

**STANDARD CONSTRUCTION**
**FRAME:**

6063T5 HEAVY DUTY EXTRUDED ALUMINUM .  
 NOMINAL WALL THICKNESS OF 0.092"  
 UNIVERSAL 1-1/2" FLANGE.

**BLADES:**

STEEL PATTERN CONTROLLERS.

**STANDARD NECK SIZES:**

WIDTH: 1-1/2" MIN TO 14-3/8" MAX  
 LENGTH: 12" MIN TO 72" MAX (ONE PIECE)  
 LARGER LENGTHS AVAILABLE WHEN COMBINING  
 MULTIPLE PIECES WITH OPEN END CONFIGURATION.

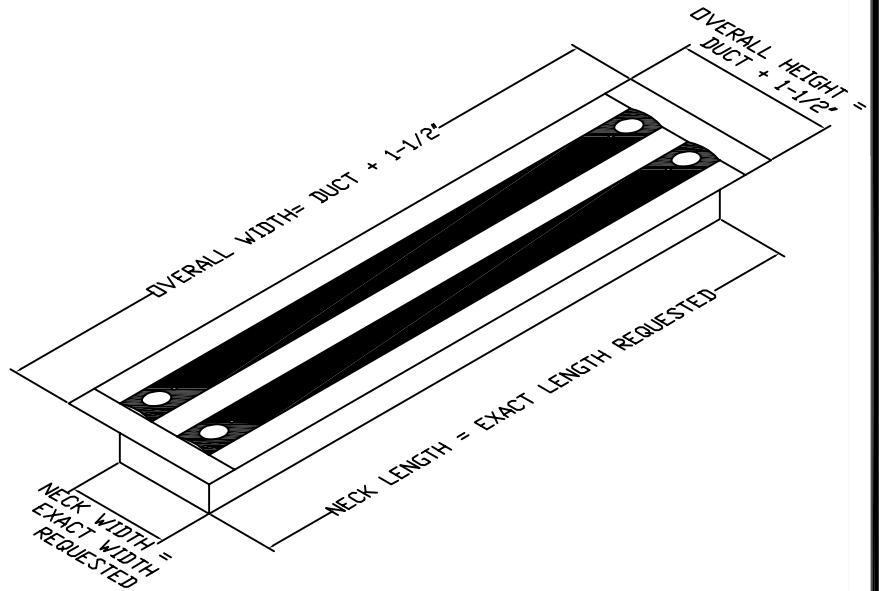
**FINISH:**

PATTERN CONTROLLER:  
 BLACK POWDER COATING (STANDARD)  
 WHITE (OPTIONAL)  
 DIFFUSER FACE: WHITE

AXALTA 100% POLYESTER POWDER COATING GIVES  
 AN ATTRACTIVE BRIGHT WHITE FINISH AND  
 PROVIDES ADDITIONAL PROTECTION FROM AGING  
 AND WEAR.

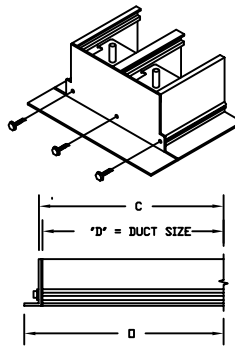
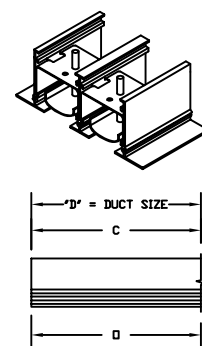
**OPTIONS:**

MODELS LPB, LPBR4 AND LPBR6 PLENUMS ARE  
 AVAILABLE IN: 24", 36", 48", AND 60"  
 NOMINAL LENGTHS UP TO 4 SLOTS .


**DUCT LENGTH DIMENSIONS ("DL")**

END CONFIGURATIONS						
FRAME TYPE	OPEN/OPEN		FLANGED/FLANGED		OPEN/FLANGED	
	C	O	C	O	C	O
C	D	D	D - 1/2"	D + 1/2"	D - 1/4"	D + 3/4"

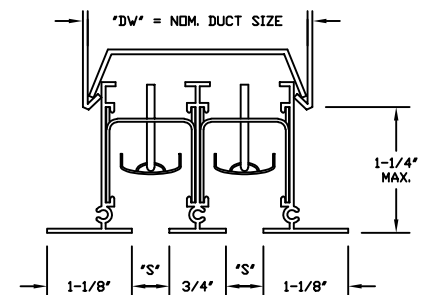
D = Duct Size  
 C = End Cap Position  
 O = Overall Length

**FLANGED END**

**OPEN END**


JOB NAME:
LOCATION:
ARCHITECT:
ENGINEER:
CONTRACTOR:
CONTACT GRILLE TECH INC. FOR ADDITIONAL INFORMATION OR WITH SPECIAL REQUIREMENTS.  5101 NW 36TH AVE MIAMI, FL 33142 PHONE: 305-537-0053 FAX: 305-537-0064  WEB: WWW.GRILLETECHINC.COM EMAIL: SALES@GRILLETECHINC.COM

**DUCT WIDTH DIMENSION ("DW")**

NO. OF SLOTS	LS50/LR50 "S" = 1/2"	LS75/LR75 "S" = 3/4"	LS10/LR10 "S" = 1"
1	1-5/8"	1-7/8"	2-1/8"
2	2-7/8"	3-3/8"	3-7/8"
3	4-1/8"	4-7/8"	5-5/8"
4	5-3/8"	6-3/8"	7-3/8"
5	6-5/8"	7-7/8"	9-1/8"
6	7-7/8"	9-3/8"	10-7/8"
7	9-1/8"	10-7/8"	12-5/8"
8	10-3/8"	12-3/8"	14-3/8"

**END VIEW**

**MODEL LS/LR**

LINEAR SLOT DIFFUSER  
 FRAME TYPE C

DRAWN BY: MR	DATE: 5/19/17	SCALE: NOT TO SCALE	DRAWING NO. LS/LR-C
CHECKED BY: IG	DATE: 5/31/17	REVISION: 5/19/17	

**LS Linear Slot, Return Air Performance (pg. 1 of 2)**
**1/2" Slots (For Plenum Application)**

<b>SLOTS</b>	<b>Ps</b>	<b>.011</b>	<b>.024</b>	<b>.045</b>	<b>.070</b>	<b>.108</b>	<b>.184</b>	<b>.279</b>	<b>.421</b>
<b>1</b>	CFM/Ft	10	15	20	25	30	40	50	60
	NC	<20	<20	<20	20	26	34	39	45
<b>2</b>	CFM/Ft	20	30	40	50	60	80	100	120
	NC	<20	<20	<20	23	28	37	42	48
<b>3</b>	CFM/Ft	30	45	60	75	90	120	150	180
	NC	<20	<20	<20	25	31	39	44	50
<b>4</b>	CFM/Ft	40	60	80	100	120	160	200	240
	NC	<20	<20	20	26	30	38	45	51
<b>5</b>	CFM/Ft	50	75	100	125	150	200	250	300
	NC	<20	<20	21	27	32	40	46	53
<b>6</b>	CFM/Ft	60	90	120	150	180	240	300	360
	NC	<20	<20	22	29	33	41	46	53
<b>7</b>	CFM/Ft	70	105	140	175	210	280	350	420
	NC	<20	<20	23	29	34	42	47	53
<b>8</b>	CFM/Ft	80	120	160	200	240	320	400	480
	NC	<20	<20	23	30	34	43	48	54

**3/4" Slots (For Plenum Application)**

<b>SLOTS</b>	<b>Ps</b>	<b>.016</b>	<b>.028</b>	<b>.065</b>	<b>.110</b>	<b>.170</b>	<b>.250</b>	<b>.350</b>	<b>.465</b>
<b>1</b>	CFM/Ft	10	20	30	40	50	60	70	80
	NC	<20	<20	<20	25	30	38	42	46
<b>2</b>	CFM/Ft	20	40	60	80	100	120	140	160
	NC	<20	<20	21	29	35	40	46	49
<b>3</b>	CFM/Ft	30	60	90	120	150	180	210	240
	NC	<20	<20	23	31	38	42	47	51
<b>4</b>	CFM/Ft	40	80	120	160	200	240	280	320
	NC	<20	<20	24	33	38	44	47	52
<b>5</b>	CFM/Ft	50	100	150	200	250	300	350	400
	NC	<20	<20	25	33	40	44	48	53
<b>6</b>	CFM/Ft	60	120	180	240	300	360	420	480
	NC	<20	<20	26	34	40	45	49	54
<b>7</b>	CFM/Ft	70	140	210	280	350	420	490	560
	NC	<20	<20	27	35	40	46	49	54
<b>8</b>	CFM/Ft	80	160	240	320	400	480	560	640
	NC	<20	<20	28	36	41	46	49	56

(Continued on next page)



## LS Linear Slot, Return Air Performance (pg. 2 of 2)

### 1" Slots (For Plenum Application)

SLOTS	Ps	.020	.045	.070	.110	.165	.215	.291	.471
1	CFM/Ft	20	30	40	50	60	70	80	100
	NC	<20	<20	<20	25	30	34	38	45
2	CFM/Ft	40	60	80	100	120	140	160	200
	NC	<20	<20	22	28	33	36	40	48
3	CFM/Ft	60	90	120	150	180	210	240	300
	NC	<20	<20	24	30	35	38	43	50
4	CFM/Ft	80	120	160	200	240	280	320	400
	NC	<20	<20	25	31	35	40	45	51
5	CFM/Ft	100	150	200	250	300	350	400	500
	NC	<20	<20	25	32	37	41	45	51
6	CFM/Ft	120	180	240	300	360	420	480	600
	NC	<20	<20	27	33	38	42	47	53
7	CFM/Ft	140	210	280	350	420	490	560	700
	NC	<20	20	28	34	40	42	48	53
8	CFM/Ft	160	240	320	400	480	560	640	800
	NC	<20	20	28	34	40	43	48	54

**Notes:**

1. NC values based on 10db room absorption.
2. All pressures in inches of water.

### NC Correction

Length(ft)	1	2	4	8	9	10	20	25	30
Correction	-10	-7	-4	-2	-1	0	+3	+4	+5



## LS-50, 1/2" Slot Supply

1 SLOT	CFM/FT	10	15	20	25	30	40	50	60	70	80
	Pt	.014	.034	.056	.081	.122	.206	.310	.423	.557	.625
	NC	<20	<20	<20	<20	23	31	38	42	44	47
	Horizontal	1-3-5	4-6-11	5-10-16	9-12-21	12-16-26	17-22-30	18-25-34	20-27-37	23-30-41	26-34-45
	Vertical	4	9	14	19	23	26	30	32	35	39
2 SLOT	CFM/FT	20	25	30	40	50	60	70	80	90	100
	Pt	.013	.023	.038	.061	.084	.119	.150	.208	.257	.311
	NC	<20	<20	<20	<20	21	27	31	37	39	42
	Horizontal	2-4-9	4-8-14	5-9-17	9-14-22	10-17-27	15-21-32	17-24-34	20-27-37	21-29-40	24-29-43
	Vertical	7	12	15	19	23	27	30	33	35	38
3 SLOT	CFM/FT	30	40	50	60	70	80	90	100	120	140
	Pt	.014	.026	.036	.059	.070	.083	.118	.143	.202	.262
	NC	<20	<20	<20	<20	22	25	29	31	37	43
	Horizontal	3-7-13	7-10-20	9-14-24	10-17-28	13-19-30	15-20-32	17-23-34	19-25-38	21-29-41	25-31-43
	Vertical	11	18	22	25	27	29	31	34	37	39
4 SLOT	CFM/FT	50	60	70	80	90	100	120	140	160	180
	Pt	.025	.032	.039	.051	.067	.078	.110	.149	.191	.239
	NC	<20	<20	<20	<20	21	24	28	34	37	41
	Horizontal	7-11-22	8-13-24	9-16-28	12-18-32	13-20-33	15-23-35	17-25-38	22-28-41	23-31-43	25-33-45
	Vertical	20	22	25	29	30	32	35	37	39	41
5 SLOT	CFM/FT	70	80	90	100	120	140	160	180	200	220
	Pt	.033	.040	.054	.061	.079	.104	.140	.172	.203	.244
	NC	<20	<20	20	24	28	31	35	38	42	45
	Horizontal	7-11-25	9-14-27	11-18-32	13-21-35	15-23-37	18-26-41	21-27-42	23-31-45	24-33-47	26-35-49
	Vertical	23	24	29	32	34	37	38	41	43	44
6 SLOT	CFM/FT	100	120	140	160	180	200	220	240	260	280
	Pt	.047	.059	.080	.096	.120	.141	.174	.200	.235	.268
	NC	<20	<20	23	28	31	33	37	39	42	44
	Horizontal	12-19-34	13-21-36	16-24-38	19-27-40	20-28-41	21-30-45	23-33-46	25-35-49	26-36-50	27-37-51
	Vertical	31	33	35	36	37	41	42	44	45	46
7 SLOT	CFM/FT	140	160	180	200	220	240	260	280	300	325
	Pt	.068	.080	.096	.111	.132	.158	.180	.199	.224	.271
	NC	21	24	27	31	34	36	39	41	43	46
	Horizontal	15-23-38	17-25-40	18-27-42	20-28-44	22-30-45	23-31-46	25-34-48	27-36-50	28-37-51	29-38-52
	Vertical	34	36	38	40	41	42	43	45	46	47
8 SLOT	CFM/FT	180	200	220	240	260	280	300	325	350	375
	Pt	.074	.087	.106	.122	.145	.168	.189	.216	.240	.277
	NC	23	25	28	32	34	36	40	42	44	46
	Horizontal	16-26-41	19-27-43	20-30-45	22-30-46	23-32-47	25-33-48	26-35-49	27-37-51	29-38-52	31-39-54
	Vertical	37	39	40	41	42	43	45	46	47	49

### Notes:

1. Throw based on an active 6' section. Throw based on all slots discharging in the same direction. For divided throw, use the CFM per foot value for the number of slots in each direction.
2. Pt is based on pattern control set at minimum resistance. All pressures are in inches of water.
3. Horizontal throw is for velocities of 50, 100, and 150 FPM.
4. Vertical throw values are given for a terminal velocity of 50 FPM.
5. NC based on 10db room absorption with a 4' active section and horizontal throw. For vertical throw deduct 7db from each NC value. For lengths greater than 4' add the following correction to rating:

Length (feet)	2	4	6	8	10	12
db Correction	-3	0	+2	+4	+5	+7



## LS-75, 3/4" Slot Supply

1 SLOT	CFM/FT	10	15	20	25	30	40	50	60	70	80
	Pt	0.011	0.028	0.038	0.056	0.080	0.162	0.207	0.359	0.475	0.580
	NC	<20	<20	<20	<20	21	26	33	38	41	45
	Horizontal	1-2-5	3-6-11	6-9-16	9-12-20	12-15-22	16-20-27	19-24-33	21-26-35	22-31-40	28-35-42
	Vertical	4-	9	13	18	20	24	30	32	35	37
2 SLOT	CFM/FT	20	25	30	40	50	60	70	80	90	100
	Pt	0.010	0.018	0.027	0.040	0.059	0.095	0.134	0.182	0.204	0.233
	NC	<20	<20	<20	<20	<20	22	26	32	37	41
	Horizontal	2-4-8	4-7-14	6-8-15	9-11-22	10-16-26	15-21-32	16-22-33	18-26-35	20-27-36	22-28-39
	Vertical	7	12	13	19	23	27	30	31	32	34
3 SLOT	CFM/FT	30	40	50	60	70	80	90	100	120	140
	Pt	0.013	0.017	0.026	0.039	0.055	0.074	0.093	0.128	0.161	0.190
	NC	<20	<20	<20	<20	<20	<20	22	25	32	37
	Horizontal	3-6-12	6-8-18	8-13-22	11-16-26	13-18-30	14-20-31	17-22-34	19-25-35	22-29-40	23-30-41
	Vertical	10	16	20	23	26	27	30	31	35	36
4 SLOT	CFM/FT	60	70	80	90	100	120	140	160	180	200
	Pt	0.025	0.031	0.043	0.052	0.062	0.080	0.111	0.154	0.179	0.226
	NC	<20	<20	<20	<20	20	24	28	33	36	41
	Horizontal	7-12-22	9-15-27	10-16-30	13-20-31	14-21-34	17-23-35	21-27-37	23-29-40	24-31-43	26-33-46
	Vertical	20	24	26	27	30	31	34	35	38	42
5 SLOT	CFM/FT	80	90	100	120	140	160	180	200	220	240
	Pt	0.024	0.029	0.036	0.057	0.068	0.091	0.108	0.130	0.159	0.192
	NC	<20	<20	<20	20	23	26	30	34	37	41
	Horizontal	10-15-27	10-17-30	12-20-31	15-23-35	16-25-39	18-27-40	22-28-42	23-33-45	24-34-46	25-35-47
	Vertical	24	26	27	31	34	35	37	40	42	43
6 SLOT	CFM/FT	120	140	160	180	200	220	240	260	280	300
	Pt	0.042	0.050	0.064	0.079	0.093	0.112	0.127	0.158	0.184	0.207
	NC	<20	<20	23	26	30	33	36	39	42	45
	Horizontal	14-21-34	15-24-37	16-26-38	19-28-41	21-29-43	23-32-46	24-33-47	25-34-48	26-35-48	27-37-50
	Vertical	30	34	34	36	38	42	43	43	43	44
7 SLOT	CFM/FT	200	220	240	260	280	300	325	350	375	400
	Pt	0.073	0.080	0.104	0.118	0.134	0.156	0.192	0.215	0.239	0.277
	NC	24	28	32	34	35	36	39	43	45	48
	Horizontal	19-26-43	21-29-44	22-30-45	24-32-47	25-33-48	26-34-49	27-36-50	28-37-51	30-38-52	30-39-53
	Vertical	38	39	40	43	43	44	45	45	46	47
8 SLOT	CFM/FT	240	260	280	300	325	350	375	400	425	450
	Pt	0.082	0.093	0.104	0.120	0.144	0.168	0.185	0.210	0.233	0.267
	NC	27	30	32	33	36	37	40	42	44	45
	Horizontal	21-29-45	22-30-45	23-33-46	24-33-47	25-34-48	26-36-48	27-37-50	29-37-51	30-39-52	30-39-53
	Vertical	40	40	42	43	43	43	44	45	45	46

### Notes:

1. Throw based on an active 6' section. Throw based on all slots discharging in the same direction. For divided throw, use the CFM per foot value for the number of slots in each direction.
2. Pt is based on pattern control set at minimum resistance. All pressures are in inches of water.
3. Horizontal throw is for velocities of 50, 100, and 150 FPM.
4. Vertical throw values are given for a terminal velocity of 50 FPM.
5. NC based on 10db room absorption with a 4' active section and horizontal throw. For vertical throw deduct 7db from each NC value. For lengths greater than 4' add the following correction to rating:

Length (feet)	2	4	6	8	10	12
db Correction	-3	0	+2	+4	+5	+7



## LS-10, 1" Slot Supply

1 SLOT	CFM/FT	10	15	20	25	30	40	50	60	70	80
	Pt	.008	.020	.022	.031	.038	.104	.118	.295	.393	.535
	NC	<20	<20	<20	<20	<20	21	28	33	36	40
	Horizontal	1-2-3	2-4-8	4-7-11	7-10-16	9-12-19	12-17-24	15-19-27	18-22-31	19-24-34	21-26-37
	Vertical	2	6	8	11	13	17	19	22	24	26
2 SLOT	CFM/FT	25	30	40	50	60	70	80	90	100	120
	Pt	.013	.016	.019	.034	.071	.118	.151	.155	.160	.175
	NC	<20	<20	<20	<20	<20	20	24	27	31	35
	Horizontal	2-4-8	3-6-12	6-10-17	9-13-21	11-17-24	13-18-27	16-21-30	17-23-32	19-24-34	21-27-38
	Vertical	6	8	12	15	17	19	21	22	24	27
3 SLOT	CFM/FT	40	50	60	70	80	90	100	120	140	160
	Pt	.008	.016	.029	.040	.065	.068	.113	.120	.138	.145
	NC	<20	<20	<20	<20	<20	<20	21	26	31	34
	Horizontal	4-8-14	7-11-17	9-13-22	11-16-25	12-17-26	13-18-28	15-20-30	18-24-34	19-26-36	22-28-39
	Vertical	10	12	15	18	18	20	21	24	25	27
4 SLOT	CFM/FT	70	80	90	100	120	140	160	180	200	220
	Pt	.023	.035	.040	.046	.050	.073	.117	.128	.142	.175
	NC	<20	<20	<20	<20	20	23	27	31	34	36
	Horizontal	7-12-21	9-14-24	10-16-26	12-17-28	14-20-31	17-23-34	19-26-37	21-27-38	22-28-40	24-30-42
	Vertical	15	17	18	20	22	24	26	27	28	29
5 SLOT	CFM/FT	100	120	140	160	180	200	220	240	260	280
	Pt	.028	.035	.049	.055	.073	.085	.110	.189	.211	.239
	NC	<20	<20	<20	22	25	28	31	34	36	38
	Horizontal	10-16-27	12-18-30	15-21-33	16-23-35	19-25-37	20-27-39	22-29-41	23-31-43	24-32-44	25-33-45
	Vertical	19	21	23	25	26	27	29	30	31	32
6 SLOT	CFM/FT	120	140	160	180	200	220	240	260	280	300
	Pt	.025	.030	.041	.049	.057	.064	.078	.095	.103	.120
	NC	<20	<20	<20	21	24	26	29	31	34	37
	Horizontal	11-17-30	13-20-32	15-21-34	17-23-36	18-25-38	20-27-39	21-29-41	22-30-42	23-31-43	25-32-45
	Vertical	21	22	24	25	27	27	29	29	30	32
7 SLOT	CFM/FT	200	220	240	260	280	300	325	350	375	400
	Pt	.035	.045	.056	.069	.088	.113	.129	.231	.264	.280
	NC	<20	21	24	26	28	30	33	35	37	39
	Horizontal	17-24-38	18-25-39	20-27-40	21-29-42	22-30-43	24-31-44	24-32-45	25-33-46	26-34-47	27-35-48
	Vertical	27	28	29	29	30	31	32	32	33	34
8 SLOT	CFM/FT	280	300	325	350	375	400	425	450	475	500
	Pt	.051	.060	.069	.082	.104	.111	.126	.148	.166	.180
	NC	25	27	29	32	34	36	37	39	41	42
	Horizontal	21-29-42	22-30-43	23-31-44	24-32-45	25-33-46	26-34-47	27-35-48	28-35-49	29-36-50	29-37-51
	Vertical	29	30	31	32	32	33	34	34	35	36

### Notes:

1. Throw based on an active 6' section. Throw based on all slots discharging in the same direction. For divided throw, use the CFM per foot value for the number of slots in each direction.
2. Pt is based on pattern control set at minimum resistance. All pressures are in inches of water.
3. Horizontal throw is for velocities of 50, 100, and 150 FPM.
4. Vertical throw values are given for a terminal velocity of 50 FPM.
5. NC based on 10db room absorption with a 4' active section and horizontal throw. For vertical throw deduct 7db from each NC value. For lengths greater than 4' add the following correction to rating:

Length (feet)	2	4	6	8	10	12
db Correction	-3	0	+2	+4	+5	+7