6.7	5	33	6.1	3	26	5.7	2	22	5.4	1	18
0.250	900	3																8.1	11	45
		4										9.6	22	47	8.0	13	42	6.9	8	38
		5										8.4	10	43	6.7	6	38	6.3	3	35
		6							9.5	17	44	7.5	8	39	6.6	5	34	6.2	3	31
		7				10.1	11	47	8.7	9	42	6.9	6	36	6.5	3	32	6.1	2	27
		8	11.2	12	49	9.3	10	43	8.0	8	39	6.8	5	32	6.3	2	28	6.0	2	23
0.300	1080	4													9.6	19	47	8.2	12	43
		5										10.1	14	48	8.4	9	43	6.9	5	40
		6										9.0	12	43	7.2	7	39	6.8	4	35
		7							10.4	13	47	8.3	8	40	7.1	4	36	6.7	3	32
		8				11.2	14	48	9.6	12	43	7.5	7	37	7.0	4	33	6.6	3	28
0.400	1440	5																9.6	8	48
		6													10.0	13	46	8.7	7	43
		7										11.0	14	48	9.2	7	44	7.7	6	39
		8										10.2	12	44	8.0	6	40	7.6	5	36
0.500	1800	6																10.8	11	49
		7													11.5	11	50	9.9	9	45
		8										12.7	19	50	10.6	10	46	9.1	8	41
0.600	2160	6																		
		7																11.9	13	50
		8													12.7	14	51	11.0	12	46
0.700	2520	8																12.8	16	50
m³/s	m³/h		T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp

General:

The throw applies to mounted flush in a horizontal dropped ceiling.
- throw T in metres.
- static pressure drop Ps in Pa.

The assumed room absorption is 10 dB
- sound pressure Lp in dB(A).

Intermediate values may be interpolated.



SVOD

- **Slot diffuser**
- **Vertical supply**

Application:

The slot diffuser type SVOD is suited for vertical air supply of isothermal air or air with overtemperature in relation to the room temperature. The diffuser can be mounted in the ceiling or wall and has the option of being supplied with a plenum box. For linear runs of diffusers that are supplied in multiple sections, keys are provided to ensure each length of diffuser aligns with its adjoining section.

Design:

Slot diffuser:

flange:	extruded aluminium
finish:	RAL 9010 or anodised

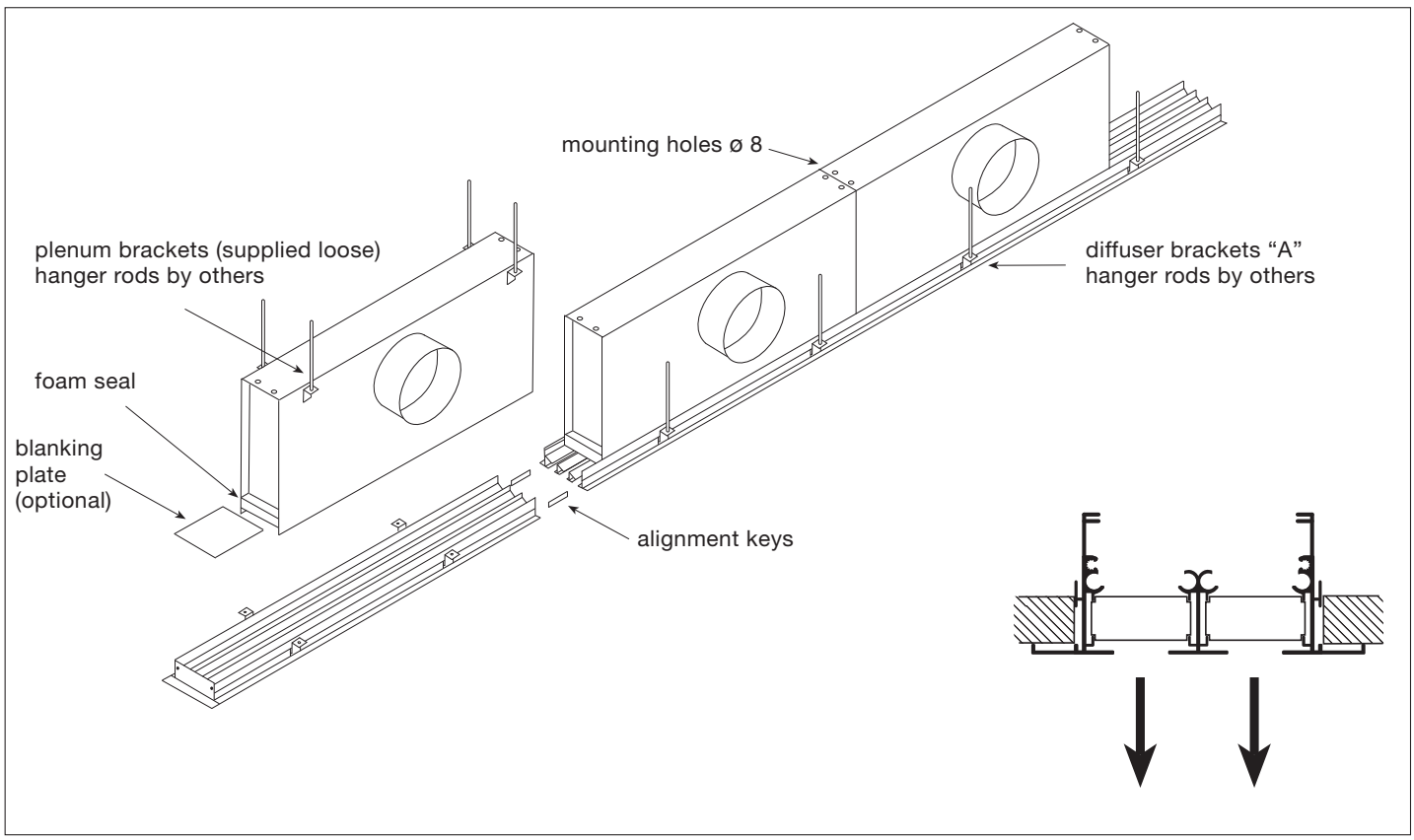
Plenum box:

material:	steel galvanised sendzimir
lining:	1/2” ductliner
finish:	none

Features:

Max. air exchanges:	up to 10 x
Over temperature:	up to 40 K

Arrangement:



Available types:

Diffuser

S V O D - O -

S slot diffuser
V vertical supply
O no pattern blades
D flange 31 mm

- **endcaps**
  A no endcaps
  B one endcap
  C two endcaps
  D two flat end plates (Tee-bar mounting)

O not applicable

- **mounting brackets**
  O no brackets
  A diffuser hanger bracket A
  C plenum “click-in” bracket C (plenum first fix)
  D diffuser/ceiling bracket D

Plenum

S O O O - -

S slot diffuser
O plenum only
O not applicable
O not applicable

- **plenum & damper**
  R lined plenum box, no damper
  U un-lined plenum box, no damper
  Q lined plenum box, spigot damper
  W un-lined plenum box, spigot damper

- **bracket preparation**
  O none; straight edge plenum
  C prepared for bracket C; hemmed plenum

Mitred Corner

S C - D O -

S slot diffuser
C mitred corner 90°

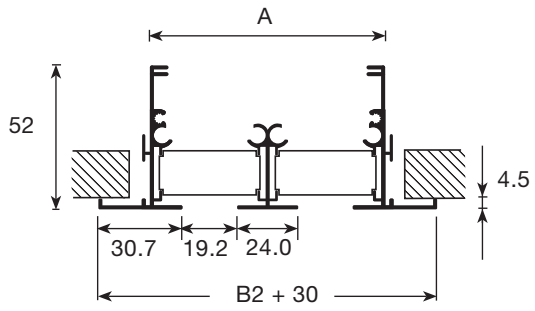
- **pattern adjustment blades**
  A two
  B one blade
  O none

D flange 31 mm
O not applicable

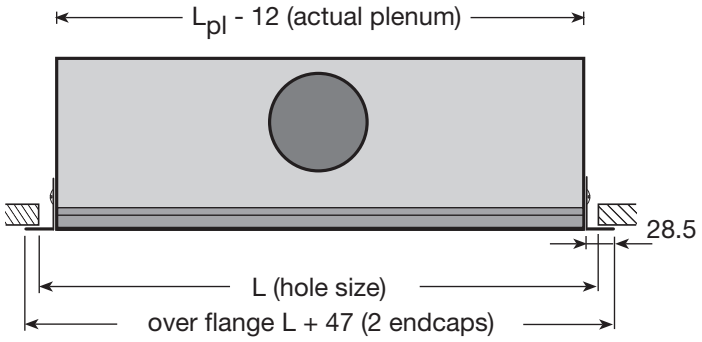
- **bracket preparation**
  A diffuser hanger bracket A
  D diffuser/ceiling bracket D

Notes:

For actual or over flange dimensions please state clearly, otherwise nominal length will be supplied.
For continues runs unless otherwise stated Solid Air will determine the section lengths. Standard sections are 1800 mm nominal.
Damper is spigot mounted lever operated.
Standard plenum lengths L_{pl} are: 600, 700, 900, 1200, 1500 and 1800 mm.
This unit does not have black deflector blades.
Connection “D” is actual O.D.



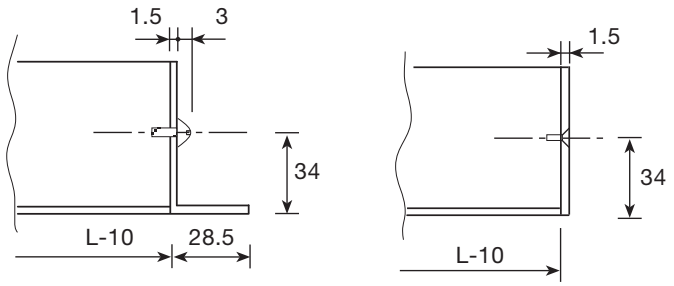
SVOD-O 2 slot



SVODCO- + SOOO--

Diffuser

L = nominal length of diffuser

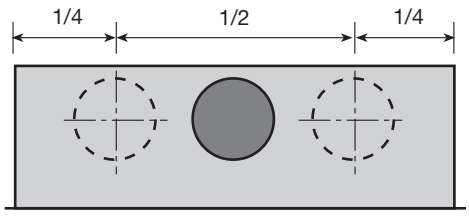


normal endcap (B+C)

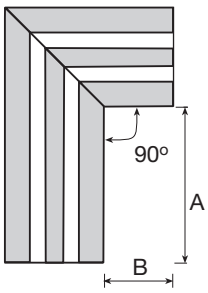
flat end plate (D)

Endcaps

L = nominal length of diffuser (hole size)
L - 10 = cutting length

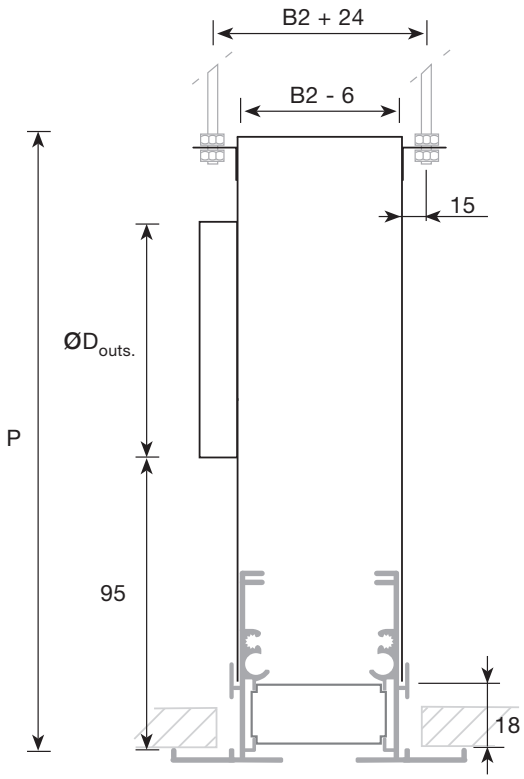


Double spigot

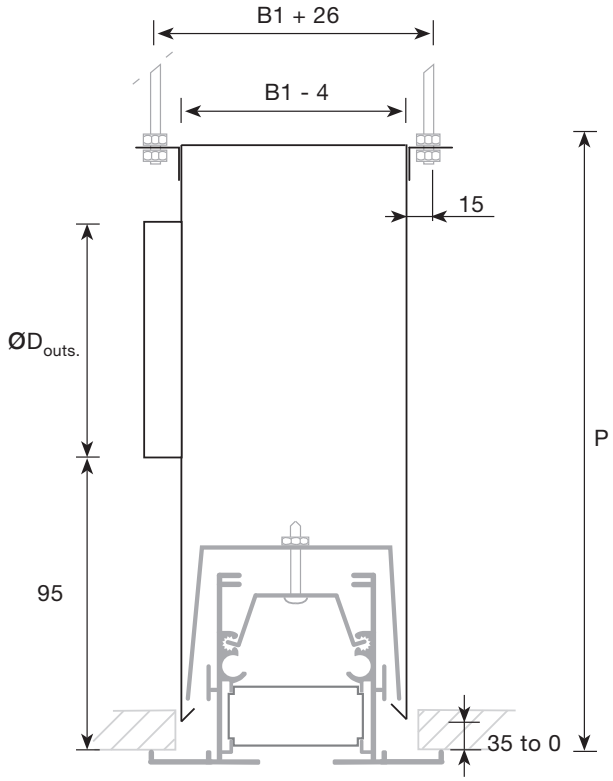


Face view

Mitred corner A x B inside leg dimensions
Standard is 500 x 500 mm, 90°.

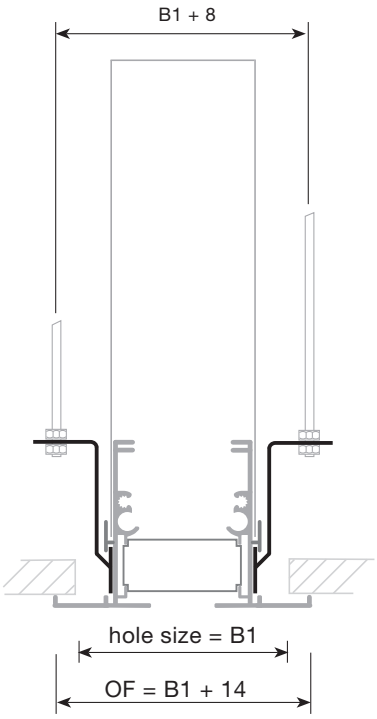


Straight edge
Hole size = B2

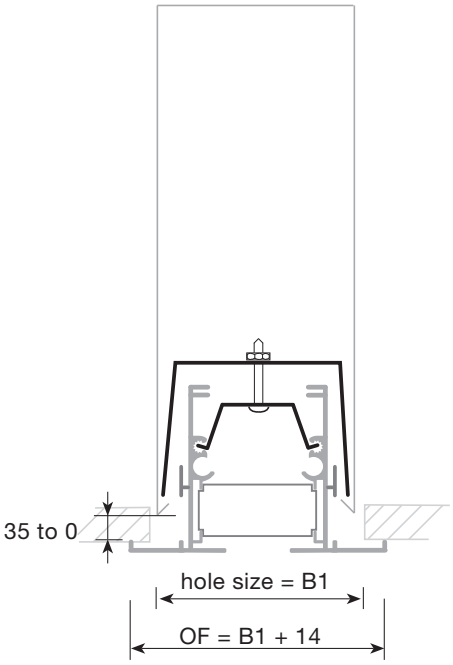


Hemmed edge
Hole size = B1

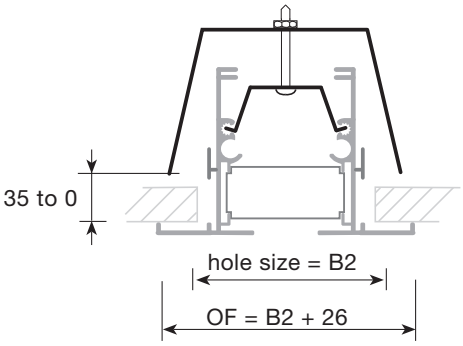
Plenums



Diffuser bracket **A**
Straight edge plenum



Difuser “click-in” bracket **C**
Hemmed plenum



Diffuser/ceiling bracket **D**

Brackets (drop rods not provided)

Hole size B1 or B2 subject to fixing method see the tables below

Dimensional data:

no. of slots	B1	B2	P	D	A	no. spig.	weights diff.	weights plen.
L = 600								
1	65	52	245	123	46	1	0.8	2.1
2	108	94	280	158	88	1	1.2	2.6
3	151	137	280	158	131	1	1.6	2.7
4	194	180	320	198	174	1	2.0	3.2
5	237	223	370	248	217	1	2.4	3.8
6	281	267	370	248	260	1	2.8	3.9
7	324	310	370	248	303	1	3.2	4.1
8	367	353	435	313	346	1	3.6	4.8
L = 750								
1	65	52	245	123	46	1	1.0	2.7
2	108	94	280	158	88	1	1.5	3.2
3	151	137	280	158	131	1	2.0	3.4
4	194	180	320	198	174	1	2.5	4.0
5	237	223	370	248	217	1	3.0	4.7
6	281	267	370	248	260	1	3.5	4.9
7	324	310	435	313	303	1	4.0	5.7
8	367	353	435	313	346	1	4.5	5.9
L = 900								
1	65	52	245	123	46	1	1.2	3.2
2	108	94	280	158	88	1	1.8	3.9
3	151	137	320	198	131	1	2.4	4.6
4	194	180	320	198	174	1	3.0	4.8
5	237	223	370	248	217	1	3.6	5.6
6	281	267	435	313	260	1	4.2	6.6
7	324	310	435	313	303	1	4.8	6.9
8	367	353	435	313	346	1	5.4	7.1

no. of slots	B1	B2	P	D	A	no. spig.	weights diff.	weights plen.
L = 1200								
1	65	52	280	158	46	1	1.6	4.8
2	108	94	320	198	88	1	2.4	5.8
3	151	137	320	198	131	1	3.2	6.1
4	194	180	370	248	174	1	4.0	7.2
5	237	223	435	313	217	1	4.8	8.5
6	281	267	435	313	260	1	5.6	8.8
7	324	310	370	248	303	2	6.4	8.2
8	367	353	370	248	346	2	7.2	8.5
L = 1500								
1	65	52	280	158	46	1	2.0	6.0
2	108	94	320	198	88	1	3.0	7.2
3	151	137	370	248	131	1	4.0	8.6
4	194	180	370	248	174	1	5.0	9.0
5	237	223	370	248	217	2	6.0	9.4
6	281	267	370	248	260	2	7.0	9.8
7	324	310	435	313	303	2	8.0	11.5
8	367	353	435	313	346	2	9.0	11.9
L = 1800								
1	65	52	320	198	46	1	2.4	8.1
2	108	94	370	248	88	1	3.6	9.8
3	151	137	435	313	131	1	4.8	11.8
4	194	180	435	313	174	1	6.0	12.3
5	237	223	435	313	217	2	7.2	12.8
6	281	267	435	313	260	2	8.4	13.3
7	324	310	435	313	303	2	9.6	13.8
8	367	353	435	313	346	2	10.8	14.3

Weights in Kg.

Performance data SVOD: L = 600 & 1200:

air volume		no. of	600							1200						
			throw Tr-Ts °C							throw Tr-Ts°C						
m³/s	m³/h	slots	0	+5	+10	+20	+40	Ps	Lp	0	+5	+10	+20	+40	Ps	Lp
0.020	72	1	2.0	3.2	2.1	1.4		7			1.4					
0.040	144	2	3.1	2.9	1.9	1.2		6			1.2					
0.060	216	1	8.5	11.3	7.5	5.1	3.4	59	35	4.5	5.5	3.6	2.3	1.5	12	20
		2	5.4	4.8	3.1	2.0	1.3	14	20	2.4	2.1	1.3			3	
		3	3.8	3.0	1.9	1.2		9	11	1.3	1.2				2	
0.080	288	1	11.8	15.7	10.5	7.1	4.7	105	42	6.8	7.9	5.1	3.3	2.2	21	27
		2	7.7	6.8	4.4	2.9	1.9	25	27	3.9	3.1	1.9	1.2		5	12
		3	5.7	4.5	2.8	1.8	1.1	17	19	2.5	1.9	1.1			3	
		4	4.5	3.3	2.0	1.2		9	12	1.5	1.3				2	
		5	3.5	2.5	1.5			7								
0.100	360	1	15.1	20.3	13.6	9.1	6.1	165	48	9.0	10.4	6.8	4.4	2.8	33	33
		2	10.0	9.0	5.8	3.8	2.5	40	33	5.5	4.2	2.6	1.6	1.0	8	18
		3	7.7	6.1	3.8	2.4	1.5	26	24	3.7	2.6	1.6			5	
		4	6.1	4.5	2.7	1.7	1.0	14	18	2.6	1.8	1.0			3	
		5	5.0	3.5	2.1	1.2		11	13	1.7	1.3				2	
		6	4.1	2.7	1.6			8								
0.140	504	1								13.7	15.9	10.3	6.7	4.3	64	42
		2	14.7	13.7	8.9	5.8	3.7	78	42	8.7	6.8	4.2	2.6	1.6	15	27
		3	11.5	9.5	6.0	3.7	2.4	51	33	6.3	4.3	2.6	1.5		9	18
		4	9.5	7.3	4.4	2.7	1.6	27	27	4.8	3.1	1.8	1.0		7	12
		5	8.0	5.8	3.4	2.0	1.2	21	22	3.7	2.3	1.3			4	
		6	6.9	4.7	2.7	1.6		16	18	2.8	1.8				4	
		7	5.9	3.8	2.1	1.2		12	15	2.0	1.4				3	
		8	5.1	3.1	1.7			11	12	1.3	1.1				3	
0.180	648	1								18.3	21.8	14.1	9.2	5.9	105	48
		2	19.4	18.8	12.2	7.9	5.1	129	48	11.9	9.6	5.9	3.7	2.3	24	33
		3	15.3	13.3	8.4	5.3	3.3	85	40	9.0	6.3	3.8	2.2	1.3	15	25
		4	12.8	10.4	6.4	3.9	2.4	44	34	7.1	4.6	2.7	1.5		11	18
		5	11.0	8.5	5.0	3.0	1.8	35	29	5.8	3.5	2.0	1.1		6	13
		6	9.6	7.0	4.0	2.3	1.3	26	25	4.7	2.7	1.5			6	
		7	8.5	5.8	3.2	1.8	1.0	20	22	3.8	2.2	1.2			5	
		8	7.5	4.8	2.6	1.4		17	19	3.0	1.8				4	
0.240	864	2								16.9	14.2	8.8	5.5	3.4	43	41
		3	21.1	19.6	12.3	7.7	4.9	151	47	13.0	9.8	5.8	3.4	2.0	26	32
		4	17.8	15.8	9.6	5.8	3.6	79	41	10.6	7.3	4.2	2.4	1.4	19	26
		5	15.5	13.1	7.7	4.6	2.7	62	36	8.9	5.7	3.2	1.8		11	21
		6	13.7	11.0	6.3	3.7	2.1	46	33	7.6	4.5	2.5	1.3		12	17
		7	12.3	9.3	5.2	2.9	1.7	35	30	6.4	3.6	2.0	1.0		9	14
		8	11.1	7.9	4.3	2.4	1.3	31	26	5.5	3.0	1.6			8	11
0.300	1080	2								21.8	19.4	12.0	7.4	4.6	68	47
		3								17.1	13.6	8.1	4.8	2.9	41	38
		4	22.8	21.7	13.2	8.0	4.9	123	47	14.1	10.5	6.0	3.5	2.0	30	32
		5	20.0	18.4	10.9	6.4	3.8	96	42	12.0	8.3	4.6	2.6	1.4	16	27
		6	17.8	15.7	9.1	5.2	3.0	72	39	10.4	6.7	3.6	2.0	1.1	18	23
		7	16.1	13.5	7.6	4.3	2.4	55	36	9.1	5.4	2.9	1.6		14	20
		8	14.6	11.7	6.4	3.5	1.9	48	32	8.0	4.5	2.4	1.3		12	17

Performance data SVOD: L = 600 & 1200:

air volume		no. of	600							1200						
			throw Tr-Ts °C							throw Tr-Ts°C						
m^3/s	m^3/h	slots	0	+5	+10	+20	+40	Ps	Lp	0	+5	+10	+20	+40	Ps	Lp
0.360	1296	**3**								21.1	17.9	10.7	6.3	3.8	59	43
		4								17.6	14.0	8.0	4.6	2.7	43	36
		5	24.4	24.2	14.3	8.5	5.0	138	47	15.2	11.3	6.3	3.5	2.0	24	32
		6	21.9	21.0	12.1	7.0	4.0	104	44	13.3	9.2	5.0	2.7	1.5	26	28
		7	19.8	18.3	10.3	5.8	3.2	80	41	11.8	7.5	4.0	2.2	1.2	20	25
		8	18.2	16.0	8.8	4.8	2.6	70	37	10.5	6.3	3.3	1.8		17	22
0.440	1584	**3**								26.5	24.2	14.4	8.6	5.1	89	48
		4								22.3	19.3	11.1	6.4	3.7	65	42
		5								19.4	15.8	8.8	4.9	2.7	35	37
		6	27.3	28.9	16.7	9.6	5.5	156	49	17.1	13.0	7.1	3.9	2.1	39	33
		7	24.9	25.6	14.4	8.1	4.5	119	46	15.3	10.8	5.8	3.1	1.7	30	30
		8	22.9	22.6	12.4	6.8	3.7	104	43	13.8	9.0	4.8	2.6	1.4	26	27
0.500	1800	**4**								25.8	23.7	13.6	7.8	4.5	83	45
		5								22.5	19.6	10.9	6.1	3.4	46	40
		6								20.0	16.3	8.9	4.8	2.6	50	37
		7	28.7	31.7	17.8	10.0	5.6	154	50	18.0	13.6	7.3	3.9	2.1	38	34
0.560	2016	**4**								29.4	28.4	16.3	9.4	5.4	104	48
		5								25.7	23.7	13.2	7.4	4.1	57	43
		6								22.9	19.8	10.8	5.9	3.2	63	40
		7								20.7	16.6	8.9	4.8	2.6	48	37
		8	30.0	34.4	18.9	10.3	5.7	169	49	18.8	14.0	7.5	4.0	2.1	42	34
0.620	2232	**5**								28.8	28.1	15.7	8.8	4.9	70	46
		6								25.8	23.7	12.9	7.1	3.8	77	43
		7								23.3	20.0	10.7	5.8	3.1	59	39
		8								21.3	16.9	9.0	4.8	2.5	52	36
0.700	2520	**5**								33.0	34.5	19.2	10.7	6.0	89	49
		6								29.6	29.3	16.0	8.7	4.8	98	46
		7								26.9	24.8	13.3	7.2	3.8	75	43
		8								24.7	21.1	11.2	6.0	3.2	66	40
0.800	2880	**6**								34.4	37.0	20.2	11.0	6.0	128	49
		7								31.4	31.6	17.0	9.1	4.9	98	46
		8								28.8	26.9	14.3	7.6	4.0	86	43
1.000	3600	**8**								37.2	40.4	21.5	11.4	6.1	134	49

General:

The pressure drop applies to a fully opened damper.
- throw W in metres.
- static pressure drop Ps in Pa.

The assumed room absorption is 10 dB.
- sound pressure Lp in dB(A).
- Tr is the ambient temperature in °C
- Ts is the supply temperature in °C

Intermediate values may be interpolated.

The throw data in colum ”0” is based on end velocity 0,25 m/s.
The colums with overtemperature give throw data based on the turning point of the airbeam.

Performance data SVOD: L= 1800 & 2400

air volume		no. of	1800							2400						
			throw Tr-Ts °C							throw Tr-Ts°C						
m^3/s	m^3/h	slots	0	+5	+10	+20	+40	Ps	Lp	0	+5	+10	+20	+40	Ps	Lp
0.060	216	1	2.7	3.3	2.1	1.3		5		1.6	2.3	1.4			3	
		2	1.0	1.2				1								
0.080	288	1	4.3	4.8	3.1	1.9	1.2	9	18	2.8	3.4	2.1	1.3		5	12
		2	2.1	1.9	1.1			2		1.1	1.3				1	
0.100	360	1	6.0	6.5	4.1	2.6	1.7	15	24	4.1	4.6	2.9	1.8	1.1	0	18
		2	3.2	2.6	1.6			3		1.9	1.8	1.1			2	
		3	1.8	1.5				2			1.0					
0.140	504	1	9.6	10.1	6.4	4.1	2.6	29	33	7.0	7.3	4.5	2.8	1.8	16	27
		2	5.6	4.3	2.6	1.5		7	18	3.7	3.0	1.8	1.0		4	12
		3	3.7	2.6	1.5			3		2.2	1.8				2	
		4	2.5	1.8				3		1.2	1.1				1	
		5	1.6	1.2				2								
0.180	648	1	13.3	14.0	8.9	5.6	3.6	48	40	10.0	10.3	6.4	4.0	2.5	26	33
		2	8.1	6.2	3.7	2.2	1.3	11	25	5.7	4.5	2.6	1.5		6	18
		3	5.8	3.9	2.3	1.3		5	16	3.7	2.7	1.5			3	
		4	4.2	2.7	1.5			4		2.5	1.8				2	
		5	3.1	2.0	1.1			3		1.5	1.2				1	
		6	2.2	1.5				2								
		7	1.4	1.1				2								
0.240	864	1	18.9	20.4	13.0	8.2	5.2	85	47	14.8	15.3	9.5	5.9	3.7	47	41
		2	12.1	9.5	5.7	3.4	2.0	19	32	8.9	7.0	4.1	2.4	1.4	11	26
		3	8.9	6.3	3.6	2.1	1.2	9	23	6.3	4.4	2.4	1.4		5	17
		4	6.9	4.5	2.5	1.4		7	17	4.6	2.9	1.6			4	
		5	5.5	3.3	1.8			6	12	3.4	2.1	1.1			3	
		6	4.4	2.5	1.3			4		2.4	1.5				3	
		7	3.4	2.0	1.0			3		1.5	1.2				2	
		8	2.6	1.6				3								
0.300	1080	1								19.6	20.8	12.9	8.0	5.0	73	47
		2	16.0	13.1	7.9	4.7	2.8	30	38	12.3	9.8	5.8	3.4	2.0	16	32
		3	12.1	9.0	5.1	2.9	1.7	14	29	8.9	6.3	3.5	2.0	1.1	8	23
		4	9.7	6.5	3.6	2.0	1.1	12	23	6.9	4.4	2.4	1.3		6	17
		5	8.0	4.9	2.6	1.4		9	18	5.4	3.1	1.6			4	12
		6	6.6	3.8	2.0	1.0		7	14	4.2	2.3	1.2			4	
		7	5.5	3.0	1.5			5		3.2	1.8				3	
		8	4.5	2.4	1.3			5		2.3	1.5				3	
0360	1296	2	20.1	17.2	10.3	6.2	3.7	43	43	15.7	13.0	7.6	4.5	2.6	24	36
		3	15.4	12.0	6.9	3.9	2.3	20	34	11.7	8.6	4.8	2.7	1.5	12	28
		4	12.5	8.9	4.9	2.7	1.5	17	28	9.2	6.1	3.3	1.8		9	21
		5	10.5	6.8	3.7	2.0	1.1	13	23	7.4	4.4	2.3	1.2		6	16
		6	8.9	5.3	2.8	1.5		10	19	6.0	3.3	1.7			6	13
		7	7.6	4.2	2.2	1.1		8	16	4.9	2.6	1.3			5	
		8	6.5	3.4	1.8			8	13	3.9	2.1	1.1			4	
0.440	1584	2	25.4	23.1	13.9	8.3	5.0	64	48	20.2	17.7	10.4	6.1	3.6	35	42
		3	19.8	16.6	9.5	5.4	3.1	29	39	15.4	12.1	6.7	3.8	2.1	18	33
		4	16.3	12.6	7.0	3.8	2.1	25	33	12.4	8.7	4.7	2.5	1.4	13	27
		5	13.9	9.8	5.3	2.8	1.5	20	28	10.2	6.4	3.4	1.8		9	22
		6	12.0	7.7	4.0	2.1	1.1	15	24	8.6	4.8	2.5	1.3		9	18
		7	10.5	6.1	3.2	1.7		11	21	7.3	3.7	1.9			7	15
		8	9.2	5.0	2.6	1.3		12	18	6.1	3.0	1.6			6	12

Performance data SVOD: L= 1800 & 2400

air volume		no. of	1800							2400						
			throw Tr-Ts °C							throw Tr-Ts°C						
m³/s	m³/h	slots	0	+5	+10	+20	+40	Ps	Lp	0	+5	+10	+20	+40	Ps	Lp
0.500	1800	2								23.7	21.6	12.7	7.4	4.4	46	45
		3	23.1	20.3	11.7	6.7	3.8	38	42	18.2	15.0	8.4	4.7	2.6	23	36
		4	19.1	15.7	8.7	4.8	2.6	32	36	14.8	10.9	5.9	3.2	1.7	17	30
		5	16.4	12.3	6.6	3.5	1.9	25	31	12.4	8.1	4.3	2.2	1.2	11	25
		6	14.3	9.8	5.1	2.7	1.4	19	28	10.6	6.1	3.2	1.6		11	21
		7	12.6	7.8	4.1	2.1	1.1	15	24	9.1	4.8	2.5	1.3		9	18
0.560	2016	2								27.2	25.7	15.1	8.8	5.2	57	48
		3	26.4	24.4	14.0	8.0	4.6	47	45	21.0	18.1	10.1	5.7	3.2	29	39
		4	22.0	19.1	10.5	5.8	3.2	40	39	17.2	13.3	7.2	3.9	2.1	22	33
		5	18.9	15.1	8.1	4.3	2.3	32	34	14.6	10.0	5.3	2.8	1.4	14	28
		6	16.6	12.1	6.3	3.3	1.7	24	30	12.5	7.6	3.9	2.0	1.1	14	24
		7	14.8	9.7	5.0	2.6	1.4	18	27	10.9	5.9	3.1	1.6		11	21
		8	13.2	7.9	4.1	2.1	1.1	19	25	9.5	4.8	2.5	1.3		9	18
0.620	2232	3	29.7	28.7	16.5	9.4	5.4	58	48	23.8	21.5	12.0	6.7	3.7	36	42
		4	24.9	22.7	12.5	6.9	3.8	50	42	19.7	16.0	8.6	4.6	2.5	27	35
		5	21.5	18.2	9.7	5.2	2.8	39	37	16.7	12.1	6.3	3.3	1.8	18	31
		6	19.0	14.6	7.6	4.0	2.1	29	33	14.5	9.2	4.8	2.5	1.3	18	27
		7	16.9	11.8	6.1	3.2	1.6	22	30	12.7	7.2	3.7	1.9		14	24
		8	15.3	9.6	5.0	2.6	1.3	23	27	11.3	5.8	3.0	1.6		11	21
0.700	2520	3								27.6	26.3	14.7	8.2	4.6	46	45
		4	28.7	28.0	15.4	8.5	4.7	63	45	22.9	19.9	10.7	5.8	3.1	34	39
		5	24.9	22.6	12.1	6.5	3.5	49	40	19.7	15.1	8.0	4.2	2.2	22	34
		6	22.1	18.2	9.6	5.0	2.6	37	36	17.2	11.6	6.0	3.1	1.6	22	30
		7	19.8	14.8	7.7	4.0	2.1	29	33	15.2	9.1	4.7	2.4	1.2	18	27
		8	18.0	12.1	6.3	3.2	1.7	29	30	13.6	7.3	3.8	2.0	1.0	14	24
0.800	2880	3								32.4	32.9	18.4	10.3	5.8	60	48
		4	33.5	35.2	19.4	10.7	5.9	82	49	27.0	25.2	13.6	7.3	3.9	44	42
		5	29.2	28.7	15.4	8.3	4.4	65	44	23.3	19.4	10.2	5.4	2.8	29	37
		6	26.0	23.4	12.3	6.5	3.4	48	40	20.5	15.0	7.8	4.0	2.1	29	34
		7	23.4	19.0	9.9	5.1	2.7	37	37	18.3	11.7	6.1	3.1	1.6	23	30
		8	21.3	15.6	8.1	4.2	2.2	38	34	16.4	9.4	4.9	2.5	1.3	18	28
1.000	3600	4								35.3	37.5	20.2	10.9	5.9	69	48
		5	37.8	42.9	23.0	12.3	6.6	101	50	30.7	29.4	15.4	8.1	4.3	46	43
		6	33.8	35.4	18.6	9.8	5.1	76	46	27.3	22.9	11.9	6.1	3.2	46	39
		7	30.7	29.0	15.1	7.8	4.1	58	43	24.5	18.0	9.3	4.8	2.5	36	36
		8	28.1	23.8	12.3	6.4	3.3	60	40	22.3	14.3	7.4	3.9	2.0	29	34
1.500	5400	7								40.2	39.1	20.1	10.4	5.4	81	47
		8								36.9	30.8	16.0	8.3	4.3	64	44

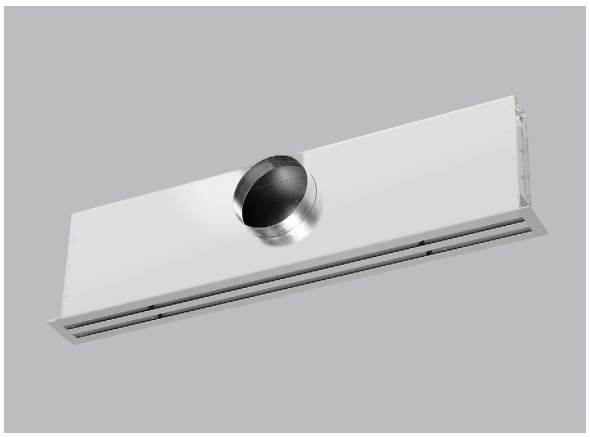
General:

The pressure drop applies to a fully opened damper.
- throw W in metres.
- static pressure drop Ps in Pa.

The assumed room absorption is 10 dB.
- sound pressure Lp in dB(A).
- Tr is the ambient temperature in °C
- Ts is the supply temperature in °C

Intermediate values may be interpolated.

The throw data in colum ”0” is based on end velocity 0,25 m/s.
The colums with overtemperature give throw data based on the turning point of the airbeam.



SROD

- **Slot diffuser**
- **Return**

Application:

The slot diffuser type SROD is suited for return and its appearance is the same as the supply diffuser STAD. The diffuser can be mounted in the ceiling or wall and has the option of being supplied with a plenum box. For linear runs of diffusers that are supplied in multiple sections, keys are provided to ensure each length of diffuser aligns with its adjoining section.

Design:

Slot diffuser:

flange:	extruded aluminium
finish:	RAL 9010 or anodised

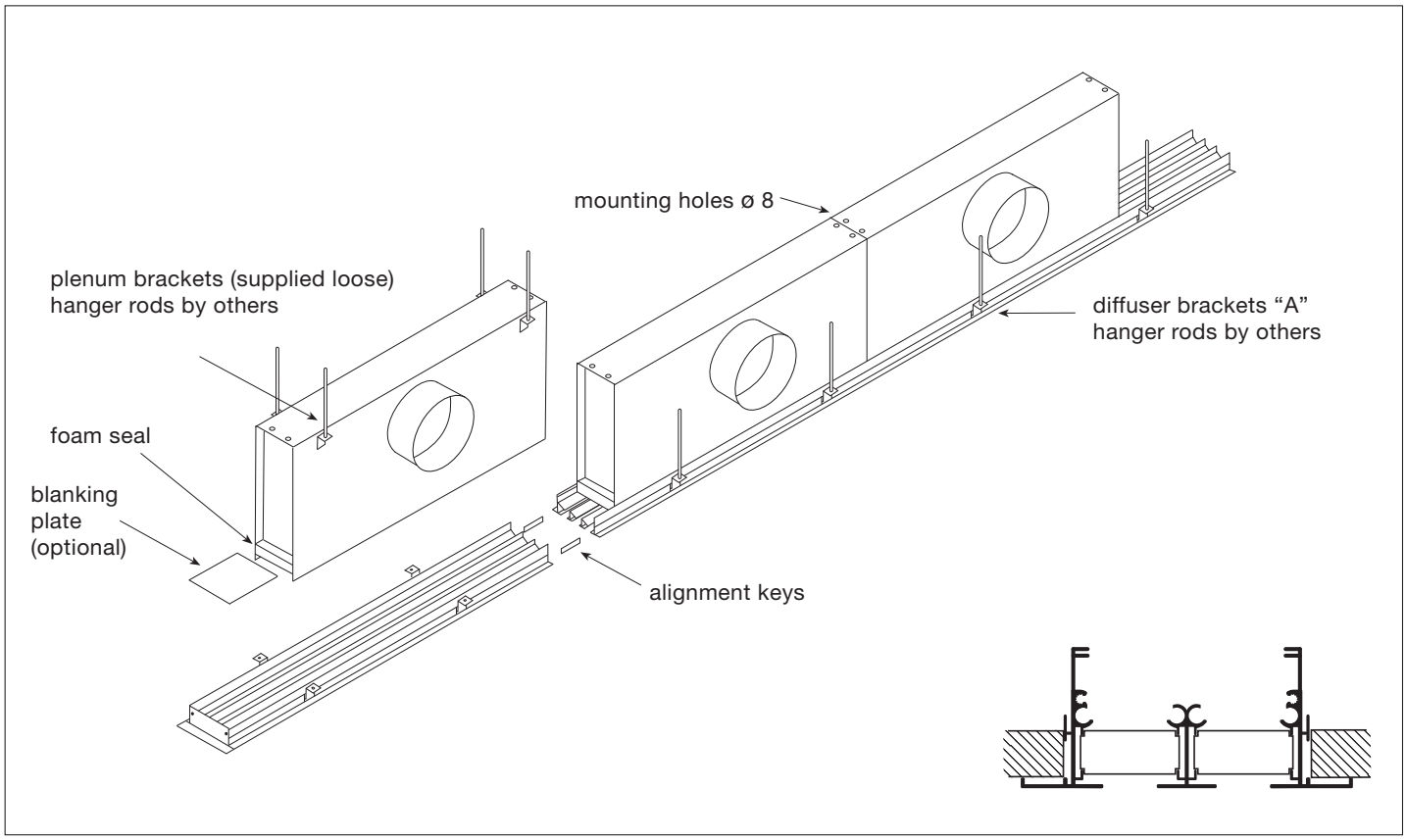
Plenum box:

material:	steel galvanised sendzimir
lining:	1/2” ductliner
finish:	none

Optional:

plenum box:	additional connections oval connections special plenum heights
diffuser:	blanking plate

Arrangement:



Available types:

Diffuser

S R O D - - -

S slot diffuser
R return

- pattern adjustment blades
A two
B one blade
O none

D flange 31 mm

- endcaps
A no endcaps
B one endcap
C two endcaps
D two flat end plates (Tee-bar mounting)

O not applicable

- mounting brackets
O no brackets
A diffuser hanger bracket A
C plenum “click-in” bracket C (plenum first fix)
D diffuser/ceiling bracket D

Plenum

S O O O - -

S slot diffuser
O plenum only
O not applicable
O not applicable

- plenum & damper
R lined plenum box, no damper
U un-lined plenum box, no damper
Q lined plenum box, spigot damper
W un-lined plenum box, spigot damper

- bracket preparation
O none; straight edge plenum
C prepared for bracket C; hemmed plenum

Mitred Corner

S C - D O -

S slot diffuser
C mitred corner 90°

- pattern adjustment blades
A two
B one blade
O none

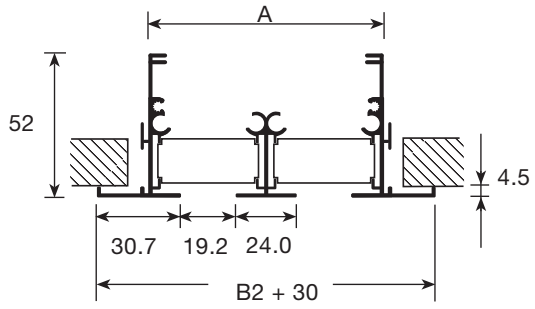
D flange 31 mm
O not applicable

- bracket preparation
A diffuser hanger bracket A
D diffuser/ceiling bracket D

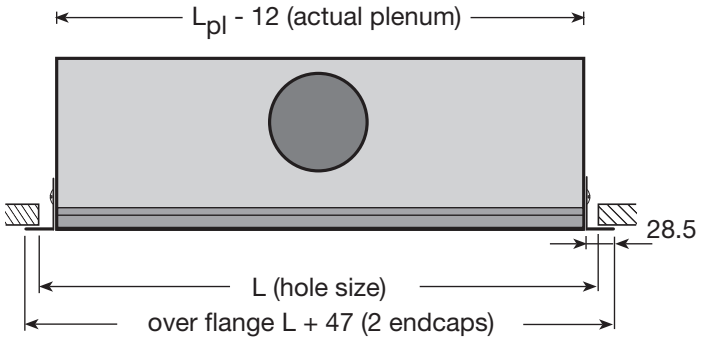
Notes:

For actual or over flange dimensions please state clearly, otherwise nominal length will be supplied. For continues runs unless otherwise stated Solid Air will determine the section lengths. Standard sections are 1800 mm nominal.
Damper is spigot mounted lever operated.
Standard plenum lengths L_{pl} are: 600, 700, 900, 1200, 1500 and 1800 mm.

Connection “D” is actual O.D.



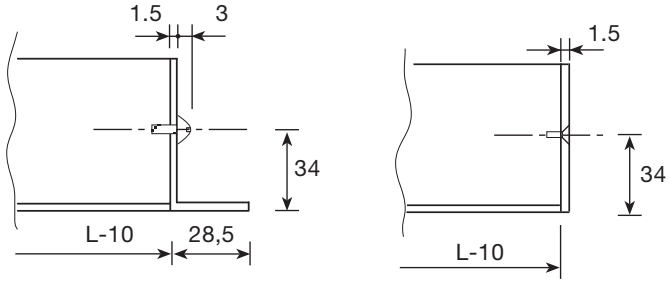
SRAD-O- 2 slot



SRADCO- + SOOO--

Diffuser

L = nominal length of diffuser

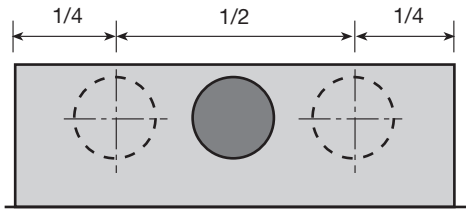


Normal endcap (B+C)

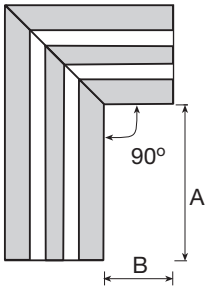
Flat end plate (D)

L = nominal length of diffuser (hole size)
L - 10 = cutting length

Endcaps

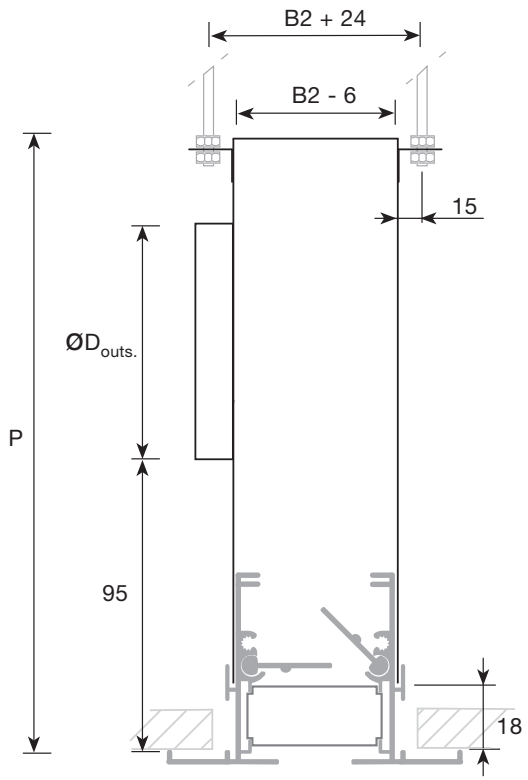


Double spigot

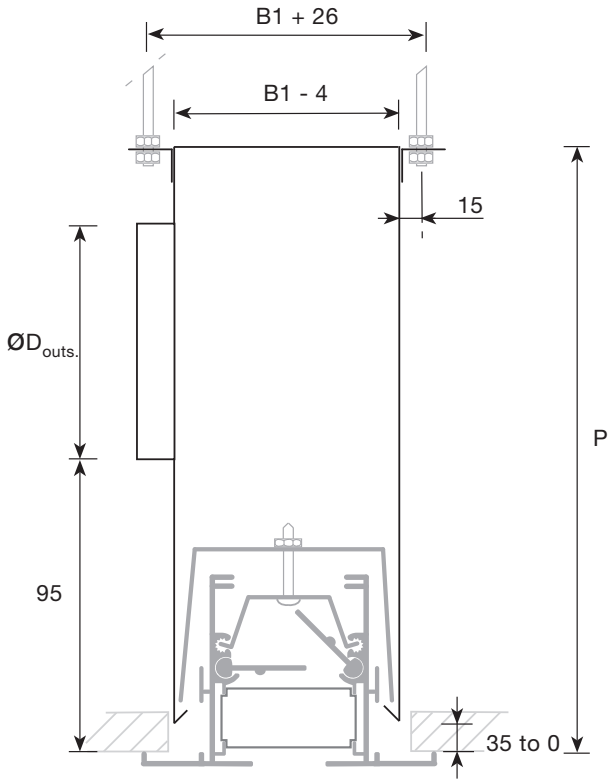


Face view

Mitred corner A x B inside leg dimensions
Standard is 500 x 500 mm, 90°.

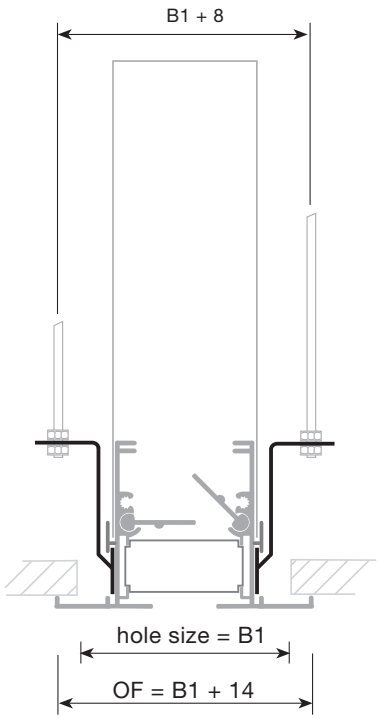


Straight edge
Hole size = B2

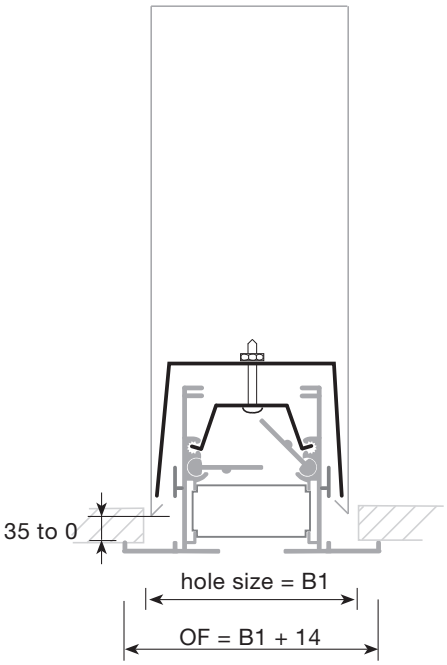


Hemmed edge
Hole size = B1

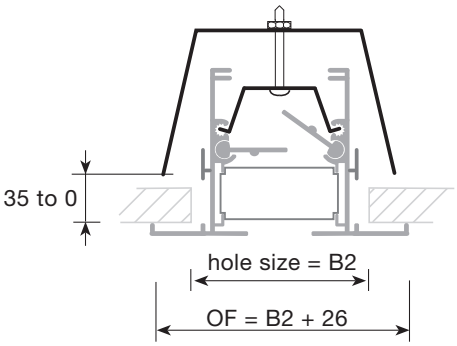
Plenums



Diffuser bracket **A**
Straight edge plenum



Diffuser "click-in" bracket **C**
Hemmed plenum



Diffuser/ceiling bracket **D**

Brackets (drop rods not provided)

Hole size B1 or B2 subject to fixing method see the tables below

Dimensional data:

no. of slots	B1	B2	P	D	A	no. spig.	weights diff.	weights plen.
L = 600								
1	65	52	245	123	46	1	0.8	2.1
2	108	94	280	158	88	1	1.2	2.6
3	151	137	280	158	131	1	1.6	2.7
4	194	180	320	198	174	1	2.0	3.2
5	237	223	370	248	217	1	2.4	3.8
6	281	267	370	248	260	1	2.8	3.9
7	324	310	370	248	303	1	3.2	4.1
8	367	353	435	313	346	1	3.6	4.8
L = 750								
1	65	52	245	123	46	1	1.0	2.7
2	108	94	280	158	88	1	1.5	3.2
3	151	137	280	158	131	1	2.0	3.4
4	194	180	320	198	174	1	2.5	4.0
5	237	223	370	248	217	1	3.0	4.7
6	281	267	370	248	260	1	3.5	4.9
7	324	310	435	313	303	1	4.0	5.7
8	367	353	435	313	346	1	4.5	5.9
L = 900								
1	65	52	245	123	46	1	1.2	3.2
2	108	94	280	158	88	1	1.8	3.9
3	151	137	320	198	131	1	2.4	4.6
4	194	180	320	198	174	1	3.0	4.8
5	237	223	370	248	217	1	3.6	5.6
6	281	267	435	313	260	1	4.2	6.6
7	324	310	435	313	303	1	4.8	6.9
8	367	353	435	313	346	1	5.4	7.1

no. of slots	B1	B2	P	D	A	no. spig.	weights diff.	weights plen.
L = 1200								
1	65	52	280	158	46	1	1.6	4.8
2	108	94	320	198	88	1	2.4	5.8
3	151	137	320	198	131	1	3.2	6.1
4	194	180	370	248	174	1	4.0	7.2
5	237	223	435	313	217	1	4.8	8.5
6	281	267	435	313	260	1	5.6	8.8
7	324	310	370	248	303	2	6.4	8.2
8	367	353	370	248	346	2	7.2	8.5
L = 1500								
1	65	52	280	158	46	1	2.0	6.0
2	108	94	320	198	88	1	3.0	7.2
3	151	137	370	248	131	1	4.0	8.6
4	194	180	370	248	174	1	5.0	9.0
5	237	223	370	248	217	2	6.0	9.4
6	281	267	370	248	260	2	7.0	9.8
7	324	310	435	313	303	2	8.0	11.5
8	367	353	435	313	346	2	9.0	11.9
L = 1800								
1	65	52	320	198	46	1	2.4	8.1
2	108	94	370	248	88	1	3.6	9.8
3	151	137	435	313	131	1	4.8	11.8
4	194	180	435	313	174	1	6.0	12.3
5	237	223	435	313	217	2	7.2	12.8
6	281	267	435	313	260	2	8.4	13.3
7	324	310	435	313	303	2	9.6	13.8
8	367	353	435	313	346	2	10.8	14.3

Weights in Kg.

Performance data SROD:

air volume		no. of slots	length									
			600		750		900		1200		1500	
m³/s	m³/h		Ps	Lp	Ps	Lp	Ps	Lp	Ps	Lp	Ps	Lp
0.010	36	**1**	1	-								
0.0125	45	**1**	2	-	1	-						
0.015	54	**1**	3	-	2	-	1	-				
0.020	72	**1**	5	-	3	-	2	-	1	-		
		2	1	-								
0.025	90	**1**	8	10	5	-	4	-	2	-	1	-
		2	2	-	1	-						
0.030	108	**1**	12	15	8	10	5	-	3	-	2	-
		2	3	-	2	-	1	-				
0.040	144	**1**	21	22	14	18	9	14	5	-	3	-
		2	5	-	3	-	2	-	1	-		
		3	2	-	2	-	1	-				
0.050	180	**1**	33	28	21	23	15	19	8	13	5	-
		2	8	13	5	-	4	-	2	-	1	-
		3	4	-	2	-	2	-				
0.060	216	**1**	48	33	31	28	21	24	12	18	8	13
		2	12	18	8	13	5	-	3	-	2	-
		3	5	-	3	-	2	-	1	-		
		4	3	-	2	-	1	-				
0.080	288	**1**			55	36	38	32	21	25	14	21
		2	21	25	14	21	9	17	5	10	3	-
		3	9	17	6	12	4	-	2	-	2	-
		4	5	10	3	-	2	-	1	-		
		5	3	-	2	-	2	-				
0.100	360	**2**	33	31	21	26	15	22	8	16	5	11
		3	15	22	9	18	7	14	4	-	2	-
		4	8	16	5	11	4	-	2	-	1	-
		5	5	11	3	-	2	-	1	-		
0.125	450	**2**	52	37	33	32	23	28	13	22	8	17
		3	23	28	15	23	10	19	6	13	4	-
		4	13	22	8	17	6	13	3	-	2	-
		5	8	17	5	12	4	-	2	-	1	-
		6	6	13	4	-	3	-	1	-		

General:

- static pressure drop Ps in Pa.

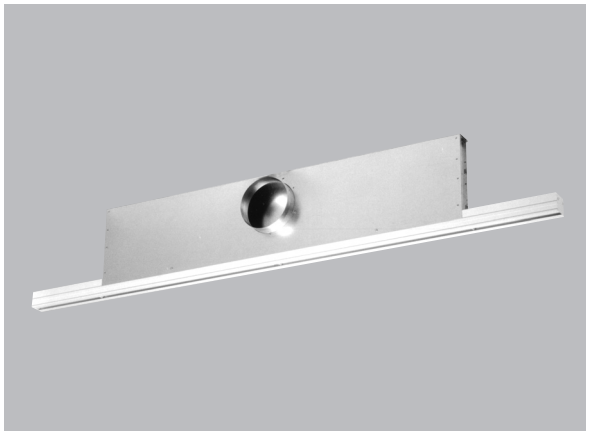
The assumed room absorption is 10 dB.

- sound pressure Lp in dB(A).

Intermediate values may be interpolated.

Performance data SROD:

air volume		no. of slots	length									
			600		750		900		1200		1500	
m^3/s	m^3/h		Ps	Lp	Ps	Lp	Ps	Lp	Ps	Lp	Ps	Lp
0.150	540	**2**			48	37	33	33	19	27	12	22
		3	33	33	21	28	15	24	8	18	5	13
		4	19	27	12	22	8	18	5	12	3	-
		5	12	22	8	17	5	13	3	-	2	-
		6	8	18	5	13	4	-	2	-	1	-
		7	6	15	4	-	3	-	2	-		
0.200	720	**3**			38	36	26	32	15	25	9	21
		4	33	34	21	29	15	25	8	19	5	14
		5	21	29	14	25	9	21	5	14	3	-
		6	15	25	9	21	7	17	4	10	2	-
		7	11	22	7	17	5	13	3	-	2	-
		8	8	19	5	14	4	10	2	-	1	-
0.250	900	**4**			33	35	23	31	13	25	8	20
		5	33	35	21	30	15	26	8	20	5	15
		6	23	31	15	26	10	22	6	16	4	11
		7	17	28	11	23	8	19	4	13	3	-
		8	13	25	8	20	6	16	3	-	2	-
0.300	1080	**4**			48	40	33	36	19	30	12	25
		5	48	40	31	35	21	31	12	25	8	20
		6	33	36	21	31	15	27	8	21	5	16
		7	24	33	16	28	11	24	6	18	4	13
		8	19	30	12	25	8	21	5	15	3	-
0.400	1440	**5**					38	39	21	32	14	28
		6			38	39	26	35	15	28	9	24
		7			28	35	19	31	11	25	7	20
		8	33	37	21	32	15	28	8	22	5	17
0.500	1800	**6**							23	34	15	29
		7					30	37	17	31	11	26
		8			33	38	23	34	13	28	8	23



STBR

- **Slot diffuser**
- **Supply**
- **Narrow recessed flange**

Application:

The slot diffuser type STBR is suited for supplying cooled (and heated) air with large temperature differential in relation to the room temperature. The diffuser can be mounted in the ceiling and easily assembled to a light fitting with supplied mouting brackets. Two pattern deflector blades (type STA) enable the adjustment of the discharge air stream, to various configurations. For linear runs of diffusers that are supplied in multiple sections, keys are provided to ensure each length of diffuser aligns with its adjoining section.

Features:

Max. air exchanges:	up to 10 x
Under temperature:	up to 10 K
Over temperature:	up to 15 K

Design:

Slot diffuser:

flange:	extruded aluminium
finish:	RAL 9010
pattern blades:	extruded aluminium
finish:	black anodised

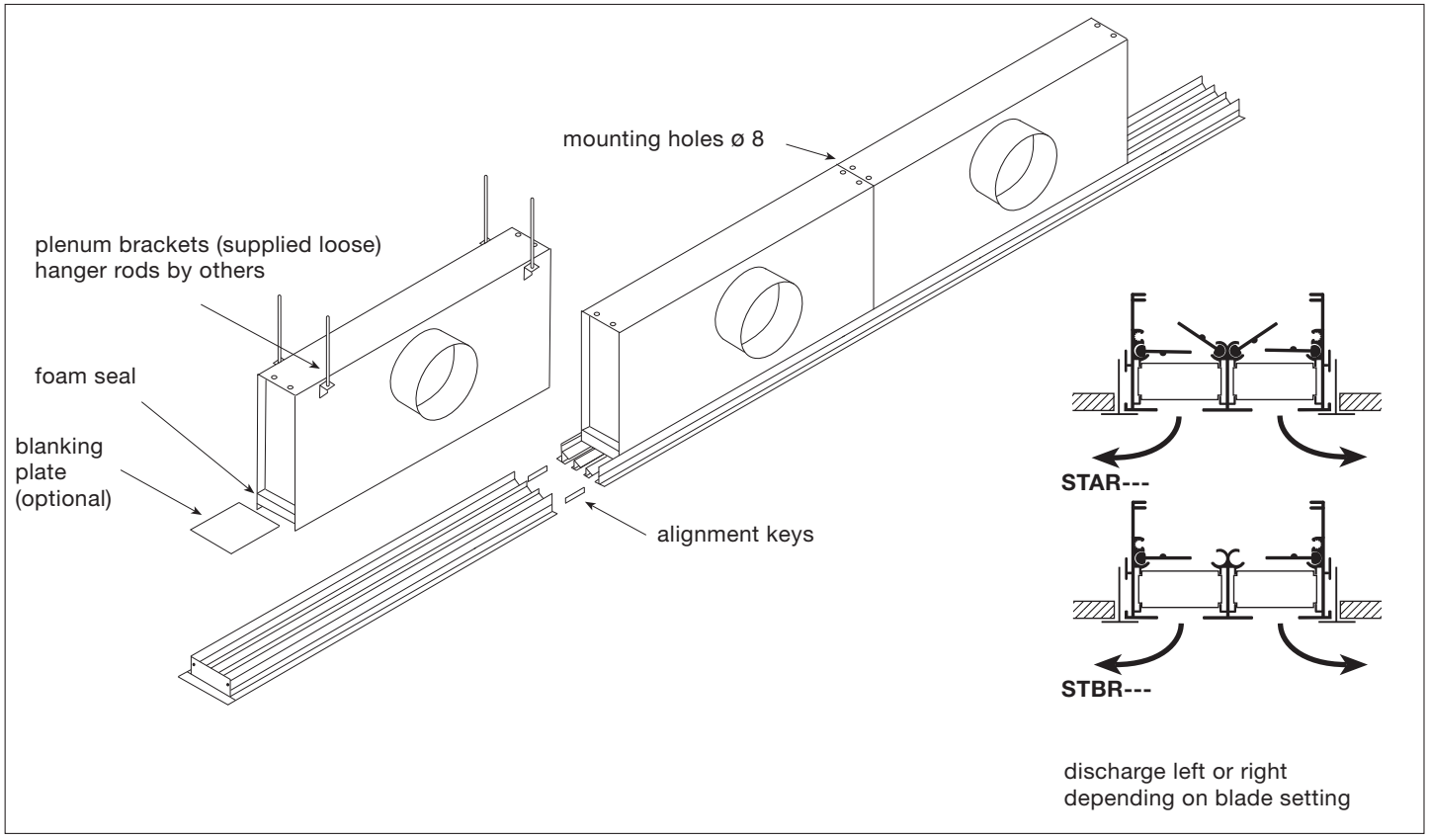
Plenum box:

material:	steel galvanised sendzimir
lining:	1/2” ductliner
finish:	none

Optional:

plenum box:	additional connections oval connections special plenum heights
diffuser:	blanking plate

Arrangement:



Available types:

Diffuser

S T - R - - -

S slot diffuser
T supply

- **pattern adjustment blades**
A two blades
B one blade
S short blades (300 mm)

R recessed flange 16 mm,

- **endcaps**
A no endcaps
B one endcap
C two endcaps
D two flat end plates(Tee-bar mounting)

O not applicable

- **mounting brackets**
O no brackets
B plenum bracket B
D diffuser/ceiling bracket D

Plenum

S O O O - -

S slot diffuser
O plenum only
O not applicable
O not applicable

- **plenum & damper**
R lined plenum box, no damper
U un-lined plenum box, no damper
Q lined plenum box, spigot damper
W un-lined plenum box, spigot damper

- **bracket preparation**
O none; straight edge plenum
B plenum bracket B

Mitred Corner

S C - D O -

S slot diffuser
C mitred corner 90°

- **pattern adjustment blades**
A two
B one blade
O none

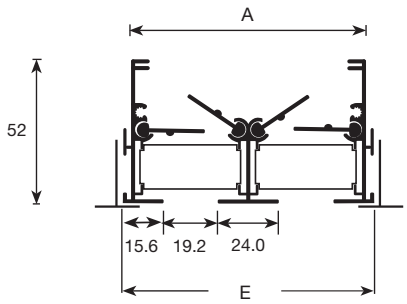
D flange 31 mm
O not applicable

- **bracket preparation**
O none; straight edge plenum
B plenum bracket B

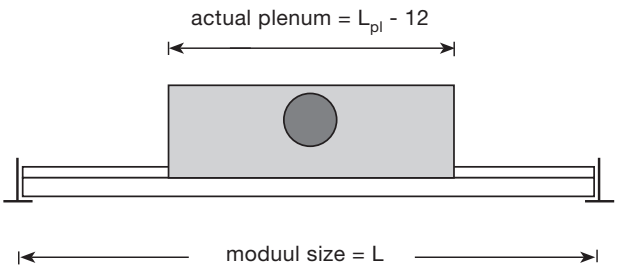
Notes:

For actual or over flange dimensions please state clearly, otherwise nominal length will be supplied.
For continues runs unless otherwise stated Solid Air will determine the section lengths. Standard sections are 1800 mm nominal.
Damper is spigot mounted lever operated
Standard plenum lengths L_{pl} are: 600, 700, 900, 1200, 1500 and 1800 mm.

Connection “D” is actual O.D.



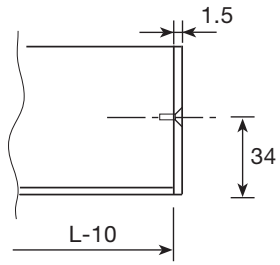
STAR-O- 2 slot



STADCO- + SOOO--

Diffuser

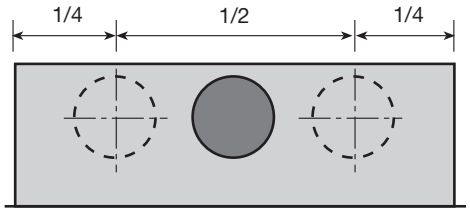
L = nominal length of diffuser



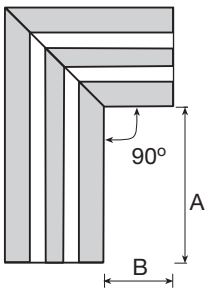
Flat end plate (D)

Endcaps

L = nominal length of diffuser (hole size)
L - 10 = cutting length

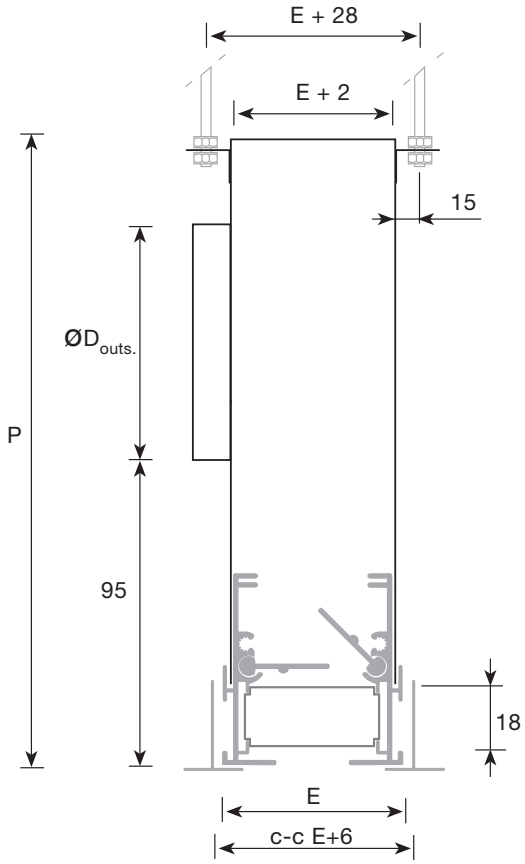


Double spigot

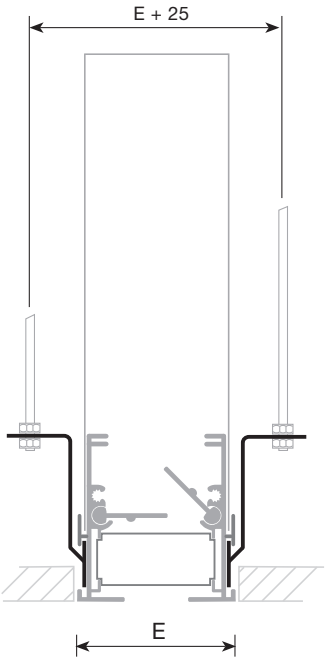


Face view

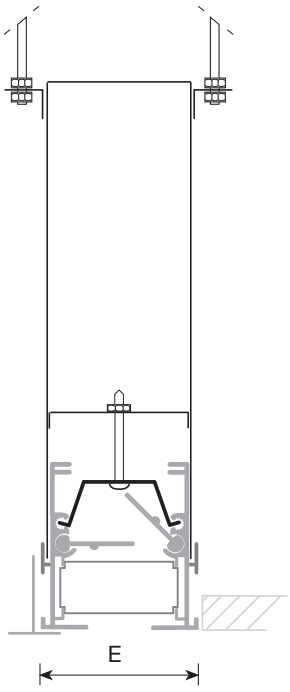
Mitred corner A x B inside leg dimensions
Standard is 500 x 500 mm, 90°.



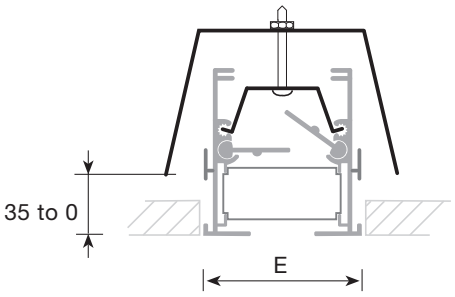
Plenums



Diffuser bracket **A**
Straight edge plenum



Plenum bracket **B**
For recessed and T-bar mounting



Diffuser/ceiling bracket **D**

Brackets (drop rods not provided)

Dimensional data:

no. of slots	E	P	D	A	no. spig.	weights diff.	weights plen.
L = 600							
1	51	245	123	46	1	0.8	2.1
2	94	280	158	89	1	1.2	2.6
3	137	280	158	132	1	1.6	2.7
4	180	320	198	175	1	2.0	3.2
5	223	370	248	218	1	2.4	3.8
6	267	370	248	261	1	2.8	3.9
7	310	370	248	304	1	3.2	4.1
8	353	435	313	347	1	3.6	4.8
L = 750							
1	51	245	123	46	1	1.0	2.7
2	94	280	158	89	1	1.5	3.2
3	137	280	158	132	1	2.0	3.4
4	180	320	198	175	1	2.5	4.0
5	223	370	248	218	1	3.0	4.7
6	267	370	248	261	1	3.5	4.9
7	310	435	313	304	1	4.0	5.7
8	353	435	313	347	1	4.5	5.9
L = 900							
1	51	245	123	46	1	1.2	3.2
2	94	280	158	89	1	1.8	3.9
3	137	320	198	132	1	2.4	4.6
4	180	320	198	175	1	3.0	4.8
5	223	370	248	218	1	3.6	5.6
6	267	435	313	261	1	4.2	6.6
7	310	435	313	304	1	4.8	6.9
8	353	435	313	347	1	5.4	7.1

no. of slots	E	P	D	A	no. spig.	weights diff.	weights plen.
L = 1200							
1	51	280	158	46	1	1.6	4.8
2	94	320	198	89	1	2.4	5.8
3	137	320	198	132	1	3.2	6.1
4	180	370	248	175	1	4.0	7.2
5	223	435	313	218	1	4.8	8.5
6	267	435	313	261	1	5.6	8.8
7	310	370	248	304	2	6.4	8.2
8	353	370	248	347	2	7.2	8.5
L = 1500							
1	51	280	158	46	1	2.0	6.0
2	94	320	198	89	1	3.0	7.2
3	137	370	248	132	1	4.0	8.6
4	180	370	248	175	1	5.0	9.0
5	223	370	248	218	2	6.0	9.4
6	267	370	248	261	2	7.0	9.8
7	310	435	313	304	2	8.0	11.5
8	353	435	313	347	2	9.0	11.9
L = 1800							
1	51	320	198	46	1	2.4	8.1
2	94	370	248	89	1	3.6	9.8
3	137	435	313	132	1	4.8	11.8
4	180	435	313	175	1	6.0	12.3
5	223	435	313	218	2	7.2	12.8
6	267	435	313	261	2	8.4	13.3
7	310	435	313	304	2	9.6	13.8
8	353	435	313	347	2	10.8	14.3

Weights in Kg.

Performance data STBR:

air volume		no. of slots	length																
			600			750			900			1200			1500			1800		
m³/s	m³/h		T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp
0.010	36	1	2.2	3	11	2.0	1	5											
0.013	45	1	2.4	5	16	2.3	3	11	2.1	2	6								
0.015	54	1	2.7	6	21	2.5	5	15	2.3	3	11								
0.020	72	1	3.1	12	29	2.9	8	23	2.7	6	18	2.5	4	12	2.3	3	8		
		2	2.8	3	14	2.6	1	8											
0.025	90	1	3.8	18	35	3.2	13	29	3.0	10	24	2.8	6	18	2.6	5	13	2.4	1	10
		2	3.2	4	19	3.0	3	14	2.8	2	9								
		3	3.0	1	9														
0.030	108	1	4.6	26	39	3.8	18	34	3.3	14	29	3.0	9	22	2.8	7	18	2.7	1	14
		2	3.5	6	24	3.2	4	18	3.1	3	14								
		3	3.3	2	14	3.1	1	8											
0.040	144	1							4.4	25	36	3.5	15	30	3.3	12	26	3.1	2	22
		2	4.0	10	32	3.7	7	26	3.5	5	21	3.2	3	15	3.0	2	9			
		3	3.8	4	22	3.6	3	16	3.4	2	13								
		4	3.7	2	16	3.4	1	10											
		5	3.6	1	12														
0.050	180	1										4.3	24	36	3.6	18	32	3.4	3	28
		2	5.1	16	38	4.2	11	32	3.9	8	27	3.6	4	21	3.4	3	15	3.2	1	12
		3	4.3	7	27	4.0	4	22	3.8	3	18	3.4	2	11						
		4	4.1	2	22	3.8	2	16	3.6	2	11								
		5	4.0	1	18	3.7	1	12											
		6	3.9	1	13														
0.060	216	1										5.2	34	41	4.3	26	36	3.8	5	32
		2	6.1	23	42	5.1	15	36	4.3	11	32	3.9	6	26	3.7	4	20	3.5	1	17
		3	4.7	10	32	4.4	6	26	4.1	4	23	3.8	2	16	3.5	2	11			
		4	4.5	5	26	4.2	3	21	4.0	2	16									
		5	4.4	2	22	4.1	1	17	3.9	2	11									
		6	4.3	1	18	4.0	1	12												
		7	4.2	1	14															
0.080	288	1																5.0	8	40
		2							5.8	19	39	4.6	11	33	4.2	8	28	4.0	3	24
		3	6.4	17	40	5.3	11	34	4.7	8	31	4.3	4	24	4.0	3	19	3.8	1	16
		4	5.2	9	34	4.9	6	28	4.6	4	24	4.2	2	18	3.9	1	12			
		5	5.1	3	30	4.7	3	24	4.5	3	18	4.1	1	14						
		6	5.0	3	25	4.6	2	19	4.4	2	15									
		7	4.9	2	21	4.5	1	17												
		8	4.8	1	20	4.5	1	14												
0.100	360	2										5.8	18	39	4.7	12	33	4.5	4	30
		3				6.7	17	40	5.7	12	37	4.8	7	29	4.5	4	25	4.3	2	21
		4	6.7	14	40	5.4	9	34	5.1	6	29	4.7	3	23	4.4	2	18	4.1	1	14
		5	5.7	5	36	5.3	4	30	5.0	5	24	4.6	2	19	4.2	1	15			
		6	5.5	4	31	5.2	3	25	4.9	3	21	4.5	1	15						
		7	5.4	4	27	5.1	2	23	4.8	1	18									
		8	5.4	2	25	5.0	2	20	4.7	1	15									
m³/s	m³/h		T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp

Throw correction factor:

V_{end} m/s	Throw factor
0.15	1.67
0.20	1.25
0.25	1.00
0.35	0.71
0.50	0.50

Throw figures are based on 0.25 m/s end velocity. In case other end velocities are required correct according to table.

Performance data STBR:

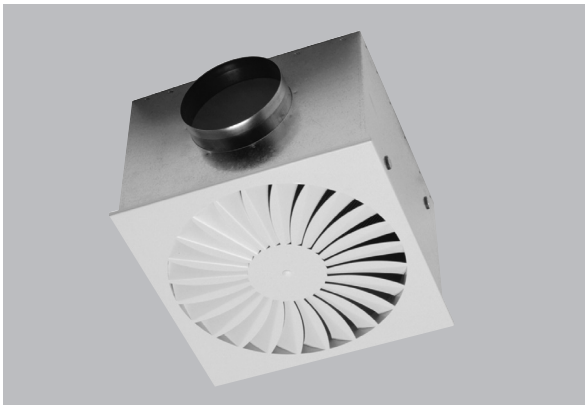
air volume		no. of slots	length																	
			600			750			900			1200			1500			1800		
m³/s	m³/h		T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp
0.125	450	2										7.2	28	45	6.0	19	39	5.2	6	36
		3							7.2	19	42	5.7	10	35	5.1	7	31	4.8	3	27
		4	8.4	23	46	7.0	14	40	6.0	9	35	5.2	5	29	4.9	3	24	4.6	2	20
		5	7.4	8	42	5.9	6	36	5.6	8	30	5.1	2	25	4.8	2	20	4.5	1	17
		6	6.6	6	37	5.8	5	31	5.5	4	26	5.0	2	21	4.6	1	16			
		7	6.1	6	33	5.7	3	29	5.4	2	24	4.9	1	17						
		8	6.0	3	31	5.6	2	25	5.3	2	21									
0.150	540	2													7.2	27	44	6.2	9	40
		3										6.8	15	40	5.5	10	35	5.2	4	32
		4				8.4	18	45	7.3	14	40	5.7	8	34	5.3	5	28	5.0	3	25
		5	8.9	11	46	7.4	9	40	6.1	12	35	5.6	4	30	5.2	2	25	4.9	1	22
		6	7.9	9	42	6.3	7	36	6.0	6	31	5.5	3	25	5.1	2	20	4.8	1	17
		7	7.3	8	38	6.2	4	34	5.9	3	29	5.4	2	22	5.0	1	18			
		8	6.6	4	36	6.1	4	30	5.8	3	25	5.3	2	19						
0.200	720	3													7.6	18	43	6.5	7	40
		4										7.7	14	41	6.2	8	36	5.8	5	33
		5							8.5	21	42	6.4	6	37	6.0	4	33	5.7	2	30
		6				8.8	13	43	7.6	11	39	6.3	5	33	5.9	3	28	5.6	2	25
		7	9.7	14	45	8.1	7	41	6.8	6	36	6.2	4	30	5.8	2	26	5.4	1	21
		8	8.9	8	43	7.1	6	38	6.7	5	33	6.1	3	26	5.7	2	22	5.4	1	18
0.250	900	3																8.1	11	45
		4										9.6	22	47	8.0	13	42	6.9	8	38
		5										8.4	10	43	6.7	6	38	6.3	3	35
		6							9.5	17	44	7.5	8	39	6.6	5	34	6.2	3	31
		7				10.1	11	47	8.7	9	42	6.9	6	36	6.5	3	32	6.1	2	27
		8	11.2	12	49	9.3	10	43	8.0	8	39	6.8	5	32	6.3	2	28	6.0	2	23
0.300	1080	4													9.6	19	47	8.2	12	43
		5										10.1	14	48	8.4	9	43	6.9	5	40
		6										9.0	12	43	7.2	7	39	6.8	4	35
		7							10.4	13	47	8.3	8	40	7.1	4	36	6.7	3	32
		8				11.2	14	48	9.6	12	43	7.5	7	37	7.0	4	33	6.6	3	28
0.400	1440	5																9.6	8	48
		6													10.0	13	46	8.7	7	43
		7										11.0	14	48	9.2	7	44	7.7	6	39
		8										10.2	12	44	8.0	6	40	7.6	5	36
0.500	1800	6																10.8	11	49
		7													11.5	11	50	9.9	9	45
		8										12.7	19	50	10.6	10	46	9.1	8	41
0.600	2160	6																		
		7																11.9	13	50
		8													12.7	14	51	11.0	12	46
0.700	2520	8																12.8	16	50
m³/s	m³/h		T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp

General:

The throw applies to mounted flush in a horizontal dropped ceiling.
- throw T in metres.
- static pressure drop Ps in Pa.

The assumed room absorption is 10 dB
- sound pressure Lp in dB(A).

Intermediate values may be interpolated.



RTBD

- Swirl
- Supply

Application:

The swirl diffuser type RTBD is suitable for the supply of cooled air with a large temperature differential and can be utilised for constant and variable volume installations. The air pattern is fixed. The diffuser may be used for surface mounting as well as for Tee bar mounting. The diffuser is for mounting within the ceiling and can be fitted with a plenum box which is delivered ready assembled. The special high induction swirl effect enables a significant number of air changes. The very shallow inflow pattern also makes the diffuser suitable for somewhat lower spaces.

Design:

Swirl diffuser:
face plate: steel

finish visible parts: epoxy powder
colour: RAL 9010

Plenum box:
material: steel
sendzimir
lining: 1/2" ductliner
finish: none

Damper:
material: steel
sendzimir
finish: none

Optional:
plenum box: lower height

Available types:

R T B D - -

R swirl diffuser
T supply
B rotating exhaust pattern, petal shaped
D surface mounted

- accessories
O none
V damper

- designed with
A round top connection
R lined plenum box (assembled)
U un-lined plenum box (assembled)

Features:

Max. air exchanges: up to 15 x
Under temperature: up to 10 K
Over temperature: up to 15 K

Dimensionel data:

model	B	A	D	T	P	H
250	278	273	123	55	215	110
350	378	373	158	65	260	125
450	478	473	198	75	310	140
550	578	573	248	75	360	160

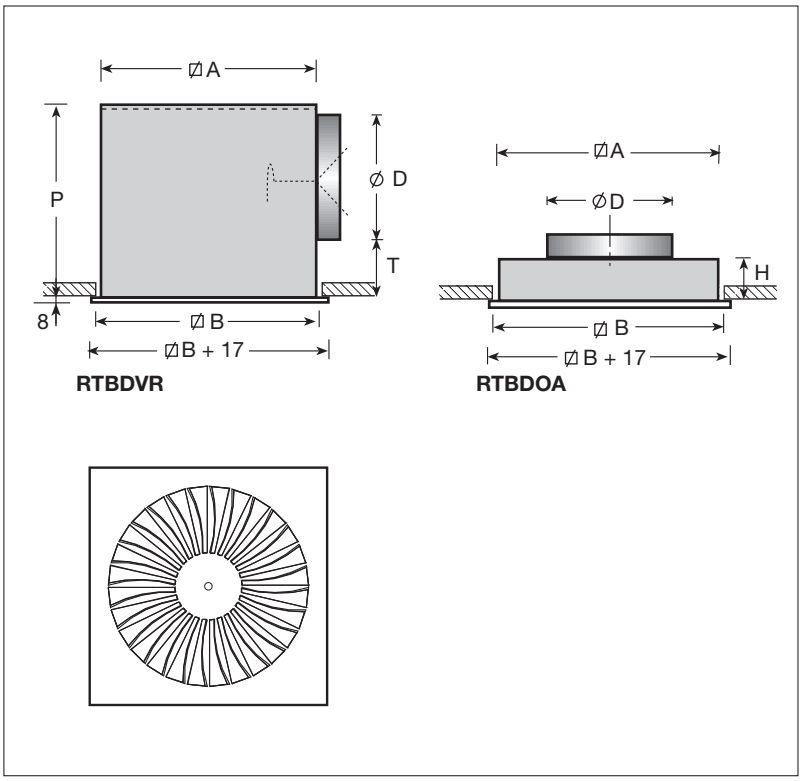
Weights:

model	type		∅ vcd
	OA	OR	
250	2.4	3.0	0.1
350	4.0	5.2	0.2
450	6.0	7.9	0.3
550	8.5	11.2	0.4

Remarks:

The dimensions are given in mm, weights in kg.
Connection "D" is actual O.D.
The face size of models 250, 350 and 450 are 295, 395 and 495 mm respectively overall.
As such these models fit in a Tee-bar modular ceiling with a respective size of 300, 400 and 500 mm. For 600 mm grid see RTBM.

Dimensions:



Performance data RTBD:

air volume		model											
		250			350			450			550		
m³/s	m³/h	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp
0.020	72	**0.7**	3	-									
0.025	90	**0.9**	5	-									
0.030	108	**1.1**	7	16	**0.9**	3	-						
0.040	144	**1.5**	13	24	**1.2**	5	-						
0.050	180	**1.9**	20	30	**1.4**	7	16	**1.1**	2	-			
0.060	216	**2.2**	28	34	**1.7**	11	21	**1.3**	3	-			
0.070	252	**2.6**	38	38	**2.0**	15	25	**1.5**	4	13	**1.3**	2	-
0.080	288	**3.0**	50	42	**2.3**	19	29	**1.7**	6	16	**1.5**	3	-
0.100	360				**2.9**	30	34	**2.2**	9	22	**1.9**	5	14
0.125	450				**3.6**	46	40	**2.7**	14	28	**2.3**	7	20
0.150	540							**3.2**	20	32	**2.8**	11	25
0.200	720							**4.3**	36	40	**3.7**	19	32
0.250	900										**4.6**	30	38

Throw correction factor:

V_{end} m/s	throw factor
0.15	1.67
0.20	1.25
0.25	1.00
0.35	0.71
0.50	0.50

Throw figures are based on 0.25 m/s end velocity. In case other end velocities are required correct according to table.

General:

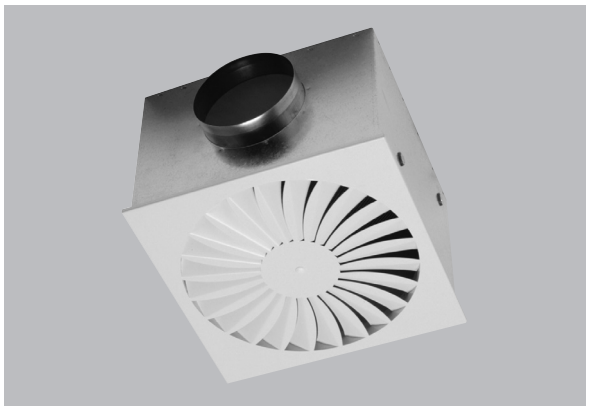
The throw applies to flush mounted in a horizontal dropped ceiling.
- throw T in metres.
- static pressure drop Ps in Pa.

The assumed room absorption is 10 dB.
- sound pressure Lp in dB(A).

Intermediate values may be interpolated.

Lined Plenums:

model	middle frequency bands					
	125	250	500	1K	2K	4K
250	5	0	3	10	5	11
350	2	2	7	7	7	9
450	2	3	9	7	7	9
550	0	6	7	7	6	9



RRBD

- Swirl
- Return

Application:

The swirl diffuser type RRBD is suitable for return air and its external appearance is the same as the RTBD supply diffuser.
The diffuser may be used for surface mounting as well as for Tee bar mounting. The diffuser can be fitted with a plenum box which is delivered ready assembled.

Design:

Swirl diffuser:
face plate: steel

finish visible parts: epoxy powder
colour: RAL 9010

Plenum box:
material: steel
sendzimir
lining: 1/2" ductliner
finish: none

Damper:
material: steel
sendzimir
finish: none

Optional:
plenum box: lower height

Available types:

R R B D - -

R swirl diffuser
R return
B rotating pattern, petal shaped
D surface mounted

- accessories
O none
V damper

- designed with
A round top connection
R lined plenum box (assembled)
U un-lined plenum box (assembled)

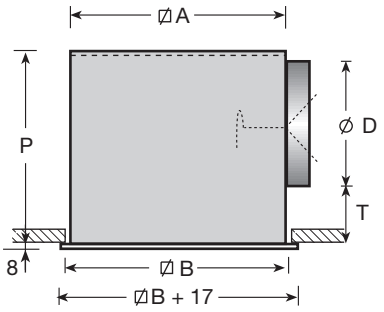
Dimensionel data:

model	B	A	D	T	P	H
250	278	273	123	55	215	110
350	378	373	158	65	260	125
450	478	473	198	75	310	140
550	578	573	248	75	360	160

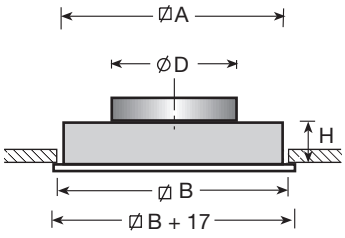
Weights:

model	type		ø
	OA	OR	vcd
250	2.0	2.7	0.1
350	3.3	4.5	0.2
450	5.0	6.8	0.3
550	6.9	9.6	0.4

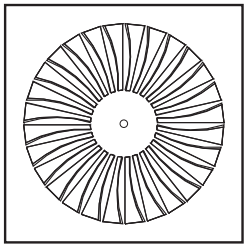
Dimensions:



RRBDVR



RRBDOA



Remarks:

The dimensions are given in mm, weights in kg.
Connection "D" is actual O.D.
The face size of models 250, 350 and 450 are 295, 395 and 495 mm respectively overall.
As such these models fit in a Tee-bar modular ceiling with a respective size of 300, 400 and 500 mm. For 600 mm grid see RRBM.

Performance data:

RRBDOA and RRBDOU:

air volume		round connection		
m³/s	m³/h	model	Ps	Lp
0.025	90	**250**	5	8
0.030	108	**250**	7	12
0.040	144	**250**	13	20
		350	5	-
0.050	180	**250**	20	26
		350	7	13
0.060	216	**250**	29	30
		350	10	17
		450	3	-
0.070	252	**250**	40	34
		350	14	21
		450	4	9
0.080	288	**350**	19	25
		450	6	12
		550	3	-
0.100	360	**350**	29	31
		450	9	18
		550	5	10
0.125	450	**350**	45	36
		450	14	24
		550	8	16
0.150	540	**450**	21	29
		550	11	21
0.200	720	**450**	37	36
		550	20	28
0.250	900	**450**	57	42
		550	31	34
0.300	1080	**550**	44	39

General:

The pressure drop applies to fully opened damper.
• static pressure drop Ps in Pa.
The assumed room absorption is 10 dB.
• sound pressure Lp in dB(A).
Intermediate values may be interpolated.

Lined Plenums:

model	middle frequency bands					
	125	250	500	1K	2K	4K
250	5	0	3	10	5	11
350	2	2	7	7	7	9
450	2	3	9	7	7	9
550	0	6	7	7	6	9

RTBM

- Swirl diffuser
- Supply
- For Tee-bar mounting

Application:

The swirl diffuser type RTBM is suitable for the supply of cooled air with a large temperature differantial and can be utilised for constant and variable volume installations. The air pattern is fixed. The diffuser is for Tee-bar mounting in a ceiling with a 600 mm module size and can be fitted with a plenum box which is delivered ready assembled. The special high induction swirl effect enables a significant number of air changes. The very shallow inflow pattern also makes the diffuser suitable for somewhat lower spaces.

Features:

Max. air exchanges:	up to 15 x
Under temperature:	up to 10 K
Over temperature:	up to 15 K

Design:

Swirl diffuser:

face plate:	steel
finish visible parts:	epoxy powder
colour:	RAL 9010

Plenum box:

material:	steel sendzimir
lining:	1/2” ductliner
finish:	none

Damper:

material:	steel sendzimir
finish:	none

Optional:

face plate:	up to 750 mm
plenum box:	lower height

Available types:

R T B - - -

R swirl diffuser
T supply
B rotating exhaust pattern, petal shaped

- **face plate**
  M suited for Tee-bar mounting module size 600 mm
  T tegular (not available for model 550)

- **accessories**
  O none
  V damper (key operated from adjacent tile)

- **designed with**
  A round top connection
  R lined plenum box (assembled)
  U un-lined plenum box (assembled)

Dimensional data:

model	A	D	T	P	H
250	273	123	60	220	115
350	373	158	70	265	130
450	473	198	80	315	145
550	573	248	80	365	165

Weights:

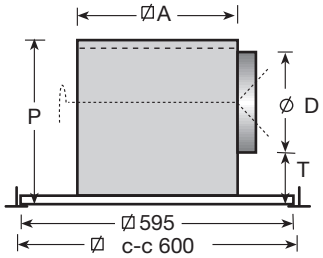
model	type		∅
	OA	OR	vcd
250	4.2	4.9	0.1
350	5.4	6.6	0.2
450	6.9	8.8	0.3
550	8.7	11.4	0.4

Remarks:

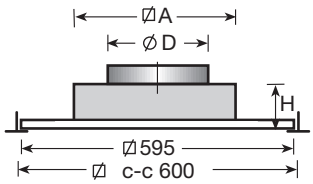
The dimensions are given in mm, weights in kg.
Connection “D” is actual O.D.
Diffusers for Tee-bar mounting with a smaller module see type RTBD.

For the diffuser with a tegular edge RTBT-- the dimensions x, y and z must be provided when ordered.
x - z = 12 minimum (model 550: z = 583mm).
y = 6 minimum.

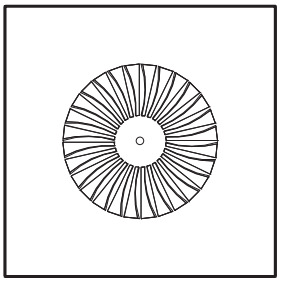
Dimensions:

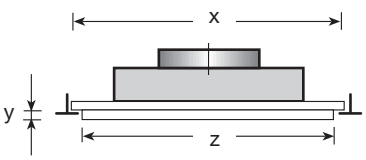


RTBMVR



RTBMOA





RTBTOA

Performance data RTBM:

air volume		model											
		250			350			450			550		
m³/s	m³/h	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp
0.020	72	**0.7**	3	-									
0.025	90	**0.9**	5	-									
0.030	108	**1.1**	7	16	**0.9**	3	-						
0.040	144	**1.5**	13	24	**1.2**	5	-						
0.050	180	**1.9**	20	30	**1.4**	7	16	**1.1**	2	-			
0.060	216	**2.2**	28	34	**1.7**	11	21	**1.3**	3	-			
0.070	252	**2.6**	38	38	**2.0**	15	25	**1.5**	4	13	**1.3**	2	-
0.080	288	**3.0**	50	42	**2.3**	19	29	**1.7**	6	16	**1.5**	3	-
0.100	360				**2.9**	30	34	**2.2**	9	22	**1.9**	5	14
0.125	450				**3.6**	46	40	**2.7**	14	28	**2.3**	7	20
0.150	540							**3.2**	20	32	**2.8**	11	25
0.200	720							**4.3**	36	40	**3.7**	19	32
0.250	900										**4.6**	30	38

Throw correction factor:

V_{end} m/s	throw factor
0.15	1.67
0.20	1.25
0.25	1.00
0.35	0.71
0.50	0.50

Throw figures are based on 0.25 m/s end velocity. In case other end velocities are required correct according to table.

2

General:

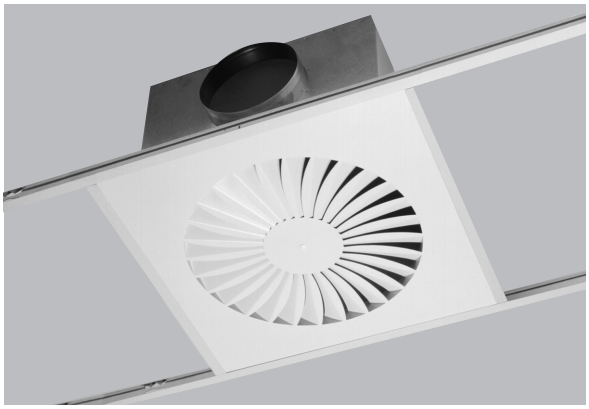
The throw applies to flush mounted in a horizontal dropped ceiling.
- throw T in metres.
- static pressure drop Ps in Pa.

The assumed room absorption is 10 dB.
- sound pressure Lp in dB(A).

Intermediate values may be interpolated.

Lined Plenums:

model	middle frequency bands					
	125	250	500	1K	2K	4K
250	5	0	3	10	5	11
350	2	2	7	7	7	9
450	2	3	9	7	7	9
550	0	6	7	7	6	9



RRBM

- **Swirl diffuser**
- **Return**
- **For Tee-bar mounting**

Application:

The swirl diffuser type RRBM is suitable for return air and its external appearance is the same as the RTBM supply diffuser. The diffuser is for Tee-bar mounting in a ceiling with a 600 mm module size and can be fitted with a plenum box which is delivered ready assembled.

Design:

Swirl diffuser:
face plate: steel

finish visible parts: epoxy powder
colour: RAL 9010

Plenum box:
material: steel sendzimir
lining: 1/2" ductliner
finish: none

Damper:
material: steel sendzimir
finish: none

Optional:
face plate: up to 750 mm
plenum box: lower height

Available types:

R R B - - -

R swirl diffuser
R return
B petal shaped

- **face plate**
  M suited for Tee-bar mounting module size 600 mm
  T tegular

- **accessories**
  O none
  V damper

- **designed with**
  A round top connection
  R lined plenum box (assembled)
  U un-lined plenum box (assembled)
  O face plate only

Dimensional data:

model	A	D	T	P	H
250	273	123	60	220	115
350	373	158	70	265	130
450	473	198	80	315	145
550	573	248	80	365	165

Weights:

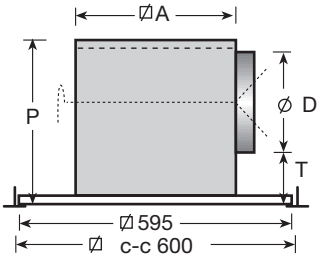
model	type			ø vcd
	OA	OR	OO	
250	3.9	4.5	2.5	0.1
350	4.7	5.9	2.6	0.2
450	5.8	7.7	2.7	0.3
550	7.1	9.8	2.7	0.4

Remarks:

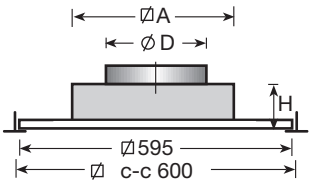
The dimensions are given in mm, weights in kg.
Connection "D" is actual O.D.
Diffusers for Tee-bar mounting with a smaller module see type RRBD.

For the diffuser with a tegular edge RRBT-- the dimensions x, y and z must be provided when ordered.
x - z = 12 minimum (model 550: z = 583mm).
y = 6 minimum.

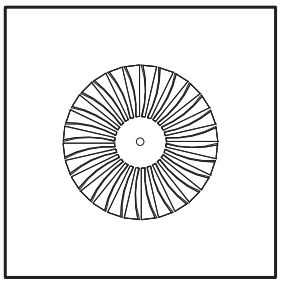
Dimensions:

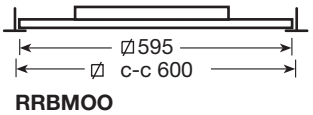


RRBMVR

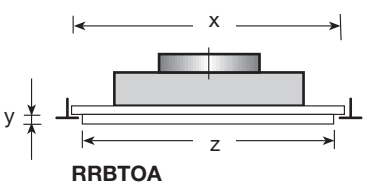


RRBMOA





RRBMOO



RRBTOA

Performance data:

RRBMOA, RRBMOU and RRBMOO:

air volume		round connection		
m³/s	m³/h	model	Ps	Lp
0.025	90	**250**	5	8
0.030	108	**250**	7	12
0.040	144	**250**	13	20
		350	5	-
0.050	180	**250**	20	26
		350	7	13
0.060	216	**250**	29	30
		350	10	17
		450	3	-
0.070	252	**250**	40	34
		350	14	21
		450	4	9
0.080	288	**350**	19	25
		450	6	12
		550	3	-
0.100	360	**350**	29	31
		450	9	18
		550	5	10
0.125	450	**350**	45	36
		450	14	24
		550	8	16
0.150	540	**450**	21	29
		550	11	21
0.200	720	**450**	37	36
		550	20	28
0.250	900	**450**	57	42
		550	31	34
0.300	1080	**550**	44	39

General:

The pressure drop applies to fully opened damper.
• static pressure drop Ps in Pa.
The assumed room absorption is 10 dB.
• sound pressure Lp in dB(A).
Intermediate values may be interpolated.

Lined Plenums:

model	middle frequency bands					
	125	250	500	1K	2K	4K
250	5	0	3	10	5	11
350	2	2	7	7	7	9
450	2	3	9	7	7	9
550	0	6	7	7	6	9

RTBC

- Swirl
- Supply

Application:

The swirl diffuser type RTBC is suitable for the supply of cooled air with a large temperature differential and can be utilised for constant and variable volume installations. The air pattern is fixed. The diffuser may be used for surface mounting as well as for Tee bar mounting. The diffuser is for mounting within the ceiling and can be fitted with a plenum box which is delivered ready assembled. The special high induction swirl effect enables a significant number of air changes. The very shallow inflow pattern also makes the diffuser suitable for somewhat lower spaces.

Design:

Swirl diffuser:
face plate: steel

finish visible parts: epoxy powder
colour: RAL 9010

Plenum box:
material: steel
sendzimir
lining: 1/2" ductliner
finish: none

Damper:
material: steel
sendzimir
finish: none

Optional:
plenum box: lower height

Available types:

R T B C - -

R swirl diffuser
T supply
B rotating exhaust pattern, petal shaped
C surface mounted, round

- **accessories**
  O none
  V damper

- **designed with**
  A round top connection
  R lined plenum box (assembled)
  U un-lined plenum box (assembled)

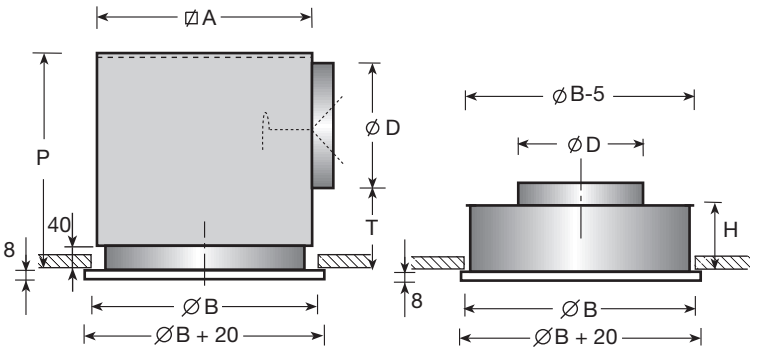
Features:

Max. air exchanges: up to 15 x
Under temperature: up to 10 K
Over temperature: up to 15 K

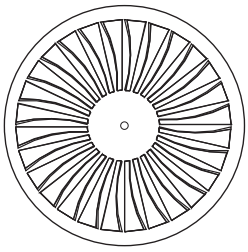
Dimensionel data:

model	B	A	D1	T	P	H
250	280	293	123	65	220	110
350	380	393	158	75	265	125
450	480	493	198	75	320	140
550	580	593	248	75	365	160

Dimensions:



RTBCVR **RTBCOA**



Remarks:

The dimensions are given in mm.
Connection "D" is actual O.D.
The face size of models 250, 350 and 450 are 295, 395 and 495 mm respectively overall.
As such these models fit in a Tee-bar modular ceiling with a respective size of 300, 400 and 500 mm. For 600 mm grid see RTBM.

Performance data RTBC:

air volume		model											
		250			350			450			550		
m³/s	m³/h	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp
0.020	72	**0.7**	3	-									
0.025	90	**0.9**	5	-									
0.030	108	**1.1**	7	16	**0.9**	3	-						
0.040	144	**1.5**	13	24	**1.2**	5	-						
0.050	180	**1.9**	20	30	**1.4**	7	16	**1.1**	2	-			
0.060	216	**2.2**	28	34	**1.7**	11	21	**1.3**	3	-			
0.070	252	**2.6**	38	38	**2.0**	15	25	**1.5**	4	13	**1.3**	2	-
0.080	288	**3.0**	50	42	**2.3**	19	29	**1.7**	6	16	**1.5**	3	-
0.100	360				**2.9**	30	34	**2.2**	9	22	**1.9**	5	14
0.125	450				**3.6**	46	40	**2.7**	14	28	**2.3**	7	20
0.150	540							**3.2**	20	32	**2.8**	11	25
0.200	720							**4.3**	36	40	**3.7**	19	32
0.250	900										**4.6**	30	38

Throw correction factor:

V_{end} m/s	throw factor
0.15	1.67
0.20	1.25
0.25	1.00
0.35	0.71
0.50	0.50

Throw figures are based on 0.25 m/s end velocity. In case other end velocities are required correct according to table.

General:

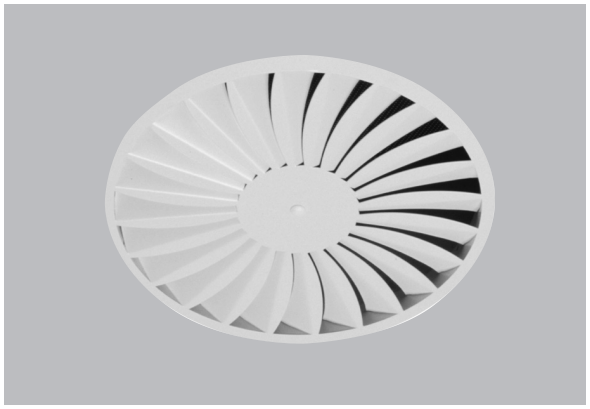
The throw applies to flush mounted in a horizontal dropped ceiling.
- throw T in metres.
- static pressure drop Ps in Pa.

The assumed room absorption is 10 dB.
- sound pressure Lp in dB(A).

Intermediate values may be interpolated.

Lined Plenums:

model	middle frequency bands					
	125	250	500	1K	2K	4K
250	5	0	3	10	5	11
350	2	2	7	7	7	9
450	2	3	9	7	7	9
550	0	6	7	7	6	9



RRBC

- Swirl
- Return

Design:

Swirl diffuser:
face plate: steel

finish visible parts: epoxy powder
colour: RAL 9010

Plenum box:
material: steel
sendzimir
lining: 1/2" ductliner
finish: none

Damper:
material: steel
sendzimir
finish: none

Optional:
plenum box: lower height

Available types:

R R B C - -

R swirl diffuser
R return
B petal shaped
C round, surface mounted

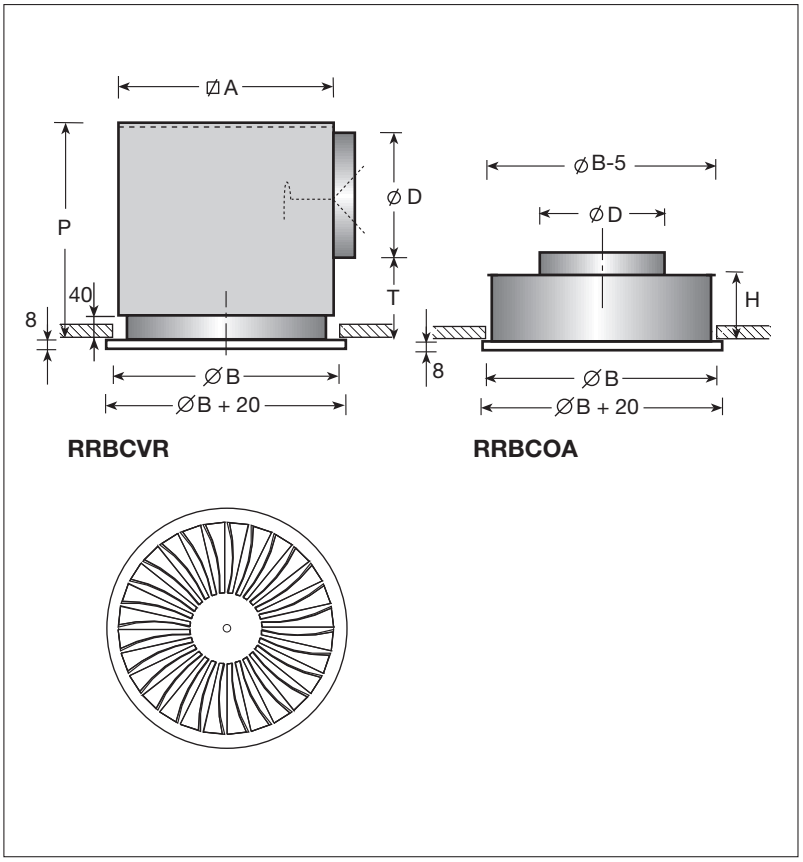
- **accessories**
  O none
  V damper

- **designed with**
  A round top connection
  R lined plenum box (assembled)
  U un-lined plenum box (assembled)
  O face plate only

Application:

The swirl diffuser type RRBC is suitable for return air and its external appearance is the same as the RTBC supply diffuser.
The diffuser may be used for surface mounting as well as for Tee bar mounting. The diffuser can be fitted with a plenum box which is delivered ready assembled.

Dimensions:



Dimensionel data:

model	B	A	D	T	P	H
250	280	293	123	65	220	110
350	380	393	158	75	265	125
450	480	493	198	75	320	140
550	580	593	248	75	365	160

Remarks:

The dimensions are given in mm.
Connection "D" is actual O.D.

Performance data:

RRBCOA and RRBCOU:

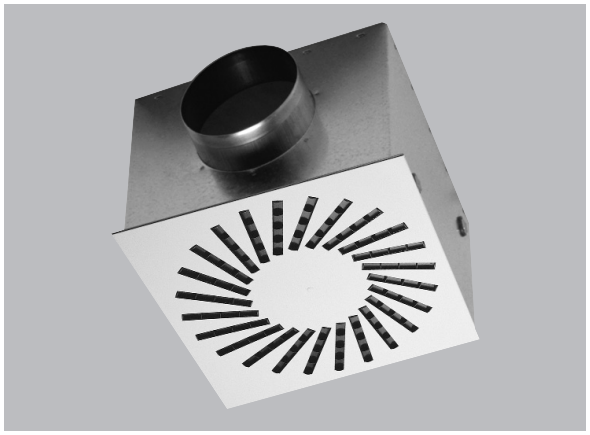
air volume		round connection		
m³/s	m³/h	model	Ps	Lp
0.025	90	**250**	5	8
0.030	108	**250**	7	12
0.040	144	**250**	13	20
		350	5	-
0.050	180	**250**	20	26
		350	7	13
0.060	216	**250**	29	30
		350	10	17
		450	3	-
0.070	252	**250**	40	34
		350	14	21
		450	4	9
0.080	288	**350**	19	25
		450	6	12
		550	3	-
0.100	360	**350**	29	31
		450	9	18
		550	5	10
0.125	450	**350**	45	36
		450	14	24
		550	8	16
0.150	540	**450**	21	29
		550	11	21
0.200	720	**450**	37	36
		550	20	28
0.250	900	**450**	57	42
		550	31	34
0.300	1080	**550**	44	39

General:

The pressure drop applies to fully opened damper.
• static pressure drop Ps in Pa.
The assumed room absorption is 10 dB.
• sound pressure Lp in dB(A).
Intermediate values may be interpolated.

Lined Plenums:

model	middle frequency bands					
	125	250	500	1K	2K	4K
250	5	0	3	10	5	11
350	2	2	7	7	7	9
450	2	3	9	7	7	9
550	0	6	7	7	6	9



RT--

- **Swirl**
- **Supply**
- **Adjustable**

Application:

The swirl diffuser type RTG- is suitable for the supply of cooled air with a large temperature differential and can be utilised for constant and variable volume installations. The air pattern is reversible adjustable: RTG- or fully adjustable: RT--. The diffuser may be used for surface mounting as well as for Tee bar mounting. The diffuser is for mounting within the ceiling and can be fitted with a plenum box which is delivered unassembled. The special high induction swirl effect enables a significant number of air changes. The very shallow inflow pattern also makes the diffuser suitable for somewhat lower spaces.

Features:

Max. air exchanges:	up to 12 x
Under temperature:	up to 10 K
Over temperature:	up to 15 K

Dimensional data:

model	B	K	D	A	P	T	H
300/8	285	295	158	280	260	65	190
400/16	378	395	198	373	300	65	190
500/16	478	495	198	373	300	65	190
600/16	578	595	198	373	300	65	190
500/24	478	495	198	473	310	75	190
600/24	578	595	248	573	360	75	190
600/48	585	595	248	580	370	85	290

Remarks:

The dimensions are given in mm.
Connection “D” is actual O.D.
For the diffuser with a tegular edge RTGT-- the dimensions x, y and z must be provided when ordered.
x - z = 12 minimum.
y = 6 minimum.

The models 600/16, 600/24 and 600/48 are suitable for Tee-bar mounting, module size 600 mm.

Design:

Swirl diffuser:

face plate:	steel
finish:	epoxy powder
colour:	RAL 9010

Blades:

pattern blades	synthetic
colour:	black, white optional

Plenum box:

material:	steel sendzimir
lining:	1/2” ductliner
finish:	none

Damper:

material:	steel sendzimir
finish:	none

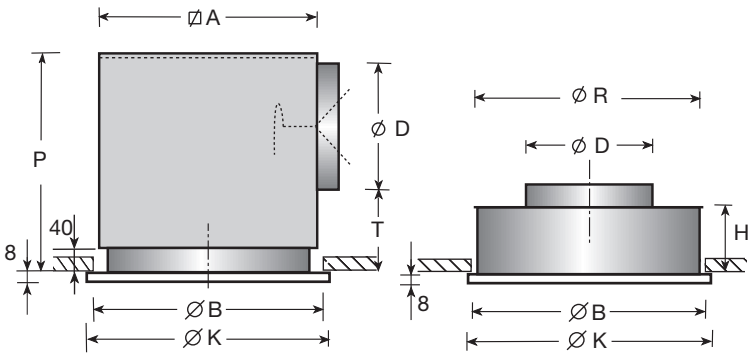
Available types:

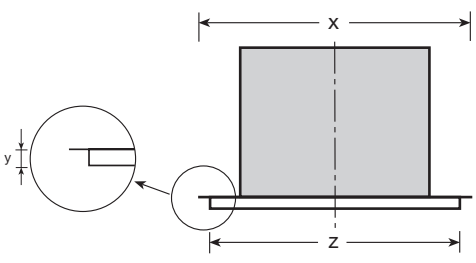
R T - - - - -

R swirl diffuser
T supply

- **air pattern**
  G reversible air pattern
  S fully adjustable air pattern
- **face plate**
  D surface mounted
  T tegular
- **accessories**
  O none
  V damper
- **designed with**
  A round top connection
  R lined plenum box (unassembled)
  U un-lined plenum box (unassembled)
  O face plate only, no connection

Dimensions:





RT-T--

Performance RTGD / RTGS:

air volume		model														
		300/8			400/16, 500/16 600/16			500/24			600/24			600/48		
m³/s	m³/h	W	Ps	Lp	W	Ps	Lp	W	Ps	Lp	W	Ps	Lp	W	Ps	Lp
0.015	54	**0.7**	3	-												
0.020	72	**0.9**	6	-												
0.025	90	**1.1**	9	10												
0.030	108	**1.3**	12	15	**1.1**	3	-									
0.040	144	**1.6**	22	22	**1.3**	6	-	**1.1**	3	-						
0.050	180	**1.9**	34	28	**1.4**	9	13	**1.3**	4	-						
0.060	216	**2.1**	50	33	**1.6**	14	17	**1.4**	6	12	**1.3**	2	-			
0.070	252	**2.4**	68	37	**1.7**	18	21	**1.6**	8	16	**1.4**	3	-			
0.080	288	**2.6**	88	40	**1.8**	24	25	**1.7**	11	19	**1.5**	4	7			
0.100	360				**2.0**	38	31	**2.0**	17	25	**1.7**	7	13	**1.8**	5	-
0.125	450				**2.3**	59	37	**2.3**	26	31	**1.9**	11	19	**1.9**	7	13
0.150	540							**2.6**	38	35	**2.1**	15	23	**2.0**	10	18
0.200	720										**2.5**	27	31	**2.2**	18	26
0.250	900										**2.8**	42	37	**2.4**	28	31
0.300	1080													**2.5**	41	36
0.350	1260															
0.400	1440															
0.450	1620															
0.500	1800															

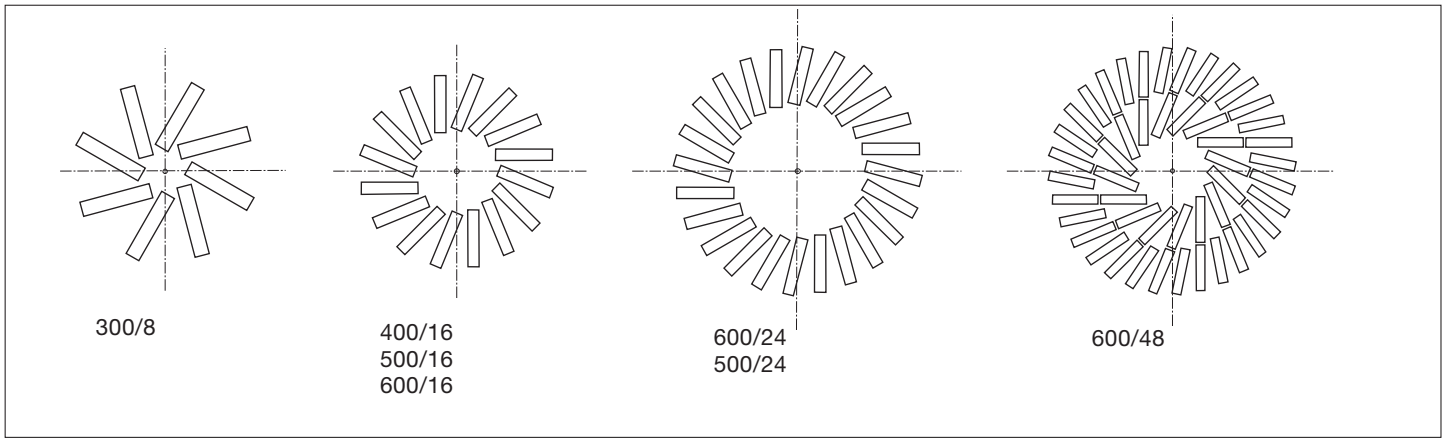
Throw correction factor:

V_{end} m/s	throw factor
0.15	1.67
0.20	1.25
0.25	1.00
0.35	0.71
0.50	0.50

Throw figures are based on 0.25 m/s end velocity. In case other end velocities are required correct according to table.

2

Blades pattern:



300/8

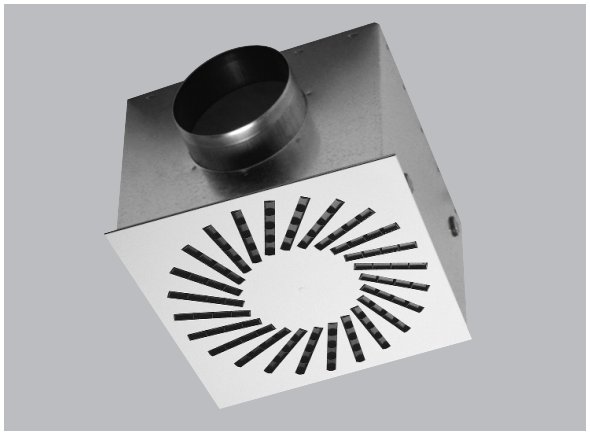
400/16
500/16
600/16

600/24
500/24

600/48

General:

The throw applies to flush mounted in a horizontal dropped ceiling.
• throw T in metres.
• static pressure drop Ps in Pa.
The assumed room absorption is 10 dB.
• sound pressure Lp in dB(A).
Intermediate values may be interpolated.



RR--

- Swirl
- Return
- Adjustable

Application:

The swirl diffuser type RR-- is suitable for return air - and its external appearance is the same as the RT-- supply diffuser. Blades fitted for aesthetics.
The diffuser may be used for surface mounting as well as for Tee bar mounting. The diffuser can be fitted with a plenum box which is delivered unassembled.

Design:

Swirl diffuser:
face plate: steel
finish: epoxy powder
colour: RAL 9010

Blades:
pattern blades: synthetic
colour: black, white optional

Plenum box:
material: steel, sendzimir
lining: 1/2" ductliner
finish: none

Damper:
material: steel, sendzimir
finish: none

Available types:

R R - - - -

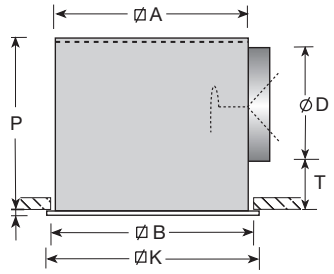
R swirl diffuser
R return

- **air pattern**
  G reversible air pattern
  S fully adjustable air pattern
- **face plate**
  D surface mounted
  T tegular
- **accessories**
  O none
  V damper
- **designed with**
  A round top connection
  R lined plenum box (unassembled)
  U un-lined plenum box (unassembled)
  O face plate only, no connection

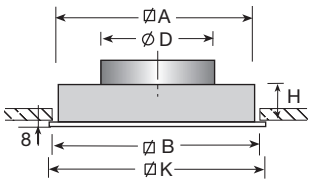
Dimensional data:

model	B	K	D	A	P	T	H
300/8	285	295	158	280	260	65	190
400/16	378	395	198	373	300	65	190
500/16	478	495	198	373	300	65	190
600/16	578	595	198	373	300	65	190
500/24	478	495	198	473	310	75	190
600/24	578	595	248	573	360	75	190
600/48	585	595	248	580	370	85	290

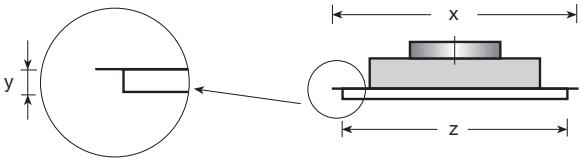
Dimensions:



RRGDVR



RRGDOA



RRGTOA

Remarks:

The dimensions are given in mm.
Connection "D" is actual O.D.
For the diffuser with a tegular edge RRRT-- the dimensions x, y and z must be provided when ordered.
x - z = 12 minimum.
y = 6 minimum.

The models 600/16, 600/24 and 600/48 are suitable for Tee-bar mounting, module size 600 mm.

Performance data RRGD-R (round side connection):

luchthoev.		model									
		300/8		400/16, 500/16 600/16		500/24		600/24		600/48	
m³/s	m³/h	Ps	Lp	Ps	Lp	Ps	Lp	Ps	Lp	Ps	Lp
0.050	180	16	9								
0.060	216	24	15								
0.070	252	32	19								
0.080	288	42	23	14	9						
0.100	360	66	30	21	16	13	9				
0.125	450	103	37	33	23	20	15				
0.150	540			48	28	29	21	13	10		
0.200	720			85	37	52	30	23	19	18	15
0.250	900					82	37	36	26	29	21
0.300	1080					118	42	51	31	41	27
0.350	1260							70	36	56	32
0.400	1440							91	40	73	36
0.450	1620									93	39

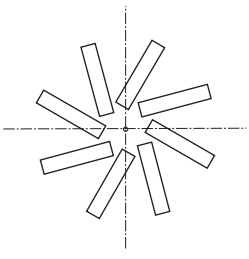
General:

The pressure drop applies to fully opened damper.
• static pressure drop Ps in Pa. The assumed room absorption is 10 dB.
• sound pressure Lp in dB(A). Intermediate values may be interpolated.

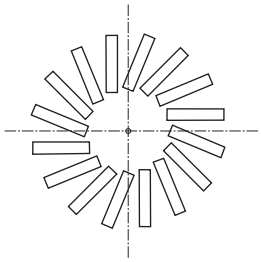
Performance data RRGD-A (round top connection):

air volume		model									
		300/8		400/16, 500/16 600/16		500/24		600/24		600/48	
m³/s	m³/h	Ps	Lp	Ps	Lp	Ps	Lp	Ps	Lp	Ps	Lp
0.030	108	4	-								
0.040	144	7	-								
0.050	180	12	7								
0.060	216	17	13								
0.070	252	23	18								
0.080	288	30	22	11	9						
0.100	360	47	28	17	16	12	8				
0.125	450	73	35	26	22	19	14	8	6		
0.150	540			38	28	27	20	12	12	10	6
0.200	720			67	37	48	29	21	20	18	15
0.250	900					75	36	34	27	28	22
0.300	1080					108	41	48	33	40	27
0.350	1260							66	37	55	32
0.400	1440							86	41	72	36
0.450	1620									91	40

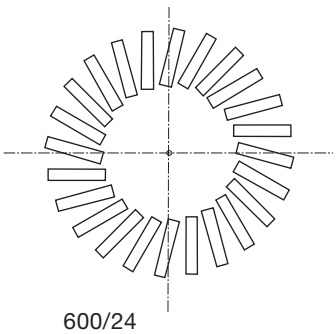
Blades pattern:



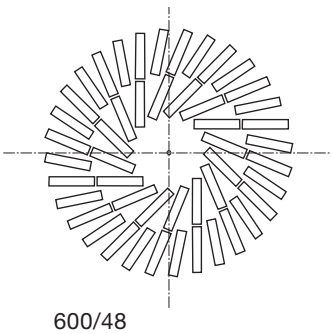
300/8



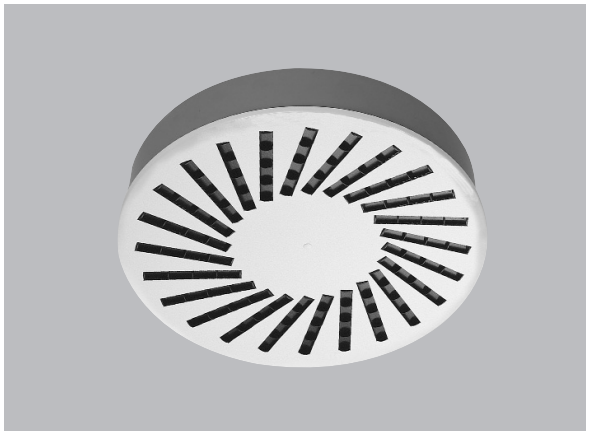
400/16
500/16
600/16



600/24
500/24



600/48



RTGC

- **Swirl**
- **Supply**
- **Adjustable**

Application:

The swirl diffuser type RT-C is suitable for the supply of cooled air with a large temperature differential and can be utilised for constant and variable volume installations. The air pattern is reversible adjustable: RTGC or fully adjustable: RTSC. The diffuser may be used for surface mounting as well as for Tee bar mounting. The diffuser is for mounting within the ceiling and can be fitted with a plenum box which is delivered unassembled. The special high induction swirl effect enables a significant number of air changes. The very shallow inflow pattern also makes the diffuser suitable for somewhat lower spaces.

Design:

Swirl diffuser:
face plate: steel
finish: epoxy powder
colour: RAL 9010

Blades:
pattern blades: synthetic
colour: black, white optional

Plenum box:
material: steel sendzimir
lining: 1/2" ductliner
finish: none

Damper:
material: steel sendzimir
finish: none

Available types:

R T - C - -

R swirl diffuser
T supply
G reversible air pattern
C round, surface mounted

- accessories
O none
V damper

- designed with
A round top connection
R lined plenum box (unassembled)
U un-lined plenum box (unassembled)

Features:

Max. air exchanges: up to 12 x
Under temperature: up to 10 K
Over temperature: up to 15 K

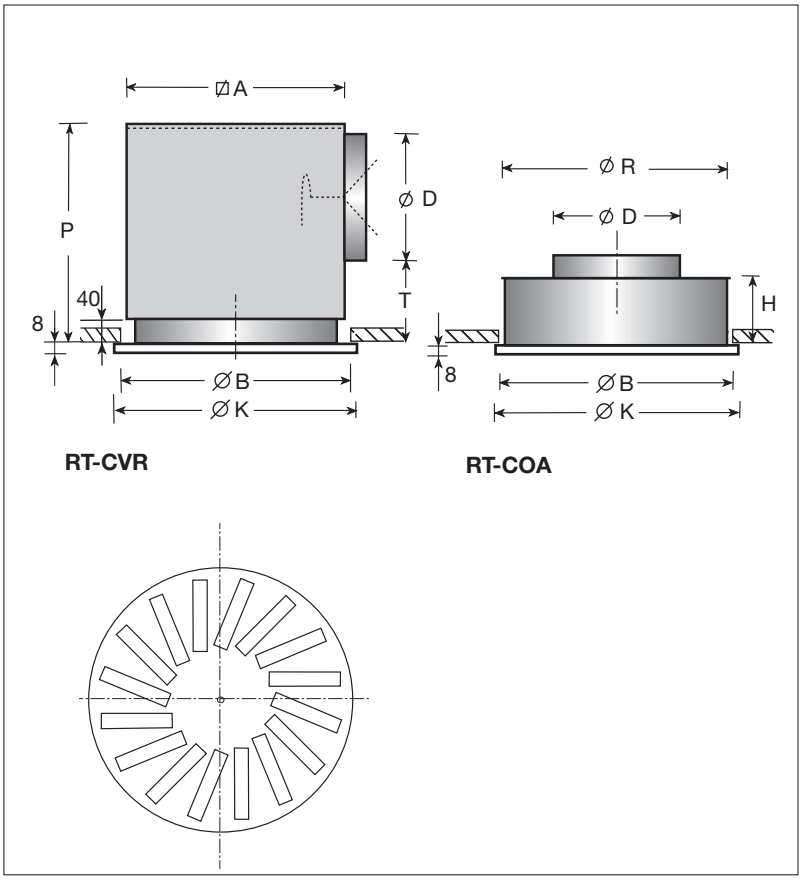
Dimensional data:

model	B	K	D	A	R	P	T	H
300/8	285	300	158	315	280	270	75	190
400/16	378	400	198	408	373	310	75	190
500/16	478	500	198	408	373	310	75	190
600/16	578	600	198	408	373	310	75	190
500/24	478	500	198	508	473	310	75	190
600/24	578	600	248	608	573	360	75	190
600/48	585	600	248	622	580	370	85	290

Remarks:

The dimensions are given in mm.

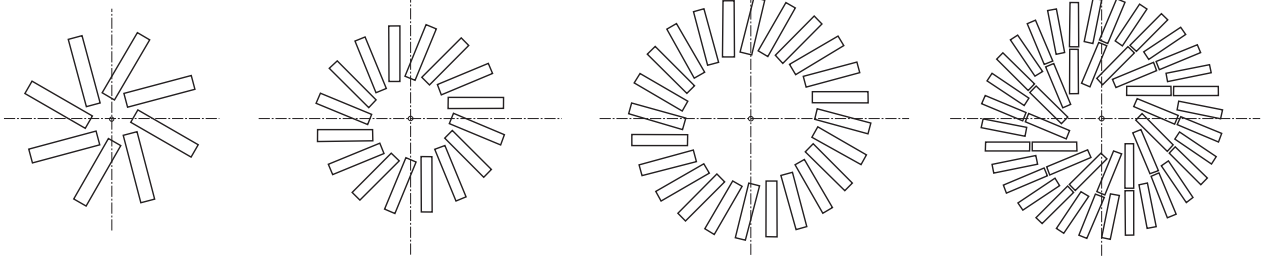
Dimensions:



Performance data RTGC:

air volume		model														
		300/8			400/16 500/16 600/16			500/24			600/24			600/48		
m³/s	m³/h	W	Ps	Lp	W	Ps	Lp	W	Ps	Lp	W	Ps	Lp	W	Ps	Lp
0.015	54	**0.7**	3	-												
0.020	72	**0.9**	6	-												
0.025	90	**1.1**	9	10												
0.030	108	**1.3**	12	15	**1.1**	3	-									
0.040	144	**1.6**	22	22	**1.3**	6	-	**1.1**	3	-						
0.050	180	**1.9**	34	28	**1.4**	9	13	**1.3**	4	-						
0.060	216	**2.1**	50	33	**1.6**	14	17	**1.4**	6	12	**1.3**	2	-			
0.070	252	**2.4**	68	37	**1.7**	18	21	**1.6**	8	16	**1.4**	3	-			
0.080	288	**2.6**	88	40	**1.8**	24	25	**1.7**	11	19	**1.5**	4	7			
0.100	360				**2.0**	38	31	**2.0**	17	25	**1.7**	7	13	**1.8**	5	-
0.125	450				**2.3**	59	37	**2.3**	26	31	**1.9**	11	19	**1.9**	7	13
0.150	540							**2.6**	38	35	**2.1**	15	23	**2.0**	10	18
0.200	720										**2.5**	27	31	**2.2**	18	26
0.250	900										**2.8**	42	37	**2.4**	28	31
0.300	1080													**2.5**	41	36

Blades pattern:



300/8

400/16
500/16
600/16

500/24
600/24

600/48

General:

The throw applies to flush mounted in a horizontal dropped ceiling.
- throw T in metres.
- static pressure drop Ps in Pa.

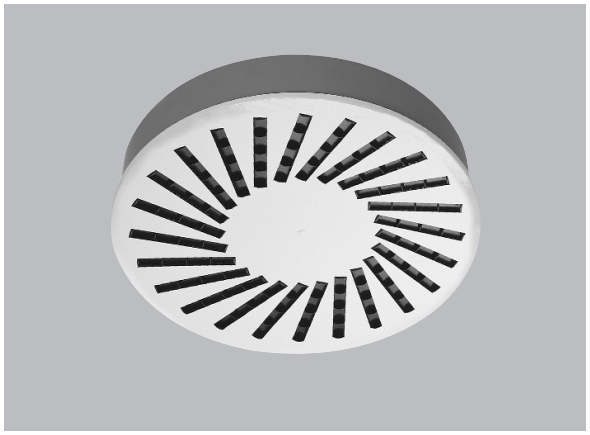
The assumed room absorption is 10 dB.
- sound pressure Lp in dB(A).

Intermediate values may be interpolated.

Throw correction factor:

V_{end} m/s	throw factor
0.15	1.67
0.20	1.25
0.25	1.00
0.35	0.71
0.50	0.50

Throw figures are based on 0.25 m/s end velocity. In case other end velocities are required correct according to table.



RRGC

- Swirl
- Return
- With pattern blades

Application:

The swirl diffuser type RR-C is suitable for return air and its external appearance is the same as the RT-C or RRS supply diffuser. Blades fitted for aesthetics. The diffuser may be used for surface mounting as well as for Tee bar mounting. The diffuser can be fitted with a plenum box which is delivered unassembled.

Design:

Swirl diffuser:
face plate: steel
finish: epoxy powder
colour: RAL 9010

Blades:
pattern blades: synthetic
colour: black, white optional

Plenum box:
material: steel sendzimir
lining: 1/2" ductliner
finish: none

Damper:
material: steel sendzimir
finish: none

Available types:

R R G C - -

R swirl diffuser
R return
G rotating pattern, c/w blades
C round, surface mounted

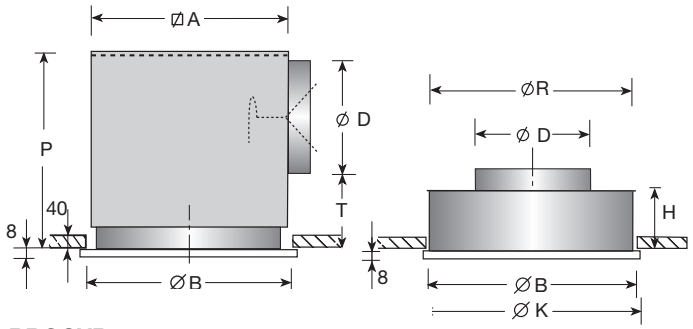
- accessories
O none
V damper

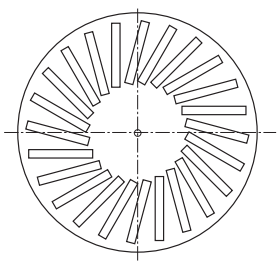
- designed with
A round top connection
R lined plenum box (unassembled)
U un-lined plenum box (unassembled)

Dimensional data:

model	B	K	D	A	R	P	T	H
300/8	285	300	158	315	280	270	75	190
400/16	378	400	198	408	373	310	75	190
500/16	478	500	198	408	373	310	75	190
600/16	578	600	198	408	373	310	75	190
625/16	603	625	198	408	373	310	75	190
500/24	478	500	198	508	473	310	75	190
600/24	578	600	248	608	573	360	75	190
600/36	578	625	248	608	573	360	75	190
625/24	603	600	248	608	573	360	75	190
600/48	585	600	248	622	580	370	85	290
625/48	603	625	248	622	580	370	85	290

Dimensions:





Remarks:

The dimensions are given in mm.
Connection "D" is actual O.D.

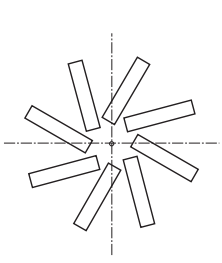
Performance data RRGC (round side connection):

air volume		model											
		300/8		400/16, 500/16 600/16, 625/16		500/24		600/24 625/24		600/36		600/48 625/48	
m³/s	m³/h	Ps	Lp	Ps	Lp	Ps	Lp	Ps	Lp	Ps	Lp	Ps	Lp
0.050	180	43	19										
0.060	216	65	25										
0.070	252	86	29										
0.080	288	113	33	38	19								
0.100	360			57	26	35	19						
0.125	450			89	33	54	25						
0.150	540			130	38	78	31	35	20				
0.200	720					140	40	62	29	52	26	49	25
0.250	900							97	36	85	33	78	31
0.300	1080							138	41	122	39	111	37

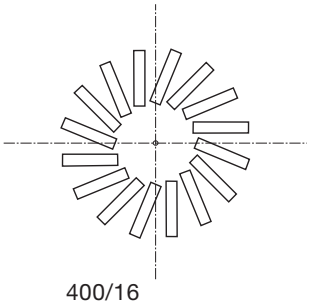
Performance data RRGC-A (round top connection):

air volume		model											
		300/8		400/16, 500/16 600/16, 625/16		500/24		600/24 625/24		600/36		600/48 625/48	
m³/s	m³/h	Ps	Lp	Ps	Lp	Ps	Lp	Ps	Lp	Ps	Lp	Ps	Lp
0.030	108	11	-										
0.040	144	19	-										
0.050	180	32	17										
0.060	216	46	23										
0.070	252	62	28										
0.080	288	81	32	30	19								
0.100	360	127	38	46	26	32	18						
0.125	450			70	32	51	24	22	16				
0.150	540			103	38	73	30	32	22	28	18	27	16
0.200	720					130	39	57	30	52	27	49	25
0.250	900							92	37	83	34	76	32
0.300	1080							130	43	117	39	108	37
0.350	1260											149	42

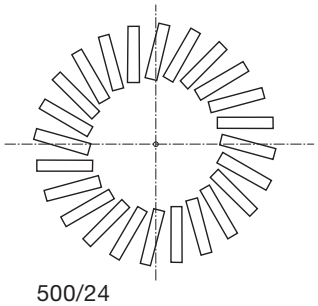
Blades pattern:



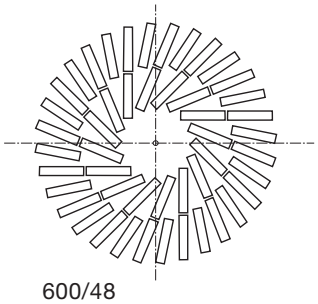
300/8



400/16
500/16
600/16



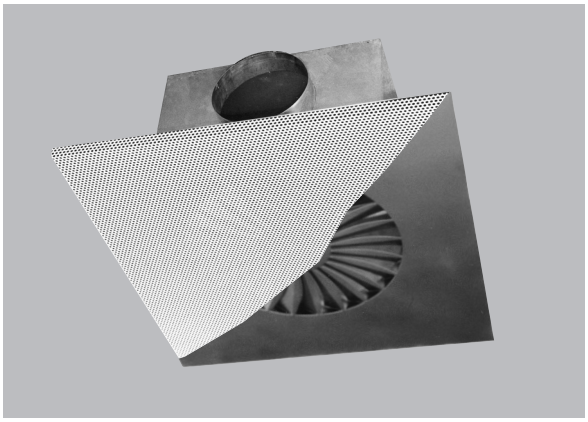
500/24
600/24



600/48

General:

The pressure drop applies to fully opened damper.
• static pressure drop Ps in Pa.
The assumed room absorption is 10 dB.
• sound pressure Lp in dB(A).
Intermediate values may be interpolated.



RTPM

- **Swirl diffuser**
- **Supply**
- **For Tee-bar mounting**

Application:

The swirl diffuser type RTPM is suitable for the supply of cooled air with a large temperature differential and can be utilised for constant and variable volume installations. The air pattern is fixed. The diffuser is for Tee-bar mounting in a ceiling with a 600 mm module size and can be fitted with a plenum box which is delivered ready assembled. The special high induction swirl effect enables a significant number of air changes. The very shallow inflow pattern also makes the diffuser suitable for somewhat lower spaces.

Design:

Swirl diffuser
face plate: steel

finish visible parts: epoxy powder
colour: RAL 9010

Plenum box
material: steel
sendzimir
lining: 12 mm
finish: none

Damper
material: steel
sendzimir
finish: none

Available types:

R T P M - -

R swirl diffuser
T supply
P petal shaped, perforated face

- **face plate**
  M suited for Tee-bar mounting module size 600 mm
  T tegular

- **accessories**
  O none
  V damper (key operated from adjacent tile)

- **designed with**
  A round top connection
  R lined plenum box (assembled)
  U un-lined plenum box (assembled)

Features:

Max. air exchanges: up to 15 x
Under temperature: up to 10 K
Over temperature: up to 15 K

Dimensional data:

model	A	D	T	P	H
250	273	123	60	220	115
350	373	158	70	265	130
450	473	198	80	315	145
550	573	248	80	365	165

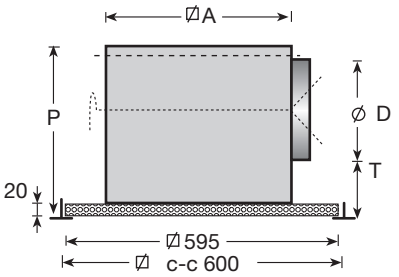
Weights:

model	type		ø
	OA	OR	vcd
250	5.3	6.0	0.1
350	6.5	7.7	0.2
450	8.0	9.9	0.3
550	9.8	12.5	0.4

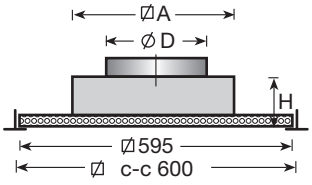
Remarks:

The dimensions are given in mm.
Weights are given in kg.
Connection “D” is actual O.D.
In addition to the standard lay-in ceiling diffuser, we can also provide the diffuser with a tegular edge to suit most modern ceiling systems (please refer to Solid Air Head office)

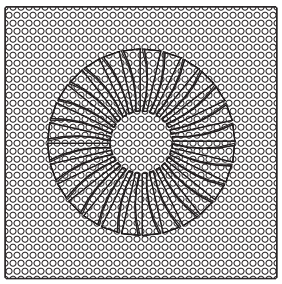
Dimensions:



RTPMVR



RTPMOA



Performance data RTPM:

air volume		model											
		250			350			450			550		
m³/s	m³/h	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp
0.020	72	**0.7**	3	-									
0.025	90	**0.9**	6	-									
0.030	108	**1.1**	8	21	**0.9**	3	-						
0.040	144	**1.5**	14	29	**1.2**	6	-						
0.050	180	**1.9**	22	35	**1.4**	8	21	**1.1**	2	-			
0.060	216	**2.2**	31	39	**1.7**	12	26	**1.3**	3	-			
0.070	252	**2.6**	42	43	**2.0**	17	30	**1.5**	4	18	**1.3**	2	-
0.080	288	**3.0**	55	47	**2.3**	21	34	**1.7**	7	21	**1.5**	3	-
0.100	360				**2.9**	33	39	**2.2**	10	27	**1.9**	6	19
0.125	450				**3.6**	51	45	**2.7**	15	33	**2.3**	8	25
0.150	540							**3.2**	22	37	**2.8**	12	30
0.200	720							**4.3**	40	45	**3.7**	21	37
0.250	900										**4.6**	33	43

Throw correction factor:

V_{end} m/s	throw factor
0.15	1.67
0.20	1.25
0.25	1.00
0.35	0.71
0.50	0.50

Throw figures are based on 0.25 m/s end velocity. In case other end velocities are required correct according to table.

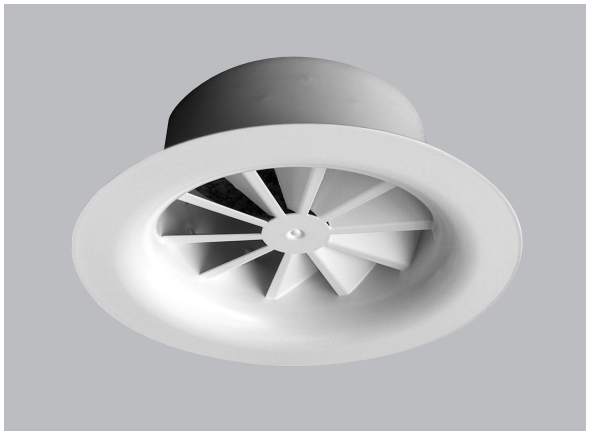
2

General:

The throw applies to flush mounted in a horizontal dropped ceiling.
For return data see PRVM chapter 3.
• throw T in metres.
• static pressure drop Ps in Pa.
The assumed room absorption is 10 dB.
• sound pressure Lp in dB(A).
Intermediate values may be interpolated.

Lined Plenums:

model	middle frequency bands					
	125	250	500	1K	2K	4K
250	5	0	3	10	5	11
350	2	2	7	7	7	9
450	2	3	9	7	7	9
550	0	6	7	7	6	9



RTFO

- **Swirl diffuser**
- **Supply, round**
- **Fixed blades**

Application:

The round, conic Swirl diffuser type RTF is suitable for the supply of cooled or heated air with a big temperature difference and is applicable into constant and variable volume installations.
The housing consists of a round aluminium nozzle body with ten fixed Swirl blades. The diffuser can be easily installed in the separate plenum box by means of a central screw.
An optional fixing ring can be supplied for easy mounting in a ceiling tile, no tools needed.

Design:

Swirl diffuser:
round metal

nozzle body:	aluminium
swirl blades:	aluminium
finish:	epoxy powder
colour:	white RAL 9010 or as desired (additional price)

Plenum box:

material:	galvanised sheet steel
interior lining:	1/2” ductliner
finish:	none

Optional:

plenum box:	lower height

Available types:

R T F O - -

R round diffuser
T supply
F swirl type, fixed blades
O round, surface mounted

- accessories
O none
C fixing ring (RTFO-A only)
V damper (only in combination with a plenumbox)

- designed with
A round top connection
U unlined plenum box (delivered separately)
R lined plenum box (delivered separately)

Features:

Max. exchange rate:	up to 15 x
Under temperature:	up to 10 K
Over temperature:	up to 15 K

Dimensional data:

model	A	B	C	D1	D2
125	184	165	205	124	123
160	219	210	250	159	158
200	259	260	310	199	198
250	309	330	380	249	248
315	374	395	435	314	313

model	G	H	K	P_{min}	P_{max}
125	171	70	35	260	280
160	206	95	35	285	305
200	246	110	45	330	350
250	296	130	55	390	420
315	361	165	55	460	490

Remarks:

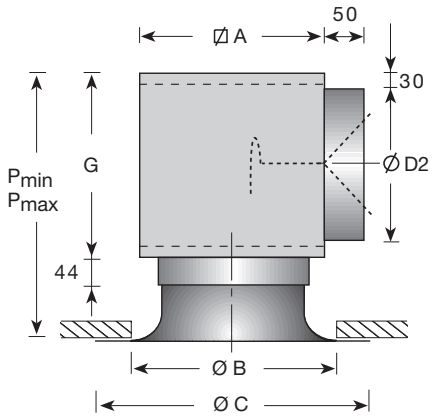
The dimensions are given in mm.

For Tee-bar mounting see type RTFM page 268.

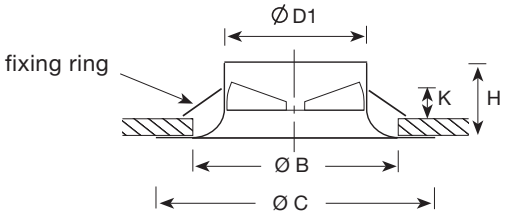
The diffuser can also be used for return air. In this case the Lp and Ps values in the table can be used.

Connection “D” is actual O.D.

Dimensions:



RTFOVR



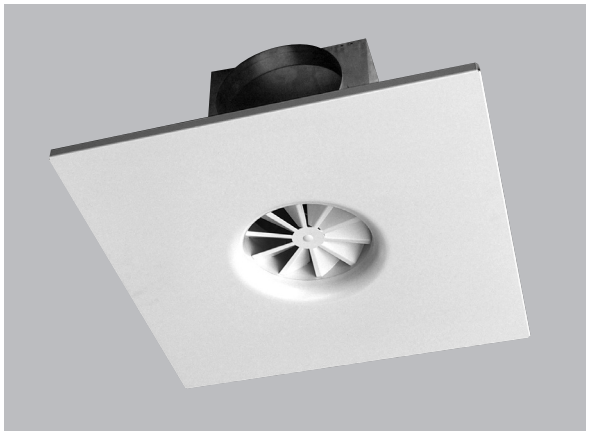
RTFOCA

Performance date RTFO:

air volume		model														
		125			160			200			250			315		
m³/s	m³/h	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp
0.015	**54**	**0.7**	**11**	**-**												
0.020	72	**1.0**	19	15	**0.7**	5	-									
0.025	90	**1.1**	30	22	**0.9**	8	-									
0.030	108	**1.4**	43	27	**1.1**	12	11	**0.8**	3	-						
0.040	144	**1.9**	70	36	**1.4**	21	20	**1.1**	6	-						
0.050	180	**2.4**	120	43	**1.8**	33	27	**1.4**	9	16	**1.0**	3	-			
0.060	216				**2.2**	47	32	**1.7**	13	21	**1.3**	5	-			
0.080	288				**2.8**	83	41	**2.2**	24	30	**1.8**	10	17	**1.4**	4	-
0.100	360							**2.8**	37	37	**2.1**	15	24	**1.7**	6	11
0.125	450							**3.4**	59	44	**2.8**	24	31	**2.1**	9	17
0.150	540										**3.3**	34	36	**2.6**	13	23
0.200	720										**4.3**	60	45	**3.5**	23	32
0.250	900													**4.2**	37	38
0.300	1080													**5.1**	53	44

General:

The throw applies to flush fitting into a flat ceiling.
throw T in meters.
static pressure drop Ps in Pa
The adopted room absorption is 10 dB.
sound pressure level Lp in dB(A).



RTFM

- **Swirl diffuser, for Tee-bar mounting**
- **Supply, round**
- **Fixed blades**

Design:

Swirl diffuser:
round metal

nozzle body:	aluminium
swirl blades:	aluminium
finish:	epoxy powder
colour:	white RAL 9010

Plenum box:

material:	galvanised sheet steel
interior lining:	1/2" ductliner
finish:	none

Optional:

panel size:	620 mm
plenum box:	lower height

Available types:

R T F M - -

R round diffuser
T supply
F swirl type, fixed blades
M tee bar mountable, square 595 mm

- accessories
O none
V damper (only in combination with a plenumbox)

- designed with
A round top connection
U unlined plenum box (delivered separately)
R lined plenum box (delivered separately)

Application:

The round, conic Swirl diffuser type RTF is suitable for the supply of cooled or heated air with a big temperature difference and is applicable into constant and variable volume installations.
The housing consists of a round aluminium nozzle body with ten fixed Swirl blades. The diffuser can be easily installed with the separate plenum box by means of a central screw.

Features:

Max. exchange rate:	up to 15 x
Under temperature:	up to 10 K
Over temperature:	up to 15 K

Dimensional data:

model	A	D1	D2	G	H	P_{min}	P_{max}
125	184	124	123	171	70	260	280
160	219	159	158	206	95	285	305
200	259	199	198	246	110	330	350
250	309	249	248	296	130	390	420
315	374	314	313	361	165	460	490

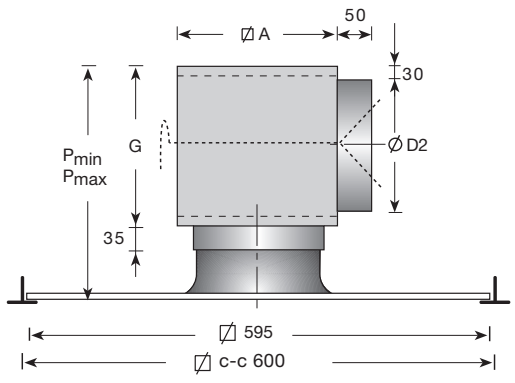
Remarks:

The dimensions are given in mm.

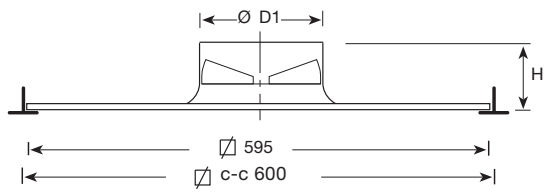
The diffuser can also be used for return air. In this case the Lp and Ps values in the table can be used.

Connection "D" is actual O.D.

Dimensions:



RTFMVR



RTFMOA

Performance data RTFM:

air volume		model														
		125			160			200			250			315		
m³/s	m³/h	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	W	Ps	Lp
0.015	54	**0.7**	**11**	-												
0.020	72	**1.0**	19	15	**0.7**	5	-									
0.025	90	**1.1**	30	22	**0.9**	8	-									
0.030	108	**1.4**	43	27	**1.1**	12	11	**0.8**	3	-						
0.040	144	**1.9**	70	36	**1.4**	21	20	**1.1**	6	-						
0.050	180	**2.4**	120	43	**1.8**	33	27	**1.4**	9	16	**1.0**	3	-			
0.060	216				**2.2**	47	32	**1.7**	13	21	**1.3**	5	-			
0.080	288				**2.8**	83	41	**2.2**	24	30	**1.8**	10	17	**1.4**	4	-
0.100	360							**2.8**	37	37	**2.1**	15	24	**1.7**	6	11
0.125	450							**3.4**	59	44	**2.8**	24	31	**2.1**	9	17
0.150	540										**3.3**	34	36	**2.6**	13	23
0.200	720										**4.3**	60	45	**3.5**	23	32
0.250	900													**4.2**	37	38
0.300	1080													**5.1**	53	44

General:

The throw applies to flush fitting into a flat ceiling.
throw T in meters.
static pressure drop Ps in Pa
The adopted room absorption is 10 dB.
sound pressure level Lp in dB(A)

RTWK

- **Swirl diffuser conic**
- **Supply, round, adjustable**
- **Manual, motorised or thermal**

Application:

The round, conic Swirl diffuser type RTWK is suitable for the supply of cooled or heated air with a big temperature difference and is intended for “comfort” installations. The diffuser can be applied with and without ceiling influence. The housing consists of a round metal nozzle body with six swirl blades that can be manually adjusted with an actuator or with a thermal spring. Any desired supply direction from horizontal to vertical can be set. The large penetration depth makes it possible to work with a lower air capacity.

Features:

Max. exchange rate:	up to 15 x
Under temperature:	up to 10 K
Over temperature:	up to 15 K

Design:

Swirl diffuser:
round metal
nozzle body: aluminium

RTWK:
swirl blades: steel
finish: epoxy powder
colour: white RAL 9010

RTWK-N:
swirl blades: Nylon
finish: none
colour: white RAL 9010

Plenumbox:
material: galvanised sheet steel
interior lining: 1/2” ductliner
finish: none

Servomotor:
brand: Belimo
control: open/close or 0-10 V DC
power: 24V AC

Optional:
Ball protection grid: steel, RAL 9010

Available types:

R T W - - -

R round diffuser
T supply
W swirl type
K conical

- **face plate**
  Z surface mounted
  T modulsize 600 mm (model 200 up to 315, model 160 is possible without mechanism)
- **blades / mechanism**
  O steel (no mechanism)
  S steel / aluminium
  N Nylon / Nylon
- **controlls (from model 200)**
  O manually with lock
  N Belimo 2 positions (L/N/S)M24A
  M Belimo 0-10 V DC (L/N/S)M24ASR
  T thermal spring + aluminium mechanism)
- **designed with**
  O round topconnection
  U unlined plenum (delivered seperately)
  R lined plenum delivered separately

Dimensional data:

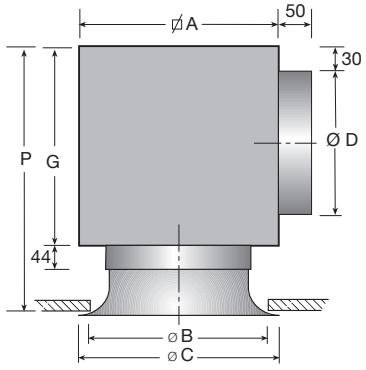
model	A	H	B	C	E	D	G	P
160	220	155	270	300	198	158	206	375
200	260	180	320	350	248	198	245	439
250	310	205	370	400	298	249	296	515
315	375	230	470	500	398	314	361	605
400	460	270	585	615	465	399	446	730
500	560	320	750	780	565	499	546	880
630	700	390	905	935	665	629	676	1080
800	*	390	990	1020	798	*	*	*

*dimensions on request.

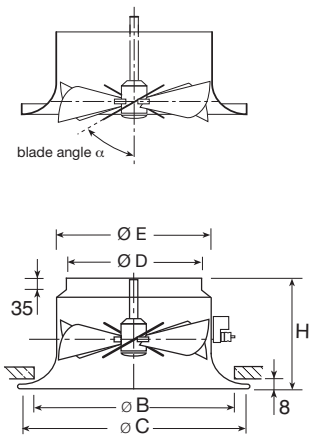
Remark:

The stated dimensions are in mm.
Connection “D” is actual O.D.

Dimensions:



RTWK---R



RTWKZNN-

Performance data RTWK:

air volume		model																							
		160			200			250			315			400			500			630			800		
m³/s	m³/h	Vh	Ps	Lp	Vh	Ps	Lp	Vh	Ps	Lp	Vh	Ps	Lp	Vh	Ps	Lp	Vh	Ps	Lp	Vh	Ps	Lp	Vh	Ps	Lp
0.030	108	**1.5**	2	-																					
0.040	144	**2.0**	4	-																					
0.050	180	**2.5**	6	23	**1.6**	3	-																		
0.060	216	**3.0**	9	28	**2.0**	3	-	**1.3**	1	-															
0.070	252				**2.2**	5	-	**1.4**	2	-															
0.080	288				**2.7**	6	20	**1.7**	2	-															
0.100	360				**3.4**	10	27	**2.1**	4	-	**1.3**	2	-												
0.125	450				**4.2**	15	34	**2.7**	6	21	**1.7**	2	-												
0.150	540				**5.0**	22	39	**3.2**	9	27	**2.0**	3	-												
0.200	720				**6.7**	39	47	**4.2**	15	36	**2.7**	6	21	**1.6**	2	-									
0.250	900							**5.3**	24	42	**3.3**	10	28	**2.0**	4	-									
0.300	1080							**6.4**	34	48	**4.0**	14	34	**2.4**	5	21	**1.6**	2	-						
0.400	1440										**5.3**	24	42	**3.3**	10	30	**2.1**	4	-						
0.500	1800										**6.6**	38	49	**4.1**	15	37	**2.6**	6	24	**1.6**	2	-			
0.600	2160													**4.9**	22	42	**3.1**	9	29	**2.0**	3	-			
0.800	2880													**6.5**	38	51	**4.2**	15	38	**2.6**	6	23			
1.000	3600																**5.2**	24	45	**3.3**	10	30			
1.250	4500																			**4.0**	15	36	**2.5**	5	22
1.500	5400																			**4.9**	22	42	**3.0**	8	27
2.000	7200																						**4.0**	14	36

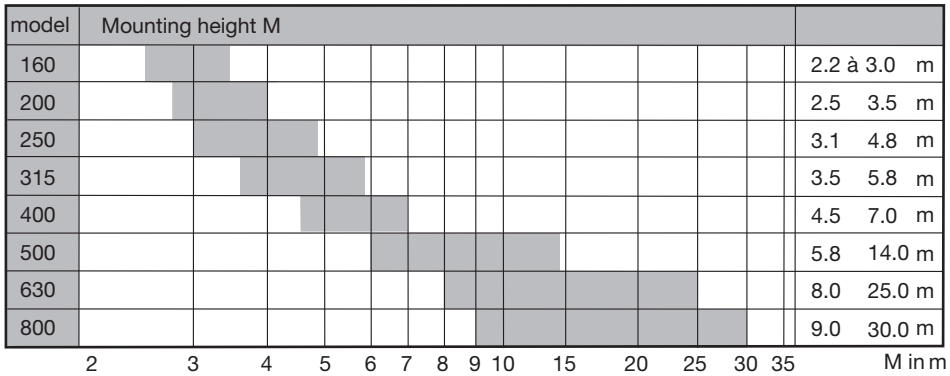
Selection method:

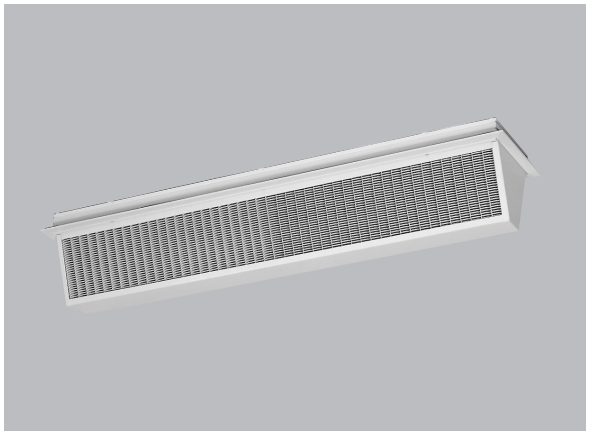
The model size is determined on the basis of the table. Interpolation of intermediate values is acceptable. For the recommended mounting height (bottom side of diffuser towards the floor) see table below.
For a final selection we use a selection programm. Please contact our sales desk for additional information.

General:

The pressure drop is stated without volume damper or plenum box.
- static pressure drop in Pa. The adopted room absorption is 10 dB. The sound pressure level is stated at a blade angle of 45 degrees.
- sound pressure in dB(A).
- neck velocity Vh in m/s.

Mounting height M:





TTHA / TTPA

- High capacity
- Supply
- High induction

Application:

The high capacity diffuser types TTHA and TTPA have a very large capacity and are suited for supplying cooled and heated air with a large temperature differential with respect to the room temperature.
The type TTHA has a dispersed high induction internal assembly. The type TTPA is equipped with a perforated cover. The high capacity diffuser is especially designed for laboratories, computer areas, kitchens, service areas, and so on. An accompanying plenum box is optionally available.

Design:

High capacity diffuser:

flange:	extruded aluminium
inner assembly:	steel
finish:	epoxy powder
colour:	white RAL 9010

Damper:

flange and blades:	extruded aluminium
finish:	none

Plenum box:

material:	steel galvanised sendzimir
lining:	1/2" ductliner
finish:	none

Available types:

T T - A - -

T high capacity diffuser
T supply

- function
H high induction core
P perforated appearance high induction core

A flange 25 mm removable internal assembly

- accessories
O none
V damper (on the diffuser)

- available as options
O not applicable
U un-lined plenum box (supplied loose)
R lined plenum box (supplied loose)

Features:

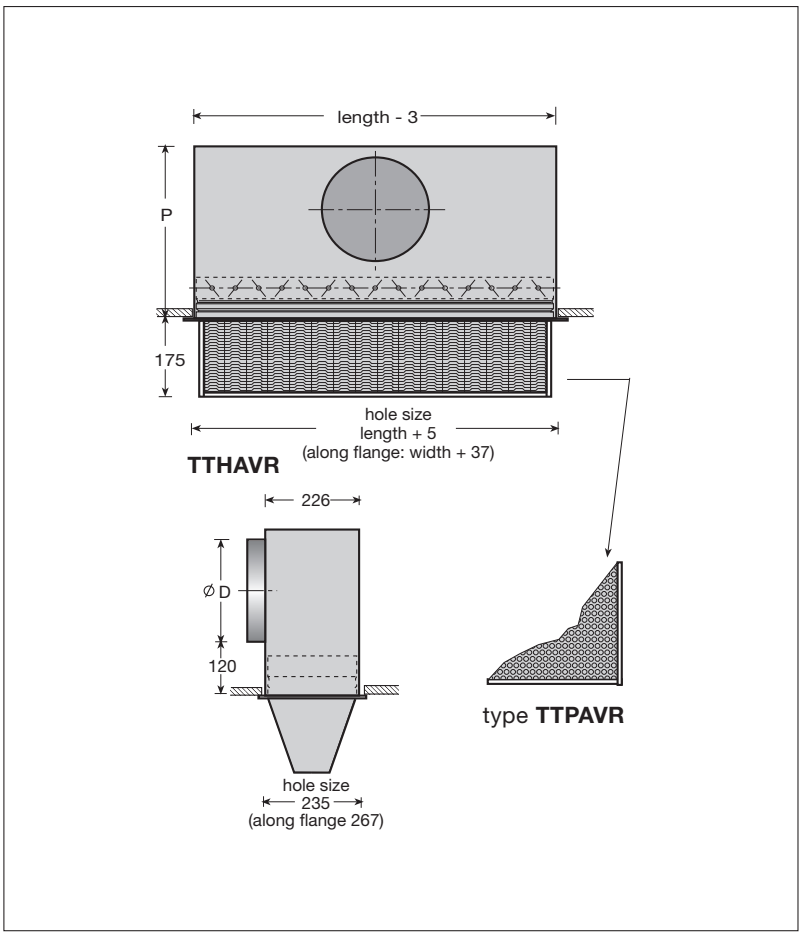
Max. of air exchanges:

type TTHA	up to 68 x
type TTPA	up to 60 x
Under temperature:	up to 10 K
Over temperature:	up to 15 K

Dimensional data:

model	L	D	P
600	558	248	395
750	750	313	460
900	900	313	460
1200	1158	353	500

Dimensions:



Remarks:

The dimensions are given in mm.
The given models 600 and 1200 mm are 595 and 1195 along the flange, respectively, and should be Tee-bar mounted in a ceiling system, centre-to-centre 600 mm.
Connection "D" is actual O.D.

Performance data TTHA:

air volume		model											
		600			750			900			1200		
m³/s	m³/h	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp
0.125	450	**1.4**	2	13									
0.150	540	**1.8**	3	18	**1.4**	3	14						
0.200	720	**2.4**	5	26	**2.0**	5	21	**1.7**	2	18			
0.250	900	**3.1**	7	31	**2.6**	7	27	**2.2**	4	23	**1.6**	2	17
0.300	1080				**3.1**	11	32	**2.7**	5	28	**2.0**	3	22
0.400	1440				**4.4**	19	40	**3.7**	9	36	**2.8**	5	29
0.500	1800							**4.7**	15	42	**3.6**	7	35
0.600	2160										**4.4**	10	40

Performance data TTPA:

air volume		model											
		600			750			900			1200		
m³/s	m³/h	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp
0.080	288	**1.0**	1	-									
0.100	360	**1.2**	2	11	**1.0**	2	-						
0.125	450	**1.6**	3	18	**1.3**	3	13	**1.1**	2	9			
0.150	540	**2.0**	4	22	**1.6**	4	18	**1.3**	2	14			
0.200	720	**2.7**	8	30	**2.2**	7	25	**1.8**	4	21	**1.4**	2	15
0.250	900	**3.5**	12	36	**2.8**	11	31	**2.4**	6	27	**1.8**	3	21
0.300	1080				**3.5**	16	36	**2.9**	9	32	**2.2**	5	25
0.400	1440							**4.0**	16	39	**3.1**	8	33
0.500	1800										**4.0**	13	39

General:

The throw is given for a wide spread pattern.
For straight pattern the throw will increase 55% from the indicated values in the table.
If diffusers are combined to a length of more than 1200 mm the throw will increase 85% from the values indicated in the table.

• throw T in metres
The pressure drop applies to a fully opened damper.
• static pressure drop Ps in Pa.
The assumed room absorption is 10 dB.
• sound pressure Lp in dB(A).
Intermediate values may be interpolated.

RTDO

- Circular
- Supply
- Perforated

Application:

The circular ceiling diffuser type RTDO is suited for supplying cooled and heated air with a large temperature differential with respect to the room temperature.
The diffuser can be freely hung as well as mounted in dropped ceiling.
The adjustable manual control makes it possible to adjust the throw of the diffuser.
The high induction effect enables a high number of air changes.

Design:

Perforated diffuser:

material:	steel
finish:	epoxy powder
colour:	white RAL 9010
perforated:	black RAL 9005

Plenum box:

material:	steel galvanised sendzimir
lining:	1/2" ductliner
finish:	none

Available types:

R T D O - -

R circular surface mounted diffuser
T supply
D dropped perforated appearance
O flange, none

- accessories
O none
H adjustment knob, manually adjustable

- available as options
A round top connection
U un-lined plenum box (supplied loose)
R lined plenum box (supplied loose)

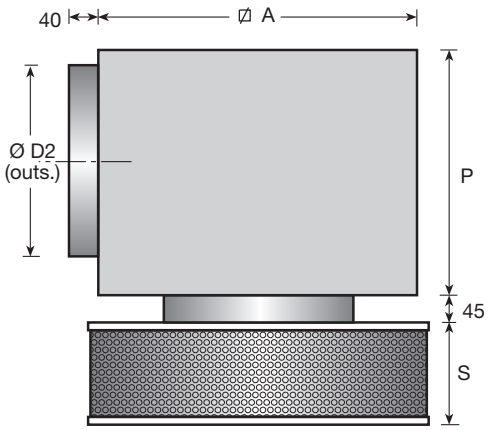
Features:

Max. air exchanges:	up to 20 x
Under temperature:	up to 10 K
Over temperature:	up to 10 K

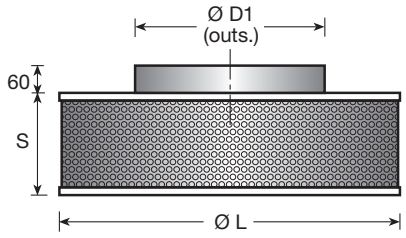
Dimensional data:

model	L	A	D1	D2	S	P
200	377	306	198	198	120	395
250	410	381	248	248	120	445
315	478	451	313	313	120	495
355	511	476	353	313	145	495
450	602	571	448	353	170	550

Dimensions:



RTDOOR



RTDOOA

Remarks:

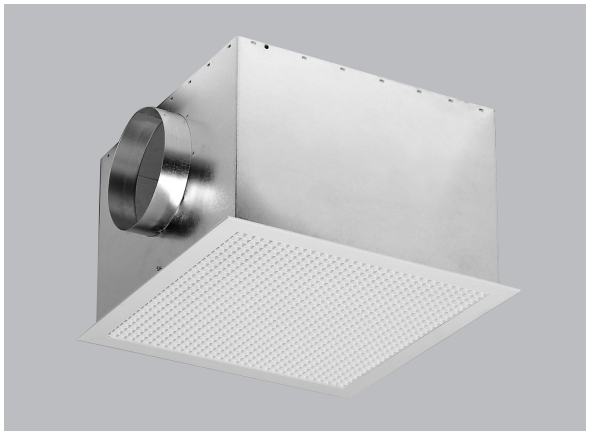
The dimensions are given in mm.
Connection "D" is actual O.D.

Performance data RTDO:

air volume		model														
		200			250			315			355			450		
m³/s	m³/h	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp
0.060	216	**1.2**	1	-												
0.080	288	**1.5**	2	11	**1.5**	2	9	**1.4**	1	6						
0.100	360	**1.9**	4	17	**1.8**	3	15	**1.7**	2	12	**1.6**	2	10	**1.5**	1	6
0.125	450	**2.4**	6	23	**2.3**	5	20	**2.1**	4	17	**2.0**	3	16	**1.9**	2	12
0.150	540	**2.9**	9	28	**2.7**	7	25	**2.6**	5	22	**2.5**	4	20	**2.2**	3	17
0.200	720	**3.9**	15	35	**3.7**	12	33	**3.4**	9	30	**3.3**	8	28	**3.0**	5	24
0.250	900				**4.6**	19	38	**4.3**	14	35	**4.1**	12	34	**3.7**	8	30
0.300	1080							**5.1**	21	40	**4.9**	18	38	**4.5**	12	34
0.400	1440													**6.0**	22	42

General:

The throw applies to flush mounted in a horizontal ceiling; if such is not the case one must allow for a throw reduction of 40%.
• throw T in metres.
The pressure drop applies to a discharge surface area that is entirely available.
• static pressure drop Ps in Pa.
The assumed room absorption is 10 dB.
• sound pressure Lp in dB(A).
Intermediate values may be interpolated.



HREC

- **Lattice type diffuser**
- **Return**

Application:

The lattice diffuser type HREC is suited for exhaust air. The diffuser can be mounted in the ceiling and can be fitted with a plenum box which is supplied ready assembled.
In addition, an assembled adapter with round top connection is an optional extra.

Features:

The large free area (83%) makes the diffuser suited for a high capacity at a low sound level.

Design:

Lattice diffuser:

flange and core:	aluminium
finish:	epoxy powder
colour:	white RAL 9010

Plenum box:

material:	steel
treatment:	galvanised sendzimir
lining:	1/2" ductliner
finish:	none

Adapter:

material:	steel
treatment:	galvanised sendzimir
finish:	none

Damper:
Circular model

material:	steel
treatment:	galvanised sendzimir

Square model:

material:	extruded aluminium
treatment:	none

Available types:

H R E - - -

H high capacity diffuser
R return
E lattice (15 x 15 mm)

- **frame**
  - **C** surface mounted flange (35 mm) fixed internal assembly
  - **A** surface mounted flange (35 mm) removable internal assembly
  - **O** no frame, core only
  - **U** U-shaped frame

- **accessories**
  - **O** none
  - **V** spigot damper (upto 313)
  - **S** neck damper on rear of grille

- **available as options**
  - **O** none
  - **D** round top connection
  - **R** fixed assembled, lined plenum box
  - **U** fixed assembled un-lined plenum box
  - **Z** square top connection
  - **N** square top, non vision plate (HREA, HREC only)

Specify when screw holes are required.

Dimensional data:

L x W	A	D
100 x 100	94	100
150 x 150	144	125
200 x 200	194	150
300 x 300	294	250
400 x 400	394	350
500 x 500	494	450
600 x 600	594	550

Alternative sizes and connections are available on request.

Remarks:

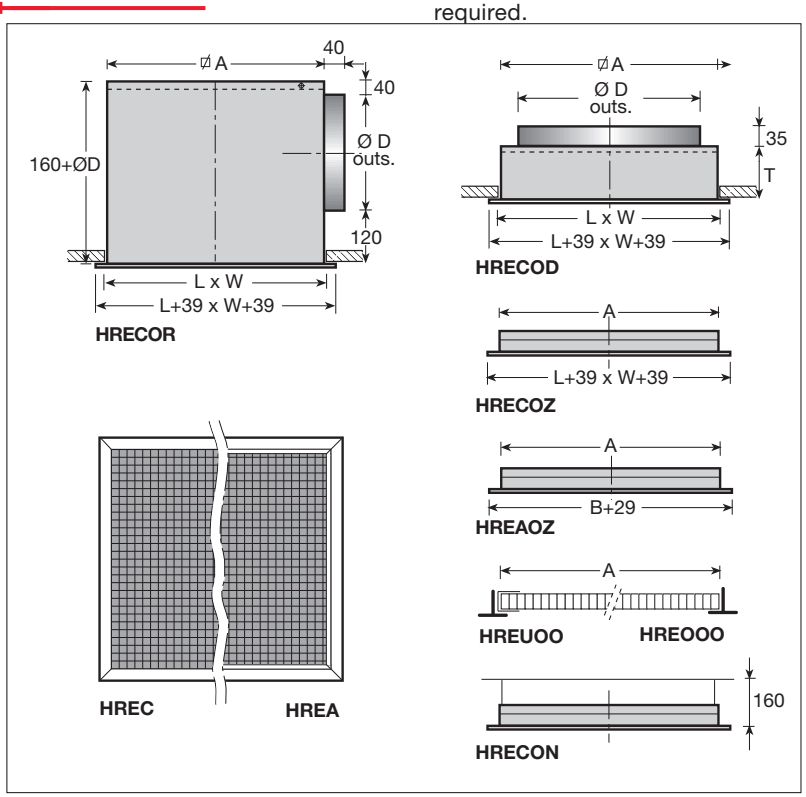
The dimensions are given in mm.
L x W = hole size.

For further eggcrate options see page 306.

Please specify when ordering if screw holes in the face flange are required.

Connection "D" is actual O.D.

Dimensions:



Performance data HREC:

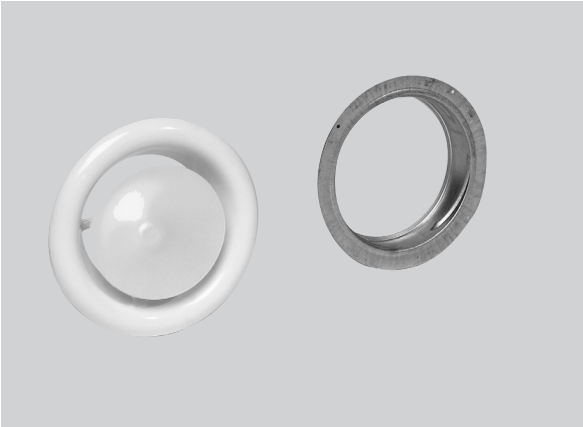
air volume		L X W	HRECOU (R) round sidecon.		HRECOD round topcon.		HRECOZ square topcon.	
m^3/s	m^3/h		Ps	Lp	Ps	Lp	Ps	Lp
0.01	36	100x100	8	-	5	-	5	-
0.0125	45	100x100	12	-	7	-	8	-
0.015	54	100x100	17	-	10	-	11	-
0.02	72	100x100	31	18	18	16	20	16
0.025	90	100x100	48	24	28	23	31	23
		150x150	9	-	3	-	3	-
0.03	108	100x100	69	30	41	29	45	29
		150x150	12	-	5	-	4	-
0.04	144	100x100			73	38		
		150x150	22	15	8	-	8	-
		200x200	8	-	3	-	2	-
0.05	180	150x150	35	21	13	15	12	15
		200x200	13	10	5	-	3	-
0.06	216	150x150	50	27	19	21	17	21
		200x200	19	15	7	-	5	-
0.08	288	150x150			33	30	31	30
		200x200	33	23	12	11	9	11
0.1	360	150x150			52	38	48	38
		200x200	52	29	19	18	14	18
		300x300	7	-	3	-	2	-
0.125	450	150x150					75	45
		200x200			30	25	22	25
		300x300	11	12	4	-	3	-
0.15	540	200x200			44	31	31	31
		300x300	16	17	6	-	5	-
0.2	720	200x200					56	40
		300x300	28	25	10	14	8	14
		400x400	7	10	3	-	2	-
0.25	900	300x300	44	31	16	22	13	22
		400x400	12	16	4	-	3	-
0.3	1080	300x300	63	36	24	28	18	28
		400x400	17	21	6	-	5	-
		500x500	6	-	2	-		
0.4	1440	300x300			42	37	32	37
		400x400	29	28	11	19	9	19
		500x500	11	17	4	-	3	-
0.5	1800	300x300			65	44	50	44
		400x400	46	34	17	26	14	26
		500x500	17	23	7	13	5	13
		600x600	8	14	3	-	2	-
0.6	2160	300x300					73	50
		400x400	66	39	25	32	20	32
		500x500	24	28	9	19	8	19
		600x600	11	19	4	-	3	-
0.8	2880	400x400			45	42	36	42
		500x500	43	36	17	28	14	28
		600x600	20	27	8	17	6	17
1	3600	400x400			70	49	56	49
		500x500	68	42	26	36	21	36
		600x600	31	33	12	25	10	25
1.25	4500	500x500			41	43	33	43
		600x600	48	39	18	32	15	32
1.5	5400	500x500			59	49	48	49
		600x600	69	44	27	38	22	38
2	7200	600x600			47	47	39	47
2.5	9000	600x600			74	54	61	54

General:

The pressure drop applies to fully opened damper
• static pressure drop Ps in Pa.
The assumed room absorption is 10 dB.
• sound pressure Lp in dB(A).
Intermediate values may be interpolated.

Lined Plenums:

model	middle frequency bands					
	125	250	500	1K	2K	4K
100 x 100	15	9	6	7	9	11
150 x 150	11	6	6	8	8	10
200 x 200	9	4	5	8	8	10
300 x 300	6	4	6	7	7	10
400 x 400	4	3	6	7	7	10
500 x 500	3	3	6	7	7	10
600 x 600	2	3	6	7	7	10



RTSV

- Circular valve
- Supply

Application:

The circular return valve type RTVO is suited for supply air in mechanical ventilation systems. These valves can regulate minor pressure differences well, keeping the sound level low.

Design:

Supply valve:

material:	steel
finish:	electrostatic powder coating
colour:	white, RAL 9010
seal connection:	foam rubber

Mounting frame:

material:	steel
finish:	galvanised

Available types:

R T S V - O

R circular diffuser
T supply
S steel
V valve

- designed with
M mounting frame
K mounting springs for spiro duct

O not applicable

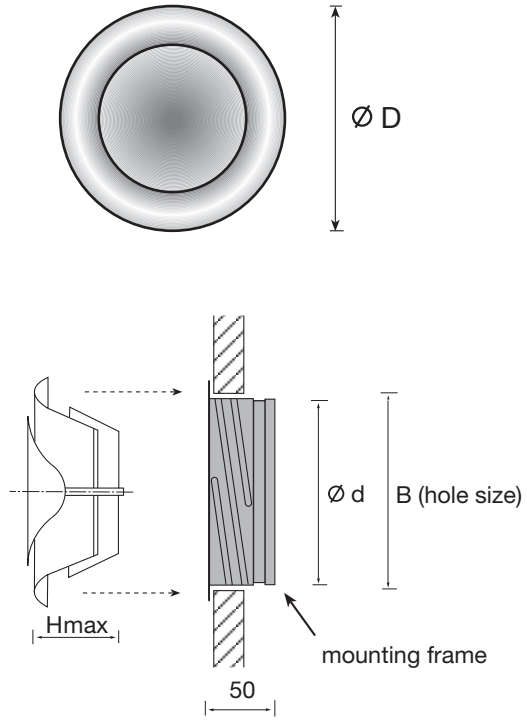
Features:

Five model sizes are available.

Dimensional data:

model	ød	B	D	Hmax	weight
80	79	86	115	42	0,150
100	99	106	138	40	0,170
125	124	130	164	46	0,230
160	159	166	211	54	0,370
200	199	206	248	63	0,520

Dimensions:



RTSVM-O

Remarks:

The dimensions are given in mm.
The weight is given in kg.
Connection “D” is actual O.D.

Performance data RTSV-O:

model 80				C=+9
m³/s	m³/h	T	Ps	Lp
0.0100	36	**0.9**	14	12
0.0125	45	**1.0**	22	19
0.0150	54	**1.2**	32	24
0.0200	72	**1.5**	56	33
0.0250	90	**1.7**	88	40

model 100				C=+10
m³/s	m³/h	T	Ps	Lp
0.0150	54	**1.4**	17	13
0.0200	72	**1.8**	30	22
0.0250	90	**2.2**	47	29
0.0300	108	**2.6**	68	34
0.0400	144	**3.4**	120	43

model 125				C=+12
m³/s	m³/h	T	Ps	Lp
0.0250	90	**1.8**	14	14
0.0300	108	**2.2**	20	19
0.0400	144	**3.1**	35	26
0.0500	180	**4.0**	55	32
0.0600	216	**4.9**	79	37

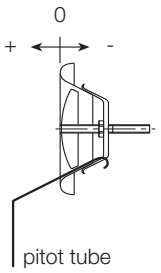
model 160				C=+15
m³/s	m³/h	T	Ps	Lp
0.0500	180	**2.6**	20	16
0.0600	216	**3.0**	29	21
0.0700	252	**3.4**	39	26
0.0800	288	**3.9**	51	30
0.1000	360	**4.7**	80	37

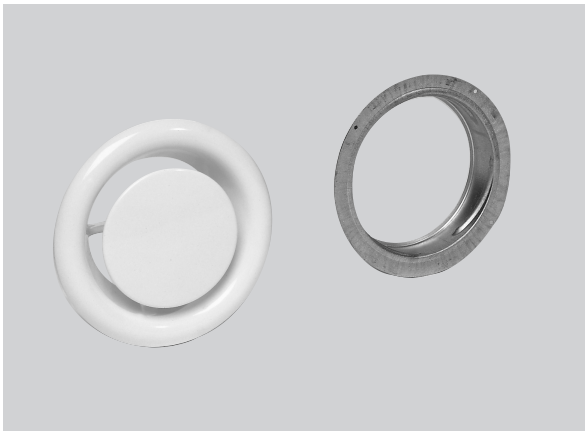
model 200				C=+20
m³/s	m³/h	T	Ps	Lp
0.0600	216	**3.2**	14	-
0.0800	288	**3.8**	25	17
0.1000	360	**4.3**	39	24
0.1250	450	**4.9**	61	31
0.1500	540	**5.6**	88	36

General:

static pressure drop in Pa.
The assumed room absorption is 4 dB.
sound pressure Lp in dB(A).
Cone position C in mm.
T is the throw at a 0.2 m/s end velocity

The zero position of the valve is the position where the face plate of the cone is in a continuous line with the outside ring.
The desired position can be adjusted by turning the cone.





RRSV

- Circular valve
- Return

Application:

The circular return valve type RRVO is suited for exhaust air in mechanical ventilation systems. These valves can regulate minor pressure differences well, keeping the sound level low.

Design:

Exhaust valve:

material:	steel
finish:	electrostatic powder coating
colour:	white, RAL 9010
seal connection:	foam rubber

Mounting frame:

material:	steel
finish:	galvanised

Available types:

R R S V - O

R circular diffuser
R return
S valve
V not applicable

- **model**
M mounting frame
K mounting springs for spiro duct (RRVOO only)

O not applicable

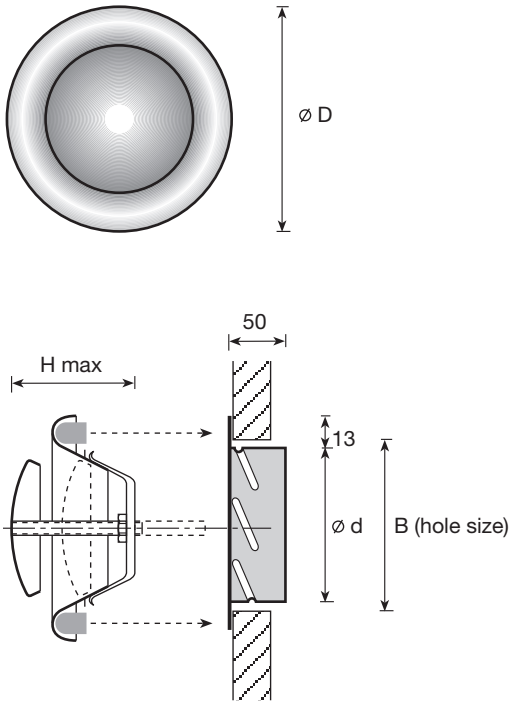
Features:

Five model sizes are available.
Supplied inclusive of installation

Dimensional data:

model	Ød	B	D	Hmax	weight
80	79	86	115	70	0,15
100	99	106	137	70	0,195
125	124	131	161	85	0,31
160	159	166	212	85	0,47
200	199	206	248	110	0,66

Dimensions:



RRSVM-O

Remarks:

The dimensions are given in mm.
The weight is given in kg.
Connection “D” is actual O.D.
RRVOSM tested according to BS 476: part 20 1987

Performance data RRSV:

	model 80		C=+9
m³/s	m³/h	Ps	Lp
0,010	36	17	16
0,015	54	37	27
0,020	72	66	34
0,025	90	103	40
0,030	108	149	45

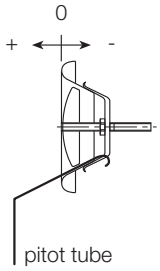
	model 100		C=+9
m³/s	m³/h	Ps	Lp
0,015	54	27	21
0,020	72	48	28
0,025	90	75	34
0,030	108	108	39
0,035	126	147	43

	model 125		C=+6
m³/s	m³/h	Ps	Lp
0,020	72	31	20
0,025	90	49	26
0,030	108	70	31
0,035	126	96	35
0,040	144	125	38

	model 160		C=+6
m³/s	m³/h	Ps	Lp
0,030	108	32	22
0,035	126	44	26
0,040	144	58	29
0,050	180	90	35
0,060	216	130	40

	model 200		C=+15
m³/s	m³/h	Ps	Lp
0,050	180	21	23
0,060	216	30	28
0,070	252	40	32
0,080	288	52	35
0,100	360	82	41

General:

The assumed room absorption is 4 dB.
Static pressure drop Ps in Pa.
Sound pressure Lp in dB(A).

The zero position of the valve is the position where the face plate of the cone is in a continuous line with the outside ring.
The desired position can be adjusted by turning the cone.