

Floors—Permissible Loads—Gates

General

With the exception of Hall B0, it is possible to drive motor vehicles into the halls, but this is only permissible at walking pace. The underfloor utility ducts can withstand the weight of a vehicle when covered over. With evenly distributed load, their load-bearing capacity corresponds to that given for the respective hall floors. The maximum point load given for the hall floors excludes the areas of the utility ducts. Passenger and freight elevators shall not under any circumstances be loaded beyond the permissible limits. The handling of freight in passenger elevators and on moving staircases is prohibited.

Messe München GmbH is to be compensated by the exhibitor or its agents for any damage caused by non-compliance with these rules.

For details concerning the entrance buildings (max. permissible floor load 1 t/m² [10 kN/m²] on the ground floor), please contact the Technical Exhibition Services Division of Messe München GmbH.

Halls	A1–A6 B1–B5	B6 (High hall)	C1–C6	B0
Length	161 m	161 m	139 m–143 m	65 m
Width	71 m	71 m	71 m	54 m
Total exhibition area	approx. 11,000 m ²	approx. 11,000 m ²	approx. 10,000 m ²	approx. 3,500 m ²
Clear height of longitudinal wall (longitudinal hall perimeter between entrances)	approx. 5.70 m	approx. 7.80 m	approx. 5.70 m	approx. 4.00 m
Clear height of hall girder supports (transverse hall sides)	approx. 10.75 m	approx. 15.25 m	approx. 10.75 m	–
Clear height of tie (hall center) Clear height absorbent bulkhead (Hall C6)	approx. 11.50 m	approx. 16.00 m	approx. 11.50 m	4.20 m
Hall floor	stone mastic asphalt	stone mastic asphalt	stone mastic asphalt	parquet
Permissible distributed load	5 t/m ² (50 kN/m ²)	5 t/m ² (50 kN/m ²)	5 t/m ² (50 kN/m ²)	2 t/m ² (20 kN/m ²)
Permissible point load (support area 0.3 m x 0.3 m, spacing approx. 1.5 m) does not apply to utility duct covers	5 t (50 kN)	5 t (50 kN)	5 t (50 kN)	2 t (20 kN)
Permissible ground pressure (heavy-duty vehicles) under wheel and individual loads	60 t/m ² (600 kN/m ²)	60 t/m ² (600 kN/m ²)	60 t/m ² (600 kN/m ²)	as per test
Permissible distributed load for suspensions (related to stand space rented)	5 kg/m ²	5 kg/m ²	5 kg/m ² (Hall C5–C6 20 kg/m ²)	5 kg/m ²
Entrance gates: (Size) and [Number] Vehicular access permitted No vehicular access	(4.5 m x 4.5 m) [6] (2.5 m x 4.5 m) [4]	(4.5 m x 4.5 m) [8] (2.5 m x 4.5 m) [2]	(4.5 m x 4.5 m) [6] (2.5 m x 4.5 m) [4]	(12.5 m x 4 m) [1]
Artificial illumination	200 Lux/m ²	200 Lux/m ²	200 Lux/m ²	400 Lux/m ²
Ventilation	partly air-conditioned	partly air-conditioned	partly air-conditioned	partly air-conditioned
Utility ducts transverse across hall: dimension between axes	5 m	5 m	4.5 m (*)	4.85 m
Width of utility ducts Width of utility duct cover	0.35 m 0.43 m	0.35 m 0.43 m	0.35 m 0.43 m	0.35 m 0.43 m
Utility connections: – Water – Wastewater – Sprinklers – Compressed air – Gas (availability depending on area coverage)	DN 25/min. 3.5 bar DN 100 DN 50 DN 50/min. 10 bar DN 25/20 mbar	DN 25/min. 3.5 bar DN 100 DN 50 DN 50/min. 10 bar DN 25/20 mbar	DN 25/min. 3.5 bar DN 100 DN 50 DN 50/min. 10 bar DN 25/20 mbar	DN 25/min. 3.5 bar DN 100 DN 50 DN 50/min. 10 bar DN 25/20 mbar
Electricity supply	200 W/m ²	200 W/m ²	200 W/m ²	200 W/m ²
Telecommunications – User-neutral, wireline connections (phone, fax, analog, ISDN, DSL, LAN) – Wireless phone connections (DECT)	300 approx. 100	300 approx. 100	300 approx. 100	100 approx. 50
Wideband connections (TV)	150	150	150	56
Fiber-optic connections (Single-mode and/or gradient)	150	150	150	56

(*) Hall C1 also has two utility ducts along the longitudinal axis of the hall.

Separate Technical Guidelines apply for the foyer of the ICM – Internationales Congress Center München.

Outdoor exhibition area	
Width of access roads	8 m or 12 m
Road surface	asphalt
Surface of exhibition area	gravel / grit mixture or seeded gravel bed (grassed over gravel-humus mixture; partially with chippings); partial areas asphalted
Permissible floor load	20 t/m ² (200 kN/m ²) up to 50 t/m ² (500 kN/m ²) (except for track route area)
Illumination	30 Lux/m ²
Connections: – Water supply – Wastewater/Sewage	DN 40/min. 3.5 bar DN 100
Electricity supply	50 W/m ²
Telecommunications – User-neutral, wireline connections (phone, fax, analog, ISDN) – Wireless phone connections (DECT)	1,400 approx. 200
Internet connections	on request
Fiber-optic connections (Single-mode and / or gradient)	approx. 100

For detailed information, please contact the Technical Exhibition Services Division of Messe München GmbH.

Electrical installation work on exhibition stands is generally to be carried out in compliance with the latest EN, DIN and VDE regulations and recognised technical practice. All work performed must be in accordance with the relevant safety requirements and, above all, with the provisions set out in DIN VDE 0100 parts 410, 520, 600 and 711, the VdS guidelines and the accident prevention code BGV A1, A3 and C1. Operating resources must be tested by a recognized European certification office (recognized testing bodies include VDE, OVE, etc.).

The following points require particular attention in this context:

Electrical installation work may only be carried out by qualified electricians in accordance with the provisions set out under VDE 0100-200 and/or VDE 0105-100. The electricians concerned must be equipped with appropriate tools and work aids. The electrical installation system may only operate in a defect-free state and subject to testing in accordance with VDE 0100-600 having been conducted and documented. The measures required for operational safety purposes must have therefore been taken prior to activation of the system. Work may only be carried out on equipment that has been disconnected from the power supply.

Anyone carrying out electrical installation work is individually responsible (i.e. personally liable) for assuring compliance with relevant electrical installation requirements and recognized technical practice!

■ Power supply / Main distributor panel

The stand must be equipped with a single switch (master switch) – residual current protective devices do not count as master switches – via which the complete electrical installation, with the exception of refrigerators, fax machines, electronic storage devices, can be deactivated.

The master switch and the main distributor panel on the stand must be located in such a way that they are accessible at all times. Any electrical faults must be rectified properly by persons qualified to do so without delay. The power supply is provided in the form of a TN-S system (3 phases, one zero conductor, one earth conductor).

AC voltage: 230 V (± 10%) / 50 Hz
Three-phase voltage: 400 V (± 10%) / 50 Hz

■ Protective measures

As an additional safety precaution, all circuits protected via fuses or miniature circuit breakers must also be fitted with a residual current device (RCD).

Maximum differential current 30 mA ($I_{\Delta} = 0.03 \text{ A}$).

Frequency-controlled machinery (e.g. appropriate machines, robots, motors) is to be equipped with B SK-type RCDs (AC/DC-sensitive). Kindly consult a relevant Messe München GmbH-approved contractor in this respect. Connecting different types of RCD in series is not admissible.

Important to note: The permanently installed supply points (power sockets) in the exhibition halls are **not** operated via a residual current device (RCD). There are, however, special supply points with RCDs fitted upstream of them; please ask the hall inspector or the Technical Exhibition Services Division where they are located.

All appliances, lamps and other equipment must be properly earthed unless the items concerned are protectively insulated (safety class 2) or run on protective low voltage (voltage range 1, SELV).

Stand structures made of metal, conductively interconnected metal parts and large metal parts to which electrical cables or equipment are fitted must be connected to the protective equipotential bonding (properly earthed). If electrical distributor panels from Messe München GmbH are used, the earthing work may only be carried out by electrical contractors approved by Messe München GmbH.

Cross-beams with lighting installations must be fitted with an additional protective equipotential bonding device (copper, min. 10 mm²) by the company installing the equipment. The potential equalization device concerned must connect up with the master equipotential bonding facility in the utility duct (this also applies to conductive stand components where applicable). The transfer point on the hall floor must be ordered via form 3.1/online in the Exhibitor Shop. The potential equalization connection between the transfer point and the cross-beam with the lighting installation can be fitted by exhibitors themselves or ordered via the service company responsible for suspension units.

■ Cabling

All cabling must be installed and secured properly by persons qualified to do so. The external insulation of the cable (sheathing) must be inserted into the given appliances, lamps, plug devices, etc. All cabling must be effectively pull relieved.

The cable and wire used must be approved for usage in conjunction with the given type of installation and comply with the required sizes and specifications (DIN 57298/VDE 298). The minimum sectional area should be 1.5 mm².

If cables are not connected via plugs, they must be connected via clamp connections in hermetically sealed distribution boxes. Clamp connections installed without enclosures are prohibited.

If the cable runs where it may be trodden on, it must be provided with mechanical protection of some form and/or only such cable may be used as is explicitly approved for areas subject to high mechanical stress (minimum H05RN-F). The usage of flat cabling is not permitted (with the exception of flat cabling certified by a recognized European certification office)! The cabling and wiring should be installed such that people cannot stumble over it.

■ Lamps in general

Lamps must be secured in such a way as to prevent them from falling down. All lamps must be secured via two mutually independent mountings (please note that support cables or chains count as secondary mountings) that are able to carry a load five times as heavy as their own weight. These are absolutely essential for installation heights of **2.50 m** and more (see also conductor rails/lighting bars) or weights of **2 kg** upwards. The usage of cable and straps made of either natural or synthetic fibers (e.g. cable ties) for this purpose is prohibited. Support cables must be made of a non-flammable material. This also applies to lighting bar systems!

All lamps are to be equipped with some form of mechanical protection e.g. protective basket or safety screen or must have a retaining device that prevents the lamps or parts thereof from falling out.

The installation of lamps on flammable materials, e.g. wood, is only admissible if:

- the manufacturer's specifications do not prohibit this explicitly,
- the lamps are located at a distance of at least 35 mm from the mounting surface or
- the lamps are mounted on to a non-flammable, temperature-insulating surface with a minimum thickness of 10 mm.

This applies in equal measure for sockets or other equipment that is/are fitted to flammable materials. The same requirements also apply to lamps installed in flooring.

Sufficient distance should be left between the lamp and any flammable materials in accordance with the given manufacturer's specifications (relevant markings generally on the lamp itself). The minimum distance is 0.5 m!

e.g.  0.5 m  minimum distance to the area to be lit (0.5 m in example shown)

If conductor rails/lighting bars are used, it is vital that the relevant insulating end pieces are inserted into the conductor rail to ensure that the current-carrying conductors cannot be touched. The minimum installation height of lighting bars is 2.50 m. Installation below this height is only possible if the bar is fully covered. Complete protection against touching must be guaranteed! The conductor rail is to be fastened to the given surface in a mechanically effective manner using non-flammable connections (e.g. screws, metal straps, etc.). Plastic cable ties may be used only as additional mounting aids.

■ LED lighting

The operation of risk group 2 and 3 high-power or high-intensity LED installations and/or spots must be registered with Messe München GmbH's Technical Exhibition Services Division! Suitable fire-extinguishing agents must be kept ready for use in the immediate vicinity of all high-power or high-intensity LED installations!

■ Photovoltaic systems /

Electric power generation plants

When presenting photovoltaic systems or other electric power generation plants, a deactivation device ('fireman's switch') must be fitted in a clearly visible location that is accessible at all times for deactivating the system or plant in case of danger (with the exception of such systems or plants as do not generate open-circuit voltage in excess of 120 V DC). DIN VDE 0100 T 712 and DIN VDE 0126 requirements are to be observed and a test report in accordance with VDE 0126-23 drawn up and presented on request. The given stand is to be registered with the Technical Exhibition Services Division and identified with a sign marked 'PV System'.

■ Low-voltage lighting

In the case of halogen lamps, bulbs must be prevented from falling out by means of suitable retaining devices (e.g. clamps, claws or springs). The plug-in connection with the base offers insufficient security on its own!

All cabling must be insulated up to the lamps (varnish/paint is not acceptable as insulation). This also applies to structural parts that are used as live conductors.

Transformers:

Only such safety transformers as are approved for the specific area of application may be used. When installing such lighting, particular attention must be given to ensuring unrestricted heat dissipation (distances to be observed in accordance with markings printed on product and/or manufacturer's specifications). Transformers require both primary and secondary fusing. Any transformers not equipped with secondary fusing must have it retrofitted. Maximum fuse size is 25 A depending on the size of the transformer.

The fuse must be able to mechanically counter the anticipated short circuit current. Ideally, electrical overload protectors (response tolerance in case of failure ± 60 W) should be used.

Electronic transformers may be operated without secondary fusing only if they have been tested by an approved European certification body.

Caution: electronic transformer cabling may not exceed 2 m in length!

■ Neon lighting systems / signs

Systems with electrical discharge lamps: systems with any form of fluorescent signs or lamps used as illumination units on a stand or as exhibits with a rated power supply in excess of AC 230/400V must comply with the following requirements: the illuminated sign or lamp must be out of arm's reach (minimum height 2.5 m) or adequately protected to reduce the risk of injury (break-proof, transparent cover).

■ Use of electrical equipment

All electrical equipment used at the exhibition center of Messe München GmbH and on its grounds must be in a proper, safe and tested state and handled in the designated manner. This includes fixed-site equipment such as permanently installed steam cookers, permanently installed hot-air ovens, exhibition machines and installations, etc. (see definition) and mobile equipment such as electric drills, hand-held circular saws, coffee machines, etc. (see definition).

All equipment (including private devices) brought to the exhibition center must have an inspection sticker affixed to them, showing the month and year of the next inspection. At the request of Messe München GmbH, the inspection report of the last inspection conducted is to be presented setting out details of the basis of the inspection, the inspection procedure and the nature and scope of the inspection. The inspections must have been conducted by a person authorized to do so in accordance with the Operating Safety Directive (BetrSichV) in conjunction with the Technical Rules for Operating Safety 1203 (TRBS 1203). The interval between the inspections to be carried out should be determined via a risk assessment process. Equipment is to be secured after the workplace has been vacated such that it poses no risk to persons or property. All equipment used is subject to a ban on the manipulation of protective and safety facilities, see notably DGUV regulation 1 (BGV A1) paragraphs 15 and 16 and StGB paragraph 145.

Definition:

Mobile electrical equipment is such equipment as can be moved during operation or easily taken from one place to another while it is connected to the power supply circuit (see also section 826-16-04 DIN VDE 0100-200).

Fixed-site electrical equipment is such as is permanently installed or as has no carrying fixtures and is so large that it cannot be moved easily. This also includes such electrical equipment as is permanently installed for a temporary period and is operated via mobile connecting cables (see also section 826-16-06 DIN VDE 0100-200).

■ Please note

Any instructions given by electrical installation experts appointed by Messe München GmbH must be followed. In the event that the aforementioned requirements and/or instructions are not complied with, the exhibition stand concerned will be denied access to the power supply for safety reasons.

■ Alerting the fire department and fire-extinguishing facilities

Fire protection facilities and information as to the required behavior in case of fire are located inside the given hall next to each exit.

In the event of fire or smoke being detected, alert the fire department in **all cases** by activating the nearest fire alarm.

The fire hydrants, fire alarms, smoke-extractor triggering devices and fire extinguishers located in the halls must not be obstructed, or rendered unrecognizable or inaccessible.

■ Areas designated for use by fire department

The areas designated as fire lanes and safety zones for use by the fire department must be kept clear at all times. Vehicles, semi-trailers, containers, tanks and/or empty packaging of any kind may only be parked or stored on the areas designated for this purpose during the stand setup and dismantling periods. Please consult our "Traffic Guide" for further information.

■ Emergency exits, hall aisles

All exits and aisles forming part of the permanent layout of the halls shall be kept free and unobstructed over their full width at all times. The exits including the exit signs must not be blocked, covered by drapings or rendered inconspicuous in any other way. Information counters, tables or similar items are to be placed far enough away from entrances, exits and the approaches to staircases.

■ Stand design

The following minimum requirements apply: Stands with a floor area of up to 100 m² require one exit with a clearance width of at least 0.90 m. Stands with a floor area of more than 100 m² require two exits, each with a clearance width of at least 0.90 m. Stands with a floor area of more than 200 m² require two exits, each with a clearance width of at least 1.20 m. For stands with a floor area of more than 400 m², Messe München GmbH's Technical Exhibition Services Division (TAS) stipulates the number of exits and their respective clearance width in compliance with the statutory and regulatory requirements valid at the given time.

Any partitioned rooms on stands in the halls used by staff must offer users an unobstructed line of sight in the direction of escape towards the nearest emergency escape/rescue route. Such rooms used by staff as may be accessed or left via a partitioned room only ('trapped' rooms) are not permitted on stands located in halls. All measures that compromise a clear line of sight in the direction of escape of the nearest emergency escape/rescue route or its accessibility are prohibited. Messe München GmbH reserves the right to impose any safety- or fire protection-related demands that may become additionally necessary until such time as stands undergo official acceptance.

If within a given stand the maximum length of an escape route to a hall aisle exceeds 10 m, the stand must be equipped with a second exit and/or an aisle at least 2.0 m wide leading to a hall aisle. If hall exits are located within a stand, the width of the exit is not to be narrowed. The escape routes in the hall must be indicated and approved by the Fire Department. Exit signs must not be obstructed from view.

As a rule, the defined hall aisles must not be built over.

■ Decorations

All materials used for decorative purposes should be at least flame-retardant (in accordance with DIN 4102 or DIN EN 13501-1) – certification must be provided. If flame-retardance is to be achieved after the stand is set up, this is only permissible for small areas with officially approved flameproofing agents in accordance with the instructions for use. The use of materials which are easily flammable or melt, drip or give off toxic gases when exposed to heat is not permitted. The use of synthetic materials (e.g. polystyrene, polyurethane rigid foam, expanded polystyrene, etc.) which produce large amounts of soot when on fire, is not permitted. Proof must be provided of the flame-retardant properties of the materials when installed.

■ Cut trees and plants

may only be used for decorative purposes when green. If, during the course of the trade show, trees and plants have dried out and thereby become more easily inflammable, they must be removed. Trees must be free of branches up to about 50 cm above the floor. Peat must always be kept damp (risk of ignition by cigarette butts, matches, etc.).

■ Electrical installation and electrical appliances

All electrical equipment must be installed in compliance with the safety regulations of the VDE (Association of German Electrical Engineers).

Electrical distribution points are to be kept clear of storage areas.

Electric cooker plates, irons, grills, kettles, immersion heaters and other electrical appliances are to be adequately supervised during operation. They must be placed on fire-proof, heat-resistant bases so that even in the case of excessive heat, inflammable objects in their vicinity cannot be ignited.

■ Fire extinguishers

Fire extinguishers which are kept on the exhibition stand, should, on principle, be water extinguishers as per EN 3 or DIN 14406. (In kitchen and technical areas, carbon-dioxide extinguishers (capacity min. 5 kg) and one fat fire extinguisher (content min. 6 l) in areas where deep-fat fryers are operated as per EN 3 or DIN 14406 should be provided). Dry-powder extinguishers may only be used with the approval of Messe München GmbH's Technical Exhibition Services Division.

■ Safety lighting

Stands whose specific design or structure render the existing general safety lighting ineffective, must be equipped with their own, additional safety lighting, which is to be installed according to currently accepted technical standards. It must be mounted such that safe orientation and access to the general escape routes is guaranteed.

■ Packing material

Packing material, transport crates and the like which are not needed during the exhibition are to be kept outside the halls and loading yards. During stand setup and dismantling periods, escape and rescue routes within the halls must be kept clear; any transport and packing materials and items of equipment no longer needed are to be removed immediately from the halls.

■ Ashtrays

An adequate number of ashtrays and wastepaper baskets (cigarette butts, matches, etc. separate from paper) are to be made available in the exhibition stands and emptied into non-combustible, tightly closing containers.

■ Internal combustion engines

Internal combustion engines (e.g. in cars) must not be demonstrated in operation in the halls. Fuels must not be stored on the stand.

The contents of vehicle tanks must be reduced to the volume necessary for entering and leaving the grounds (fuel gauge must show "low/reserve"). When exhibiting hybrid vehicles with gas tank, the tank must be completely drained.

The fuel tank is to be locked and, at Messe München GmbH's request, the battery disconnected.

■ Ceilings and canopies

Irrespective of their size, stand coverings of any kind are subject to approval and must be registered in writing with Messe München GmbH's TAS (see form 1.2 "Application for Preventive Fire Protection Measures" of the Order Forms for Exhibitor Services). All stand coverings require the prior, written approval of the TAS.

They must be at least flame-retardant (in accordance with DIN 4102 or DIN EN 13501-1)—certification must be provided—and must be fitted with a sprinkler system when constituting a single covered surface of more than 30 m². One sprinkler unit must be installed for every 12 m² of covered space or part thereof; all rooms or booths contained within this area must be incorporated within scope of the sprinkler system. In this context, please note the information in the "Notice for Installation of Sprinkler-compatible Materials".

Other regulations apply to **Hall B0** and the entrance buildings.

Further information is available from Messe München GmbH's Technical Exhibition Services Division.

■ Please note

The Technical Guidelines of Messe München GmbH apply in addition.

Please also observe the provisions stated in form 1.2 of the Order Forms for Exhibitor Services.

We expressly reserve the right to impose further conditions if the need for them only becomes apparent during the course of the trade show.

■ Stand ceilings and canopies – general information

Stand ceilings and canopies in **Halls A1–6, B1–6, C1–6** must generally be at the very least flame-retardant (to DIN 4102 or DIN EN 13501-1) and, if constituting a single covered area of 30 m² or more, equipped with a sprinkler system. (Any structures suspended from the hall ceiling (trusses, etc.) cannot be fitted with a sprinkler system.)

Sprinkler systems can only be dispensed with

- if the ceiling or canopy concerned is a modular or metal-grid covering comprising open-mesh grating, perforated sheet metal or similar. At least 70% of the entire ceiling structure including lamp fittings, etc. must be open in accordance with the planning and installation guidelines laid down by VdS Schadenverhütung GmbH Köln (VdS – see www.vds.de/en). The degree of openness of the given structure must be proven verifiably, or
- if the ceiling or canopy is of a textile design that has been approved by VdS in Cologne for usage in conjunction with sprinkler-protected risks. Companies supplying such materials are listed below.

Other regulations apply to **Hall B0, the passageways between the halls and the entrance buildings.**

Please note for Hall B0:

- Stand ceilings/canopies must be at the very least flame-retardant (acc. to DIN 4102 or DIN EN 13501-1).
- Horizontal coverings wider than > 1 m must be made of sprinkler-compatible materials according to VdS guidelines, or, alternatively, be fitted with a sprinkler system.

For the entrance buildings West, East and North, the following applies:

- Stand ceilings/canopies must be at the very least flame-retardant (acc. to DIN 4102 or DIN EN 13501-1).
- Horizontal coverings wider than > 1 m must be made of sprinkler-compatible materials according to VdS guidelines.

For the passageways between the halls, the following applies:

- Stand ceilings/canopies must be at the very least flame-retardant (acc. to DIN 4102 or DIN EN 13501-1) and may be no wider than 1 m. The minimum spacing between two or more stand ceilings/canopies must be at least 1 m.

Important:

Stand ceilings and canopies (irrespective of their size and design) **must always** be registered via Form 1.2 of the Order Forms for Exhibitor Services **and** always require the written approval of Messe München GmbH, Technical Exhibition Services Division (TAS), coordinated with Munich Municipal Fire Department.

Your Technical Exhibition Services' team would be pleased to assist with further information.

■ Supply sources for sprinkler-compatible materials and fabrics

Dieter Cronenberg GmbH & Co. KG

Worringer Str. 17
40211 Düsseldorf
Germany
Tel. +49 211 1775012
Fax +49 211 1775050
a.cronenberg@cronenberg-buehnenbedarf.de
www.cronenberg-buehnenbedarf.de

Rudolf Stamm GmbH

Otto-Perutz-Str. 10
81829 München
Germany
Tel. +49 89 945483-3
Fax +49 89 945483-0
info@rs-stamm.de
www.rs-stamm.de

■ Basic requirements for mesh fabrics

The aforementioned materials can be used to cover areas in excess of 30 m² on **single-story** stand structures to the extent that they are certified as being flame-retardant to DIN 4102 or EN 13501-1 and, **at the same time**, approved by VdS Schadenverhütung GmbH in Cologne for usage in conjunction with sprinkler-protected risks.

When fitting mesh fabrics on exhibition stands, it should be noted that:

- the fabric covering is to be firmly braced to prevent sagging
- the fabric covering should be braced horizontally and as a single layer
- the manufacturer's installation instructions ensuring the given fabric's sprinkler compatibility must be observed
- hall aisles may not be covered over.

When fitting mesh fabrics, it should also be noted that:

- the maximum permissible **continuous** covered area (i.e. without any strut support) is 30 m²
- the maximum permissible size of a **continuous** covered area in the exhibition halls is variable depending on the installation height and lies between 100 m² (h = 7.5 m) and 400 m² (h = 3.0 m)
- the minimum vertical clearance between sprinkler and fabric covering at any point is 0.5 m.

■ Smoke-out fabrics with meltable seams

Fabrics with smoke-out protection are no longer recognized by VdS and may only be used after consultation with the Technical Exhibition Services Division.



Suspension units may only be attached to the roof-supporting framework and altered by the accredited Messe München GmbH service firms (e.g. opening a bridge). Orders for suspensions must be placed online via the Exhibitor Shop / in writing to the Technical Exhibition Services Division (TAS) of Messe München GmbH, by means of form 4.1.

The construction to be suspended may be situated only within the limits of the stand. Any intended suspension point on the roof construction of the halls can be loaded to a maximum of 100 kg **perpendicularly**. The maximum distributed load is 5 kg/m² (Halls C5–C6: 20 kg/m²) stand area. For each suspension point, the load must be individually specified and supporting documentation provided on request. Suspension units for heavier loads only on request (the planning costs will be charged to the exhibitor). At the end of each fastening point (interconnection point) is an "O" ring.

For reasons of safety, the following types of suspension are not permissible:

- Suspension of stand components
- Securing of stand components or exhibits (stand components or exhibits must stand securely on their own)
- Suspended constructions connected rigidly or by force of gravity with the hall floor.

The use of lifting devices (e.g. chain hoists, motor hoists) absolutely must be discussed and agreed with the respective contracting firm of Messe München GmbH.

With regard to the attachment of objects to be suspended, the relevant safety provisions are to be observed. These also and especially include the provisions of the German Statutory Accident Insurance = DGUV Regulation 1 (Principles of Prevention), DGUV Regulation 17 (formerly BGV C1), DGUV Regulation 54 (formerly BGV D8), the BGI 810-3 and, if applicable, the VStättV directive governing places of assembly (see also provisions set out under IGWV SQ P1 relevant to truss systems).

The following details and enumerations serve as an overview and do not claim to be complete.

Spotlights, loudspeakers, effects devices etc. are always to be provided with a second independent safety facility (safety cable)! Compliance with the provisions set out under BGI 810-3 is required with regards to the dimensioning of the safety cables. The safety attachment is to be executed in such a way that the falling distance does not exceed 20 cm.

Lighting truss systems must be fitted by the system installer with additional protective potential equalization (copper, min. 10 mm²) as per VDE 0100 part 711. Use form 3.1 to order the power supply transfer point at ground level. The equipotential bonding lead between this transfer point and the lighting truss system may be carried out by the exhibitor's own electricians or be ordered for execution by the accredited electrical contractor.

■ Permissible means of attachment

Nominal load at 0.5 times the carrying capacity value indicated by the manufacturer and not exceeding one tenth of the minimum breaking force. Cables and straps may be loaded to a maximum of one twelfth of the minimum breaking force.

Ensure that edges are protected! The edge radius must be at least as large as the diameter of the means of attachment (cable, span set etc.). Means of attachment made of synthetic fibers are not suitable for use close to spotlights.

- Wire cable in accordance with DIN EN 12385, generally round strand cable, standard 6 x 19 FC in accordance with EN 12385-4, with approval
- **Short-linked chains with approved appurtenances, quality class 8 in accordance with DIN 685, with approval**
- Textile span sets in accordance with DIN EN 1492, with approval and indication of carrying capacity with the use of an additional safety facility (safety cable) made of wire cable or chain
- Aluminum or steel clamps which are approved for the respective trusses (appurtenances).

■ Permissible carrying devices:

- Chain motors in accordance with DGUV Regulation 17 (formerly BGV C1)
- Chain motors in accordance with DGUV Regulation 54 (formerly BGV D8) with wire cable or chain "hung dead" (parallel load-carrying to bypass the motor)
- D8 Plus chain motors in accordance with IGWV SQ P2 with overload monitoring.

Nominal load: see manufacturer's specifications.

■ Permissible means of fastening

Nominal load at 0.5 times the carrying capacity value indicated by the manufacturer and not exceeding one tenth of the minimum breaking force.

- Shackles, straight and curved, quality class 6, according to DIN EN 13889, with indication of carrying capacity; for dynamic loads (e.g. suspension of loudspeakers), only with safety split pin or retaining nut
- Quick-connection element with clamping nut (quick link) acc. to with DIN 56 926, with indication of carrying capacity
- Cobra fork head hooks – only in connection with chains acc. to with DIN 685
- Turnbuckles with closed eyes, e.g. acc. to with DIN 48334, with indication of carrying capacity; for dynamic loads (e.g. suspension of loudspeakers), only with safety split pin and retaining nut
- "O" rings, closed, with indication of carrying capacity.

■ Permissible cable end connections

- Rope sockets (symmetrical) acc. to EN 13411-7; for dynamic loads (e.g. suspension of loudspeakers), only with rope clamp (eccentric) acc. to DIN 1142
- Asymmetrical rope sockets (wedge end clamps) acc. to EN 13411-6; for dynamic loads (e.g. suspension of loudspeakers), only with rope clamp (eccentric) acc. to EN 13411-5
- Wire rope clamps acc. to DIN EN 13411-3, only with cable eye stiffener acc. to DIN EN 13411-1.

■ Impermissible means of attachment

- Wire cable without approval
- Covered wire cable
- Long-linked chains (inner length of the link > three times the nominal diameter of the chain material)
- Untested chains
- Cable binders
- Textile span sets without approval and indication of carrying capacity, or without the use of an additional safety facility made of wire cable or chain
- Damaged means of attachment (e.g. kinked cables, span sets with damaged covering, span sets without label/tag)
- Wire cable holders (with the exception of those carrying a BGV test certificate sticker and following consultation with the relevant Messe München GmbH contractor).

■ Impermissible carrying devices

- Chain motors in accordance with DGUV Regulation 54 (formerly BGV D8) without safety cable (i.e. not "hung dead" in a wire cable or chain).

■ Impermissible means of fastening

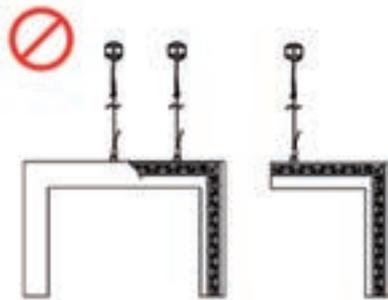
- Carbine swivels, unscrewed
- Carbine swivels, screwed
- Open hooks
- Turnbuckles in open form in accordance with DIN 1480
- Quick-connection element with clamping nut (quick link), without indication of carrying capacity
- Textile span sets as connections between two cross-beams
- Further means of fastening without indication of carrying capacity.

■ Impermissible cable end connections

- Rope clamps (eccentric) in accordance with EN 13411-5
- Rope clamps (eccentric) in accordance with DIN 741.

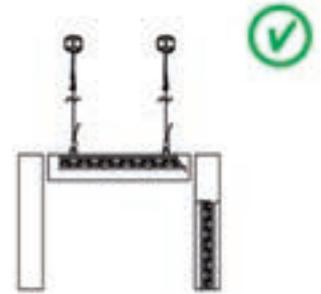
See also illustrations of safety details relevant to means of attachment on page 2.

Not permitted!



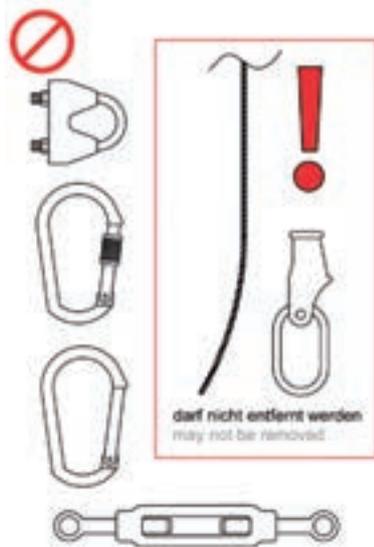
- Securing / Suspending of stand components or exhibits
- Suspended structures connected rigidly or by force of gravity with the hall floor

Permitted!



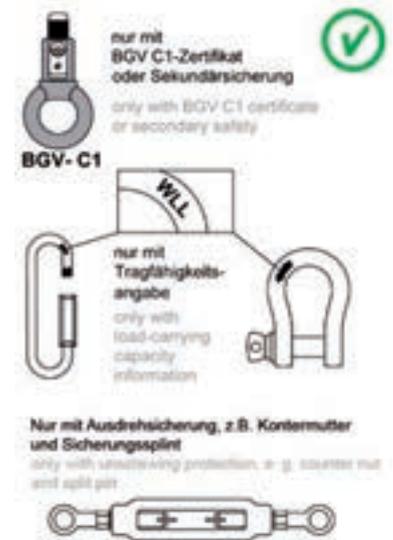
- Suspension units for lighting systems, cross-beams and banners

Not permitted!



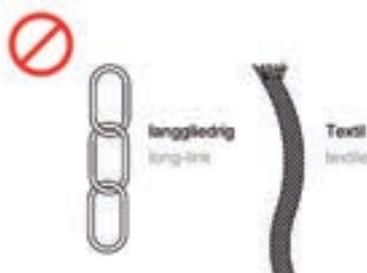
- Carbine swivels unscrewed / screwed
- Rope clamps (eccentric)
- Tension locks without safety cotter pin or counter nut

Permitted!



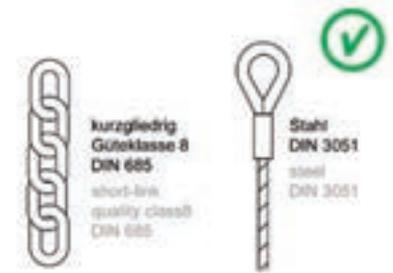
- e.g. shackles with indication of carrying capacity
- e.g. quick-connection element with clamping nut (quick link) with indication of carrying capacity

Not permitted!



- Long-linked chains (inner length of the link > 3 times the nominal diameter of the chain material)
- Textile ropes / plastic coated steel cables

Permitted!



- Short-linked chains quality class 8 / DIN 685
- Round strand cable in accordance with EN 12385

Halls

General conditions

Two-story stand construction is permitted with the approval of Messe München GmbH's Exhibition Management, the Technical Exhibition Services Division (TAS) team responsible and the Munich Municipal Fire Department in the following halls: **A1–A6, B1–B6, C1–C6.**

Approval for two-story stands depends on the position of the stand within the hall, and the area it occupies. Since consideration must be given to the overall general appearance of the hall in question, the visibility of signs, and the visual effect on neighboring stands, two-story constructions may be limited in number or prohibited altogether.

Two-story constructions must be designed in such a way that it is possible to install and dismantle them within the designated setup and dismantling periods.

No upper stories may be built across aisles.

The price of the usable space on the upper floor is calculated as a percentage of the rate for ground floor space.

In the case of infringement of any of the conditions specified here, Messe München GmbH reserves the right to take action in accordance with the General Terms of Participation.

Approval procedure

The construction application must be submitted to Messe München GmbH—for the attention of the TAS division responsible—at the latest **six weeks** before stand setup is due to begin. The following documents must accompany the application:

- Forms 1.2 and 1.3 of the Order Forms for Exhibitor Services, in duplicate
- Ground plan of ground floor, dimensioned, in quadruplicate
- Ground plan of upper floor, dimensioned, in quadruplicate
- Front and side elevation plans, dimensioned, in quadruplicate
- Sectional drawings, dimensioned, in quadruplicate
- Verified (by a certified structural safety engineer) static load plan with statics test report or statics calculation, in duplicate
- Specification of planned construction, in duplicate
- Any documentation relevant to the given glass structure (installation site of glazing, glass type, glass thickness, type of mounting, pane size)

All documents are to be submitted in German, and all drawings to scale and dimensioned. Documents submitted by fax cannot be processed.

The costs of the approval procedure are to be borne by the exhibitor.

Please note that irrespective of any approval granted for the stand design the builder and/or operator of an exhibition stand is/are responsible for compliance with public statutory regulations, such as the Bavarian Building Regulations (BayBO), insofar as applicable to exhibition stands, as well as with the Terms of Participation of Messe München GmbH.

Stand construction

Stands may be installed conventionally or using modular system elements. Materials standard in exhibition stand construction are to be used for floor and wall coverings and ceilings. Easily flammable materials may not be used. The height clearance of rooms inside the stand on both ground and first floors must be at least 2.4 m in the case of stands with two stories. No anchorages in hall floors are allowed.

Positioning of cabins / Design of upper story

Stairways, open cabins, terraces and catering areas must be set back a distance of at least 3 m to the neighboring stands. If it is not possible to maintain this distance, a closed partition of at least 2 m in height must be installed here as a screen. The side facing the neighboring stand must be finished in white and be of neutral and clean appearance.

Balustrades

Balustrades must be at least 1 m in height. They must be equipped with at least upper, central and lower cross-supports. Where open at floor level, an anti-roll batten must be installed on the floor (height ≥ 0.05 m). To prevent objects (such as wine glasses) being placed on balustrades where they can easily fall off, the handrails or tops of balustrades must be circular or rounded in shape.

Stairways / Emergency rescue and escape routes

All stairways must be built to comply with DIN 18065. The width of the escape / rescue routes (exits, stairways, aisles) must be based on the largest-possible number of persons using them and sized accordingly.

They must have a throughout width clearance of at least 1 m. The height between steps may not exceed 19 cm and the step depth must be at least 26 cm. The use of winding or spiral stairways on any escape routes required is not admissible. Handrails must offer a secure grip and be of a continuous nature. Two handrails (one each side) are required for stairways wider than 1 m.

Stairways necessary for upper floors under 100 m² in area: only one stairway is required that must emerge beyond the covered area of the stand.

Stairways required for upper stories in excess of 100 m² in area: at least two stairways are required, located at opposite ends of the stand, one of which must emerge beyond the covered area of the stand.

No items may be stored or shelving installed in areas on or under stairways without risers. Stairways with rooms located underneath them must have sealed joints.

Net loads / Load-bearing capacity

1. Ceiling strength:

The net load of the floor of the upper story of a two-storied stand within an exhibition hall must comply with DIN EN 1991-1-1 (2010) in conjunction with DIN EN 1991-1-1/NA (2010) Table 6.1 DE as follows: if the story is used for meetings and customer service purposes, i.e. it is furnished with tables and chairs in a free arrangement or in meeting cubicles, it must withstand a net load of 3 kN/m². For unlimited use as an exhibition or sales area, as an assembly room with or without rows of chairs, the floor of the upper story must be able to withstand a net load of 5 kN/m² (Category C3). The respective use made of it must be marked clearly in the plans submitted for approval purposes.

2. Strength of stairways:

Stairways must always be able to withstand net loads of 5 kN/m².

3. Strength of balustrades / banisters:

Balustrades and banisters must be designed to withstand loads of 1 kN/m at handrail height.

4. Pressure on hall floor:

Proof must be provided that the pressure applied by the supports does not exceed the maximum permissible pressure the hall floor can withstand (≤ 500 kN/m²).

5. Wind loads inside buildings (horizontal equivalent distributed load):

Upright structural elements or special constructions (e.g. freestanding walls, tall exhibits, tall decorative elements) that may fall over, must be able to withstand the following horizontally impacting equivalent distributed load q_h :

$q_{h1} = 0.125$ kN/m² up to 4 m height from upper edge of floor;

$q_{h2} = 0.063$ kN/m² for all surfaces above 4 m in height from upper edge of floor.

The reference surface in such cases is the surface potentially exposed. The verification documentation drawn up for this purpose is to be provided at the request of Messe München GmbH (extract from the Technical Guidelines).

6. Horizontal stabilization (bracing):

In addition to the equivalent distributed load (q_e) for the stabilization of special constructions, the horizontal load is to be assumed to be 1/20 or 5% of the vertical load (net load)!

Fire prevention regulations

(see also form 1.2 and "Fire Protection Measures at Trade Fairs and Exhibitions" notice for more details)

The maximum length of any escape route from the upper floor to a main hall aisle (connection between the hall gates situated opposite each other) should be 25 m. If the area covered by the upper story exceeds 30 m², a sprinkler system must be installed in accordance with VdS regulations, with one sprinkler unit to be installed for every 12 m² or part thereof of space built over or covered. All rooms in this area must be included in the protection provided by the sprinkler system.

No area of the upper story may have a closed ceiling or canopy. Metal modular ceilings with a grid opening of at least 1 x 1 cm are allowed. Inclusive of lighting elements, the air permeability of the open area must comprise at least 70%.

Any partitioned rooms on stands in the halls used by staff must offer users an unobstructed line of sight in the direction of escape towards the nearest emergency escape/rescue route. Such rooms used by staff as may be accessed or left via a partitioned room only ('trapped' rooms), are not permitted on stands located in halls.

All measures that compromise a clear line of sight in the direction of escape of the nearest emergency escape/rescue route or its accessibility are prohibited. Messe München GmbH reserves the right to impose any safety- or fire protection-related demands that may become additionally necessary until such time as stands undergo official acceptance.

Up until final approval of the completed stand, additional safety or fire prevention measures may also be imposed if deemed necessary.

■ Outdoor exhibition area

Please give special attention to the "Notice on Fire Protection Measures in the Outdoor Exhibition Area" and "Notice on Stand Structures and Exhibits in the Outdoor Exhibition Area" with regard to two-story stand construction in the outdoor exhibition area.



Notice

Use of Lifting Equipment



Hand pallet truck
Manual operation
No driver authorization required

On-site handling of goods at the exhibition grounds



Loading and unloading of trucks with tail lift



Electric pallet truck (low-lift truck) "walkie"
Electric operation
 Driver authorization, certificate or similar license for "Pedestrian-controlled vehicle" or "Forklift truck" required.

On-site handling of goods at the exhibition grounds



Loading and unloading of trucks with tail lift



Electric pallet truck (low-lift truck) **with operator platform**
Electric operation
 Driver authorization, certificate or similar license for "Pedestrian-controlled vehicle" or "Forklift truck" required.

not used / banned at the exhibition grounds



Electric ant (walkie pallet stacker)
Electric operation
 Driver authorization, certificate or similar license for "Pedestrian-controlled vehicle" or "Forklift truck" required.

On-site handling of goods on rented stand spaces



Prohibited for loading and unloading at the exhibition grounds





Truck with tail lift (hydraulic platform)

Loading and unloading authorized in combination with hand or electric pallet truck (without operator platform)



Truck with mounted forklift

For safety reasons, the operation of truck-mounted forklifts at the exhibition grounds is strictly forbidden!

Operating unloading cranes is also prohibited!



Forklift truck with operator

Request and deployment exclusively through Messe München's accredited service partners / forwarding agents

KUEHNE+NAGEL



Kühne + Nagel (AG + Co.) KG

Tel. + 49 89 949-24400

E-mail exposervice.muenchen@kuehne-nagel.com

DB SCHENKER

Schenker Deutschland AG

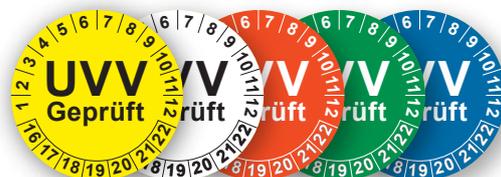
Tel. + 49 89 949-24300

E-mail fairs.muenchen@dbschenker.com

■ Important

All vehicles and loaders/unloaders must be tested according to the Accident Prevention Regulation (UVV). All devices must carry an up-to-date and clearly visible safety certification label.

Examples:



■ General

Roads and vehicle access areas may not be blocked by stand structures or other such items at any time including stand set-up and dismantling periods. As fire service access routes, they are to be kept clear across their entire width. Fire hydrants, emergency telephones and other safety facilities must be freely accessible and visible at all times; they may not be blocked, built around or modified.

■ Stand design, stand construction, signage

Please note specifically the regulations and guidelines governing the construction and operation of temporary structures (FIBauR) in the versions valid at the given time.

Each stand unit on each storey must have at least two separate escape/rescue routes. Each point on the stand must have access to an exit leading to the open air within a maximum distance of 30 m.

In the case of multi-storey stands, each storey has to have access to at least one exit leading directly out into the open. Please note DIN 18065 for staircase design. The use of winding stairways is not admissible. The space underneath stairways may not be used for storage purposes.

A minimum clearance of 10 m is required between stand structures measuring > 75 m² (e.g. tents, container installations, etc.). The clearance required must as a general rule be kept clear. Kindly contact the Technical Exhibition Services Division (TAS) of Messe München GmbH with regard to the positioning of stand structures measuring > 75 m² no later than six weeks prior to the commencement of the stand set-up period. It may be necessary to coordinate compliance with the minimum clearance requirement with neighboring stands or to carry out additional building work (e.g. construction of fire-resistant walls).

For stands with partitioned areas (notably offices, staff rooms and meeting rooms, etc.) without secured escape/rescue routes (no corridor or direct exit to the outside is available), the design of the stand must be such that no poorly accessible, hidden areas, corners and niches are created. Staff rooms and meeting rooms that are accessible only via another partitioned area (trapped rooms) are not permitted. To enable users to identify risks (fire, smoke, etc.) at an early stage, such partitioned areas are to offer users a sufficiently clear view (e.g. via a clear glass window) of the direction of escape. The view of the escape/rescue routes must be clear both from a standing and sitting position.

All the requisite exits are to be identified with signs in accordance with Accident Prevention Regulation BGV A8, ISO 7010 and ASR A1.3.

The identification of emergency exit routes must be clearly visible.

The size of the given sign must give due consideration to the distance from which it is to be seen as follows:

For viewing distances up to (DIN 4844-1:2005-05)	Type	Sign size in mm a x b (DIN 825:2004-12)
15 m	internally lit illuminated	74 mm x 148 mm 148 mm x 297 mm
30 m	internally lit illuminated	148 mm x 297 mm 297 mm x 594 mm

■ Building materials, furnishings, decorations

The use of combustible building materials is allowed; readily flammable building materials (e.g. straw, raffia, paper, reed mats, etc.) are prohibited.

Only such objects and materials as are designated as being at the very least flame retardant (to DIN 4102/DIN EN 13 501-1) may be used for decorative purposes or as curtaining. Proof of the product's fire retardance properties should be provided for its installed state. If this characteristic is to be achieved retrospectively, this is only permissible for small quantities with suitable, officially approved flameproofing agents in accordance with the instructions for use and subject to the agreement of the Munich Municipal Fire Department. Decorations featuring natural deciduous trees and/or conifers may only be used in a fresh condition.

■ Heating equipment

The use of liquid gas for heating purposes is prohibited. Suitable oil-fired heaters may be used in consultation with the Munich Municipal Fire Department.

Heating equipment outside tents is to be set up in such a way that no temperatures higher than 85 °C can develop in the immediate vicinity of them. This requirement is

considered to have been met when the minimum clearance specified by the manufacturer has been complied with or a minimum clearance of 1 m to the tent wall has been observed. It may not be located directly adjacent to an exit. Radiant heaters must be suitable for the planned usage pursuant to manufacturer's specifications (usage indoors/outdoors, installation site, etc.). The clearance stipulated by the manufacturer is to be observed. Structural precautions are to be taken to ensure that flammable materials (e.g. clothing) cannot be put down/hung up such that they cause a build-up of heat or be heated up themselves beyond the allowed limit. It should moreover be noted that the heaters be located at least 3 m away from items made of flammable materials in the direction of radiation. Clearance of at least 2 m must be observed between the outlet openings of fan heaters and items made of flammable materials in the direction of the air should the temperature of the hot air exceed 40 °C.

To the extent that fireplaces and/or heating oil tanks are located on the stand, these are to be provided with at least fire-retardant screening (walls, ceilings, doors, air inlets and outlets). The heating equipment is to be protected from unauthorized access. No flammable materials may be stored within a radius of 5 m of the given fireplace (cf. FIBauR directive).

Heating equipment and fireplaces generally require the approval of the local fire department.

■ Fire extinguishers

On each and every exhibition stand (tent, container) or other facility there should be one standard fire extinguisher (content min. 9 l) at least at each exit point, one carbon dioxide extinguisher (content min. 5 kg) in kitchen areas and one fat fire extinguisher (content min. 6 l) in areas where deep-fat fryers are operated in compliance with EN 3 or DIN 14406.

■ Use of liquid gas

The use of liquid gas is generally prohibited.

■ Further requirements for outdoor exhibition stands with a total floor area exceeding 500 m²

Outdoor exhibition stands with a total floor area exceeding 500 m² require notification to the Munich Local Building Committee. Furthermore, construction plans according to clauses a, b & f of section 2.2 of the FIBauR directive are to be submitted in quadruplicate to Messe München GmbH, Technical Exhibitions Services Division (TAS), for release by the Munich Municipal Fire Department.

For the purpose of planning safety and for obtaining the necessary declaration of agreement from the Munich Municipal Fire Department, we ask you to submit your documents in good time, however, no later than six weeks prior to your stand set-up date.

Advice in fire safety matters can be obtained from the Munich Municipal Fire Department.

The Munich Municipal Fire Department reserves the right to impose additional conditions to the extent that the necessity to do so arises from the fire safety site inspection or during operation.

Messe München GmbH's Technical Guidelines apply additionally.

Please also note the provisions stated in form 1.2 of the Order Forms for Exhibitor Services.

■ Stand structures requiring approval

All event-related stand structures in the outdoor exhibition area must comply with requirements set out in the Bavarian Building Directive (BayBO) and the Guideline governing the Construction and Operation of Temporary Structures (FIBauR) and DIN EN 13872 (Temporary structures, tents) and DIN EN 13814 (Temporary structures and installations for event venues and amusement parks) in the versions valid at the given time.

Approval from the Messe München GmbH Technical Exhibition Services Division (TAS) must be obtained for structures with a built-over area of more than 50 m² or a height of more than 5 m.

In all cases, a stand safety certificate must be obtained and submitted for stand structures requiring approval in accordance with the BayBO and FIBauR regulations valid at the given time (e.g. multi-story structures and container installations, tents covering an area of more than 75 m², stages, roof structures, show trailers etc.).

■ Stand safety

All stand structures and exhibits in the outdoor exhibition area must be erected such that they stand securely. The exhibitor is responsible for the load-bearing capability and stability of such installations. Local specifics (ground loads as well as anticipated wind and snow loads) must be given due consideration.

■ Working loads / Load assumptions

For multi-story stand structures, the working loads for upper-story floors, stairways and banisters as per DIN EN 1991-1-1 Table 6.1 DE should be assumed (see also Notice on Two-Story Stand Construction).

■ Wind loads

For all stand structures and exhibits in the outdoor exhibition area, regular wind pressure and suction loads as per DIN EN 1991-1-4 (2010), jointly with the DIN EN 1991-1-4/NA national appendix (2010) are to be verifiably taken into account for all bearing roof structures and outer walls with assumed dynamic pressure levels for:

stand structure height up to 10 m	$q = 0.65 \text{ kN/m}^2$
stand structure height of $10 \text{ m} < h \leq 18 \text{ m}$	$q = 0.80 \text{ kN/m}^2$
stand structure height of $18 \text{ m} < h \leq 25 \text{ m}$	$q = 0.90 \text{ kN/m}^2$

or wind loads to be determined as per DIN EN 1991-1-4 (2010) with the following site-related characteristics:

Munich: site height < 600 m above sea level
 wind zone 2
 basic wind speed: $v_{b,0} = 25,0 \text{ m/s}$
 velocity pressure: $q_{b,0} = 0,39 \text{ kN/m}^2$

The outdoor exhibition area is to be classified in site category III (city suburbs).

Exceptions to the above are temporary structures with reduced dynamic pressure, which are certifiable as per DIN 4112 4.5:

stand structure height up to 5 m $q_{red} = 0.5 \text{ kN/m}^2$

■ Wind loads for cranes

As far as inoperative cranes are concerned, regular wind pressure and suction loads as per DIN EN 1991-1-4 (2010), jointly with the DIN EN 1991-1-4/NA national appendix (2010) are to be verifiably taken into account.

■ Snow loads

For stand construction activities during the snow-free period (May 15 to September 30), no snow loads need be taken into account.

For stand construction activities during the winter period (October 1 to May 14), regular snow loads as per DIN EN 1991-1-3 (2010) jointly with the DIN 1991-1-3/NA national appendix (2010) are to be verifiably taken into account for all bearing roof structures:

Munich: site height < 540 m above sea level
 snow load zone 1a
 standard snow load: $s_0 = 1,15 \text{ kN/m}^2$ (as per City of Munich circular)

■ Snow clearance

To the extent that the exhibition area is fully covered by a layer of snow prior to the stand set-up period, snow clearance can be applied for with Messe München GmbH (lead time prior to execution: 48 hours).

This measure is executed on a one-off basis by Messe München GmbH at the request of the exhibitor prior to the exhibition area being occupied to the extent that the area concerned can be accessed by standard clearance vehicles. Once the exhibition area has been occupied, the exhibitor is himself responsible for snow clearance on his own stand.

■ Storm warning

In the event that stormy weather is anticipated with forecast wind strengths of more than 7 Bft (individual gusts too), a general storm warning will be issued by Messe München GmbH to all exhibitors in the outdoor exhibition area.

Thereafter, exhibitors with wind load-reduced stand installations and/or temporary stand structures as well as installations with a height in excess of 5 m are asked to take all measures in respect of ceasing stand operations without delay.

Instructions given on site by safety service coordinators and Messe München GmbH employees should be followed in full and without delay.

■ Ceasing operations

In a "cease operations" situation, exhibitors are requested to take the following measures without delay:

1. secure all stand installations and exhibits in accordance with the execution approval conditions (test certificate) and/or operating instructions
2. completely vacate stand installation of fair visitors, guests and staff
3. if necessary, clearance of entire outdoor exhibition area and immediately repair to exhibition halls in accordance with the information and instructions given on site by Messe München GmbH's safety service coordinators.

■ Setting up of exhibits

All exhibits with a height in excess of 10 m require the prior approval of Messe München GmbH's Technical Exhibition Services Division.

■ Marking of exhibits with a height of more than 50 m

The marking of obstacles to aviation at a height of 50 m and above is required for the exhibition grounds. By daylight, marking with yellow, red or orange paint is sufficient. If other coloring is used, a warning panel (red/white) must be attached to the exhibit in an exposed location. At night, cranes are to be marked with lights in accordance with the General Administrative Regulations for Marking Obstacles to Aviation dated Sept 2004.

■ Laying foundations

As far as foundations work of any kind is concerned, appropriate plans clearly indicating the precise location and size of the given foundations must be submitted to Messe München GmbH in good time prior to the commencement of the construction work concerned.

As a rule, exhibitors are obliged to completely remove all installations at the end of the trade fair. However, such foundations as are needed in the same location for the next trade fair may be left in place, providing they are located at least 0.3 m below ground level and an appropriate contractual agreement has been concluded with Messe München GmbH (cf. order form 1.3c).

■ Restoration of exhibition area following completion of dismantling work

All exhibition areas are to be returned to Messe München GmbH in their original state by the stipulated date for completion of dismantling, whereby the areas to be returned should be reported to the TAS for inspection and acceptance.

The sites in the outdoor exhibition area should be cleared and levelled as required and any areas loosened by earthworks compacted.

Any asphalted and cultivated areas will be repaired exclusively by Messe München GmbH at the expense of the given exhibitor.

In the event that due repair work has not been completed by the end of the dismantling period, Messe München GmbH is entitled to have this done at the expense of the exhibitor.

■ Miscellaneous

In dependence of the infrastructure required, exhibitors can be asked by Messe München GmbH's TAS to leave a space of 0.5 m to the back of the neighboring stand perimeter free of installations. Any stand set-up work should take account of existing supply lines, distribution boxes etc. To the extent that any such items are located within individual stand areas, access to them must be available at all times. For damage prevention reasons, no underground work may be started without prior consultation with Messe München GmbH.

Messe München GmbH's Technical Guidelines apply additionally.