



BRUAG
Innovation for Architecture

Partition Wall & Room Dividing Elements

MDF design, classic
OAK PLYWOOD design, classic
CELLON® design

Technical data sheet for planning,
construction and execution

1.2

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General Information

01.

Material

The **MDF board** is a wood-based material made of finely fibrillated softwood, which is pressed into a board product that is equally homogeneous in the longitudinal and transverse directions.

Application area: Interior (e.g. ceiling and wall cladding, stair railings)
Panel thickness (weight): 10mm (approx. 7kg/m²), 19mm (approx. 14kg/m²), 30mm (approx. 22kg/m²)
Reaction to fire class: RF3, D-s2-d0 (EN 13986)

The **OAK PLYWOOD panel** consists of individual layers of wood, which are glued and pressed crosswise to their fibre direction. This reduces directional properties such as swelling and shrinkage.

Application area: Interior (e.g. ceiling and wall cladding)
Panel thickness (weight): 18mm (approx. 7kg/m²)
Reaction to fire class: RF4, E (EN 13986)

The **CELLON® panel** is a high-pressure laminate panel (HPL Compact or solid core panel) consisting of 70% cellulose webs and 30% phenolic resin. The extremely weather and frost-resistant material is ideal for outdoor applications.

Application area: mounted vertically in outdoor areas (e.g. facades, balcony railings)
Panel thickness (weight): 8mm (approx. 12kg/m²), 10mm (approx. 15kg/m²)
Reaction to fire class: RF2, B1 (DIN 4102-1), B-s1-d0 (EN 13501-1)

The raw panels are project-specifically cut to the desired dimensions using laser technology (including drill holes). You choose the **width (x)** and the **length (y)** of the panels individually. Do you want round cuts or additional cut-outs? Simply draw them in your DXF plan and they will be **manufactured to size**.

Panel Formats

Please consider the following raw panel formats for waste optimisation:

perforated or plain panels

MDF® design, classic

Raw width	Raw length
2050 mm	4080 mm

perforated or plain panels

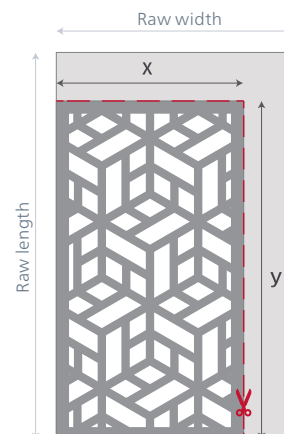
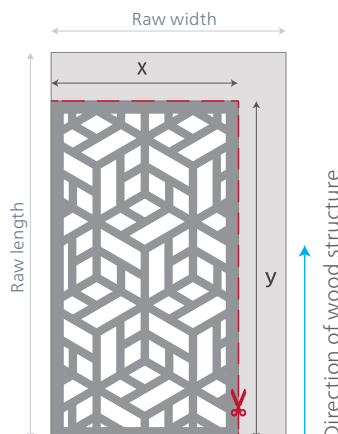
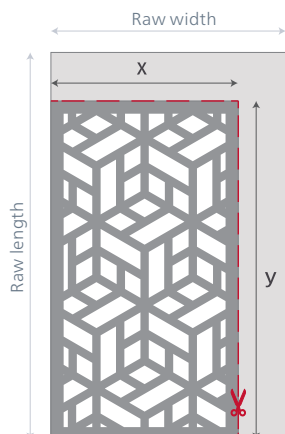
OAK PLYWOOD design, classic

Raw width	Raw length
1500 mm	3000 mm

perforated panels

CELLON® design

Raw width	Raw length
1200 mm	2400 mm
1280 mm	3000 mm
1500 mm	3600 mm
1800 mm	3600 mm



Whenever possible, the raw material sizes should be considered when planning the panel layout so that panel waste can be minimised. We support you with this.

General Information

01.

Data Transmission for Orders

Please note the following when placing an order:

Data Format

- DWG / DXF Data
- Cadwork 2D or 3D Data
- Parts lists in Excel (if only as Excel without CAD file is sent, it might result in additional work in our work preparation)

Data Content and Structure

- Panels are drawn on a separate layer
- Drawing in 1:1 ratio
- Measurement of at least one long and short side to be able to verify the scale
- Boreholes (drawn as a closed circle), cut-outs, etc. are marked accordingly
- Special requests for grouping and/or palletisation must be explicitly specified. Normally there is room on one pallet for 120 square metres of panels. Within the pallet there is no sorting by panel numbers etc.

Own Design (the following specifications must be observed for own designs)

- Design must be created as CAD drawing (DWG or DXF file)
- Contours must be neatly closed and drawn as a line (not several lines on top of each other)
- Size ratio must be clearly visible

In the event of post-processing by Bruag Design Factory AG, the resulting additional work will be invoiced.

Storage and Cleaning Instructions

The panels must never be stored outdoors. The panels can be cleaned with water and a fabric or magic sponge. Do not use any chemical cleaning agents.

Cutting and Drilling Guidelines

Basically, cutting to size on site should be avoided and the panels should already be ordered to the project-specific size whenever possible. However, in exceptional cases it is possible to process the panels on site, with the note that the panels are coated and the cut edge will therefore not have the same colour after cutting as the surface. Tools with carbide cutting edges or diamond cutting edges are advantageous as cutting items. The visible side should be at the top when cutting and, if possible, a guide rail should be used.

Spiral or dowel drills made of solid carbide are ideally used for drilling.

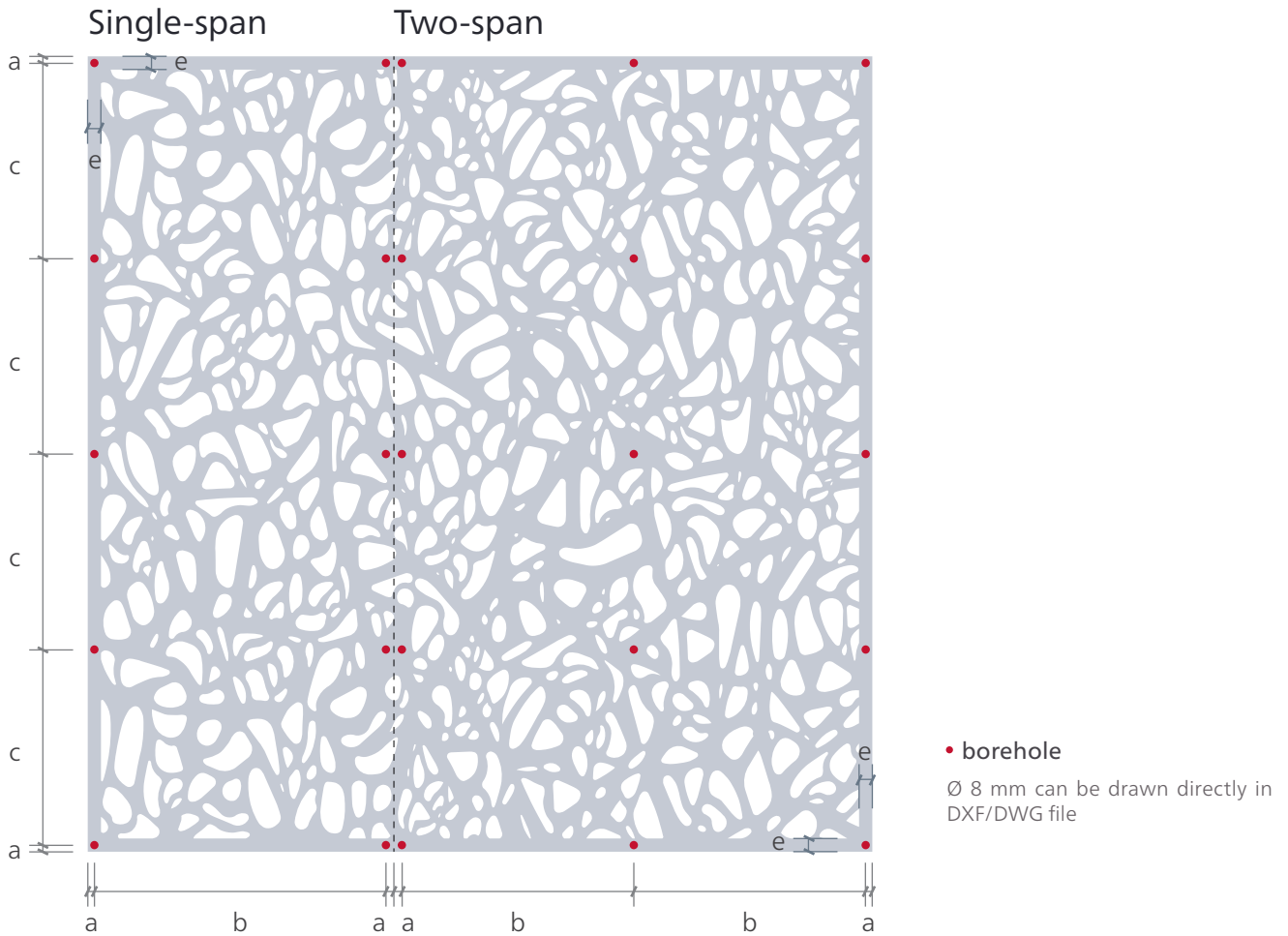
The material does not require post-treatment from the point of view of weather protection. However, if necessary, the edge can be coated with the supplied reserve paint.

Fastenings

02.

Fastening Distances

Partition wall elements made of **MDF 30mm** can be installed without additional substructure. For partition walls made of **CELLON®**, **MDF 19mm** or **OAK PLYWOOD**, additional profiles or a supporting substructure must be planned. When fastening to a substructure, the following fastening distances must be observed.



Position in mm	Description	Maximum distance				
		MDF		OAK PLYWOOD	CELLON®	
		10 mm	19 mm	18 mm	8 mm	10 mm
a	Distance borehole to edge	20				
b	Horizontal borehole distance	700	875	875	970	970
c	Vertical borehole distance	600	700	700	645	645
e	Frame without perforation	50				

Reciprocal conversion:

$$c \text{ (adjusted)} = b \text{ (max)} / b \text{ (effectiv)} \times c \text{ (max)}$$

$$b \text{ (adjusted)} = c \text{ (max)} / c \text{ (effectiv)} \times b \text{ (max)}$$

Fastenings

02.

Fasteners

Wooden Substructure

Truss-head Screw

Material:	Stainless steel A2
Length:	38 mm
Nominal diameter:	4.8 mm
Head diameter:	12 mm
Drives:	TX20
Borehole diameter:	8 mm



Metal Substructure

Hexagon-head screw (self-drilling with sealing washer)

Material:	Stainless steel A2 (with drill point and shaped thread made of hardened steel)
Length:	32 mm
Nominal diameter:	5.5 mm
Head diameter:	16 mm
Drives:	SW8, hexagon head
Borehole diameter:	8 mm



Blind Rivet

Material:	Aluminium/Stainless steel A2
Length:	8-13 mm
Nominal diameter:	5.0 mm
Head diameter:	14 mm
Drives:	Blind rivet tool
Borehole diameter:	8 mm



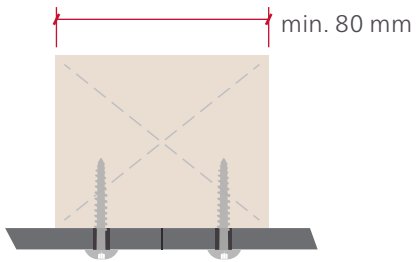
Substructure

03.

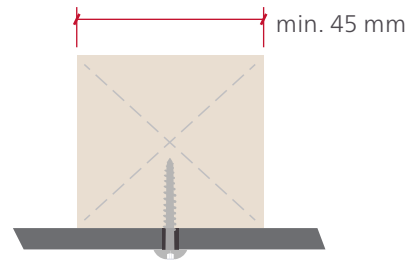
The substructure can be made in wood or metal.

Wooden Substructure

in Joint Area



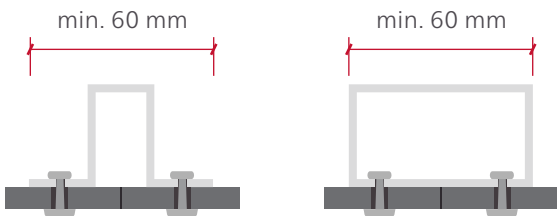
at Intermediate Batten



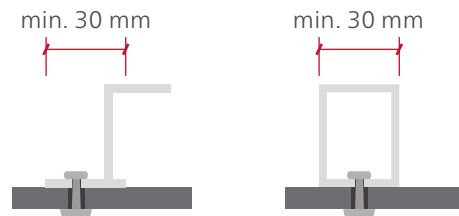
Metal Substructure

Metal Profiles

in Joint Area



at Intermediate Fixation



Construction Solutions

04.

Partition Wall MDF 30mm without Substructure

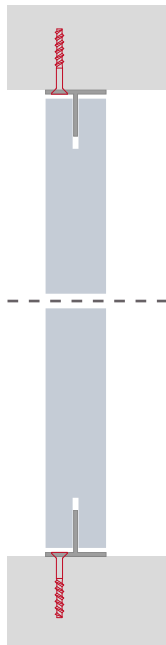
Individually customizable wall element for niche cladding. Fixing by means of clamping brackets, profile bars or angle profiles. Fastening accessories must be supplied by the installing contractor.

Possible Mounting Variants

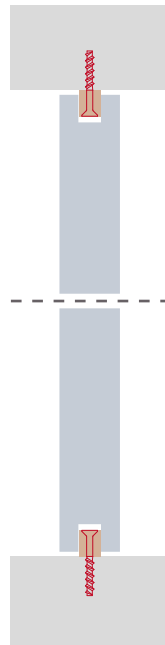
U-Profile



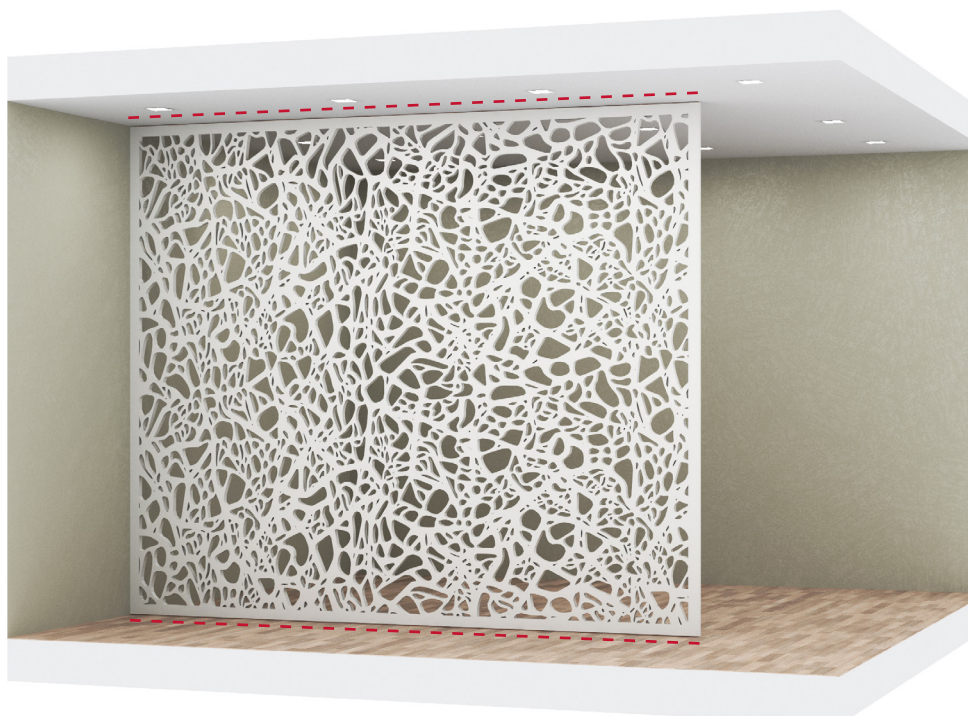
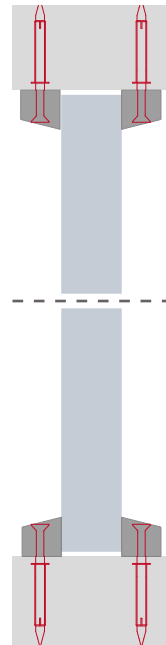
T-Profile



Grooved Strip



Profile Bars



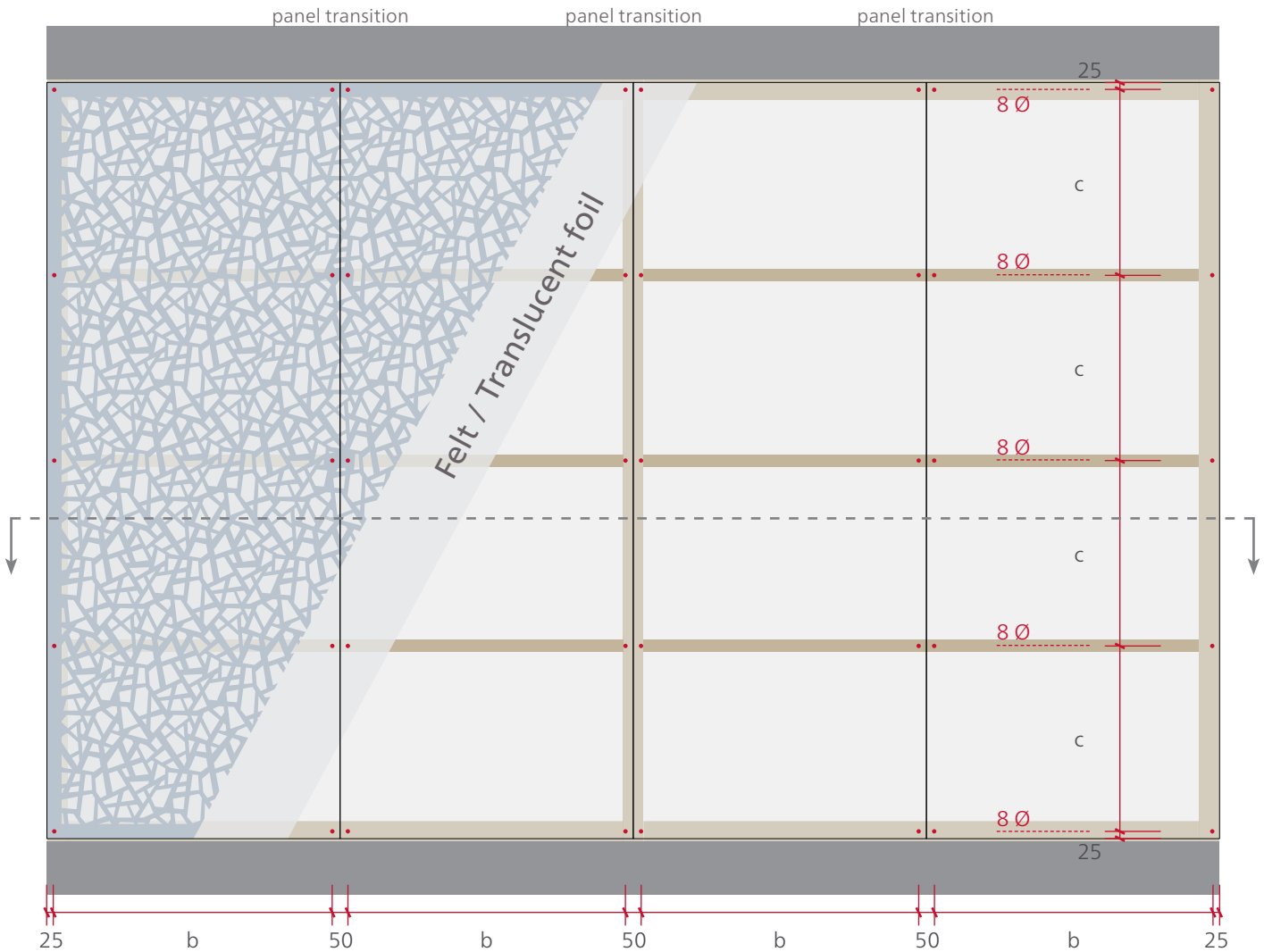
Construction Solutions

04.

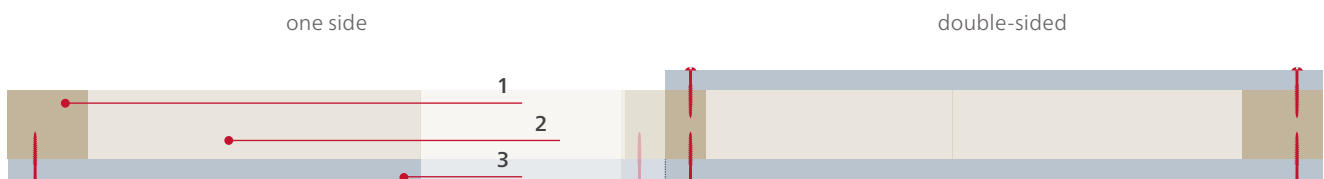
Partition Wall with Substructure

To prevent the substructure from being visible through the perforation openings, a felt can be used as a privacy screen. By using a translucent film, the perforation can additionally be backlit with LEDs.

Elevation Plan



Detail



- 1 Wooden post
- 2 Wooden substructure
- 3 MDF 19mm, OAK PLYWOOD or CELLON® panel

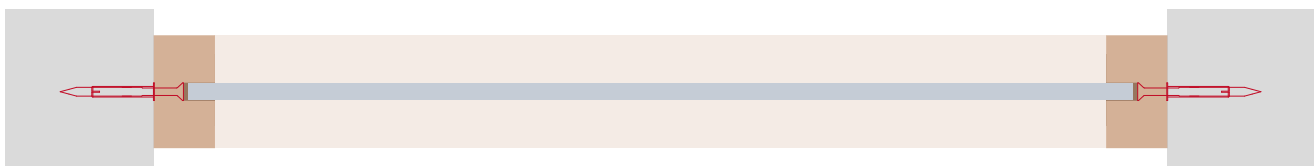
Construction Solutions

04.

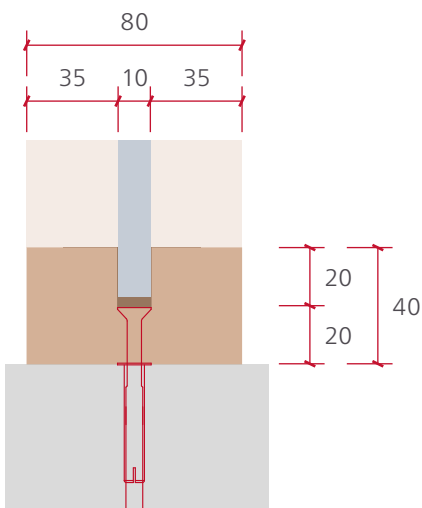
Partition Wall Framed in Solid Wood

The material **CELLON®** is recommended for very filigree screen elements. For a visually appealing assembly and sufficient stability, the elements can be set in frames made of solid wood or metal.

Floor Plan



Detail



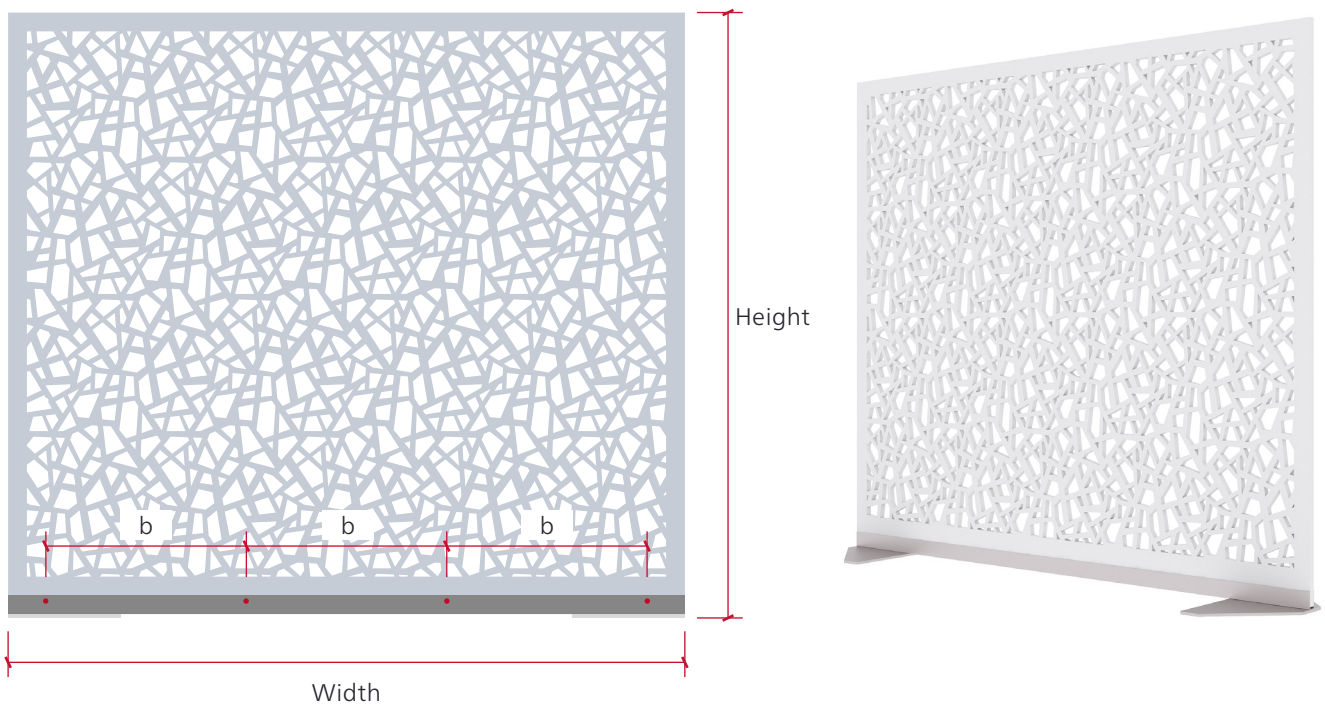
Construction Solutions

04.

Portable Partition Element

The perforated **MDF** board with a thickness of **19 mm** is supplemented with a metal foot. The result is a flexible and light room divider, semi-transparent and beautiful. The size can be chosen freely, whereby the maximum width is 2000 mm and the height is 1800 mm.

Elevation Plan



Detail



Maximum Formats

Material	Maximum width	Maximum height
MDF 19 mm	2000 mm	1600 mm
OAK PLYWOOD 18 mm (Horizontal wood structure)	2000 mm	1500 mm
OAK PLYWOOD 18 mm (Vertical wood structure)	1500 mm	1600 mm

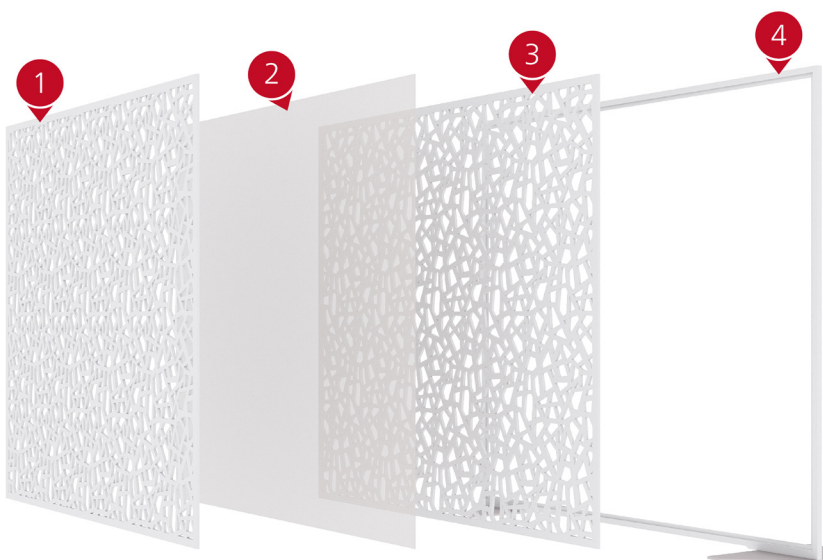
Construction Solutions

04.

Partition Wall with Privacy Film

The elementary partition wall can be supplemented with a micro-perforated foil. Two **MDF 10mm** are attached to each other and a foil is clamped in between. This increases privacy and ensures slight sound absorption. This partition wall is also produced directly to your desired size. The maximum width of 2000 mm or height of 1800 mm shall be considered.

Elevation Plan



- 1 MDF design panel
- 2 Microperforated acoustic foil
- 3 MDF design panel
- 4 Sub-frame + Metal feet

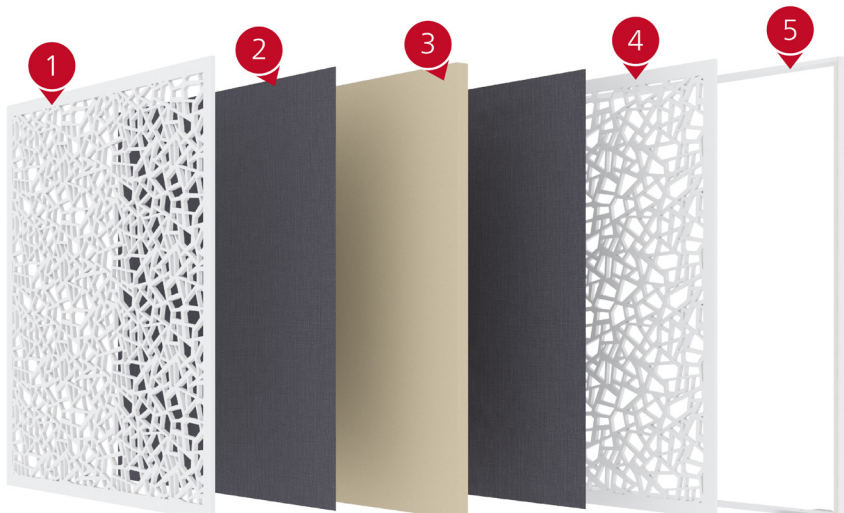
Construction Solutions

04.

Partition Wall with Sound Absorber

If you add a sound absorber to the partition wall, you have a portable acoustic system that can be optimally used in an open-plan office or similar. In order to achieve the best possible effect, the size 1900mm x 1900mm x 140mm has proven itself. Two 19mm MDF panels can be combined with a 100mm thick absorber. The format can also be adapted on request.

Elevation Plan



- 1 MDF design panel
- 2 Felt
- 3 Sound insulation
- 4 MDF design panel
- 5 Sub-frame + Metal feet

Additional Details

05.

Panel Connections

Lamello for MDF



Steel bolts for CELLON®



In the case of multi-part elements made of **MDF** and **OAK PLYWOOD**, **Lamello** connectors can be milled into the panel joints. A depth of 12 mm is required on each side for the milling. The pattern has sometimes to be adjusted slightly at these points.

For multi-part elements made of **CELLON®**, 12 mm long **steel bolts** can be drilled in at the panel joints on the face side. This ensures that the panels are always in the same alignment.

Edge Characteristics

The edges are black due to the laser cutting. A shimmering through of the black laser edge cannot be completely avoided with light colors, especially in acute-angled perforations. Slight puncture points from the laser are visible in the perforations. This is a product property and therefore not a reason for complaint.

Our outer edges are not reworked manually. This means that certain unevenness can occur with MDF 19 and 30 mm.



Design

06.

You can find the entire perforation collection in our catalogue.





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