



DESCRIPTION:

YTA-S: Circular ceiling diffuser with fixed core

YTA-A: Circular ceiling diffuser with removable core.

MATERIAL:

- Standard Production : Metal frame and core
- Optional Production : Aluminum frame and core

APPLICATION:

YTA series circular ceiling diffuser used for the supply of cooled and heated air in facilities like offices, shopping rent etc...YTA can used for ceiling installation

FINISHING:

- Powder coated in RAL 9010 colour as standard
- Other colours on request

INSTALLATION:

- Screw {Standard}
- Bridge
- No fixing

ACCESSORIES:

- If desired, it is possible to add a damper to adjust the amount of air to be collected.
KD: Butterfly Damper
HKD: Hit and Miss Damper
- PK: Plenum Box
- KS: Mounting Frame

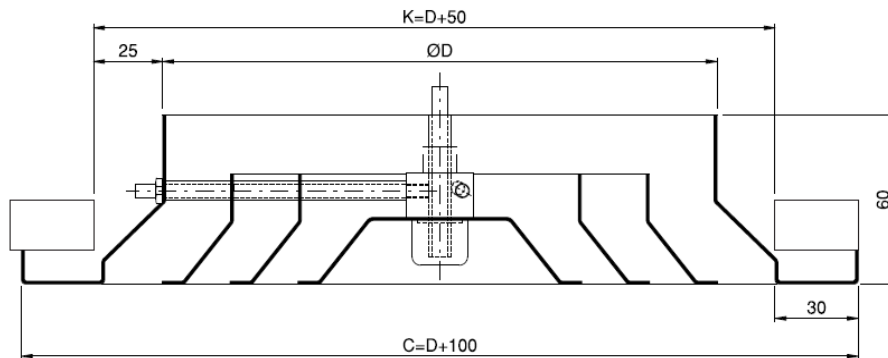


STANDARD SIZES (mm):

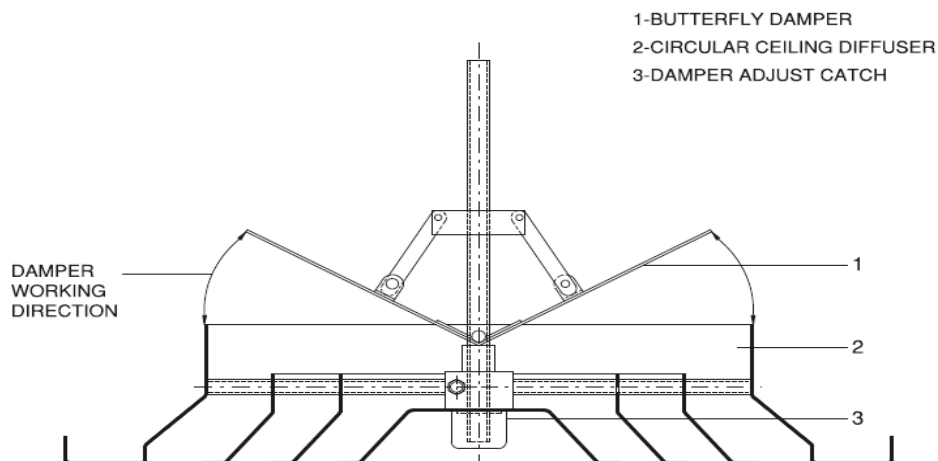
D	100	150	200	250	300	350	400	450	500
K	150	200	250	300	350	400	450	500	550
C	200	250	300	350	400	450	500	550	600

* Any combination of these sizes

TECHNICAL DRAWINGS:

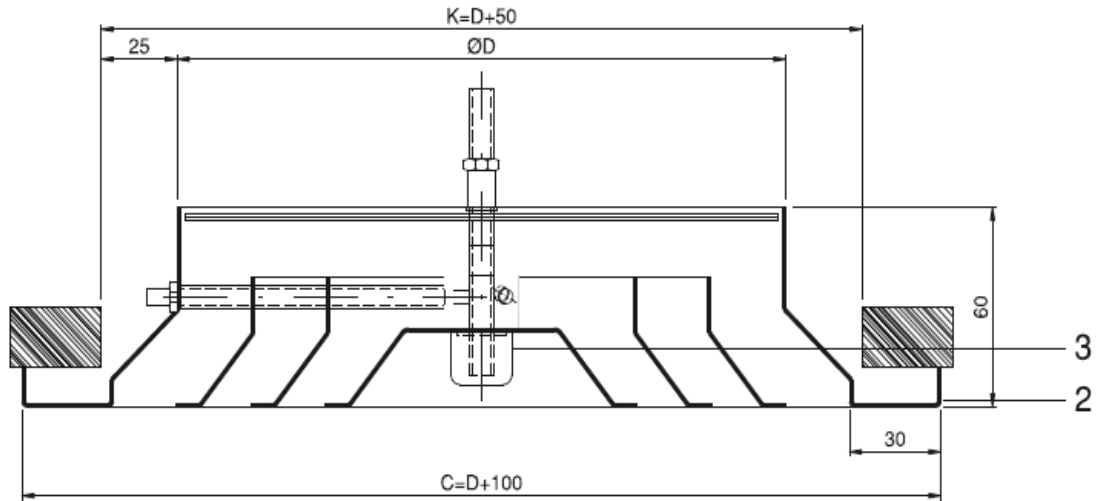


CIRCULAR CEILING DIFFUSERS WITH BUTTERFLY DAMPER

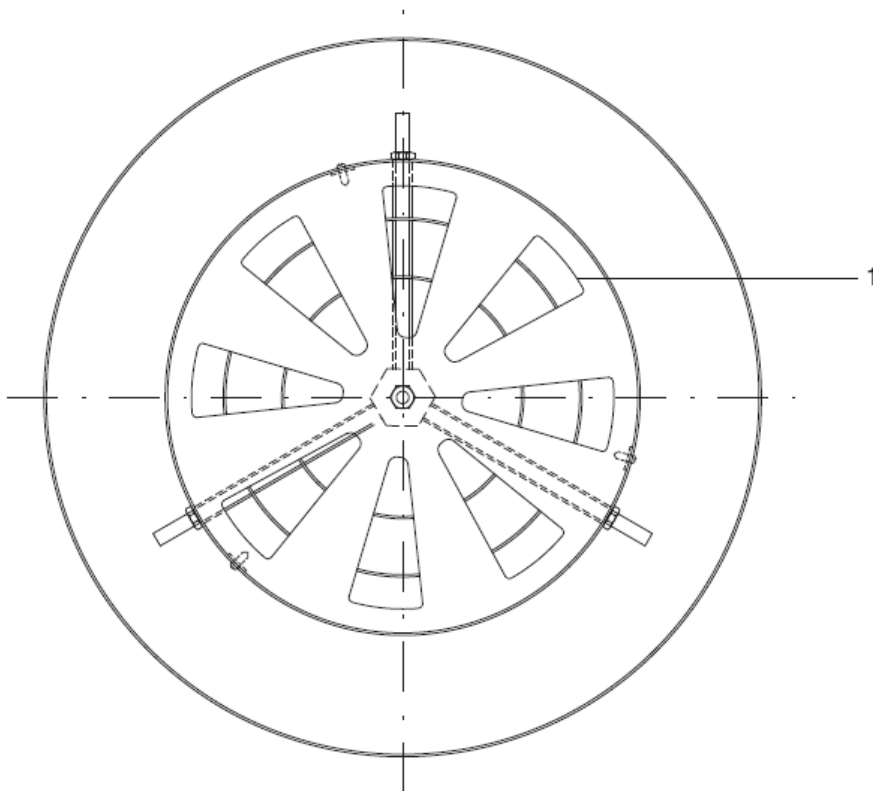




CIRCULAR CEILING DIFFUSERS WITH HIT AND MISS DAMPER



- 1-HIT AND MISS DAMPER
- 2-CIRCULAR CEILING DIFFUSER
- 3-DAMPER LEVER



EFFECTIVE AREA Ak(m²)

mm	100	150	200	250	300	350	400	450	500
Ak (m ²)	0,0040	0,0085	0,0157	0,0257	0,0381	0,0536	0,0730	0,0955	0,1150

CIRCULAR CEILING DIFFUSER QUICK SELECTION

Qv(m ³ /h)	ØD(mm)	100	150	200	250	300	350	400	450	500
	A (m ²)	0,0040	0,0085	0,0157	0,0257	0,0381	0,0536	0,0730	0,0955	0,1150
150	Lt (m)	1,0	0,6							
	NR	48	32							
	Pt (Pa)	54,0	18,0							
	Vk (m/s)	9,0	5,4							
200	Lt (m)	1,3	1,0	0,5						
	NR	>50	40	22						
	Pt (Pa)	>70	32,0	9,4						
	Vk (m/s)	12,2	7,0	3,8						
250	Lt (m)		1,2	0,8	0,5					
	NR		45	27	<20					
	Pt (Pa)		48,0	13,4	5,0					
	Vk (m/s)		8,8	4,6	2,8					
300	Lt (m)		1,8	1,1	0,7					
	NR		>50	33	20					
	Pt (Pa)		>70	19,6	8,0					
	Vk (m/s)		10,8	5,7	3,5					
400	Lt (m)			1,4	1,1	0,8	0,5			
	NR			42	25	<20	<20			
	Pt (Pa)			38,0	12,2	6,0	<5			
	Vk (m/s)			7,6	4,5	3,1	2,2			
500	Lt (m)			1,6	1,3	1,1	0,9	0,6		
	NR			50	34	23	<20	<20		
	Pt (Pa)			58,0	21,0	9,6	<5	<5		
	Vk (m/s)			9,4	5,8	3,9	2,7	2,0		
600	Lt (m)				1,6	1,3	1,1	0,9	0,6	
	NR				40	27	<20	<20	<20	
	Pt (Pa)				30,0	13,6	6,4	<5	<5	
	Vk (m/s)				6,9	4,6	3,3	2,4	1,8	
800	Lt (m)				2,0	1,7	1,4	1,3	1,1	1,0
	NR				48	35	25	<20	<20	<20
	Pt (Pa)				56,0	25,0	12,0	6,2	<5	<5
	Vk (m/s)				9,2	6,2	4,4	3,2	2,4	2,0
1000	Lt (m)					2,0	1,7	1,5	1,3	1,2
	NR					43	32	23	<20	<20
	Pt (Pa)					39,0	19,0	10,0	5,6	<5
	Vk (m/s)					7,8	5,6	4,0	3,0	2,4
1500	Lt (m)						2,5	2,2	1,9	1,7
	NR						46	35	27	22
	Pt (Pa)						49,2	24,0	13,6	8,8
	Vk (m/s)						8,4	6,1	4,6	3,7
2000	Lt (m)							2,8	2,5	2,2
	NR							44	35	30
	Pt (Pa)							41,8	24,0	16,0
	Vk (m/s)							8,0	6,1	5,0
3000	Lt (m)								3,5	3,2
	NR								48	42
	Pt (Pa)								50,2	37,0
	Vk (m/s)								9,1	7,5

SELECTION CRITERIAS

Ceiling Height H(m)=3±05

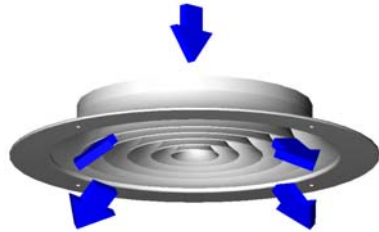
With ceiling effect

Damper %100 open

Table-1



CIRCULAR CEILING DIFFUSER SELECTION

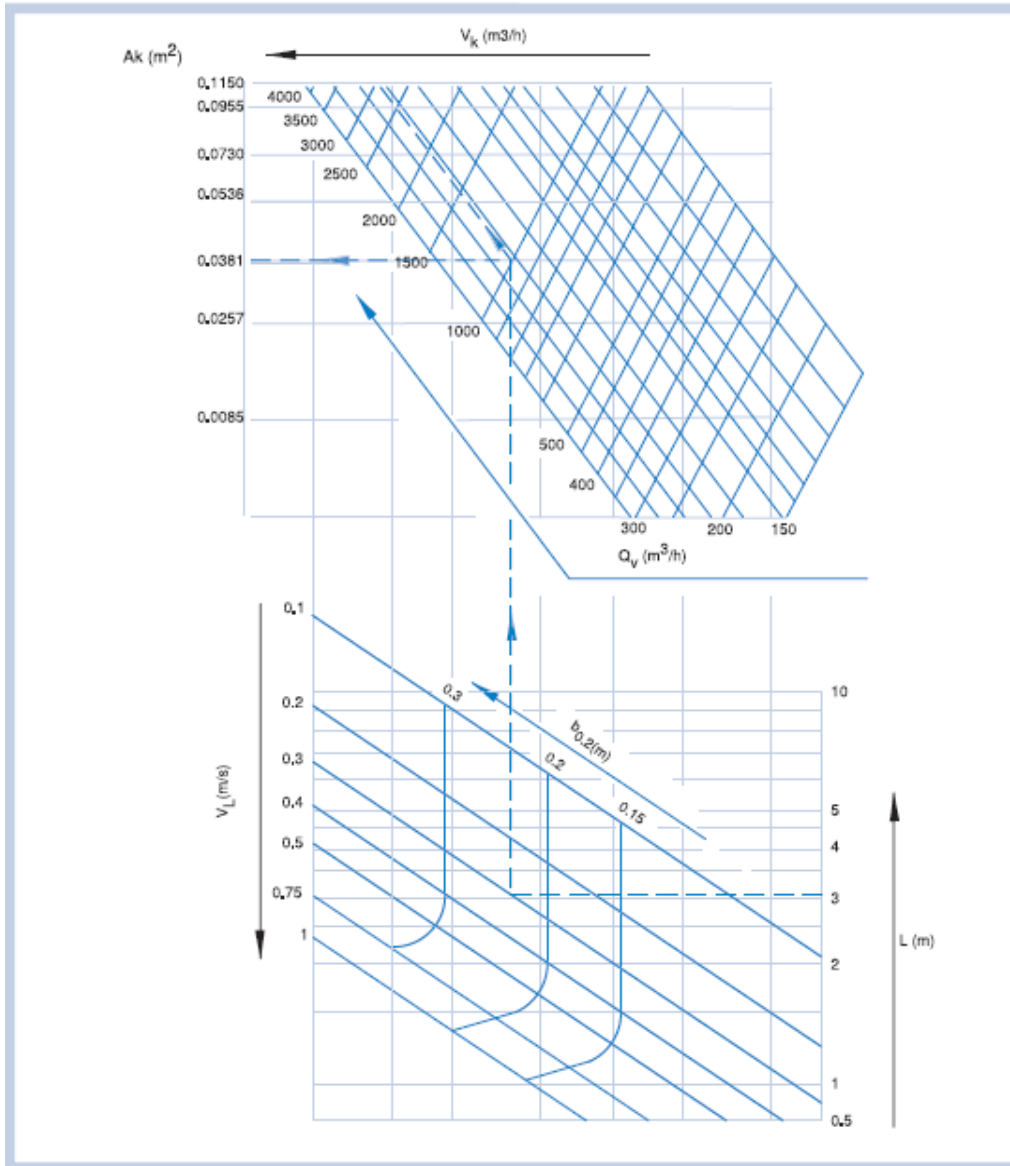


Neck Size Dimension ØDmm	Effective Area m ²	AIR VELOCITY m/s																			
		1,5			2,0			2,5			3,0			4,0							
150	0,0085	45,90	m ³ /h	27,0	cfm	61,20	m ³ /h	36,0	cfm	76,50	m ³ /h	45,0	cfm	91,80	m ³ /h	54,0	cfm	122,40	m ³ /h	72,0	cfm
200	0,0157	84,78	m ³ /h	49,9	cfm	113,04	m ³ /h	66,5	cfm	141,30	m ³ /h	83,2	cfm	169,56	m ³ /h	99,8	cfm	226,08	m ³ /h	133,0	cfm
250	0,0257	138,78	m ³ /h	81,7	cfm	185,04	m ³ /h	108,9	cfm	231,30	m ³ /h	136,1	cfm	277,56	m ³ /h	163,3	cfm	370,08	m ³ /h	217,8	cfm
300	0,0381	205,74	m ³ /h	121,1	cfm	274,32	m ³ /h	161,4	cfm	342,90	m ³ /h	201,8	cfm	411,48	m ³ /h	242,2	cfm	548,64	m ³ /h	322,9	cfm
350	0,0536	289,44	m ³ /h	170,3	cfm	385,92	m ³ /h	227,1	cfm	482,40	m ³ /h	283,9	cfm	578,88	m ³ /h	340,7	cfm	771,84	m ³ /h	454,2	cfm
400	0,0730	394,20	m ³ /h	232,0	cfm	525,60	m ³ /h	309,3	cfm	657,00	m ³ /h	386,6	cfm	788,40	m ³ /h	464,0	cfm	1051,20	m ³ /h	618,6	cfm
450	0,0955	515,70	m ³ /h	303,5	cfm	687,60	m ³ /h	404,7	cfm	859,50	m ³ /h	505,8	cfm	1031,40	m ³ /h	607,0	cfm	1375,20	m ³ /h	809,3	cfm
500	0,1150	621,00	m ³ /h	365,5	cfm	828,00	m ³ /h	487,3	cfm	1035,00	m ³ /h	609,1	cfm	1242,00	m ³ /h	730,9	cfm	1656,00	m ³ /h	974,6	cfm
550	0,1920	1036,80	m ³ /h	610,2	cfm	1382,40	m ³ /h	813,5	cfm	1728,00	m ³ /h	1016,9	cfm	2073,60	m ³ /h	1220,3	cfm	2764,80	m ³ /h	1627,1	cfm

Table-2



SELECTION DIAGRAM



SELECTION CRITERIAS

Ceiling Height $H(m)=3\pm 05$

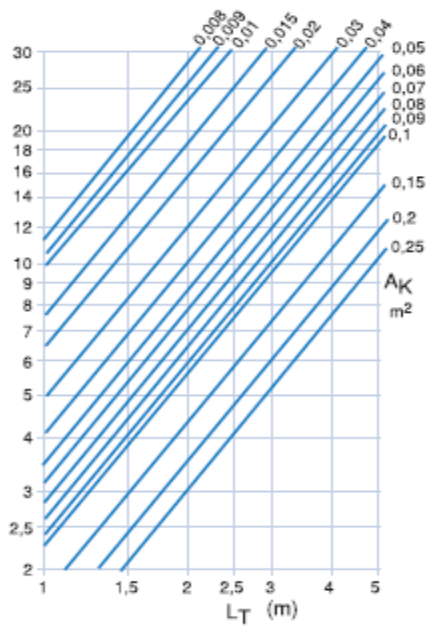
With ceiling effect

Damper %100 open

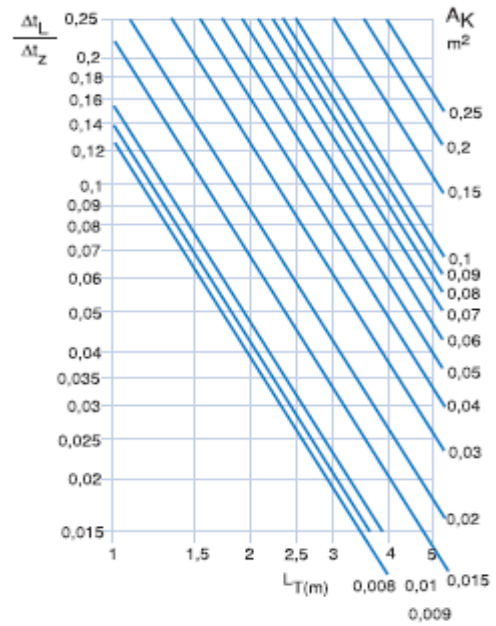


TEMPERATURE VARIABLES

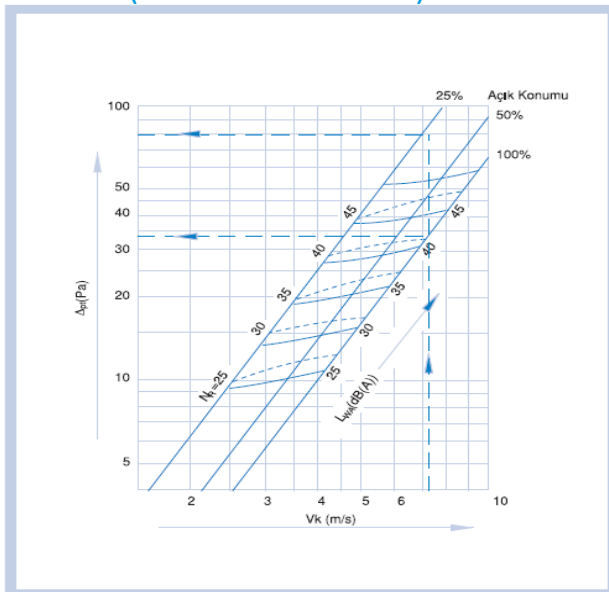
INDUCTION SELECTION DIAGRAM



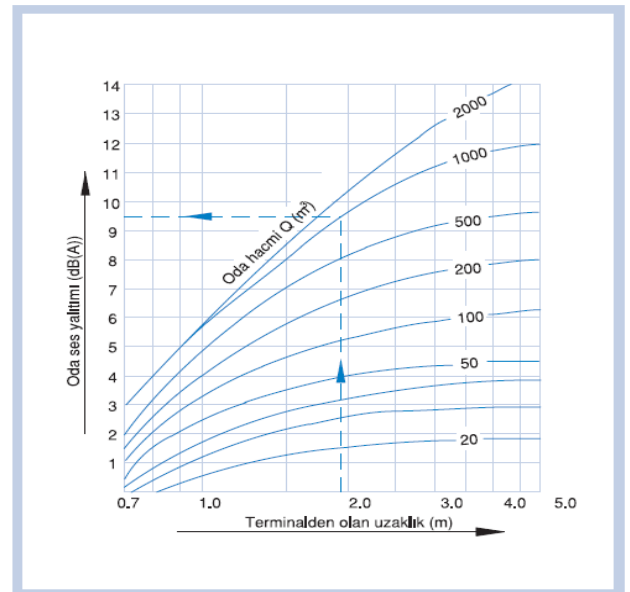
TEMPERATURE VARIABLE SELECTION



SOUND LEVEL AND PRESSURE LOSS DIAGRAM (BUTTERFLY DAMPER)



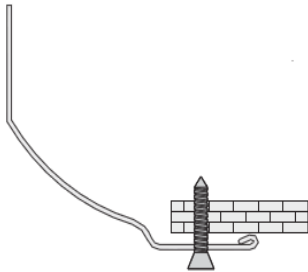
ROOM VOICE DELIVERY DIAGRAM





MOUNTING DETAILS

Screw Mounting Details



Frame Screw Mounting Type

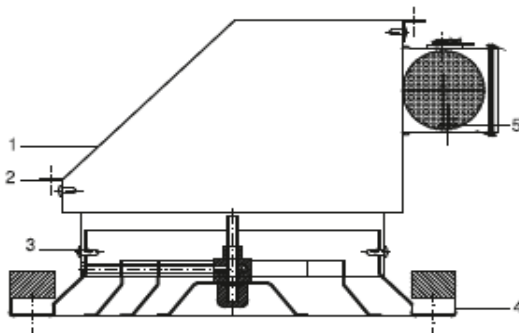


Circular Duct type Mounting Type

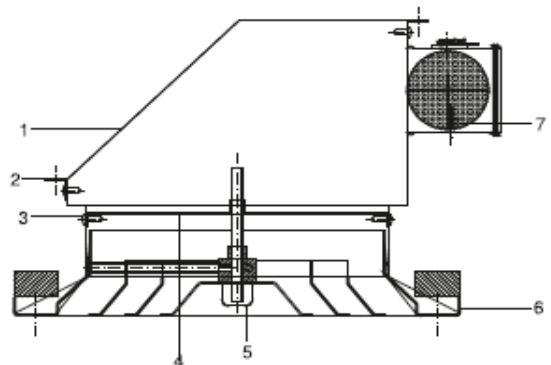
PLENUM BOX STANDARD MOUNTING



YTA-CIRCULAR CEILING DIFFUSER
+ PLENUM BOX
STANDARD SCREW MOUNTING (without instulation)

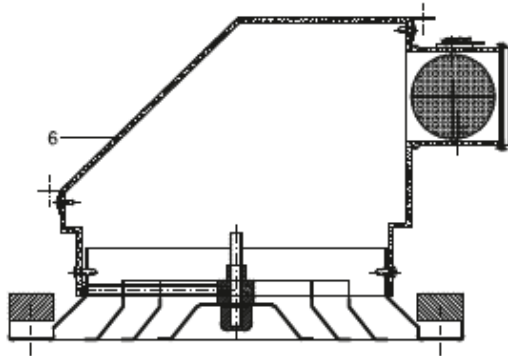


YTA-CIRCULAR CEILING DIFFUSER
+ PLENUM BOX
STANDARD BRIDGE MOUNTING (without instulation)



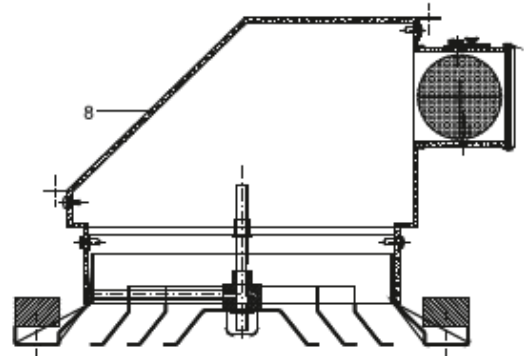


**YTA-CIRCULAR CEILING DIFFUSER
+ PLENUM BOX
STANDARD SCREW MOUNTING (with insulation)**



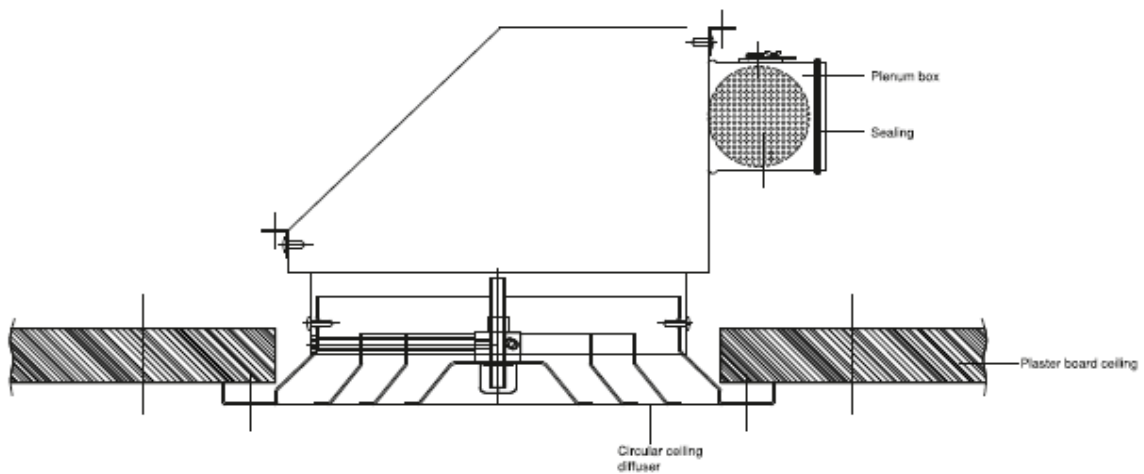
- 1-Plenum box
- 2-L Profile
- 3-Screw
- 4-Circular ceiling diffuser
- 5-Air control damper
- 6-Instulation

**YTA-CIRCULAR CEILING DIFFUSER
+ PLENUM BOX
STANDARD BRIDGE MOUNTING (with instulation)**



- 1-Plenum box
- 2-L Profile
- 3-Screw
- 4-Plenum box
- 5-Circular diffuser
- 6-Circular ceiling diffuser
- 7-Air control damper
- 8-Instulation

SPECIAL CEILING INSTALLATION DETAILS





ORDER CODES:

YTA	A	M	xx	RAL9010	VD	W Ø300
S : Fixed core A : Removable core						W: Neck Size C: Frame Size
Sheet Metal frame and core : M Aluminum frame and core : A					XX: without Mounting VD: Screw Mounting KP: Bridge Mounting KS: Mounting Frame	
XX: WITHOUT DAMPER KD: BUTTERFLY DAMPER CD: HIT AND MISS DAMPER					00: without coating EL: Anodic Aluminium RAL----: Powder Coated RAL	