

POHL
EXPANDED
METAL
SYSTEMS

THE RIGHT MESH FOR EVERY REQUIREMENT



POHL EXPANDED METAL SYSTEMS

A facade cladding made of expanded metal offers diverse functional and design options. For example, expanded metal can be used as privacy or sun protection in front of a glass facade, or clad a multi-storey car park so that air can circulate. Expanded metal is also a design option for indoor rooms or as ceiling cladding.

We have combined the diversity of the expanded metal mesh with our standardised highly functional rainscreen systems POHL Europanel and POHL Ecopanel. This has resulted in four expanded metal systems that leave nothing to desire.

For planning a cold facade, you can choose between POHL Europanel EM and POHL Ecopanel EM. For use as a warm facade, we have developed the variants POHL Europanel EM-P and POHL Ecopanel EM-P. In both systems, the insulation layer is protected against moisture with an additional sheet.



Property: Company headquarters Lemken, Alpen
Architect: STRUCTURELAB GmbH
Facade system: Expanded metal, POHL Ecopanel EM
Material: Aluminum

DESIGN BENEFITS AT A GLANCE

Protection against overheating during the summer months



Visual contact with the outer world but protected against curious onlookers



Diffuse sound reflection helps to channel the noise emission of the city



Intelligent shading solutions



Glare protection



Free from harmful substances: the metal is expanded by cold forming. No waste is produced



Optimum use of daylight



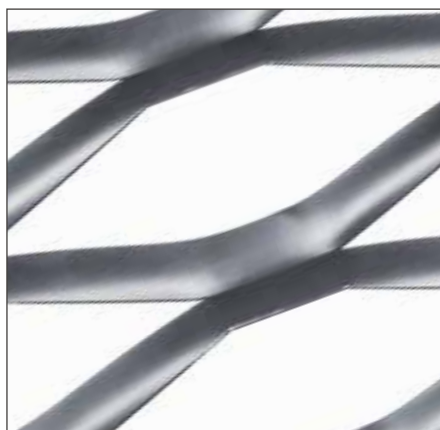
Diverse design options



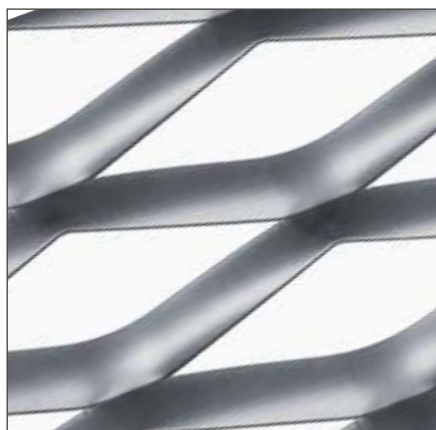
THE RIGHT MESH FOR EVERY REQUIREMENT

To evaluate the expanded metal visually, we possess parametric 3D files of all mesh types we supply. This allows you to visualize the expanded metal even before you hold it in your hand. Moreover, we supply you with the complete fundamental details of each system in 2D.

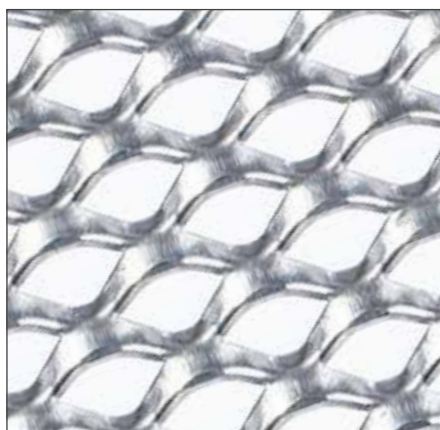
MESH TYPES



Trapezium mesh



Diamond mesh



Quadratic mesh



Round hole mesh

Let yourself be inspired by our database with more than 45 different visualised meshes.

Property: Glockenspitz – Living in Schönwasserpark, Krefeld

Architect: pbs Architekten

Facade system: POHL Ecopanel EM-P

Material: Aluminum

ELEMENT SIZES

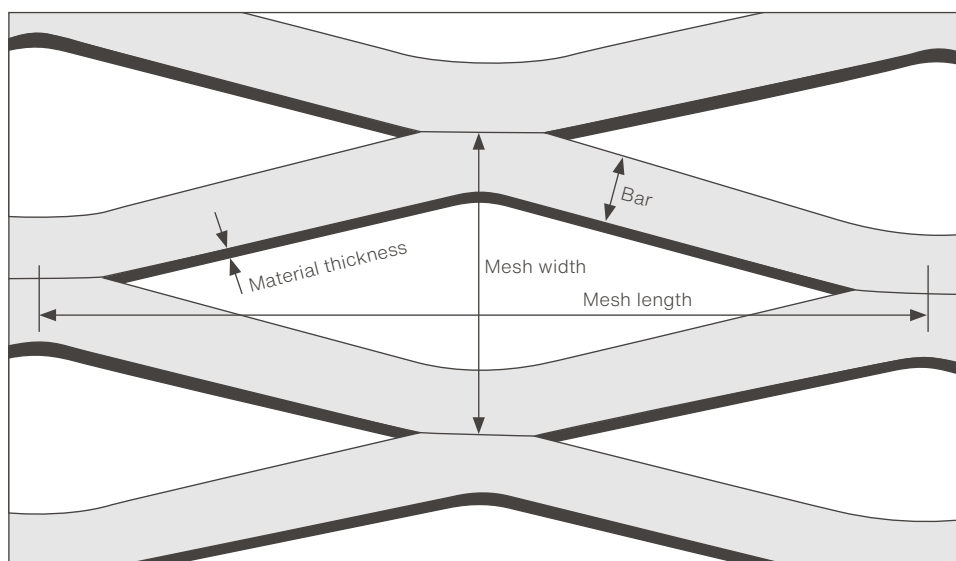
Max. 500 x 6,000 mm
at a material thickness of 1 to 6 mm

The outer edge of our expanded metal panels always has a clean cut to allow the mesh run to create a continuous joining pattern over the entire facade.

TECHNICAL KEY POINTS

The form of expanded grating made of aluminium can be shaped flexibly and is particularly very well suited as architectural element. You have the choice between four different geometrical mesh types.

TECHNICAL PROPERTIES



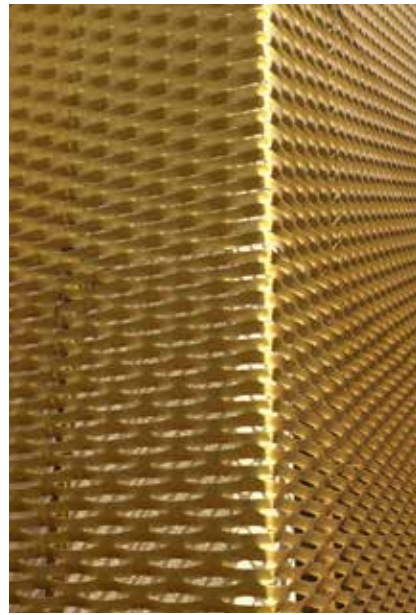
We dispose over a comprehensive database with the technical details of all expanded metals. We would be pleased to consult you, for example on the topic light transmittance or ventilation cross-section and find the correct mesh for your requirements.

FORM AND COLOUR

After selecting the desired geometric mesh type, element size and technical key points, you have a wide range of further design options at your disposal.

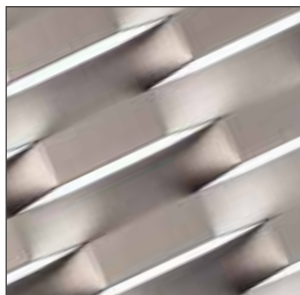
MECHANICAL MACHINING

Rounded, edged or formed in 3D – an expanded grating is highly versatile and flexibly adapts to the architectural vision.



SURFACES

Being matt or glossy, coloured or natural - you determine the finish. Expanded gratings are outstandingly suitable for an anodized surface, such as POHL Duranize®. However, powder coating or wet paint are also suitable to implement the desired design.



Anodized (POHL Duranize)



Powder coating



Wet paint coating

POHL EUROPANEL EM

Expanded metal in cassette optic and visible joint pattern are the design features of POHL Europanel EM.

Property: Kubus Aalen
Architect: merz objektbau GmbH & Co. KG
Facade system: POHL Europanel® EM, Expanded metal
Material: Aluminum

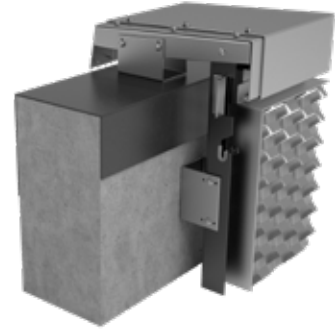
CROSS SECTION



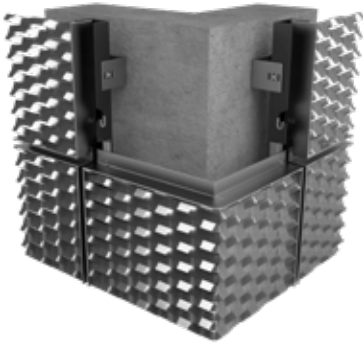
BOTTOM SECTION



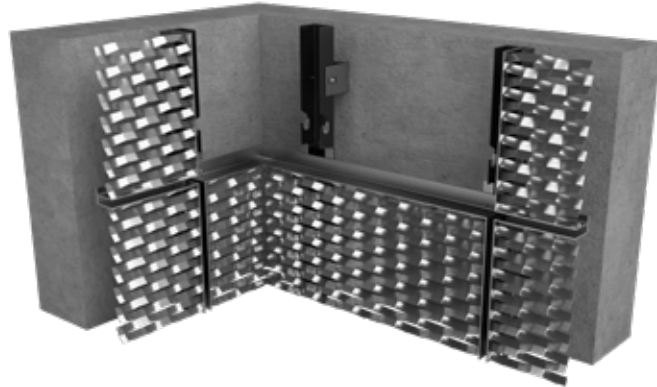
COPING PANEL



OUTSIDE CORNER



INSIDE CORNER

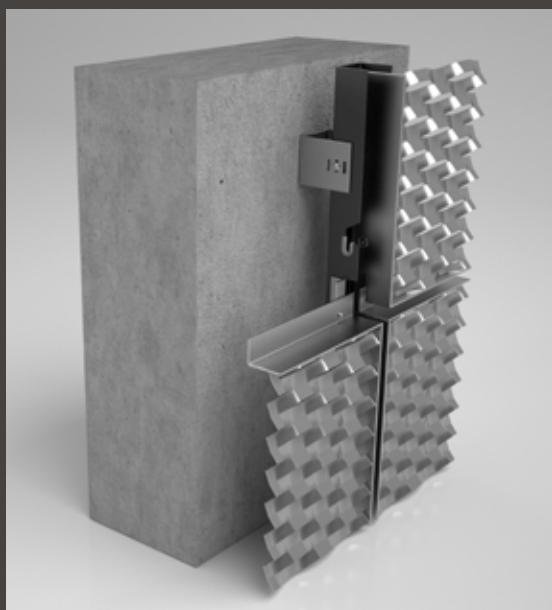
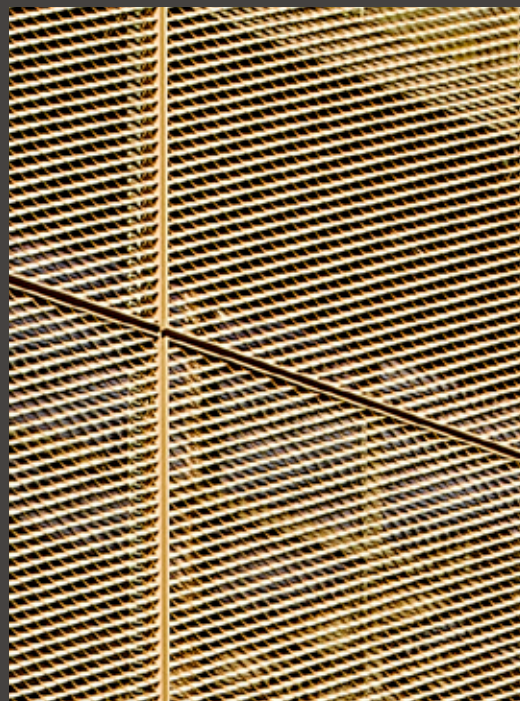


POHL Europanel EM-P

Our expanded metal systems can also be used as warm facade.
Here you can view the details for POHL Europanel EM-P.



BENEFITS



TOP FEATURES

- Cassette optic
- Freely selectable mesh type and opening angle
- Horizontal or vertical emphasis
- Multiple colouring possible
- Cold facade system

On our expanded metal data sheets, we have already put the necessary information together for each mesh. Please contact us for advice.

SIMPLE ASSEMBLY

POHL Europanel EM functions according to the modular principle. The suspension bolts and the support rails are already prefabricated to size and facilitate easier installation. Depending on the situation on the construction site, the level of prefabrication is adapted individually. The system can be used as cold or warm facade.



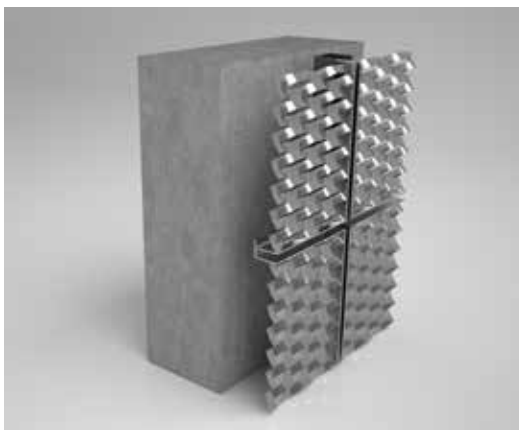
INSTALLATION OF THE WALL BRACKETS

The multiple pre-punched wall bracket allow structural tolerances of +/- 25 mm to be compensated. By using stainless steel wall brackets, the highest energetic requirements are fulfilled.



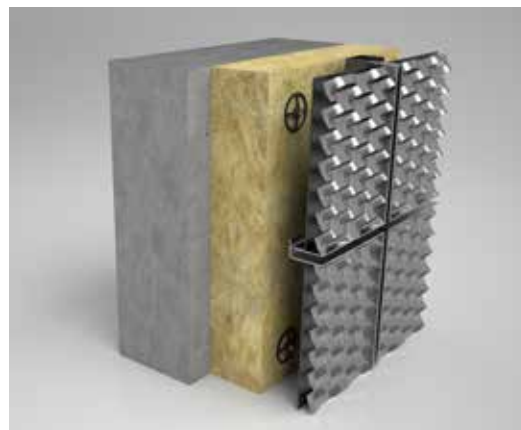
HANGING IN THE EXPANDED METAL FRAMES

The expanded metal is attached to a fixed frame which makes handling on the construction site easier. The panels are, as usual, hung in via the POHL pins and secured mechanically with a locking screw.



RESULT

POHL Europanel EM has been successfully mounted and offers a homogeneous and clean facade image.



VERSIONS WITH INSULATION LAYER

With POHL Europanel EM-P, the insulating material is cut in at the points of the wall bracket and guided on the outer wall. On the spacers of the supporting rails, first a guard plate is mounted and then the expanded metal panel.

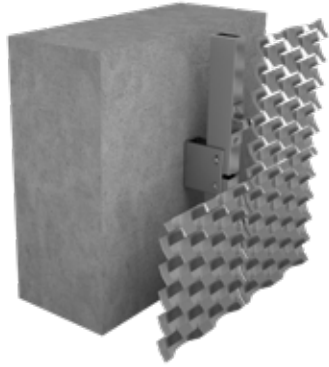
POHL ECOPANEL EM

Expanded metal with a smooth appearance and continuous cut are the design features of POHL Ecopanel EM.

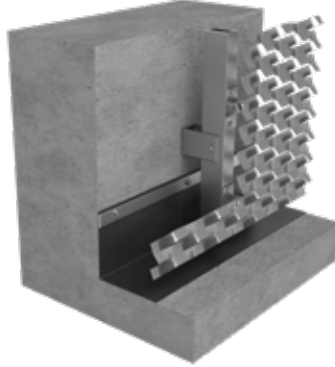


Property: Company headquarters Lemken, Alpen
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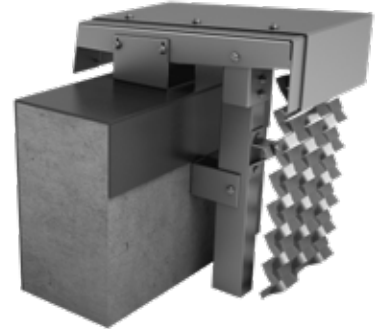
CROSS SECTION



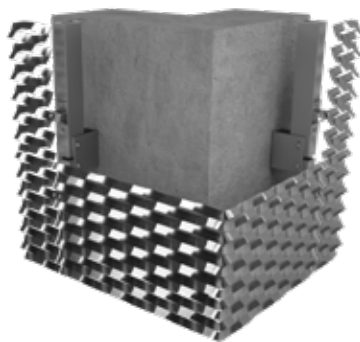
BOTTOM SECTION



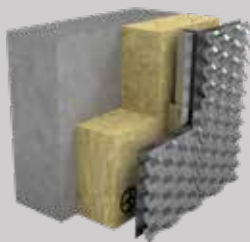
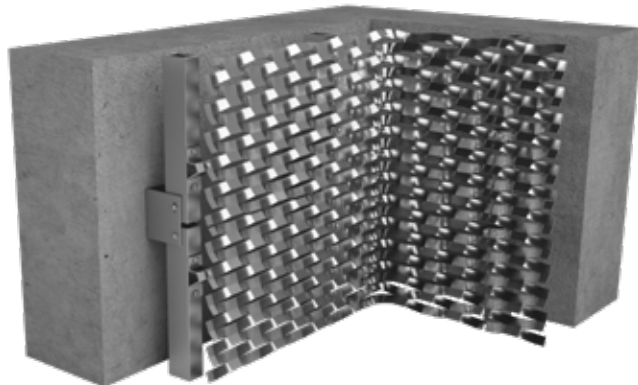
COPING PANEL



OUTSIDE CORNER



INSIDE CORNER

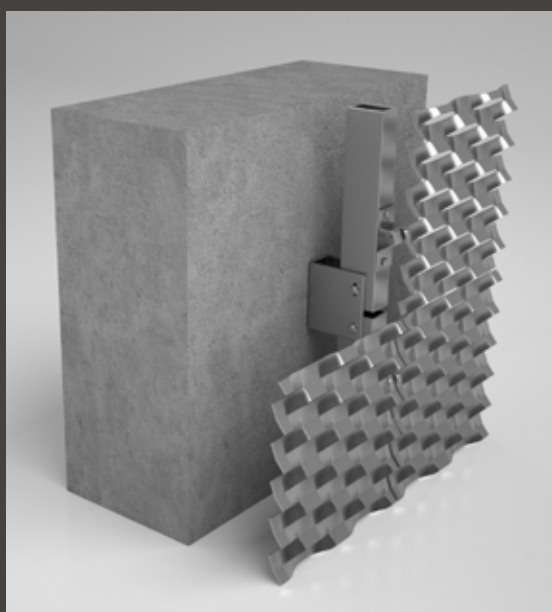


POHL ECOPANEL EM-P

Our expanded metal systems can also be used as warm facade.
We supply you with the pre-constructed basic details for the
POHL Ecopanel EM-P.



BENEFITS



TOP FEATURES

- Smooth facade optic
- Hair joint
- Visibly attached
- Cold facade system
- Mesh type and size depending on the production-technical feasibility.

On our expanded metal data sheets, we have already put the necessary information together for each mesh. Please contact us for advice.

SIMPLE ASSEMBLY

POHL Ecopanel EM perfects the full surface overall appearance of the facade by using tailored assembly components. As even the smallest irregularities would significantly impair the joint pattern.



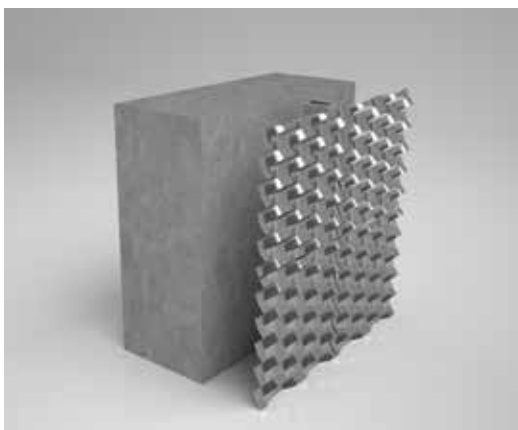
INSTALLATION OF THE WALL BRACKETS

The multiple pre-punched wall bracket allow structural tolerances of +/- 25 mm to be compensated. By using stainless steel wall brackets, the highest energetic requirements are fulfilled.



FUNCTION OF THE EXPANDED METAL HOLDER

The expanded metal holder are cut to fit perfectly on the mesh. That enables the perfect alignment of the panels and assembly free from deformation.



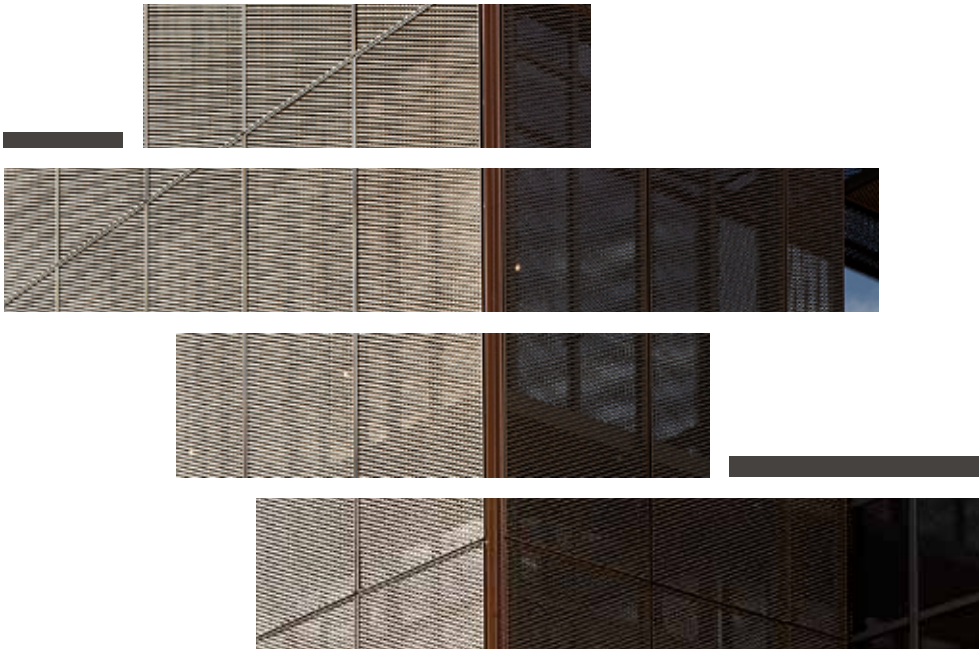
RESULT

After successful assembly, only a hair joint may be perceived between the panels of POHL Ecopanel EM.



VERSIONS WITH INSULATION LAYER

With POHL Ecopanel EM-P, the insulating material is cut in at the points of the wall bracket and guided on the outer wall. On the spacers of the supporting rails, first a guard plate is mounted and then the expanded metal panel.



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GET IN TOUCH

