

## Model: CMP-T Ceiling Thermal Diffuser

The CMP-T was developed to provide a diffuser that could deliver a large volume of air, as well as offering the same exceptional pattern change characteristics as the CRA-T range of diffusers. The diffuser is based on the time proven CMP range, but with the added benefit of being able to supply a vertical stream of air when an air conditioning system is in heating mode. This vertical stream is supplied through a central core which is controlled by a thermally actuated damper. The damper will start closure with supply air temperatures below 24°C and start to open with supply air temperatures above 28°C.

The diffuser is designed to “lay-in” to a standard “T-Rail” ceiling system, as well as being able to be mounted in a solid ceiling.

Duct entry should be vertical on to the rear of the diffuser, to ensure a vertical projection through the thermally actuated damper.

### Features

- Automatic air pattern change.
- High air flow capabilities.
- 4 way horizontal air flow pattern.
- Vertical airstream on heating mode
- Aesthetically pleasing fascia with Removable Core.
- Lay in diffuser size.
- Durable powder coat finish.

### Construction

CMP-T Diffusers are ruggedly constructed out of aluminium. Precision combination corner gussets and braces keep mitres to a hairline and aluminium rivets hold the core components rigidly together, eliminating the possibilities of racking, flexing or rattling. Cores snap into surrounds with nickel plated spring steel thumb clips. The central thermally actuated damper is permanently fixed to the diffuser core.

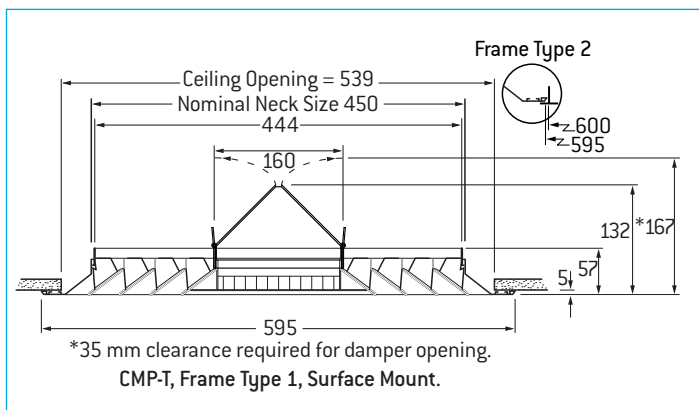
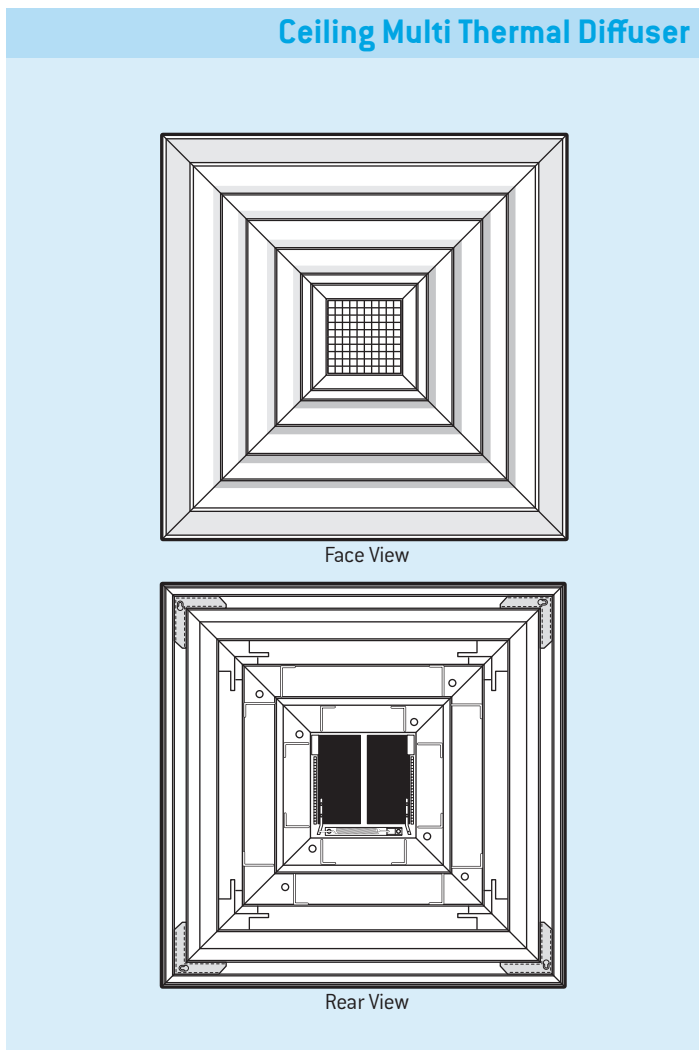
## Notes on Performance Data

1. All performance data is based on isothermal conditions.
2. Alternative sizes are available on request. Please consult your local Holyoake branch for further information.
3. When using Premi-Aire/Cushion Head boxes, contact your local Holyoake Branch for Airflow Direction.

Due to a policy of continuous development and improvement the right is reserved to supply products which may differ slightly from those illustrated and described in this publication.

Guide Product Weights	
Description	Approximate Weight in Kg.
CMP-T 450 x 450	3.31
Power Pill & Damper (if separate)	0.63

Performance Data for 450 X 450 Neck Size							
Flow, m <sup>3</sup> /s	0.300	0.400	0.500	0.600	0.700	0.800	0.900
Neck Velocity, m/s	1.67	2.22	2.78	3.33	3.89	4.44	5.00
Velocity Pressure, Pa	2	3	5	7	9	12	15
<b>HORIZONTAL PROJECTION</b>							
Pt (Pa)	7	12	20	28	39	50	64
Throw (m) to Vt of:							
0.75 m/s	2.4	2.7	3.1	3.4	3.7	4.0	4.3
0.50 m/s	3.1	3.4	4.0	4.3	4.5	4.9	5.2
0.25 m/s	4.3	4.9	5.5	6.1	6.4	7.0	7.3
NC	<10	18	25	31	34	38	42
<b>VERTICAL PROJECTION</b>							
Pt (Pa)	6	10	16	23	31	40	53
Downward Flow, m <sup>3</sup> /s	0.050	0.068	0.085	0.102	0.120	0.136	0.158
Throw (m) to Vt of:							
0.50 m/s	4.5	4.9	5.2	5.8	6.4	6.7	7.3
NC	<10	11	25	34	35	38	39



# CMP-TL – Ceiling Multi Pattern Thermal

## Model: CMP-TL Ceiling Thermal Diffuser

The CMP-TL Diffuser has been developed as a lower cost alternative to the CMPT. It delivers a large volume of air, as well as offering the same exceptional pattern change characteristics as the CMPT. The diffuser is based on the time proven CMP range, but with the added benefit of being able to supply a vertical stream of air, when an air conditioning system is in heating mode. This vertical stream is supplied through a central core which is controlled by a thermally actuated damper. The damper will start closure with supply air temperatures below 24°C and start to open when above 30°C.

The diffuser is designed to “lay-in” to a standard “T-Rail” ceiling system, as well as being able to be mounted in a solid ceiling. Duct entry must be vertical onto the back of the diffuser, to ensure a vertical projection through the thermally actuated damper.

### Features

- Automatic air pattern change.
- High air flow capabilities.
- 4 way horizontal air flow pattern.
- Vertical airstream on heating mode
- Modern architectural design with Removable Core.
- Lay in diffuser size.
- Durable powder coat finish.

### Construction

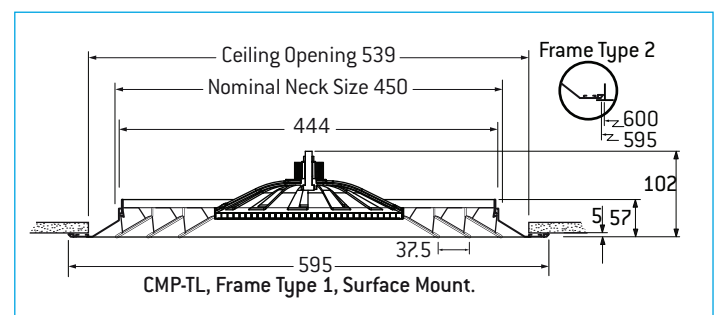
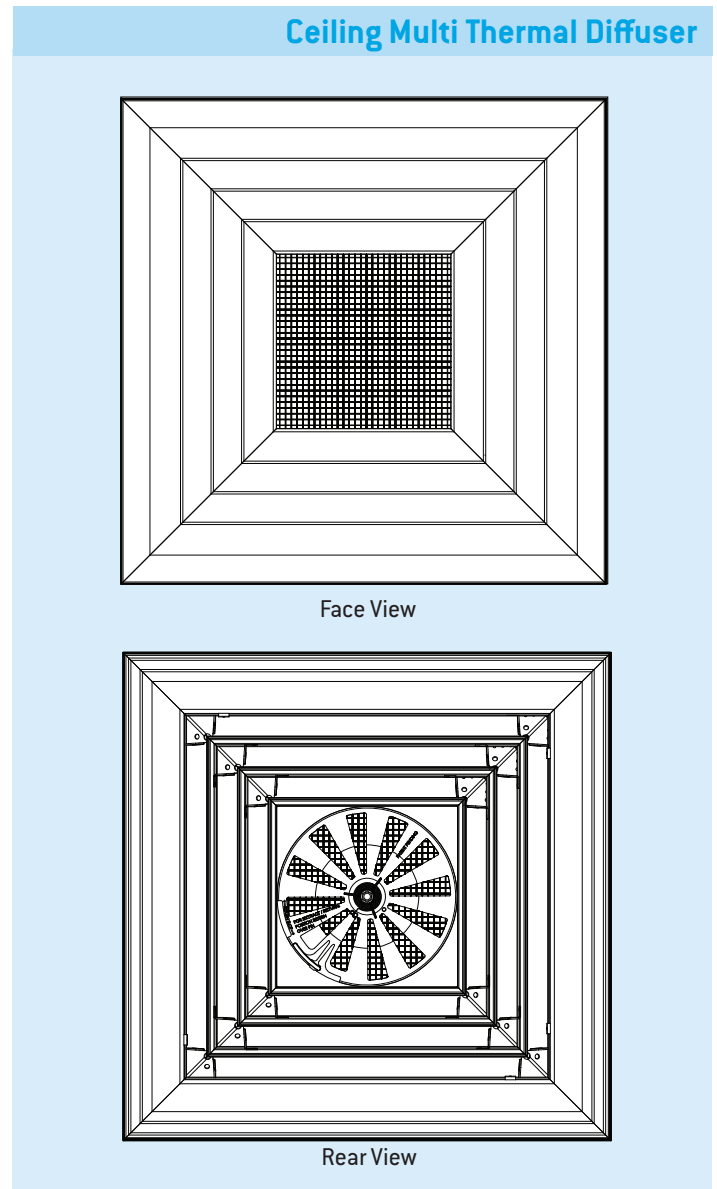
CMP-TL Diffusers are constructed out of aluminium. Precision combination corner gussets and braces keep mitres to a hairline. Cores snap into surrounds with nickel plated spring steel thumb clips. The central thermally actuated damper is constructed of a tough UV stabilised and fire rated engineering polymer.

## Notes on Performance Data

1. All Performance data is based on isothermal conditions.
2. Performance data is based on a vertical square entry duct attached to the back of the diffuser.
3. NC values are based on a room absorption of 10dB, re 10<sup>-12</sup> watts.

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Guide Product Weights	
Description	Approximate Weight in Kg.
CMP-TL 450 x 450	1.94



### Performance Data for 450 X 450 Neck Size

Flow, m <sup>3</sup> /s	0.050	0.100	0.200	0.300	0.400
Neck Velocity, m/s	0.28	0.56	1.12	1.67	2.22
Velocity Pressure, Pa	-	0.5	1	2	3
<b>HORIZONTAL PROJECTION</b>					
Pt (Pa)	-	2.5	6	12	20
Throw (m) to Vt of:					
0.75 m/s	0.7	1.3	2.0	2.7	3.5
0.50 m/s	1.0	1.8	2.8	3.5	4.2
0.25 m/s	3.0	3.5	3.8	4.3	5.0
NC	<10	<10	20	33	40
<b>VERTICAL PROJECTION</b>					
Pt (Pa)	-	2	5	10	17
Downward Flow, m <sup>3</sup> /s	0.010	0.025	0.040	0.050	0.062
Throw (m) to Vt of:					
0.50 m/s	0.5	1	2	4	4.5
NC	<10	11	32	33	37