

GMP 50 / GMP 100

Wall system as sandwich construction



Cleanroom wall systems

Status 04/22

GMP 50 / GMP 100 Sandwich construction



As a system supplier, clean-tek has various cleanroom wall systems developed in-house, all of which are characterised by their compatibility with each other and maximum flexibility.

We don't just produce wall panels, but as a system supplier we offer you a modular system with which we develop optimal cleanroom solutions. Individual special solutions are part of our standard.

Thanks to our own production and the flexibility of our system components, we can guarantee almost unlimited variability. The GMP wall system meets the high requirements of the EC GMP guidelines and DIN EN ISO 14644.

It is available in 2 versions:

- GMP 50 with a width of 50 mm and
- GMP 100 with a width of 100 mm

Features and benefits:

- Maximum flexibility through a simple but very stable system
- Can be combined with all clean-tek systems, for example glass walls, parapet glazing elements as well as with all doors, gates and sluice gates
- Perfectly coordinated system combination
- Wall cut-outs possible
- Individual wall elements can be converted and removed without dismantling neighbouring elements

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- Concealed installation of media and supply connections
- These media ducts are easily accessible
- Compensation for uneven floors possible
- High degree of prefabrication ensures rapid implementation even for extensive construction projects
- The GMP wall is fully recyclable: top layer and filling can be separated from each other and disposed of
- No carrier material for microbiological growth

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Material information:

The choice of material depends decisively on your production. We will be happy to advise you personally.

Wall panel	She Stai Stai Alur
Colour	Sta Oth
Coating	Coil Pow Gro Ano
Wall connection	Alur
Wall infill	Roc [l



Construction:

The GMP 50 / GMP 100 wall system is a sandwich construction consisting of two sheet metal shells and an integrated aluminium frame.

The wall system is provided with an infill, which is selected according to the application.

The patented band louvre rails with the corresponding cover strips guarantee flush and airtight closures.

This makes the GMP wall a simple but very stable and adaptable system.

The individual wall panels can always be manufactured to fit exactly for each application and can also be replaced individually at any time later.

Rock wool

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eet steel, galvanised, 1.00 mm ainless steel 1.4301 (V2A), 1.00 mm ainless steel 1.4401 (V4A), 1.00 mm uminium, 1.50 mm

andard RAL 9010 her colours on request

il coating (sheet steel) wder coating (sheet steel) ound (stainless steel only) odised (aluminium only)

iminium powder-coated RAL 9010

ck wool

Density

U-value

Sound insulation

100 kg/m³ 0,896 W/m²K 36 dB(A)

Aluminium honeycomb

Density

Ú-value

Sound insulation

10 kg/m³ 0,886 W/m²K 34 dB(A)



Aluminium honeycomb

Design:

Bandraster wall

In the bandraster system, a vertical installation shaft is integrated between each wall element, in which media and supply lines with a diameter of 30×60 mm can be installed concealed.

The lines are fed from the intermediate ceiling into the media shaft and guided through the clamping plates. These media ducts are easily accessible for maintenance and retrofitting work at any time.

Advantages compared to the axle grid system:

- Maximum flexibility in the integration of media connections due to the installation shafts between each wall element.
- The GMP 50 and GMP 100 wall can be designed in the ribbon grid as a solid wall, spandrel glazing and as an upper door section.
- Cut-outs are made in the factory and are possible in element width.

Axial grid solid wall

In the axial grid wall system, the wall elements are placed directly next to each other. The installation shaft for the media and supply connections is omitted.

During the planning phase, the axis grid wall can be equipped with additional installation shafts.

Advantages over the band grid system:

- Fewer silicone joints than with the band grid wall
- Economical solution with exact preliminary planning
- The GMP 50 and the GMP 100 axis grid wall can be designed as a solid wall. The cut-outs are manufactured ex works.



Preferred use:

- GMP 50 Partition wall with flush-mounted installation options, installation depth up to 48 mm
- GMP 100 Partition wall with flush-mounted installation options, installation depth up to 98 mm



Preferred use:

- GMP 50 Partition wall of two rooms
- GMP 100 Partition wall of two rooms with increased sound insulation requirement

Technical data:

for GMP 50 and GMP 100 wall in band and axis grid

Width (axle dimension) standard	240 1.2
Wall thickness	GM GM
Wall height	4.0 up 1
Floor connection	Free Con
Fire class	A2 no (
Media strips	Can pipe
Sealing	Clea Alte
Installation depth	GM GM



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0 - 1.350 mm 200 mm 1P 50 wall: 50 mm 1P 100 wall: 100 mm 000 mm (standard) to 6.000 mm (optional)

eely selectable and combinable:

GMP standard PVC hollow fillet Epoxy fillet

mpensation of unevenness \pm 20 mm

(DIN EN 13501) combustible materials n be integrated in the bandraster with a

e diameter of max. 30 mm

eanroom silicone ernative: Hybrid sealant

IP 50: max. 48 mm IP 100: max. 98 mm

Floor and ceiling connection options

With the special clean-tek connecting profiles floor unevenness of +/-20 mm can be compensated.

The ceiling connection is also visually identical to all wall systems, allowing maximum compatibility of all clean-tek wall systems with each other.

There are basically four different floor connection profiles

GMP-standard

- The cleanroom floor can be installed over the entire surface.
- The connection profile is installed on the finished floor.
- Suitable for all cleanliness classes according to EC GMP guidelines, DIN EN ISO 14644-1, FDA and VDI 2083.
- The thumb cavity is provided by means of a silicone joint.

Epoxy cove

- Suitable for epoxy or pharmaceutical terrazzo Fillets
- One-sided or double-sided coving can be realised

PVC coving

- Suitable for PVC floors
- Fillet radius is defined by floor layer

Hollow aluminium profiles

If the GMP standard is not sufficient, aluminium profiles can be retrofitted for coving with a larger radius.

Cove profiles are available for:

- Wall-floor
- Wall-wall
- Ceiling-wall







Wall installations

Parapet glazing

The spandrel glazing is a flush integration of a glazing into the bandraster wall system. It consists of two laminated safety glass panes with 6 mm glass thickness. The width is coupled to the maximum axis dimension of the bandraster wall, which is usually 1.200 mm wide.

Glass type	VSG
Glass thickness	6 mm per pane
Number of panes	2 pieces
Width of glazing	Freely selectable up to max. 1.250 mm
Height of glazing	Freely selectable
Parapet height (lower edge of glazing)	Freely selectable

Upper door element

This is a wall element above a door. If there is sufficient space, a sill glazing can also be used as a skylight.

Cut-outs

Cut-outs are necessary if, for example, machines, conveyor belts or material hatches have to be integrated into the wall system. Rectangular cut-outs can be made in each functional element ex works. An aluminium reveal is used so that the wall filling does not separate any particles at the cut-out. The exact position and size of the cut-out is defined during planning. For cut-outs in element width, an upper and a lower wall element are connected with a profile system.

Due to the flexible width, fixtures can be integrated directly flush into the wall system.

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Wall protection systems



clean-tek offers scratch protection for entire walls as well as impact protection systems on the floor. This effectively protects the walls from scratches and other damage.

Optimum protection is provided by the combination of two parts each with a substructure, which is attached to the wall or floor, and a 2 mm thick, GMP-compliant stainless steel cover. This absorbs impact loads in the stainless steel cover and, if necessary, converts them into deformation energy in the substructure. The wall protection can be attached to any wall system (metal, drywall or solid wall).

The modular design allows the elements to be replaced quickly and easily, for example in the case of conversions.

Due to the arrangement of the impact protection on the floor, mechanical cleaning of the floors is also possible without any problems.



Material	Stainless steel 1.4301 (V2A)
Height	220 mm
Structure	30 mm
Length	up to 2.500 mm
Options	Inside corner 90° Outside corner 90° End pieces

Technical data: for the ram protection

Material	Stainless steel 1.4301 (V2A)
Height	195 mm
Structure	67,5 mm
Length	Up to 2.500 mm
Options	Inside corner 90° Outside corner 90° End pieces



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Clean-tek stands for first-class cleanroom technology from our own production.

As a pioneer in cleanroom technology, clean-tek has played a key role in shaping the development of modern cleanroom technology since 1986. Tradition, innovation and experience are the values that still characterise clean-tek today and at the same time the key to constant growth and success.

Services

- Engineering, implementation and service of cleanroom systems
- Development of customised special solutions
- In-house production of all essential cleanroom components
- Interface management during the entire project
- Consulting and training
- On request, delivery of turnkey cleanroom systems as a general contractor
- Consultation and training

Products

- Cleanroom ceiling systems
- Cleanroom wall systems
- Cleanroom door systems
- Laminar flow modules
- Weighing units and sampling cabins
- Decontamination showers
- Accessories and components among others:
 - Material pass-throughs
 - Lights
 - Filter fan unit

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