

# TROFFER DIFFUSERS







## Description

SAFID 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.

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

SAFID 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.



# FOUR SIDED TROFFER DIFFUSER

# FST SERIES [FST 100, FST 110]

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

	Air Flow (L/S)	28	40	46	58	66	74	82	92
Vertical	Static Pressure (Pa)	5	9	10	16	21	24	30	36
Discharge	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
	Static Pressure (Pa)	20	39	44	71	93	113	140	170
Horizontal Discharge	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

	Air Flow (L/S)	46	66	74	94	108	122	134	150
Vertical	Static Pressure (Pa)	5	9	10	16	21	24	30	36
Discharge	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
11	Static Pressure (Pa)	20	39	44	71	93	113	140	170
Horizontal Discharge	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

	Air Flow (L/S)	66	94	104	132	152	170	188	208
Vertical	Static Pressure (Pa)	5	9	10	16	21	24	30	36
Discharge	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
11	Static Pressure (Pa)	20	39	44	71	93	113	140	170
Horizontal Discharge	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
- $\bullet$ Throws vertical and horizontal distances in meters to reach terminal velocities of 0.5 m/s and 0.25 m/s.

TROFFER DIFFUSER

Legend:

1 - Casing

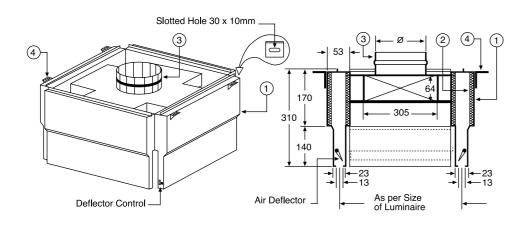
2 - Acoustic Lining

3 - Spigot Inlet

4 - Hanging Bracket

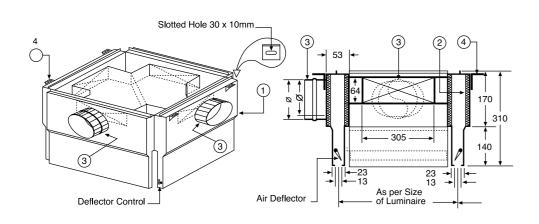
FST - 100

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



FST - 110

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

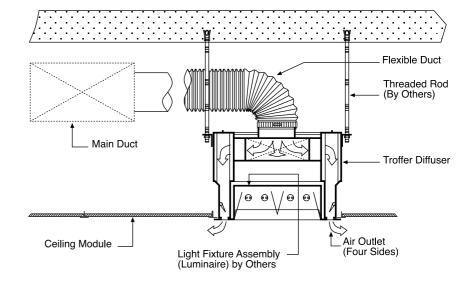


Perspective View

**Perspective View** 

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# **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		

# NOTE

Troffer Diffuser size varies as per Luminaire actual size.

# **Order Example**

Product Code:	FST-100	- Lx W	/	Spigo
FST-100 ———				
FST-100 ———				
1200 x 1200 ———				
225 Dia - Top Conne	ction —			_
150 Dia - Side Conne	ction —			

Make: SAFID

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

**Qty.:**1

**Type:** FST-110-1200 × 1200 / 150 Dia

Qty.:1

ROFFER DIFFUSERS