



# LIGHT AIR BOOTS

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<b>LTQ</b>	Light Air Boot - With Steel Pattern Controls	72 - 76C
<b>LTQI</b>	Light Air Boot - With Steel Pattern Controls - Insulated	72 - 76C
<b>LTR</b>	Light Air Boots - Return Air	72 & 76C
<b>VCD</b>	Volume Control Damper	75 & 76C
Ordering Codes and Specification		76C

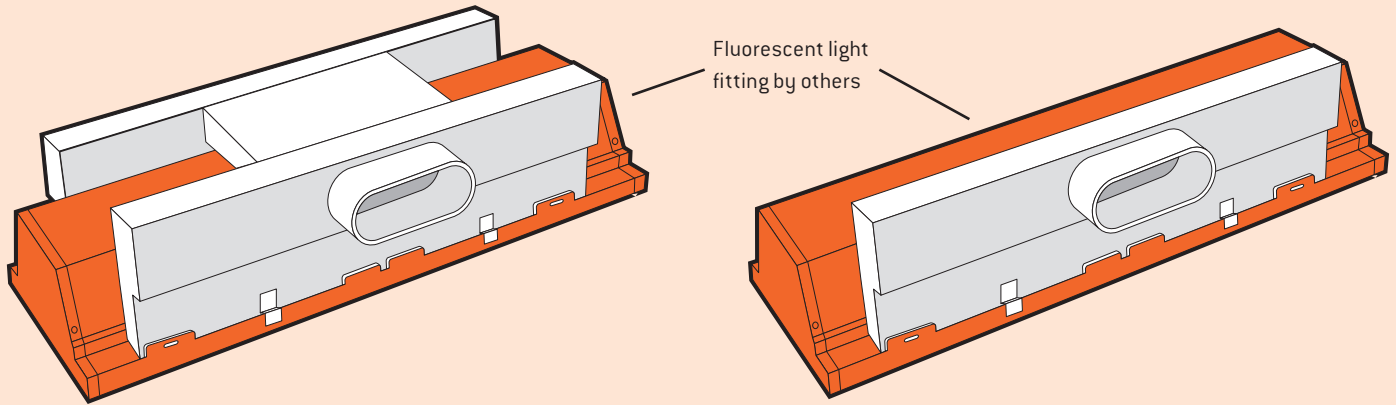
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- Compatible with most fluorescent troffer units  
\* [See Notes on page 72C]
  - Horizontal and vertical air pattern control adjustable from discharge slot
  - Single and saddle
  - Insulated or uninsulated plenums
  - Inlet air damper optional
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## Saddle Type, Insulated Saddle Type

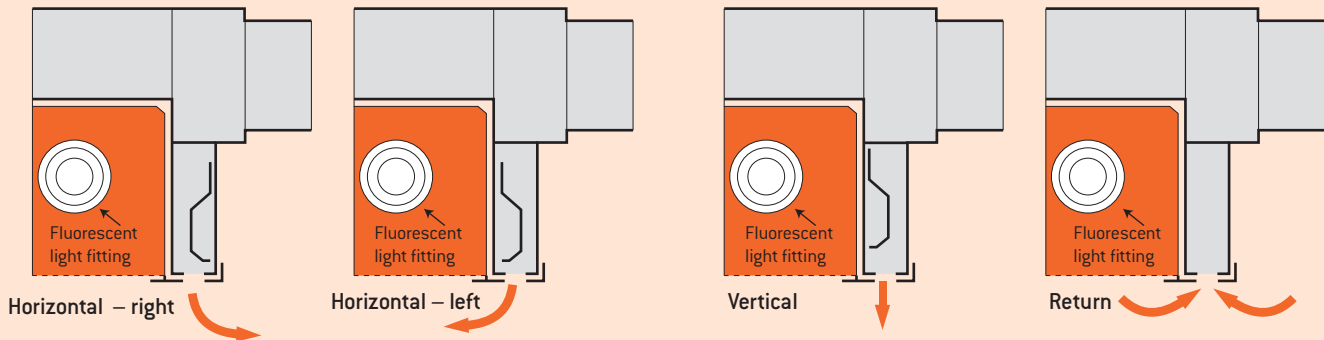
## Single Side Type, Insulated Single Side Type

For use with purpose made fluorescent light fittings, with a surface slot fixture.



Model: **LTQ Air Pattern Options**

## Surface Slot



Model **LTQ** is specially designed with quiet operation as a priority consideration. It incorporates steel pattern controls which may be supplied with a left or right orientation to define the throw direction.

**Pattern control detail above is indicative only – Please check with your local Holyoake branch for specific arrangements.**

### Notes

1. Acoustic and airflow performance data listed in this manual is for light air boots operating alone (without slotted light trim). Careful attention to the design of the light fitting can produce the same results when operating as a combination.
2. It is strongly recommended that the chosen light fitting supplier be referred to our engineering office, prior to finalising design of the fitting, so that assistance may be rendered and performance tests conducted at our facility, if necessary.
3. A sample of the light fitting will be required at the Holyoake factory to confirm correct fitting with the Holyoake Light Air Boot.
4. Model **LTQ** saddle type is also available with a full length bridge if required.
5. For special requirements contact your local Holyoake branch.

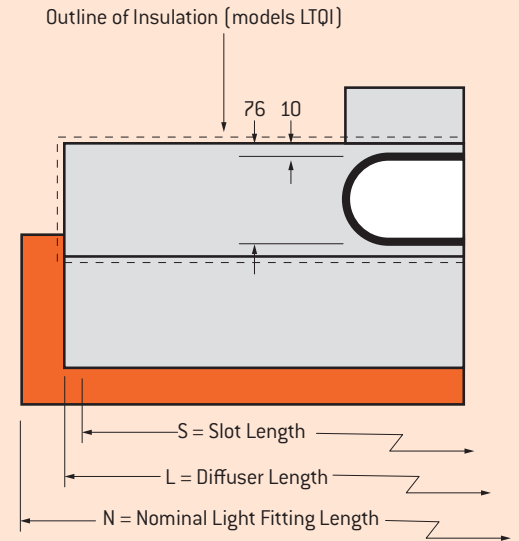
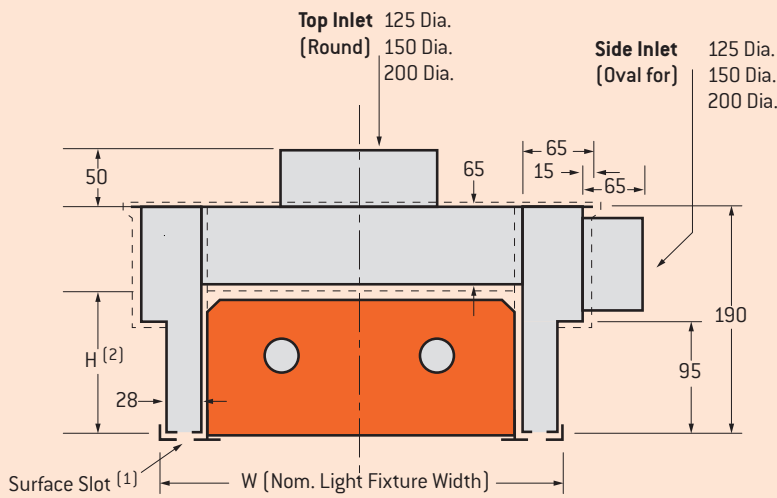


Due to a policy of continuous development and improvement the right is reserved to supply products which may differ slightly from those illustrated and described in this publication.

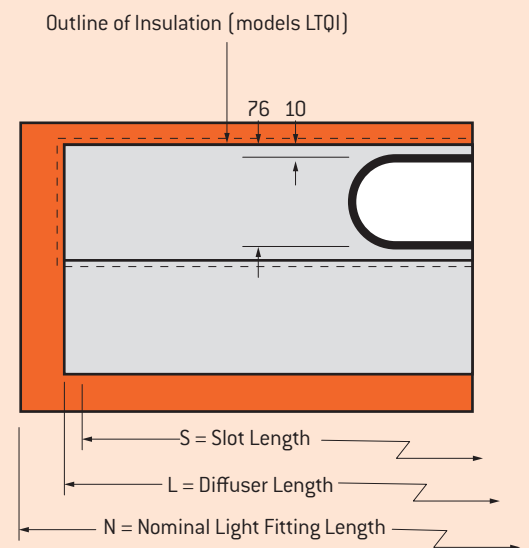
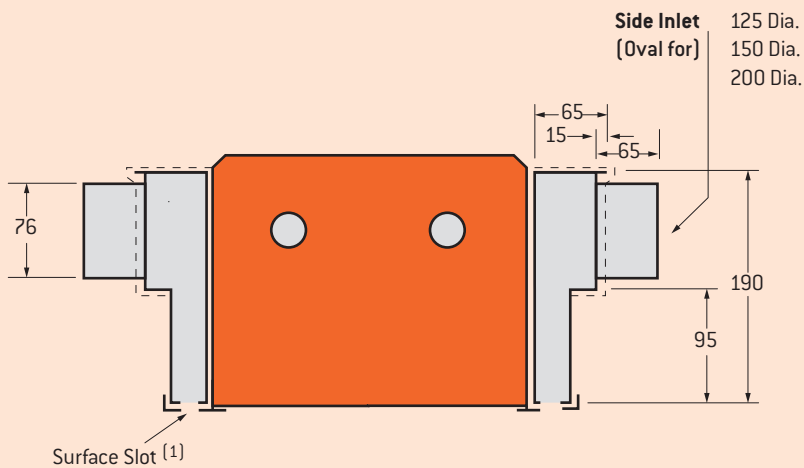
Models: **LTQ (Uninsulated)** and **LTQI (Insulated)**

**Saddle Troffer Diffusers**

For use with a surface slot light fixture



**Single Troffer Diffusers**



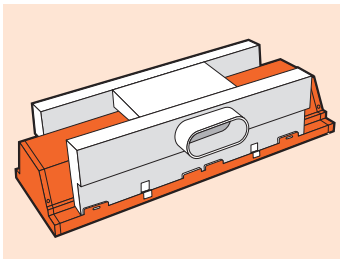
**Notes**

- Standard slot width 13.9mm.
- H (Height of light box) max: 125 for saddle units (single unlimited).

N	L	S
600	545	525
1200	1145	1125

Guide Product Weights	
Model	Approximate Weight in Kg
LTQ Saddle 1200mm	8.75
LTQ Saddle 600mm	4.4
LTQ Single 1200mm	3.66
LTQ Single 600mm	1.9
LTR Return Air 1200mm	3.1
LTR Return Air 600mm	1.6

Models: **LTQ** and **LTQI Saddle Type**



## For 1200mm Light Fixture

Capacity l/s			60	70	80	90	100	120	140
Projection, m		H	0.5-2.0	0.7-2.2	0.9-2.4	1.1-2.5	1.2-2.6	1.5-2.7	1.6-3.1
		V	1.4	1.6	1.8	1.9	2.0	2.3	2.5
125mm Dia Inlet	Pa. Total Pressure	H	35	50	62	76	92	133	180
		V	33	43	58	71	87	122	165
	NC	H	23	29	34	36	39	44	49
		V	20	24	29	32	35	40	45
150mm Dia Inlet	Pa. Total Pressure	H	27	36	47	58	73	100	135
		V	23	30	41	49	60	84	113
	NC	H	20	23	27	31	34	39	44
		V	-	21	25	28	31	36	41
200mm Dia Inlet	Pa. Total Pressure	H	21	27	35	43	54	72	95
		V	16	20	29	33	41	56	75
	NC	H	-	21	25	30	34	38	43
		V	-	20	24	28	31	35	40

## For 600mm Light Fixture

Capacity l/s			30	40	45	50	60	70	80
Projection, m		H	1.2-2.7	1.8-3.0	2.0-3.3	2.3-3.7	2.4-4.3	2.5-4.7	2.7-4.9
		V	1.7	1.8	2.0	2.1	2.2	2.4	2.7
125mm Dia Inlet	Pa. Total Pressure	H	19	32	40	49	71	95	135
		V	16	28	36	45	66	88	126
	NC	H	-	22	27	31	35	40	44
		V	-	21	25	28	32	37	40
150mm Dia Inlet	Pa. Total Pressure	H	17	28	35	42	61	82	118
		V	14	24	31	38	56	75	109
	NC	H	-	-	23	25	30	35	39
		V	-	-	21	24	28	34	36
200mm Dia Inlet	Pa. Total Pressure	H	15	24	31	37	54	72	106
		V	12	20	27	33	49	65	97
	NC	H	-	-	22	24	30	34	37
		V	-	-	20	24	28	33	35

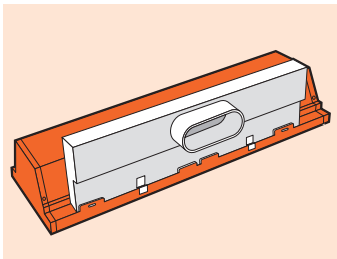
## Performance Notes Pages 74C - 76C

1. Total Pressure = static pressure in plenum + inlet velocity pressure.
2. NC is based on a room absorption of 10dB re 10<sup>-12</sup> watts. Values below 20 NC are not listed.
3. Where lengths other than those listed are required, consult your local Holyoake branch.
4. Inlets are diameters listed, oval equivalent i.e. with the same circumference. Pressures shown allow for the slightly smaller oval equivalent area.
5. Projections H and V are the horizontal and vertical distances of terminal velocities of 0.75 and 0.25m/s (horizontal) and 0.25m/s (vertical).
6. Ratings are for a differential of 11°K between supply and room air temperatures.



Models: **LTQ** and **LTQI Single Type**.

For 1200mm Light Fixture									
Capacity l/s			30	40	50	60	70	80	90
Projection, m		H	0.5-2.0	0.9-2.4	1.2-2.6	1.5-2.7	1.6-3.1	1.8-3.4	2.0-3.6
		V	1.4	1.8	2.0	2.3	2.5	2.6	2.7
125mm Dia Inlet	Pa. Total Pressure	H	17	26	39	53	67	86	105
		V	15	24	34	49	63	82	100
	NC	H	-	-	23	28	32	36	40
		V	-	-	22	27	32	36	39
150mm Dia Inlet	Pa. Total Pressure	H	15	22	32	43	54	69	83
		V	14	20	29	40	50	64	77
	NC	H	-	-	21	26	30	34	39
		V	-	-	20	25	29	33	38
200mm Dia Inlet	Pa. Total Pressure	H	13	19	27	35	44	57	67
		V	12	17	25	32	40	53	62
	NC	H	-	-	21	25	29	33	38
		V	-	-	20	24	28	32	37



For 600mm Light Fixture									
Capacity l/s			20	25	30	35	40	45	50
Projection, m		H	1.8-3.0	2.3-3.7	2.4-4.3	2.5-4.7	2.7-4.9	2.9-5.4	3.2-5.7
		V	1.8	2.1	2.2	2.4	2.7	2.8	2.9
125mm Dia Inlet	Pa. Total Pressure	H	19	27	35	44	56	67	80
		V	17	24	32	40	52	62	75
	NC	H	-	20	25	29	33	37	40
		V	-	-	24	27	31	35	38
150mm Dia Inlet	Pa. Total Pressure	H	18	25	33	41	52	62	73
		V	17	22	29	37	48	57	68
	NC	H	-	-	24	28	32	36	39
		V	-	-	23	26	30	33	37
200mm Dia Inlet	Pa. Total Pressure	H	17	24	31	39	49	58	68
		V	16	22	28	36	45	54	63
	NC	H	-	-	23	26	30	35	38
		V	-	-	22	25	28	32	36

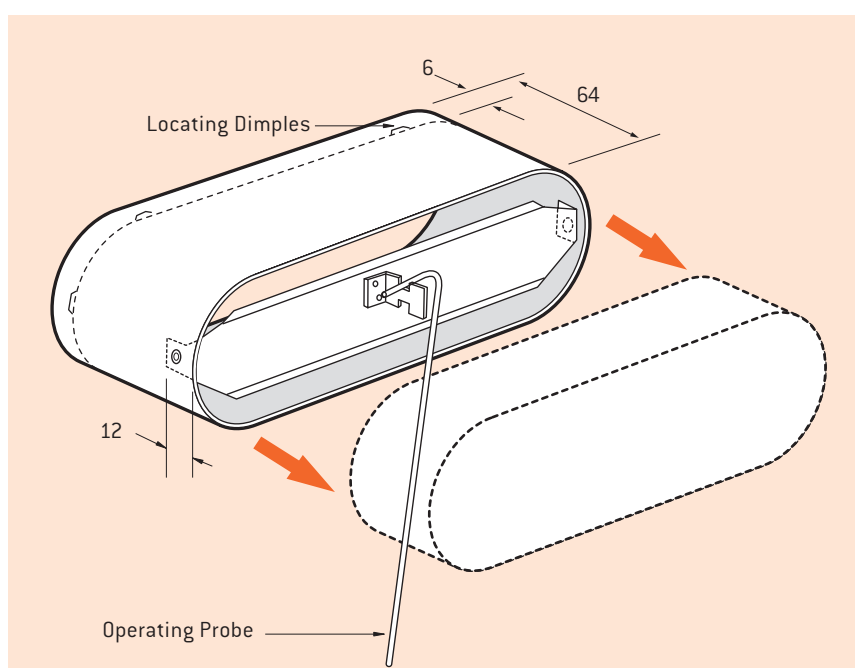
Light Air Boots

**Volume Control Damper (Optional)  
Model VCD**

The volume control damper (VCD) available for all oval side entry inlet models slides into the inlet. It may be furnished factory fitted, or separately for field installation. It is adjustable from below the diffuser slot, using a strong wire probe bent at 90°, 25mm from one end. The inclusion of a damper, fully open, alters troffer performance by approximately the following factors:

Total Pressure	x 1.06
NC	x 1.1

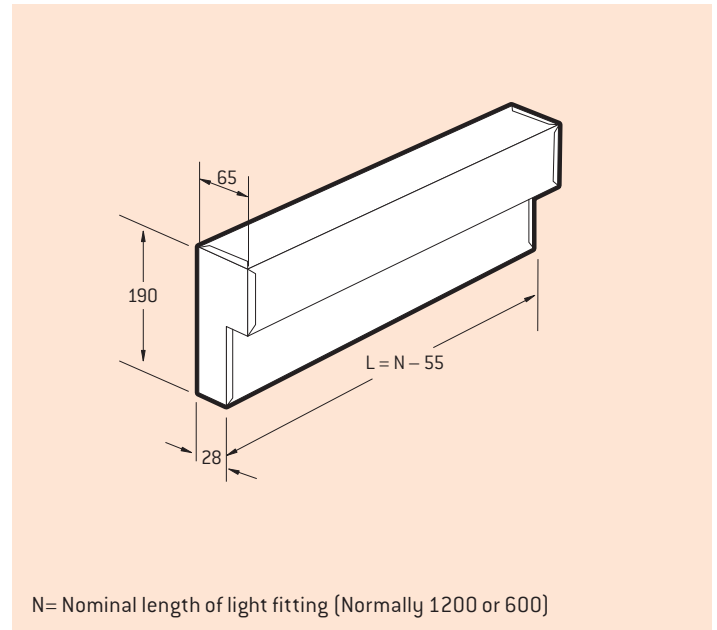
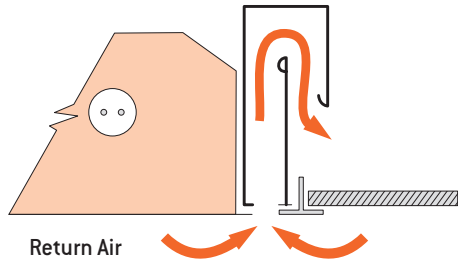
See Table 9 on Page 12A, for the effect of dampering on noise levels.



# LT – Light Troffer Return

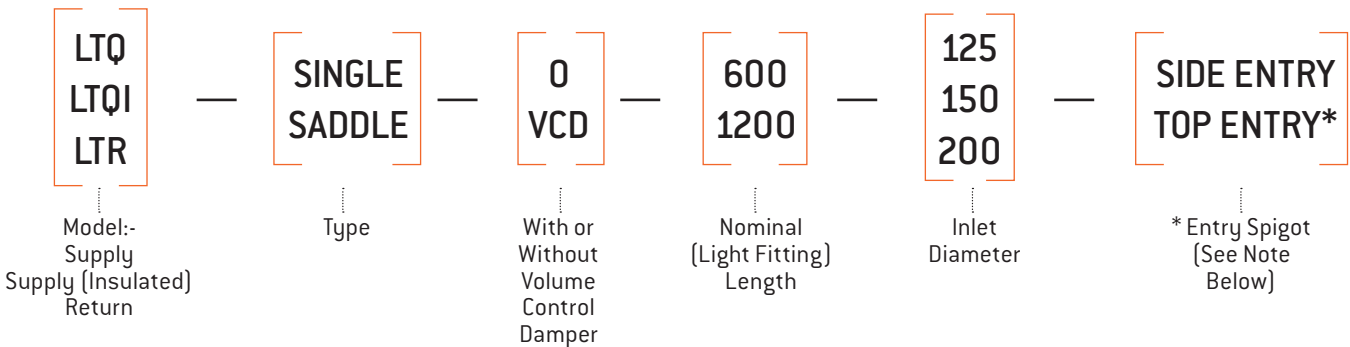
## Model: LTR (Return Air)

Model LTR is a return air attachment to slotted light trim, providing a clear but light baffled path for air relieved from the conditioned space to the ceiling void.

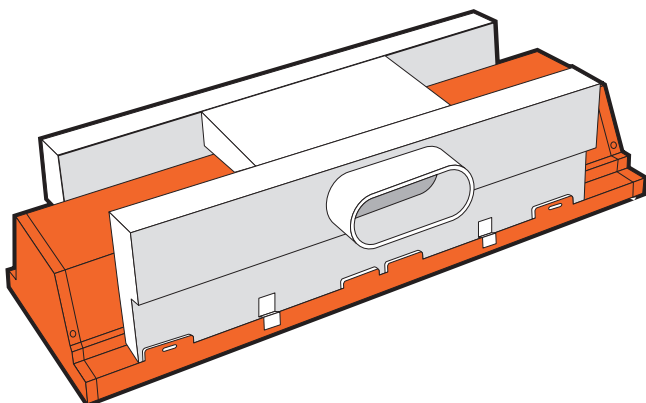


MODEL LTR PERFORMANCE										
LENGTH	Capacity l/s	30	35	40	45	50	55	60	65	70
600 mm	Neg.Ps.Pa	5	15	19	23	32	43	51	58	68
	NC	23	28	31	35	38	41	44	47	49
1200 mm	Neg.Ps.Pa	2	6	8	9	13	17	20	23	27
	NC	-	-	25	28	32	35	37	40	42

## Diffuser Description Code Examples and Suggested Specification



\*Top entry is an option only available for saddle fittings, in which case round inlets are furnished. In all other cases, inlets are oval to suit the nominated duct size.



### Suggested Specification

Holyoake LT light troffer diffusers and return air slots shall be compatible with the chosen fluorescent light fitting, and shall be of steel construction, minimum thickness 0.55 mm.

Supply units shall be either single or saddle as shown on the drawings and shall be complete with integral directional control vanes and inlet dampers. Return air units should obscure the line of sight into the ceiling void, from below.

All shall be as manufactured by Holyoake.