

Ge60/Ge90

Fire resistant ventilation grill

G4-B 06/2011

CONTENT

CONTENT • PRODUCT PRESENTATION • RANGE • FIRE CLASSIFICATION • APPROVALS AND TEST REPORTS	2
DIMENSIONS • STORAGE AND HANDLING • MAINTENANCE AND CLEANING • INSTALLATION	3
TECHNICAL DATA	4
WEIGHT • FREE AIR PASSAGE • SAMPLE ORDER	5

PRODUCT PRESENTATION

The Ge60 and Ge90 vision fire resistant rectangular ventilation grills are installed in rigid walls in order to prevent the propagation of fire. The grills are composed of plastic sleeves filled with intumescent strips and have a fire resistance up to resp. 60' & 90'.

- Tested according to EN 1364-1
- Suitable for mounting in rigid wall
- Plastic profiles, filled with intumescent material (from 100°C)
- Vision
- For interior applications
- Maintenance-free
- Avoid contact with water



RANGE

	Minimum dimensions	Maximum dimensions
W x H [mm] (*)	min 100 x 100	max 800 x 400

(*) W (Width) and H (Height) per increment of 50mm.

FIRE CLASSIFICATION ACCORDING TO EN 1364-1

		Ge 60	Ge 90
Rigid wall	Concrete wall 100mm	EI 60 (ve)	EI 90 (ve)
		EW 60 (ve)	EW 90 (ve)

ve = ventilation grill directly installed in a wall/door panel

E = integrity

I = thermal insulation

W = radiation

APPROVALS AND TEST REPORTS

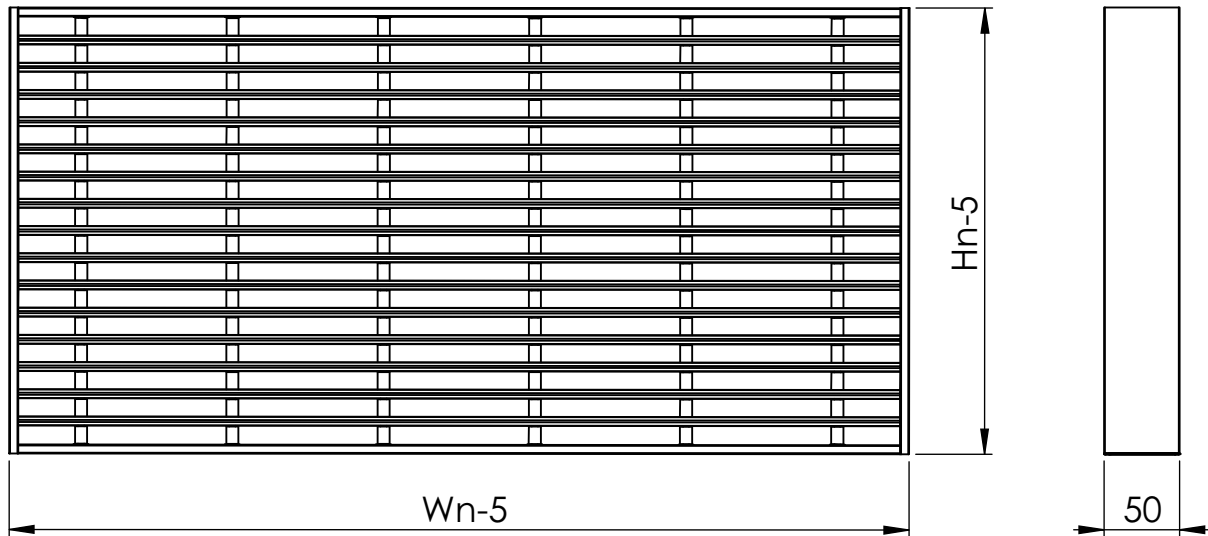
All our grills are submitted to tests by official test institutes. Reports of these tests form the basis for the approvals of our grills.



ISO : Certificaat: ISO 9001:2008



DIMENSIONS



STORAGE AND HANDLING

As the fire resistant grill is a safety element it needs to be stored and handled with care.

Attention:

- Avoid any kind of damage
- Avoid contact with water
- Avoid contact with heat

MAINTENANCE AND CLEANING

Use a soft tissue to remove any dust on the surface. Do not use a scrub sponge, alkaline/acid cleanser or solvents such as alcohol and thinner. The use of such materials can cause damage to the grill.

INSTALLATION

- The grill must be installed with the profiles horizontally
- Installation must be carried out in accordance with the test report
- Fire resistant grills are not supposed to be used for mechanical ventilation applications.

The fire resistant grills Ge60 and Ge90 were tested in standardized supporting constructions, according to EN 1364-1. The achieved results are valid for similar supporting constructions with a fire resistance and/or thickness and/or density equal or superior to the supporting construction used during the test.

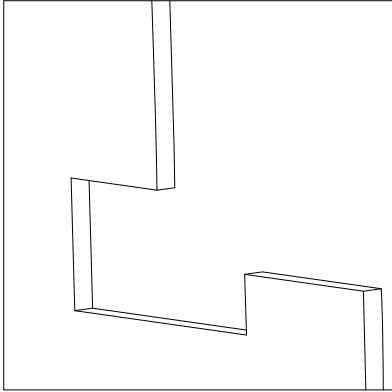
Examples of similar constructions

aerated concrete wall thickness 100mm + density 550 kg/m³ + fire resistance resp. $\geq 60'$ & $90'$

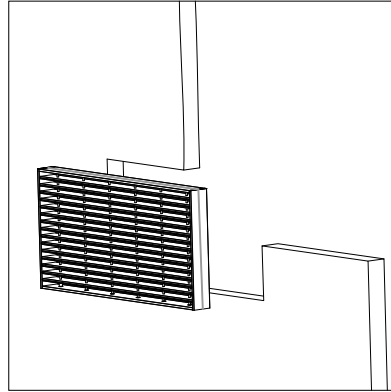
brick wall in hollow or full bricks, reinforced concrete, concrete light concrete, ... + fire resistance resp. $\geq 60'$ & $90'$

Installation in massive wall

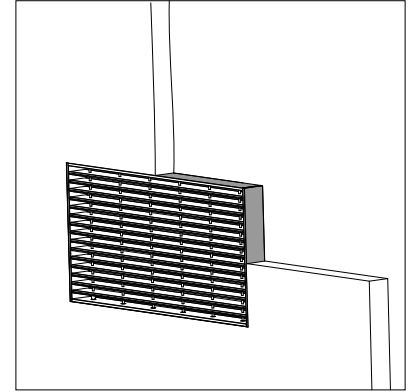
The grill was tested in an aerated concrete wall with a thickness of 100mm.



1. Provide a min. installation opening in the wall = $W_n \times H_n$.



2. Apply BCM sealing glue on all sides of the grill.



3. Mount the grill in the wall.

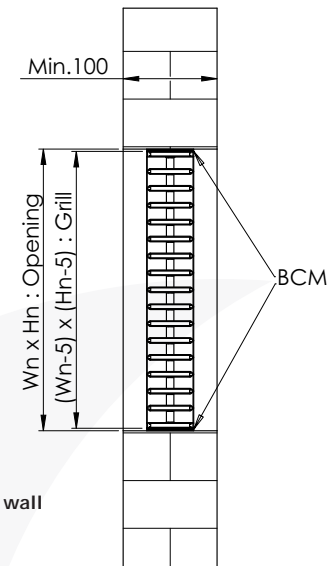


fig. Ge60 & Ge90 installation in massive wall

TECHNICAL DATA

Fire resistant grill	Ge60	Ge90
Description	Fire resistant ventilation grill	
Classification	EI 60 / EW 60 (ve) mounting in rigid wall 100mm	EI 90 / EW 90 (ve) mounting in rigid wall 100mm
Operation	The intumescent material starts to swell at 100 °C	
Operating pressure	-5 up to +10 Pa	
Installation direction	Slats placed horizontally	
Air movement	Random	
Fire side	Random	
Operating temperature	Max 60°C	
Environment	For interior use	
Maintenance	Maintenance-free	



WEIGHT

H/B [kg]	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
100	0,3	0,3	0,4	0,6	0,7	0,8	0,9	1,0	1,1	1,2	1,3	1,4	1,5	1,7	1,8
150	0,4	0,5	0,7	0,8	1,0	1,2	1,3	1,5	1,7	1,8	2,0	2,2	2,3	2,5	2,7
200	0,5	0,7	0,9	1,1	1,3	1,6	1,8	2,0	2,2	2,4	2,7	2,9	3,1	3,3	3,5
250	0,7	0,8	1,1	1,4	1,7	1,9	2,2	2,5	2,8	3,0	3,3	3,6	3,9	4,1	4,4
300	0,8	1,0	1,3	1,7	2,0	2,3	2,7	3,0	3,3	3,7	4,0	4,3	4,6	5,0	5,3
350	0,9	1,2	1,6	1,9	2,3	2,7	3,1	3,5	3,9	4,3	4,6	5,0	5,4	5,8	6,2
400	1,1	1,3	1,8	2,2	2,7	3,1	3,5	4,0	4,4	4,9	5,3	5,8	6,2	6,6	7,1

FREE AIR PASSAGE [m²]

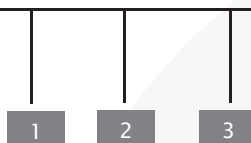
H/B [m ²]	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
100	0,00423	0,00718	0,00966	0,01261	0,01509	0,01804	0,02051	0,02346	0,02594	0,02889	0,03137	0,03432	0,03680	0,03975	0,04223
150	0,00654	0,01109	0,01491	0,01946	0,02329	0,02784	0,03166	0,03621	0,04003	0,04458	0,04840	0,05295	0,05677	0,06132	0,06515
200	0,00885	0,01500	0,02017	0,02632	0,03149	0,03764	0,04280	0,04895	0,05412	0,06027	0,06543	0,07158	0,07675	0,08290	0,08807
250	0,01117	0,01892	0,02543	0,03318	0,03969	0,04744	0,05395	0,06170	0,06821	0,07596	0,08247	0,09022	0,09673	0,10448	0,11099
300	0,01402	0,02367	0,03178	0,04143	0,04954	0,05919	0,06729	0,07694	0,08505	0,09470	0,10280	0,11245	0,12056	0,13021	0,13832
350	0,01634	0,02759	0,03704	0,04829	0,05774	0,06899	0,07844	0,08969	0,09914	0,11039	0,11984	0,13109	0,14054	0,15179	0,16124
400	0,01865	0,03150	0,04229	0,05514	0,06594	0,07879	0,08958	0,10243	0,11322	0,12607	0,13687	0,14972	0,16051	0,17336	0,18416

SAMPLE ORDER

Sample order =

Ge90 200 200

- 1 Type of grill
- 2 Width
- 3 Height



If the grill is manipulated in any other way than described in this manual, Rf-Technologies will decline any responsibility and the guarantee will immediately expire.

GE120

Rectangular linear bar grill 120'



Table of content

Declaration of performance	3
Product presentation GE120	4
Range and dimensions GE120	4
Storage and handling	4
Installation	4
Installation in rigid wall	5
Weights	6
Selection data	6
Sample order	6
Approvals and certificates	6

Explanation of the abbreviations and pictograms

Wn = nominal width	S = smoke leakage	o -> i = meets the criteria from the outside (o) to the inside (i)
Hn = nominal height	W = radiation	GKB (type A) / GKF (type F): "GKB" stands for standard plasterboards (type A according to EN 520) while "GKF" plasterboards offer a higher fire resistance for a similar plate thickness (type F according to EN 520)
Sn = free air passage	Pa = pascal	Q = air flow
Dn = nominal diameter	ve = vertical wall penetration	
E = integrity	ho = horizontal floor penetration	
I = thermal insulation	i <-> o = fire side not important	

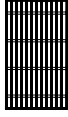


suitable for built-in installation



rectangular linear bar (see-through)

Range	Wall type	Wall	Sealing	Installation	Classification
150x100 mm ≤ Ge120 ≤ 800x400 mm	Rigid wall	Aerated concrete ≥ 100mm	Gypsum / Ytocol	1	EI 120 (v, i, e, o)
1	Type of installation: built-in, sleeves horizontal				



Product presentation GE120

Product presentation GE120

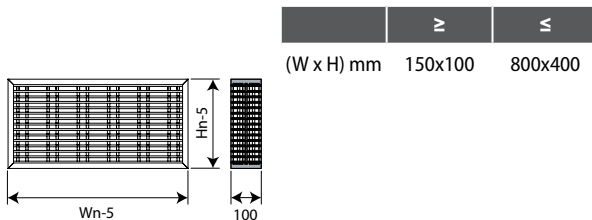
Rectangular linear bar grill ensuring 120 minutes fire resistance in rigid walls. The GE120 is ideally suited for the natural ventilation of technical rooms where a superior fire resistance and an optimal free air passage are required. The grill fits perfectly in the thickness of a standard massive wall.

- ☑ easy to install
 - suitable for built-in installation
 - tested in accordance with EN 1364-1
 - suitable for installation in rigid wall
 - rectangular linear bar (see-through)
 - for indoor use
 - sealing with gypsum or block glue
1. reinforced frame in HDF
 2. slats in synthetic material, filled with intumescent fire-resistant strips (as from 100°C)



Range and dimensions GE120

W/H per step of 50 mm



Storage and handling

As this product is a safety element, it should be stored and handled with care.

It is recommended:

- to unload in a dry area
- to keep in a cool, dry area, protected from humidity and heat
- transport the product in a closed vehicle
- transport the product with the lamellas in their horizontal position, by holding the grill at the sides (not at the upper or lower frame board!)

Installation

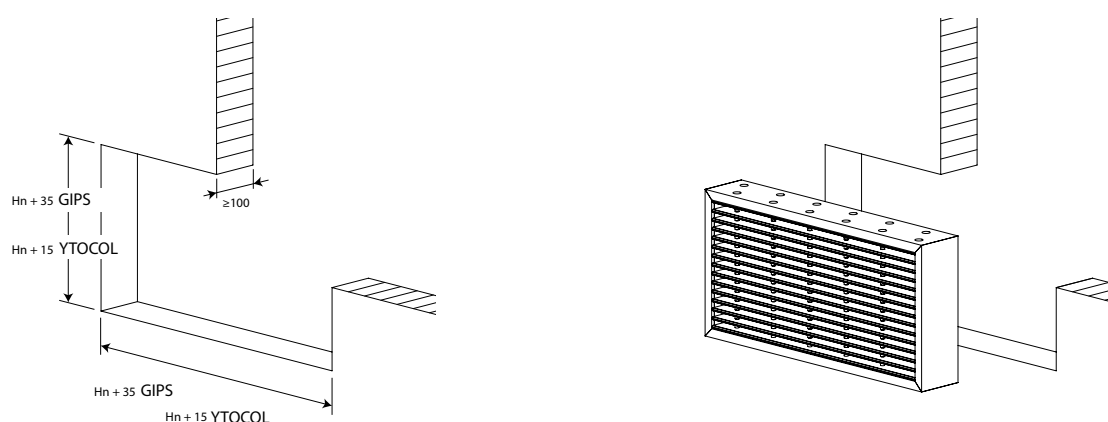
General points

- The installation must comply with the classification report and the installation manual delivered with the product.
- The product must be installed with the lamellas in their horizontal position.
- Rf-t fire resistant grills are always tested in standardised constructions according to EN 1634-1/EN 1364-1/EN 1364-2. The achieved results are valid for similar supporting constructions with a fire resistance, thickness and density equal or superior to the supporting construction used during the test.

Installation in rigid wall

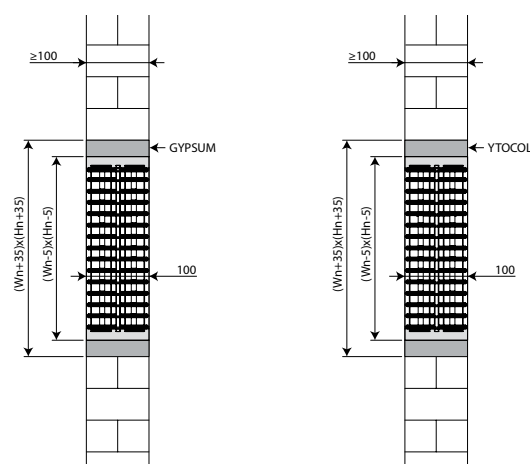
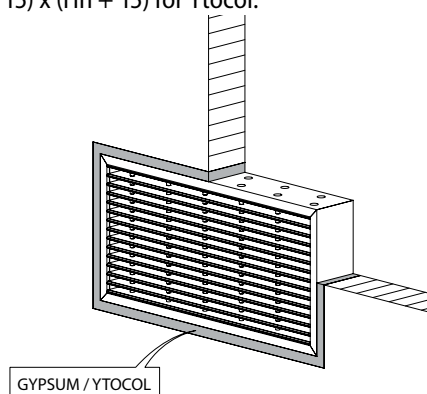
The product was tested and approved in:

Range	Wall type	Sealing	Classification
$150 \times 100 \text{ mm} \leq \text{Ge}120 \leq 800 \times 400 \text{ mm}$	Rigid wall	Aerated concrete $\geq 100\text{mm}$	Gypsum / Ytocol
			El 120 (v _e i ↔ o)



Provide a min. installation opening in the wall = $W_n \times H_n$.
 Maximum $(W_n + 35) \times (H_n + 35)$ for plaster (gypsum) and maximum $(W_n + 15) \times (H_n + 15)$ for Ytocol.

Mount the grill in the wall.



Fill the joint between the grill and the wall with plaster (gypsum) or Ytocol.

Maintenance

- Clean with a soft tissue, moisten with a mild, soapy water. Do not use a scrub sponge, alkaline/acid cleanser or solvents such as alcohol and thinner. The use of such materials can damage the grill.

Weights

GE120

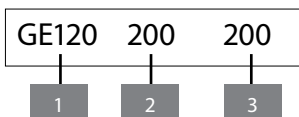
Hn\Wn [mm]		150	200	250	300	350	400	450	500	550	600	650	700	750	800
100	kg	1,2	1,5	1,8	2,1	2,4	2,7	3,0	3,4	3,7	4,0	4,3	4,6	4,9	5,2
150	kg	1,5	1,9	2,3	2,7	3,1	3,4	3,8	4,2	4,6	4,9	5,3	5,7	6,1	6,5
200	kg	2,0	2,5	3,0	3,4	3,9	4,4	4,9	5,4	5,9	6,3	6,8	7,3	7,8	8,3
250	kg	2,4	3,0	3,6	4,2	4,8	5,4	6,0	6,6	7,1	7,7	8,3	8,9	9,5	10,1
300	kg	2,9	3,6	4,3	5,0	5,7	6,4	7,0	7,7	8,4	9,1	9,8	10,5	11,2	11,9
350	kg	3,3	4,1	4,9	5,7	6,5	7,3	8,1	8,9	9,7	10,5	11,3	12,1	12,9	13,7
400	kg	3,7	4,5	5,4	6,3	7,2	8,0	8,9	9,8	10,6	11,5	12,4	13,2	14,1	15,0

Selection data

GE120 - Free air passage (m²)

Hn\Wn [mm]		150	200	250	300	350	400	450	500	550	600	650	700	750	800
100	Sn [m ²]	0,0034	0,0050	0,0066	0,0082	0,0098	0,0114	0,0131	0,0147	0,0163	0,0179	0,0195	0,0211	0,0227	0,0243
	Sn [%]	22,63	25,03	26,46	27,42	28,10	28,61	29,01	29,33	29,59	29,81	29,99	30,15	30,29	30,41
150	Sn [m ²]	0,0065	0,0096	0,0127	0,0157	0,0188	0,0219	0,0250	0,0281	0,0312	0,0342	0,0373	0,0404	0,0435	0,0466
	Sn [%]	28,88	31,94	33,77	34,99	35,86	36,52	37,02	37,43	37,76	38,04	38,28	38,48	38,65	38,80
200	Sn [m ²]	0,0096	0,0142	0,0187	0,0233	0,0278	0,0324	0,0369	0,0415	0,0460	0,0506	0,0551	0,0597	0,0643	0,0688
	Sn [%]	32,01	35,39	37,42	38,78	39,74	40,47	41,03	41,48	41,85	42,16	42,42	42,64	42,83	43,00
250	Sn [m ²]	0,0127	0,0187	0,0248	0,0308	0,0368	0,0428	0,0489	0,0549	0,0609	0,0669	0,0730	0,0790	0,0850	0,0910
	Sn [%]	33,89	37,47	39,61	41,05	42,07	42,84	43,43	43,91	44,30	44,63	44,90	45,14	45,34	45,52
300	Sn [m ²]	0,0164	0,0242	0,0319	0,0397	0,0475	0,0553	0,0630	0,0708	0,0786	0,0864	0,0941	0,1019	0,1097	0,1175
	Sn [%]	36,43	40,28	42,59	44,13	45,23	46,05	46,69	47,21	47,63	47,98	48,27	48,53	48,75	48,94
350	Sn [m ²]	0,0195	0,0287	0,0380	0,0472	0,0565	0,0657	0,0750	0,0842	0,0935	0,1027	0,1120	0,1212	0,1304	0,1397
	Sn [%]	37,14	41,06	43,42	44,99	46,11	46,95	47,60	48,13	48,55	48,91	49,21	49,47	49,69	49,89
400	Sn [m ²]	0,0226	0,0333	0,0440	0,0548	0,0655	0,0762	0,0869	0,0976	0,1083	0,1191	0,1298	0,1405	0,1512	0,1619
	Sn [%]	37,67	41,65	44,04	45,63	46,77	47,62	48,28	48,81	49,25	49,61	49,92	50,18	50,41	50,60

Sample order



1. product
2. width
3. height

Approvals and certificates

All our grills are submitted to tests by official test institutes. Reports of these tests form the basis for the approvals of our grills.



9001: 2008

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