

PERFORMANCE DATA

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ML-37 / 1/2" SLOT SPACING WIDTH / SUPPLY WITH CONTINUOUS PLENUM

1-Slot	Airflow, cfm/ft.	5	10	16	21	26	31	36	42	47
	Static Pressure	0.006	0.023	0.051	0.090	0.141	0.203	0.277	0.362	0.458
	NC (Noise Criteria)	-	-	20	27	32	37	40	44	46
	Horizontal	1-1-6	3-6-12	6-11-15	10-12-17	11-14-19	12-15-21	13-16-23	14-17-25	15-18-26
	Vertical	2	6	9	11	12	14	15	16	17
2-Slot	Airflow, cfm/ft.	10	21	31	42	52	62	73	83	94
	Static Pressure	0.006	0.023	0.051	0.090	0.141	0.203	0.277	0.362	0.458
	NC (Noise Criteria)	-	13	23	30	35	40	43	47	49
	Horizontal	1-3-10	5-10-17	10-15-21	14-17-25	16-19-28	17-21-30	19-23-33	20-25-35	21-26-37
	Vertical	4	8	13	16	17	19	20	22	24
3-Slot	Airflow, cfm/ft.	16	31	47	62	78	94	109	125	140
	Static Pressure	0.006	0.023	0.051	0.090	0.141	0.203	0.277	0.362	0.458
	NC (Noise Criteria)	-	15	25	32	37	41	45	48	51
	Horizontal	2-4-13	7-13-21	13-18-26	17-21-30	19-24-34	21-26-37	23-28-40	25-30-43	26-32-45
	Vertical	5	10	15	19	21	23	25	27	28
4-Slot	Airflow, cfm/ft.	21	42	62	83	104	125	146	166	187
	Static Pressure	0.006	0.023	0.051	0.090	0.141	0.203	0.277	0.362	0.458
	NC (Noise Criteria)	-	16	26	33	38	43	46	50	52
	Horizontal	3-6-14	10-14-25	14-21-30	19-25-35	22-28-39	25-30-43	27-33-46	28-35-49	30-37-52
	Vertical	7	12	18	22	25	27	29	31	33
5-Slot	Airflow, cfm/ft.	26	52	78	104	130	156	182	208	234
	Static Pressure	0.006	0.023	0.051	0.090	0.141	0.203	0.277	0.362	0.458
	NC (Noise Criteria)	-	17	27	34	39	44	47	51	53
	Horizontal	3-7-16	11-16-28	16-24-34	22-28-39	25-31-44	28-34-48	30-36-52	32-39-55	34-41-58
	Vertical	7	14	20	25	28	30	32	35	37
6-Slot	Airflow, cfm/ft.	31	62	94	125	156	187	218	250	281
	Static Pressure	0.006	0.023	0.051	0.090	0.141	0.203	0.277	0.362	0.458
	NC (Noise Criteria)	-	18	28	35	40	44	48	51	54
	Horizontal	4-9-18	12-18-30	18-26-37	24-30-43	28-34-48	30-37-52	33-40-56	35-43-60	37-45-64
	Vertical	7	16	22	27	30	33	35	38	40
7-Slot	Airflow, cfm/ft.	36	73	109	146	182	218	255	291	328
	Static Pressure	0.006	0.023	0.051	0.090	0.141	0.203	0.277	0.362	0.458
	NC (Noise Criteria)	-	19	29	35	41	45	49	52	55
	Horizontal	6-10-19	13-19-33	19-28-40	25-33-46	30-36-52	33-40-56	35-43-61	38-46-65	40-49-69
	Vertical	8	16	24	29	32	35	38	41	43
8-Slot	Airflow, cfm/ft.	42	83	125	166	208	250	291	333	374
	Static Pressure	0.006	0.023	0.051	0.090	0.141	0.203	0.277	0.362	0.458
	NC (Noise Criteria)	-	19	29	36	41	46	49	53	55
	Horizontal	7-10-20	14-20-35	20-30-43	27-35-49	32-39-55	35-43-60	38-46-65	40-49-70	43-52-74
	Vertical	8	17	26	31	35	38	41	43	45

NC corrections for various diffuser lengths

Length	2	4	6	8	10
Supply	-3	0	+2	+3	+5
Return	0	+3	+5	+6	+8

Throw correction multiplier for length

Length	2	4	8	10
Throw Correction	0.72	1.0	1.5	1.7

ML-38, -TZ / 3/4" SLOT SPACING WIDTH / SUPPLY WITH CONTINUOUS PLENUM

1-Slot	Airflow, cfm/ft.	6	12	19	25	31	37	43	50	56
	Static Pressure	0.004	0.016	0.037	0.065	0.102	0.146	0.199	0.260	0.330
	NC (Noise Criteria)	-	-	14	20	26	30	34	37	40
	Horizontal	1-2-6	3-6-16	6-12-20	11-16-23	13-18-26	16-20-28	18-22-31	19-23-33	20-25-35
	Vertical	2	6	10	12	14	15	16	17	18
2-Slot	Airflow, cfm/ft.	12	25	37	50	62	74	87	99	112
	Static Pressure	0.004	0.016	0.037	0.065	0.102	0.146	0.199	0.260	0.330
	NC (Noise Criteria)	-	-	17	23	29	33	37	40	43
	Horizontal	1-3-11	5-11-22	11-17-28	15-22-33	19-26-37	22-28-40	25-31-43	27-33-46	28-35-49
	Vertical	4	9	14	17	19	21	23	24	25
3-Slot	Airflow, cfm/ft.	19	37	56	74	93	112	130	149	167
	Static Pressure	0.004	0.016	0.037	0.065	0.102	0.146	0.199	0.260	0.330
	NC (Noise Criteria)	-	-	18	25	31	35	39	42	45
	Horizontal	2-5-14	8-14-27	14-20-35	18-27-40	23-32-45	27-35-49	31-38-53	33-40-57	35-43-60
	Vertical	6	11	17	21	23	26	28	30	32
4-Slot	Airflow, cfm/ft.	25	50	74	99	124	149	174	198	223
	Static Pressure	0.004	0.016	0.037	0.065	0.102	0.146	0.199	0.260	0.330
	NC (Noise Criteria)	-	-	20	26	32	36	40	43	46
	Horizontal	3-6-16	11-16-32	16-24-40	21-32-46	26-37-52	32-40-57	36-43-61	38-46-66	40-49-70
	Vertical	6	13	19	24	27	30	32	34	36
5-Slot	Airflow, cfm/ft.	31	62	93	124	155	186	217	248	279
	Static Pressure	0.004	0.016	0.037	0.065	0.102	0.146	0.199	0.260	0.330
	NC (Noise Criteria)	-	-	21	27	33	37	41	44	47
	Horizontal	4-8-18	12-18-35	18-26-45	24-35-52	29-41-58	35-45-64	40-49-69	42-52-73	45-55-78
	Vertical	7	14	21	27	30	33	36	38	40
6-Slot	Airflow, cfm/ft.	37	74	112	149	186	223	260	298	335
	Static Pressure	0.004	0.016	0.037	0.065	0.102	0.146	0.199	0.260	0.330
	NC (Noise Criteria)	-	12	21	28	34	38	42	45	48
	Horizontal	5-10-19	13-19-39	19-29-49	26-39-57	32-45-64	39-49-70	43-53-75	46-57-81	49-60-85
	Vertical	8	15	24	30	33	36	39	42	45
7-Slot	Airflow, cfm/ft.	43	87	130	174	217	260	304	347	391
	Static Pressure	0.004	0.016	0.037	0.065	0.102	0.146	0.199	0.260	0.330
	NC (Noise Criteria)	-	12	22	29	34	39	42	45	48
	Horizontal	6-10-21	14-21-42	21-31-53	28-42-61	35-49-69	42-53-75	47-58-81	50-61-87	53-65-92
	Vertical	8	16	24	32	36	39	42	45	48
8-Slot	Airflow, cfm/ft.	50	99	149	198	248	298	347	397	446
	Static Pressure	0.004	0.016	0.037	0.065	0.102	0.146	0.199	0.260	0.330
	NC (Noise Criteria)	-	13	23	29	35	39	43	46	49
	Horizontal	7-11-22	15-22-45	22-33-57	30-45-66	37-52-73	45-57-81	50-61-87	54-66-93	57-70-99
	Vertical	8	16	24	33	38	42	45	48	51

NC corrections for various diffuser lengths

Length	2	4	6	8	10
Supply	-3	0	+2	+3	+5
Return	0	+3	+5	+6	+8

Throw correction multiplier for length

Length	2	4	8	10
Throw Correction	0.72	1.0	1.5	1.7

ML-39 / 1" SLOT SPACING WIDTH / SUPPLY WITH CONTINUOUS PLENUM

1-Slot	Airflow, cfm/ft.	7	13	20	26	33	40	46	53	59
	Static Pressure	0.004	0.014	0.032	0.057	0.089	0.128	0.174	0.228	0.288
	NC (Noise Criteria)	-	-	13	20	26	30	34	37	40
	Horizontal	1-2-6	3-6-16	6-12-21	11-16-24	14-19-27	16-21-29	18-22-32	20-24-34	21-25-36
	Vertical	2	8	12	14	15	17	18	19	20
2-Slot	Airflow, cfm/ft.	13	26	40	53	66	79	92	106	119
	Static Pressure	0.004	0.014	0.032	0.057	0.089	0.128	0.174	0.228	0.288
	NC (Noise Criteria)	-	-	16	23	29	33	37	40	43
	Horizontal	1-3-12	5-12-23	12-17-29	15-23-34	19-27-38	23-29-42	26-32-45	28-34-48	29-36-51
	Vertical	5	11	16	19	22	24	26	28	30
3-Slot	Airflow, cfm/ft.	20	40	59	79	99	119	139	158	178
	Static Pressure	0.004	0.014	0.032	0.057	0.089	0.128	0.174	0.228	0.288
	NC (Noise Criteria)	-	-	18	25	30	35	39	42	45
	Horizontal	2-5-14	8-14-28	14-21-36	19-28-42	23-33-46	28-36-51	32-39-55	34-42-59	36-44-62
	Vertical	7	13	20	24	27	29	32	34	36
4-Slot	Airflow, cfm/ft.	26	53	79	106	132	158	185	211	238
	Static Pressure	0.004	0.014	0.032	0.057	0.089	0.128	0.174	0.228	0.288
	NC (Noise Criteria)	-	-	19	26	32	36	40	43	46
	Horizontal	3-6-16	11-16-33	16-24-42	22-33-48	27-38-54	33-42-59	37-45-63	39-48-68	42-51-72
	Vertical	8	15	23	28	31	34	36	39	42
5-Slot	Airflow, cfm/ft.	33	66	99	132	165	198	231	264	297
	Static Pressure	0.004	0.014	0.032	0.057	0.089	0.128	0.174	0.228	0.288
	NC (Noise Criteria)	-	-	20	27	33	37	41	44	47
	Horizontal	4-8-18	12-18-36	18-27-46	24-36-54	30-42-60	36-46-66	41-50-71	44-54-76	46-57-80
	Vertical	9	17	25	31	34	38	41	43	45
6-Slot	Airflow, cfm/ft.	40	79	119	158	198	238	277	317	356
	Static Pressure	0.004	0.014	0.032	0.057	0.089	0.128	0.174	0.228	0.288
	NC (Noise Criteria)	-	12	21	28	33	38	42	45	48
	Horizontal	5-10-20	13-20-40	20-30-51	27-40-59	33-46-66	40-51-72	45-55-78	48-59-83	51-62-88
	Vertical	9	19	28	34	38	41	45	48	51
7-Slot	Airflow, cfm/ft.	46	92	139	185	231	277	323	370	416
	Static Pressure	0.004	0.014	0.032	0.057	0.089	0.128	0.174	0.228	0.288
	NC (Noise Criteria)	-	12	22	29	34	38	42	45	48
	Horizontal	6-11-22	14-22-43	22-32-55	29-43-63	36-50-71	43-55-78	48-59-84	52-63-90	55-67-95
	Vertical	10	20	30	36	41	45	48	52	55
8-Slot	Airflow, cfm/ft.	53	106	158	211	264	317	370	422	475
	Static Pressure	0.004	0.014	0.032	0.057	0.089	0.128	0.174	0.228	0.288
	NC (Noise Criteria)	-	13	23	29	35	39	43	46	49
	Horizontal	8-12-23	15-23-46	23-35-59	31-46-68	38-54-76	46-59-83	52-63-90	55-68-96	59-72-102
	Vertical	11	22	32	39	43	48	52	55	58

NC corrections for various diffuser lengths

Length	2	4	6	8	10
Supply	-3	0	+2	+3	+5
Return	0	+3	+5	+6	+8

Throw correction multiplier for length

Length	2	4	8	10
Throw Correction	0.72	1.0	1.5	1.7

- Data obtained from tests conducted in accordance with ANSI/ASHRAE Standard 70-2006. Actual performance, with flexible duct inlet, may vary in the field. See the engineering section of this catalog for additional information.
- Horizontal throw values given are for terminal velocities of 150, 100 and 50 fpm
- Throw values given are for isothermal conditions, and are based on 4-foot active section. For other lengths, see the Throw Correction Table.
- Pressure is given in inches of WG for ML only
- Vertical throw values are given for terminal velocities of 50 fpm
- For divided throw, use the cfm-per-foot value for the number of slots in each direction. For sound, use the NC values for cfm-per-foot for the total number of slots.

- Each NC value represents the noise criteria curve which will not be exceeded by the sound pressure in any of the octave bands, 2nd through 7th, with a room absorption of 10 dB, re 10<sup>-12</sup> watts
- For vertical throw, deduct 11 NC
- Dash (-) in space denotes an NC value of less than 10
- NC is based on 4-foot lengths; for other lengths use the NC correction table
- Throws listed are for the 1-way pattern. For divided airflow, select the airflow in each direction according to the number of slots aimed in that direction, with the total airflow apportioned between slots. For an explanation of catalog throw data, see the Engineering Guidelines section of the catalog.
- Data obtained using plenums with duct velocities less than 800 fpm. See model MP (pages F34-F45) for data with Titus plenums.
- For continuous lengths it is recommended that maximum active lengths are no longer than 10 feet

RETURN PERFORMANCE DATA FOR PLENUM MLR-37 APPLICATIONS

- All pressures are in inches of water
- NC values are based on a room absorption of 10 dB, re 10<sup>-12</sup> watts, with a 10-foot active diffuser section (see the table below)
- Dash (—) in space denotes NC value less than 10
- Data obtained from tests conducted in accordance with ANSI/ASHRAE Standard 70-2006
- For continuous lengths it is recommended that maximum active lengths are no longer than 10 feet

No. of Slots	Negative SP	0.011	0.025	0.045	0.072	0.103	0.180	0.275	0.415
1	cfm per ft.	10	15	20	25	30	40	50	60
	NC	—	—	14	20	25	33	39	44
2	cfm per ft.	20	30	40	50	60	80	100	120
	NC	—	—	17	23	28	36	42	47
3	cfm per ft.	30	45	60	75	90	120	150	180
	NC	—	11	19	25	30	38	44	49
4	cfm per ft.	40	60	80	100	120	160	200	240
	NC	—	12	20	26	31	39	45	50
5	cfm per ft.	50	75	100	125	150	200	250	300
	NC	—	13	21	27	32	40	46	51
6	cfm per ft.	60	90	120	150	180	240	300	360
	NC	—	14	22	28	33	41	47	52
7	cfm per ft.	70	105	140	175	210	280	350	420
	NC	—	15	23	29	34	42	48	53
8	cfm per ft.	80	120	160	200	240	320	400	480
	NC	—	15	23	29	34	42	48	53

NC Correction for Various MLR Lengths

Length (ft.)	2	4	10	15	20
MLR	-7	-4	0	+2	+3

MLR-38, -TZ

No. of Slots	Negative SP	0.007	0.028	0.063	0.108	0.170	0.250	0.345	0.450
1	cfm per ft.	10	20	30	40	50	60	70	80
	NC	—	—	18	26	32	37	41	45
2	cfm per ft.	20	40	60	80	100	120	140	160
	NC	—	10	21	29	35	40	44	48
3	cfm per ft.	30	60	90	120	150	180	210	240
	NC	—	12	23	31	37	42	46	50
4	cfm per ft.	40	80	120	160	200	240	280	320
	NC	—	13	24	32	38	43	47	51
5	cfm per ft.	50	100	150	200	250	300	350	400
	NC	—	14	25	33	39	44	48	52
6	cfm per ft.	60	120	180	240	300	360	420	480
	NC	—	15	26	34	40	45	49	53
7	cfm per ft.	70	140	210	280	350	420	490	560
	NC	—	16	27	35	41	46	50	54
8	cfm per ft.	80	160	240	320	400	480	560	640
	NC	—	16	27	35	41	46	50	54

MLR-39

No. of Slots	Negative SP	0.018	0.040	0.070	0.108	0.160	0.215	0.280	0.450
1	cfm per ft.	20	30	40	50	60	70	80	100
	NC	—	11	19	25	30	34	38	44
2	cfm per ft.	40	60	80	100	120	140	160	200
	NC	—	14	22	28	33	37	41	47
3	cfm per ft.	60	90	120	150	180	210	240	300
	NC	—	16	24	30	35	39	43	49
4	cfm per ft.	80	120	160	200	240	280	320	400
	NC	—	17	25	31	36	40	44	50
5	cfm per ft.	100	150	200	250	300	350	400	500
	NC	—	18	26	32	37	41	45	51
6	cfm per ft.	120	180	240	300	360	420	480	600
	NC	—	19	27	33	38	42	46	52
7	cfm per ft.	140	210	280	350	420	490	560	700
	NC	—	20	28	34	39	43	47	53
8	cfm per ft.	160	240	320	400	480	560	640	800
	NC	—	20	28	34	39	43	47	53