

PLENUM BOXES.



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PLENUM BOXES FOR SLOT DIFFUSERS





VK - 100

VK - 100 Series

Description

Plenum box type VK - 100 series is designed to ensure equal distribution of air across the slot diffusers. The supply plenum box has acoustic lining to reduce noise generated inside the duct due to airflow turbulence before reaching the diffuser. The built-in damper can be operated from the spigot connection or from face of diffuser.

Standard Construction

Plenum Box:
Built of galvanized steel sheet gauge 24, conform to ASTM A653, Lock Forming Quality, G90 zinc coating.

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

Spigot:
Spigot inlet with damper as standard.

Additional Options

1. Spigot inlet without damper.
2. With perforated sheet covering the acoustic liner facing the air stream to prevent damage and fibers erosion.
Type: VK - 100P, VK - 110P, VK - 120P, VK - 130P.

3. Plenum box built of stainless steel sheet Type 304.
Type: VK - 100S, VK - 110S, VK - 120S, VK - 130S.

Plenum Box with Inlet Option

VK - 110
General construction as type VK - 100 plenum but damper blade is adjustable from face of diffuser.

VK - 120
General construction as type VK - 100 plenum but with especial damper adjustable horizontally with damper control on face of diffuser. A plastic tube is fitted to damper control for pressure test if required.

VK - 130
General construction as type VK - 100 plenum but damper blade open or close sideward with damper control on face of diffuser.

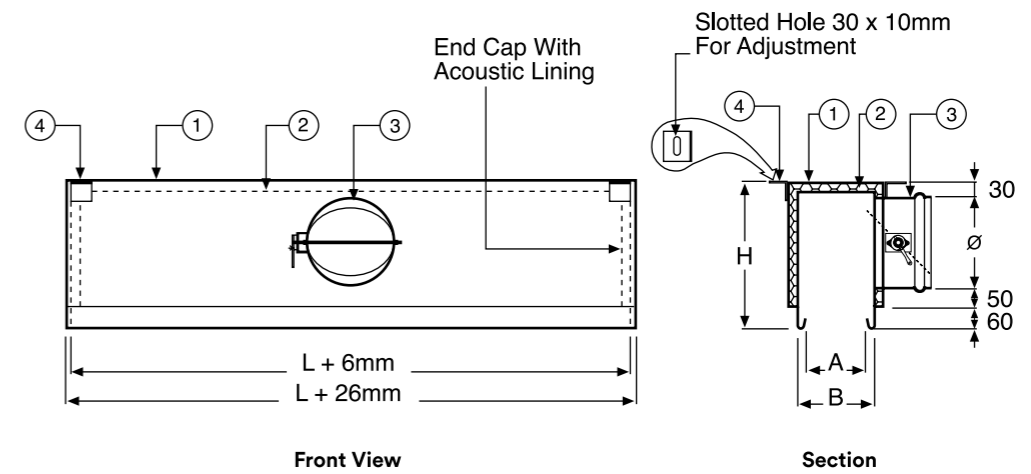
VK 100 SERIES [VK 100, VK 110, VK 120, VK 130]

Legend:

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

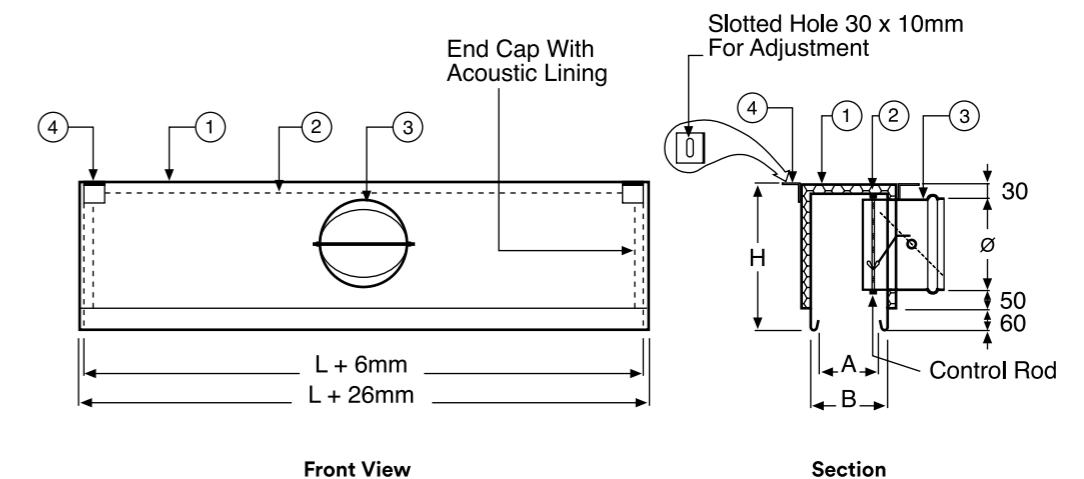
VK - 100

Spigot inlet with damper and with 25mm thick acoustic lining, density 48kg/m³ with BGT facing.



VK - 110

Spigot inlet with damper blade adjustable from the face of diffuser and with 25mm thick acoustic lining, density 48kg/m³ with BGT facing.



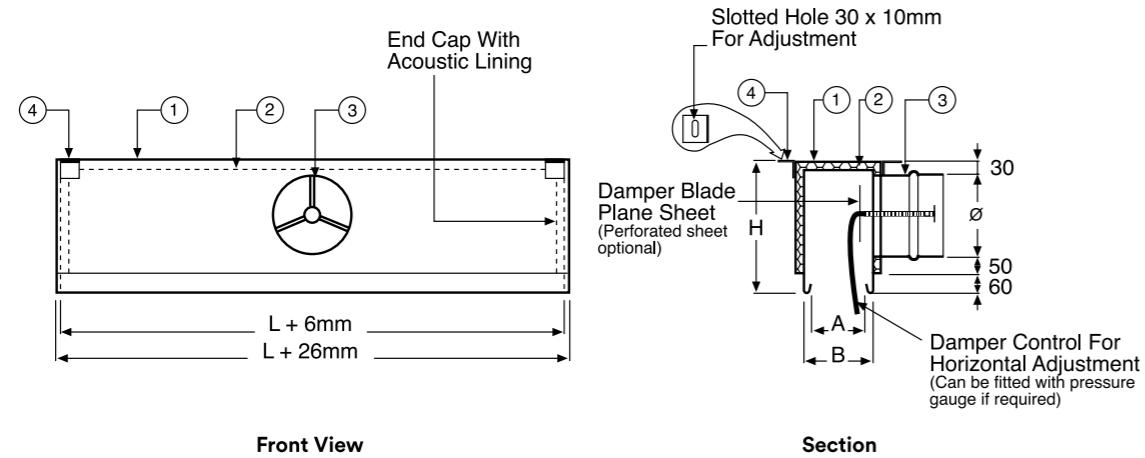
VK 100 SERIES [VK 100, VK 110, VK 120, VK 130]

Legend:

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

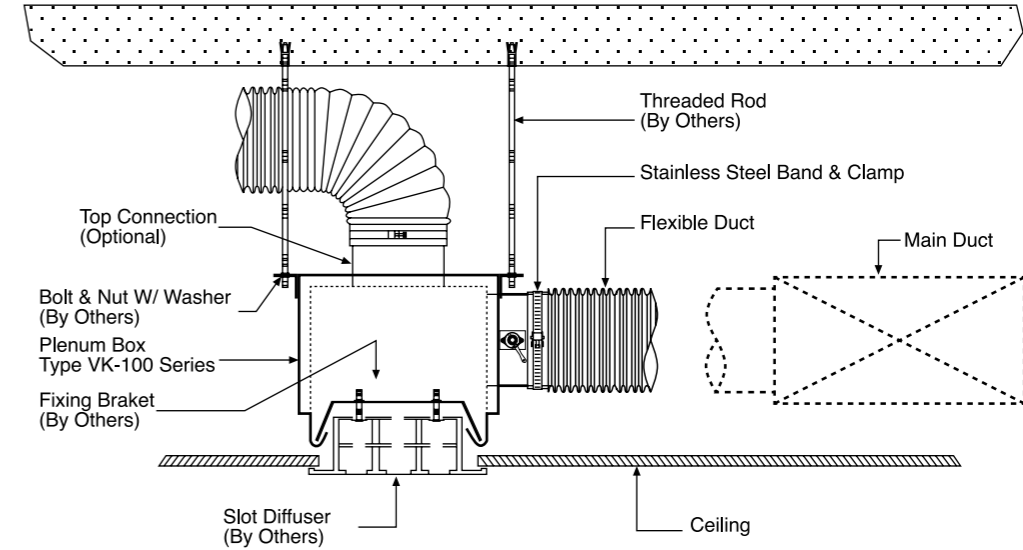
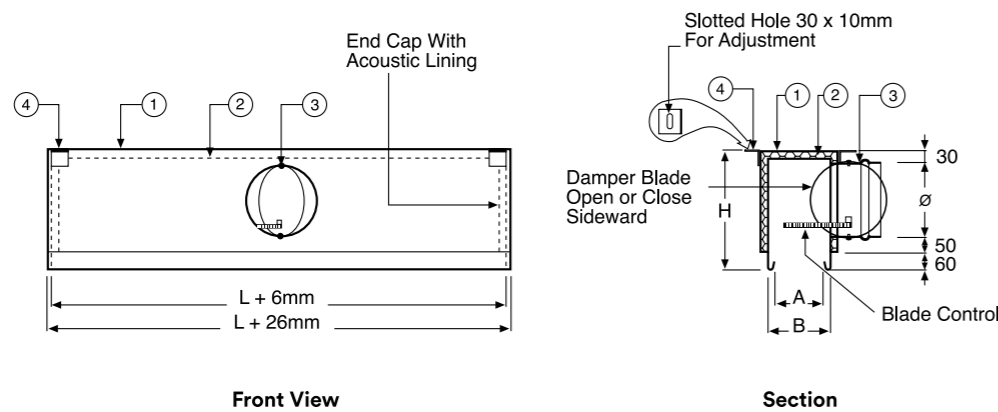
VK - 120

Spigot inlet with especial damper adjustable horizontally with damper control on face of diffuser, with 25mm thick acoustic lining. A plastic tube is fitted to damper control for pressure test if required.



VK - 130

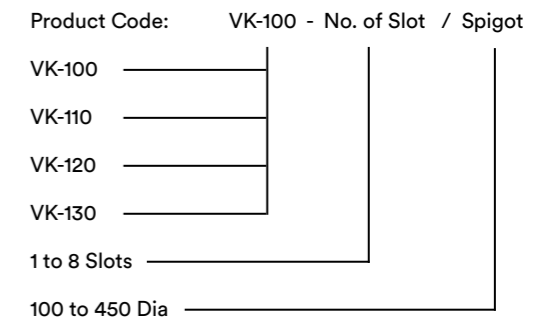
Spigot inlet with damper blade open and close sideward adjustable from face of diffuser and with 25mm thick acoustic lining.



Sizes of Plenum Box

Diffuser No. of Slots	Diffuser Size A x L (mm)	Plenum Size B x L + 6 (mm)	Spigot Inlet dia (mm)
1	40 x L	60 x L + 6	100
2	78 x L	98 x L + 6	150
3	117 x L	137 x L + 6	200
4	155 x L	175 x L + 6	250
5	193 x L	213 x L + 6	300
6	232 x L	252 x L + 6	350
7	270 x L	290 x L + 6	400
8	309 x L	328 x L + 6	450

Order Example



Make : SAFID
 Type : VK-100 - 3 Slots / 200 Dia
 Qty. : 1

NOTE

Plenum box size varies as per customer's requirement.

PLENUM BOXES FOR SUPPLY DIFFUSERS





VK - 200

VK - 200 SERIES

Description

Plenum box type VK - 200 series is designed to ensure equal distribution of air across the supply diffusers. The supply plenum box has acoustic lining to reduce noise generated inside the duct due to airflow turbulence before reaching the diffuser. The built-in damper can be operated from the spigot connection or from face of diffuser.

Standard Construction

Plenum Box:
Built of galvanized steel sheet gauge 24, conform to ASTM A653, Lock Forming Quality, G90 zinc coating.

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

Spigot:
Spigot inlet with damper as standard.

Additional Options

- 1. Spigot inlet without damper.
- 2. With perforated sheet covering the acoustic liner facing the air stream to prevent damage and fiber erosion.
Type:VK-200P...210P...220P...230P

3. Plenum box built of stainless steel sheet Type 304.
Type: VK - 200S, VK - 210S, VK - 220S, VK - 230S.

Plenum Box with Inlet Option

VK - 210
General construction as type VK - 200 plenum but damper blade is adjustable from face of diffuser.

VK - 220
General construction as type VK - 200 plenum but with especial damper adjustable horizontally with damper control on face of diffuser. A plastic tube is fitted to damper control for pressure test if required.

VK - 230
General construction as type VK - 200 plenum but damper blade open or close sideward with damper control on face of diffuser.

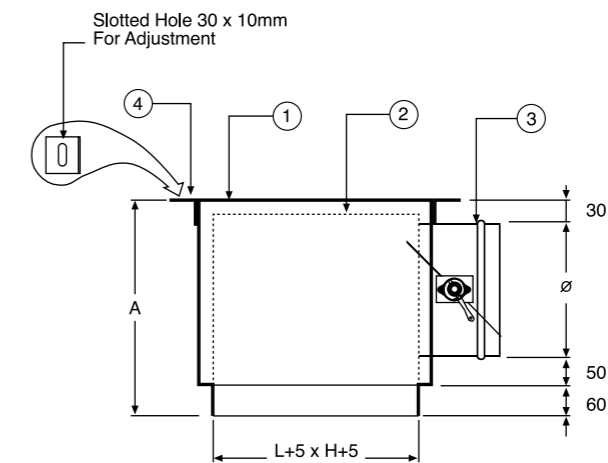
VK 200 SERIES [VK 200, VK 210, VK 220, VK 230]

Legend:

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

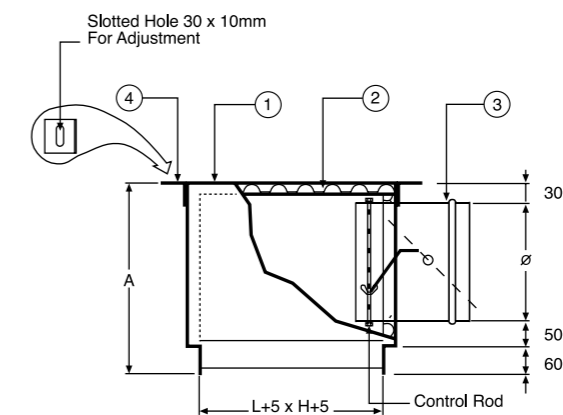
VK - 200

Spigot inlet with damper and 25mm thick acoustic lining, density 48kg/m³ with BGT facing.



VK - 210

Spigot inlet with damper blade adjustable from the face of diffuser and 25mm thick acoustic lining, density 48kg/m³ with BGT facing.



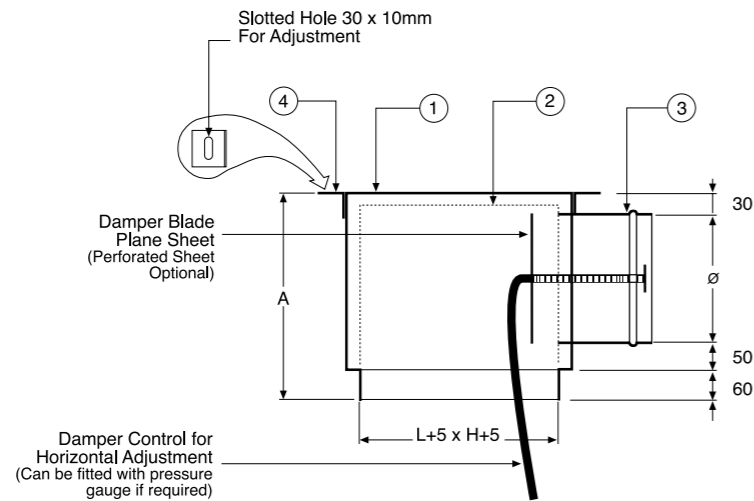
VK 200 SERIES [VK 200, VK 210, VK 220, VK 230]

Legend:

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

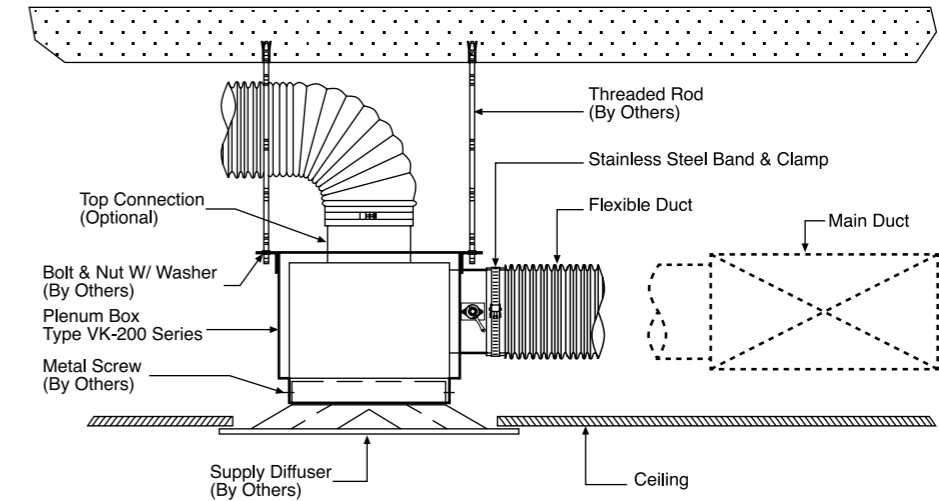
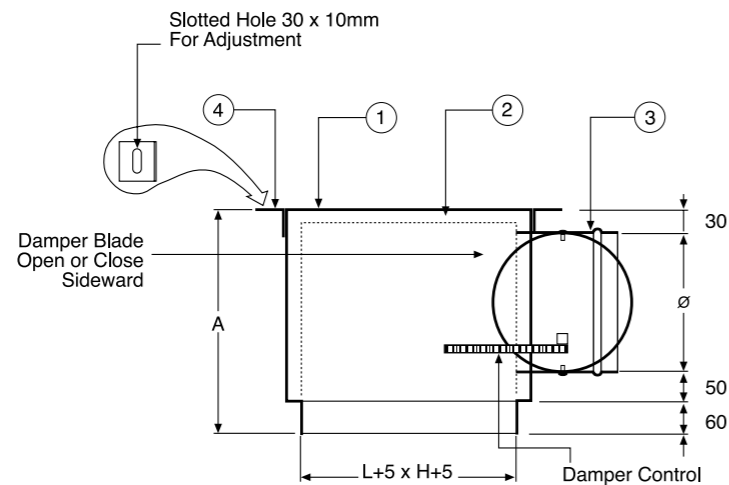
VK - 220

Spigot inlet with especial damper adjustable horizontally with damper control on face of diffuser, with 25mm thick acoustic lining. A plastic tube is fitted to damper control for pressure test if required.



VK - 230

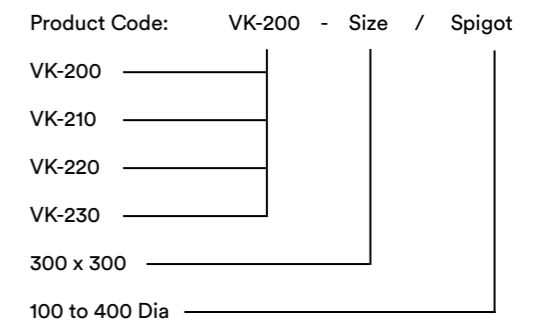
Spigot inlet with damper blade open and close sideward adjustable from face of diffuser and with 25mm thick acoustic



Sizes of Plenum Box

Item No.	Diffuser Size H x L (mm)	Plenum Size H+5 x L+5 (mm)	Spigot Inlet dia (mm)
1	150 x 150	155 x 155	100
2	225 x 225	230 x 230	150
3	300 x 300	305 x 305	200
4	375 x 375	380 x 380	250
5	450 x 450	455 x 455	300
6	525 x 525	530 x 530	350
7	600 x 600	605 x 605	400

Order Example



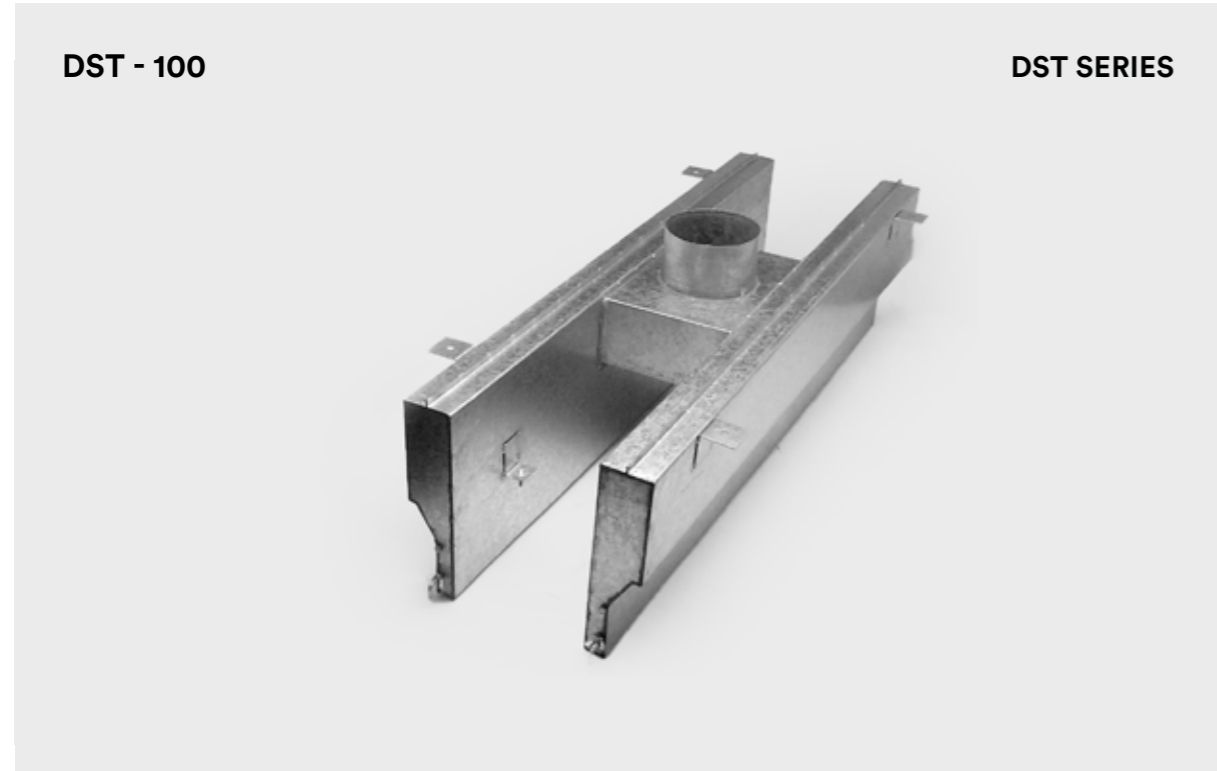
Make : SAFID
 Type : VK-200-300 X 300 / 250 Dia
 Qty. : 1

NOTE

Plenum box size varies as per customer's requirement.



TROFFER DIFFUSERS



Description

SAFID troffer diffusers DST Series are designed to provide double side 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 with damper.
2. Troffer diffuser without insulation can be used for return or exhaust system. Type: DST - 100X, DST - 110X.

DST - 110

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

DST SERIES [DST 100, DST 110]

Use for Luminaire (Light Fixture) with Length = 600mm

Vertical Discharge	Air Flow (L/S)	15	21	23	29	34	38	42	46
	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 Length = 900mm

Vertical Discharge	Air Flow (L/S)	24	34	37	47	55	61	68	75
	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 Length = 1200mm

Vertical Discharge	Air Flow (L/S)	33	47	52	66	76	85	94	104
	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 inlet size 150mm (6") although the effect on inlet size is negligible in the range of inlets offered.
- Throws vertical and horizontal distances in meters to reach terminal velocities of 0.5 m/s and 0.25 m/s.

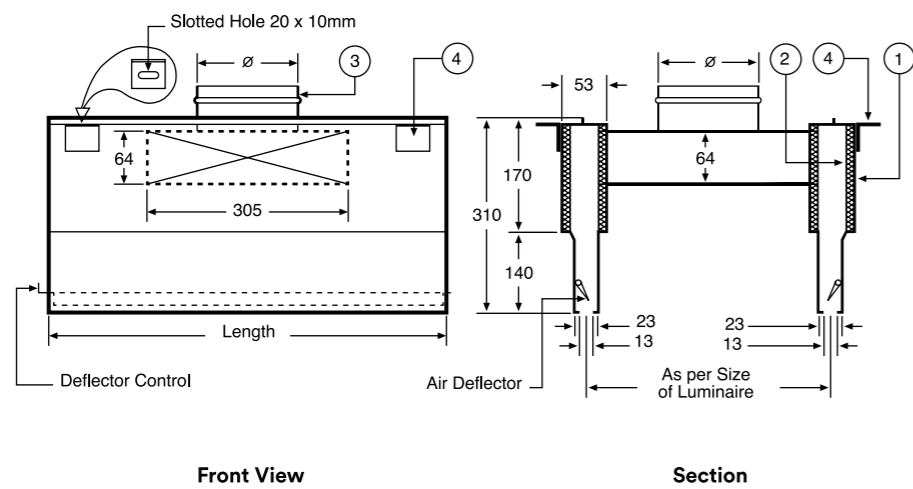
DST SERIES [DST 100, DST 110]

Legend:

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

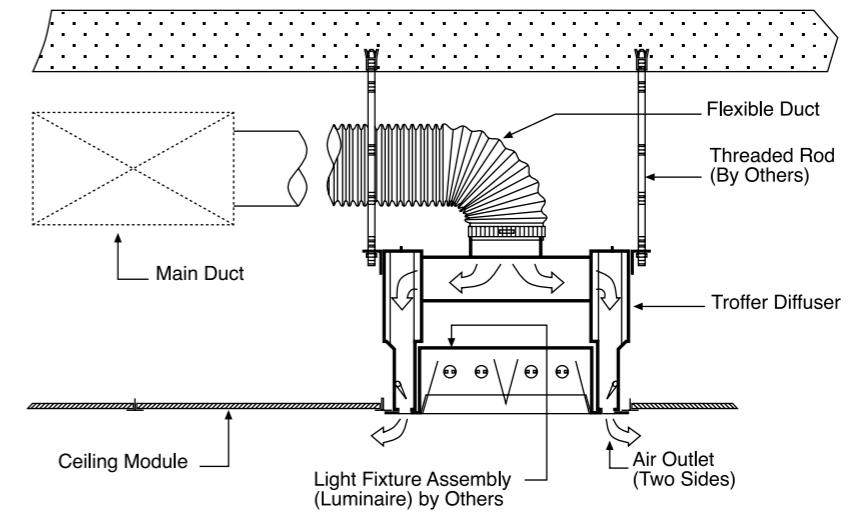
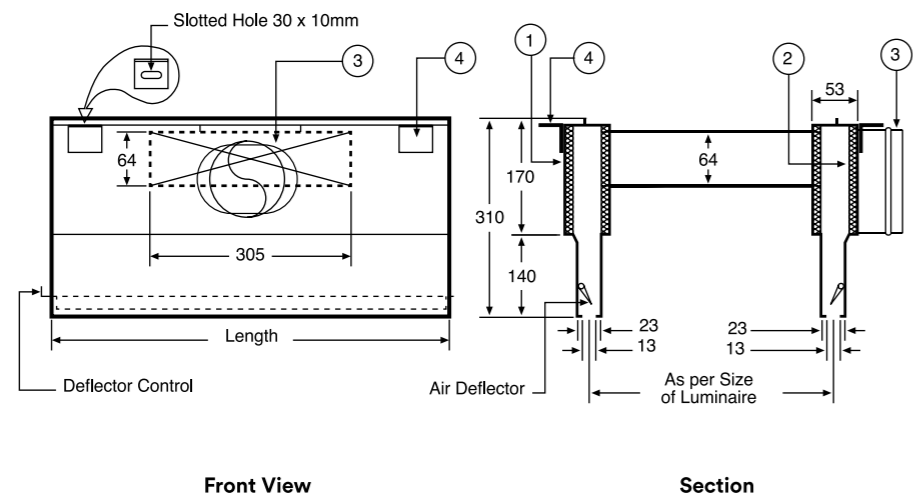
DST - 100

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



DST - 110

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

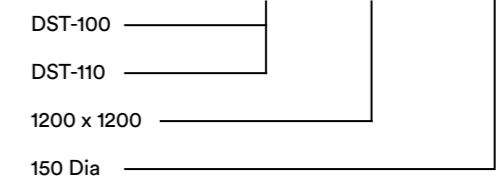


Sizes of Troffer Diffuser

Item No.	Luminaire Size L x W (mm)	Troffer Size (variable) L x W (mm)	Spigot Inlet dia (mm)
1	600 x 600	600 x 600	150
2	600 x 300	600 x 300	150
3	900 x 900	900 x 900	150
4	900 x 600	900 x 600	150
5	900 x 300	900 x 300	150
6	1200 x 1200	1200 x 1200	150
7	1200 x 600	1200 x 600	150
8	1200 x 300	1200 x 300	150

Order Example

Product Code: DST-100 - L x W / Spigot



Make : SAFID
Type : DST-100-1200 X 1200 / 150 Dia
Qty. : 1

NOTE

Troffer Diffuser size varies as per Luminaire actual size.



SST - 100

SST SERIES

Description

SAFID troffer diffusers SST Series are designed to provide single side 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:

12.5 mm 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 with damper.
2. Troffer diffuser without insulation can be used for return or exhaust system. Type: SST - 100X, SST - 110X.

SST - 110

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

SST SERIES [SST 100, SST 110]

Use for Luminaire (Light Fixture) with Length = 600mm

Vertical Discharge	Air Flow (L/S)	7	10	12	15	17	19	21	23
	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 Length = 900mm

Vertical Discharge	Air Flow (L/S)	12	17	18	23	27	30	34	37
	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 Length = 1200mm

Vertical Discharge	Air Flow (L/S)	16	23	26	33	38	43	47	52
	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 inlet size 150mm (6") although the effect on inlet size is negligible in the range of inlets offered
- Throws vertical and horizontal distances in meters to reach terminal velocities of 0.5 m/s and 0.25 m/s.

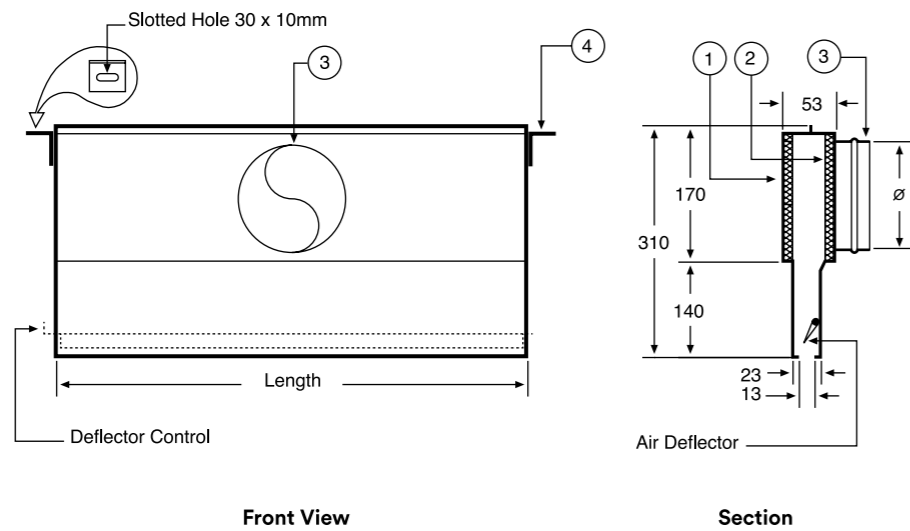
SST SERIES [SST 100, SST 110]

Legend:

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

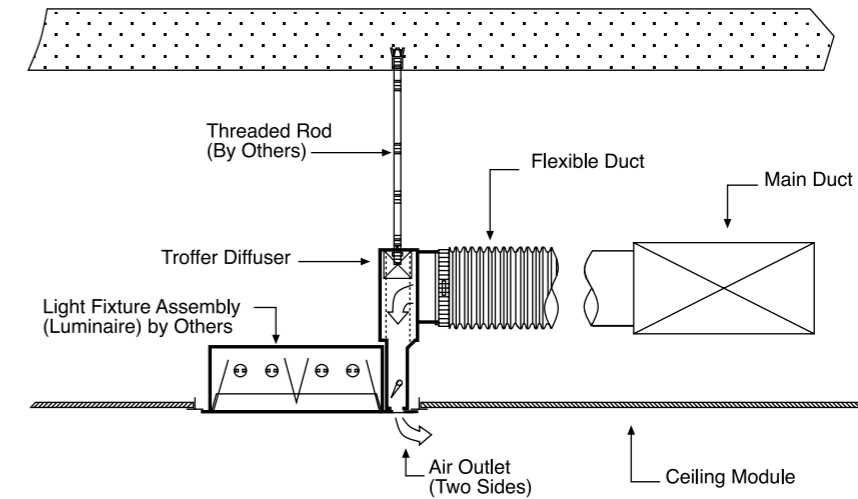
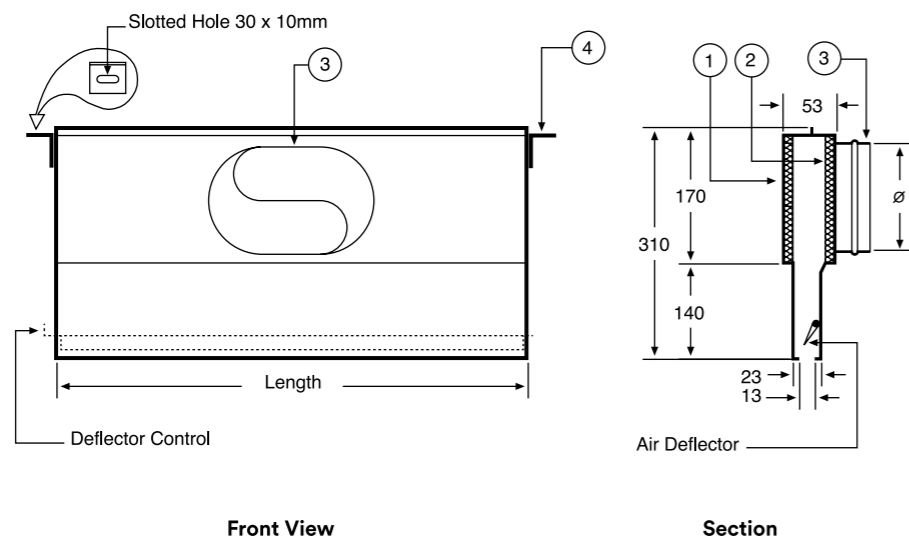
SST - 100

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



SST - 110

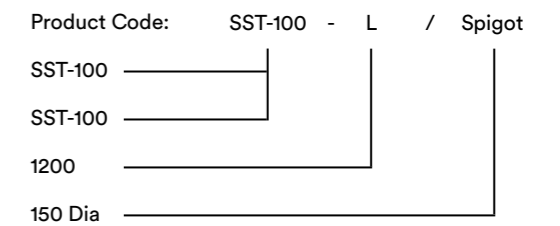
Flat Oval spigot side inlet without damper and with 12.5mm thick acoustic lining, density 48kg/m³ with BGT facing.



Sizes of Troffer Diffuser

Item No.	Luminaire Size L x W (mm)	Troffer Size (variable) L x W (mm)	Spigot Inlet dia (mm)
1	600 x 600	600	150
2	600 x 300	600	150
3	900 x 900	900	150
4	900 x 600	900	150
5	900 x 300	900	150
6	1200 x 1200	1200	150
7	1200 x 600	1200	150
8	1200 x 300	1200	150

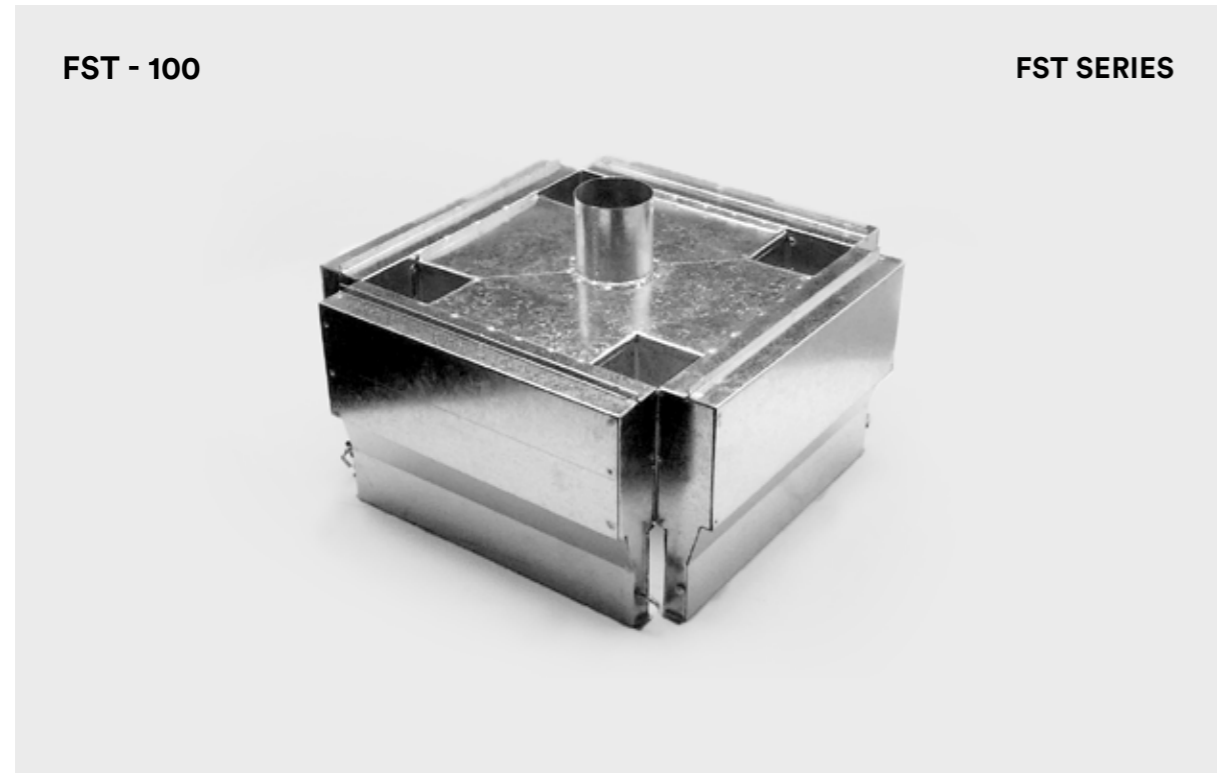
Order Example



Make : SAFID
 Type : SST-100-1200L / 150 Dia
 Qty. : 1

NOTE

Troffer Diffuser size varies as per Luminaire actual size.



FST - 100

FST SERIES

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.

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 Discharge	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

	Air Flow (L/S)	46	66	74	94	108	122	134	150
Vertical Discharge	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

	Air Flow (L/S)	66	94	104	132	152	170	188	208
Vertical Discharge	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.

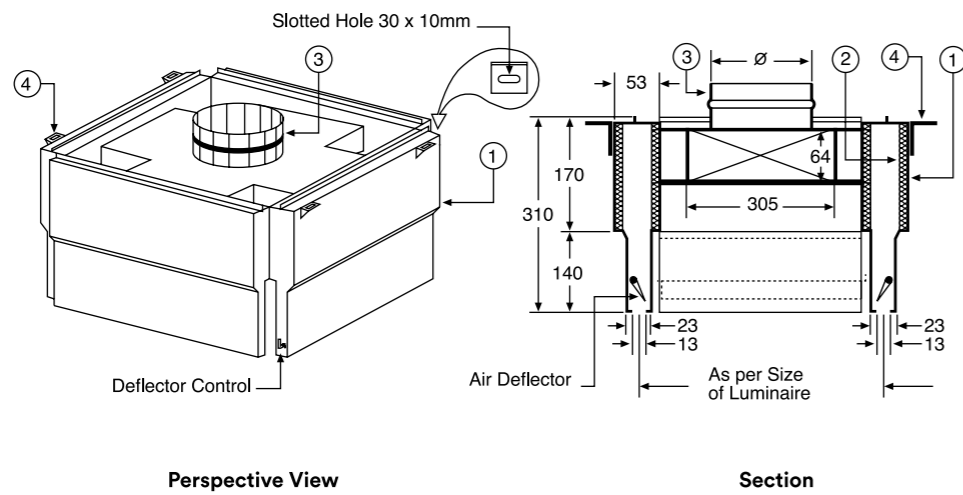
FST SERIES [FST 100, FST 110]

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.

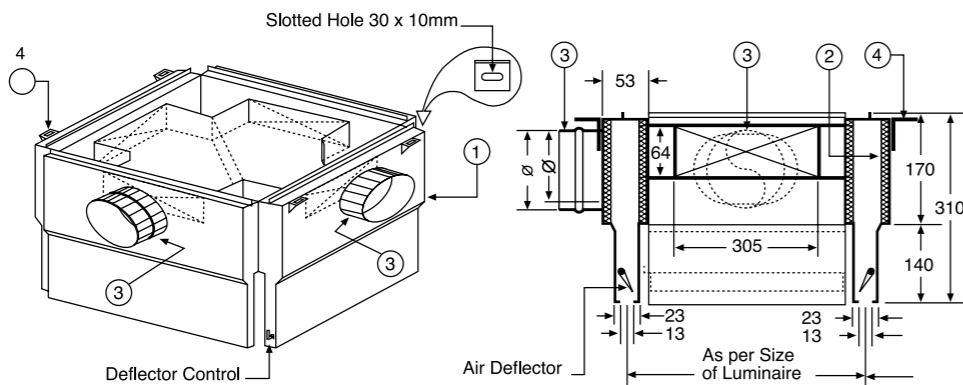


Perspective View

Section

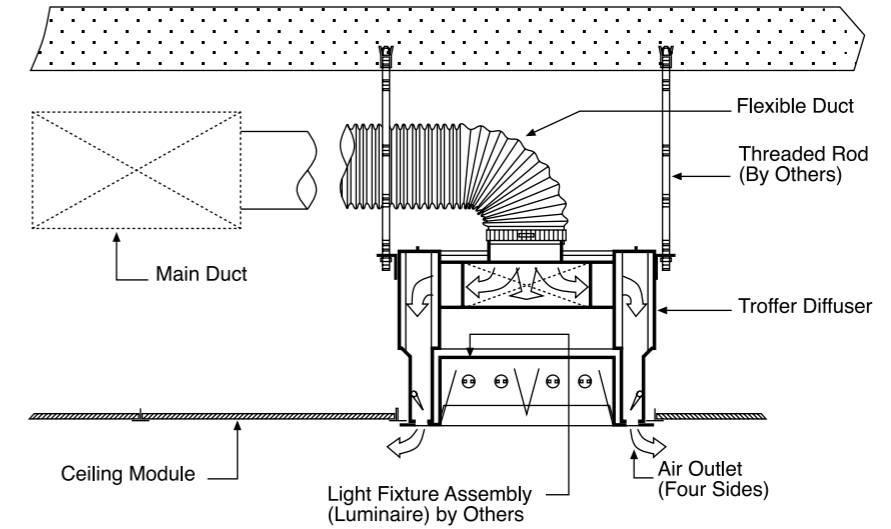
FST - 110

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 : SAFID
 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.