



**LINEAR & FLOOR GRILLES**  
**DML**

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The Power of  
**EXPERIENCE**



INTRODUCTION

## INTRODUCTION

Expert Middle East is one of the top leaders in HVAC system instruments fabrication, established in 2015.

Certified by ISO 9001, & ISO 14005, Along our successful & progressive journey, we strive to be the integrated service provider of HVAC system equipment in the Middle East by supplying (AHUs, FCU, Condensing units, package DX units, air outlets, air ducts, and air curtains ... etc.)

Also, by our extension through our major projects in Qatar, Oman.

And we will continue, with full commitment to providing customer focused and professional services.

## Our Vision



Our vision is to become the top HVAC equipment fabrication company in the Middle East that positively impact society's lifestyle quality through our continuous innovation delivered by our skilled professional to make our customers delighted.



## Our Mission



by providing Quality in every single material used by considering every customer as a priority by helping our market increase the return of building investment

## Our Values



01

**Customer delight:**

we do it perfect, fast and save cost.

02

**Priority:**

we believe in saying no to thousands, to deliver unbelievable response to you.

03

**Continuous improvement:**

we always up to date on new trends, technologies & customer needs related to our industry

04

**Competitive price:**

we focus on selling value not to only profit, so our prices always fair.

05

**Professionalism:**

we proudly have the technical knowledge leaders through all our organization.

06

**Integrity:**

We expect to be always honest with ourselves first, then our employees and our customers.

# LINEAR GRILLES

## DML



## Description

Linear Bar Grilles and Registers covers a wide range for supply and return air distribution of HVAC systems and are suitable for ceiling, floor, sill and sidewall applications. They are selected for their pleasing continuous line, architectural appearance and are designed for fan tops, grilles of swimming pools, ventilation outlets and many other applications.

- Type DML-LG -1

Supply or return air grilles for floor or wall mounting with fixed horizontal profiled blades, 5mm blades on 15mm pitch blades with either 0° or 15°.

## Construction

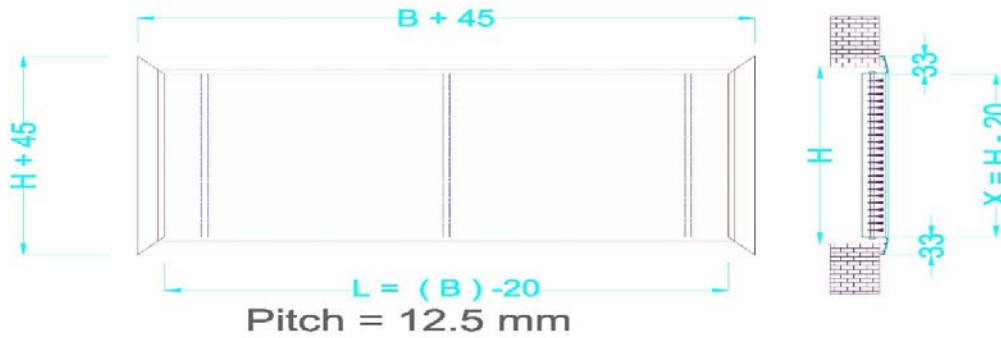
- Type DML-LG-2

Supply or return air grille with fixed horizontal profiled blades. Front border 36mm wide, 3.5mm blades on 15mm pitch with either 0° or 15° deflection.

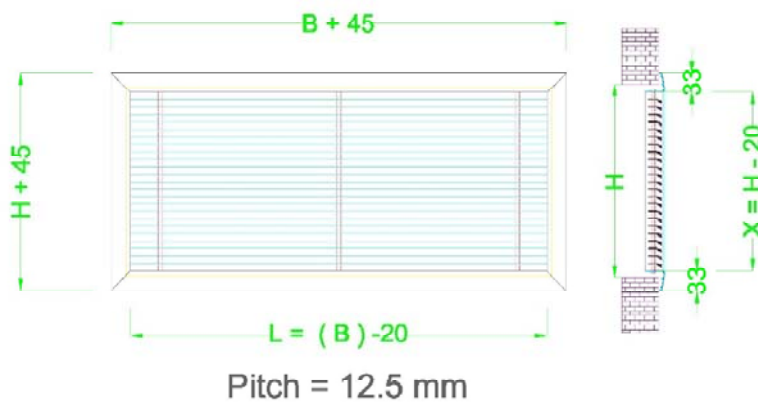


## Dimensions and blades type

### DML - R - 0



### DML - R - 15



## MATERIAL & FINISH:

High quality extruded aluminum sections in matt silver anodized finish. White color in electrostatic polyester powder coating finish available as standard. Other colors as per RAL standards are also available upon request.

## Installation:

Screw system is standard. Available on request with spring clip or concealed fixing.

## Standard Sizes:

<b>L(mm)</b>	<b>250</b>	<b>300</b>	<b>350</b>	<b>400</b>	<b>450</b>	<b>500</b>	<b>600</b>	<b>700</b>	<b>800</b>	<b>900</b>
<b>H(mm)</b>	<b>100</b>	<b>150</b>	<b>200</b>	<b>250</b>	<b>300</b>	<b>350</b>	<b>400</b>	<b>450</b>	<b>550</b>	<b>600</b>



## Floor Grille Type DML-LG-1&Linear Grille Type DML-LG-2 Selection tables ,Data given for 1 m length of grille.

H (mm) A (m <sup>2</sup> )	V <sub>eff</sub> (m/s)	2	2.5	3	3.5	4	4.5	5	6
H= 50 A= 0.033	V (m <sup>2</sup> /h) SW (m) SF (m)	240 1-2.5 1-2	300 2-3 1-2.5	360 2-3.5 2-3	421 2-4 2-3.5	481 2-4.5 2.5-4	541 3-5 3-4.5	601 3-5.5 3-5	721 4-6 4-5
H= 75 A= 0.048	V (m <sup>2</sup> /h) SW (m) SF (m)	343 2-3 2-2.5	429 2-4 2-3	515 2-4.5 2-3.5	601 3-5 3-4	686 3-5.5 3-4.5	772 4-6 4-5	858 4-7 4-6	1030 5-8 5-7
H= 100 A= 0.067	V (m <sup>2</sup> /h) SW (m) SF (m)	481 2.5-4 2-3.5	601 3-5 2-4	721 3-5.5 3-4.5	842 4-6.5 4-5.5	952 5-8 5-7	1082 6-9 5-8	1203 6-10 6-8	1443 7-11 7-9
H= 125 A= 0.081	V (m <sup>2</sup> /h) SW (m) SF (m)	584 3-4.5 3-4	730 3-5.5 3-5	875 4-6 4-5	1022 5-7 5-6	1168 6-9 6-7	1314 6-10 6-8	1450 7-11 7-9	1752 8-13 8-11
H= 150 A= 0.095	V (m <sup>2</sup> /h) SW (m) SF (m)	686 4-6 4-5.5	858 4-7 4-6	1030 5-8 5-7	1202 6-9 6-8	1373 7-11 7-10	1545 8-12 8-11	1717 9-14 9-12	2060 10-16 10-14
H= 200 A= 0.124	V (m <sup>2</sup> /h) SW (m) SF (m)	892 4-7 4-6	1115 5-8 5-7	1338 6-9 6-8	1561 7-10 7-9	1785 8-12 8-11	2008 9-13 9-12	2231 10-15 10-13	2677 11-17 11-15
H= 250 A= 0.157	V (m <sup>2</sup> /h) SW (m) SF (m)	1133 4-7.5 4-7	1416 5-9 5-8	1699 6-10 6-9	1982 7-11 7-10	2266 8-13 8-12	2549 9-14 9-13	2832 10-15 10-14	3399 11-18 11-16
H= 300 A= 0.186	V (m <sup>2</sup> /h) SW (m) SF (m)	1338 8-5 7-4	1673 10-5 9-5	2008 11-6 10-6	2342 12-7 11-7	2677 14-8 13-8	3012 15-9 14-9	3346 16-11 15-11	4016 20-12 17-12

$V_{eff}$  Effective Velocity  
 SW Throwing Distance From Wall  
 SF Throwing Distance From Floor  
 V Air Volume  
 H Grille Height  
 A Grille Effective Area

		H (mm)										
		100	125	150	175	200	225	250	300	400	500	600
V (mm)	250	0.016	0.019	0.023	0.026	0.029	0.033	0.037	0.044	0.059	0.074	0.088
	300	0.019	0.024	0.028	0.032	0.036	0.04	0.046	0.054	0.072	0.09	0.108
	350	0.023	0.028	0.033	0.038	0.042	0.047	0.054	0.064	0.085	0.106	0.127
	400	0.026	0.032	0.038	0.043	0.049	0.055	0.062	0.073	0.098	0.122	0.147
	450	0.03	0.036	0.043	0.049	0.055	0.062	0.07	0.083	0.111	0.139	0.166
	500	0.033	0.041	0.048	0.055	0.062	0.069	0.079	0.093	0.124	0.155	0.186
	600	0.04	0.048	0.057	0.065	0.073	0.082	0.093	0.11	0.147	0.184	0.22
	700	0.047	0.057	0.067	0.077	0.086	0.096	0.11	0.13	0.173	0.216	0.259
	800	0.054	0.065	0.077	0.088	0.099	0.111	0.126	0.149	0.199	0.249	0.298
	900	0.061	0.074	0.087	0.1	0.112	0.125	0.143	0.169	0.225	0.281	0.337
	1000	0.067	0.081	0.095	0.11	0.124	0.138	0.157	0.186	0.248	0.31	0.372
	1200	0.081	0.098	0.115	0.133	0.15	0.167	0.19	0.225	0.3	0.375	0.45
	1400	0.094	0.114	0.134	0.154	0.174	0.195	0.221	0.262	0.349	0.436	0.523
	1600	0.108	0.131	0.154	0.177	0.2	0.224	0.254	0.301	0.401	0.501	0.601
	1800	0.121	0.147	0.173	0.199	0.225	0.251	0.286	0.337	0.45	0.562	0.675
	2000	0.135	0.164	0.193	0.222	0.251	0.28	0.319	0.376	0.502	0.627	0.753

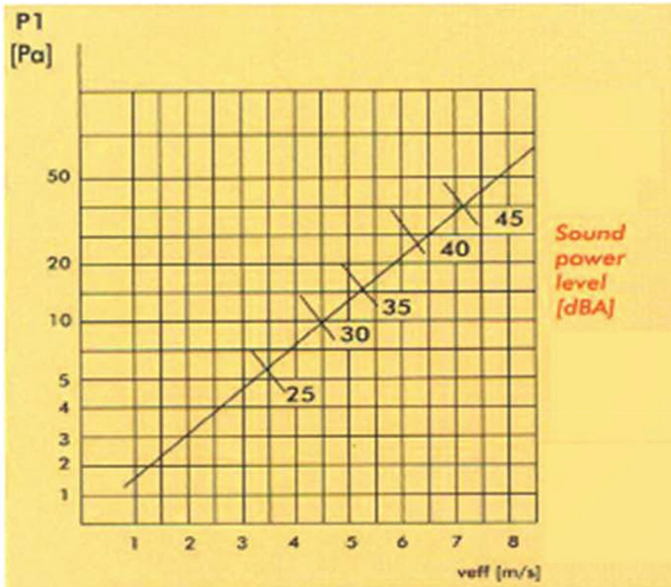
\*Aeff Effective Area m2 for floor grill LG-1

		H (mm)										
		100	125	150	175	200	225	250	300	400	500	600
V (mm)	250	0.018	0.022	0.026	0.031	0.035	0.039	0.044	0.052	0.069	0.087	0.104
	300	0.022	0.027	0.032	0.037	0.042	0.047	0.053	0.063	0.085	0.106	0.127
	350	0.026	0.032	0.038	0.044	0.05	0.056	0.063	0.075	0.1	0.125	0.149
	400	0.03	0.037	0.044	0.051	0.057	0.064	0.072	0.086	0.115	0.143	0.172
	450	0.034	0.042	0.049	0.057	0.065	0.073	0.082	0.097	0.13	0.162	0.195
	500	0.038	0.047	0.055	0.064	0.072	0.081	0.091	0.109	0.145	0.181	0.217
	600	0.045	0.055	0.066	0.076	0.086	0.096	0.109	0.129	0.172	0.215	0.258
	700	0.053	0.065	0.077	0.089	0.101	0.113	0.128	0.152	0.202	0.253	0.304
	800	0.061	0.075	0.089	0.102	0.116	0.13	0.147	0.174	0.233	0.291	0.349
	900	0.069	0.084	0.1	0.116	0.131	0.147	0.166	0.197	0.263	0.328	0.394
	1000	0.076	0.093	0.11	0.128	0.145	0.162	0.183	0.217	0.29	0.362	0.435
	1200	0.092	0.113	0.133	0.154	0.175	0.196	0.221	0.263	0.35	0.438	0.525
	1400	0.107	0.131	0.155	0.18	0.204	0.228	0.257	0.306	0.408	0.51	0.612
	1600	0.122	0.15	0.178	0.206	0.234	0.262	0.295	0.351	0.468	0.585	0.702
	1800	0.137	0.169	0.2	0.231	0.263	0.294	0.331	0.394	0.525	0.657	0.788
	2000	0.153	0.188	0.223	0.258	0.293	0.328	0.37	0.439	0.586	0.732	0.879

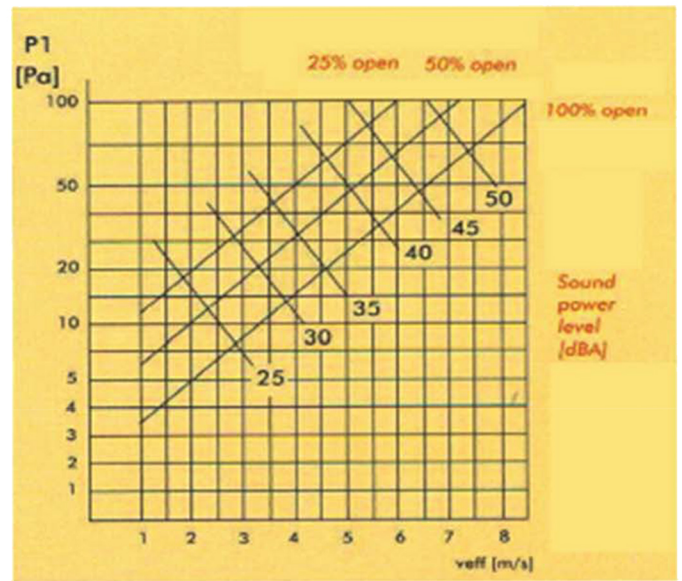
\*Aeff Effective Area m2 for floor grill LG-2



## Sound power levels and pressure drop



Without Damper



With Damper