

OPTIONS

The Rickard Ceiling Diffuser Range supports a wide range of diffusion unit styles.

EXPOSED TEE CEILING GRID

1. SQUARE DIFFUSER
 - i. Drop-in Flush Mounting
 - ii. Drop-in Shadow Line

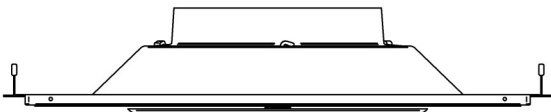
The basic diffuser usually drops into a square opening between ceiling tees. Flush Mounting and Shadow Line styles are available. These can be supplied with the following mounting plate sizes, 495x495mm, 595x595mm & 23³/₄x23³/₄" to suit 500x500mm, 600x600mm & 24x24" ceiling grids respectively. Specials sizes are available on request.

DROP-IN EXPOSED TEE



PLASTERED CEILING

SHADOW LINE EXPOSED TEE



SHADOW LINE EXPOSED TEE

BAFFLED CEILING OR MOUNTING IN FREE SPACE

1. SQUARE DIFFUSER
 - i. 4 Point Fixing (4 Brackets for threaded rod connection)
2. ROUND DIFFUSER
 - i. 3 Point Fixing (3 Brackets for threaded rod connection)
 - ii. Hard Duct Connection (no accessories required)

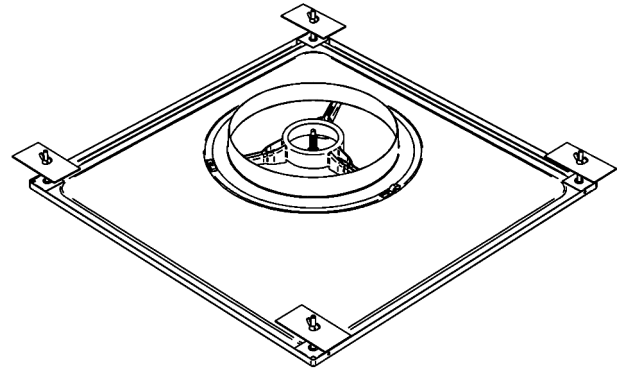
Baffled ceilings require an unusual treatment which is not illustrated. Normally this ceiling requires a square tile with suspension points fitted at each corner thereby enabling support from the top edges of the baffles. Large diffuser mounting plates are particularly beneficial in the baffled ceiling as there is otherwise little opportunity for the Coanda effect to help distribute conditioned air across the ceiling. This may result in inadequate throws and poor room air movement.

PLASTERED CEILING

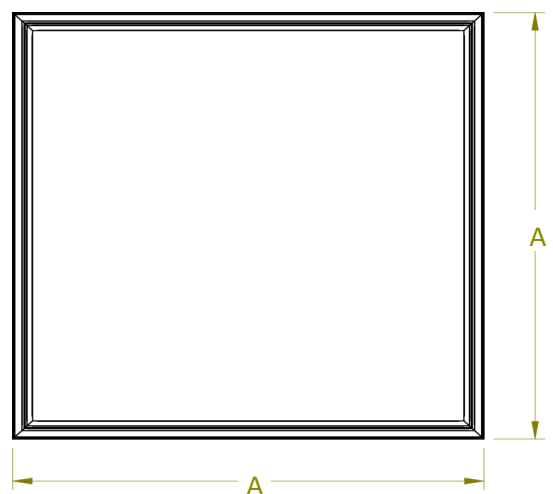
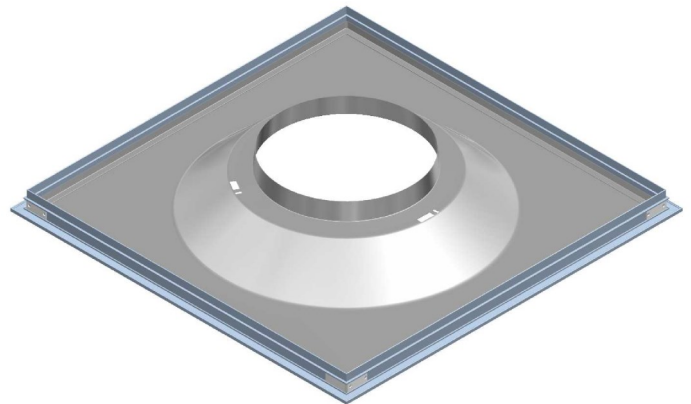
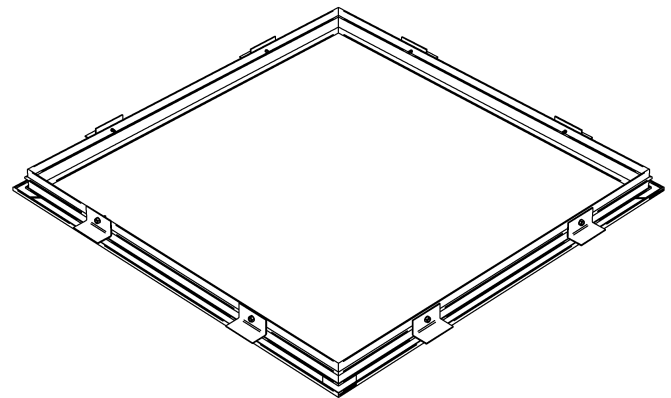
1. SQUARE DIFFUSER
 - i. 4 Point Fixing (4 Brackets with Backing Plates)
 - ii. T-Frame (Square Frame to allow Drop-in Flush Mounting)

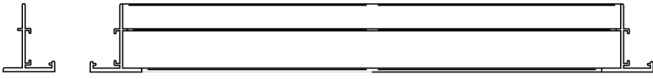
In the case of mounting square diffusers into plastered ceilings, two methods of fixing may be used. Concealed fixing is achieved by four fixing studs secured in the corners of the mounting plate. These pass through the ceiling and, with the use of backing plates, are used to secure the diffuser to the ceiling. A further option for fixing into a plastered ceiling is with the use of a T-frame which is an optional extra. This is fixed to the ceiling and the diffuser then drops into it.

4 POINT FIXING (4 BRACKETS WITH BACKING PLATES)



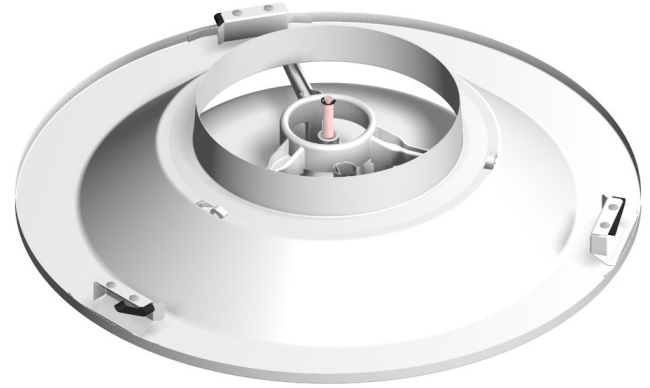
T-FRAME (DROP-IN MOUNTING FOR PLASTERED CEILINGS)



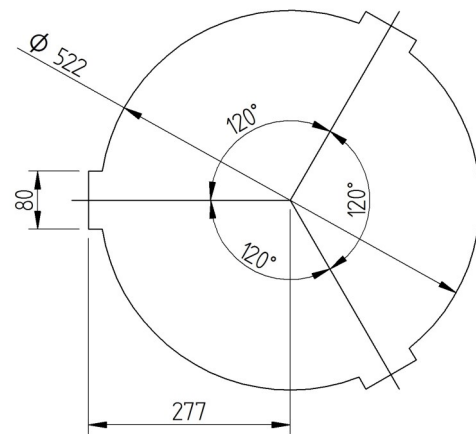


Tile Size (mm)	A (mm)
320 x 320	361
495 x 495	536
550 x 550	591
595 x 595	636
603 x 603	644
845 x 845	886

Tile Size (mm)	Ceiling Hole Dimensions (mm)
320 x 320	342 x 342
495 x 495	517 x 517
550 x 550	572 x 572
595 x 595	615 x 615
603 x 603	625 x 625
845 x 845	867 x 867



PLASTERED CEILING CUT-OUT DETAIL FOR ROUND DIFFUSERS



2. ROUND DIFFUSER

i. 3 Point Fixing (3 Brackets to allow Bayonet attachment)

Apart from the usual four-corner style, the Rickard Ceiling Diffuser is also available in a circular format. This model is most often combined with round down-lighters to preserve the circular pattern, and in particular with plastered ceilings. It also offers the absolute minimum interruption to the ceiling for those who prefer to have its unbroken regularity maintained.

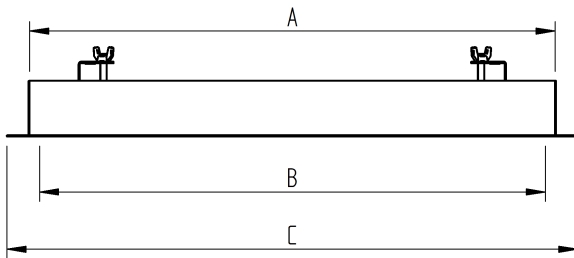
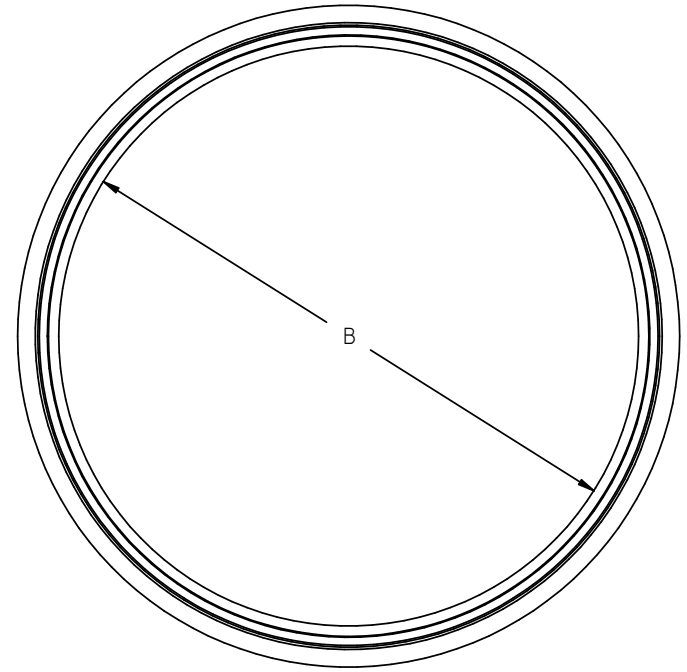
Fixing of round diffusers in a plastered ceiling often presents a problem because of restricted access to the ceiling void. This problem is overcome with a diffuser that is fitted with three clips that allows the Diffuser to be twisted and clipped into a hole created in the ceiling. The installer need only cut a round hole with three notches (stencils provided with each order) and the diffuser twisted into place. Removal is as easy, a simple twist in the opposite direction and the round diffuser can be removed. The entire operation can be carried out without ever needing to enter the ceiling space.

ii. T-Ring (Circular Frame to allow Drop-in Flush Mounting)

Alternatively a T-Ring that provides a circular frame for the diffuser to drop into can be fitted. Rickard offers two types: a screw pin type that uses 4 brackets to clamp it to the ceiling and a more affordable tab type that uses 6 tabs that can be folded over to secure the frame. Both use the same pressed ring as the face of the ring.

T-RING (4 Pin Screw Type)

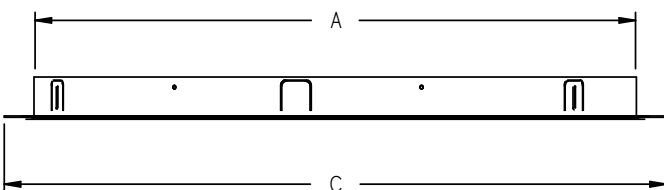
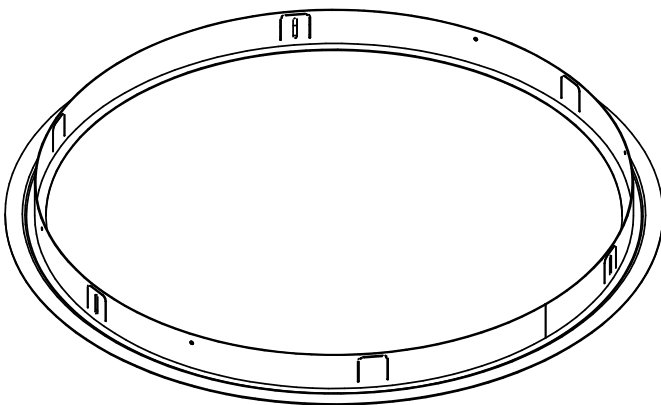
DROP-IN MOUNTING FOR PLASTERED CEILINGS



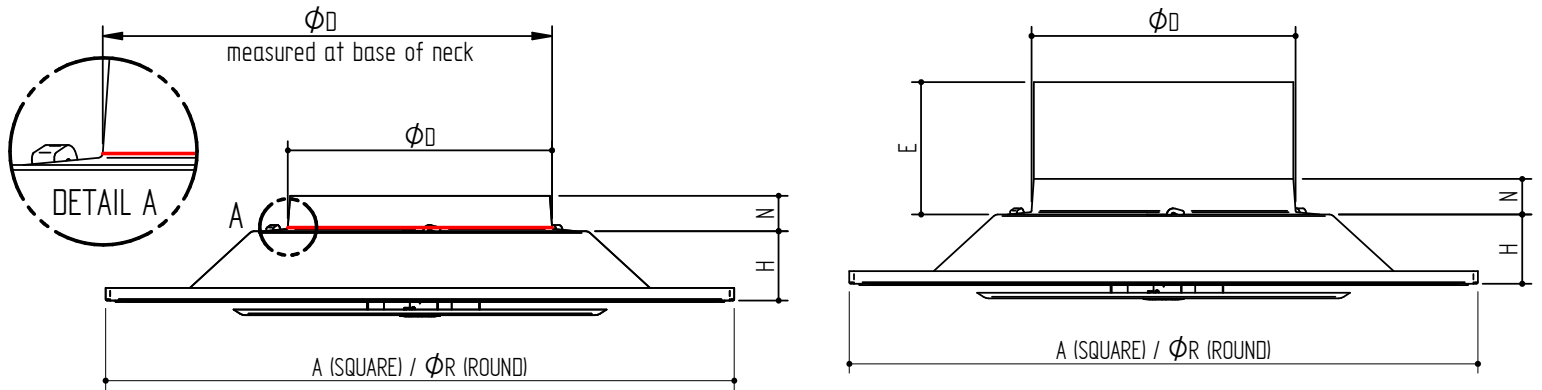
T-RING GENERAL DIMENSIONS						
TYPE	NOMINAL SIZE	A	B	C	DIFFUSER DIAMETER	CUT-OUT SIZE
TAB	580	585	565	645	580	590
SCREW PIN	580	585	565	645	580	600

T-RING (Fold-Over Tab Type)

DROP-IN MOUNTING FOR PLASTERED CEILINGS



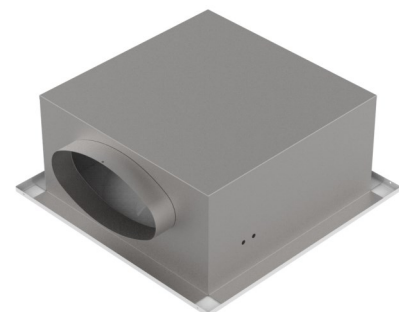
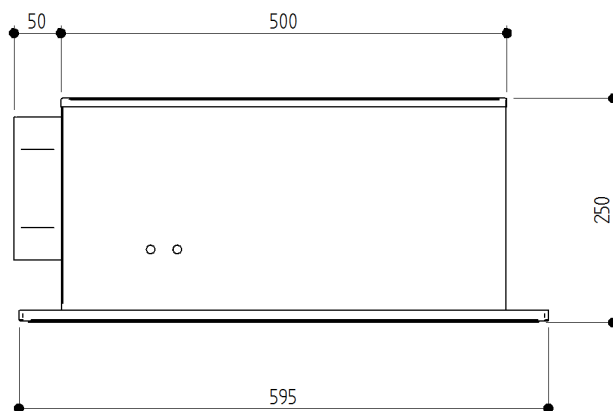
CEILING DIFFUSER GENERAL DIMENSIONS



Nominal Size	Dimensions (mm)									
	Ø D Measured at base of neck	A	H	N	Ø R	E				
						Heater	Airflow Sensor	Airflow Switch	Neck Extension	Thermal Neck
150	153	495 x 495	74	26	580	125	116 to 130	132	95	130
		595 x 595								
200	200	495 x 495	71	32						
		595 x 595								
250	250	495 x 495	66	32						
		595 x 595								
300	293	495 x 495	65	35						
		595 x 595								
350	346	595 x 595	63	40						

CEILING DIFFUSER WITH PLENUM GENERAL DIMENSIONS

(Used when ceiling space is limited)



Note: Plenums create a significant pressure drop
(Performance data will not apply)

Diffuser Style				Ceiling Diffuser Mounting Types							
				Exposed Tee		Baffled Ceiling		Plastered Ceiling Surface Mounting			
Model	Diffuser Shape	Diffuser Size	Neck Size	Drop-in Flush Mounting	Drop-in Shadow Line	4 Point Fixing Brackets	3 Point Fixing Brackets	4 Point Fixing & Backing Plate	3 Point Bayonet Fixing	T-Frame	T-Ring
CCD3/CACD3 MC VCD1/4/5 MC	Square	495x495	150-300	•	○	•	○	•	○	•	○
	Square	595x595	150-300	•	•	•	○	•	○	•	○
	Square	23¾"x23¾"	6-12"	•	•	•	○	•	○	•	○
CCD3/CACD3 LC VCD1 LC	Square	595x595	350	•	○	•	○	•	○	•	○
	Square	23¾"x23¾"	14"	•	○	•	○	•	○	•	○
CSD3/CASD3 SC	Square	320x320	150	•	○	•	○	•	○	•	○
CSD3/CASD3 LC VSD1 LC	Square	595x595	150-350	•	○	•	○	•	○	•	○
	Square	23¾"x23¾"	6-14"	•	○	•	○	•	○	•	○
VSD4/5 LC	Square	595x595	150-300	•	○	•	○	•	○	•	○
	Square	23¾"x23¾"	6-12"	•	○	•	○	•	○	•	○
CRD3/CARD3 VRD1/4/5	Round	580	150-300	○	○	○	•	○	•	○	•
CRD3/CARD3 LC VRD1 LC	Round	580	350	○	○	○	•	○	•	○	•

Ceiling Diffuser Naming Convention													
C	V	C	R	S	D	W	1	3	4	5	SC	MC	LC
Constant / Variable Volume		Trim Plate			Diffuser Type		Actuator Type				Cone Size		
Constant	Variable	Round	Round	Square	Diffuser	Swirl	Electronic	Manual	Thermal Cooling Only	Thermal Heating & Cooling	Small Cone	Medium Cone	Large Cone
Back-pan Shape													
		Square	Round	Square									

e.g. VCD1 MC

C	V	C	R	S	D	W	1	3	4	5	SC	MC	LC
Constant / Variable Volume		Trim and Cone Shape			Diffuser Type		Actuator Type				Cone Size		
Constant	Variable	Round	Round	Square	Diffuser	Swirl	Electronic	Manual	Thermal Cooling Only	Thermal Heating & Cooling	Small Cone	Medium Cone	Large Cone
Outside Back-pan Shape													
		Square	Round	Square									
	V	C			D		1					MC	
	Variable Volume	Round Trim Plate			Diffuser		Electronic					Medium Cone	
		Square Back-pan											

Electronic Variable Volume Diffuser with Square Back-pan, Round Medium Cone Trim and Cone