

# ECO-M – Environmental Ceiling Outlet

Model: ECO–Manual

## Description

The ECO Manual Diffuser is a supply or return air diffuser made from an Engineering Polymer. It has a simple, visually appealing style that is suitable in commercial and domestic buildings alike. The central diffusion cone of the ECO can be adjusted up or down by hand to control the air volume being supplied. For 'shut off' the cone can be adjusted fully home to stop the air supply completely.

## Performance

The radial supply air pattern of the ECO Manual creates a strong ceiling effect resulting in a draft-less environment. The strong ceiling effect allows it to be used in Variable Air Volume applications.

## Installation

The ECO Manual is very easy to install. A hole is created in the ceiling using the supplied template. The ECO can then be offered up to the ceiling and the ducting attached. The neck of the ECO is then inserted through the hole in the ceiling enabling the four retaining legs to snap over retaining the ECO tightly on the ceiling. The ECO can be mounted into both solid and suspended ceilings with little fuss using the automatic snap over retaining legs. NOTE: Seismic restraints required, but not supplied.

## Retrofit Installation

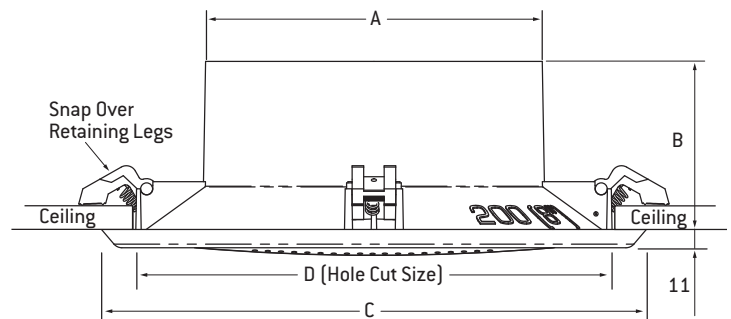
The ECO Manual fits into the same sized hole as other similar types of diffuser. In addition the slightly larger diameter outer flange covers any imperfections in the ceiling finish that may have been left when the original diffuser was removed.

## Construction and Finish

The ECO is constructed of a tough UV stabilised and fire rated engineering polymer. The colour of the ECO is White. All visible surfaces have a textured finish.

Model: ECO - M

Horizontal Radial Throw (Isothermal Air).



ECO-M	A (mm)	B (mm)	C (mm)	D (mm)	Weight (kg)
150	147	100	269	240 ± 5	0.8
200	197	100	319	290 ± 5	1.1
250	247	108	391	360 ± 5	1.6
300	297	123	440	410 ± 5	2.2

Nominal Duct Size	Flow Rate [l/s]	25	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400	
		150mm Diameter	Supply Pstatic (Pa)	7	23	50	84	133										
	Exhaust Pstatic (Pa)	5	19	43	80	130												
	Horizontal Throw (m)	@0.75m/s	-	0.5	1.0	1.3	1.6											
	Radial Throw (m)	@0.50m/s	0.4	1.1	1.5	2.1	2.4											
		@0.25m/s	0.9	1.8	2.4	3.0	3.6											
	NC	-	-	16	27	35												
Nominal Duct Size	Flow Rate [l/s]	25	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400	
		200mm Diameter	Supply Pstatic (Pa)	-	9	20	36	54	76	103								
	Exhaust Pstatic (Pa)	3	14	30	50	80	118	160										
	Horizontal Throw (m)	@0.75m/s	-	-	0.8	1.2	1.3	1.9	2.5									
	Radial Throw (m)	@0.50m/s	-	0.9	1.2	1.8	2.0	2.5	3.0									
		@0.25m/s	-	1.5	2.3	2.8	3.2	3.7	4.1									
	NC	-	-	-	-	18	24	27										
Nominal Duct Size	Flow Rate [l/s]	25	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400	
		250mm Diameter	Supply Pstatic (Pa)	-	8	17	25	35	44	56	70	85	102	123				
	Exhaust Pstatic (Pa)	2	7	16	28	45	65	90	120									
	Horizontal Throw (m)	@0.75m/s	-	-	0.7	1.1	1.2	1.8	2.3	2.4	2.5	2.7	3.1					
	Radial Throw (m)	@0.50m/s	-	0.8	1.1	1.6	1.8	2.4	2.7	3.0	3.3	3.9	4.2					
		@0.25m/s	-	1.3	2.2	2.4	3.0	3.6	3.9	4.2	4.8	5.1	5.4					
	NC	-	-	-	-	-	15	17	18	22	27	31						
Nominal Duct Size	Flow Rate [l/s]	25	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400	
		300mm Diameter	Supply Pstatic (Pa)	-	-	6	8	11	15	18	23	28	33	39	45	52	61	68
	Exhaust Pstatic (Pa)	-	-	6	12	16	20	23	30	37	41	44	58	63	75	80	95	
	Horizontal Throw (m)	@0.75m/s	-	-	0.6	0.8	1.2	1.4	1.6	1.8	2.0	2.1	2.4	2.7	2.9	3.0	3.3	3.4
	Radial Throw (m)	@0.50m/s	-	-	1.0	1.5	1.8	2.0	2.3	2.6	2.7	3.0	3.3	3.5	3.6	3.7	3.9	4.1
		@0.25m/s	-	-	1.8	2.3	2.7	3.0	3.2	3.3	3.6	3.9	4.2	4.4	4.5	4.8	5.0	5.1
	NC	-	-	-	-	-	-	-	-	-	-	-	15	17	18	18	21	

Diffuser - Ceiling Round Adjustable



**Model: ECO-M**  
Environmental Ceiling Outlet Manual circular radial pattern ceiling diffuser with plaque fascia.



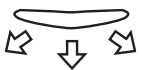
**Model: ECO-A**  
Environmental Ceiling Outlet Automatic circular radial pattern ceiling diffuser with perforated fascia.

**Model: ECO-R\***  
Environmental Ceiling Outlet - Return/Exhaust  
[Design, as ECO-A above].  
\* 150mm Duct Size Only

## Adjustment Settings

The ECO Automatic Diffuser is versatile and can be adjusted to operate Automatically or set to provide the combination air pattern or alternatively set for horizontal air pattern only by simply moving the adjustment arm into the desired setting position.

### Horizontal & Vertical Air Pattern Heating Mode

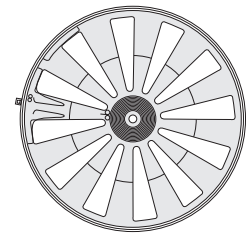
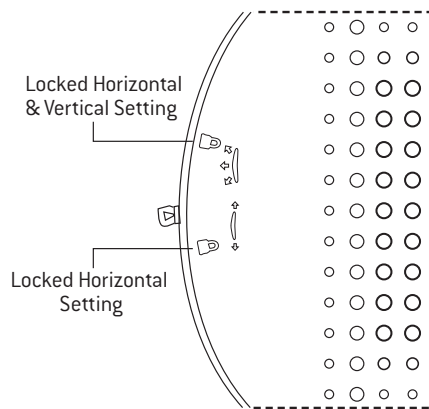


Combination Horizontal & Vertical (heating)

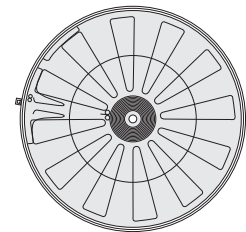
### Horizontal Air Pattern Cooling Mode



Horizontal Only (cooling)



**Damper Open**



**Damper Closed**

# ECO-A, ECO-M, CRA & CRP

## Product Ordering Key and Suggested Specifications

<b>CRA</b>	—	<b>200</b>	—	<b>FINISH</b>	<p>Circular Ceiling Diffusers shall be Holyoake Model CRA with compact flange and adjustable air pattern. Diffusers shall be manufactured from spun aluminium with threaded adjustable core mechanism. The air pattern shall be radial and adjustable from horizontal to vertical. Circular Ceiling Diffuser to be supplied with integral mounting system. Diffusers shall be finished in powdercoat and fitted with accessories and dampers where indicated.</p> <p>All shall be as manufactured by Holyoake.</p>
Series		Nominal Duct Size		Holyoake White Mill Aluminium Powder Coat	

<b>CRA-T</b>	—	<b>200</b>	—	<b>FINISH</b>	<p>Circular Ceiling Diffusers shall be Holyoake Model CRA-T with compact flange and thermal core adjustment. Diffusers shall be of spun aluminium construction with Holyoake thermal power pill. With supply air temperatures below 24 degrees the supply air pattern is diffused horizontally. With supply air temperatures above 28 degrees the core is automatically lifted to produce a supply air pattern diffused vertically. Circular Ceiling Diffuser to be supplied with integral mounting system. Diffusers shall be finished in powdercoat and fitted with accessories and dampers where indicated.</p> <p>All shall be as manufactured by Holyoake.</p>
Series		Nominal Duct Size		Holyoake White Mill Aluminium Powder Coat	

<b>CRP</b>	—	<b>200</b>	—	<b>FINISH</b>	<p>Circular Ceiling Diffusers shall be Holyoake Model CRP with compact flange and adjustable supply air plaque. Diffusers shall be manufactured from spun aluminium with threaded adjustable plaque core. The air pattern shall be radial and adjustable from horizontal to vertical. Circular Ceiling Diffusers to be supplied with integral mounting system. Diffusers shall be finished in powdercoat and fitted with accessories and dampers where indicated.</p> <p>All shall be as manufactured by Holyoake.</p>
Series		Nominal Duct Size		Holyoake White Mill Aluminium Powder Coat	

<b>CRP-T</b>	—	<b>200</b>	—	<b>FINISH</b>	<p>Circular Ceiling Diffusers shall be Holyoake Model CRP-T with compact flange and thermal core adjustment. Diffusers shall be of spun aluminium construction with Holyoake thermal power pill. With supply air temperatures below 24 degrees the supply air pattern is diffused horizontally. With supply air temperatures above 28 degrees the core is automatically lifted to produce a supply air pattern diffused vertically. Circular Ceiling Diffuser to be supplied with integral mounting system. Diffusers shall be finished in powdercoat and fitted with accessories and dampers where indicated.</p> <p>All shall be as manufactured by Holyoake.</p>
Series		Nominal Duct Size		Holyoake White Mill Aluminium Powder Coat	

<b>ECO</b>	—	<b>M</b>	—	<b>150</b> <b>200</b> <b>250</b>	<p>Ceiling diffusers shall be Holyoake Series ECO-M, manufactured from injection moulded tough U.V. stabilised and fire rated engineering polymer, in self coloured white as standard. Series ECO-M shall have the ability to regulate the airflow via an adjustable central cone.</p> <p>All shall be as manufactured by Holyoake.</p>
Series		Manual		Duct Size	

<b>ECO</b>	—	<b>A</b>	—	<b>200</b> <b>250</b> <b>300</b>	<p>Ceiling diffusers shall be Holyoake Series ECO-A, manufactured from injection moulded tough U.V. stabilised and fire rated engineering polymer, in self coloured white as standard. Series ECO-A shall have the ability to regulate the airflow via an adjustable central cone and automatically direct a portion of the airflow downwards, when supplying air above 30°C.</p> <p>All shall be as manufactured by Holyoake.</p>
Series		Automatic		Duct Size	

<b>ECO</b>	—	<b>R</b>	—	<b>150</b>	<p>Ceiling diffusers shall be Holyoake Series ECO-R, manufactured from injection moulded tough U.V. stabilised and fire rated engineering polymer, in self coloured white as standard. The exhaust air can be regulated via an adjustable central cone.</p> <p>All shall be as manufactured by Holyoake.</p>
Series		Return/Exhaust		Duct Size	