



TROFFER DIFFUSERS

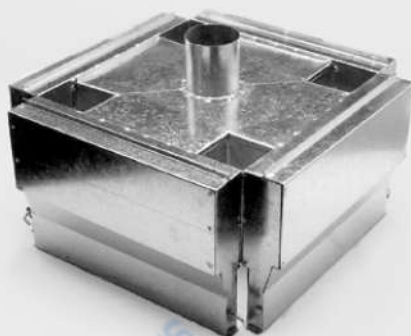
FOUR SIDED TROFFER DIFFUSER



FOUR SIDED TROFFER DIFFUSER

FST - 100

FST SERIES



Description

ECOVENT troffer diffusers FST Series are designed to provide four sides concealed air distribution when installed behind the air handling luminaires (light fixtures). The troffer diffusers are equipped with concealed adjustable air deflectors to provide horizontal or vertical discharge air pattern.

ECOVENT troffer diffusers are coordinated with luminaire (light fixture) manufacturers to ensure optimum air distribution performance and ease of installation. Various sizes of ECOVENT troffer diffusers are available to fit with any model or style of light fixture manufacturers.

ECOVENT troffer diffusers should be located uniformly in the ceiling together with the luminaires in order to have a proper air distribution in the occupied area.

Standard Construction

Casing:

Built of galvanized steel sheet gauge 22, conform to ASTM A653, Lock Forming Quality, G90 zinc coating.

Insulation:

12.5mm thick acoustic lining with black glass tissue facing, 48kg/m³ density. Acoustic lining is fixed inside the troffer diffuser with non-flammable adhesive and mechanical fastener (cupped head pins).

Spigot:

Spigot inlet without damper as standard.

Additional Options

1. Spigot inlet without damper.
2. Troffer diffuser without insulation can be used for return or exhaust system. Type: FST - 100X, FST - 110X.

FST - 110

General construction as Type FST - 100 troffer diffuser but with round or flat oval spigot side inlet.

FST SERIES [FST 100, FST 110]

Use for Luminaire (Light Fixture) with Size = 600 × 600mm

Vertical Discharge	Air Flow (L/S)	28	40	46	58	66	74	82	92
	Static Pressure (Pa)	5	9	10	16	21	24	30	36
	NC Level (Noise Criteria)	19	18	19	23	26	28	30	33
	Throw (Meter)	0.3 - 0.7	0.6 - 0.9	0.6 - 1.2	0.9 - 1.5	1.2 - 1.8	1.5 - 2.0	1.8 - 2.4	2.0 - 2.7
Horizontal Discharge	Static Pressure (Pa)	20	39	44	71	93	113	140	170
	NC Level (Noise Criteria)	37	41	44	47	49	51	52	55
	Throw (Meter)	0.6 - 1.0	0.9 - 1.5	1.2 - 1.8	1.3 - 2.1	1.5 - 2.4	1.8 - 2.7	2.0 - 3.0	2.4 - 3.3

Use for Luminaire (Light Fixture) with Size = 900 × 900mm

Vertical Discharge	Air Flow (L/S)	46	66	74	94	108	122	134	150
	Static Pressure (Pa)	5	9	10	16	21	24	30	36
	NC Level (Noise Criteria)	19	18	19	23	26	28	30	33
	Throw (Meter)	0.3 - 0.7	0.6 - 0.9	0.6 - 1.2	0.9 - 1.5	1.2 - 1.8	1.5 - 2.0	1.8 - 2.4	2.0 - 2.7
Horizontal Discharge	Static Pressure (Pa)	20	39	44	71	93	113	140	170
	NC Level (Noise Criteria)	37	41	44	47	49	51	52	55
	Throw (Meter)	0.6 - 1.0	0.9 - 1.5	1.2 - 1.8	1.3 - 2.1	1.5 - 2.4	1.8 - 2.7	2.0 - 3.0	2.4 - 3.3

Use for Luminaire (Light Fixture) with Size = 1200 × 1200mm

Vertical Discharge	Air Flow (L/S)	66	94	104	132	152	170	188	208
	Static Pressure (Pa)	5	9	10	16	21	24	30	36
	NC Level (Noise Criteria)	19	18	19	23	26	28	30	33
	Throw (Meter)	0.3 - 0.7	0.6 - 0.9	0.6 - 1.2	0.9 - 1.5	1.2 - 1.8	1.5 - 2.0	1.8 - 2.4	2.0 - 2.7
Horizontal Discharge	Static Pressure (Pa)	20	39	44	71	93	113	140	170
	NC Level (Noise Criteria)	37	41	44	47	49	51	52	55
	Throw (Meter)	0.6 - 1.0	0.9 - 1.5	1.2 - 1.8	1.3 - 2.1	1.5 - 2.4	1.8 - 2.7	2.0 - 3.0	2.4 - 3.3

- All above performance data is based on troffer diffuser with 13mm wide slot. Performance may vary with other makes and designs of air troffer.
- All above data is based on top inlet size 225mm (9") although the effect on inlet size is negligible in the range of inlets offered.
- FST - 110 side inlet size is based on 150mm (6"). For air flow capacities, take half of the air flow from the above table and use for each inlet.
- Throws vertical and horizontal distances in meters to reach terminal velocities of 0.5 m/s and 0.25 m/s.

FOUR SIDED TROFFER DIFFUSER

INSTALLATION DETAILS

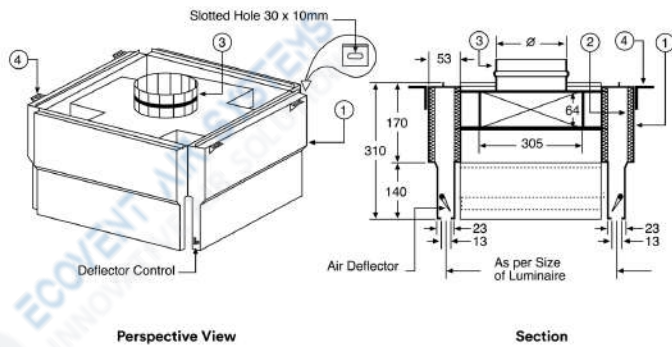
FST SERIES [FST 100, FST 110]

Legend:

- 1 - Casing 2 - Acoustic Lining 3 - Spigot Inlet 4 - Hanging Bracket

FST - 100

Round spigot top inlet without damper and with 12.5mm thick acoustic lining, density 48kg/m³ with BGT facing.

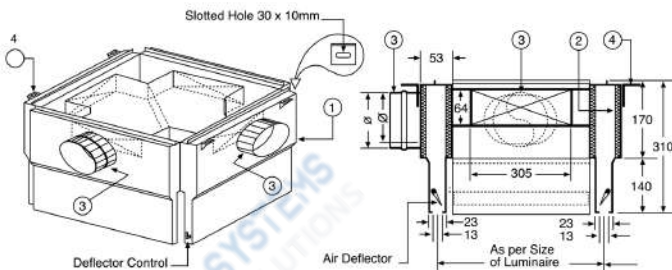


Perspective View

Section

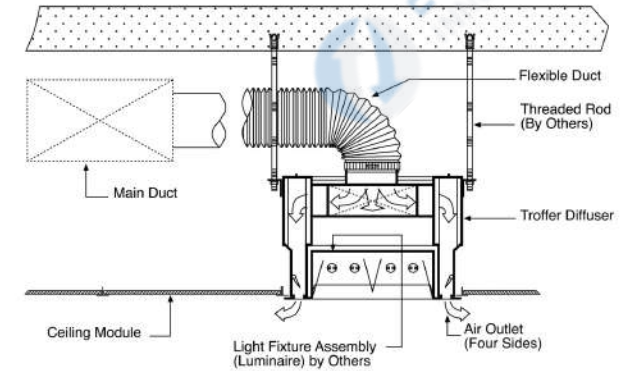
FST - 110

Round or Flat Oval spigot side inlet without damper and with 12.5mm thick acoustic lining, density 48kg/m³ with BGT facing.



Perspective View

Section



Sizes of Troffer Diffuser

Item No.	Luminaire Size L x W (mm)	Troffer Size (variable) L x W (mm)	Top Spigot Inlet dia (mm)
1	600 x 600	600 x 600	225
2	900 x 900	900 x 900	225
3	1200 x 1200	1200 x 1200	225

Item No.	Luminaire Size L x W (mm)	Troffer Size (variable) L x W (mm)	Top Spigot Inlet dia (mm)
1	600 x 600	600 x 600	150
2	900 x 900	900 x 900	150
3	1200 x 1200	1200 x 1200	150

Order Example

Product Code: FST-100 - Lx W / Spigot

FST-100
FST-100
1200 x 1200
225 Dia - Top Connection
150 Dia - Side Connection

Make : ECOVENT

Type : FST-100-1200 x 1200 / 225 Dia

Qty. : 1

Type : FST-110-1200 x 1200 / 150 Dia

Qty. : 1

NOTE

Troffer Diffuser size varies as per Luminaire actual size.