



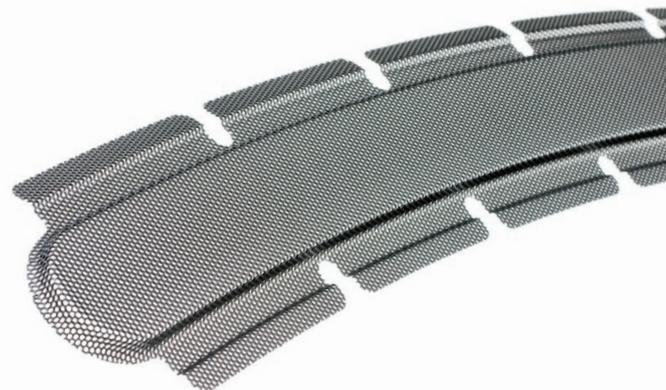
Bergmann & Hillebrand Visions in sheet metal

Precision perforation sheet metal parts and functional parts for automotive industries – these are our strengths. Our know-how allows us not only to provide excellent quality for standard applications but also to develop the best solution for challenging requirements of our customers. Absolute perfection in perforating, forming and surface treatment is our maxim. Whether lacquered or powder coated, anodized or chrome plated, you will get your parts ready for assembly. On request, we supply precision perforated sheet metal on coils or as blanks as well as tailored parts according to your specifications.

Loudspeaker grille:
stainless steel, etched



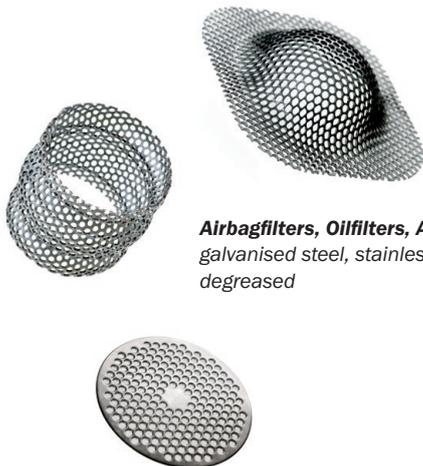
Ventilation cover:
galvanised steel,
2 sides painted,
embossed flange edge



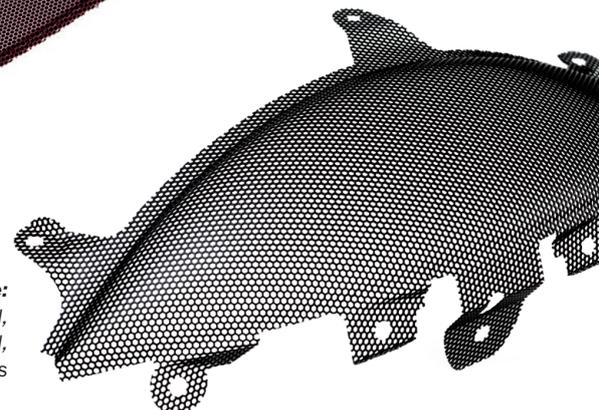
Loudspeaker grille:
galvanised steel, lacquer to match
leather color, glued-in foam,
mounted on plastic support with
snap-in adapters



Airbagfilters, Oilfilters, Airfilters:
galvanised steel, stainless steel,
degreased

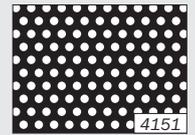
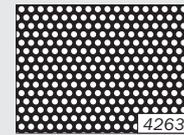


Visual grille:
galvanised steel,
2 sides lacquered,
3 D mounting points

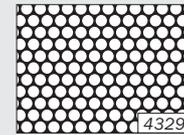


Bergmann & Hillebrand Precision Perforations

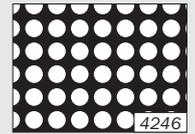
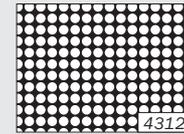
Rv = round holes, staggered lines	4201	4263	4151	4322	4141	4329	4330
hole size Ø (mm)	0,6	0,8	1,1	1,2	1,2	1,5	1,5
pitch (mm)	1,1	1,25	2,0	1,5	1,8	1,8	2,0
open area (%)	27	37	28	58	40,5	64	51
no. of holes/m ²	954.326	739.030	288.684	513.215	356.400	356.400	288.684



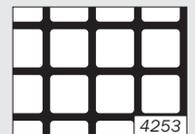
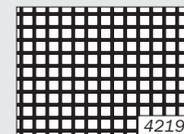
Rv = round holes, staggered lines	4199	4226	4198	4210	4328	4346	4348
hole size Ø (mm)	1,5	1,8	2,0	2,3	3,0	3,0	4,0
pitch (mm)	2,4	2,5	3,0	3,0	4,0	5,0	7,0
open area (%)	37	46	40	53	51	33	30
no. of holes/m ²	200.475	184.758	128.304	128.304	72.171	46.189	23.566



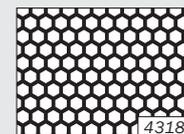
Rg = round holes, straight lines	4221	4256	4312	4246	4252
hole size Ø (mm)	0,7	1,2	1,25	2,3	3,0
pitch (mm)	1,2	1,8	1,5	3,0	4,0
open area (%)	26	41	55	46	44
no. of holes/m ²	694.444	308.642	444.444	111.111	62.500



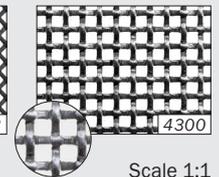
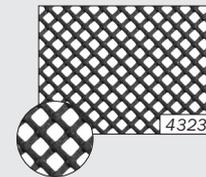
Qg = square holes, straight lines	4319	4288	4253
hole size (mm)	1,2	1,5	5,0
pitch (mm)	1,7	2,2	6,0
open area (%)	50	46	69
no. of holes/m ²	346.021	206.612	27.778



Hv = hexagonal holes, staggered lines	4318	4325	4272	4332
hole size hexagonal (key width mm)	1,5	1,9	2,3	3,5
pitch (mm)	2,0	2,5	3,0	4,2
open area (%)	56	56	57	70
no. of holes/m ²	288.684	184.758	128.304	65.461



Embossed perforations	4323	4320	4300	4311
hole size (mm)	1,1 x 1,1	1,1 x 1,1	1,5 x 1,5	1,2 x 2,4
pitch (mm)	2,26	1,6	2,2 (4,4)	1,8
open area (%)	47	47	46	53
no. of holes/m ²	195.787	390.625	206.612	185.185
	expanded metal imitation	woven wire imitation	woven wire imitation	woven wire imitation



Scale 1:1

Above you will find a small selection of perforations. You will find approx. 80 further perforations in our catalogue; amongst them many specialities. Please ask us if you do not find your pattern. We produce exclusively to customer order and specification. Our in-house tool shop allows us to realise customer specific perforation patterns.



Bergmann & Hillebrand – Your reliable and capable manufacturer of high precision perforated sheet metal and further processing. As a qualified manufacturer for automotive industries we are specialised on fine perforations with open areas up to 70%. We deliver stamped and formed parts to meet highest quality requirements in precision, visual appearance and function – individually customised to the specifications of our customers.

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