

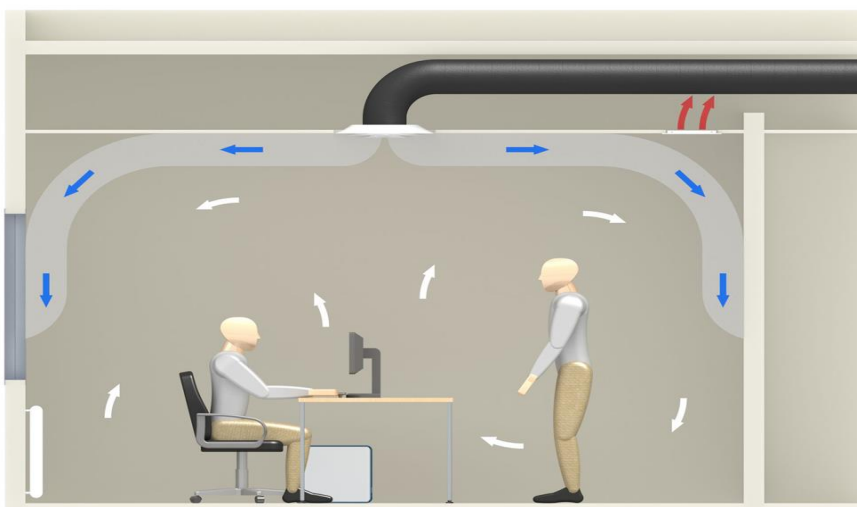
# LINEAR GRILLES

Rev.02  
26-05-2015



## GMC LNG-003 PRODUCT SPECIFICATIONS:

- Standard Material: Aluminum. Usable for supply and return air ducts.
- Proper appearance with decorative design.
- Useful on fan-coil, radiator applications, heightened floors, ceilings, floors... etc.
- Has two models: Z-Bladed Model (LNG-103) and Curvilinear Bladed Model (LNG-203).
- Blades are produced as  $0^{\circ}$  or  $15^{\circ}$  angle according to product type.
- Mounted with 4 mm screws on frame. Optional: Clips or Plate-spring applications.
- On request, damper can be added to control air flow rate.
- Low pressure loss.
- Standard frame: Grilles with 22mm or 32mm.
- Eloxal, anodizing or electrostatic powder coating with the color from RAL catalogue.

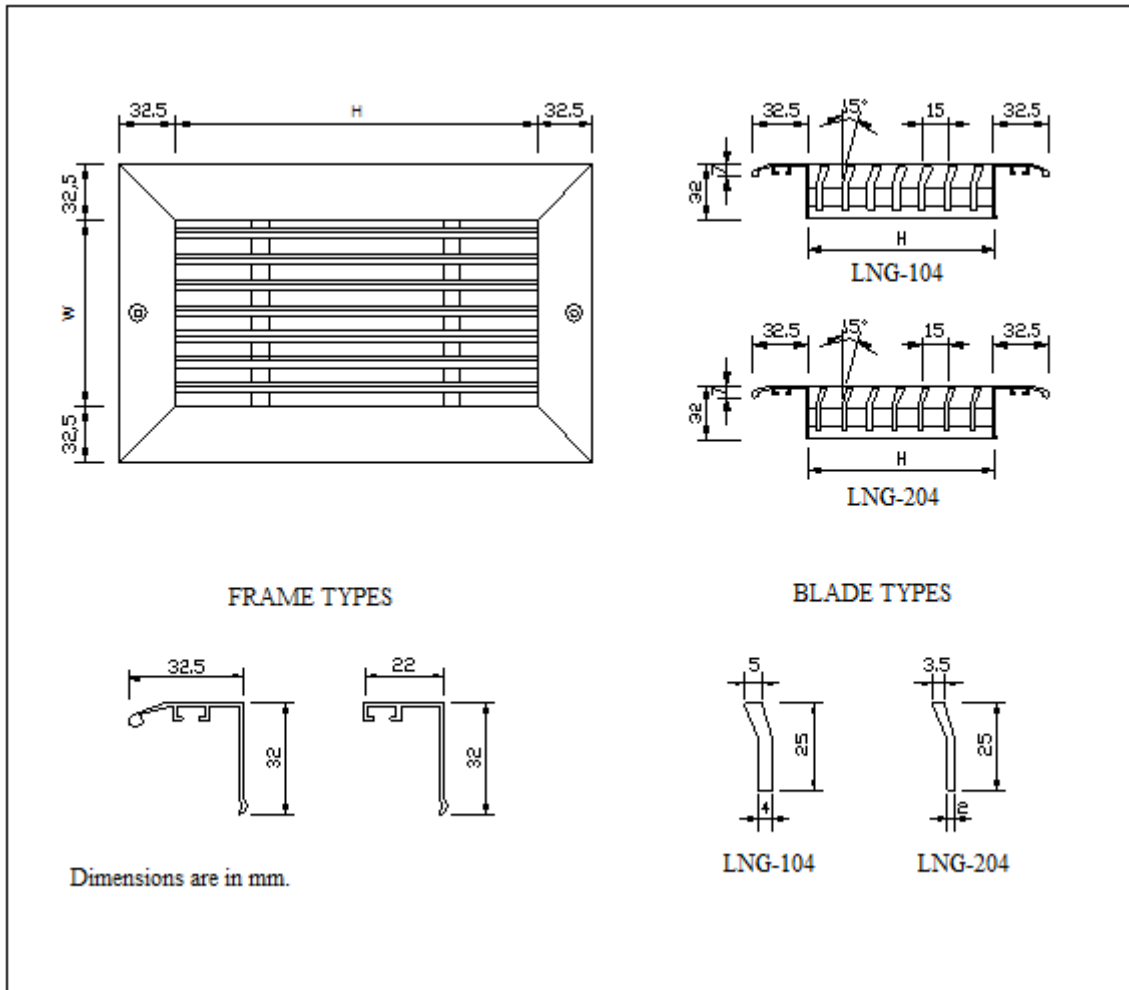


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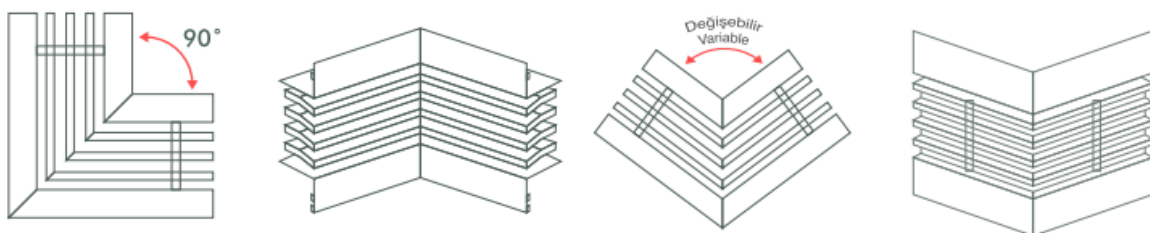
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## TECHNICAL DETAILS



### LINEAR GRILLE FOR CORNER



Available on floor, still or wall junction. It is not available to use damper at junction.



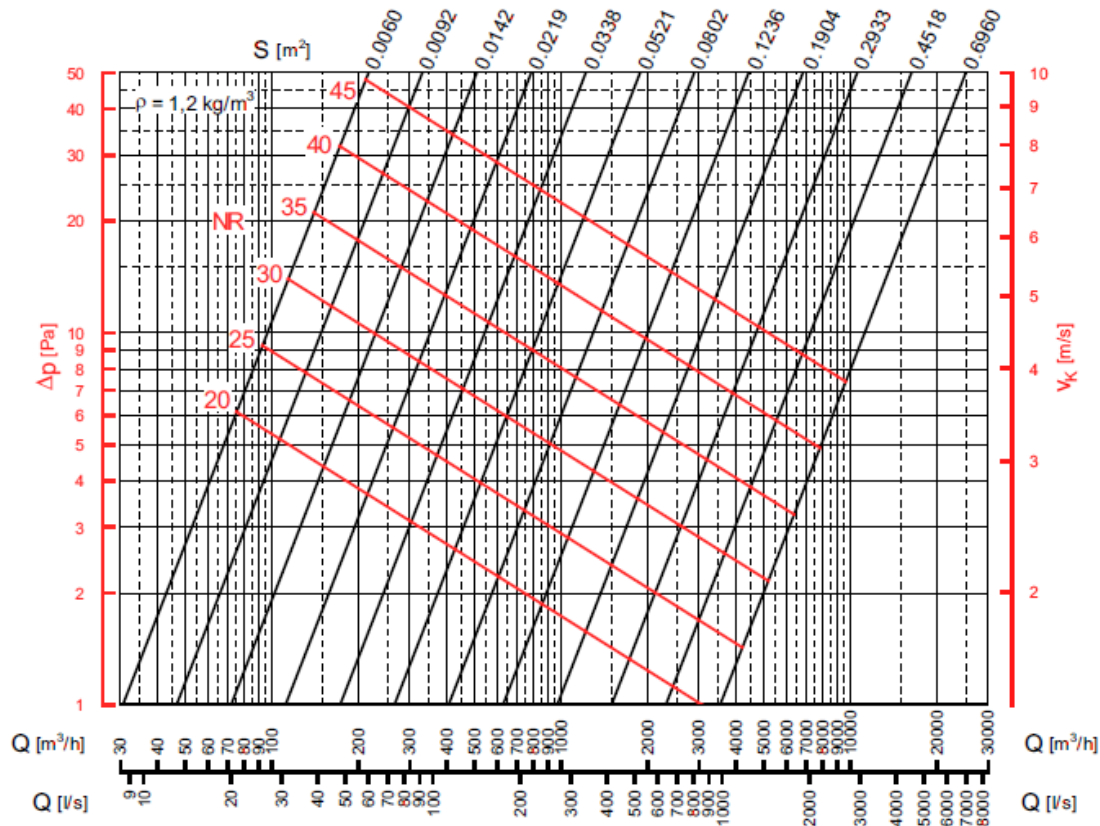
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## DATA DIAGRAMS

### LNG-003, PRESSURE DROP AND NOISE LEVELS



- Q [m³/h]      supply air flow rate
- S [m²]        effective outlet area
- v<sub>k</sub> [m/s]     velocity relating to the effective outlet area S
- Δp [Pa]        total pressure loss
- NR              noise rating (ISO standard, in relation to 10-12 W)

### LNG-003, EFFECTIVE AREA TABLE (m²)

		H (mm)												
		50	75	100	125	150	175	200	225	250	300	400	500	600
W (mm)	250	0,009	0,013	0,018	0,022	0,026	0,031	0,029	0,039	0,044	0,052	0,069	0,087	0,104
	300	0,011	0,016	0,022	0,027	0,032	0,037	0,036	0,047	0,053	0,063	0,085	0,106	0,127
	350	0,013	0,019	0,026	0,032	0,038	0,044	0,042	0,056	0,063	0,075	0,100	0,125	0,149
	400	0,015	0,022	0,030	0,037	0,044	0,051	0,049	0,064	0,072	0,086	0,115	0,143	0,172
	450	0,017	0,025	0,034	0,042	0,049	0,057	0,055	0,073	0,082	0,097	0,130	0,162	0,195
	500	0,019	0,028	0,038	0,047	0,055	0,064	0,062	0,081	0,091	0,109	0,145	0,181	0,217
	600	0,023	0,033	0,045	0,055	0,066	0,076	0,073	0,096	0,109	0,129	0,172	0,215	0,258
	700	0,026	0,039	0,053	0,065	0,077	0,089	0,086	0,113	0,128	0,152	0,202	0,253	0,304
	800	0,030	0,044	0,061	0,075	0,089	0,102	0,099	0,130	0,147	0,174	0,233	0,291	0,349
	900	0,034	0,050	0,069	0,084	0,100	0,116	0,112	0,147	0,166	0,197	0,263	0,328	0,394
	1000	0,038	0,055	0,076	0,093	0,110	0,128	0,124	0,162	0,183	0,217	0,290	0,362	0,435
1200	0,046	0,067	0,092	0,113	0,133	0,154	0,150	0,196	0,221	0,263	0,350	0,438	0,525	
1400	0,053	0,078	0,107	0,131	0,155	0,180	0,174	0,228	0,257	0,306	0,408	0,510	0,612	
1600	0,061	0,089	0,122	0,150	0,178	0,206	0,200	0,262	0,295	0,351	0,468	0,585	0,702	
1800	0,069	0,100	0,137	0,169	0,200	0,231	0,225	0,294	0,331	0,394	0,525	0,657	0,788	
2000	0,077	0,112	0,153	0,188	0,223	0,222	0,258	0,328	0,370	0,439	0,586	0,732	0,879	

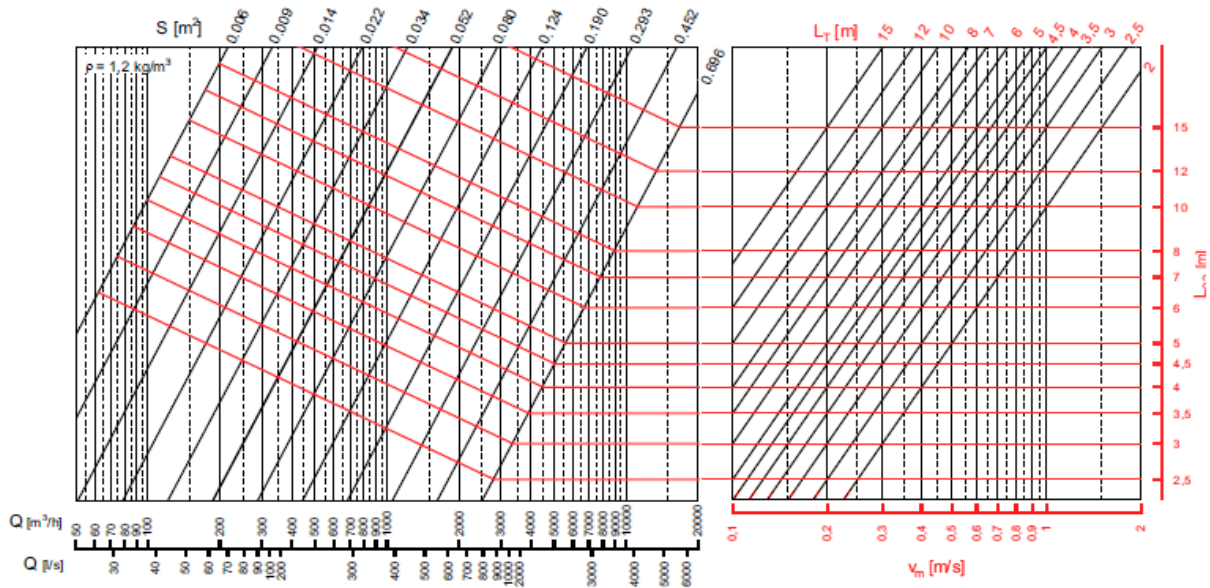


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## LNG-003, THROW DISTANCES (m)

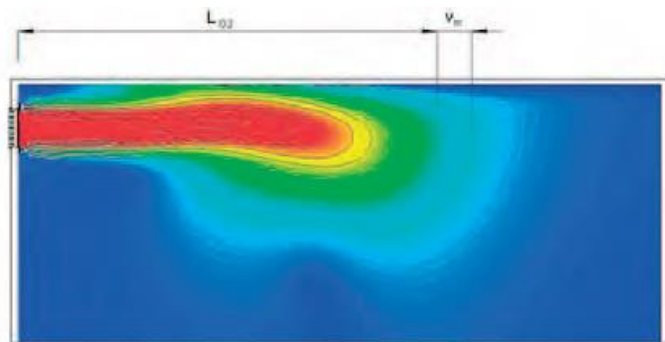


- Q [m<sup>3</sup>/h]    supply air flow rate
- S [m<sup>2</sup>]     effective outlet area
- v<sub>k</sub> [m/s]    velocity relating to the effective outlet area S
- v<sub>m</sub> [m/s]    terminal velocity relating to the axis of the throw
- L<sub>T</sub> [m]      horizontal isothermal throw with ceiling effect angle of deflection

## LNG-003, CORRECTION OF THROW WITHOUT CEILING EFFECT

In the absence of ceiling effect the throw LT should be reduced by 25%. This effect is at its maximum if the installation distance between the upper outlet edge of the grille and the ceiling is less than 30 cm and it becomes negligible starting from a distance of 80 cm.

The flush ceiling installation is useful not only for achieving high throws but also for preventing a build up of stagnant air under the ceiling of the room being conditioned.



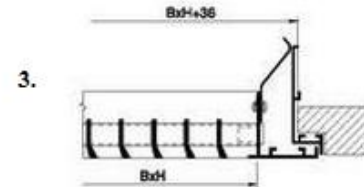
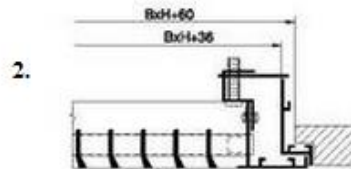
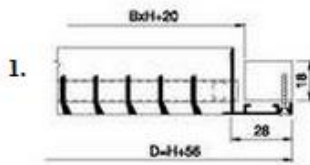
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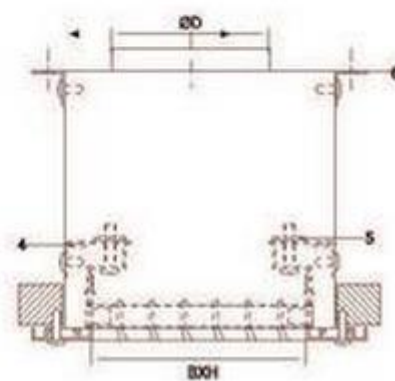
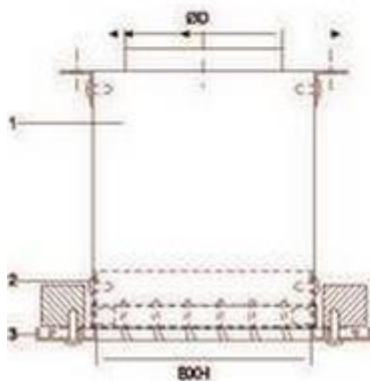
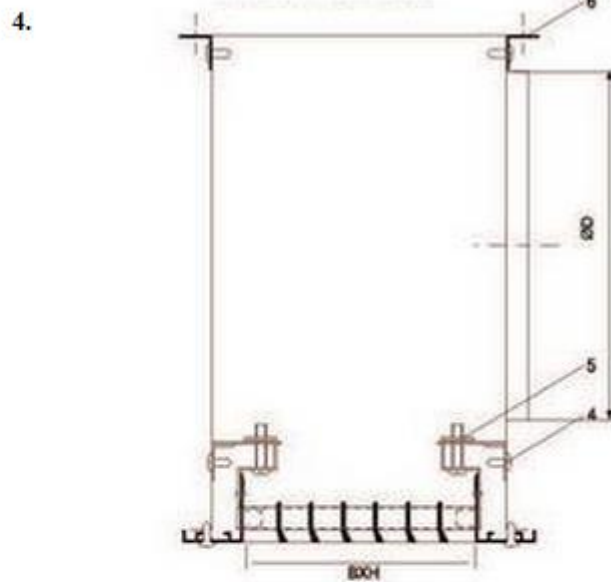
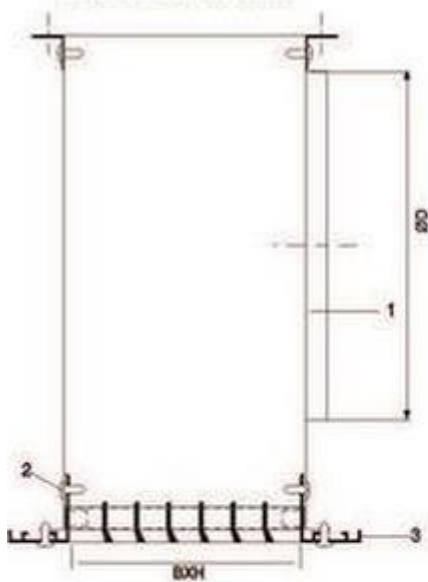


## MOUNTING DETAILS

1. Screw Mounting Detail
2. Clips with hidden blind-frame Mounting Detail
3. Safety catch with hidden blind-frame Mounting Detail



4. Plenum Box Mounting



# LINEAR GRILLES

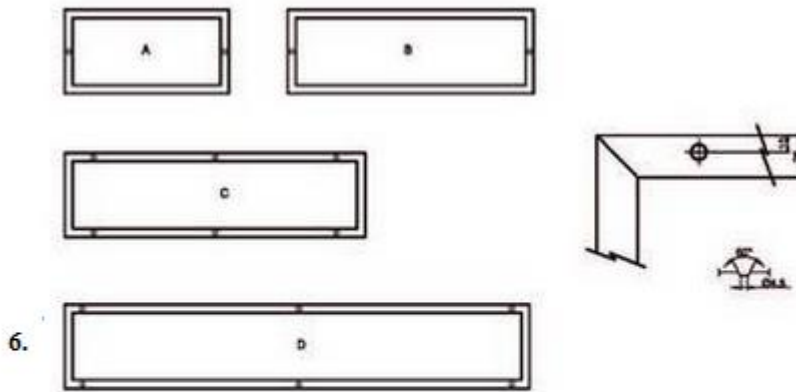
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## 5. Plenum Box Dimensions

B (mm)	H (mm)			
	100	150	200	300
200	ø80			
250	ø100	ø125		
300	ø125	ø160	ø200	
400	ø125	ø160	ø200	
500	ø125	ø160	ø200	
600	600	ø160	2 x ø200	ø250
800	800			2 x ø250
1000	1000			2 x ø250

## 6. Screw Socket Lay-out



H \ L	200	250	300	400	500	600	800	1000	1200 1500
	100	A	A	A	A	A	C	C	C
150		A	A	A	A	C	C	C	D
200				B	B	C	C	C	D
300					B	C	C	C	D





# LINEAR GRILLES

## ORDER PARAMETERS

LNG-003	FL	22	PFD	OD9010	SM	N 400X200
<b>LNG-103:</b> Z-Flapped <b>LNG-203:</b> Curv. Flapped						
<b>00: No Accessory</b> <b>FL: with Filter</b> <b>PL: with Plenum Box</b>						
<b>22: Frame=22mm</b> <b>32: Frame=32mm</b>						
<b>000: Without Damper</b> <b>OFD: Opposite Flap Damper</b> <b>PFD: Parallel Flap Damper</b>						
				<b>N: Neck Size</b> <b>F: Frame Size</b> <b>00: No Mounting</b> <b>BF: Blind Frame</b> <b>SM: Screw Mounting</b> <b>CM: Clips Mounting</b> <b>PM: Plate-spring Mounting</b>		
				<b>00: No coating</b> <b>EX: Eloxal Coating</b> <b>OD----: Oven Drying Coating</b>		

