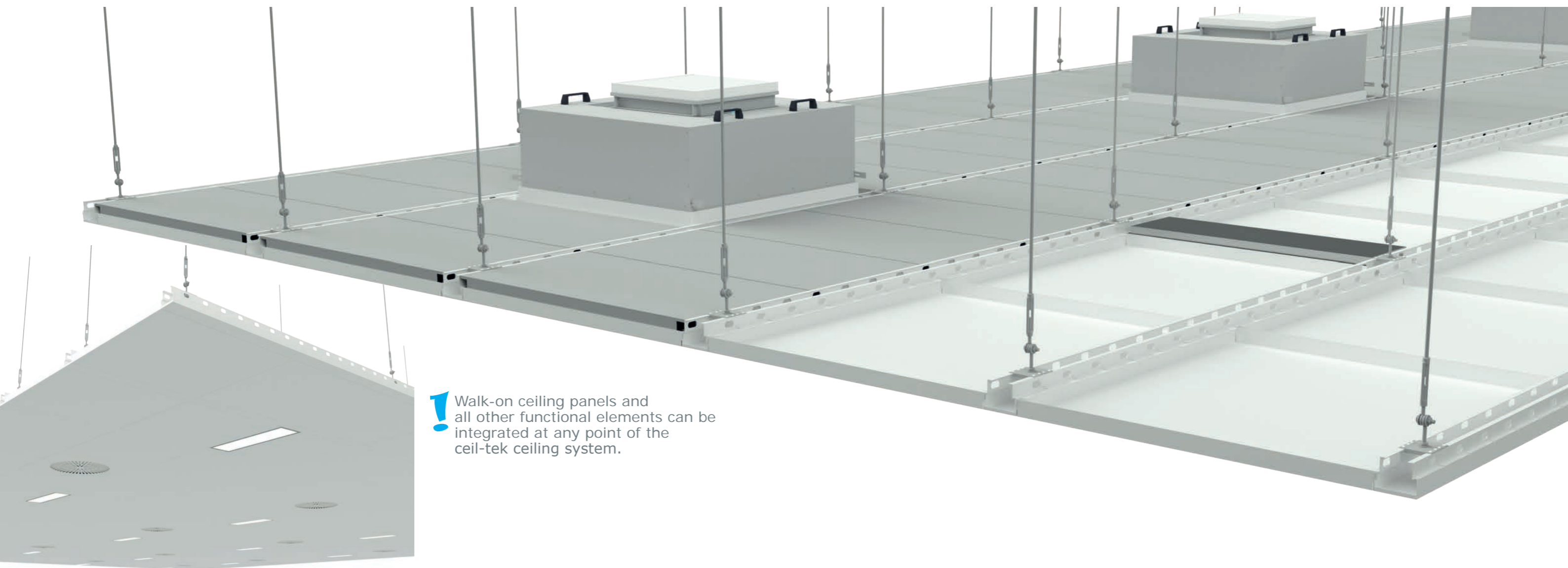


ceil-tek

Band grid ceiling



Cleanroom ceiling systems



! Walk-on ceiling panels and all other functional elements can be integrated at any point of the ceil-tek ceiling system.

As a system supplier, clean-tek has various cleanroom ceiling systems developed in-house, all of which are characterised by their flexibility and maximum modularity.

Thanks to in-house production and components that have been tried and tested over many years, the company can offer an optimal cleanroom solution for almost any application.

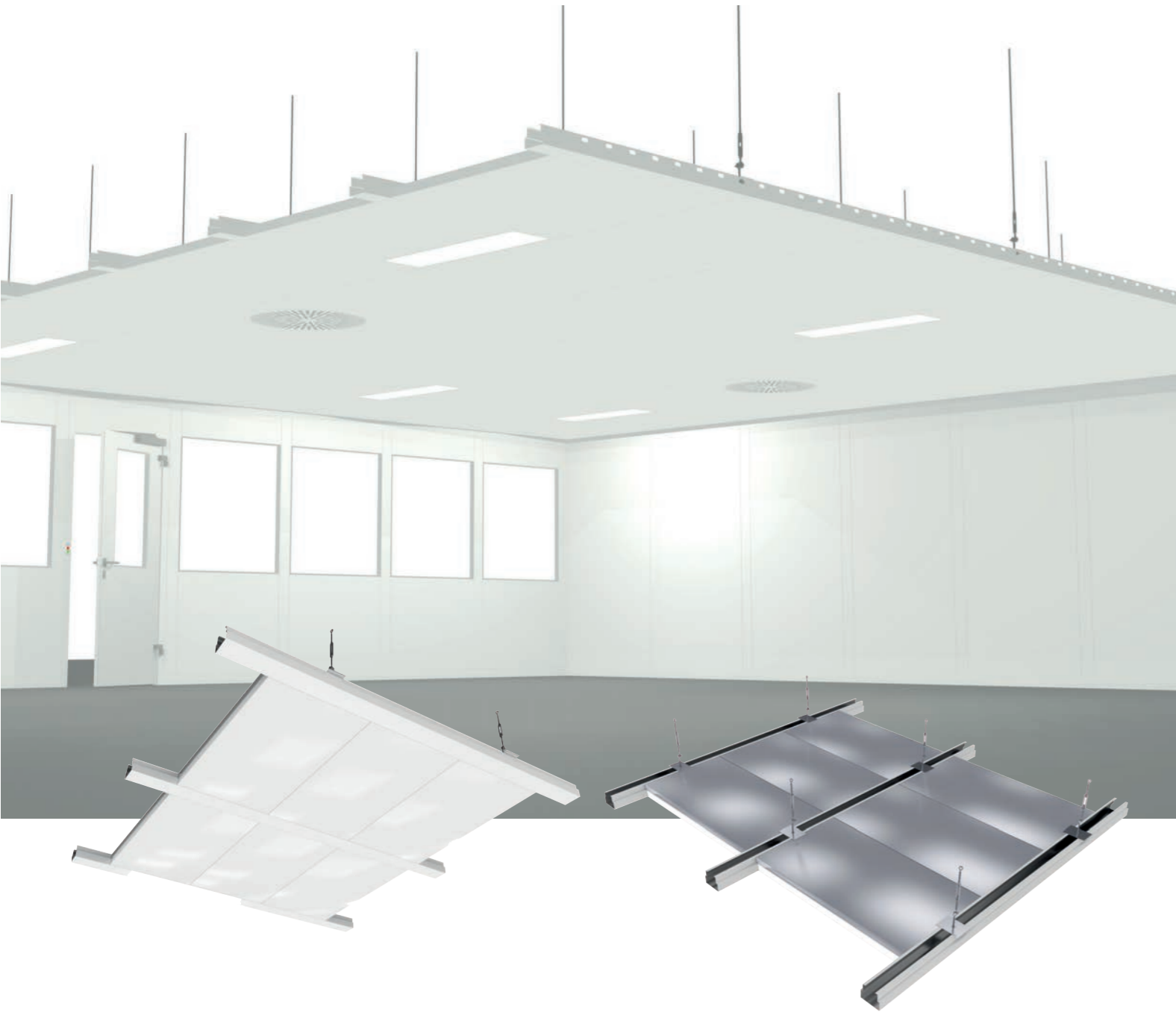
Since ceiling systems in particular are a key success factor in the construction of cleanrooms, clean-tek has invested decades of development work in its own cleanroom ceiling systems.

The ceil-tek grid ceiling meets the high requirements of the EG GMP guidelines as well as DIN EN ISO 14644.

The ceiling system has become firmly established as a tried and tested system in the GMP areas of the pharmaceutical industry.

Features and benefits:

- Optional full-, partial- or not walkable
- Complies with FDA, GMP, DIN EN ISO and WHO requirements
- All elements can be interchanged independently of adjacent panels
- Avoidance of tripping accidents due to media guidance in the band grid
- Compatible with all common installation-parts
- Safe planning and fast assembly thanks to the standardised grid dimensions
- Suitable for all cleanroom classes
- Any cleanroom area can be realised
- Future-proof investment thanks to a 10-year subsequent delivery guarantee for all conversion and supplementary components
- Easy to clean and resistant to disinfectants



Material information:

Beam	Sheet steel, galvanised, 1.50 mm Stainless steel 1.4301 (V2A), 1.50 mm Stainless steel 1.4401 (V4A), 1.50 mm
Non-walkable ceiling panels	Sheet steel, galvanised, 1.00 mm Stainless steel 1.4301 (V2A), 1.00 mm Stainless steel 1.4401 (V4A), 1.00 mm
Walk-on ceiling panels	Sheet steel, galvanised, 2.00 mm
Colour	Standard RAL 9010 Other colours on request
Coating	Coil coating Powder coating Ground (stainless steel only)
Suspension	Threaded rod with turnbuckle Hot-dip galvanised
Sealing	Cleanroom silicone Alternative: Hybrid sealant
Wall connection	Aluminium powder-coated RAL 9010

Construction:

The **ceil-tek** band grid ceiling is a cleanroom ceiling that is flush with the surface on both sides and can optionally be walked on. The design prevents deflection of the visible ceiling sheet if it is walked on.

The system consists of a parallel ceiling support system (bandraster) and the ceiling panels in between.

The band grid is suspended on height-adjustable threaded rods from the on-site ceiling or a steel structure.

All installation parts such as luminaires, filter fan units and ceiling panels are suspended between the beams.

Cabling is possible within the band grid. Individual cassettes and functional elements can be added or replaced at any time.

The **ceil-tek** ceiling is not walkable as standard. Optionally, it can be made fully or partially walkable.



Technical data:

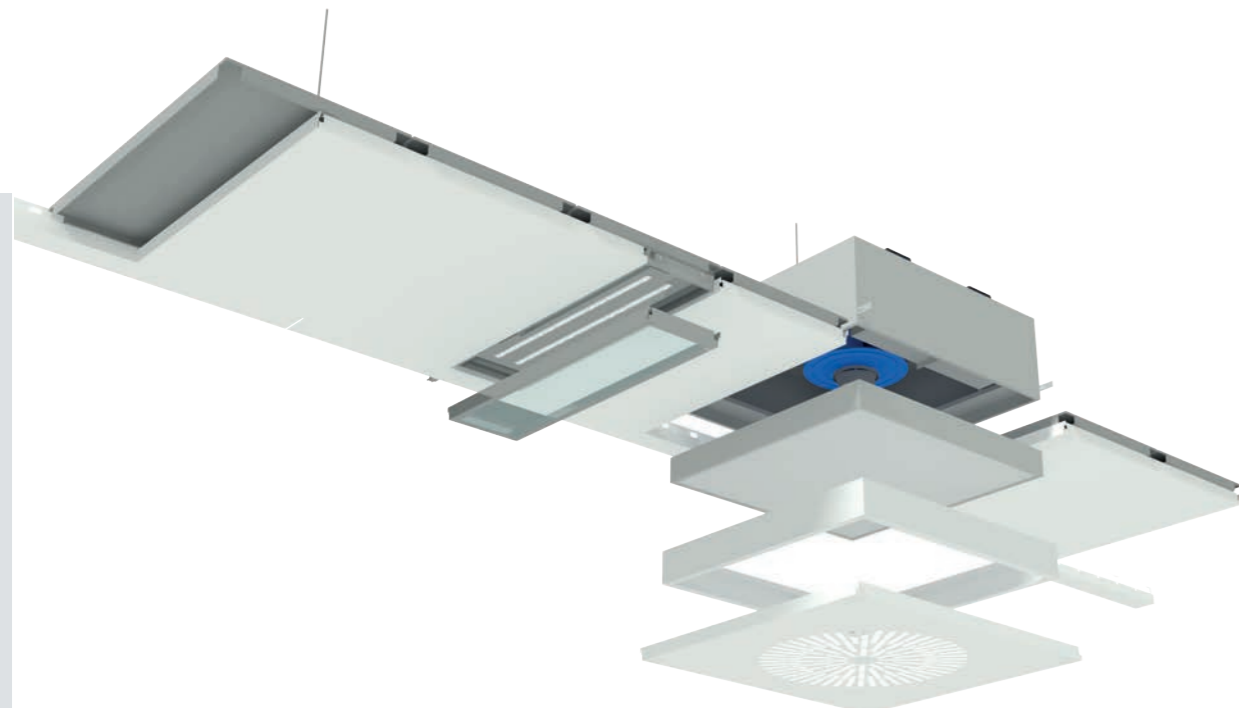
Suspension grid	1.200 x 2.400 mm
Beam length	2.400 mm
Beam width	120 mm
Ceiling height	90 mm
Pressure area	±200 Pa
Walkability	Optional 150 kg/m ² live load
Weight of ceiling	38 kg/m ² walkable version 12 kg/m ² non-walkable version

Visible ceiling panels (not walkable)

Element width	1.080 mm
Standard length	900 mm
Smallest length	150 mm, extendable in 150 mm steps

Walkable ceiling panel

Element width	1.110 mm
Standard length	900 mm



Installation parts and options:

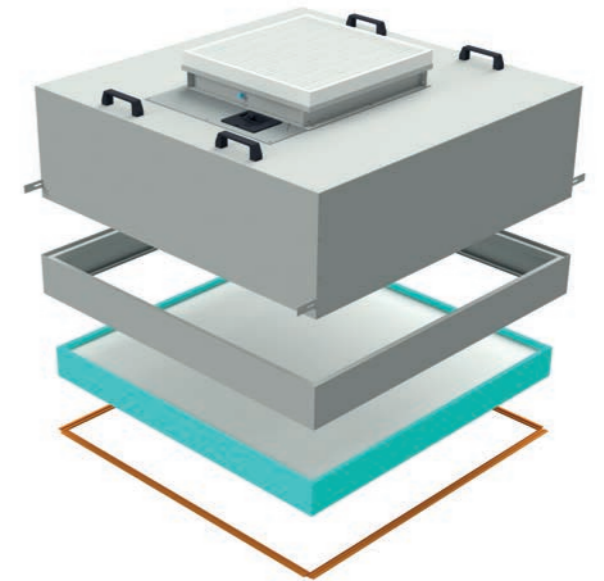
clean-tek offers all common installation parts. These include in particular:

Fan Filter Unit / Filter Boxes / Recirculation Modules

clean-tek offers factory-made FFUs to match the ceiling system.

For the integration of third-party products, an interface clarification by means of a detailed drawing is required.

Also filter boxes, which are connected to the on-site ventilation system, as well as special recirculation modules, can be integrated into the clean-tek band grid ceiling after individual detailed planning.



Air diffusers

Ceiling diffusers are used for the ventilation of the clean room. To guarantee flush installation of each brand, clean-tek also supplies the corresponding adapter frame if required.

clean-tek supplies according to customer requirements:

- Swirl diffusers
- CG diffusers (laminators)
- Perforated plates



Laminar flow fields

By means of several filter units arranged in a row with corresponding air outlets (CG distributors) and corresponding room partitions (walls or PVC curtains), individual areas can be supplied with laminar air flow as protective zones.

With regard to possible sources of interference in this area requiring special protection, individual consultation and planning are always required.



ceil-tek band grid ceiling

LED clean-tek luminaires

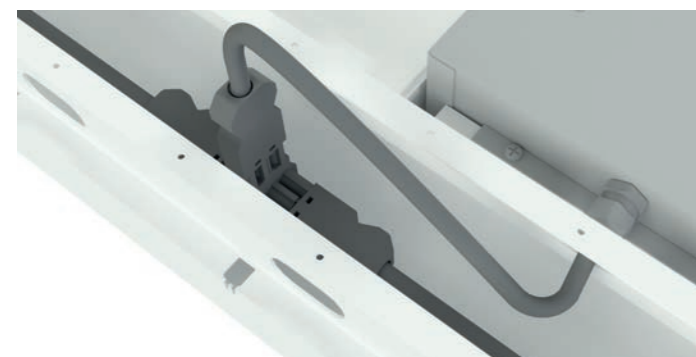
To match the ceiling system, **clean-tek** offers the factory's own band grid LED lighting, **BRL** for short.

Similar to a ceiling plate, the BRL has a suspension system so that the luminaire is suspended between two ceiling beams. A cut-out in the ceiling panel is not required for this.

Alternatively, a factory-made square LED recessed luminaire, **EBL** for short, can also be integrated.

However, this requires a cut-out in the ceiling system as well as an additional set-up kit for flush integration of the luminaire into the ceiling cut-out.

For the integration of **external lighting**, the interface must be clarified by means of a detailed drawing.



Cable and media routing

The clean and complete cable and media routing within the band grid ensures a high level of work safety for walkable clean room ceilings.

Duct routing of return air shafts

After individual planning of the interface between the ceiling system and the ventilation duct, **clean-tek** also offers return air ducts for integrating the exhaust air to the ventilation system.



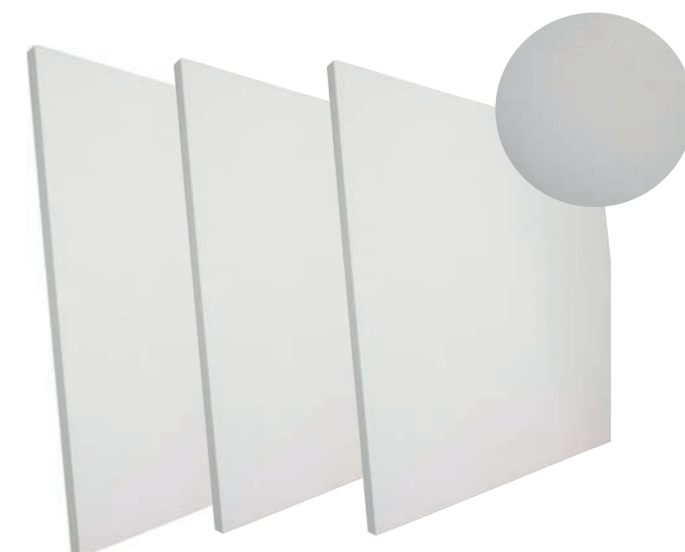
Further options:

Sound insulation

On request, a special sound insulation panel can be laid in the false ceiling. The leakage of particles is reliably prevented by the firm sheathing with a suitable plastic foil.



clean-tek®



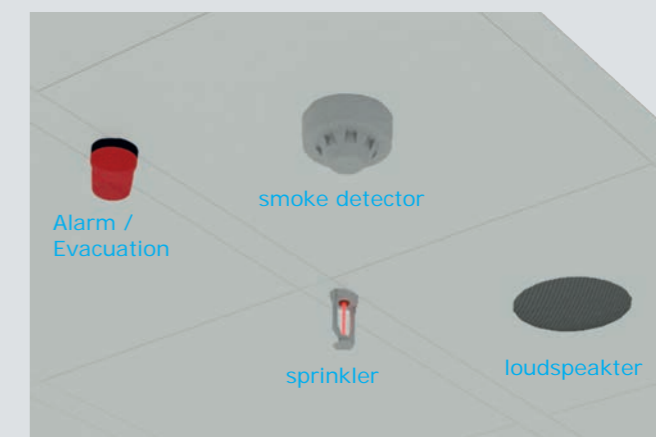
Fall protection

To avoid hazards in accessible suspended ceilings, it often makes sense to install a fall protection system. The design always requires individual detailed planning.

Installation of fire detection equipment

Sprinklers and fire detectors can be integrated at any point in the ceiling panel.

With regard to the design, individual detailed planning is always required..



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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