MERO Access Floor Type 2
wood / mineral material

Innovative solutions from one source

Development
Consulting
Planning
Manufacturing
Installation

Access Floor
Hollow Floor
Floor covering and
Installation
Services

MERO TSK

Floor Systems

MERO access floor for switchgear rooms

Switchgear stations and areas

for heavy loads

The MERO access floor Type 2 for switchgear rooms was designed for low and medium tension switchgears. Its structural properties make it also suitable for areas with heavy loads and dynamic loads.

Fields of application

- High, medium and low tension switchgear stations
- Battery rooms and emergency plants
- Computer centers, production plants, laboratories and power plants
- Platform for fork-lift traffic

Advantages

- Protection of electrical equipment against electrostatic charging
- Protection of people against electric shocks
- Easy work on the panel material
- Good sound insulation
- Preventive fire protection properties
- Suitable for the application of a wide range of floor coverings

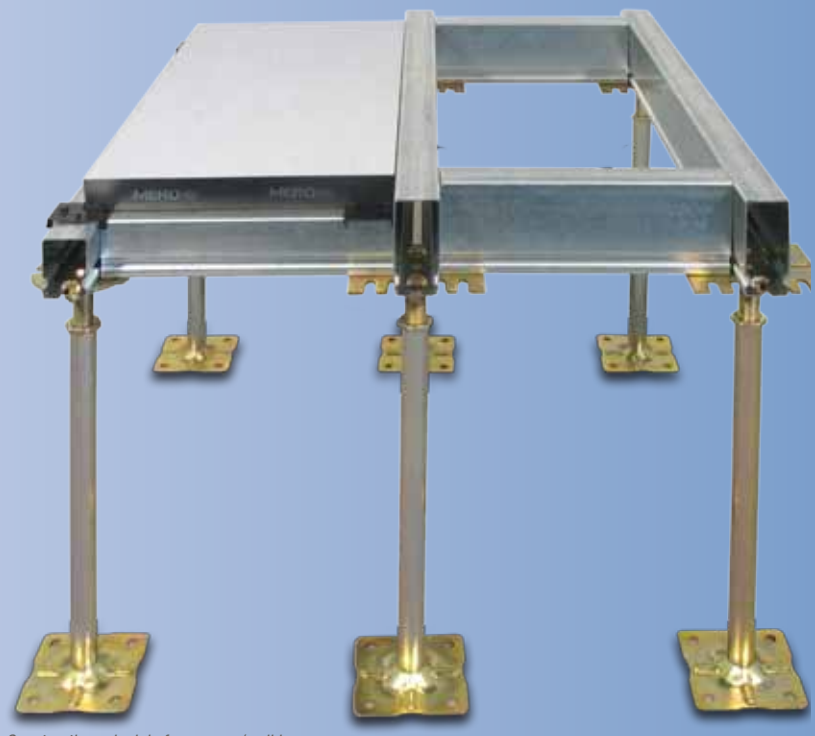
Application: Type 2 frame structure

Application: Switchboards

Construction principle

Substructure

The module of the standard substructure is 600 x 1200 mm. For heavier loads substructure in module 600 x 600 mm is available too.
The precision steel pedestals are adjustable in height. Even under heavy loads pedestal is secured against vertical shifting. All pedestals are protected against corrosion by galvanization and passivation.
The pedestal base plates are stably glued to the subfloor and can additionally be dowelled on request. The frame and walking areas are nearly on the same level in order to facilitate the installation of the switchboards.
The switchboards are mounted and fixed on frame constructions accurate to size. Temporarily unused spare areas are provided with cover plates.
The choice of the c-profiles is depending on the loads respectively on the module of the substructure.

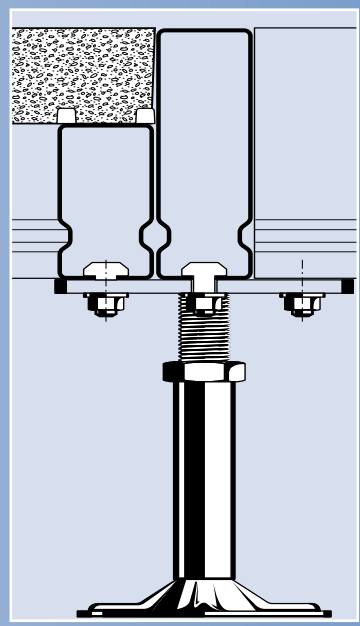


Construction principle frame area/walking area

Flexible and exact installation

The advantages of the MERO system with c-profiles and hammerhead bolts compared to other systems on the market (e.g. systems with self-tapping screws, glued systems, clip systems) are as follows:

- Static rigid and force-fit connection between pedestal and frame construction
- Acceptance of tensile and shear forces as well as of bending moments
- Permanent screwing secured by toothed lock washer
- Disassembly and reassembly without affecting quality
- The pressing force of the hammerhead bolt onto the c-profile improves the static behavior (horizontal and vertical forces of the profiles)
- Steady surface evenness as profiles cannot jam



Type 2 wood

The Type 5 panel consists of high density chipboard of emission class 1, in keeping with the highest requirements.
The emission tests are carried out according to international standards (system test = panel + pedestal):

- LEED (Leadership in Energy and Environmental Design): Compliance is tested acc. ASTM D 5116-97. Also covers requirements acc. 'Green Label, Hong Kong'.
- ISO 16000: emission test recognized worldwide
- AgBB/DIBT: emission test which is applied in Germany

A synthetic edge trim protects the edges of the panel from mechanical damages and humidity. Depending on its intended use, a galvanized steel sheet or aluminum foil can be applied to the top or bottom of the panel in the workshop. Panels can be produced in various grades, thicknesses, and dimensions.
MERO-TSK uses only ecologically safe materials, which ensures an environmentally sound recycling or disposal.

Type 2 mineral material

The Type 6 panel consists of fibre-reinforced calcium sulphate. Its fire behaviour is classified A1 acc. European Norm DIN EN 13501.
The emission tests are carried out according to international standards (system test = panel + pedestal):

- LEED (Leadership in Energy and Environmental Design): Compliance is tested acc. ASTM D 5116-97. Also covers requirements acc. 'Green Label, Hong Kong'.
- ISO 16000: emission test recognized worldwide
- AgBB/DIBT: emission test which is applied in Germany
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For both panel types, the panel surface is provided with a factory applied floor covering suitable for access floors. The panels are loosely laid on c-type stringers and fixed by means of synthetic gaskets. Requirements regarding PEHLA or electric arc protection guidelines are met by fixing the panels with screws, and by other structural measures.

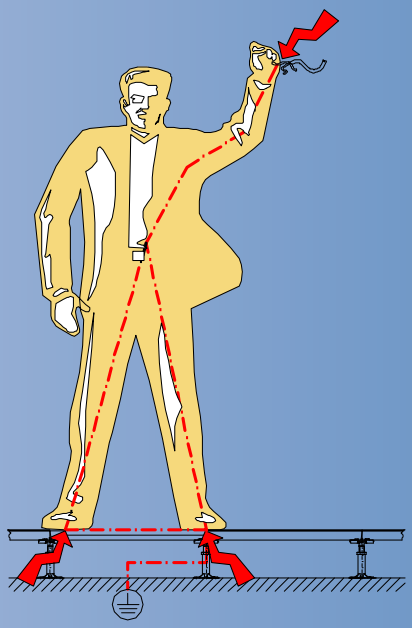
Frame area with exposed cable ducts

Optimal protection for people and equipment

Earth continuity - Characteristics of the construction

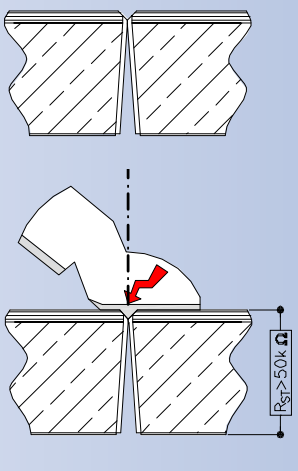
On the one hand, the electrical equipment must be protected against electrostatic charges and on the other hand people must be protected against electric shocks. Therefore, floor coverings like PVC, linoleum, caoutchouc or laminate are used which can also be finished acid, base and chemical resistant on request.
However, the best floor covering is loosing its protecting ability if dirt particles or humidity make contact with the conductive edge trim of the floor panels.

Thus, people become conductors and can suffer electric shocks. Therefore, the panels are provided with a non-conductive edge protection which does neither affect nor change the protecting ability of the floor covering. The necessary conductivity for the protection of the equipment is obtained by structural measures directly through the glue of the floor covering and the panel. Thus, an optimal protection for people and equipment is given.



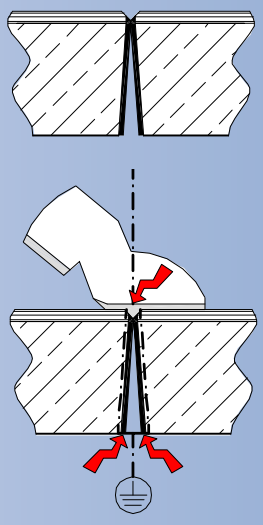
MERO type 2 construction

non-conductive edge trim



Other constructions

conductive edge trim



Conductive contact bridges:

- shoes
- humidity
- dirt

Technical data:*: **Type 2 / wood and mineral material**

Accessories: (see pamphlet)
Cover plates for unused spare areas
Cable raceways
Phela screwing
Elecric arc safety
Bracings
Air outlets
Air conditioning panels
Fascias
Bridgings
Stairs, ramps, railings
Floor coverings

***For further technical data**
please ask for our product data sheets.

Panel	**Chipboard panels**	**Mineral material panels**
Module:	600 x 600 mm	600 x 600 mm
Panel thickness: (no covering)	30 - 39 mm	30 - 39 mm
Panel bottom side:	• galvanized steel sheet • aluminium foil	• galvanized steel sheet • aluminium foil • without coating
System weight: (without floor covering, floor height 1000 mm)	~ 31 - 42 kg/m²	~ 59 - 95 kg/m²
Panel weight:	~ 8 - 11 kg/unit	~ 18 - 26 kg/unit
Substructure		
Module:	600 x 600 mm or 600 x 1200 mm	600 x 600 mm or 600 x 1200 mm
Material:	galvanized steel	galvanized steel
Floor height (without floor covering)		
• System 2-600:	~ 175 - 2500 mm	~ 175 - 2500 mm
• System 2-1200:	~ 215 - 2500 mm	~ 215 - 2500 mm
Supporting profile system 2-600		
• C-profile walking area:	30 x 40 mm	30 x 40 mm
• C-profile frame area:	72,5 x 40 mm	72,5 x 40 mm
Supporting profile system 2-1200		
• C-profile walking area	72,5 x 40 mm	72,5 x 40 mm
• C-profile frame area	115 x 40 mm	115 x 40 mm
Load values:		
Concentrated load		
• Acc. to DIN EN 12825:	Class 1 - 6	Class 1 - 6
• Nominal load:	2.000 – 6.000 N	2.000 - 10.000 N*
• Ultimate load:	> 4.000 – 12.000 N	> 4.000 – 20.000 N
*Special solutions with heavy duty structures for a nominal load of up to 20,000 N are available (see brochure Heavy Duty Floors)		
Electrostatic		
Depending on system and floor covering	> 10^5 Ohm	> 10^5 Ohm
Fire protection		
Building material class acc. to DIN EN 13501 T1:	flame resistant	A1
Fire resistance class		
acc. to DIN 4102 T2:	F30 possible	F30 possible
acc. to DIN EN 1366-6:	R30 possible	REI30 possible
Thermal conductivity		
Base material:	~ 0,13 W/mk	~ 0,44 W/mk