Lösungen für elektronische Baugruppen und Systeme
Nürnberg, 05. – 07.05.2020

Solutions for Electronic Assemblies and Systems
Nuremberg, 5 – 7 May 2020
The following information and guidelines, the “General Terms of Contract” included with the application form, and the NürnbergMesse site regulations (hereinafter referred to as General Terms of Business of NürnbergMesse) constitute the contractual basis for participation in SMTconnect 2020.

Please note Info 3: “Information from A–Z”

1. Assembly
   - Friday, 01 May 2020: 07:00 – 20:00 hrs
   - Saturday, 02 May 2020: 07:00 – 20:00 hrs
   - Sunday, 03 May 2020: 07:00 – 20:00 hrs
   - Monday, 04 May 2020: 07:00 – 20:00 hrs

   Exhibition stands on which assembly has not been started by 15:00 hrs on Monday, 04 May 2020 will be decorated by the organizer at the exhibitor’s cost, if they cannot be otherwise disposed of.

   Extended assembly
   - If required, extended assembly from Wednesday, 29 April 2020 on can be requested for a fee:
     - Wednesday, 29 April 2020: 07:00 – 20:00 hrs
     - Thursday, 30 April 2020: 07:00 – 20:00 hrs
     - fee: 450.00 EUR per day/per exhibition stand

   Please contact NürnbergMesse:
   smt@nurnbergmesse.de
   Assembly and dismantling passes are not required.

2. Opening times
   - Tuesday, 05 May 2020: 09:00 – 17:00 hrs
   - Wednesday, 06 May 2020: 09:00 – 17:00 hrs
   - Thursday, 07 May 2020: 09:00 – 17:00 hrs

   Exhibitors are granted access to the halls from 07:00 hrs on daily during the event. The exhibition stands are to be manned no later than 15 minutes before the exhibition opens. For security reasons, exhibitors must leave the halls by no later than one hour past end of the opening time.

   The stands of others exhibitors may not be visited outside the daily opening times without the express permission of the stand holder.

3. Dismantling
   - Thursday, 07 May 2020: 17:00 – 24:00 hrs
   - Friday, 08 May 2020: 00:00 – 20:00 hrs

   Please notice, that an extended dismantling is not possible.

   Stands are not to be partly or fully dismantled or exhibits removed before the end of the event. Exhibitors contravening this rule are liable to a penalty amounting to 50 % of the stand rent. The exhibition area is to be restored to its original state after dismantling the stand. The exhibitor is responsible for any damage caused by incorrect handling.

   The organizer is entitled to dismantle and store the stand equipment and exhibits at the exhibitor’s cost if the stand space is not cleared by the end of the official dismantling time.

   Stand units on joint stands must be cleared by the participants on Thursday, 07 May 2020 at the latest 1 hour after the end of the fair.

   Vehicle access to the loading yards is only possible on payment of a deposit of 100,00 EUR (exception: trucks of 7.5 tons or more during dismantling). The deposit will be refunded if the vehicle leaves the loading yard within the time limits mentioned on Info 3, Item 46.

4. Escape routes
   - The hall gangways must not be obstructed by deposited or protruding objects during assembly and dismantling. These gangways act as escape routes in case of emergency. In addition, orderly assembly can only be assured if the gangways remain clear. The storage of stand construction material, empty containers and exhibits in the gangways is therefore prohibited. In the event of non-compliance, the organizer reserves the right to have the objects removed at the exhibitor’s cost. The exhibitor shall also be liable to pay a contract penalty of 200,00 EUR for non-compliance with this rule, irrespective of blame and without recourse to his judicial right of moderation. Empty containers are to be removed without delay.

5. Permanent parking permits
   See Info 3 in the Shop for Exhibitor Services.

6. Stand layout
   - The exhibitor is responsible for stand equipment and decoration. Exhibitors are obliged to decorate their stands carefully and in good taste. Stands which do not conform to the accepted standards will not be approved by the organizer until the necessary changes have been made. Unacceptable advertising will be similarly affected.

   Stands are to be provided with an adequate floor covering (e.g. carpet, parquet, PVC) by exhibitors. The name and address of the stand holder are to be clearly indicated on the stand for the full duration of the event.

   The exhibitor agrees to erect 2.50 m high stand partition walls on all closed sides of the stand space. Exhibitor not using his/her own stand partition or rental stand, must order stand partition walls.

   Where the back wall of a stand extends beyond 2.5 m in height, the wall must be all white, clean, opaque, smooth and free of installation materials. Advertising must have a distance of 1.00 m from the neighboring stand.

   Stand partition walls are available for rent in wood or plastic-coated finish or without wallpaper. Chipboard panels (height approximately 2.50 m) are permanently fixed to the hall walls by NürnbergMesse. These panels are wallpapered and painted white (note: use special paste for wallpapering over this, but may show signs of use. They therefore count as partition walls that are not wallpapered and are charged accordingly. Walls without wallpaper must be papered and painted. The wallpaper must be stripped by the exhibitor after the event or the walls will be stripped and cleaned at the exhibitor’s cost. Wallpapering, painting and stripping can be ordered on Shop for Exhibitor Services.

   If a rental exhibition stand is not used, a fascia (0.30 m high) must be fitted on all open sides of the stand space. The fascia can be omitted if the necessary stand quality is assured in some other way.

   The overriding principle for the design of all exhibition stands is transparency.

   Stand partitions bordering aisles should include displays, show cases, niches, passages, etc., to demonstrate the exhibition character of the stand and the overall event.

   Graphics, logos or displays are not allowed on the back of the stand partitions directly bordering other exhibition stands.

   Stand sides adjoining an aisle must be open. Solid walls must not constitute more than 50 % of the total length of the open side where the wall adjoins an aisle. Where the stand wall is at least 1.00 m away from the aisle, a solid wall constituting more than 50 % of the total wall is acceptable.

   We thank you for your cooperation and understanding that your exhibition neighbour does not want to look at an imposing wall for three days.

   The minimum height is 2.50 m.

   The backs of stand partition walls, advertising carriers or other design elements facing neighbouring stands and exceeding a height of 2.50 m must be white, in a clean and tidy condition and must not contain any text or graphics.

   Please note that all exhibition stands are subject to approval – independent of their size (exception: rental stands ordered in the Shop for Exhibitor Services). Approval is to be applied for using Form P1 “Stand design approval”. The maximum building height is 5.80 m.

   Two-storey stand construction is not permitted.

   All other stand partition walls, floors, hall walls, pillars, installations, fire-fighting equipment and other permanent hall fixtures must not be pasted over, nailed, painted or damaged in any other way. The exhibitor is responsible for any damage and will be charged with the cost of repair. Any pillars, installations and fire-fighting equipment located within the stand are part of the allotted stand space and must be accessible at all times.

   Floor coverings in the stands are only to be fixed with double-sided adhesive tape (following tapes are to be used: tesafix no. 4964).

   If the remains of other adhesive tapes must be removed from the hall floor after the end of dismantling, the cleaning costs will be charged to the exhibitor. The same applies to the remains of carpets etc.

   The exhibitor agrees to comply with these conditions. Non-compliance may result in claims for damages by the organizer or the neighboring exhibitors affected.
Important information for SMTconnect 2020

7. WLAN (Wireless Local Area Network)
Exhibitors may only set up a WLAN (Wireless Local Area Network), if this has been expressly approved in writing by the Exhibition Services Department (see Form PS/Shop for Exhibitor Services).
A WLAN used without approval can lead to serious technical disturbances. The exhibitor is liable for damage caused by the operation of a WLAN without approval. The Exhibition Services Department will be pleased to advise on the approval and setting up of a WLAN.

Unify Communications and Collaboration GmbH & Co. KG is the sole supplier of a WLAN infrastructure for commercial use on the NürnbergMesse site. NürnbergMesse grants Unify Communications and Collaboration GmbH & Co. KG exclusive frequency control over channels 2 to 13 for WLAN in the 2.4 GHz band for the full-coverage WLAN service on the NürnbergMesse site. Only channel 1 in the 2.4 GHz band (2412 MHz) is available on the NürnbergMesse site for use for all other applications/WLAN networks for both operation by ServicePartners of NürnbergMesse (Unify Communications and Collaboration GmbH & Co. KG) and operation of radio/WLAN networks set up by exhibitors themselves. NürnbergMesse reserves the right to refuse approvals or not to approve applications for exhibitors’ own WLAN networks, depending on the number and physical assignment per hall.

As part of quality assurance measures, both unregistered and approved WLAN networks and WLAN networks with excessive transmit power levels will be identified and the operators notified. These networks may possibly be approved after checking or are to be shut down if requested by NürnbergMesse – there is no legal entitlement to approval. If no amicable solution is possible, technical measures will be implemented to prevent the illegal operation of such WLAN networks.

8. Stand parties
A written permission of the organizer is required, if you plan stand parties. Please address your inquiries to the project team of NürnbergMesse (smt@nuernbergmesse.de).

9. Distribution of advertising material outside the stand
If advertising material is distributed or exhibits set up outside the limits of the exhibition stand, the exhibitor shall be liable to pay a contract penalty of 1,500,00 EUR irrespective of blame and without recourse to his judicial right of moderation.

10. Supplementary General Terms of Contract
The following General Terms of Contract shall apply to the relationship between the exhibitor and NürnbergMesse (see Info 2). If NürnbergMesse itself is not the organizer, the organizer’s General Terms of Contract shall also apply.

General Terms of Contract for the Exhibitors Info Manual

1. The following General Terms of Contract shall apply to the relationship between the exhibitor and NürnbergMesse GmbH (hereinafter referred to as NürnbergMesse).

2. Conflicting contractual terms of the exhibitor are not recognized. Additional agreements shall become effective only after confirmation in writing by NürnbergMesse.

3. The contract is concluded between the exhibitor and NürnbergMesse. The ServicePartner (or subcontractor) stated on the form, who acts as the representative of NürnbergMesse, is the customer’s contact for all matters concerning this contract. The forms must be used for all orders. Any illustrations shown are only examples. If necessary, NürnbergMesse is entitled to have the service ordered provided by another ServicePartner. In this case, the customer will be notified of the other ServicePartner in good time.

4. If ServicePartners act as subcontractors for NürnbergMesse, the “Special Conditions for Services” of the ServicePartner shall also apply. The “Special Conditions for Services” shall apply in addition to the General Terms of Contract, which take priority.

5. The validity of the “General Conditions for Participation in Fairs and Exhibitions” and the “Special Conditions for Participation in SMTconnect” is not affected by the General Terms of Contract. In case of contradictions to the General Terms of Contract, the “General Conditions for Participation in Fairs and Exhibitions” and the “Special Conditions for Participation” shall take priority.

6. NürnbergMesse is not obliged to check the information provided by the exhibitor for correctness and completeness. Any doubts shall be to the detriment of the exhibitor.

7. If services offered by NürnbergMesse are provided by ServicePartners, accounts are settled directly by the ServicePartner on behalf of and for the account of NürnbergMesse. Collection on the stand during the exhibition is admissible. The following credit cards are accepted: MasterCard, American Express, VISA or Diners Club.

8. Unless otherwise indicated, all prices stated are subject to statutory VAT if the service is taxable in Germany. Payments are due in full immediately on receipt of the invoice. Invoices are made out in EUR.

9. If the exhibitor defaults on payments, interest on arrears shall be payable at a rate of 8 % above the currently applicable base lending rate of the German Federal Bank or at a rate of 8 % above the successor instrument designated by the European Central Bank.

10. If the contractually agreed service provided by the ServicePartner is defective or incomplete, claims shall be asserted exclusively against the ServicePartner.

11. The exhibitor is obliged to check the services provided for defects and completeness without delay. In order to avoid the loss of all claims, the exhibitor shall notify the ServicePartner of any apparent defects or incompleteness in writing immediately after detection.

12. NürnbergMesse shall not be liable for any kind of personal injury or damage to property, unless NürnbergMesse or its subcontractors have caused the damage through intent or gross negligence. This restriction shall not apply in the case of violation of substantial obligations.

13. The place of fulfillment is Nürnberg. German law shall prevail.

14. The place of jurisdiction for all legal proceedings is Nürnberg, if the parties to the contract are businessmen or the exhibitor has no place of general jurisdiction in the Federal Republic of Germany.

15. In case of a provision of these General Terms of Contract being or becoming null and void, the effectiveness of the remaining provisions shall not be affected.

16. Once admission has been confirmed, the exhibitor must pay charges even if he withdraws his application or does not exhibit. The organizer also reserves the right to assert claims for damages. If the exhibitor cancels the order for rental exhibition stands and/or other services, the following cancellation fee is payable based on the value of the order.
   ● 90 days to 15 days before start of assembly (see Special Conditions for Participation) of the event 25 % of the order value
   ● 14 days to 1 day before start of assembly (see Special Conditions for Participation) of the event 80 % of the order value
   ● the full amount is payable from the start of the assembly period.
   The exhibitor retains the right to prove that the requested compensation for costs incurred is too high.
1. Camping site
The parking of caravans and mobile homes at the Exhibition Center Nuremberg is prohibited. Please use the camping site only a few minutes drive away. 160 spaces, opening times: all year round. Prices: on request. Facilities: sanitary facilities, bistro, playground, table tennis, tennis court. You should inquire about vacancies a few days before arrival.
Knaus Camping park Nürnberg
Hans-Kalb-Straße 56, 90471 Nürnberg
Tel +49 (0) 9 11. 9 81 27 17, fax +49 (0) 9 11. 9 81 27 18
nuernberg@knauscamp.de, www.knauscamp.de

2. Cash dispensers
Entrance Mitte and Entrance Ost.
Cash obtainable with EC-card or credit card.

3. Catering
Shop for Exhibitor Services/Logistics and Catering
Lehni Catering-Party-Service GmbH & Co. KG
Exhibition center restaurants, stand catering, catering arrangements for receptions, conferences and meetings.

4. Cleaning
4.1 General cleaning
Cleaning of the site, halls and gangways is arranged by the organizer.
The cleaning company commences final cleaning at 20:00 hrs on the last assembly day. Cartons, battens, planks, crates etc. still in the gangways at this time will be regarded as refuse and removed (see Info 4, 6.1 – “Waste Management”).

4.2 Stand cleaning
Shop for Exhibitor Services/Logistics and Catering
Kiefer GmbH
(Halls 3–7A)
dias Gebäudemanagement GmbH (Halls 1, 2, 8–12)
Stand cleaning which is undertaken by the exhibitor himself must be completed 30 minutes after exhibition closing time.

5. Communication/Telecommunications
Shop for Exhibitor Services/Technical Services

6. Compressed air supply
Shop for Exhibitor Services/Technical Services
SPIE SAG GmbH

7. Conference/meeting rooms
Conference and meeting rooms of all sizes are available in the Exhibition Center Nuremberg. Please notify us of your requirements, quoting date and number of persons. Please coordinate the dates planned for press conferences with the NürnbergMesse project team.
sm@nuernbergmesse.de

8. Customs
The customs office on the exhibition site is open for large international exhibitions (ServicePartnerCenter, 1st floor). The opening times are shown in the Last-Minute Information. You can also contact our forwarding agents about customs matters; see Item 23 “Forwarding agent, transport services”.

9. Delivery of goods
See Item 46 “Traffic and parking regulations”.

10. Dispensing equipment
Dispensing systems intended for operation at the event must be provided with a risk assessment issued by the manufacturer or renter and this must be shown on request.

11. Electric charging station
Three charging pillars with 2 connections each are available on the site of NürnbergMesse GmbH. Information about their location and terms of use is obtainable at www.nuernbergmesse.de/en/e-charging-station.
For further information, please contact:
Harald Knaus – Der Elektroprofi GmbH
Tel +49 (0) 9 11. 86 06-88 80
emobility@nuernbergmesse.de

12. Electricity supply
Shop for Exhibitor Services/Technical Services
SPIE SAG GmbH
Connections to the main supply network may only be made by the ServicePartner appointed by the organizer. It is recommended that work within the stand is also carried out by this company.

13. e-mobility – see item 11 electric charging station

14. Empty containers
Shop for Exhibitor Services/Logistics and Catering
The storage of empty containers on the stands, in the halls or in the loading yards is not permitted during assembly, exhibition or dismantling. Containers are to be collected and stored by the respective exhibition forwarding agent.

15. not applicable

16. Exhibitors kitchens
Exhibitors requiring cold or warm water can use the kitchens set up for this purpose in the following areas during the event: basements of Service 4 UG, Service 4/S UG, hall 4A.

17. ExhibitorShop on site
Service 5/6, top floor
In the ExhibitorShop on site the ServicePartners of NürnbergMesse offer their services concentrated in one place to minimize the time spent by exhibitors obtaining information. The respective times at which they are present are given in the Last Minute Information.

18. Fire extinguishers
Form S2.70

19. Fire service
Shop for Exhibitor Services/Information and Approvals
Exhibition Center Nuremberg, Feuerwache 5
Fire service staff carry out inspection tours during the assembly period to check that stands comply with the fire prevention regulations. Accurate planning of stands in advance and compliance with instructions avoid delays and interruptions during assembly.
Please observe the fire prevention regulations (Technical regulations Info 4) and ensure that Form P2 is returned, if applicable.

20. First aid service
OperationCenter in the Exhibition Center Nuremberg
Emergency Call at the Exhibition Center Nuremberg
Tel +49 (0) 9 11. 86 06-70 00

21. Floral stand decoration and stand design, landscaping services
Shop for Exhibitor Services/Stand Construction
The ServicePartners stay in the service areas of the halls in use until the start of the event.

22. Forwarding address
Event, hall, stand number, exhibitor
Messezentrum, 90471 Nürnberg

23. Forwarding agent, transport services
Shop for Exhibitor Services/Logistics and Catering
Schenker Deutschland AG (Halls 3–7A)
Kühne + Nagel (AG & Co.) KG (Halls 1, 2, 8–12)
Safety and liability reasons require lifting equipment such as forklift trucks, cranes etc. to be requested solely via the respective exhibition forwarding agent.
Please note: The minimum charging unit for personnel and equipment is 1.0 hour.

24. Furniture rental
Shop for Exhibitor Services/Stand Construction

25. getit! – Exhibition Services express
Takes care of the things you’ve forgotten that are not obtainable directly on the exhibition site – quickly and reliably!
Tel +49 (0) 9 11. 86 06-80 90, getit@nuernbergmesse.de

26. Guarding of halls and stands
Shop for Exhibitor Services/Logistics and Catering
Engelhardt & Co. Sicherheit GmbH
Exhibition halls are guarded during the official assembly and dismantling periods and for the duration of the event. However, this does not constitute any liability of the organizer. Additional stand guards are recommended and can only be ordered through the ServicePartner.

27. Hostesses/service personnel/helping hands, exhibition events, staff
Shop for Exhibitor Services/Logistics and Catering

28. Insurance
Insurance cover is recommended for exhibits and stand fittings.
The organizer can arrange exhibition insurance cover (transport and duration of event) and exhibitor liability insurance.

29. Lettering
Shop for Exhibitor Services/Stand Construction

30. Lift platforms – see working platforms
31. Media and event equipment
Shop for Exhibitor Services/Technical Services
MAS MEDIEN AKTIV SERVICE GmbH
pave GmbH

32. Medical assistance
See Item 20 “First aid service”
Emergency services
Emergency Call at the Exhibition Center Nuremberg
Tel +49 (0) 9 11. 86 06-70 00

33. Order confirmation
Written confirmation is not issued in every case on receipt of service order forms. However, correspondence will follow on points in need of clarification.

34. Parking for exhibitors
Shop for Exhibitor Services/Passes and Tickets
Parking for cars
The marked parking areas are available for parking cars. They are manned on the days of the event from 07:00 to 19:00 hrs or until the end of the respective event each day.
Permanent parking permits are valid only for cars.

34.2 Parking for trucks, trailers, vans, etc.
The parking of trucks, trailers, vans, swap bodies, caravans and mobile homes is prohibited during the exhibition in the areas marked as parking areas, in the loading yards of the Exhibition Center Nuremberg (except for delivery, which is restricted to a maximum of 30 minutes) and in the “Große Straße”. This regulation also applies to vehicles which give the impression of being trucks, trailers, vans, swap bodies, caravans and mobile homes.
Vehicles can be parked free of charge during the exhibition in the parking areas marked for this purpose by the organizer. The route to these parking areas only a few minutes drive from the Exhibition Center Nuremberg is signed and is shown on the approach road maps handed out at the entrances to the loading yards.
The organizer is entitled to remove vehicles parked in the parking areas or the loading yards at 02:00 in the morning of the first day of the event by having them towed away at the cost of the vehicle owner or user.
The exhibitor agrees to ensure that third parties appointed by him such as exhibition service companies, hauler etc. also comply with these regulations.
Please also see Item 46.
The display of advertisements, company signs etc. or any other publicity measures on the exhibitors or visitors cars parks is prohibited.

35. Photography
Only the ServicePartner is allowed to carry out commercial photography work during an event. Exhibitors can take photographs of their own stand as required. If a photographer other than the approved exhibition photographer Bischof & Broel, Tel +49 (0) 9 11. 53 35 33, is to be appointed to carry out commercial photography work, special permission at extra cost must be obtained from Exhibition Services by not later than three weeks before the start of the event. This also applies unconditionally for video and other film shootings and productions.
Please contact Mesago Messe Frankfurt GmbH, Mrs. Petra Buss, mail: Petra.buss@mesago.com.

36. Public address announcements in halls
In the interests of exhibitors and visitors, paging and advertising announcements in the halls are not permitted.

37. Refuse and waste disposal
Shop for Exhibitor Services/Logistics and Catering
Friedrich Hofmann Betriebsgesellschaft mbH
See Info 4 “Guidelines for handling waste”

38. Signs, lettering
Shop for Exhibitor Services/Stand Construction

39. Scissor work platforms
– see working platforms

40. Sinks for use by painters
Paint containers, paint brushes etc. are not to be washed out in the toilets and washrooms etc. Suitable rooms with sinks are provided in the basements of hall 4A, Service 4 UG, Service 4/5 UG.

41. Stand construction
Shop for Exhibitor Services/Stand Construction
mesomondo GmbH
Holtmann Messe + Event
Messebau Wörnlein GmbH

42. Stand fittings, additional
Shop for Exhibitor Services/Stand Construction

43. Taxi service
Taxi ranks in the Exhibition Center Nuremberg at the entrance areas
Tel +49 (0) 9 11. 1 94 10

44. Telecommunications/Communication
Shop for Exhibitor Services/Technical Services

45. Toilets
Toilet facilities are available free of charge.

46. Traffic and parking regulations
Parking in the immediate vicinity of halls, especially in loading yards and in front of the exits is prohibited for all types of vehicles for the duration of the event. During the assembly and dismantling periods, vehicles may only halt in these areas for loading and unloading.
Access to interior areas is not possible at all. To prevent possible hindrance to the fire service, vehicles are to be removed immediately on completion of this work and can be parked on the designated parking areas.
Vehicle access to the loading yards is only possible on payment of a deposit of 100,00 EUR (exception: trucks of 7.5 tons or more during dismantling). The deposit will be refunded if the vehicle leaves the loading yard within the time limits stated below.

Time limits during assembly:
• 1 hour for loading and unloading cars and vehicles up to 2.8 tons
• 2 hours for loading and unloading vehicles over 2.8 tons

Time limits during dismantling:
Vehicle access to the loading yards on the last day of the event is not possible from 13:00 hrs until approx. 1 hour after the end of the exhibition due to delivery of empty containers by the exhibition forwarding agents.
Access is possible:
• 1 hour after the end of the exhibition for cars and vehicles up to 2.8 tons
• 2 hours after the end of the exhibition for vehicles from 2.8 to 7.5 tons
• 3 hours after the end of the exhibition for vehicles over 7.5 tons

Length of stay:
• 1 hour for loading and unloading cars and vehicles up to 2.8 tons
• 2 hours for loading and unloading vehicles from 2.8 to 7.5 tons
• 3 hours (extension possible) for loading and unloading vehicles over 7.5 tons

The exact access times may vary and are notified at the entrance gates.

47. Travel service, hotel reservations
Shop for Exhibitor Services

48. Water supply and drainage
Shop for Exhibitor Services/Technical Services
August & Jean HILPERT Messe-Service GmbH (Halls 3–7)
Brochier Gebäudemanagement GmbH (Halls 1–2, 8–12)

49. Wireless LAN
Shop for Exhibitor Services/Technical Services
Available throughout the exhibition site, except parking areas.

50. Working equipment – see working platforms

51. Working platforms
Shop for Exhibitor Services/Logistics and Catering
For safety and liability reasons, working platforms etc. may only be requested via our ServicePartner SPIE SAG.
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1. **Introduction**

NürnbergMesse GmbH, hereinafter known as NürnbergMesse, has drawn up regulations for its events with the aim of providing all exhibitors/organizers with optimum facilities for presenting their exhibits and approaching their visitors and potential customers. These regulations are mandatory for all exhibitors and organizers. In the interest of our exhibitors and visitors, these regulations also include safety regulations, which are intended to ensure the highest degree of safety for the technical and design aspects of events. The building regulations, fire prevention regulations and other safety regulations have been agreed with the responsible departments of the Nuremberg authorities. NürnbergMesse reserves the right to check for compliance with these regulations. Compliance with the applicable statutory regulations is also compulsory.

Wherever the term “Stand Construction” or “Stand” is used in the Technical Regulations in line with accepted linguistic usage, it does not refer to a structure as defined by the German Building Code. In legal terms, an exhibition stand/stand construction in the exhibition halls is an “installation” in a place of assembly. The organization of an event/operation of an exhibition stand may be prohibited in the interest of all participants if any defects found have not been cleared by the start of the event. The right is reserved to impose further requirements regarding safety and stand construction if necessary. The order forms for services are usually sent with the confirmation of admission and must be completed and returned by the specified deadline, as NürnbergMesse cannot accept responsibility for correct and timely execution of orders received late.

NürnbergMesse also reserves the right to impose a surcharge on the price of orders received late, in accordance with details given in the Online Exhibitors Shop (OES). If applicable, exhibitors may be sent additional circulars with information concerning the preparation and organization of the event. These Technical Regulations have been coordinated between the following exhibition companies and are published in a standard layout:

- Deutsche Messe AG, Hanover
- Koelnmesse GmbH
- Leipziger Messe GmbH
- Messe Berlin GmbH
- Messe Düsseldorf GmbH
- Messe Frankfurt Venue GmbH
- Messe München GmbH
- NürnbergMesse GmbH
- Landesmesse Stuttgart GmbH

Building law in Germany is governed by the law of the individual states. The respective implementation regulations may therefore vary for this reason and because of the different building situation that exists at the various other venues. NürnbergMesse also reserves the right to make changes. The German text is legally binding.

1.1 **Site regulations, extract from site regulations**

NürnbergMesse possesses the sole domiciliary rights to the rented object and site, provided the renter is not entitled to these rights by act of law. The justified interests of the renter shall be taken into account when exercising domiciliary rights.

1. **The domiciliary rights with respect to the renter and all third parties shall be exercised by personnel appointed by NürnbergMesse, whose instructions must be complied with and who are to be granted access to the rented object at all times.**

2. In the event of contravention of the site regulations or disruptive behavior, NürnbergMesse has the right to expel the persons concerned from the exhibition grounds and from its own car parks, withdraw their entrance tickets without compensation and have their vehicles towed away at the owner’s cost and risk.

3. NürnbergMesse has the right to check the storage compartments of vehicles and receptacles carried by persons, if required.

4. In case of theft of exhibits, the relevant person will be expelled from the site and the police informed. NürnbergMesse reserves the right to exercise its right to detain the relevant person on the exhibition grounds until the person’s identity is established by the police.

5. Visitors to the event must leave the exhibition grounds at the end of the daily event times.

6. Compliance with instructions issued by the event director, event equipment director and security manager appointed by NürnbergMesse is compulsory. The same applies to instructions issued by the security authorities, such as the fire brigade and public order office.

1.2 **Opening times**

1.2.1 **Assembly and dismantling times**

Work can be carried out during the general assembly and dismantling times from 7:00 to 19:00, unless other times are published for specific events (Info 1). For reasons of general security in the exhibition grounds, the halls and the exhibition grounds in general remain closed outside these times. The exhibitor must completely remove all stand construction materials, all exhibition pieces and objects and also all its other exhibition goods by the end of the dismantling time announced for every event and restore the original condition of the exhibition space. NürnbergMesse is entitled to have any exhibition goods remaining in the stands, gangways, foyers, or loading yards after the end of the dismantling time removed and stored by the responsible forwarders (ServicePartner) at the expense and risk of the exhibitors or disposed of at its expense.

1.2.2 **Duration of event**

For the duration of an event, the halls are open one hour prior to the official opening time and one hour after the official closing time, unless other times are published for specific events (Info 1).

Exhibitors who for justified reasons need to work on their stands outside these times require special written permission from NürnbergMesse.

1.3 **Responsible use of energy**

Energy efficiency is a core value of NürnbergMesse. It is our declared objective to be at the forefront of European trade fair companies in respect of energy efficiency. This is why we are committed to making all necessary resources available to achieve this goal.

Our energy efficiency programmes have to be characterized by a holistic approach involving ongoing improvement, technical development and efficiency of resources. We are continuously reviewing, evaluating and if necessary improving our energy management. We undertake to adhere to all applicable statutory requirements. In addition, we are committed to preventing waste of energy wherever it occurs and at all times and to using the latest environmental, safety and energy-saving technology that is economically feasible.

What can the exhibitor do to help?

- Switch off the stand lighting if there is sufficient daylight or lighting in the exhibition hall.
- When leaving the stand in the evening make sure to switch off the lights.
- Switch off printers, copiers and computers and do not leave them in standby mode.
- Use energy-saving LED lamps and energy-saving equipment and appliances (e.g. fridge with energy efficiency rating A+++)
- Whenever possible, re-close hall doors and gates, or keep them closed (even in summer to save cooling energy).

2. **Traffic in the exhibition grounds, escape routes, safety equipment**

2.1 **Traffic regulations**

To ensure the smooth flow of traffic during the assembly and dismantling times and the event itself, the rules concerning the regulation and direction of traffic and any instructions issued by security personnel are to be strictly observed. The provisions of the German Road Traffic Act apply accordingly throughout the exhibition grounds and on all car parks owned by NürnbergMesse. The speed limit within the exhibition grounds is 20 km/h. Vehicle access to the service areas between the halls is not permitted outside the straight lanes, as these areas have basements. Unlawfully parked vehicles, trailers, containers, boxes and empty receptacles of any kind will be removed at the owner’s expense and risk.

The relevant information must be heeded:

1. **Traffic and parking regulations:**

   Parking in the immediate vicinity of the halls and especially in the loading yards and in front of the exits is prohibited for all types of vehicles for the duration of the event. During the assembly and dismantling periods, vehicles may only stop for loading and unloading at the designated parking spots. Vehicle access to the inner yard is not possible at any time. To prevent possible hindrance to the fire service, vehicles are to be removed immediately on completion of this work and can be parked on the designated parking areas. Vehicle access to the loading yards during assembly and dismantling is only possible on payment of a deposit of EUR 100 (exception: trucks of 7.5 t or more during dismantling).

   The deposit will be refunded if the vehicle leaves the loading yard within the time limits stated below.
Technical regulations 2020 (continued)

2. Time limits during assembly:
   1 hour for loading and unloading cars and vehicles up to 2.8 t. 2 hours for loading and unloading vehicles over 2.8 t.

3. Time limits during dismantling:
   Vehicle access to the loading yards on the last day of the event is not possible from 13.00 until approx. 1 hour after the end of the exhibition due to delivery of empty containers by the exhibition forwarding agents. Access is possible: 1 hour after the end of the exhibition for cars and vehicles up to 2.8 t. 2 hours after the end of the exhibition for vehicles of 2.8 t to 7.5 t. 3 hours after the end of the exhibition for vehicles of more than 7.5 t.

4. Length of stay:
   1 hour for loading and unloading cars and vehicles up to 2.8 t. 2 hours for loading and unloading vehicles from 2.8 t to 7.5 t. 3 hours (extension possible) for loading and unloading vehicles of more than 7.5 t.

The exact access times may vary and are notified at the entrance gates. During assembly and dismantling vehicles are not permitted to enter the exhibition halls. Any exceptions to this rule must be agreed with NürnbergMesse beforehand and are subject to approval. Our ServicePartners may be permitted to be in the halls at times outside of the general assembly and dismantling times.

2.2 Escape routes

2.2.1 Fire brigade zones, hydrants
   Essential fire brigade access routes and unrestricted movement zones marked by no stopping signs must be kept free at all times. Vehicles and objects parked on rescue routes and safety zones may be removed at the owner’s cost and risk. The marked fire-fighting equipment in the halls and outside area are not to be obstructed, obscured or made inaccessible. Hydrants are not to be used for filling purposes (e.g. containers, basins etc.).

2.2.2 Emergency exits, escape hatches, hall gangways
   The escape and emergency routes are to be kept free at all times (see 2.6). Any doors located in escape and emergency routes must be easy to open from the inside over their full width. Escape and emergency routes, exit doors and emergency hatches and their identification markings must not be obstructed, built over, blocked, covered by hangings or rendered unrecognizable.

   At no time may the escape and emergency routes in the halls be restricted by objects placed in or projecting into them. In the event of contravention, NürnbergMesse reserves the right to remedy the problem at the expense and risk of those responsible for the infringement.

   Materials required for stand construction or exhibits delivered for immediate display in the stand space may be placed in the periphery of the hall gangway for a short time during the assembly and dismantling phases, provided the gangway widths required for safety reasons are still maintained and logistical interests are sufficiently taken into account.

   This requirement is regarded as fulfilled if the materials or exhibits are placed in a strip of maximum 0.90 m along the edge of the stand facing the hall gangway. Irrespective of the width of the hall gangway and the goods placed in the gangway, a minimum width of 1.20 m must be kept free for access. The areas in front of emergency exits and the junction areas of the hall gangways are to be kept clear of obstructions over their full width at all times. The hall gangways must not be used to set up assembly areas or machinery (e.g. woodworking machinery, workbenches etc.). NürnbergMesse may request immediate clearance of the hall gangway for reasons of logistics.

2.3 Safety equipment
   Sprinklers, push-button fire alarms, fire extinguishing equipment, above-ground, underground or wall hydrants, smoke alarms, fire doors and self-closing doors and gates and other safety equipment, their markings and the green emergency exit signs must be accessible and visible at all times and must not be obstructed or made inaccessible.

2.4 Stand numbering
   All stands will be marked with a stand number by the organizer if technically possible.

2.5 Security
   The general supervision of the halls and outdoor area for the duration of the exhibition is provided by NürnbergMesse. General supervision is also provided during assembly and dismantling times. NürnbergMesse is authorized to carry out the necessary control and security measures.

   If a stand security guard is required, this must be ordered by the exhibitor himself using the Online ExhibitorShop (OES). Stand guards may only be provided by the security company appointed by NürnbergMesse.

   Prevention of theft: Incidences of theft in the Exhibition Center Nuremberg are comparatively rare. A continuing need to promote theft prevention measures is necessary to maintain this good reputation. This is achieved by NürnbergMesse through security control and guarding measures. These do not, however, apply to individual stands. Please support our efforts by observing the following instructions:

1. Assembly: Your stand should not be left unsupervised after exhibits have been delivered following stand assembly. Although halls are locked and guarded on completion of assembly, an additional stand guard is generally recommended, also for the nights during the event. You should certainly lock away valuable goods at night. Safes and lockable display cases can be rented from the ServicePartners. Your stand cubicle can also be supplied with a lockable door (to be ordered on the relevant forms).

2. Dismantling: Do not leave your stand until valuable exhibits have been loaded or handed over to the forwarding agent. Should this not be possible for special reasons, please order a stand guard for the time between the end of the event and the start of dismantling your stand.

3. Opening times: Most thefts occur during opening times. Never leave your stand unattended, not even during the lunch period. Personal articles should be locked away. Especially exhibits liable to theft should be secured, e.g. with thin chains, nylon threads or presented in lockable display cases. The exhibition team and Exhibition Services Team will be pleased to advise on theft prevention matters. NürnbergMesse reserves the right to impose special theft prevention conditions on individual exhibitors. Please also check your insurance against theft. We recommend taking out an exhibition insurance policy. NürnbergMesse appreciates your cooperation.

2.6 Emergency evacuation
   NürnbergMesse or the responsible authorities may order the closure and evacuation of rooms or buildings for safety reasons. Persons present in these rooms or buildings must comply with this request and evacuate the rooms or buildings via the marked emergency exits. Exhibitors must inform their staff of this procedure or if applicable draw up their own evacuation plans and display these on their stand. Every exhibitor must see to it that its stand area/event area is evacuated immediately upon request.

3. Technical details and equipment of halls and outdoor area

3.1 Hall details
   Due to the different halls, this information is presented separately (see Instruction Sheet i4.1 "Technical data of halls", and the permissible point loads).

3.1.1 General lighting, power supply, voltage
   The general lighting during the event in the halls is at least 300 lux measured 1 m above the hall floor. During assembly and dismantling, the exhibitor/stand builder must ensure an adequate level of light in the stand area. Available power supply and voltage on the exhibition grounds:
   - Single-phase alternating current 230 Volt/50 Hz
   - Three-phase alternating current 400 Volt/50 Hz
   - Connections up to 63 Amp are protected by Residual Current Devices (RCD).

   Tolerances to DIN EN 50160.

3.1.2 Compressed air, electricity and water supply
   In halls 1 – 12, 3A, 3C, 4A and 7A, compressed air, electricity and water for stands are usually supplied from the service ducts or shafts in the hall floor. In halls with supports in the exhibition area (halls 3, 10.0, 10.1, 12), electricity can be supplied additionally from the terminal boxes located in the hall supports.
3.1.3 Communication facilities
Telephone, fax, data and antenna connections to the stands in all halls are supplied from the service ducts or shafts in the hall floor and must be ordered from the responsible ServicePartner (for further guidelines and conditions see Telecommunications in the Online ExhibitorShop (OES)). Exhibitors may only set up a WLAN (Wireless Local Area Network) if this has been expressly approved in writing by the Exhibition Services Department (for further guidelines and conditions see Telecommunications in the Online ExhibitorShop (OES)).

3.1.4 Sprinklers
With the exception of halls 4A and 7A, halls 1 – 12 and 3A and 3C are equipped with sprinkler systems. These must have a safety clearance > 1.00 m at the top edge of the stand, exhibits or decorations for fire prevention and insurance reasons. The minimum safety clearance in closed rooms (e.g. conference rooms) is 0.70 m. Smaller clearances must be approved by NürnbergerMesse (Exhibition Technology Department, for contact details see 4.2).

3.1.5 Heating, ventilation
The halls are equipped with ventilation systems and heaters. Heating, ventilation and cooling are provided as needed during the event. This may sometimes lead to stronger air flows at the exhibition stand.

3.1.6 Failures
Any failures in technical supplies are to be notified to the exhibition team without delay. NürnbergMesse shall not be liable for any losses or damage caused by such failures and due to ordinary negligence.

3.2 Outdoor area
The outdoor area of NürnbergMesse consists of paved or asphalted traffic areas and uneven, mostly non-compacted ballast lawn areas or grown lawn areas. During event opening times, the outdoor area is illuminated by general road and path lighting after dark. The necessary service connections are available at irregular intervals. Please pay attention to Item 4.8 Outdoor area when making your plans.

Generally, excavations and ground anchoring (e.g. ground stakes) are not admissible outdoors. If you do not comply with these stipulations you will generally be responsible for all loss and consequences in the event of damage to piping and cables (even if you have received a special approval from NürnbergMesse). All material brought to the outdoor area must be removed and the area restored to its original state.

4. Stand construction regulations

4.1 Stand safety
Stands, including all equipment, exhibits and advertising media, are to be constructed with such stability as to pose no danger to public safety and order, especially to life and health. The exhibitor is responsible for the structural stability of all structures and exhibits and must provide proof of this if necessary. This also applies during assembly and dismantling.

Any threats to adjacent escape routes or stand areas must be ruled out by means of appropriate advance planning and the careful performance of work on site.

The load-bearing capacity of all components and materials must be assured. The overall stability must be assured by means of sufficiently stable materials and frictional connections. Pressed wood materials such as chipboard or fibreboard according to DIN EN 312-1 (P1, P2 and P3) may not be used for structurally supporting stand constructions.

Standing construction elements or special constructions (e.g. free-standing walls, tall exhibits, tall decorative elements, LED walls) that may tip over must be loaded with a minimum horizontal equivalent distributed load of qe:

- \( q_{e1} = 0.125 \, \text{kN/m}^2 \) \( (0 < h < 4.0 \, \text{m}) \)
- \( q_{e2} = 0.063 \, \text{kN/m}^2 \) \( (h > 4.0 \, \text{m}) \)

The reference area here is the respective face area.

The certificates issued for this purpose (verifiable structural analyses) are to be submitted at the request of NürnbergMesse.

In justified cases, NürnbergMesse reserves the right to have the stand safety checked on site by a structural engineer at extra cost. Stabilizing against neighboring stands or existing structures is not permissible. Stabilization by means of suspensions from the hall ceiling is also not permissible.

4.2 Approval of stand construction
Assuming that the technical regulations of the respective event (see Info 1) have been observed in the design and construction of the stand, it is not necessary to submit drawings for review and approval in the case of single-storey stands. NürnbergMesse is prepared to check the stand construction drawings submitted if requested by the exhibitor. Alternatively, NürnbergMesse reserves the right to refer you to a check list allowing you to check the design and execution of your stand. Furthermore, all other stand structures, mobile stands, special structures, etc. are subject to approval. See 4.2.1 and 4.2.3.

For technical approvals at NürnbergMesse please contact: Exhibition Technology Department, veranstaltungstechnik@nuernbergmesse.de

Time period for technical approvals:
Especially in the case of complicated approval processes, e.g. including additional official approval or inspections, please allow a processing time of up to 42 days after the complete documentation has been submitted to NürnbergMesse Processing within 14 days only is possible in exceptional cases providing we have the complete documentation and there is little complexity involved. The period specified applies to the issue of the approval and does not represent the event date. In the following paragraphs we use the phrase “by the specified deadline”.

Definition of “technical approval”:
Even if the technical approval has been given by NürnbergMesse, this does not exempt you in principle from adhering to the Technical Regulations, unless a departure from the Technical Regulations was specifically part of the technical approval.

4.2.1 Inspection and acceptance of structures requiring approval
Dimensioned stand plans to a scale of not less than 1:100 with layout plans, views and if necessary seating plans must be submitted to NürnbergMesse for approval by the specified deadline (see 4.2). The stand construction is not permitted until the plans have been stamped as authorized.

For approval of:
- two-storey stand structures
- outdoor buildings (e.g. temporary structures). Please note Item 4.8 Outdoor area.
- special constructions (climbing walls, carnival rides, etc.)
- cinemas or lecture rooms larger than 100 m²
- performance/stage area
- podium areas and walkable structures from a height of 0.20 m
- LED walls/video walls and their substructures or rigging materials

The following documents must be submitted in German in electronic form (pdf) by the specified deadline (see 4.2):

a) Audited or auditable structural analysis to German standards
b) Building specification with details of materials to be used
C) Stand construction drawings in a scale of 1:100 (floor plans, views, sections), construction details in a larger scale
d) Escape route plan with evidence of lengths and widths of emergency routes
e) Items a), b) and c) are not required if a valid site inspection log/type test is submitted.
f) Seating plans, if applicable escape and emergency route plan (cinema and lecture rooms)

In the case of LED walls/video walls items d) and e) do not apply

The cost of the approval procedure will be charged to the exhibitor/stand construction company.

4.2.2 Vehicles and containers
Vehicles and containers used as exhibition stands in the halls and throughout the exhibition grounds and car parks must be registered and require written approval.

When installing vehicles, containers and tents etc. within the halls, it may be necessary depending on their purpose, condition and location, to equip them with safety lighting, a sprinkler system, heat detectors or fire extinguishers. More detailed information is available in 4.4.2.

Show and stage trucks in the outdoor area with retractable or sub-mountable trailer parts, extensions or stage elements also fall within the scope of application of the so-called “temporary structures” and must be additionally notified to the relevant authority and checked by it.
4.2.3 Modification of non-conforming components
Stand structures that are not approved and/or do not conform to the technical regulations or the law must be modified or removed by the exhibitor/stand builder if necessary. If this is not done within the specified deadline, NürnbergMesse is entitled to have the changes made at the expense and risk of the exhibitor. For good cause, especially in the event of serious safety deficiencies, the partial or complete closure of a stand may be ordered.

4.2.4 Extent of liability
Insofar as the exhibitor or the stand builder contracted by it does not observe the foregoing stand construction regulations, it shall be liable for all damage resulting from the infringement of the stand construction regulations.

In addition, the exhibitor or the stand builder contracted by it shall indemnify NürnbergMesse for all third-party claims asserted by reason of the infringement of the foregoing stand construction regulations.

No claims for damages whatsoever may be asserted against NürnbergMesse or its subcontractors due to the loss, damage or impairment of the submitted designs, models or other documents as a result of negligent action or omission, irrespective of the legal basis for such claims.

4.3 Construction heights
The construction heights for specific events are shown in the application documents and in Info 1.

4.4 Fire prevention and safety regulations

4.4.1 Fire protection
The halls are equipped with fire alarm and automatic fire extinguishing systems. If these fire protection systems are impeded due to stand structures, the release of gases, activities that generate fire, smoke and heat, appropriate mitigating measures are necessary and are to be agreed with NürnbergMesse beforehand (see 4.2).

Safety equipment such as fire extinguishers, fire alarms, fire hydrants and associated signage, as well as the emergency exit pictograms in the hall, must not be built over or otherwise obstructed or concealed.

The Nuremberg Public Affairs Office (Ordnungamt) is responsible for events governed by the Trade Regulations. The technical acceptance of the event is carried out by a representative of the Nuremberg fire brigade, a representative of the Public Affairs Office and a representative of the operator (person responsible for event technology) and if necessary a representative of the organizer.

In all cases of doubt concerning fire prevention matters, exhibitors are recommended to contact the Exhibition Technology Department (see contact details in 4.2).

The trade inspectorate and regulatory authorities, police, fire brigade, the event director or the event equipment director of NürnbergMesse and representatives of NürnbergMesse (Exhibition Technology Department) and the organizer’s representatives are entitled to issue instructions as part of safety regulations. Their representatives are to be granted access to the safety equipment and technical facilities at all times.

4.4.1.1 Stand construction and decoration materials
In general, no materials that are readily flammable, drip on burning or produce toxic gases, or other smoke-forming materials like most thermoplastics e.g. rigid polystyrene foam (PU foams, Styrofoam, Styrodur, EPS, XPS etc.), PVC or similar may be installed at exhibition stands. On a case-to-case basis, special requirements (like non-flammability) may be imposed on load-bearing structural parts for reasons of safety.

Structurally necessary and/or load-bearing fixings may only be made of non-flammable fixing materials. Decoration materials, embellishments, furnishings and also floor covering, banners and curtains must at a minimum meet the categories flame retardant (B1) and must not drip on burning, as per DIN 4102-1 with limited smoke development and/or as per EN 13501-1 as minimum Class B/C – s2, d0. A test certificate detailing the construction material class, fire, smoke and droplet-forming behaviours of the material used must be kept at the exhibition stand from the assembly period onwards. In addition, samples of the materials used must be kept on hand for a fire test on site.

In specific cases, decoration materials with a normal combustibility rating may be used in certain areas if the method of installation (e.g. display cabinets) provides adequate protection against catching fire.

Cuttings of trees and plants may only be used for decoration purposes in a green condition. Should they dry out during the event and become easily ignited (DIN 4102 B3), they must be removed. Trees should be free of branches up to approx. 0.50 m above floor level. The use of decoupled and coniferous trees is permitted only if they have moist, potted roots. Bamboo, reeds, hay, straw, bark mulch, wood chips or similar materials do not meet adequately meet the above-mentioned requirements and are therefore not permitted.

Absorbent natural materials in natural fibers such as jute bags, woven and knitted fabrics or similar do not generally have "low flammability" and may only be used if treated with a suitable flame retardant impregnation.

Construction and decoration materials such as wooden pallets, boxes or baskets whose design and surface properties represent a high fire load are generally not admissible. Any fire protection measures such as treating the surfaces and additional fire-proof coatings must be registered and agreed on beforehand with the Exhibition Technology Department using Form P2.

Further requirements for glass and acrylic glass materials are specified in 4.4.3. "Flame resistant" properties can be achieved retrospectively for some of these materials by treating them with an approved flame inhibiting agent. A certificate confirming that the material is flame resistant or that impregnation has been carried out in accordance with the regulations must be available for inspection on the stand at all times.

Flame-inhibiting impregnation of materials can be ordered from our ServicePartner Messebau Wörnlein GmbH or Messebau :mesomondo GmbH.

Flame-inhibiting impregnation:
Messebau Wörnlein GmbH
Messezentrum 1
90471 Nürnberg
T +49 9 11 81 74 49-0
F +49 9 11 81 74 49-25
info@woernlein.de

Messebau :mesomondo GmbH
Messezentrum 1
90471 Nürnberg
T +49 9 11 40 08 35-0
F +49 9 11 40 08 35-29
info@mesomondo.de
www.mesomondo.de

Liability can only be accepted for impregnation if the material to be impregnated is an absorbent natural fiber.

4.4.1.2 Exhibition of motor vehicles
The exhibition of vehicles must be notified to NürnbergMesse (Exhibition Technology Department) using Form P2, stating the number and type of vehicles involved, and must be approved. For all vehicle types a sufficient number of suitable hand-held fire extinguishers (to EN 3) must be kept in readiness at the exhibition stand. NürnbergMesse GmbH reserves the right to take additional measures. Vehicles must be positioned in such a way that no vehicle parts, extensions, vehicle doors or other moving components protrude into the hall gangways.

During the actual exhibition, vehicles must not be moved on the stand area or hall entrance.

Vehicles with internal combustion engines
The content of vehicle fuel tanks is to be reduced to the amount necessary for driving into and out of the hall (the low fuel warning lamp must be on); the tank cap is to be locked. Powering the vehicles via the starter battery is possible if it can be ensured that no dangerous gases will be produced (e.g. in the case of gel batteries if the contacts are shockproof and the starter motor is permanently isolated from the battery).
Further safety measures such as inertization of the fuel tank, disconnecting the battery and/or posting security guards may be necessary, depending on the event and the vehicle location (e.g. foyer areas, entrances, fire brigade access roads or assembly rooms). Combustion engines may not be demonstrated in operation in the halls. Fuels must not be stored at the stand. The refuelling of vehicles in the hall is prohibited.

**Vehicles with electric or hybrid motors**
In the case of hybrid vehicles the tank must also be largely empty and closed. In vehicles with electric motors, the drive batteries are to be disconnected from the transmission at the safety switch (main switch) or service connector in accordance with the manufacturer’s instructions for the traction network. High-voltage batteries have to be disconnected and in a non-critical state. The exhibitor must be able to prove and explain the absence of voltage on location.

Charging processes are not allowed in the exhibition halls.

**Vehicles with gas-powered engines**
In gas-powered vehicles, the pressure vessel must be empty as far as possible. Care should be taken to ensure that a low residual pressure remains in the vessel so that there is no danger of explosive gases forming if air penetrates (see 5.7).

**Vehicles with fuel cells or alternative drives**
Vehicles with fuel cells or other types of drive are considered separately. However, it should generally be noted that the tank content must be reduced to the amount necessary to drive in and out (the reserve light on the tank display must be on).

**4.4.1.4 Pyrotechnics**
Pyrotechnic demonstrations require the approval of NürnbergMesse (Exhibition Technology Department, contact details in 4.2). NürnbergMesse is under no obligation to grant its approval. If pyrotechnic effects are to be used on the NürnbergMesse grounds, the exhibitor/organizer must obtain approval from the responsible Public Order Office, the Trade Inspectorate and the Nuremberg fire brigade not later than 28 days before the actual date of the event. A copy of the approved application is to be submitted to NürnbergMesse by not later than 14 days before the start of the event. The license for the articles is shown on the respective packing unit. Instructions must also be printed on the package in German. Pyrotechnic objects without a certificate of conformity or fireworks of Categories II, III or IV are not approved. Pyrotechnic objects may only be used when they have a CE label and a registration number. The previous BAM approval symbol lost its validity on 3 July 2017.

Proof of the holder of the license and certificate of competence is to be submitted to NürnbergMesse (see Instruction Sheet i4.5 “Pyrotechnic displays/activities involving fire hazards”).

**4.4.1.5 Balloons**
The use of balloons filled with safe inert gas in the halls and outdoor area must be approved by NürnbergMesse.

Insofar as the use of balloons has been approved by NürnbergMesse, they may only be filled with non-flammable and non-toxic gases and must be structurally firmly anchored within the city limits. In addition, the maximum construction height specified for each event must be observed. Depending on the balloon size, placement and installation type, the fire protection requirements of Item 4.4.1.1 must also be observed. The distribution of gas-filled balloons is basically not permitted.

**4.4.1.6 Flying objects**
The use of flying objects (e.g. drones, quadrocopters, airships etc.) is generally not allowed in the halls and outdoor areas. Exceptions require the prior written authorization of the relevant authorities and the written approval of NürnbergMesse (see contact details in 4.2).

Insofar as the use of the flying objects has been authorized by NürnbergMesse, the requirements pursuant to the German Regulation on the Operation of Unmanned Aerial Vehicles dated 30 March 2017 must be strictly observed. This includes specifically the proof of corresponding owner’s liability insurance and the necessary operator certification. In some cases the use of airspace may require permission from the relevant aviation authority.

In addition, all flying objects with a take-off weight of more than 0.25 kg must bear the name and address of the owner using a permanent, fireproof marking method.

In general, it must be remembered that the grounds of NürnbergMesse are within the air traffic control area of NUREMBERG AIRPORT, so that there is a general flight ban. The unrestricted operation of flying objects above crowds of people, and at a distance of less than 100 m to the side of them, is prohibited in principle. By way of derogation, structural partitions may be necessary to close off the flying area from freely accessible areas in order to demonstrate or operate flying objects following approval by NürnbergMesse. The necessary measures are to be agreed on beforehand with the specified contact persons and are subject to approval.

**4.4.1.7 Fog machines**
The use of fog machines or hazers is subject to arrangement with NürnbergMesse (Exhibition Technology Department). NürnbergMesse will charge the organizer or responsible entity for the cost of substitute measures if firefighting appliances must be deactivated before operating a fog machine. The organizer and/or person responsible will be charged for the cost of calling out the fire brigade if the fire alarm system is set off without prior consultation with NürnbergMesse. Further information can be obtained from Instruction Sheet i4.6 “Use of fog machines”.

**4.4.1.8 Ashbins, ashtrays**
There is a total smoking ban in the halls, stands and empty areas during assembly, dismantling and the trade fair itself. If the smoking ban has been lifted for the stand or parts of the stand (does not apply to assembly and dismantling), an adequate number of ash bins or ashtrays of non-combustible material must be provided and emptied at regular intervals.

**4.4.1.9 Waste and recycling material containers**
Bins provided on the stands for waste and recyclable materials are to be made of non-combustible materials only. These bins are to be emptied regularly and not later than every evening after closing time. Should larger quantities of combustible materials accumulate, these are to be disposed of several times a day. Readily flammable materials and waste like wood shavings, wood scraps, sawdust and the like must be kept in sealed containers. If such waste occurs during product demonstrations it must be ensured that it can be stored in closed containers immediately after the demonstration. The work areas must be designed so that such waste does not occur on traffic areas. If wood is machined during the exhibition and/or sawdust extractors or silos are used, the rules set out in Item 5.2 must be observed.

The use of the waste described above for decoration purposes is prohibited. Waste disposal can be ordered at extra cost from the ServicePartners of NürnbergMesse using the Online ExhibitorShop (OES).

**4.4.1.10 Spray guns, solvents**
The use of spray guns and substances and paints containing solvents is prohibited in all halls.

The use of:
- combustible liquids, including for cleaning purposes
- materials releasing toxic vapors and
- substances hazardous to the environment is prohibited.

**4.4.1.11 Abrasive cutting and all other work using naked flame**
All welding, cutting, soldering, thawing and abrasive cutting work must be notified to NürnbergMesse in writing for approval before commencement of the work. The approval of this work is granted by NürnbergMesse (Exhibition Technology Department (for contact details see 4.2) in the form of a permit for work involving dust, smoke, welding and heat. The adjacent area is to be adequately protected from hazards during this work. Suitable fire extinguishers and VDS approved fire blankets must be available for use in the direct vicinity.
Several closed ceiling areas up to 30 m² in one exhibition stand are possible, provided that there is a minimum distance of 3.00 m between the individual ceiling areas. So as not to exceed the maximum surface area of 30 m² when adding up several ceiling areas, a distance of minimum 1.50 m to the stand limits must be observed. Any reduction of the 1.50 m distance (e.g. to passageways) has to be approved by the Exhibition Technology Department (for contact details see 4.2).

In two-storey stands, a fire extinguisher must additionally be kept in kitchens and storage areas. To ensure the easy handling of the fire extinguishers, we recommend distribution boxes with a total power rating of 6 kW and up. To be charged to the party causing the need for cleaning.

It is recommended that, as far as possible, a water or foam extinguisher be used, since if a powder extinguisher is used, there is a risk that adjoining stands may need to be cleaned afterwards as well. Only water or foam extinguishers with an up-to-date test label may be used. Powder extinguishers are only admissible for demonstrations using combustible gases.

In rooms enclosed on all sides, care must be taken to ensure an adequate level of light to allow for safe orientation also in case of illumination or standing. A window 0.20 m wide and 0.80 m high is recommended as a suitable size for the field of vision.

Glass and acrylic glass

Only safety glass suitable for the intended purpose may be used. For glass structures (floors, balustrades, facades and ceilings) please observe instruction sheet i4.8 "Glass in stand construction". The edges of glass sheets must be finished or protected to reliably prevent risk of injury. Stand components made of glass only are to be marked at eye level.

Wall panels or supports in glass have to be designed to be load-free, i.e. roof structures or similar projecting elements have to be supported on beams or walls and structurally stable, without the loads being carried by glass panes or supports used (including glass cabinets).

Acrylic glass must at least meet the requirements of DIN 4102, B1 or DIN 13501, B/C – s2, d0. A test certificate on the construction material class, fire, smoke and droplet forming behaviors of the material used, and/or the VdS certificate, must be kept at the exhibition stand from the assembly period onwards. In addition, samples of the materials used must be kept on hand for a fire test on site. All kitchens and stores must have open ceilings. In exceptional cases, spray nozzles and smoke detector installation is admissible with a current VdS test certificate.

Glass and acrylic glass must be tested fire extinguisher conformed with DIN EN 3 (see Instruction Sheet i4.7 “Fire extinguishers”) with at least 10 extinguishing agent units (EAUs) must be kept on hand on exhibition stands/event areas larger than 100 m² during assembly and dismantling and the event itself. Only water or foam extinguishers with an up-to-date test label may be used. Powder extinguishers are only admissible for demonstrations using combustible gases.

Only water or foam extinguisher be used, since if a powder extinguisher is used, there is a risk that adjoining stands may need to be cleaned afterwards as well. Only water or foam extinguishers may be used. Powder extinguishers are only admissible for demonstrations using combustible gases.

Suitable tested fire extinguishers can be rented via our ServicePartner, and must be labelled in accordance with ASR A1.3.

If the exhibitor does not comply with a request to remove material stored in contravention of the rules or does not remove empty packaging immediately when asked, NürnbergMesse reserves the right to have it removed at the cost and risk of the exhibitor.

Fire extinguishers

At least one fire extinguisher conformant with DIN EN 3 (see Instruction Sheet i4.7 “Fire extinguishers”) with at least 10 extinguishing agent units (EAUs) must be kept on hand on exhibition stands/event areas larger than 100 m² during assembly and dismantling and the event itself. Only water or foam extinguishers with an up-to-date test label may be used. Powder extinguishers are only admissible for demonstrations using combustible gases.

It is recommended that, as far as possible, a water or foam extinguisher be used, since if a powder extinguisher is used, there is a risk that adjoining stands may need to be cleaned afterwards as well. Only water or foam extinguishers with an up-to-date test label may be used. Powder extinguishers are only admissible for demonstrations using combustible gases.

In rooms enclosed on all sides, care must be taken to ensure an adequate level of light to allow for safe orientation also in case of illumination or standing. A window 0.20 m wide and 0.80 m high is recommended as a suitable size for the field of vision.

Glass and acrylic glass

Only safety glass suitable for the intended purpose may be used. For glass structures (floors, balustrades, facades and ceilings) please observe instruction sheet i4.8 “Glass in stand construction”. The edges of glass sheets must be finished or protected to reliably prevent risk of injury. Stand components made of glass only are to be marked at eye level.

Wall panels or supports in glass have to be designed to be load-free, i.e. roof structures or similar projecting elements have to be supported on beams or walls and structurally stable, without the loads being carried by glass panes or supports used (including glass cabinets).

Acrylic glass must at least meet the requirements of DIN 4102, B1 or DIN 13501, B/C – s2, d0 and must not drip on burning (see Instruction Sheet i4.8 “Glass and acrylic glass”). In addition, the acrylic glass must generate minimal smoke (s1 or s2 to DIN EN 13501-1).
4.5 Exits, escape routes, doors

4.5.1 Exits and escape routes

The distance from any point on a stand space to a necessary hall gangway must not exceed 20 m walking distance (§7 VStättV). This also applies to a two-storey stand. Reception rooms with a floor space exceeding 100 m² must have at least two exits to escape routes and these must be positioned opposite each other and as far apart as possible. The following minimum number and inside widths of escape routes (exits, stairs and corridors) are to be provided:

- up to 100 m² room area and less than 100 people: 1 escape route, 0.90 m wide
- over 100 m² room area and less than 200 people: 2 escape routes, each 0.90 m wide
- more than 100 m² room area and more than 200 people: at least 2 escape routes each 1.20 m wide

Escape route widths are to be graduated only in 0.60 m increments per 100 people.

The escape and emergency routes are to be marked as per ASR 1.3 and/or DIN EN ISO 7010, DIN EN 1838 and DIN 4844-1 (German Workplace Regulations). It must be possible to open the doors of these exits from the inside in the escape direction at all times during the event and these doors must not protrude into the hall gangway. A suitable recess must be provided in all cases.

4.5.2 Doors

Swinging doors, revolving doors, code-operated doors and sliding doors may only be used along escape routes.

Doors and door systems in escape routes must open smoothly at all times to their full width from the inside to the escape direction and may not have door sills or stumbling hazards. Escape doors must not impair or restrict escape routes or hall gangways.

4.6 Platforms, ladders, stairs, and catwalks

Areas generally accessible to pedestrian traffic and directly adjacent to areas 0.20 m lower are to be enclosed by railings/balustrades. These must be at least 1.10 m high and consist of at least a top band, centre band and bottom section. Safety devices must be suitably designed to prevent the risk of objects being placed on them and falling into areas below. The separation between the parts of the railings must not exceed 0.12 m in any direction. For platforms, a verifiable structural analysis with load capacities to DIN EN 1991-1-1/NA:2010-12 Table 6.1DE [Cat. C] is to be provided as detailed below and submitted to NürnbergMesse by the specified deadline (see 4.2):

- perpendicular load for limited use by trade fair visitors: \(q_1 \geq 3.0 \text{ kN/m}^2\)
- perpendicular load for freely accessible areas and/or unrestricted use: \(q_2 \geq 5.0 \text{ kN/m}^2\)
- horizontal load at rail height: \(q_3 = 1.0 \text{ kN/m}\)

Costs will be incurred for the inspection and approval of this special structure and will be billed to the exhibitor/stand builder. Accessible single-level platforms must not be higher than 0.20 m.

The area underneath platforms and podiums must not be used for storage. They must be designed to be fire load free. Hollow spaces of platforms with a height of less than 0.20 m, can be excepted from monitoring by the fire alarm system. Hollow spaces of platforms with a height of more than 0.20 m, which accommodate an automatic turntable, or an accumulation of cables and/or electrical distribution, must be monitored by VDS certified smoke detectors. Installation must be done by the NürnbergMesse ServicePartner.

Moving parts such as escalators or revolving stages are subject to the prior approval of NürnbergMesse, Exhibition Technology Department (for contact details see 4.2).

Stairs 1.20 m wide have to have handrails on both sides. Stairs more than 2.40 m wide need central handrails. Handrails must be continuous and allow for a firm grip. Handrails must be designed in such a way that it is not possible to hang from them or slide off of them. Ladders, stairs and catwalks must conform to the accident prevention regulations (German DGUV Information 208-016), formerly BGI 694.

Stand design

Appearance

The exhibitor is responsible for the design of the stand, which must be in keeping with the typical exhibition criteria for the event. Walls bordering visitor gangways should be made more attractive by installing glass showcases, niches, displays, etc. Rear walls of stands that exceed a height of 2.50 m and are adjacent to neighboring stands should have a light, neutral and single color to avoid adversely affecting the design of the neighboring stand. Fittings and structures on corners of the stand area that border on visitor walkways must be designed in such a way as to exclude any risks. In particular, stumbling hazards in the form of platforms or raised floors must be avoided at freely accessible stand corners, especially in the case of tapered stand areas.

The use of products made by exploitative child labor within the meaning of ILO Convention 182 is prohibited for stand design and equipment.

Verification of rented area

The rented area is marked out by NürnbergMesse. Every exhibitor is obliged to obtain information about the location, dimensions and possible structures in this area by visiting the site. The stand limits must be strictly observed. The exhibitor must expect minor deviations in the size of the stand. These are due to variations in the thickness of the stand partition walls and may be up to 5 cm in front and depth. The corners are marked. No responsibility can be accepted for the correctness of the dimensions. The supply points inside the stand space must remain accessible. Any pillars, wall projections, stand partition walls and firefighting equipment are part of the allocated stand space.

The supply grid for electricity, compressed air, water and telecommunications is shown on the hall plans sent to exhibitors. The supply ducts are not to be opened by exhibitors or obstructed by stand structures.

The stand boundaries must be adhered to. Lighting fixtures or signs must not project out into the halls from the stand boundaries. Machines and other exhibits must be positioned so that there is enough space for exhibitors to demonstrate them on their own stand area. Provision must be made for the necessary safety barriers or enclosures in this conjunction. Every exhibitor/stand builder is obliged to verify the proper condition of the stand area before starting to assemble the stand. Any damage must be shown to the Facility Service without delay before starting to build the stand. Any such deficiencies not recorded will be rectified after the event at exhibitor’s cost.

Interference with building fabric

Hall parts and technical equipment must not be damaged, soiled or altered in any other way (e.g. drilling, nails, screws). Painting, wallpapering and the use of adhesives are also prohibited. Hall parts and technical equipment must not to be used to support loads from stand structures or exhibits.

Hall halls and technical equipment must not to be used to support loads from stand structures or exhibits. However, hall pillars and supports inside the stand space can be adapted provided they are not damaged and the permissible construction height is not exceeded.

Installations on the hall pillars, walls and technical equipment must be freely accessible. If necessary inspection ports must be provided by the exhibitor building the stand. If floor anchors are necessary please observe 4.7.4.

Hall floors

Carpet and other floor coverings are to be laid so as not to cause accidents and must not extend beyond the stand limits. Floor coverings in exhibition stands may only be fastened with adhesive tape, which must later be removed without a trace.
Technical regulations 2020 (continued)

In general, all materials used must be removed without trace. Substances such as oil, grease, paint and similar must be removed from the floor immediately. Hall floors are not to be painted or glued. NürnbergMesse reserves the right to pass on the cost of repairing damage to the hall floor and removing soiling to the person responsible.

Carpets and other floor coverings in the exhibition areas have to be flame retardant to DIN 4102 B1 or EN 13501 Class C1. It is a minimum. A certificate verifying the building material class of the material used must be kept at the exhibition stand.

If high-pile carpet or floor coverings are made from synthetic grass, the fire and smoke behavior (according to EN 13501) in combination with the requirements for laying and installation must be taken into account since these floor coverings generally do not meet fire protection requirements. Due to their burning and dripping behaviour, floor coverings may not be installed on walls or above people. Further requirements regarding the necessary fire behavior are provided in 4.4.1.1.

When using loose material or bulk solids (earth, sand, organic material etc.) the hall floor must be covered and protected from dirt and liquids. Dust development and distribution are to be countered using suitable means. During trade fair operations loose material must be prevented from getting onto the traffic areas. Anchors and fixing of stand structures in the hall floor are not allowed. The fixing of exhibits using floor anchors is only permitted in justified exceptional cases and with the written permission of NürnbergMesse. Exhibitors do not have a right to install and use floor anchors. Applications must be submitted on time (see 4.2) with scale plans showing the location, type of anchor, loading at the anchor and drilled hole diameter plus the number of anchors. The exhibitor must provided written evidence that the exhibit is also stable during operation. Tensile forces at the anchor are not permitted. The number of anchors must be limited to the quantity absolutely necessary. NürnbergMesse reserves the right to lay down the materials to be used for anchors. If impermissible materials are used or if floor anchors are installed without the written approval of NürnbergMesse, these will be removed at the exhibitor’s expense (flat-rate repair cost of EUR 250 – net price per floor anchor) and risk by NürnbergMesse. Any heavy-duty anchors, screws or anchor bolts must be removed by the exhibitor or its representative during dismantling; care should be taken to ensure that anchor bolts are twisted out and may not be cut off flush. If this requirement is not observed, the exhibitor shall be liable for consequential damage. NürnbergMesse is entitled to remove any heavy-duty anchors, screws or bolts left in place at the exhibitor’s expense and risk. Stand structures that are not approved, or which do not comply with the Technical Guidelines or the current state of the art, must be modified or removed if required. If this is not done on time, NürnbergMesse is entitled to carry out the changes itself at the exhibitor’s expense or to prohibit the use of the exhibits.

Only the relevant ServicePartners of NürnbergMesse are permitted to use supply ducts and floor shafts.

4.7.5 Suspending objects from hall ceilings

It is possible to hang objects from the facilities provided for this purpose in accordance with the relevant regulations DGUV Regulation 17 (formerly BGV C1) and the applicable exhibition technology standards (SQ P1 to SQ P3) (see Instruction Sheet i4.9 “Suspension points, trusses and lifting equipment”). This also applies to pre-rig trusses, elevated truss systems (e.g. ground support), tripods and other constructions.

4.7.5.1 Provision of suspension points

The provision of suspension points and modification of suspension carried out exclusively by NürnbergMesse through its appointed ServicePartners. The suspension point will be provided for the exhibitor in the desired position in the space above the stand if structural conditions permit.

The number of possible suspension points in the halls depends on the stand size and the grid of the hall ceiling. The stipulated heights for construction and advertising must be observed. Suspension points incl. installed equipment are to be mounted with a residual clearance of at least 2.50 m below them. NürnbergMesse checks the feasibility of the desired suspension points using the documents submitted and reserves the right to have the suspension loads and the rig used inspected by a structural engineer. This inspection is subject to a fee, which is charged to the exhibitor or person ordering the suspension points.

The maximum vertical structural load capacity of each suspension point is 25 kg (0.25 KN) for halls 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 12 and the separation between suspension points in halls 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 12 must not be less than 1.00 m. The maximum vertical structural load capacity of the available suspension points in halls 3A, 3C, 4A, 7A and 11 is 240 kg (2.4 KN).

Higher loads in the halls are only possible on request and require written approval by NürnbergMesse.

If the desired suspension point is not below an existing suspension point or under the beams of the hall roof structure, the suspension point will be provided by using a pre-rig. The end of each suspension point (transfer point) is to be notified beforehand to the responsible ServicePartner using the order form.

The use of “bridles” at suspension points in the hall is not permitted on the NürnbergMesse site.

In the case of complex systems (statically indeterminate systems, generally more than single-span girders) a load plan must be submitted showing the total load and all concentrated and sectional loads. NürnbergMesse GmbH reserves the right to request the installation of load measurement systems for statically indeterminate systems. The load measurement systems are to be supplied, installed and operated exclusively by SPIE SAG GmbH. Load measurement systems are provided at extra cost, which will be charged to the exhibitor.

Please note that the use of load cells can reduce the maximum suspension height by up to 50 cm.

For technical or organizational reasons, suspension points above the exhibition stand may already have been prepared or installed for subsequent events. The exhibitor/stand builder must not use or modify these suspension points.

Attaching objects to suspension points

The objects to be suspended (lighting bars, spotlights, projectors, loudspeakers, etc.) may only be mounted by the exhibitor’s own skilled staff, approved contractors or the ServicePartner in accordance with legal standards in force and current engineering practice. When selecting the skilled personnel on site or the supervising person (coordinator), the provisions of the current guidelines as per DGUV regulation 17 (formerly BGV C1/GUV C1), the DGUV Information Sheet 215-310 (formerly BGI 810) and in accordance with IGW SQ 2Q (formerly VPI 583.0). must be observed. Evidence of the required qualifications must be carried. When installing lighting trunking systems the associated spotlights and accessories must also be provided with an adequately dimensioned secondary fuse in accordance with the latest engineering practice (DGUV Information Sheet 215-313, formerly BGI 810-3).

Further information on approved and non-approved attachment gear, load-bearing lines, load-bearing equipment, fasteners, rope terminations and lifting equipment can be obtained from Instruction Sheet i4.9 “Suspension points, trusses and lifting equipment”.

The regulations listed below must also be observed for safety reasons.

The following are prohibited:

- Suspension points used for securing stand components or exhibits (stand components or exhibits must stand securely on their own)
- Suspended constructions with a rigid or non-positive connection to the hall floor (structures with an additional connection to the roof supporting system as a result of suspension points)
- The use of bridle suspension points
- The use of bridle suspension points

Use of truss systems

The use of trusses, rigs and truss systems is governed by the requirements and implementation instructions of DGUV Regulation 17 (formerly BGV C1/GUV C1), DGUV Information Sheet 215-313 (formerly BGI 810-3) and the industry standard SQ P1. This is independent of the type of use of the trusses, rigs or truss systems, which can be hung, moving or ground-supported.

The use of trusses, rigs and truss systems outdoors is governed by the requirements for “temporary structures” (German DibaR) (Code of practice for design and construction/DIN EN 13814 – Temporary structures and systems for event venues and safety in amusement parks).
For racks that cannot support the load of a single-span girder (girder/truss on two supports or two suspension points), evidence of structural strength may be requested at the exhibitor’s cost. The data sheets must be enclosed for the trusses used. If temporary structures are used, the building permit (Baubuch) must be carried.

Conductive parts must be included in the measures to protect against direct contact by providing additional equipotential bonding (see also projectors).

4.7.5.4 Use of lifting equipment

The use of lifting equipment (electric chain hoists, manual chain hoists, etc.) is only possible in halls 3A, 3C, 4A, 7A and 11 and requires prior approval by NürnbergMesse.

The use of lifting equipment (electric chain hoists, manual chain hoists, etc.) in halls 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 12 is strictly prohibited!

The use of lifting equipment is governed by the requirements and implementation instructions of DGUV Regulation 17 (formerly BGV C1/GUV C1), DGUV Information Sheet 215-313 (formerly BGI 810-3) and the industry standard SQ P2.

A suitable rope termination (e.g. ring or rope socket) must be provided. Wire rope fasteners (holders, slides) are only designed for static loads and must not be used in conjunction with lifting gear. Secondary safety devices must be provided for lifting equipment and slings (polyester round slings) in accordance with the latest engineering practice.

The use of lifting gear must be advised when ordering suspension points!

4.7.5.5 Electric chain hoists

Electric chain hoists may only be used in halls with heavy-duty suspension devices (halls 3A, 3C, 4A, 7A and 11).

The use of this lifting gear is subject to the Requirements for Electric Chain Hoists in Event Technology (IGVW SQ P2).

The dead weight of the electric chain hoists and dynamic coefficients must be taken account of in the load plan so as not to overload the slinging points and sling material.

The contractor must subject the hoists to an annual inspection.

The test certification mark must be affixed to a visible location on the lifting equipment and the test documentation has to be available on site at all times. This inspection does not replace the inspection by an officially appointed expert every four years.

4.7.5.6 Manual chain hoists

Manual chain hoists may only be used in conjunction with heavy-duty suspension devices (halls 3A, 3C, 4A, 7A and 11).

Manual chain hoists may only be used in the case of statically determinate systems, i.e. a line load on two hoists or a distributed load on three hoists. The use of manual chain hoists for complex systems is not admissible.

The carrying and load hook of the hoist must be in a perpendicular straight line above the centre of gravity of the load. Winding round the load with the chain (carrier) or guiding the load chain over corners is not admissible.

Loads must always be moved with all attached manual chain hoists at the same time, i.e. there must be as many people lifting as there are manual chain hoists in use. It must be ensured that the lifting and lowering processes are uniform.

4.7.6 Stand partition walls

The stand partition walls are fiber board or plastic-coated walls depending on the event. They are not suitable for mounting heavy objects and have no support function during assembly and dismantling. It may be necessary to erect additional supporting walls at extra cost, which may only be removed on the instructions of the organizer.

4.7.7 Advertising materials, presentations

The lettering on stands and exhibits, company logos and trademarks must not exceed the specified construction height and should create an attractive impression.

Presentations and slow-moving visual and acoustic advertising and musical reproductions are permitted, provided they do not annoy neighboring stands, do not cause congestion in the gangways and do not drown out the public address systems in the halls. The loudness at the edge of the stand must not exceed 70 dB(A).

When mounting loudspeakers and sound systems they must be directed towards exhibitor’s own stand area. NürnbergMesse can intervene if these regulations are violated and may demand that the items causing the noise are shut down. In the case of show events the provisions of the German accident prevention regulation “Venues and production sites for stage presentations” (DGUV Regulation 17) must be observed.

Shows or product presentations with performance elements must be notified to NürnbergMesse, Exhibition Technology Department (for contact details see 4.2).

The distribution of printed material and the use of advertising material are permitted only in the exhibitor’s own stand space. Advertising structures inside the stand must not protrude into the gangways or be mounted higher than the prescribed height.

Advertising that contravenes legal regulations or offends against moral standards is not permitted. Advertising packages or advertising material of companies not registered at the event must not be displayed. Exhibits are not to be set up outside the stand limits.

Possible advertising offers can be found in the Online Exhibitor-Shop (OES) under Marketing Services.

4.7.8 Accessibility

The stands must be designed to meet requirements for access by the disabled. Stands and their equipment should also be accessible and usable by people with restricted mobility without needing the assistance of others.

We recommend installing suitable ramps with a maximum slope of 6 % and minimum width of 1.20 m and a non-slip floor covering. Doors need to have a clear opening width of minimum 0.9 m. Areas of movement and traffic areas need to be at least 1.5 m wide.

4.8 Outdoor area

The outdoor area of NürnbergMesse consists of paved or asphalted traffic areas and uneven, mostly non-compacted ballast lawn areas or grown lawn areas.

During event opening times, the outdoor area is illuminated by general road and path lighting after dark. The necessary service connections are available at irregular intervals.

The general provisions of the technical guidelines for stand construction also apply similarly for stands in the outdoor area. Other supplementary instructions are provided in the Instruction Sheet i4.14 Stand structures in the outdoor area.

4.8.1 Responsible person

At the time of registration or at the latest upon commencement of assembly, a technically responsible person must be named along with his or her mobile telephone number. This person must be continuously reachable at during all event phases (assembly/event times/dismantling) and must be able to immediately initiate and perform the necessary measures to halt operations in response to weather alerts or disturbances.

4.8.2 Stand approval/stand structures requiring permission

Depending on the type and extent, stand structures and special constructions in the outdoor are subject to review and approval by the relevant authority. They are also fundamentally subject to written approval by NürnbergMesse (Exhibition Technology Department).

To this end, (see 4.2) an audited or auditable structural analysis (proof of stand safety), dimensioned layout plans and views of the structures and designs must be submitted for review and approval in a timely manner.

Stand structures requiring permission and approval are defined in Instruction Sheet i4.14 Stand structures in the outdoor area. An audited or auditable proof of stand safety must be provided in every case.

Stand structures in the outdoor area of the Exhibition Centre that are subject to permission and approval include all structural installations that are to be classified as regular temporary structures according to Art. 72 BayBO with a valid model permit or are comparable to them in terms of their construction and design, and all other walkable and/or covered, space-creating or freestanding structural installations (e.g. tents, stages, show trucks, etc.). A copy of the registration with the government authority must be submitted to NürnbergMesse no later than 14 days before the beginning of the event. If you have any questions, please contact.
4.8.2 Ground anchors
In general, excavations and ground anchors (e.g. ground stakes) are prohibited in the outdoor area.

If you do not follow this rule, you will be generally liable for all losses and consequences resulting from damage to pipes and cables (even if you are in possession of a special approval and permission from NürnbergMesse).

Materials placed in the outdoor area must be removed without a trace and the original condition restored.

4.8.3 Weather-related loads

4.8.3.1 Wind loads
As a general rule, all stand structures in the outdoor area must be rated for wind loads in accordance with DIN EN 1991-1-4 with due regard to the local wind zone.

4.8.3.2 Wind loads for temporary structures
If a structure is a temporary structure under the building codes according to Art. 72 BayBO, the wind loads according to DIN EN 13814, 5.3.3.4 (for exhibition installations) and DIN EN 13782, 6.4.2.2 (for tents) in conjunction with the "BayBO List of technical rules introduced as technical building regulations" may be applied.

If an operational load case according to DIN EN 13814, 5.3.3.4 is claimed, the exhibitor/stand operator must take organizational measures to ensure the cessation of operations from a wind speed of $v_w = 15 \text{ m/s}$ (also in gusts).

4.8.3.3 Snow loads
No snow loads need to be considered for stand construction measures in the snow-free period (April - Oct.). For stand construction measures in the winter time (Nov. - March), the regular snow loads according to DIN EN 13814, 5.3.3.4 is claimed, the exhibitor/stand operator must take organizational measures to ensure the cessation of operations from a wind speed of $v_w = 15 \text{ m/s}$ (also in gusts).

4.8.4 Weather alerts
The stand operator is obliged to pay attention to weather forecasts and take the necessary protective measures, up to and including dismantling or cessation of operations, in response to weather alerts. In addition, the exhibition company will issue a general weather alert to the stand operators.

In the case of mobile installations (e.g. small exhibits, furniture, general weather alert to the stand operators. The exhibition company will issue a weather-related load (Cat. C1). The respective option must be clearly identified in the plans submitted for approval.

4.8.5 Exits/escape routes
The escape route length from every visitor site to the next exit to the outside may not be longer than $30 \text{ m}$.

The width of escape routes must be measured on the basis of the highest possible number of persons. The clear width of every part of escape routes must be at least $1.20 \text{ m}$.

The clear width of escape routes must be dimensioned for the persons who rely on them:
- $1.20 \text{ m}$ for each 200 persons in enclosed rooms
- $1.20 \text{ m}$ for each 600 persons in outdoor areas.

Steps are only permitted at intervals of $0.60 \text{ m}$.

Enclosed rooms with a surface area of more than $100 \text{ m}^2$ must have at least two exits, if possible on opposite sides.

The clear width of the exits must be equal to the width of the escape route.

The necessary exits must be permanently and well visibly marked with appropriate emergency exit pictograms.

4.8.6 Glass
Only safety glass suited for the intended purpose may be used. Additional information on the use of glass and acrylic glass is provided in Item 4.4.3.

Two-storey stands

4.9 Application
Two-storey stands are only possible if authorized by NürnbergMesse. The application must be submitted immediately after receipt of stand approval and by the specified deadline (see 4.2). The necessary application form (Form P1.1) is obtainable from the respective exhibition team.

4.9.1 Two-storey stands are not possible in halls 10.1, 11.1 and 12.2.

Regulations on building over stand areas, safety clearances, height of rooms in stands

The maximum height of structures is shown in the Instruction Sheet: Hall details at a glance.

The clear height of inside rooms of two-storey stands must be at least $2.30 \text{ m}$ on the ground floor and upper floor.

For fire safety reasons, a sprinkler system must be installed by the responsible ServicePartner BSS to protect the structure.

By way of exception, heat detectors must be installed by the relevant ServicePartner SPIE SAG in halls 4A, 7A and 11 as an alternative to a sprinkler system.

The maximum height of stands is limited by the sun (see 4.2).

For fire safety reasons, a sprinkler system must be installed by the responsible ServicePartner BSS to protect the structure.

Stand structures bordering on neighboring stands are to be finished in a light and neutral single color above the height of $2.50 \text{ m}$.

Permissible loads/load assumptions

The vertical loads for the ceiling of a two-storey stand inside an exhibition hall must comply with DIN EN 1991-1-1/NA:2010-12 Table 6.1DE (Kat. C) as follows:

- Load required for restricted use by visitors or stand staff for meetings and customer support, i.e. furnished with tables and chairs arranged at random or divided into office cubicles $q_k = 3.0 \text{ kN/m}^2$ (Kat. C1).
- Load required for unrestricted use as freely accessible display and meeting area or as sales space with or without closely spaced seats $q_k = 5.0 \text{ kN/m}^2$ (Kat. C).
- Vertical loads for the ceiling of a two-storey stand inside an exhibition hall must comply with DIN EN 1991-1-3/NA:2010-12 Table 6.1DE (Kat. C1).

The respective option must be clearly identified in the plans submitted for approval.

Staircases and stair landings must always be designed for a load (Cat. T2) of: $q_k = 5.0 \text{ kN/m}^2$.

To achieve sufficient longitudinal and lateral stability for two-storey exhibition stands or platforms, a horizontal load of $H = \frac{2}{\mu} q_k / \varphi_0$ (vertical load) is required at the height of the floor of the second storey.

For balustrades and railings, a horizontal load of $q_k = 1.0 \text{ kN/m}$ at handrail height (at least $1.10 \text{ m}$) must be applied according to DIN EN 1991-1-1/NA:2010-12 Table 6.1DE.

It must be verified that the permissible loads on the hall floor are not exceeded, e.g. by single supports (see 3.1 Hall data). If required, load-distributing floor panels have to be provided underneath the supports. Service ducts and covers must be covered with floor panels to prevent loads on them.

The proof of stand stability must take into account that floor anchors are not admissible.

Escape routes, stairs

The walking distance to the next hall necessary gangway from any accessible point on the top floor of a two-storey stand must not exceed $20 \text{ m}$. Escape routes may not pass through functional areas (e.g. kitchen, storage room).

The following minimum number and clear width of escape routes (exits, stairs and corridors) are to be provided:
- up to $100 \text{ m}^2$: and less than $100 \text{ people} 1$ escape route (clear width $0.90 \text{ m}$)
- $100 \text{ m}^2$: and less than $200 \text{ people} 2$ escape routes (0.90 m wide)
- $200 \text{ m}^2$: and less than $50 \text{ people} 2$ escape routes (0.90 m wide)
- more than $200 \text{ m}^2$: and more than $200 \text{ people} 3$ escape routes (each 1.20 m wide)

Escape route widths are to be graduated only in 0.60 m increments per 100 people.

If the floor space of the upper floor exceeds $100 \text{ m}^2$, at least two stairs are required. The stairs must be positioned opposite each other.

All stairs must conform to DIN 18065.

The necessary stairs and the stairs used for general visitor traffic must have closed steps.

The rise of the stairs must not exceed $0.19 \text{ m}$ and the depth of the treads must not be less than $0.26 \text{ m}$.
5. Industrial safety, technical safety regulations, technical rules, technical supplies

5.1 General regulations
Assembly and dismantling work may only be carried out in accordance with labour and industrial regulations. The exhibitor/stand builder is responsible for operating safety and for compliance with the Occupational Health & Safety and Accident Prevention Regulations on his stand.

5.1.1 Damage
Any damage to the exhibition grounds, its buildings or installations caused by exhibitors or their agents will be rectified by NürnbergMesse at exhibitor’s cost after the end of the event. The display areas must be restored to their original condition after dismantling and all damage is to be notified to the event organizer. The exhibitor is responsible for any damage caused to the hall ceilings, walls, floors and installations. Stands not dismantled or exhibits not removed by the official deadline for dismantling may be removed and stored by the exhibitor forwarding agent at the exhibitor’s cost and risk or disposed of at the exhibitor’s cost.

5.1.2 Coordination of work at the exhibition site
If the employees of different companies must perform work concurrently at the exhibition site (especially in the assembly and dismantling phases), the stand construction supervisor must perform a coordination according to the German Working Conditions Act (ArbSchG) and DGUV (German Statutory Accident Insurance) Regulation 1 to rule out possible mutual threats. This applies particularly also to the work performed by service providers of the exhibition company on the exhibition stand.

5.2 Use of tools and equipment
The use of bolt-firing tools, nail guns and chain saws is prohibited. The use of woodworking machines without sawdust extractors is prohibited.

In general, sawdust extractors or shavings bins must be equipped with automatic fire extinguishing systems or dry standpipes. A suitable fire extinguisher to PG12 DIN EN 3 must also be available. If wood-working machinery is demonstrated during the trade fair, so that more dust or wood chips can be expected, the provisions of DGUV Information 209-083 and 209-045 in respect of the installation of automatic spark extinguishing systems must be observed in addition. In justified exceptional cases (e.g. where this would restrict the demonstration of machinery or the use of a tested and approved mobile sawdust extractor), the installation of the spark extinguishing system can be dispensed with following written approval by NürnbergMesse (see Item 4.2). Bins used to store sawdust, wood chips or wood shavings must be inspected by a capable person before operation and with due regard to the intended operation. This inspection must be documented in writing and kept on hand at the stand for examination by NürnbergMesse. In addition, the exhibitor must prepare a threat assessment in the form of a so-called explosion protection document (see the DGUV Information 209-045 Annex 3.1.) in advance, in which any possible fire or explosion threat during operation and the corresponding countermeasures must be determined.

In general, all types of wood working during the event must be notified to NürnbergMesse (see Item 4.2) and require a written approval. If extractors or shavings bins are to be used, the explosion protection document must be attached to the registration. Rented elevating work platforms may only be operated by qualified persons above the age of 18 years. Proof of qualification to IPAF or DGUV Rules of Procedure 308-008 (formerly BGG 966) must be provided. Drivers must be in possession of driving licences at all times.

For reasons of safety and liability, elevating work platforms may only be requested from our ServicePartner SPIE SAG. Cranes and forklift trucks may only be used by the forwarding agents appointed by NürnbergMesse. For safety and liability reasons, working platforms etc. may only be requested via our ServicePartner SPIE SAG.

5.3 Electrical installation

5.3.1 Connections
When ordered, each stand to be supplied with electricity will receive one or more connections, which will be installed exclusively by the relevant ServicePartner of NürnbergMesse. The installation of these connections is only to be carried out by the responsible ServicePartner of NürnbergMesse. The layout plan showing the desired position of the connections is to be enclosed with the orders on the order form. Electricity consumption will be charged at a fixed amount for connections up to 20 kW and based on meter readings for connections over 20 kW. The power supply is available from the moment of assembly until the end of dismantling. Other times of availability can be arranged with the responsible ServicePartner. The exhibitor is obliged to protect his supply connection point against damage and accidents. For safety and fire protection reasons, all electricity consumers must be shut off upon leaving the stand at the end of every event day. By way of exception, safety systems, emergency lighting, refrigerators and servers may remain in operation. Generators may not be used at exhibition stands.

5.3.2 Stand installation
Electrical installation work on the stand can be carried out to order by the responsible ServicePartner of NürnbergMesse. Within the stands, i.e. from the transfer point, installation work after the supply connection point on the stand can be carried out by the exhibitor’s own electricians or by approved electrical contractors in accordance with VDE regulations, applicable European regulations and current engineering practice. If clamp or screw connections are used in the installation within the stand, the electrician performing the work must inspect the installed system. Afterwards, the electrician must prepare written documentation of the inspection, which must be kept on hand at the stand for examination. In addition, the valid inspection reports for all electrical equipment according to DGUV Regulation 3 must be kept on hand.
5.3.5 Emergency lighting

Stands whose special design means that the existing general emergency lighting of the building is ineffective must have their own additional emergency lighting in accordance with VDE 0100-718. This is to be designed to ensure safe access to the general escape routes.

5.4 Water and waste water installation

When ordered, each stand to be supplied with water and waste water drainage will receive one or more connections to current standards. These connections may only be installed by the relevant ServicePartner of NürnbergMesse. A layout plan showing the desired placement of the connections must be enclosed with the orders placed using the required form.

All installations inside the stands have to comply with the current regulations and engineering practice (e.g. drinking water regulations and DIN 1988), so as to prevent any lasting impairment of drinking water quality due to the installation and operation of a connection. Continuous flow coolers may not be connected directly to the drinking water supply. It is forbidden to take water from hydrants or other fire extinguishing equipment.

For safety reasons, the water supply is shut off on the last day of the exhibition – usually one hour after closing time. Chemically contaminated waste water, food and grease residues must not be introduced into the waste water system but must be properly disposed of.

For more information, guidelines and conditions see Online ExhibitorShop (OES) under Water supply and drainage.

5.3.4 Safety measures

As a special precaution, all heat-generating electric appliances (hot plates, spotlights, transformers, coffee percolators, etc.) are to be mounted on non-combustible, heat-resistant, asbestos-free bases. Depending on the heat generated, sufficient separation is to be maintained from combustible materials.

Light fittings may only be mounted on non-combustible decorations or the like. Spotlights, floodlights, spotlights on luminaire tracks and their supply fittings such as power rails, switch boxes or the like are to be secured individually with wire safety ropes to current standards.

Power rails have to be fitted with protective caps. They must not be fastened using cable ties. In the case of halogen lighting only spotlights with protective covers are admissible. In addition, suitable shatter protection as specified by manufacturer must be used in the case of lens spotlights (e.g. natural light spotlights with exchangeable lenses, or PAR spotlights with halogen bulbs). When UV lamps are used, any threats resulting from increased radiation exposure must be ruled out. When discharge maps are used, appropriate UV filters conforming to the manufacturer’s instructions must be used. UV lamps of types UV-B and UV-C may be used for the intended purpose in devices designed for that purpose only if it can be assured that no unprotected radiation can escape. Unauthorized modifications to hall lighting such as removing individual fluorescent bulbs is prohibited.
Compressed air is available during the official assembly and dismantling period. During the event, compressed air is available from 8:00 until closing time. For safety reasons, the compressed air supply is shut off at all other times. Compressed air can be provided outside the stated times by arrangement and at extra cost.

5.5.2 Connections
Nominal widths of up to 1 inch are possible for the installation of compressed air connections. The connections lead from the service shafts in the hall floor within the stand area (positioned according to the hall layout plan). Within the stand, the lines are laid on the hall floor, meaning that the arrangement of the pipelines must be coordinated with the relevant ServicePartner in advance and it may be necessary to consider the installation height of the pipes and lines.

5.5.1.1 Stand installations
Qualified employees of the exhibitor may perform the installation of compressed air lines from the main connection and connections to exhibits inside stands if they observe the applicable regulations. Alternatively, the work can be ordered from the responsible ServicePartner of NürnbergMesse or carried out by suitably qualified outside contractors. The exhibitor bears responsibility for self-installation.

5.5.1.3 Installation and operating regulations
We recommend the installation of fine filters, water traps, reducing valves and safety valves to protect exhibits. The hoses and fittings used must be rated for a minimum operating pressure of 10 bar and protected against mechanical loads. The hoses must be laid and fixed to allow the smallest possible freedom of movement in the event of an accident – especially at the joints.

5.5.1.4 Compressed air cylinders
The large capacity of the supply network means that compressed air chambers/cylinders are not normally required for the operation of exhibits. In general, compressed air containers must be rated for a minimum operating pressure of 10 bar and equipped with tested and approved fittings according to the German Occupational Health and Safety Regulations (BetrSichV). The inspection log for the specified initial inspection and regular inspections must be available on the stand. Compressed air containers must pass an acceptance inspection by a capable person to verify their operability and operation in the event of an accident – especially at the joints.

5.5.1.5 Compressors
Own compressors are not permitted for operational safety reasons. This also includes the use of small or auxiliary compressors. Compressors may be used under certain conditions and with the written approval of NürnbergMesse (see Item 4.2).

5.6 Machines, pressure vessels, exhaust gas systems
5.6.1 Machine noise
The operation of machinery and equipment causing noise is to be limited as far as possible in the interest of all exhibitors and visitors. The noise at the edge of the stand must not exceed 70 dB(A). The exhibition management team may establish demonstration times for noise-generating machines and devices to prevent a continuous noise nuisance for other exhibitors and visitors. The operation of machinery and equipment with centrifugal force is only admissible provided there is no transfer to building components.

5.6.2 Product safety
All exhibited technical equipment, medical products and consumer products must fulfill the requirements of the Product Safety Act (ProdSG) and the respective harmonized EU regulations. Technical equipment and consumer products not conforming to these requirements must bear a sign in a prominent position stating that they do not conform to the requirements of the above-mentioned act and cannot be purchased until they comply with the statutory requirements. The relevant manufacturer’s declaration of conformity must be available on the stand for technical equipment and consumer products bearing the CE marking. For demonstrations, the necessary protective precautions must be taken by stand staff. Your attention is also drawn to the Product Liability Act (ProdHaftG) and Product Safety Regulations (ProdSV).

5.6.2.1 Safety devices
Machines and apparatus may only be taken into operation with all safety devices in place. The normal safety devices may be replaced with a safety cover of safety glass or a similar transparent material. If equipment is not being operated and is reliably secured against start-up, the safety devices can be removed to show visitors the design and finish of the covered parts. In this case, the safety devices must remain in a clearly visible position next to the machine. Risks of injury must be precluded under all circumstances.

5.6.2.2 Inspection procedures
The technical equipment on display will be inspected for accident prevention and safety by the responsible supervisory authority for each exhibition, if necessary with the responsible trade association committees, and checked for compliance with the safety requirements. The EC declaration of conformity must be available for inspection on the stand to enable the authority to check the CE marking. In case of doubt, the exhibitor should contact the responsible authority at an early stage before the start of the exhibition.

5.6.2.3 Ban on operation
NürnbergMesse is entitled to ban the operation of machinery, apparatus and equipment at any time, if such operation is deemed to constitute a hazard to persons and property or adversely affect other exhibitors or the orderly running of the exhibition.

5.6.3 Pressure vessels
5.6.3.1 Acceptance certificate
Pressure vessels may only be operated on the stand if the inspection stipulated in the Occupational Health and Safety Regulations (German BetrSichV) have been carried out. The associated inspection certificates are to be available at the installed location of the pressure vessel (exhibition space) and presented to the responsible supervisory authority or NürnbergMesse on request.

5.6.3.2 Testing
In addition to the submission of certification on structural and hydrostatic pressure testing (EC declaration of conformity plus the necessary documents in German or English), an acceptance inspection must be conducted on site by a capable person or approved inspection agency. Pressure vessels and pressure systems must be inspected on site before initial operation, following modifications requiring a renewed inspection and then recurrently by the above-mentioned persons. If the pressure system is assembled on site at the exhibition centre, this system must then be inspected in the same way as before initial operation.
5.6.3.3 Rented equipment
As during the relatively short assembly period it is not possible to conduct assessments of pressure vessels without an EC declaration of conformity, preference should be given to rental equipment that has already been tested.

5.6.3.4 Supervision
The necessary acceptance certificate must be available for the trade inspectorate during the event at the exhibition stand. Information for specific exhibitions is available from the responsible supervisory authority.

5.6.4 Exhaust gases and vapors
Combustible and/or oily vapors and gases emitted by exhibits and equipment that constitute a health hazard or nuisance to the general public must not be discharged into the halls. They must be discharged outside through suitable pipes in accordance with the German Federal Immission Control Act. Vapors or odors given off by cooking appliances must not be discharged into the hall but have to be removed using an exhaust air system or treated using suitable activated carbon or aerosol separators.

5.6.5 Exhaust gas systems
To discharge vapors and gases that are combustible, hazardous to health or a nuisance to the general public an exhaust gas duct with outlet has to be installed. The exhaust gas ducts will be mounted into the atmosphere only by the relevant ServicePartners of NürnbergMesse using their own material, insofar as technically feasible. The connections to the exhibits are to be executed by the exhibitor. The connections must comply with the regulations in force and accepted engineering practice. Pipes discharging fumes and waste gas must be made of non-combustible materials. The distance from exhaust gas piping to combustible materials or similar must be at least 0.50 m and if necessary enclosed in a protective pipe or sleeve. Exhaust gas systems are generally to be approved in writing by NürnbergMesse.

5.7 Use of compressed gases, liquid gases and combustible liquids, fuel paste and other fuels

5.7.1 Compressed and liquid gas systems
The storage and use of compressed and liquid gas in the exhibition halls or outdoor area is prohibited unless approved in writing by NürnbergMesse.

5.7.1.1 Approval of compressed gas cylinders
The storage and use of liquid gas or other combustible or non-combustible gases in compressed gas cylinders, compressed gas packs or tanks without the written approval of NürnbergMesse per Form P2 (see Item 4.2) are prohibited. Compressed gas cylinders must be protected against impact, falling over, unauthorized use and heating up in accordance with the relevant accident prevention regulations. Toxic gases may not be used. When using technical gases, the supply in the stand must be limited to the lowest possible quantity and if necessary, the container must also be replaced several times a day. The gas cylinder may be stored in the exhibition stand for day-to-day use only during the event hours. Technical gases (and compressed gas cylinders) must generally be stored outside of the halls during assembly and dismantling and overnight. Gas cylinders must feature approved safety valves and be sealed at the close of the day. Only one cylinder filled with combustible technical gases to a max. net weight of 5 kg may be used for each stand in the halls. Non-combustible technical gases are limited to a max. net weight of 11 kg. Only one connected use cylinder may be located in the stand. If a larger quantity of technical gas is needed to operate an exhibit, NürnbergMesse shall work with the exhibitor, the relevant authorities and the ServicePartners to find a way of storing it outside the hall. The provisions of TRGS 800 must be observed and color marking of compressed gas cylinders as per DIN EN 1689 is necessary.

5.7.2 Combustible liquids
The storage of combustible liquids is prohibited as a general rule. Exceptions for operational reasons must be coordinated with NürnbergMesse using Form P2 at an early time (see Item 4.2); written approval is required.

5.7.3 Use of liquid gas
When using combustible liquid gas, only one compressed gas cylinder with a content of up to 5 kg may be set up in any one exhibition stand, subject to the written approval of NürnbergMesse. The lines to the operating unit and the feed line must be installed in the form of rigid pipes or flexible metal-reinforced hoses. The operating unit must be set up on a large and non-combustible base at an adequate distance from heat sources and in such a way that it cannot topple over. An acceptance certificate for the liquid cylinder must be prepared by a capable person and submitted to NürnbergMesse. The prescribed instruction sheet for the operation of the unit must be displayed in a clearly visible place.

5.7.1.3 Installation and maintenance
Liquid gas systems are to be installed and maintained in accordance with the "Technical Rules for Liquid Gas" DVGF-TRF 2012 (publisher: DVGW Deutscher Verein des Gas- und Wasserfaches e.V. and DVGF Deutscher Verband Flüssiggase e.V.) and the DGUV Regulation 80 "Use of Liquid Gas". Please pay attention to Item 5.7.1.1. The operator of the system must prepare an explosion protection document in accordance with § 3 and § 5 of the German Occupational Health and Safety Regulations and submit it with the application for approval. The overall system must be inspected by an expert (capable person) in accordance with DGUV Principle 310-005.

5.8 Open flame, fuel pastes and other fuels
Heating and cooking appliances using wood, charcoal, gas, combustible liquids or fuel pastes are not allowed in the halls.

5.9 Asbestos and other hazardous substances
The deployment and use of materials or products containing asbestos, or of other hazardous substances or building materials containing hazardous substances, are prohibited.

This ruling is based on the Protection against Hazardous Substances Act (Chemicals Act), Federal Law Gazette (German BGBl) 1, Part 1, page 1703, in conjunction with the Prohibited Chemicals Act (Chem,Verbots V) and the Hazardous Substances Regulations (GeStoff V).

Performance areas
Performance areas are areas used for artistic and other performances; areas of less than 20 m² used for performances do not constitute performance areas.

For performance areas of more than 50 m² or 200 m², "event equipment directors" must be appointed in accordance with § 39 of the Bavarian Venue Regulations (BayVStättV) in conjunction with § 40. Even for smaller performance areas, complex technical installations and structures may require the presence of a "responsible person for event technology" according to BayVStättV § 39 in conjunction with BayVStättV § 40. The "responsible person for event technology", who will be present during assembly and dismantling and during the performances on location must be designated in writing to NürnbergMesse (see Item 4.2 for contacts).

All stage and performance-related structures are to be installed as per the latest state-of-the-art (DGUV Regulation 17, formerly BGV C1 and instructions contained therein). NürnbergMesse must be notified of stage effects (e.g. wind, fog, pyrotechnics, activities involving fire hazards, candles etc.) at least 28 days before the event. Please take note of 4.2.1, because certain structures (e.g. podiums, rostrums, LED walls etc.) have to be inspected and approved by NürnbergMesse. Under certain circumstances the cavities underneath stages and podiums need to be monitored by VdS-certified smoke alarms (see 4.6).
Depending on the type of event and the risk from technical structures, suitably qualified personnel (stage and studio professionals) are to be appointed.

During musical, acoustical or stage performances, the noise level at the stand edge may not exceed 70 dB (A). Any threat to the hearing sense of visitors in the stand area must be ruled out.

5.10. Radiation protection

Information about radiation protection can be obtained from the DGUV and the responsible trade inspectorate.

5.10.1 Radioactive substances

The handling of radioactive substances is subject to permission and must be additionally approved by NürnbergMesse. NürnbergMesse is under no obligation to grant its approval. According to the Radiation Protection Regulations (StrlSchV), approval is to be applied for from the State Environmental Protection Office and submitted to NürnbergMesse by the specified deadline (see 4.2). If approval already exists, evidence must be provided that the intended handling of radioactive substances in the exhibition grounds is legally permitted.

5.10.2 X-ray systems and stray radiation sources

The operation of X-ray systems and stray radiation sources is subject to permission and must be additionally approved by NürnbergMesse. The Regulations on Protection against Damage by X-Rays (German RoV BGV B) must be observed. The operation of X-ray systems and stray radiation sources is subject to approval or notifiable in accordance with § 3, 4, 5 and 8 of RoV. The authority responsible for the exhibition grounds is the Nürnberg Trade Inspectorate and applications must be submitted in writing on time (see 4.2) (see Instruction Sheet i4.11). X-ray facilities and stray radiation sources requiring permission must be inspected by an expert at the place of installation in the Exhibition Centre. The inspection report must be submitted to the government authority and NürnbergMesse. Stray radiation sources that are expressly approved for portable demonstration use outside of X-ray rooms according to the up-to-date test report do not need to be tested after installation at the exhibition stand.

The exhibitor must ensure the presence of a radiation protection officer during operation. The permission of the government authority or confirmation of registration of the X-ray system, the inspection report and technical qualification verification of the radiation protection officer must be kept on hand in the stand.

5.10.3 Laser systems

The operation of laser systems is subject to permission and must be approved by the Exhibition Technology Department of NürnbergMesse (see Instruction Sheet i4.10 “Operation of laser systems”). The operation of laser systems is to be notified to the responsible authority in accordance with § 6 of the Accident Prevention Regulation “Laser Radiation” (German DGUV Regulation 11, formerly BGV B2). Notification is to be accompanied by a written order for the appointment of a laser safety officer for operation of the laser system and proof of appropriate liability insurance. In addition, the exhibitor must prepare a threat assessment for the demonstration and operation of the laser system and submit it to NürnbergMesse in advance.

In addition, the requirements of the Occupational Safety Regulation on Artificial Optical Radiation 2006/25 EC/OSnV, TROS Laser, DIN EN 60825-1, DIN EN 12254 and in the case of show lasers DIN 56912 must be met. Class 3R, 3B or 4 devices/systems must generally be inspected on site by an officially appointed expert and declared safe before use. A copy of the inspection report is to be submitted to NürnbergMesse. If changes are made to the laser system following inspection by the officially appointed and sworn expert, the operating permit becomes void. NürnbergMesse is then entitled to switch off the power supply to the stand or to confiscate and secure the laser system.

When adjusting and operating the laser equipment technical and organizational measures must be taken to ensure that no one is exposed to laser radiation in excess of the maximum admissible radiation limits (MAR limits). The protective measures defined in the threat assessment prepared in advance must be implemented. A laser safety officer is to be provided and nominated in writing by the exhibitor. When demonstrating laser devices it must be ensured that no uncontrolled reflected radiation can occur and that the laser and/or projection area is not accessible to anyone.

The authority responsible for industrial safety is the Nuremberg Trade Inspectorate (see Instruction Sheet i4.10).

5.10.4 LEDs

The Exhibition Technology Department of NürnbergMesse must be notified by the specified deadline (see 4.2) of the operation of high-power or high-intensity LED systems, and/or spotlights in Risk Groups 2 and 3. LED walls and their stability generally have to be inspected and approved by NürnbergMesse (see 4.2.1). Suitable extinguishing equipment must be kept in readiness in the immediate vicinity of all LED systems. The operation of high-intensity LED spotlights or LED walls must not cause annoyance to other exhibitors. Please observe 4.7.7 in the case of presentations and musical reproduction.

5.11 High-frequency equipment, radio installations, electromagnetic compatibility and harmonics

The operation of high-frequency equipment and radio systems is to be approved by the Federal Network Agency and has to be authorized by NürnbergMesse. The frequency ranges and transmission power must be notified to achieve an even distribution of frequencies and prevent mutual interference as far as possible. The operation of high-frequency equipment and radio systems is only permitted if they comply with the provisions of the Telecommunications Act and the Electromagnetic Compatibility Act (German EMVG).

If exhibits are displayed or stand decorations used that involve electric, magnetic or electromagnetic fields, the provisions of the 26th Regulation on the Implementation of the Federal Immission Control Act (26 VlmSchV) are to be observed. Sources of strong magnetic fields must be notified to NürnbergMesse specifying the location on the respective stand.

The electrical installations of the exhibits and stands are to be designed to prevent unacceptably large interference with the network through harmonics in the exhibition center supply network (see Item 5.3.3).

5.12 Cranes, forklift trucks, empty containers

The operation of exhibitors’ own cranes and forklift trucks is not permitted. Only equipment supplied by the appointed ServicePartner may be used in the exhibition grounds. The responsible ServicePartners exercise sole forwarding rights in the exhibition grounds, i.e. the delivery of exhibits, stand structures etc. to the stand, incl. provision of any auxiliary equipment and customs handling for temporary or permanent importation. Orders placed with the forwarding agents are subject to the current edition of the General German Forwarding Conditions (German ADSp) and the Forwarding Tariff for Trade Fairs and Exhibitions at NürnbergMesse.

Any liability of NürnbergMesse for all risks arising out of the work of the forwarding agents is excluded. The storage of any kind of empty containers, full containers, or combustible materials of any kind (e.g. packaging, packaging materials, cases) on the stands, in the gangways or in free areas not approved as storage areas is prohibited. Empty containers are to be removed to the empties storage location by the forwarding agents approved for the exhibition grounds without delay. Obstructing the fire brigade access roads, wall hydrants, fire doors and escape routes with empty containers or waste is strictly prohibited (see Item 2.). NürnbergMesse reserves the right to have illegally deposited empty containers removed by the approved forwarding agents at the cost of the exhibitor.
5.12.1 Exhibiting heavy and bulky exhibits and machinery
To ensure smooth transport of heavy and bulky items during the assembly and dismantling phase, timely consultation with the responsible forwarders (ServicePartner) is necessary.
If your item being delivered measures more than 3.00 m x 2.50 m x 4.00 m or exceeds a total weight of 5.0 t, you must notify the responsible ServicePartner of the forwarding company at least 28 days in advance.
If necessary, the delivery must be made on the first day of assembly or in special cases during assembly that has been brought forward. This must be agreed in advance with NürnbergMesse.
When erecting the exhibits, please observe the maximum admissible floor loads in the halls. To avoid excessive foundation pressure, concentrated loads have to be distributed via load-distributing floor panels, so that the maximum admissible area loading is not exceeded. Service ducts and covers must be covered with suitable floor panels to prevent loads on them.
If floor anchors are needed for the secure presentation of your exhibits, please note the requirements of 4.7.4.

5.12.2 Exhibition and/or operation of cranes, lifting equipment, construction equipment and other equipment
In general, all exhibits and devices are to be positioned in such a way that no extensions, booms or other movable components can protrude or swing out of the stand area. This also applies to the air space above the hall gangways and adjacent stands.
All work equipment or construction equipment must have been recently inspected in accordance with the German Occupational Health and Safety Regulations (Betr-SichV) and no unsecured loads may be lifted above persons. Additional information regarding loads above persons at events can be found in the DGUV Information 215-313 “Loads above persons”. In addition, technical or organizational measures must be taken to ensure that no uncontrolled lowering of fixtures of the devices or loads is possible in the event of failure of an hydraulic system or cable drive system. This can be done, for example, by blocking off the threat area or by using hose-breakage protection or mechanical locking systems to support the hydraulic cylinder.
The equipment may only be operated by trained personnel of the exhibitor. The directives of DGUV Rule 100-500 “Operation of equipment” must be observed.
If the exhibited devices or equipment are equipped with an internal combustion engine, the rules set out in Item 4.4.1.2 must be observed without exception.
In positioning the equipment, due consideration must be given to the maximum permission floor loading of the hall. Service shafts and shaft covers must be covered over with appropriate base plates to avoid any loads on these spots.
The exhibitor is responsible and bears the burden of proof for stand safety and the safe operation of all exhibits. In justified cases, NürnbergMesse reserves the right to have a capable person perform an on-site inspection at the exhibitor’s expense.

5.13 Musical reproduction
According to the legal provisions (Copyright Act), permission is required from the Society for Musical Performance and Mechanical Reproduction Rights (German GEMA) for any form of musical reproduction. Unregistered musical reproduction can lead to claims for damages from GEMA under § 97 of the Copyright Act. Applications and inquiries are to be sent to:
GEMA-Bezirksdirektion Stuttgart
Key Account Management
Herdweg 63, 70174 Stuttgart
T +49 7 11 22 52-7 94
F +49 7 11 22 52-8 00
mesege@gema.de, www.gema.de
Acoustic and visual demonstrations also require approval by NürnbergMesse. Approval is granted on condition that the loudness at the edge of the stand during operation of the system does not exceed 70 dB(A).
Exhibition operation and other stands may not be adversely affected and any health hazard for visitors or employees must be ruled out.

5.14 Beverage dispensing systems
Beverage dispensing systems on the stand are to be installed and operated in accordance with the Operating Safety Regulations, DGUV Rule 100-007 and DIN 6850-6.
Compliance with technical and food hygiene requirements must be demonstrated and may be checked by the Public Order Office. Food hygiene regulation No. 852/2004 dated 29 April 2004 of the European Parliament and Council will apply.
Notice of the use of pressurized gas containers must be submitted to NürnbergMesse using Form P2 (see 5.7).

5.15 Food safety monitoring
The serving of samples for immediate consumption and the sale of food and drinks on the stand must conform to the statutory regulations and the current standards, especially food hygiene regulations.
For further information please contact
Stadt Nürnberg – Ordnungsamt Lebensmittelüberwachung
Innerer Laufplatz 3, 90403 Nürnberg
T +49 9 11 2 31-25 24
F +49 9 11 2 31-30 70
lebensmittelueberwachung@stadt.nuernberg.de
www.ordnungsamt.nuernberg.de
Over-the-counter sales of food and drinks (including bar sales) at the event itself are not permitted.

Requirements to be met by stand/kitchen facilities
The kitchen facilities absolutely must comply with the following requirements:
• Hand-washing facility with running hot and cold water with liquid soap and disposable hand towels must be provided.
• Crockery and glasses must be washed with running hot and cold water and/or a dishwasher is to be provided.
• Smear-resistant floor coverings, washable wall coverings and storage areas are to be provided in food preparation and storage areas.
• The floors in the work area must be non-slip, flat and impermeable to liquids.
• Effective spittle/kneeze guards must be installed in the food service area.
• Functioning cooling equipment for perishable food
• Install effective exhaust air systems or extractor hoods with active charcoal filters if vapors or odours can be expected when food is being prepared or kept warm.
• Provide suitable number of portable fire extinguishers (to EN3, foam extinguishers or extinguishers for cooking oils and fats). At least one cooking oil/fat fire extinguisher and fire blanket for each cooking area (fire classification F to DIN EN2).

5.15.2 Cooking appliances and food preparation processes
Cooking equipment (e.g. deep fat fryers, fryers, large frying pans etc.) may only be electric and must be operated under supervision in the halls following notification to NürnbergMesse. At the end of each day of the event the appliances must be switched off at the mains. The mains switch must be clearly marked EMERGENCY OFF switch.
Cooking appliances and equipment must not be installed in traffic routes at the stand directly next to hall gangways. A minimum distance of 1.5 m is to be observed.
Deep-fat fryers or similar equipment must not be used in the top storey of multi-storey stands. For fire safety reasons when using deep fat fryers a non-flammable canopy must be provided so that in the event of a hot grease fire there is no effect on the hall sprinkler system.
The maximum filling level is 40 l (filling level of adjacent appliances to be added up). If the maximum level is going to be exceeded this must be discussed with NürnbergMesse beforehand.
When using pressure cookers, hot air convection ovens or similar appliances using steam, such as combination steamers or convection ovens, a suitable air extractor and/or condensation hood must be provided above the appliance. Alternatively, appliances with integrated extraction systems may be used. In general it must be ensured that no hot steam, vapors or fumes can escape into the hall. In other respects the provisions of DGUV Regulations 110-002 are to be observed. In covered areas of two-storey stands fitted with a temporary sprinkler system or heat detectors, the use of the appliances described above must be agreed with NürnbergMesse beforehand (4.2). The costs associated with all false alarms caused by the handling of cooking appliances will be billed to the perpetrator.

6.1 Grilling/barbecuing
Grilling/barbecuing in the halls and outdoor area is allowed subject to the prior written permission of NürnbergMesse. If written permission is given, only electric grills/barbecues may be used inside the halls and the vapors/smoke must be discharged outside using suitable exhaust systems.

6.2 Waste disposal
The exhibitor is responsible for proper and environmentally compatible disposal of waste produced during assembly and dismantling or the duration of the event. Exhibitors and their contractors (e.g. stand builders) are to be used where possible for stand construction and operation.

6.3 Hazardous waste
The exhibitor shall also ensure that all waste is properly disposed of by the subcontractors, stand construction companies and other partners he has appointed for his stand. Please co-operate - think of the environment!

6.2.1 Oil and grease separators
Cleaning, cleaning agents
All cleaning work is to be done using biologically degradable products. Cleaning agents containing solvents that are damaging to health are only to be used in exceptional cases as laid down in the regulations.

6.2.2 Water, waste water, soil protection
Environmental damage
The exhibitor and exhibitor’s contractual partners (e.g. stand builders) are obliged to notify NürnbergMesse of waste whose type, property or quantity is especially hazardous to health, air or water, explosive or combustible (e.g. batteries, coatings, solvents, lubricants, paints, etc.) and to arrange their proper disposal by the responsible ServicePartner.

110-002 are to be observed.

The exhibitor and exhibitor’s contractual partners (e.g. stand builders) are obliged to notify NürnbergMesse of waste whose type, property or quantity is especially hazardous to health, air or water, explosive or combustible (e.g. batteries, coatings, solvents, lubricants, paints, etc.) and to arrange their proper disposal by the responsible ServicePartner.

Environmental pollution/contamination (e.g. through petrol, oil, solvents, paint) is to be reported to NürnbergMesse without delay. NürnbergMesse will arrange for this to be removed properly at the cost of the perpetrator.
### Instruction sheet “Technical data for halls” 2020

<table>
<thead>
<tr>
<th>Hall area</th>
<th>Hall doors</th>
<th>Lifts</th>
<th>Max. floor load</th>
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<td>3C</td>
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<td>10.0 - 15.00</td>
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<td>4</td>
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<tr>
<td>4A</td>
<td>5</td>
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<td>15.00 / 5.80</td>
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<td>3</td>
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<td>6</td>
<td>5</td>
<td>50</td>
<td>15.00 / 4.90</td>
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<td>7A</td>
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<td>15.00 / 4.90</td>
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<td>6.375 kg</td>
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</table>
General information on stand coverings

Ceiling surfaces must be in materials that as a minimum meet the requirements of building material classes DIN 4102 (B1) or DIN EN 13501 B-C, allow only limited smoke development at most and do not drip on burning (see Instruction Sheet Building Material Classes, i4.4).

Kitchens and storage areas must always be open to the top.

In the case of closed ceiling surfaces of 30 m² and more, a suitable number of sprinklers, and in halls fitted with smoke detectors (H4A, H7A, H11) a suitable number of heat detectors (rate of rise/differential) are to be installed by the relevant ServicePartner.

The installation of a sprinkler system, and/or rate of rise heat detectors must be provided.

The sprinkler system may only be dispensed with:

- if the ceiling is a grid design, whereby not more than 30 % (CEA 4001S) of the ceiling area may be closed referred to the individual square meters. Allowance has to be made for additional lighting fixtures or other installations in the ceiling. or
- if the ceilings have an untensioned mesh size of minimum 2 x 4 mm, or 3 x 3 mm, and a web width of maximum 1 mm. Ceiling areas can be added up. The fabric covering is to be braced horizontally as a single layer only. Sagging of the fabric covering is to be avoided. or
- if the fabrics used have been approved by VdS Schadenverhütung GmbH Cologne for use in risk areas with sprinklers. The installation of open mesh fabrics must be in accordance with VdS specifications (see VdS approval certificate).

The use of mesh fabrics and materials with “smoke-out” protection is prohibited. You will find an overview of approved sprinkler-compatible fabrics here:

https://vds.de
(Brandschutz > Zertifizierungen > Zertifizierungsdatenbank > Wasserlöschanlagen > Abspansgewebe)

Basic requirements for stand coverings:

- Several ceiling sections of up to 30 m² are possible within a stand provided there is a minimum distance of 3.00 m between the individual ceiling sections.
- So as not to exceed the maximum area of 30 m² when adding up several ceiling sections, a distance of minimum 1.50 m to the stand boundaries must be maintained. Any reduction of this 1.50 m distance (e.g. to the gangways) must be approved by the Exhibition Technology Department.
- A test certificate on the construction material class, fire, smoke and dropletforming behaviors of the material used, and/or the VdS certificate is to be kept at the stand during the assembly period. In addition, samples of the materials used must be kept on hand for a fire test on site.

Contact at NürnbergMesse:

Exhibition Technology Department
veranstaltungstechnik@nuernbergmesse.de
### Instruction Sheet

**“Fire prevention – European classification of building products” 2020**

#### European classification of building products

<table>
<thead>
<tr>
<th>Building authority designation</th>
<th>DIN 4102</th>
<th>DIN EN 13501</th>
<th>Smoke production</th>
<th>Flaming particles/droplets</th>
<th>Building authority designation</th>
<th>DIN 4102</th>
<th>DIN EN 13501</th>
<th>Smoke production</th>
<th>Flaming particles/droplets</th>
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<td>A1</td>
<td>A1</td>
<td>no/hardly</td>
<td>no drips/droplets</td>
<td>Difficult to ignite</td>
<td>B1</td>
<td>C – s1, d1</td>
<td>no/hardly</td>
<td>limited drips/droplets</td>
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<td>Non-combustible</td>
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<td>A2 – s1, d0</td>
<td>no/hardly</td>
<td>no drips/droplets</td>
<td>Difficult to ignite</td>
<td>B1</td>
<td>C – s1, d2</td>
<td>no/hardly</td>
<td>limited drips/droplets</td>
</tr>
<tr>
<td>Difficult to ignite</td>
<td>B1</td>
<td>A2 – s1, d1</td>
<td>no/hardly</td>
<td>limited drips/droplets</td>
<td>Difficult to ignite</td>
<td>B1</td>
<td>C – s2, d0</td>
<td>limited</td>
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<tr>
<td>Difficult to ignite</td>
<td>B1</td>
<td>A2 – s1, d2</td>
<td>no/hardly</td>
<td>many drips/droplets</td>
<td>Difficult to ignite</td>
<td>B1</td>
<td>C – s2, d1</td>
<td>limited</td>
<td>many drips/droplets</td>
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<tr>
<td>Difficult to ignite</td>
<td>B1</td>
<td>A2 – s2, d0</td>
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<td>no drips/droplets</td>
<td>Difficult to ignite</td>
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<td>C – s3, d1</td>
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<td>Difficult to ignite</td>
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<td>Difficult to ignite</td>
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<td>B – s1, d0</td>
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<td>B – s1, d1</td>
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<td>B1</td>
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<td>limited drips/droplets</td>
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<td>Difficult to ignite</td>
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<td>B – s2, d0</td>
<td>no/hardly</td>
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<td>Difficult to ignite</td>
<td>B1</td>
<td>D – s2, d0</td>
<td>limited</td>
<td>many drips/droplets</td>
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<tr>
<td>Difficult to ignite</td>
<td>B1</td>
<td>B – s2, d1</td>
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<td>many drips/droplets</td>
<td>Difficult to ignite</td>
<td>B1</td>
<td>D – s2, d1</td>
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<td>many drips/droplets</td>
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<tr>
<td>Difficult to ignite</td>
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<td>B – s3, d0</td>
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<td>no drips/droplets</td>
<td>Normal combustibility</td>
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<td>unlimited</td>
<td>no drips/droplets</td>
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<tr>
<td>Difficult to ignite</td>
<td>B1</td>
<td>B – s3, d1</td>
<td>unlimited</td>
<td>limited drips/droplets</td>
<td>Normal combustibility</td>
<td>B2</td>
<td>D – s3, d1</td>
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<td>Normal combustibility</td>
<td>B2</td>
<td>D – s3, d2</td>
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<td>many drips/droplets</td>
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<tr>
<td>Difficult to ignite</td>
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<td>no/hardly</td>
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</tbody>
</table>

**Key to building product classes:** to DIN 4102
- **A1** = non-combustible (without combustible components)
- **A2** = non-combustible (with combustible components to a minor extent)
- **B1** = difficult to ignite
- **B2** = normal combustibility
- **B3** = easily ignited
- **B2** = normal combustibility
- **B3** = easily ignited

**Additional requirements**
- **s1** = no/hardly any smoke production
- **s2** = limited smoke production
- **s3** = unlimited smoke production
- **d0** = no drips/droplets
- **d1** = limited drips/droplets
- **d2** = many drips/droplets

The following conditions apply at the NürnbergMesse site (acc. to DIN EN 13501: Key to building product classes: to DIN 4102

- **A1** = non-combustible (without combustible components)
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- **d0** = no drips/droplets
- **d1** = limited drips/droplets
- **d2** = many drips/droplets

- **unrestricted approval**
- **limited approval only as a stand construction material (see Technical Guidelines 4.4.1.1)**
- **approved up to 2.50 m wall construction/not approved over people (d1)**
- **not approved (D, E, F, s3 or d2)**

---

**Note:** This table summarizes the fire classification and smoke production characteristics according to DIN 4102 and DIN EN 13501, providing a systematic approach to evaluating building materials for fire safety.
Notification and application for use of stage pyrotechnics 2020

General Information

Pyrotechnic presentations require approval and must be coordinated with NürnbergMesse (Exhibition Technology Department). If pyrotechnic effects are used on the NürnbergMesse site, the exhibitor/organiser must obtain approval from the competent regulatory agency, the Industrial Trade Inspectorate, and the Nuremberg Fire Department by max. 28 days before the actual event.

A copy of the approved application must be submitted to NürnbergMesse by no later than 14 days before the start of the event. NürnbergMesse is under no obligation to approve the request. The certificate of compliance of the articles may be taken from the relevant packing unit. In addition, any instructions for use on the packaging must be printed in German. Pyrotechnic objects without certificates of compliance or fireworks of Categories II, III or IV are not allowed. Pyrotechnic objects may only be used when they have a CE label and a registration number. The former BAM approval symbol lost its validity on 3 July 2017.

For further information, please contact:
- NürnbergMesse GmbH
  Abteilung Veranstaltungstechnik
  Messezentrum, 90471 Nürnberg
  veranstaltungstechnik@nuernbergmesse.de
  www.nuernbergmesse.de

For pyrotechnic presentations, the following applications and notifications should be noted.

- Application for a license to test stage pyrotechnics in accordance with Art. 23 (4) of 1st Explosives Act (German SprengV)
  (Responsible authority: Nuremberg fire brigade)

- Notification of the use of stage pyrotechnics in accordance with Art. 23 (4), (5) of 1st Explosives Act
  (Responsible authority: Trade Inspectorate)

- Application for a license to show stage pyrotechnics in the presence of visitors and cast
  (Responsible authority: Public Affairs Office)

☐ Application for exemption from the notification deadline (subject to a fee)

Return to:

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1. License holder in accordance with Art. 7 of Explosives Act

<table>
<thead>
<tr>
<th>Surname</th>
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Does the license holder possess the necessary expert knowledge?  
Enclose copy of proof of expert knowledge if resident outside Central Franconia.  
☐ Yes  ☐ No

2. Expert knowledge of person responsible for display

<table>
<thead>
<tr>
<th>Name and address of issuing authority (as at 1. if applicable)</th>
<th>Date of issue</th>
<th>No. of license/certificate of competence</th>
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3. Event director, exhibition director (NM), event equipment director (NM)

Event director in accordance with Art. 38 of Bav. Venue Regulations (Bayr. VStättV)

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For guest events with external organizers:

Has the exhibition director of NürnbergMesse GmbH been informed about the use of pyrotechnic articles?  
☐ Yes  ☐ No

Has the event equipment director of NürnbergMesse GmbH in accordance with Art. 39 of the Bavarian Venue Regulations been informed about the use of pyrotechnic articles?  
☐ Yes  ☐ No

General Information

Pyrotechnic presentations require approval and must be coordinated with NürnbergMesse (Exhibition Technology Department). If pyrotechnic effects are used on the NürnbergMesse site, the exhibitor/organiser must obtain approval from the competent regulatory agency, the Industrial Trade Inspectorate, and the Nuremberg Fire Department by max. 28 days before the actual event.

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☐ Yes  ☐ No

Has the event equipment director of NürnbergMesse GmbH in accordance with Art. 39 of the Bavarian Venue Regulations been informed about the use of pyrotechnic articles?  
☐ Yes  ☐ No
4. Information about the use of pyrotechnic effects

<table>
<thead>
<tr>
<th>Venue (hall/building, room, area, level)</th>
<th>Date of use</th>
<th>Duration of use (from – to)</th>
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Event

Client

Notification must be submitted at least **14 days before the planned use** of the pyrotechnic effects.

5. Type and scope of planned stage pyrotechnic effects

<table>
<thead>
<tr>
<th>Registration number</th>
<th>Trade name</th>
<th>Rise</th>
<th>Safety clearance</th>
<th>Duration of effects</th>
<th>Number</th>
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6. Date of test:

Date | Time | Venue (hall/building, room, area, level)
-----|------|-----------------------------------
      |      |                                   |

7. Planned security measures:

   During preparation
   During display
   General

8. Miscellaneous/remarks (e.g. special hazards or safety improvement measures)

9. Enclosures:
   – Copy: License/certificate of competence

10. License charges to be invoiced to

<table>
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I hereby confirm the correctness and completeness of the information provided above.

Place and date

Company stamp and authorized signature
Fog machines may only be used after prior consultation with NürnbergMesse (Event Technology) in due time before the event and must be approved. The request must be submitted in writing using form P2. NürnbergMesse must be notified of the type and model of fog machine used and the data sheet, the fog machine operating instructions and the safety data sheet for the fog fluid are to be submitted. Proof of regular inspections of the machine must also be provided if applicable. NürnbergMesse will charge the organizer for the cost of substitute measures if firefighting appliances must be deactivated before operating a fog machine. The organizer and/or person responsible will be charged for the cost of calling out the fire brigade if the fire alarm system is set off without prior consultation with NürnbergMesse. The use of fog machines in exhibition areas may not impair the operation of the trade fair or other stands and any health risk to visitors and employees must be ruled out. Only fog machines conforming to the basic requirements of the current Equipment and Product Safety Act (German GPSG) may be provided and used. If vaporizing fog machines are provided and used, the declaration of conformity of these machines must confirm compliance with DIN VDE 0700-245. The type of use and the specific operating conditions must be taken into account when selecting fog machines. The user of the fog machines must be in possession of the relevant operating instructions. The following regulations must be observed in the selection and operation of fog machines:

- DGUV Information 215-312 “Pyrotechnics, Fog and Other Stage Effects”
- DGUV Information 215-315 “Special Stage Presentations”

General hazards associated with the use of fog machines

The conditions for the use of fog effects are based on the performance requirements and an assessment of the risk. The fog is to be limited to the necessary amount and agreed with all concerned. Suitable measures are to be implemented to reduce the fog as much as possible in areas in which it is not required for performance effects.

The following hazards are to be included in the risk assessment of all types of fog production:

- **Visibility obstructions**
  
  Obstacles, places with a risk of falling or injury like stairs, lowered areas, exits, sharp edges, etc. are to be marked especially clearly if fog is used, likewise escape routes and emergency exits. If thick fog is used and obstacles, hazardous areas or their marking are not visible, special care is necessary to avoid these hazards. Fog must not cause warning and safety equipment and particularly escape route signs to become unrecognizable.

- **Risk of slipping**
  
  Fog directed onto a cold and smooth surface from a short distance away can cause condensation. Even thin layers of moisture can cause a risk of slipping and constitute a hazard, particularly for dancers, artistes and all other actors within the range of the fog machines. Measures must be taken to prevent condensation and the accompanying risk of slipping occurring within a radius of one to two meters. Condensation on the performance area and spill fluids must be removed as quickly as possible.

- **Reaction of respiratory passages**
  
  As a high concentration of fog can cause a reaction in susceptible persons (e.g. dryness of the respiratory passages due to the hygroscopic property of fog), the use of fog must be notified in good time before the event. Higher concentrations may especially occur in the performance area.

- **Creation of hazardous substances through inappropriate use**
  
  Fog fluids and additives (e.g. fragrances and processing aids) are only allowed and users are not to mix different fog fluids or prepare their own fog fluids.

- **Risk of fire and explosion**
  
  Fog fluids that are inflammable, easily flammable or highly flammable within the meaning of Art. 4 of the current Hazardous Substances Act (German GefStoffV) must not be used. The fog produced must not create any flame in the outlet area and must not be combustible. No ignition sources are to be located near the fog outlet. A safety clearance of at least one meter is to be maintained. Fog fluids may only be stored in the manufacturer’s original containers. If fog is used in rooms, buildings or halls monitored by automatic fire detectors, the fire alarm system must be deactivated within the range of the fog machines. In this case, equivalent substitute measures are to be implemented, for example, a fire watchman at user’s cost. Because of the open building structure in parts of the site (e.g. entrance areas, congress centres, etc.) or the layout of automatic fire alarms in inaccessible areas, the use of fog machines may also be prohibited in general.

  Fog machines not in use are to be disconnected from the mains to prevent the risk of fire through overheating after a fault.

- **Risk of malfunctioning of fog machines**
  
  Only properly maintained fog machines are to be used and these must pass a visual and functional inspection without faults. Unpleasant smells, machines that do not work correctly or the discharge of unvaporized fluid indicate defective operation. Such machines are to be serviced or repaired. Technical maintenance is to be performed at regular intervals by the manufacturer or in accordance with the manufacturer’s instructions.

**Types of fog production:**

- **Fog through cold**
  
  Typical: for ground fog, e.g. using dry ice, liquid nitrogen
- **Fog through heating**
  
  Possible: clouds, room fog, mist, also ground fog, e.g. vaporizer
- **Fog through mech. methods**
  
  Typical: mist, e.g. atomizer method (crackers)

**Fog through cold: e.g. “DRY ICE”**

Ground fog is usually produced by vaporizing dry ice, which is frozen carbon dioxide (CO₂). The fog is distributed passively or with the help of a low-power fan. Dry ice fog machines are equipped with a water tank and electric heating elements in the tank heat up the water to temperatures near the boiling point depending on the system. Measures to protect against scalding may be necessary depending on the temperature of the water bath. Carbon dioxide gas is heavier than air. It can accumulate in low areas and force out the air. This constitutes a risk to life in performances at floor level – for example, persons lying on a floor covered with dry ice fog. A risk of poisoning or suffocation exists if the concentration of carbon dioxide is not sufficiently diluted. To protect against these hazards, measures must be taken to prevent the accumulation of carbon dioxide in hollows and low areas. This may require extracting the (invisible, odorless) carbon dioxide from hollows and discharging it into the outside air. Dry ice is very cold (minus 80 °C) and can cause frostbite on direct contact. Dry ice and any residues are to be stored to prevent access by unauthorized persons.

Personal protective equipment is required for handling dry ice: protective gloves, gloves insulated against the cold and, if necessary, safety goggles.

The hazards and protective measures necessary for using nitrogen for fog production differ only slightly from those for handling dry ice.
Fog through heating: e.g. “VAPORIZER”

Most fog for stage effects is created with vaporizer fog machines. In these machines the fog fluid is sucked out of a tank or container, heated and pressed through a jet. The fluid is a mixture of alcohols and water. The alcohols used are hygroscopic. The bonded water forms the fog after passing though the jet and the cooling and expansion processes. The properties of the fog produced can be influenced by the choice of fog fluids and the machine settings.

Ground fog can also be produced with the aid of attachments. Here the fog from a vaporizer fog machine is cooled until it is distinctly heavier than air and sinks correspondingly quickly.

To provide information about the ingredients of the fog fluids or fragrance additives, the manufacturer’s information and a safety data sheet must be requested and be available for inspection at the event. Only fog fluids with vaporization temperatures that match the temperature of the vaporizer are to be purchased.

Risks can occur if inferior quality fluids are used with component properties that are irritating or damaging to health.

The addition of fragrance additives to the fluid and exceeding the stated optimum fog temperature of the fluid must be carefully avoided to exclude possible hazards through unknown reactions.

There is a risk of burning on the hot surface of the fog outlet. It may also be necessary to wait until the machine cools down before removing protective covers.

Fog through mechanical methods: e.g. “atomizer method” (crackers)

Oil crackers atomize oil by mechanical means without heating it. The oil mist produced is very stable and does not mix with the surrounding air.

Water/glycol crackers atomize the fog fluids in the same mechanical way as oil crackers. The fog fluid consists of water and polyvalent alcohols. The condensation deposited by the fog on general traffic areas or on equipment – such as performance areas, decorations, trusses and machines – is a problem, as it creates a risk of slipping.

Oil fog and water/glycol fog are preferably used only in areas that visitors or the cast do not need to enter. The condensation must be removed as quickly as possible.

Attention must also be paid to the special features of operating compressors and accessories. The system is to be depressurized before changing fittings, hose connections or additional elements.

For further information, please contact:

NürnbergMesse GmbH
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Messezentrum
90471 Nürnberg
veranstaltungstechnik@nuernbergmesse.de
www.nuernbergmesse.de

Instruction sheet based on: OHS information “Special Stage Effects and Operations” (DGUV Information 215-315, formerly BGI 810-5)
Suitability of fire extinguishers:

- **A**
  - Powder
  - Foam
  - Water
  Fires involving solid materials, mainly of an organic nature, which normally form flames and embers on burning
  Powder extinguisher with ABC powder
  Water and foam extinguisher

- **B**
  - Powder
  - Foam
  - CO²
  Fires involving liquids or melting materials
  Powder extinguisher with BC and ABC powder
  Foam extinguisher
  CO² extinguisher

- **C**
  - Powder
  Fires involving gases (e.g. propane, butane etc.)
  Powder extinguisher with BC and ABC powder

- **D**
  - Powder
  Fires involving metals (e.g. magnesium, aluminum swarf)
  Powder extinguisher with D powder

- **F**
  - Foam
  Fires involving fat and oil, extinguisher marked orange

Explanation of official designation of fire extinguishers:

- **Current European standard**
- **Weight/charge in kg**
- **Code letter**: In this case ABC powder

**Table:**

<table>
<thead>
<tr>
<th>Designation</th>
<th>Extinguishing agent</th>
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<tbody>
<tr>
<td>Water extinguisher</td>
<td>Water and aqueous solutions</td>
<td>W</td>
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<tr>
<td>Foam extinguisher</td>
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<td>S</td>
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<tr>
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<td>ABC powder</td>
<td>PG</td>
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<td></td>
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<td></td>
<td>D powder</td>
<td>PM</td>
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<tr>
<td>Carbon dioxide extinguisher</td>
<td>Carbon dioxide (CO²)</td>
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</table>

Example of specified labeling to DIN EN 3:

At least one fire extinguisher conformant with DIN EN 3 with at least 10 extinguishing agent units (EAUs) must be kept on hand at trade fair stands and event spaces larger than 100 m² during assembly and disassembly and during the event itself.

- The fire classes of fire extinguishers have nothing in common with the classification of building products to DIN 4102 and DIN EN 13501.
- The fire classes define the suitability of fire extinguishers for fires involving various materials, liquids or vapours that have caught fire.

The use of water or foam extinguishers if possible is recommended in the exhibition halls of NürnbergMesse. If you use a powder fire extinguisher, there is a risk that all neighboring stands must be cleaned after an extinguishment attempt as the jet of powder cannot be controlled. Generally, all fire extinguishers provided must have been tested by an accredited expert. This must be shown on the fire extinguisher itself by means of a valid test label or tag. All fire extinguishers must be placed in clearly visible and continuously accessible locations in such a way that they cannot topple over and must be labeled in accordance with ASR A1.3.
PRELIMINARY REMARK

The contents of this information sheet have been jointly agreed upon by the following German exhibition companies:

Deutsche Messe AG Hannover
KölnMesse GmbH
Landesmesse Stuttgart GmbH
Leipziger Messe GmbH
Messe Berlin GmbH
Messe Düsseldorf GmbH
Messe Frankfurt Venue GmbH
Messe München GmbH
NürnbergMesse GmbH

It offers structural and design notes to Chapter 4.4.3 of the Technical Guidelines and defines the design specifications and requirements for the glass constructions in stand and decorative structures to be built within the trade fair halls of NürnbergMesse.

In the absence of additional specifications in this document, the Technical Guidelines (TR) of NürnbergMesse apply.

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1. Scope

Information sheet discusses the regulations concerning the use of glass in stand construction and design inside the trade fair halls NürnbergMesse. It does not apply to stand construction and design outside trade fair halls. Designing, dimension calculations and assembly of glass components for use inside trade fair halls require that the design, planning and assembly personnel involved is adequately qualified for glass construction projects. Glass structures which have received general construction approval (including European Technical Approval ETA) may be used in all cases in trade fair halls in accordance with the wording of the approval. This information sheet does not imply

2. Definitions and explanations

2.1 Types of supports
- Glazing secured by linear supports: Secured by linear supports on at least two opposite edges over the full length of each edge of the glass plate.
- Glazing secured at individual points: Glazing anchored through drilled holes or by a clamping system.

2.2 Types of glass and other transparent plastics
- Float glass (polished plate glass, SPG) as specified in DIN EN 572-9: Also called plate glass. It is characterised by relatively low ultimate flexural strength, and when destroyed, it fragments into large sharp-edged shards. Its use as single sheet glazing in trade fair construction is prohibited. If used in LSG, it is permitted in trade-fair construction.
- Tempered safety glass (TSG) as specified in DIN EN 12150-2: TSG is a fully thermically pre-stressed type of glass. It has internal residual stress characteristics: core tensile stress and surface compressive stress. It has high ultimate flexural strength and when broken, it shatters into crumb-like fragments. Where TSG is referred to in this information sheet, TSG made of float glass is always meant.
- Laminated safety glass (LSG): LSG consists of at least two sheets of PPG, TSG or HSG glass. The individual thicknesses of these are not permitted to differ from each other by a factor of more than 1.5. The sheets of glass are laminated together by intermediate film layers (PVB or SGP films). If a sheet is broken, then the film prevents the fragments from being scattered, thus providing residual load-bearing capacities and reducing the risk of injury from cuts.
- Heat-strengthened glass (HSG) as specified in DIN EN 1863-2 or with other general approvals by building authorities (German: allgemeine bauaufsichtliche Zulassung – abZ): TVG is a type of glass that is only partially thermically pre-stressed. Its ultimate flexural strength is lower than that of TSG (tempered safety glass). When broken, HSG fragments into shards which are larger than those of broken TSG. Therefore LSG sheets made of HSG have higher residual load-bearing capacities than LSG sheets made of TSG. HSG laminated with PVB film is included in Building Regulation List A. A general construction approval by building authorities (German allgemeine bauaufsichtliche Zulassung – abZ) for the SGP film is required for HSG laminated with SGP.

Not permitted, on the other hand, are transparent panels made of mostly thermoplastic plastics for which no recognized engineering rules or certificates of usability in buildings or structural installations are available. Examples:
- Acrylic glass (PMMA), sold under the brand names Plexiglas® or Perspex®, for example;
- Polycarbonate (PC), sold under the brand name Makrolon®, for example;
- Polyethylene terephthalate glycol (PET-G).

These materials may only be used for non-supporting, non-bracing components that are not intended to prevent falling, thus for decorative or ornamental applications, for example. In this case, however, due consideration must be given to the critical burning behaviour (e.g. normally flammable, strong smoke development) of these materials. In particular, the decorative use of such materials above persons is impermissible due to the frequently proven (burning) dripping behaviour in case of fire.

2.3 Design calculation standards

The static strength proof calculations for glass components must be carried out in accordance with the following design calculation concept and structural design standards (as amended): Glass in building design and construction rules.

DIN 18008 (T.1 - T.5) – Glass in building design and construction rules
- Part 1: Terms and general bases
- Part 2: Linearly supported glazing
- Part 3: Point-fixed glazing
- Part 4: Additional requirements for barrier glazing
- Part 5: Additional requirements for walk-on glazing

Table 1: Design concept

<table>
<thead>
<tr>
<th>Design concept</th>
<th>Load factor concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proof concept</td>
<td>σk / γM &lt; f.LS / k.mod</td>
</tr>
<tr>
<td>Determination of action effects and stresses</td>
<td>At ULS (GZT)</td>
</tr>
<tr>
<td>Deformation checks</td>
<td>At SLS (GZG)</td>
</tr>
<tr>
<td>Designation of forces/stresses in the serviceability limit state SLS (forces due to characteristic loads, without γM)</td>
<td>SLS (GZG) after the number or index k after formula symbol</td>
</tr>
<tr>
<td>Designation of forces/stresses in the ultimate limit state (ULS) (forces due to characteristic loads, multiplied by γM)</td>
<td>e.g. supporting force = 12 kN (SLS) or Fk = 12 kN</td>
</tr>
<tr>
<td>Designation of the limit stress</td>
<td>ULS (GZT) after the number or index d after formula symbol</td>
</tr>
<tr>
<td>Dimension calculation rules, dimension calculation standards</td>
<td>e.g. supporting force = 16 kN (ULS) or Fd = 16 kN</td>
</tr>
</tbody>
</table>

Standards applying to loads and actions

Normal load factors γ for permanent loads (e.g. dead loads)

Normal load factors for variable loads and actions (e.g. dynamic pressure, imposed loads, cross-bar pressures)

Duration of loads typically encountered at trade fairs for k.mod from DIN 19008-1, Table 6

 Own weight: permanent (k.mod = 0.25)
 Working loads: medium (k.mod = 0.4)
 Horizontal substitute load: short (k.mod = 0.7)
 Cross-bar pressure: short (k.mod = 0.7)
Based on the above-mentioned standards and design calculation concept, verifiable static load calculations must be performed for all glass constructions and they must be built in conformance with the applicable standards, depending on the planned use as:
- Vertical glazing, including (where applicable) the function of preventing falls in the case of balustrades
- Overhead glazing
- Walk-on glazing
For static load calculations, the load factor concept shall be used as a basis. Supporting forces transmitted by glass components must always be stated for the GZT (ULS) so that the loads of the connected force-transmitting components of concrete, steel or wood can be calculated using the load-factor concept without transmission errors.

Note on the use of wire glass:
In consultation with the trade fair company, wire glass can still be used in existing components with certifications, based on the design calculation standards in effect at the time of initial construction of the trade fair stand.

2.4 Material properties of glass products
Glass products have a bulk density of 25 kN/m³, a thermal expansion coefficient of 8.4·10⁻⁶/K and their Young’s modulus is 70.000 N/mm².
For structural design calculations, the design calculation values of the resistance R listed in Table 1 must be observed.

<table>
<thead>
<tr>
<th>Property</th>
<th>Float glass (not printed, not sand-blasted)</th>
<th>HSG (not printed, not sand-blasted)</th>
<th>HSG (printed/ enamelled-coated)</th>
<th>ESG (not printed, not sand-blasted)</th>
<th>ESG (printed/enamelled-coated)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal limit stress f as DIN EN 572-1</td>
<td>45 N/mm²</td>
<td>70 N/mm²</td>
<td>45 N/mm²</td>
<td>120 N/mm²</td>
<td>90 N/mm²</td>
</tr>
<tr>
<td>Design coefficient k, normal kₘₐₜ for laminate safety glass</td>
<td>1.8</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>kₘₐₜ for calculating the effect of glass edges</td>
<td>0.8</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Material factor γₘ</td>
<td>1.8</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
</tr>
</tbody>
</table>

The intermediate films in LSG shall be made of PVB (polyvinyl butyral) or SGP (sentry glass plus/ionoplast):
- Films made of PVB must have a tear strength of at least 20 N/mm².
- Films or laminated safety glass made of SGP shall have general approval by building authorities (including European Technical Approval ETA) and shall be processed in accordance with this approval.

3. Stand design, construction and loads
3.1 Vertical glazing not intended to prevent falling
3.1.1 Vertical glazing with a height h = 4 metres above hall floor level
Neither static proof of structural characteristics in accordance with the regulations specified in Chapter 2.3 is required, nor is it necessary to submit documentation of testing. In this case the exhibitor alone is responsible for ensuring that the construction/design is technically safe for general use and that it meets current and accepted technical standards. Table A provides an overview of the types of structural designs that are possible.
- Either TSG or LSG must be used.
- The glass sheets may be secured by linear supports or at individual points.
- Glass walls tilting at an angle of more than 10° from the vertical are considered to be overhead glazing for which the provisions of Chapter 3.3 shall apply.
- Additional measures, e.g. provision of static proof calculations for certain categories, A, B and C.

3.1.2 Vertical glazing of height h > 4 metres above hall floor level
Vertical glazing not intended to prevent falling and whose uppermost edges are higher than 4 metres above hall floor level does not require installation approval for a specific case (c.f. 4.2) provided that the type of glass used, structural design details and the type of supports securing the glass comply with the regulations specified in Chapter 2.3.
In addition, the following provisions shall be observed:
- Vertical glazing calculations or structural calculations suitable for verification and the corresponding construction plans must be submitted.
- In addition to the load, the glass must be capable of resisting horizontal forces, i.e. a pressure corresponding to at least h₁ = 0.125 kN/m² for visible surfaces of up to 4 m above hall floor level and at least h₂ = 0.063 kN/m² for visible surfaces at more than 4 m above hall floor level.
- Wherever there is a risk of impact, e.g. where there is a descending ramp leading towards the glazing, additional measures are required.
- Proof of structural characteristics is not required if the area of each individual sheet is less than 1.6 m² and TSG with a thickness of at least 4 mm is used, and the sheet(s) (if any) are held on four sides by linear supports.
- Glazing secured at individual points may be used without further proof documentation if:
  - general construction approval (abZ) has already been granted for the combination of point-mounting method and glass type and thickness, or
  - the design specifications, and the dimensions and thickness of the glass as stated in DIN 18008-3, DIN 18008-4 or Table B are adhered to.
DIN 18008-3/4 and Table B are referred to above because the fall-prevention glazing barriers described in these reference are of course also suitable for glass panels not explicitly intended to prevent falls. Installation approval for a specific case is required for all other designs.
For the use of TSG glazing is planned, a heat soak test certificate as TSG-H.
Table A provides an overview of possible designs and the necessary proofs.

Vertical glazing intended to prevent falls
In all three of the following categories, A, B and C, static load proof calculations for the glass and the supporting structures and proof of the load-bearing capacity under impact-like conditions are required. The static structural design calculations for the glass and the supporting structure shall be based on an assumed cross-bar pressure load and as an additional load case, a horizontal assumed surface load of h₁ = 0.125 kN/m² for all visible surfaces at up to 4 m above the hall floor level and of h₂ = 0.063 kN/m² for all surfaces located at more than 4 m above hall floor level. The load-bearing capacity of the structure under impact action can be verified as follows:
- a pendulum impact test in accordance with DIN 18008-4
- the relevant design specifications, glass dimensions and thicknesses as stated in Table B of this information sheet are adhered to, or
- by providing proof calculations in accordance with the rules described in Chapter 2.3.
Table B contains an overview of possible designs and the proofs required. All structural design details (including flexing/sag and glass insertion/clamping depths) shall be modelled in accordance with the rules described in Chapter 2.3.
Experimental pendulum impact tests must be carried out by one of the test centres/institutes named in Chapter 4 well in advance of the fair and outside the trade fair halls.
3.2.1 Category A: Vertical glass wall
Definition: Linearly-supported vertical glazing that does not contain any load-bearing bars at capping height and is not protected by a rail or cross-bar located in front of it, making it suitable for the direct action of rail or cross-bar loads, e.g. glazing of full room height.

If protection is required to prevent persons falling from a height of more than 0.2 then it will be necessary to refer to the Technical Regulations for accident-prevention (barrier) glazing or DIN 18008-4.
- Only LSG shall be used.
- Verified proof of structural characteristics or static structural calculations suitable for verification, as well as a pendulum impact test (test in accordance with DIN EN 12 600 or DIN 18008-4) are required.
- The pendulum impact test is not required for glass with linear support on all sides, provided that the appropriate dimensions and glass thickness conform to Table B, DIN 18008-3 and DIN 18008-4, or proof calculations are carried out in accordance with DIN 18008-4.
- The glazing supports must provide adequate protection to the edges of the glass sheets.

3.2.2 Category B: Clamped glass balustrade with continuous handrail
Definition: Load-bearing glass balustrades held by linear supports secured by clamp-type base mountings, the individual glazing elements of which are connected by a continuous, load-bearing handrail (see example in Chapter 6.1) attached to the top of the structure.
- Only LSG shall be used.
- Verified proof of structural characteristics or static structural calculations suitable for verification, as well as a pendulum impact test (test in accordance with DIN 18008-4) are required.
- If LSG made of 2 x 10 mm TSG (or 2 x 10 mm HSG) is used, no pendulum impact test is required, provided that the dimensions as stated in Table B are adhered to (design details in accordance with DIN 18008-4).
- The thickness of the intermediate PVB/SGP film must be at least 1.52 mm.
- The securing clamps/clamping must be at least 100 mm above floor level.

Calculations shall be provided proving that the loads will be distributed via the capping to neighbouring glass sheets in the event of an individual sheet being destroyed. The stresses occurring in the neighbouring glass sheets can be classified as an extraordinary design calculation situation. The destroyed or damaged glass sheet shall be replaced immediately after the incident.

3.2.3 Category C: Railing and balustrade infills or glass walls with load-distributing cross-bar fitted in front of it
Definition: Accident-prevention (barrier) glazing which is not intended to distribute capping loads and which corresponds to one of the following groups:
- C1: Railing/balustrade infill secured by linear supports and/or at individual points on at least two opposing sides.
- C2: Vertical glazing beneath a crosswise load-distributing, spanning member located at capping level and secured by linear supports on at least two opposing sides.
- C3: Category A type glazing with a load-distributing handrail placed in front of it.

- For Category C1 and C2 type glazing, the use of TSG is allowed if the sheets are secured by linear supports on all sides. For all other types of supports and for Category C3, only LSG may be used unless other statutory construction approval exists.
- Table B contains an overview of possible designs and the proofs required.
- The pendulum impact test is not required if the relevant design specifications and the dimensions and thickness of the glass as stated in Table B or in DIN 18008-4 are adhered to.

Alternative measures/protection against glass breakage:
If the proof calculations for Category C in accordance DIN 18008-4 are not submitted for accident-prevention (barrier) glazing, then the accident-prevention (barrier) attribute can be achieved by installing adequately sturdy knee-height cross-bars or tightly stretched steel rope of at least 5 mm diameter at a vertical spacing of not more than 35 cm and at an adequate distance in front of the glass sheets of the balustrade infill. Measures to protect against scattering glass splinters shall always be installed above and along the length of traffic areas (walkways), if this is not possible, LSG shall be used.

3.3 Horizontal glazing
3.3.1 Overhead glazing
Glass walls tilted at an angle of more than 10° from the vertical are considered to be overhead glazing. Table C contains an overview of possible designs and the proof documentation required.

Only the following glass products may be used:
- LSG made with float glass (PFG)
- LSG made of HSG
- Wire glass (only for existing components until effective span exceeding 0.7 m and the glass shall protrude into the supports by at least 15 mm).

In addition to submitting certification of load-bearing capacities, experimental of residual load-bearing capacities must be provided or, if this is not possible, a safety net must be hung under the glazing. If the structural design requirements of specified in DIN 18008-2 are met, proof of the residual load-bearing capacities in not required. The design loads to be assumed are the sheet’s own weight and a horizontal pressure corresponding to at least h1 = 0.125 kN/m² for visible surfaces of up 4 m above half floor level or h2 = 0.063 kN/m² for vertical visible surfaces at more than 4 m above half floor level. The sheets must be secured in such a way as to properly safeguard against them slipping out of the mounts and forces which may lift them off the mounts.

The design dimensions of glass sheets mounted at individual points and HSG sheets shall either be calculated according to the rules outlined in chapter 2.3 or they must have general construction approval (abZ).
If, for cleaning purposes, overhead glazing periodically has to support human loads, then such additional loads must be taken into consideration and experimental proof of residual load-bearing capacities must be provided [16]. In such cases, a special individual construction approval is always required.

Other design standards for overhead glazing:
- LSG sheets with an effective span exceeding more than 1.20 m shall be supported on all sides.
- The overall thickness of the intermediate PVB-/SGP-films must be at least 0.76 mm. If a sheet is supported on all sides, then a thickness of 0.38 mm is allowed under the condition that the effective span in the direction bearing the main load is not greater than 0.8 m.
- Cutting of recesses or notches in the glass sheets is not allowed.
- Only holes conforming to DIN 18008-3 are allowed.
- The maximum permissible sag shall not exceed 1/100 of the effective span between the closer supports of the sheet.

3.3.2 Glazing designed to support human loads
This kind of glazing is specifically intended to be subjected to persons walking over it, e.g. stairs, platforms, landings and cat-walks. The design and proof calculations shall take both dead loads (own weight) and the working loads into account. In addition, proof of impact resistance and residual load-bearing capacity shall be provided.

Proof of impact resistance and residual load-bearing capacities must be demonstrated by component tests or a general construction approval (abZ). The requirements are specified in DIN 18008-5 [16]. For glazing mounted in linear supports at all four edges and an assumed working load of not more than 5.0 kN/m² for design calculations (as specified in DIN EN 1991-1-1/NA - Cat. C3/T2), proof of impact resistance and residual load-bearing capacity is deemed to have been provided if the sheets conform to the dimensions listed in Table 3.

### Table 3: Glazing mounted in linear supports at all four edges and intended to support human loads, with proven impact resistance and residual load-bearing capacity

<table>
<thead>
<tr>
<th>max. length [mm]</th>
<th>max. width [mm]</th>
<th>LSG structure (top */centre */bottom)</th>
<th>Min. supporting surface depth [mm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>1500</td>
<td>400</td>
<td>8 HSG */ 10 Float */ 10 Float</td>
<td>30</td>
</tr>
<tr>
<td>1500</td>
<td>750</td>
<td>8 HSG */ 12 Float */ 12 Float</td>
<td>30</td>
</tr>
<tr>
<td>1250</td>
<td>1250</td>
<td>8 HSG */ 10 HSG */ 10 HSG</td>
<td>35</td>
</tr>
<tr>
<td>1500</td>
<td>1500</td>
<td>8 HSG */ 12 HSG */ 12 HSG</td>
<td>35</td>
</tr>
<tr>
<td>2000</td>
<td>1400</td>
<td>8 HSG */ 15 Float */ 15 Float</td>
<td>35</td>
</tr>
</tbody>
</table>

*/ = 1.52 mm PVB – PVB or SGP (SentryGlas® plus)

Glazing designed to support human loads may be secured by linear supports or at individual points. It must be made of LSG consisting of at least three layers of TSG and/or HSG/float glass. From the point of view of impact resistance, the use of TSG or HSG for the top layer is recommended. This surface must possess non-slip characteristics in accordance with DIN 51097. In order to achieve the required residual load-bearing capacity, the two lower layers will normally be made of float glass or HSG.

Glazing, mountings and supporting structure must be designed and their dimensions calculated to withstand the load of their own combined weight (dead load) as well as intended human (working) loads in accordance with the applicable standards.

In the case of stairways, the construction/design must guarantee sufficient distribution of loads. Stairs on stand structures in the trade fair halls shall always be classified with usage category T2.
4. Approval procedures

4.1 Basics
If a glass component and its glass products conform to the technical building regulations outlined in Chapter 2.3 and to generally accepted technical principles, then it shall be sufficient to submit the verified or verifiable structural calculations and plans. After that, the verification will be performed and if the documents are verified, construction approval will be granted. In addition, the construction work on site will be checked and the results subjected to an approval inspection. If additional components are installed for which statutory construction approval (abZ), a statutory construction test report (abP) or type approval are required, then these documents are to be submitted together with the structural calculations.

If a glass component or parts of this component do not conform to the construction engineering regulations and generally accepted technical principles outlined in chapter 2.3, and if no statutory construction approval or statutory construction test certificate can be produced, then an individual construction approval (Übereinstimmung im Einzelfall – UE) shall be required. An Installation Approval for a Specific Case may be granted by NürnbergMesse instead of the individual construction approval if glass is used only within the rules and limitations described in this information sheet.

4.2 Installation approval for a specific case
This approval procedure is similar to the procedure for obtaining an individual construction approval.

If an Installation Approval for a Specific Case has been granted once for a particular construction/design and type of usage, then the German trade fair companies in question will accept this for an identical design serving an identical purpose. Nevertheless, a new application for construction work approval and approval inspection shall be submitted for each repeated case. The test report, all certificates and approvals, design details, as well as glass dimensions and thicknesses must be submitted with the application.

Glass components requiring approval and which require type 3 proof documentation are listed in column 14 of the Spreadsheets A, B and C. Installation approvals for specific cases cannot be granted at short notice, as they require a considerable period of time for processing. Applications for these should therefore be submitted at least 42 days before the commencement of construction.

Prior to conducting component tests, it is advisable to contact NürnbergMesse in good time in order to coordinate procedures and intended testing methods. Normally, component testing requires stipulation of inclusion of parts of the glass component’s actual substructure in order to simulate realistic loads.

The procedure for obtaining an Installation Approval for a Specific Case from NürnbergMesse is as follows:
- The structural calculations and the required certificates confirming the identity of the product(s) (glass manufacturer/processing company’s factory certificates) must be verified and checked by a publicly certified structural building surveyor and tester (in the field of steel, concrete and brick construction/engineering).
- The surveyor shall confirm that there are no objections with regard to the design’s suitability for use. It is his responsibility to decide on the necessity of additional testing of materials, impact resistance and whether further proof of residual load-bearing capacities must be obtained. The test report must be submitted to NürnbergMesse (Exhibition Technology Department, see Chapter 4.2) along with the other application documents requesting the construction permit.
- Final approval will be granted on location following an inspection to confirm that the construction/design on site conforms to the previously inspected documents. The test engineer carrying out the monitoring and inspection acts on behalf of NürnbergMesse and at the expense of the requesting exhibitor/customer.

Recommended institutes for testing components used in glass construction/design are listed in Table D.

5. Notes on design and design calculations
Glass is a brittle material, any failure of which will occur spontaneously and without warning. Glass is sensitive to blows with hard, pointed objects. These properties lead to the following guideline notes:
- Proof calculations for the load-bearing capacity of structural glass not only take into consideration the unbroken glass but always include an investigation of the broken or partially broken glass (proof of residual load-bearing capacity).
- The support design must ensure that glass sheets are not subjected to pressure or stresses by the supports.
- Direct glass-to-glass contact and contact between glass and other hard materials (e.g. metal) shall be prevented at all times, whereby the effects of load and temperature fluctuations have to be taken into account.
- The minimum supporting depths of glass sheets ("glass insertion depth") on their respective support sections as well as the allowable sheet and supporting beam sections as specified in Chapter 2.3 for the design calculation concept must be adhered to. After glazing has been installed, the markings identifying the individual type of glass sheet used (e.g. TSG, HSG) must be durable and legible at all times. In the case of LSG glazing, a section of the edge must be left free for inspection purposes (to check the number of glass sheets, thickness, interlayer films) until the construction has been approved. If required, a manufacturer’s certificate shall be submitted as well.
- The edges of glass sheets must be finished or protected in such a way as to exclude any possibility of injury.
- In the case of TSG, HSG, or LSG glazing manufactured from sheets of TSG or HSG, subsequent reworking of the finished product such as cutting out sections or drilling holes is not possible.
- Sheets intended to bear human loads must have a durable non-slip surface finish.
- Load-bearing adhesive joints may only be used if a general construction approval (abZ) has been granted for the entire adhesive system (i.e. the glass, adhesive and metal combination), and under the condition that the joint is made exactly as described in the approval documents. The rules described in Chapter 2.3 do not yet make allowance for applying more favourable assumptions of the joint effect of the intermediate film layers in LSG and therefore an Installation Approval for the Specific Case has to be applied for if these assumptions are used in calculations. Trade publications [18] contain information on suitable calculation assumptions to account for the joint effects in LSG. This may possibly be useful for LSG in which SGP is used.

6. Examples of vertical glazing in structures designed to prevent falls
All possible dimensions, types of glass, thicknesses and the necessary proof documents are summarised in Table B

6.1 Category B

**Note:**
If LSG made of
- 10 mm TSG + 1.52 mm PVB/SGP + 10 mm TSG, or
- 10 mm HSG + 1.52 mm PVB/SGP + 10 mm HSG
in the dimensions as stated in Table B is used, only static structural proof calculations are required.

As specified in DIN 18008-4, this also applies to parallelogram-shaped balustrades.
6.2 Category C1 (railing infills)

6.2.1 Railing infills secured vertically on 2 sides

Note: If the types of glass and the dimensions listed in Table B are used, only static structural proof calculations are required.

6.2.2 Railing infills secured horizontally on 2 edges

Note: If the types of glass and the dimensions listed in Table B are used, only static structural proof calculations are required.

6.2.3 Railing infills secured on 4 sides

Note: If the types of glass and the dimensions listed in Table B are used, only static structural proof calculations are required.

6.2.4 Point-fixed with drilled anchors (design specifications according to DIN 18008-4)

Note: If the types of glass and the dimensions listed in Table B are used, only static structural proof calculations are required for all point-fixed variants sided or 4-sided.

Figure 4: Cross-section of clamping plate holder

In accordance with DIN 18008-4, the rules for Categories C1 and C2 also apply to parallelogram-shaped balustrades:

Category C1

Note: In this case (with horizontal bars), the type of glass used can meet the specifications of Part 9 - Table A, glazing not intended to protect against falls.

In the case of accident prevention balustrades in areas that are freely accessible to the general trade fair public, only vertical cross-bars should be used at the above-mentioned distance in front of the glass sheets, so as to prevent people (particularly children) from climbing over the balustrades.

6.3 Balustrade with fixed horizontal bars (protection against falling is provided solely by sufficiently strong handrails and knee-height bars)

Alternative measures: If the proof calculations for Category C in accordance DIN 18008-4 are not submitted for accident-prevention (barrier) glazing, then the accident-prevention (barrier) attribute can be achieved by installing adequately sturdy knee-height cross-bars or tightly stretched steel rope (at least 5 mm diameter) at a vertical spacing of not more than 35 cm and at an adequate distance in front of the glass sheets of the balustrade infill.

Category C2

Note: Designs that have a general construction approval (abZ) shall be used in accordance with the specifications in the approval documents.

For all systems that have not been granted general construction approval, a pendulum impact test is required. Minimum requirement: LSG comprising:
- 6 mm TSG + 1.52 mm PVB + 6 mm HSG or
- 6 mm HSG + 1.52 mm PVB + 6 mm HSG shall be used.

6.2.5 Railing infills with point mounting, lateral clamps and anti-slip grips

Note: System designs that have a general construction approval (abZ) shall be used in accordance with the specifications in the approval documents.

For all systems that have not been granted general building approval, a pendulum impact test is required. Minimum requirement: LSG comprising:
- 6 mm TSG + 1.52 mm PVB + 6 mm HSG
- 6 mm HSG + 1.52 mm PVB + 6 mm HSG shall be used.
7. **Construction engineering regulations, generally accepted rules of engineer-ing and references**


[14] DIN 18008-3 (July 2013) Glass in building design and construction rules - Part 3: Point fixed glazing


[16] DIN 18008-5 (July 2013) Glass in Building design and construction rules - Part 5: Additional requirements for walk-on glazing


[19] Building Rules List (see www.dibt.de )

[20] ETB Guideline: Building components designed to prevent falls (June 1985)

8. **Abbreviations**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>abZ</td>
<td>German: Allgemeine baufachsichtliche Zulassung (general construction approval)</td>
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<tr>
<td>C1, C3</td>
<td>Categories for vertically acting working loads on floors of public meeting spaces in buildings as specified in DIN EN 1991-1-1 / NA</td>
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<td>DIBt</td>
<td>Deutsches Institut für Bautechnik (German civil engineering institute)</td>
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<tr>
<td>ESG</td>
<td>German: Einscheiben-Sicherheitsglas (fully-tempered glass / toughened safety glass)</td>
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<td>HSG</td>
<td>Heat-strengthened glass</td>
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<td>LSG</td>
<td>Laminated safety glass</td>
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<td>PPG</td>
<td>Polished plate glass</td>
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<tr>
<td>PVB</td>
<td>polyvinyl butyral (intermediate film material for LSG)</td>
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<tr>
<td>SGP</td>
<td>SentryGlas® plus (intermediate film material for LSG)</td>
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<td>SLS</td>
<td>Serviceability limit state</td>
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<tr>
<td>SPG</td>
<td>German: Spiegelglas (float glass or PPG)</td>
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<td>T2</td>
<td>Category for vertically acting working loads on stairs / stair-case landings for large traffic loads and escape staircases as specified in DIN EN 1991-1-1 / NA</td>
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<td>TSG</td>
<td>Toughened safety glass</td>
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<td>TVG</td>
<td>German: Teilvorgespanntes Glas (heat-strengthened glass)</td>
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<td>VSG</td>
<td>German: Verbund-Sicherheitsglas (laminated safety glass)</td>
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<td>ZiE</td>
<td>German: Zustimmung im Einzelfall (individual construction approval)</td>
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9. **Spreadsheets A – D (for stand construction)**
**Table A: Vertical glazing, not intended to prevent falls**

<table>
<thead>
<tr>
<th>Structure type</th>
<th>Type</th>
<th>Sheet support</th>
<th>Glass type</th>
<th>Allowed, yes/no</th>
<th>Glass thickness in mm</th>
<th>SGP/PVB film thickness</th>
<th>Width in mm</th>
<th>Height in mm</th>
<th>Min. glass insertion depth in mm</th>
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<tbody>
<tr>
<td>Tab. A: Vertical glazing</td>
<td>Glass wall ≤ 4.0 m above floor level</td>
<td>Linear support on 2 sides</td>
<td>TSG</td>
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<td>Linear support on 4 sides</td>
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<td>Glass wall &gt; 4.0 m above floor level</td>
<td>Linear support on 2 sides</td>
<td>TSG</td>
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| Railing infill system with cross-bar and fall-prevention crossbars at knee-height (the actual glass sheet has no barrier function) | | Linear support on 2 sides | TSG | yes | 1 | 1 |
| | | Linear support on 4 sides | TSG | yes | 1 | 1 |
| | | Point supports | TSG | yes | 1 | 1 |

Proof type (column 14):
1: No specific proof
2: Verified static calculations
3: Installation appr. for spec. case
4: Pendulum impact test
5: Heat soak test
6: Residual load-bearing cap. test
7: Shock impact resistance test

1) Proof type 2 (verified static design calculations) are not required for sheet areas $A \leq 1.6 \text{ m}^2$ and $d \geq 4 \text{ mm}$.
2) Wire glass may continue to be used in existing components if documentation has been submitted of compliance with the technical standards in effect at the time of initial installation.
Information Sheet “Glass in stand construction inside trade fair halls” 2019 (continued)

Table B: Vertical glazing, intended to prevent falls (barrier glazing)

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<td><strong>Characteristic</strong></td>
<td><strong>Structure</strong></td>
<td><strong>Sheet support</strong></td>
<td><strong>Glass type</strong></td>
<td><strong>Glass thickness in mm</strong></td>
<td><strong>SGP/PVB film thickness</strong></td>
<td><strong>Width in mm</strong></td>
<td><strong>Height in mm</strong></td>
<td><strong>Min. glass insertion depth in mm</strong></td>
<td><strong>Type of proof required</strong></td>
<td><strong>Civil engineering rules</strong></td>
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### Information Sheet “Glass in stand construction inside trade fair halls” 2019

#### Tabelle C: Horizontal glazing

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<th>Sheet support</th>
<th>Glass type</th>
<th>Glass thickness in mm (top/<em>/centre/</em>/bottom)</th>
<th>SG/PVB film thickness</th>
<th>Length in mm</th>
<th>Width in mm</th>
<th>Min. glass insertion depth in mm</th>
<th>Type of proof required</th>
<th>Civil engineering rules</th>
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<td>8 kgf/72 kgf/10 kgf/10 kgf</td>
<td>1.52</td>
<td>1500</td>
<td>400</td>
<td>30 2 3 4 6 7) DIN 18008-1-5</td>
<td>3 11 ²</td>
<td>DIN 18008-1-5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Linear support on 2 sides</td>
<td>TSG no</td>
<td>8 kgf/72 kgf/10 kgf/10 kgf</td>
<td>1.52</td>
<td>1500</td>
<td>400</td>
<td>30 2 3 4 6 7) DIN 18008-1-5</td>
<td>3 11 ²</td>
<td>DIN 18008-1-5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Linear support on 4 sides</td>
<td>TSG no</td>
<td>8 kgf/72 kgf/10 kgf/10 kgf</td>
<td>1.52</td>
<td>1500</td>
<td>400</td>
<td>30 2 3 4 6 7) DIN 18008-1-5</td>
<td>3 11 ²</td>
<td>DIN 18008-1-5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Point supports</td>
<td>TSG no</td>
<td>8 kgf/72 kgf/10 kgf/10 kgf</td>
<td>1.52</td>
<td>1500</td>
<td>400</td>
<td>30 2 3 4 6 7) DIN 18008-1-5</td>
<td>3 11 ²</td>
<td>DIN 18008-1-5</td>
</tr>
</tbody>
</table>

### Proof type (column 14):

1. No specific proof
2. Verified static calculations
3. Installation appr. for spec. case
4. Pendulum impact test
5. Heat soak test
6. Residual load-bearing cap. test
7. Shock impact resistance test

The use of acrylic glass for horizontal glazing is not allowed. However, exceptions may be possible if the trade-fair company has no objections with regard to fire prevention/protection and structural stability.
### Table D: Recommended institutions for conducting component tests of glass designs

<table>
<thead>
<tr>
<th>Institution</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technische Universität Dresden, Institut für Baukonstruktionen (Beyer-Bau)</td>
<td>Prof. Dr.-Ing. Weller, August-Bebel-Straße 30</td>
</tr>
<tr>
<td>MFPA Leipzig GmbH</td>
<td>Hans-Weigel-Straße 2B, 04319 Leipzig</td>
</tr>
<tr>
<td>TU Hamburg - Harburg, Institut für Baustatik und Stahlbau</td>
<td>Prof. Dr.-Ing. Starossek, Denickestraße 7</td>
</tr>
<tr>
<td>Leibnitz-Universität Hannover, Institut für Massivbau</td>
<td>Prof. Dr.-Ing. Marx, Appelstraße 9a</td>
</tr>
<tr>
<td>Materialprüfananstalt für das Bauwesen Braunschweig</td>
<td>Beethovenstraße 52, 38106 Braunschweig</td>
</tr>
<tr>
<td>MPA Nordrhein-Westfalen</td>
<td>Marsbruchstraße 186, 44287 Dortmund</td>
</tr>
<tr>
<td>RWT Aachen, Lehrstuhl für Stahlbau</td>
<td>Prof. Dr.-Ing. Feldmann, Mies-van-der-Rohe-Straße 1</td>
</tr>
<tr>
<td>MPA Darmstadt</td>
<td>Grafenstraße 2, 64283 Darmstadt</td>
</tr>
<tr>
<td>TU Darmstadt, Institut für Werkstoffe und Mechanik im Bauwesen</td>
<td>Prof. Dr.-Ing. Wörner, Franziska-Braun-Straße 3</td>
</tr>
<tr>
<td>Universitäts Karlsruhe, Versuchsanstalt für Stahl, Holz und Steine</td>
<td>Prof. Dr.-Ing. Ummenhofer, Otto-Amman-Platz 1</td>
</tr>
<tr>
<td>TU Darmstadt, Institut für Werkstoffe und Mechanik im Bauwesen</td>
<td>Arcisstraße 21, 80333 München</td>
</tr>
<tr>
<td>Friedmann &amp; Kirchner, Gesellschaft für Material- und Bauteilprüfung</td>
<td>Große Ahlmühle 7, 76865 Rohrbach</td>
</tr>
<tr>
<td>FH München, Labor für Stahl- und Leichtmetallbau</td>
<td>Prof. Dr.-Ing. Bucak, Karlstraße 6</td>
</tr>
<tr>
<td>TU München, Lehrstuhl für Metallbau</td>
<td>Prof. Dr.-Ing. Mensinger, Arcisstraße 21</td>
</tr>
<tr>
<td>Institut für Fenstertechnik e.V.</td>
<td>Theodor-Grietl-Straße 7-9, 83025 Rosenheim</td>
</tr>
</tbody>
</table>
The suspension of objects from the hall ceiling, the provision of suspension points and the modification of suspension constructions are carried out exclusively by NürnbergMesse through its appointed ServicePartners. Suspension points must be ordered in writing from the Exhibition Services Dept. of NürnbergMesse using Form S2.15. The construction to be suspended must be located within the stand boundaries. The maximum vertical structural load capacity of each suspension point on the ceiling construction is 25 kg for halls 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 12. In halls 3A, 3C, 4A, 7A and 11, the maximum vertical structural load capacity is 240 kg (2.4 KN). Higher loads are only possible on request via the Facility & Event Services Department and after structural inspection by an engineer appointed by NürnbergMesse. The exhibitor or client will be charged for the cost of such a structural inspection.

NürnbergMesse reserves the right to require the installation of load measuring systems in the case of statically indeterminate systems. The load measuring systems are to be supplied, installed and operated exclusively by SPIE SAG GmbH. The costs of the load measuring systems will be billed to the ordering party. We would like to advise that the use of load cells can reduce the maximum suspension height by up to 50 cm.

The following types of suspension are not permitted for safety reasons:
- Suspended constructions with a rigid or non-positive connection to the hall floor (see Figures 1 and 2)
- Suspension points used for securing stand components or exhibits (stand components or exhibits must stand securely on their own, see Figures 3 and 4)
- Suspension from exhibits (see Figures 5 and 6)
- The use of bridle suspension points is not permitted on the NürnbergMesse site (see Figure 7)

The use of lifting equipment (electric chain hoists, manual chain hoists, sling hoists) is only possible in halls 3A, 3C, 4A, 7A, 11 and NCC Ost and must be agreed with NürnbergMesse/Facility & Event Services.

The provision and use of attachment gear, load-bearing equipment, lifting equipment, load-bearing lines, fasteners, rope terminations, secondary safety equipment and equipotential bonding must comply with the relevant safety regulations and the recognized rules of engineering. The following regulations issued by the various German associations apply:
- DGUV Regulation 1 (formerly BGV A1) – Principles of Prevention
- DGUV Regulation 17 (formerly BGV C1) – Staging and Production Facilities for the Entertainment Industry
- DGUV Regulation 54 (formerly BGV D8) – Winches, Lifting and Hoisting Equipment
- DGUV Information 215-310 (formerly BGI 810) Guide to Safety at Productions and Events
- DGUV Information 215-311 (formerly BGI 810-3) Safety at Productions and Events – Loads Suspended above Persons
- DGUV Information 215-312 (formerly BGI 810-4) Spotlights
- DGUV Information 215-313 (formerly BGI 810-5) Special Stage Effects and Operations
- IGVV SQP1 “Trusses”
- IGVV SQP2 “Electric Chain Hoists”
- IGVV SQP1 “Event Electrician”
- IGVV SQP2 “Event Rigging Expert”
- IGVV SQP4 “Mobile Electrical Systems in Event Technology”

The following information on attachment gear, load-bearing equipment, lifting equipment, fasteners, rope terminations and secondary safety components is intended as a guide and is not exhaustive.

Attachment gear:
The maximum load on ropes and slings must not exceed one-tenth of the minimum breaking load. The maximum load for other attachment gear is half the manufacturer’s specified working load limit (WLL). Any dynamic forces occurring must be given special consideration (dynamic factor). The edge radius for attaching loads must be greater than the nominal diameter of the attachment gear (rope, webbing sling and round sling). No further load reduction is necessary for an edge radius of more than three times the nominal diameter of the attachment gear.

The heat resistance of attachment gear varies. Webbing slings and round slings made of man-made fibers (PA, PES) and wire ropes with fiber cores (ferrule and thimble) are only to be used up to 100 °C and are not suitable for use close to spotlights. Webbing slings and round slings made of polypropylene (PP) are only designed for use up to 80 °C and therefore even less suitable. Wire ropes with steel cores (ferrule and thimble) are suitable for use at temperatures up to 150 °C.
Permissible attachment gear:
- Attachment ropes of steel wire with fiber or steel cores, ferrules and thimble rope terminations, and rope grade 1960 (corresponds to a minimum rated wire strength of 1770 N/mm²) to DIN EN 12385-4, Table 7 (rope class 6 x 19 for ropes ≥ 6 mm), Table 12 (rope class 6 x 19 M for ropes of 3 mm to 5 mm), DIN EN 13414-1, Table 3 and 4 (ropes ≥ 8 mm)
- Rope terminations must comply with DIN EN 13411-1 (thimbles) and DIN EN 13411-3 (ferrules)
- Short-link sling chains of quality grade 8 (DIN 5688-3:2007-3) or higher, with a breaking strength ≥ 20 %
- Webbing slings and round slings made of man-made fibers to DIN EN 1492-1, DIN EN 1492-2 with marking and using a secondary safety component comprising a steel rope with thimble, ferrule and fastener (to DIN 56927)
- Wire rope round sling with sheath of man-made fibers (“steelflex”)
- Aluminum or steel clips and truss adapter approved for the respective trusses (accessory), with marking (indicating load capacity and safety coefficient)

Impermissible attachment gear:
- Wire ropes not conforming to the above requirements
- Wire ropes with sheath (sheath > 1/3 of rope length)
- Long-link sling chains (inside length of chain link (pitch) > 3 x nominal diameter of chain material)
- Untested short-link sling chains or short-link lifting equipment chains (these must not be used as sling chains, as they have a breaking strength of only 5 to 15 %)
- Cable ties, pipe clips or perforated tape without the use of a secondary safety component comprising a steel wire rope with thimble, ferrule and fastener (DIN 56927)
- Webbing slings and round slings made of man-made fibers, without marking and indication of load capacity
- Webbing slings and round slings made of man-made fibers to DIN EN 1492-1, DIN EN 1492-2 with marking and indication of load capacity, BUT without the use of a secondary safety component comprising a steel wire rope with thimble, ferrule and fastener (DIN 56927)
- Damaged attachment gear (e.g. kinked ropes, slings with damaged sheath and sling without recognizable marking)
- One-sided load pickups at trusses with two upper straps (e.g. four-point trusses) are not permitted since this could cause an additional loading of the trusses through torsion. Deviations from this must be accompanied by a structural loading certificate and agreed upon beforehand with NürnbergMesse (Exhibition Technology Departement)

Permissible load-bearing equipment:
- Aluminum trusses to DIN EN 1999-1-1, DIN EN 1999-1-1/NA, GUV-I 8634/IGVW SQP1 “Trusses”
- Steel trusses to DIN EN 1090-2, DIN 18800-7, GUV-I 8634/IGVW SQP1 “Trusses”

Impermissible load-bearing equipment:
- Trusses not conforming to the requirements of GUV-I 8634/SQP1 “Trusses” and DIN EN 1999-1-1, DIN EN 1999-1-1/NA, DIN EN 1090-2, DIN 18800-7
- Trusses without a structural test certificate
- Trusses without marking
- Trusses those are no longer safe for use, i.e. damaged or worn (this also includes damage like dents, cracks, drill holes or other changes)
- Trusses without end struts, if the framework is ignored
- Trusses not used for their intended purpose, e.g. screwed to stand walls, on stand walls, frames, truss tower with base plates that are too small and/or too little ballasting
- Truss systems put together out of different types (manufacturers, versions, models)
- Variably bendable truss corners (“book corners”) should generally be load-free

Permissible and impermissible positions for installing trusses without additional structural safety certificate:

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Equipotential bonding of truss systems

Truss systems that may carry hazardous contact voltages in the event of a fault must be incorporated in a common equipotential bonding system. This applies to all elements of electrically conductive material on which electrical equipment is installed or mounted or over which lines and cables are routed which could come into contact with metal parts in the event of damage. Connection to the equipotential bonding system can be made using clips, pipe clamps, screwed fasteners or special single-pole plug-in connectors with locking device. The common equipotential bonding is to be connected to the ground conductor of the mains supply network. Suitable conductor cross-sections are 16 mm² Cu for conductor lengths of up to 50 meters and 25 mm² Cu for conductor lengths of up to 100 meters.

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1 IGVW SQP1 Provision and Use of Truss Systems, 5.3 Installation of Trusses, Equipotential Bonding on 2020 Trusses
Permissible lifting equipment:
- **C 1 hoist**: (Point hoist to DGUV Regulation 17 (formerly BGV C1), IGVW SQP2)
  Nominal load as specified by manufacturer
- **D 8 hoist**: (Electric chain hoist to DGUV Regulation 54 (formerly BGV D8) with secondary safety component for bypassing the electric chain hoist)
  MOVING OR HOLDING LOADS ABOVE PERSONS WITHOUT A SAFETY DEVICE IS PROHIBITED!
  Nominal load as specified by manufacturer
- **D 8 Plus hoist**: (Electric chain hoist with secondary safety component/second brake to DGUV Regulation 54 (formerly BGV D8) with special features to hold loads in place above persons without secondary safety component – IGVW SQP2)
  MOVING LOADS ABOVE PERSONS IS PROHIBITED!
  Nominal load as specified by manufacturer

Use of lifting equipment
The use of lifting equipment (electric chain hoists, manual chain hoists, etc.) is only possible in halls 3A, 3C, 4A, 7A and 11 requires prior approval by NürnbergMesse.

The use of lifting equipment (electric chain hoists, manual chain hoists, etc.) in halls 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 12 is strictly prohibited!

The use of lifting equipment is governed by the requirements and implementation instructions of DGUV Regulation 17 (formerly BGV C1/GUV C1), DGUV Information Sheet 215-313 (formerly BGI 819-3) and the industry standard SQ.

A suitable rope termination (e.g. ring or rope socket) must be provided. Wire rope fasteners (holders, sliders) are only designed for static loads and must not be used in conjunction with lifting gear.

The use of lifting gear must be advised when ordering suspension points!

**Electric chain hoists – general information**
Electric chain hoists may only be used in halls with heavy duty suspension devices (halls 3A, 4A, 7A and 11).

The use of this lifting gear is subject to the Requirements for Electric Chain Hoists in Event Technology (IGVW SQ P2).

The weight of the electric chain hoists and dynamic coefficients must be taken account of in the load plan so as not to overload the slinging points.

The contractor must subject the hoists to an annual expert inspection. The test certification mark must be affixed to a visible location on the lifting equipment and the test documentation has to be available on site at all times. This inspection does not replace the inspection by an officially appointed expert every four years.

**Manual chain hoists – general information**
Manual chain hoists may only be used in conjunction with heavy-duty suspension devices (halls 3A, 3C, 4A, 7A and 11).

Manual chain hoists may only be used in the case of statically determinate systems, i.e. a line load on two hoists or a distributed load on three hoists.

The use of manual chain hoists for complex systems is not admissible. The carrying and load hook of the hoist must be in a perpendicular straight line above the centre of gravity of the load. Winding round the load with the chain (carrier) or guiding the load chain over corners is not admissible.

Loads must always be moved with all attached manual chain hoists at the same time, i.e. there must be as many people lifting at the same time as there are manual chain hoists in use. It must be ensured that the lifting and lowering processes are uniform.

The dead weight of the manual chain hoists and dynamic coefficients must be taken account of in the load plan so as not to overload the slinging points.

**Impermissible lifting equipment:**
- Electric chain hoists to DGUV Regulation 54 (formerly BGV D8), without secondary safety component
- Electric chain hoists to DGUV Regulation 54 (formerly BGV D8) with inadequately rated secondary safety component (see Permissible secondary safety components)
- Untested electric chain hoists or electric chain hoists without test certificates (annual inspection; for C1 and D-Plus hoists: plus expert inspection every 4 years)
- Electric chain hoists showing obvious signs of damage
- Electric chain hoists not used for their intended purpose (see IGVW SQP2, e.g. stage use of an electric chain hoist to DGUV Regulation 54 (formerly BGV D8))

**Permissible fasteners:**
The nominal load is half the manufacturer’s specified load-bearing capacity, maximum one-tenth of the minimum breaking load.

- Shackles, straight and curved, grade 6, to DIN EN 13889 with marking, with type X threaded bolt (with hexagonal head, hexagonal splint nut) if used with dynamic loads (e.g. for suspension of loudspeakers)
- High-strength shackle, grade 8, to DIN EN 1677-1
- Quick link for operation of lifting equipment, non-standard (safety factor 5), marked with load-bearing capacity
- Quick link for event equipment (safety factor 10) to DIN 56927 with marking
- Turnbuckles with closed eyes to DIN 1480, marked with load-bearing capacity, only with safety splint and safety nut if used with dynamic loads (e.g. for suspension of loudspeakers)
- Closed O-ring marked with load-bearing capacity, or with manufacturer’s data sheet
- Shortening clutch with safety element to prevent unintentional unhooking, e.g. locking pins

**Impermissible fasteners:**
- Carabiners with/without screw lock
- Open hooks
- Open turnbuckles to DIN 1480
- Quick link with lock nut, not marked with load-bearing capacity
- Tensioning sets as connection between two truss parts
- Shackles to DIN 82101 (have a working coefficient of only 3)
- Shortening clutch without safety element to prevent unintentional unhooking, e.g. locking pins
- Other fasteners without marking/indication of load-bearing capacity/manufacturer’s data sheet

**Permissible rope terminations:**
- Thimble to DIN EN 13411-1 and ferrules to DIN EN 13411-3
- Rope locks (straight) to DIN EN 13411-7, for dynamic loads (e.g. suspension of loudspeakers) only with rope clamp (frog) to DIN EN 13411-5

**Impermissible rope terminations:**
- Rope clamps (frogs) to former DIN 1141
- Rope clamps (frogs) to former DIN 741
Secondary safety components:
A secondary safety component usually consists of a wire rope, rope termination and fastener to DIN 56927. The drop distance should be as short as possible, ideally zero.

This is best achieved with a safety rope together with a grade 8 shortening clutch equipped with a safety element to prevent unintentional unhooking (drop distance ≤ length of one chain link (pitch)).

Only quick links to DIN 56927, grade 8 high-strength shackles to DIN EN 1677-1 may be used as fasteners for a secondary safety component.

If secondary safety components with a larger drop distance than one chain pitch are used, a structural certificate may be requested for the pulse load of all components of the secondary safety component, attachment gear, load-bearing lines, fasteners and load-bearing equipment.

Permissible secondary safety components:
- Wire rope of steel wire with fiber core, ferrule sling and thimble as rope termination, rope grade 1960, to DIN EN 12385-4, Table 7 (rope class 6 x 19 for ropes ≥ 6 mm), Table 12 (rope class 6 x 19 M for ropes of 3 mm to 5 mm), DIN EN 13414-1, Table 3, or to former DIN 3060 (round-stranded rope 6 x 19 standard)
- Rope terminations must comply with DIN EN 13411-1 (thimbles) and DIN EN 13411-3 (ferrules)
- Fasteners conforming to the above standards

Impermissible secondary safety components:
- Wire ropes not conforming to the above requirements
- Inadequately rated wire ropes (see DIN 56927, DGUV Information 215-313 (formerly BGI 810-3)
- Fasteners not conforming to the above requirements
- Inadequately rated fasteners (see DIN 56927)
- Rope terminations not conforming to the above requirements (e.g. rope locks)
The use of laser devices and equipment must be notified to NürnbergMesse. The form “Registration of a laser device” form must be returned to NürnbergMesse at least 42 days before the start of construction. The written appointment of a laser protection officer to oversee the operation of the laser device and proof of adequate liability insurance must be attached to the registration form. In addition, the exhibitor must prepare a threat assessment for the demonstration and operation of the laser device in advance and attach it to the registration form.

According to DGUV Regulation 11 “Laser radiation”, notice of the operation of laser systems must be submitted to the Berufsgenossenschaft (Trade Association) and the authority responsible for safety at work (Industrial Trade Inspectorate, Regierungsbezirk Mittelfranken):

**Address:** Gewerbeaufsichtsamt Nürnberg
Roonstrasse 20
90429 Nürnberg
**Phone:** +49 911 9 28-29 99
**Email:** www.gaa-n.bayern.de

A trained laser protection officer (according to IEC/EN 60825; 2006/25 EC/OStrV) must be present on the stand if the laser or LED devices are classified in normal operation and/or during erection in classes 3R, 3B or 4 (according to DIN EN 60825-1).

**General:**
Laser equipment (according to DIN EN 60825-1) produces extremely intensive radiation, which is concentrated into a high energy/power density by optical systems. The energy/power density is only slightly reduced even at long range. If laser radiation strikes the eyes or skin it can cause permanent damage.

The following instructions must therefore be observed when setting up laser equipment and also LED equipment where applicable at trade fairs, exhibitions and shows:

1. Only lasers that transmit visible light (wavelength 400 to 700 nm) may be used. The output power must be limited to the extent essential for the purpose.
2. Laser equipment must be assigned to a class (1-4) in accordance with DIN EN 60825-1 and marked accordingly.

<table>
<thead>
<tr>
<th>Class</th>
<th>Safe for the human eye.</th>
<th>Output power: ≤ 0.4 mW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 1M</td>
<td>Safe as long as no optical instruments (lenses, etc.) are used.</td>
<td></td>
</tr>
<tr>
<td>Class 1C</td>
<td>Medical lasers (use and safety measures as per manufacturer’s instructions)</td>
<td></td>
</tr>
<tr>
<td>Class 2</td>
<td>Safe for the human eye for short periods of exposure to radiation of max. 0.25 s.</td>
<td>Output power: &lt; 1 mW</td>
</tr>
<tr>
<td>Class 2M</td>
<td>Safe for the human eye as long as no optical instruments (lenses, etc.) are used.</td>
<td></td>
</tr>
<tr>
<td>Class 3R</td>
<td>The accessible laser radiation is dangerous for the eye.</td>
<td>Output power: ≤ 5 mW</td>
</tr>
<tr>
<td>Class 3B</td>
<td>Dangerous for the human eye and in special cases for the skin as well.</td>
<td>Output power: ≤ 500 mW</td>
</tr>
<tr>
<td>Class 4</td>
<td>Very dangerous for the human eye and dangerous for the skin. There is also a risk of fire! (See Form P2)</td>
<td>Output power: &gt; 500 mW</td>
</tr>
</tbody>
</table>

3. Laser equipment covered by the EU Machinery Directive must meet the requirements of the 9th Ordinance German Product. Safety Act and generally accepted engineering practice Material processing lasers must comply e.g. with DIN EN 60825-1/4 and show lasers e.g. with DIN EN 56912. The manufacturer must confirm compliance with the provisions relating to the safety features of the laser equipment by means of a declaration of conformity. The operator must comply with the provisions of the Occupational Health and Safety Regulations on Artificial Optical Radiation OstrV and the TROS Laser Radiation as well as the safety regulation of the trade associations DGUV Regulation 11 (formerly BGV B2).

4. If class 3R, 3B or 4 lasers (e.g. for projections or show events) are used, the beam must be widened by optical instruments to reduce the power density to a safe level in all areas in which people are present. Alternatively, the laser must be routed at a minimum height of 2.7 m above the floor.

In the case of class 3R, 3B or 4 laser equipment, the safety precautions taken must generally have been inspected on site by a publicly appointed and sworn authority to verify that they are effective before they are used. A copy of the inspection report is to be submitted to NürnbergMesse.

For all modes of operation, any persons not trained in laser safety must not be exposed to laser radiation in excess of the M28/-EGW limits (as per DIN EN 60825-1 and/or OStRv). This must be ensured by means of technical and/or organizational measures.

Any persons in the laser area to perform maintenance and servicing must be equipped with appropriate PPE (laser safety goggles/alignment glasses).

For the operation of lasers class 3R, 3B or 4, a laser safety officer (as per OstSrV and TROS Laser Radiation) must be nominated by the exhibitor in writing. The presence of a laser safety officer at the stand is necessary if the laser equipment is categorized as Class 3R, 3B or 4 (to DIN EN 60825) in normal operation and during assembly. When demonstrating laser equipment it must be ensured that no uncontrolled reflected radiation can occur and that no-one can access the laser or projection area. Laser equipment must be shielded in such a way that only the effective beam can be emitted. Other radiation must be shielded using suitable optical filters.

5. If individual requirements cannot be complied with, the following protective measures shall be used:

- The laser beam shall be permanently isolated so that people cannot enter the area of the beam.
- Beams reflected intentionally or unintentionally from reflective surfaces (mirrors, metallic surfaces, glasses, bottles) must not be aimed at areas where people are present. If this cannot be precluded for other groups of people (operating personnel, performers, artists) or is accepted as necessary during demonstrations, these persons must be instructed accordingly if necessary provided with suitable tested safety goggles.

If light effects are used during shows, persons must be prevented from entering the laser projection area. This also applies to areas through which the beam is deflected by reflection equipment.

No focusing devices are to be present in the laser area.

Unintentional drifting or deflection of the beam must be prevented by non-combustible barriers.

6. Laser systems must be shielded to ensure that only the useful beam can be transmitted.

7. Laser equipment must be set up in a firm position and secured to prevent movement.

8. Optical equipment, deflection devices, scanners, etc. must be secured to prevent falling or unintentional movement. The measures implemented must comply with the relevant event equipment regulations, e.g. DGUV Regulation 11 and DGUV Information 203-036.

9. Optical components/equipment e.g. dispersion lenses, unless part of the equipment, must have technical data on them that can be used to determine whether changes to the radiation data have taken place.

10. The adjustment of the laser system must be checked for correctness before each demonstration. If maladjustment is detected, the system must be taken out of operation immediately and repaired by a skilled person.

11. Laser systems, operator consoles and other control equipment must be fitted with authorization devices (e.g. key-operated switch, password, transponder) so that they are not accessible to unauthorized persons and may not be started up inadvertently by such persons.

12. The operating staff must be able to view the complete sphere of action of the laser.
13. If the laser radiation could cause an unintentional fire hazard, this must be notified to NürnbergMesse on Form P2.

For more detailed information please contact our Event Technology Department:
veranstaltungstechnik@nuernbergmesse.de
www.nuernbergmesse.de

14. Laser pointers with the designation "IIIA", "IIIA" or "3A" under the US ANSI/CDRH rules do not comply with the requirements of valid standard EN 60825-1 and may not be used, since these generally have power outputs > 1 mW.

NürnbergMesse may intervene in the case of violations of these rules and is then entitled to switch off the power supply to the stand or to confiscate and secure the laser devices/equipment (to be returned on the last day of the trade fair when the trade fair is over).

For further information, please contact:

- NürnbergMesse GmbH
  Abteilung Veranstaltungstechnik
  Messezentrum
  90471 Nürnberg
  veranstaltungstechnik@nuernbergmesse.de
  www.nuernbergmesse.de

- For all questions concerning health and safety and work, safety technology and accident prevention, please contact, in Bavaria:
  Bayerisches Landesamt für Gesundheit und Lebensmittelsicherheit
  Pfarrstrasse 3
  80538 München
  T +49 7 11 22 52-7 94
  F +49 7 11 22 52-8 00
  www.lgl.bayern.de
### Notification of a laser system

**Event**

<table>
<thead>
<tr>
<th>Company</th>
<th>Street</th>
<th>Postcode, Town, Country</th>
<th>Person to contact</th>
<th>Tel</th>
<th>E-mail</th>
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</table>

Because the **operation of laser systems** can cause dangers for visitors, employees of NürnbergMesse, their operation is **subject to notification**. Please complete a separate notification for each laser system.

1. **Type of laser system** on exhibition stand/event or stage space:

   - Show/stage or display laser
   - Laser for measuring purposes
   - Labelling laser
   - Medical laser
   - Cutting laser
   - Other laser (e.g. positioning lasers for material processing lasers)

2. **In normal operation for the intended use**, the system is classified as follows under IEC/EN 60825:

   - Class 1
   - Class 1M
   - Class 1C
   - Class 2
   - Class 2M
   - Class 3R
   - Class 3B
   - Class 4

3. **During the erection phase and maintenance/service**, the system is classified as follows under DIN EN 60825-1:

   - Class 1
   - Class 1M
   - Class 1C
   - Class 2
   - Class 2M
   - Class 3R
   - Class 3B
   - Class 4

4. **If during normal operation and/or setup (incl. maintenance/service)** your laser is classified as 3R, 3B or 4, you will need to have on the stand a trained laser protection officer as per OStrV (national) and TROS Laser Radiation. Please enclose a copy of the certification of the laser protection officer with this notification.

   - Name of laser protection officer: ____________________________________________
   - Telephone/mobile number: ________________________________________________

5. **The exhibited laser device** has been classified or certified by an independent test institute (e.g. TÜV, BG-Zert., VDE, BSI, UL, FDA). Please enclose a copy of the **laser system certification** with this notification.

   - TÜV
   - BG-Zert.
   - VDE
   - BSI
   - FDA
   - UL
   - other: ________________________________________________________________

6. **The laser source** used in the laser device has the following specifications:

   - Laser manufacturer: ______________________________________________________
   - Laser type/designation: __________________________________________________
   - Maximum output of energy: ________________________________________________ W or J
   - Pulse length/frequency: __________________________________________________
   - Wavelength: ____________________________________________________________ nm

7. **The exhibited laser device meets the specified performance level in respect of the safety controller as per DIN EN ISO 13849-1 and 2 (P_\text{Lr} determined in risk assessment):**

   - P_\text{La}
   - P_\text{Lb}
   - P_\text{Lc}
   - P_\text{Ld}
   - P_\text{Le}
Notification of a laser system

Laser operation in class 3R, 3B or 4:
The operation of a class 3R, 3B or 4 laser device is only allowed if it has been tested before the start of the trade fair/event by a publicly appointed, certified expert and declared safe. After the safety inspection, you will be provided with an acceptance report. A copy of this report must be submitted to NürnbergMesse.

The first copy and a risk assessment according to § OStrV should be retained at the stand and presented to the supervisory authorities on request. The second copy should be handed over to NürnbergMesse.

Start-up of your laser systems will not be allowed if the exhibitor cannot produce the safety certificate.

☐ The exhibited laser device operated at the exhibition stand is categorized as class 3R, 3B or 4 in normal operation. Any risk to persons is prevented through technical and/or organizational measures. The effectiveness of the protective measures will be verified by a public appointed and certified expert. The associated report will be available to NürnbergMesse at the exhibition stand before the trade fair begins.

Tested on site on/at: ______________________________ date/time
Expert (name): ____________________________________
Telephone/mobile number: __________________________

I confirm with my signature that the protective measures listed and defined in the acceptance report are complied with at all times.

In addition, I declare that I agree with the following:
If modifications or additions to the laser device are made after the inspection/acceptance by the publicly appointed, certified expert, the operating permit of NürnbergMesse will expire.
NürnbergMesse is then entitled to switch off the power supply to the stand and to confiscate and secure the laser device (to be returned on the last day of the trade fair when the trade fair is over).

Place/date __________________________________________________________________ Signature ______________________________________

The above operation of a laser system is approved by NürnbergMesse subject to the following conditions:

Place/date ______________________________________ Company stamp and signature (NürnbergMesse; Events Engineering)
The Radiation Protection Act (German RöV) stipulates that X-ray equipment must be approved by the responsible Trade Inspectorate. This applies to both operation and shutdown. The respective approvals must be submitted to NürnbergMesse (veranstaltungstechnik@nuernbergmesse.de) and approved by it at least 14 days before the start of the event.

Only type-approved X-ray equipment and interference radiators may be used. The use of other equipment is strictly prohibited at events organized by NürnbergMesse. NürnbergMesse reserves the right to have such equipment removed.

X-ray equipment and interference radiators requiring approval must be tested by an expert at the installation location in the exhibition venue. The test report must be submitted to the government agency and NürnbergMesse. Interference radiators that are expressly approved for portable demonstration use outside of X-ray rooms according to the up-to-date test report do not need to be tested after installation at the exhibition stand.

The exhibitor must ensure the presence of a radiation protection officer during operation.

In accordance with § 4 of the Radiation Protection Act, the following equipment must be submitted for notification to the GAA.

1. X-ray equipment to be placed on the market with declaration of conformity according to the Medical Product Act or the current Product Liability Act.
2. Type-approved X-ray equipment with type approval number, individual test with serial number, stamp and signature of manufacturer.
3. Highly or fully protected equipment
4. X-ray training equipment

The form for approval of the notification is to be submitted to the Gewerbeaufsichtsamt (GAA) in Nuremberg (Trade Inspectorate) by no later than 14 days before the X-ray equipment is to be taken into operation.

The original and copy of the approval certificate must remain with the equipment and a copy submitted to NürnbergMesse 14 days before the start of the event.

Proof of radiation protection skills

The certificate of qualification of the radiation protection officer (as per RöV) must be submitted to NürnbergMesse by not later than 14 days before the start of the event.

Radiation protection skills must be updated every 5 years in accordance with the directive on “Radiation Protection Skills and Proficiency”.

Expert’s certificate and inspection report

The exhibitor/operator himself is to appoint an officially approved expert as per § 4a RöV.

The inspection report and certificate will be sent to the operator or direct to GAA. A copy of the test report from the expert must be sent to NürnbergMesse (Exhibition Technology Department) at least 14 days before the start of the event.

The operation of the following devices must be approved by the competent GAA according to §3 of the Radiation Protection Act:

- X-ray equipment without type approval of CE designation (X-ray equipment without a valid type approval may not be operated on the premises of NürnbergMesse!)
- X-ray equipment used in technical radiography for coarse structural analysis in materials testing
- X-ray equipment for radiation therapy
- X-ray equipment for teleradiology
- X-ray equipment outside an X-ray room
- X-ray equipment for X-ray series examinations

Documents required for approval under §3 RöV

- Form for approval
- Explanatory plans, drawings
- Explanatory descriptions
- If applicable, proof of the involvement of a medical physics expert or personnel and technical equipment used

Under the Radiation Protection Act, notice of the operation of X-ray equipment and interference radiators must be submitted to or approved by the authority responsible for health and safety at work (Trade Inspectorate, Regierungsbezirk Mittelfranken):

Gewerbeaufsichtsamt Mittelfranken
Roonstrasse 20
90429 Nürnberg
T +49 9 11 9 28-0
F +49 9 11 9 28-29 99

NürnbergMesse may intervene in the case of violations of these rules and is then entitled to switch off the power supply to the stand or to confiscate and secure the laser devices/equipment (to be returned on the last day of the trade fair when the trade fair is over).

For further information, please contact:

- NürnbergMesse GmbH
  Abteilung Veranstaltungstechnik
  Messezentrum
  90471 Nürnberg
  veranstaltungstechnik@nuernbergmesse.de
  www.nuernbergmesse.de
Introduction:
Bioethanol stoves and fireplaces are becoming increasingly popular among exhibitors. As these involve naked flames with a greater risk of fire for NürnbergMesse if they are not used as intended, compliance with the following basic rules is mandatory.

Use:
Bioethanol stoves and fireplaces are not suitable for heating. The fire is real, but the stoves or fireplaces produce hardly any heat and the flickering flames only create a visual effect. They can be used in any room and do not need a chimney. They use the combustible liquid “bioethanol”.

Conditions imposed by NürnbergMesse:

- Use only tested products with the corresponding CE marking on them. (Caution! – see photo)
- The minimum separation from combustible materials, furniture etc. is 1 meter. The minimum distance from the hall gangways is 1.50 meters.
- Use only fuels approved by the stove manufacturer.
- The fuel may only be used in the combustion box or chamber provided for this purpose.
- Fuel may only be refilled when the combustion chamber has cooled down (otherwise there is a risk of jet flames!). As there is a particular risk associated with the pouring of liquid fuel, this must be done with the greatest care and caution. Moreover, it may only be at a time during the event when there are no visitors present. Ignition sources and electrostatic charges must be prevented.
- Do not spill fuel. Completely remove any spilled fuel before lighting the stove.
- Smoking is strictly prohibited on exhibition stands where combustible liquids are used.
- NürnbergMesse recommends using a candle lighter to light the flame.
- Only decorations approved for this kind of stove may be used in the combustion chamber.
- The maximum quantity of fuel that may be stored on each stand is maximum 5 liters in breakable and sealed containers or 5 liters in unbreakable containers. It must be ensured that the fire brigade and NürnbergMesse will be able to access the storage containers in a hazardous situation and that access is not blocked by any structures or objects left in the way. Access by unauthorized persons must be prevented. The storage containers must be kept in non-combustible drip pans.
- The containers for bioethanol must bear the marking “GHS” (Globally Harmonized System) for the relevant hazardous substance.
- A foam fire extinguisher of at least conformant with S9 DIN EN 3 must be available on the stand. (Fire class AB; at least 10 EAUs with 9 kg). The fire extinguishers must be placed in clearly visible and continuously accessible locations in such a way that they cannot topple over and must be labeled in accordance with ASR A1.3.
- The equipment is to be set up firmly and secured to prevent it falling over.
- Empty containers that have contained combustible liquids must not be kept or stored at the stand or in the hall.

For more information on handling combustible liquids please refer to the Technical Guidelines Section 5.7.2 “Combustible Liquids”. DGUV Regulation 113-001 and the corresponding documents, as well as the instructions in the safety information sheet for the combustible liquid, must be observed.

Important note:
The use of bioethanol stoves must always be registered in advance using Form P2 from the Exhibitors Info Manual, and always requires the written approval of the NürnbergMesse Exhibition Technology Departement.
veranstaltungstechnik@nuernbergmesse.de

Operation can only be approved if the bioethanol stoves are directly related to the exhibits on display.
1. **Preamble**

This information sheet provides supplementary instructions and explanations in respect of **Section 4.8 of the Technical Regulations** (Info 4) and consequently the technical specifications and requirements for stand structures subject to approval that are to be erected in the outdoor area of NürnbergMesse GmbH. Unless stated otherwise in this document, the Technical Regulations of NürnbergMesse GmbH shall apply.

1.1 **Outdoor area**

The outdoor area of NürnbergMesse consists of paved or asphalted traffic areas and uneven, mostly non-compact, crushed aggregate or natural lawn areas.

It includes all areas outside of the existing exhibition halls, such as the following:

- **Loading yards and intermediate courtyards** are located adjacent to or between the exhibition halls and generally consist of a smooth paved or asphalted road surface.
- **Inner courtyard (known as the "Exhibition Centre Park")**: This area is enclosed by Halls 1, 5, 6 and 9 and Mitte entrance. There is a paved traffic lane all around a natural lawn area.
- **Outside area H12**: This uneven grassed area is surrounded by an asphalted vehicle lane.
- **Mitte Entrance forecourt**: Paved area in front of main entrance with traffic restrictions. Some areas are covered.

The necessary connections for utilities are provided, spaced at irregular intervals. After dark, general street and path lighting is provided to the outdoor area during event opening times.

1.2 **Admissible traffic-bearing capacity/floor loads**

The designated driving and traffic areas with asphalted or paved coverings are generally designed as designated fire service access/operational areas as per bridge category SLW 30 (DIN 1072) and as such can therefore be used by heavy vehicles with an admissible gross vehicle weight of up to 30 t (at 10 t axle load).

On unpaved, partially compacted crushed aggregate and natural lawn areas, a maximum ground pressure of 150 – 160 kN/m² is recommended for the structural load transfer when distributing contact loads. Suitable and effective load distribution measures must be provided in these areas by exhibitor/customer and if required appropriate proofs of such must also be provided.

1.3 **Interventions in the building fabric**

Existing buildings, furniture, fencing/enclosures, balustrades and technical installations (lighting, signage, flagpoles, infiltration basins etc.) as well as any trees, bushes and plants outdoors must not be damaged, soiled, clad or structurally modified in any way. Even during setup and dismantling periods, the roads and designated operational areas for fire service and emergency vehicles must not be occupied or obstructed by stand structures, other stand installations or construction material belonging to the customer/exhibitor. The entire width and area of these access roads and designated operational areas for the fire service must be kept clear.

Existing safety equipment and installations (e.g. above-ground fire hydrants) on the exhibition grounds must not be damaged, soiled or modified in any way. They must not be obstructed or encumbered either by stand structures and building materials or by exhibits. Exhibitors are strictly prohibited from carrying out any work on existing structures and/or installations of the exhibition grounds.

1.4 **Ground anchors**

Generally, excavations and ground anchors (e.g. ground pegs/stakes) are prohibited in the outdoor areas.

If you do use them, you will be generally liable for all losses and consequences in the event of damage to piping and cable (even if you received special approval and permission from NürnbergMesse to use them).

1.5 **Definitions, explanations**

According to the Bavarian Building Code BayBO, all event-related stand structures erected outdoors are categorised as temporarily erected structures not subject to approval procedures and also special structures used under certain circumstances as a place of assembly and/or defined as temporary (demountable) structures due to the nature of their construction within the trade fair and exhibition grounds.

These special structures therefore have to meet the stipulations of the applicable public regulations according to the Bavarian Building Code BayBO and in particular the latest amended versions of the following regulations, directives and guidelines:

- **M-FiBauR** – Model directive on the construction and operation of temporary demountable structures
- **BetrVO** – Operating regulations on the operation of structural installations
- **DIN EN 13 782** – Temporary structures – tents
- **DIN EN 13 814** – Temporary structures and systems for event venues

On a case-to-case basis, other special requirements may be imposed on stand structures outdoors in order to implement and ensure compliance with important event-related safety objectives, on the basis of the regulations and directives specified above. In the same way, it may be possible to relax certain requirements if compliance with regulations is not necessary due to the particular nature or event-related use of the stand structure at the location in the outdoor grounds.

2. **Stand construction permit**

All stands and special structures outdoors are generally notifiable, and depending on type and scope may also be subject to inspection and approval.

In all cases, a verifiable proof of structural stability must be provided.

2.1 **Stand structures requiring a permit**

The stand structures on the outdoor exhibition grounds that require a permit include all structures categorised as regular temporary structures as per Art. 72 BayBO with a valid model approval (e.g. inspection logbook) or that can be categorised as temporary structures due to their type and construction method, e.g.:

- **Tents** (including tents joined together) from a contiguous utilised floor area of ≥ 75 m²
- **Tents** < 75 m² floor area and similar structures are always categorised as temporary structures. They are exempt only from model approval and official approval for use but must still always comply with the technical specifications and stability requirements for temporary structures (including DIN EN 13 782).
- **Grandstands** and **stages**, including canopies and side covers
- **Playground, sports or entertainment equipment** and rides or sideshows like inflatable play equipment (bouncy castles etc.) from an accessible height of > 5 m or completely roofed areas > 25 m², where this roof covering is at risk of subsiding.
- **Show and stage trucks** with integral drive-on/sub-mountable trailers or stage elements. Following a resolution by the working committee on "temporary structures" (AKFiB), parked vehicles with retractable, walkable attachments and superstructures to the side and top, and that may possibly have a load-bearing substructure, can meet the general criteria of a "temporary structure". If such parked show trucks or stage vehicles are intended for use/access by general visitors, corresponding inspection documents (see TR Section 4.2.1) must be submitted to NürnbergMesse.

Approval for use will generally be given after an on-site inspection of the vehicle following setup. The exhibition company reserves the right, on submission of the documents and approval of a local inspection, to impose further measures and/or special conditions on operations in/on the vehicle at the event, in particular with a view to fire prevention. Any costs resulting from this are to be borne by the customer/exhibitor.

- **Free-standing scaffolding/advertising installations** (monitors or LED walls)
- **Masts or signal installations** for exhibition or presentation purposes
- **Miscellaneous performance/show areas** (≥ 200 m²)
- **Additional extensions and projecting structures** on existing exhibition halls and/or tent systems
- **All other walkable and/or canopied freestanding or room-forming stand structures**:
  - Platforms, walkways;
  - Canopies and passageways;
  - Single and multi-story pavilions and/or container structures;
  - Structures with fully enclosed cinema, auditorium or visitor rooms.
2.2 Inspection/approval of stands requiring a permit and authorisation of their use on the outdoor grounds
In this conjunction, the provisions and requirements of the Technical Regulations Section 4.2.1 shall apply without exception. For the purposes of inspection and approval, under certain circumstances also involving the relevant building inspectorate, the complete stand documents specified therein must be submitted in good time in digital form (PDF files) to NürnbergMesse (Event Technology Department). (See Technical Regulations Section 4.2.). In the case of canopied, closed and/or multi-storey stand structures (pavilions, containers or tent systems) that are designed to provide areas/rooms accessible to trade fair visitors and that have a contiguous usable area of 200 m² or more, the following documents must be submitted in addition:
- Fire protection certificate/concept with details of materials and test certificates:
  - This includes the submission of a verifiable fire protection certificate adapted for the respective stand interior and utilisation. We recommend that this should be compiled in German on the basis of vdSdG Guideline 01-01: Fire Protection Concept (Brandschutzkonzept).
  - Submission of a corresponding emergency exits and escape route plan (in A4 format or larger) based on DIN ISO 23601, with fire protection regulation (Part A) to DIN 14096 in two languages (German/English) to be displayed at an accessible location within the stand (in the entrance area) for the duration of the event.
- Advance submission of a type approval or valid model approval (inspection logbook).
  - On behalf of the customer/exhibitor, NürnbergMesse will then present the original of the inspection log for the temporary structure to the relevant testing authority, which will carry out a final acceptance on site. Charges apply for this procedure.
- The stand structure is not deemed to have been approved until written notification by NürnbergMesse. The associated costs and charges for the approval/inspection procedure will be billed to the customer/exhibitor.
- If no verifiable technical, structural stability-related or fire prevention-related documents as defined above are provided, NürnbergMesse reserves the right to conduct further measures and/or impose other conditions. Any resulting costs in this conjunction will be borne by customer/exhibitor.

3. Stability
All stand structures erected outdoors for the purposes of the event must be of sufficient stability so that they do not jeopardise public safety and order and do not present a hazard for life and limb in particular. The exhibitor/customer is responsible for ensuring the load-bearing capacity and stability of these installations and must provide proof of such.

3.1 Wind loads
To achieve sufficient stand safety and stability, all rising, projecting or freestanding stands outdoors must withstand the regular wind pressure and suction loads specified in DIN EN 1991-1-4/NA in conjunction with the National Annex (formerly DIN 1055-4) for all load-bearing roofing structures and exterior walls. For the exhibition centre location (approx. 325 m above sea level), the following location-specific characteristic values and simplified velocity pressures apply:

Nürnberg: Wind zone 1 (inland)

- mean wind velocity: \( v_10 = 22.0 \text{ m/s} \)
- ref. wind pressure: \( q_{10} = 0.32 \text{ kN/m}^2 \) (< 28 m/s)

Simplified gust velocity pressure \( |q| \) at:
- Stand height up to 10 m: \( q = 0.65 \text{ kN/m}^2 \)
- Stand height > 10 – 18 m: \( q = 0.80 \text{ kN/m}^2 \)
- Stand height > 18 – 25 m: \( q = 0.90 \text{ kN/m}^2 \)

Based on DIN EN 1991-1-4, NA.8.5, a reduction in the calculated wind pressure for the above mentioned stand structures is a temporary condition and admissible as follows without safeguards:
- \( q_{10} = 0.7 \times 0.35 \text{ kN/m}^2 \) (\( \nu = \approx 28 \text{ m/s} \))

*) Note: This reduction in the calculated wind pressure applies for the verification of the unsecured structure. It may be used on condition that the weather situation is monitored sufficiently closely, that storm warnings are obtained from a qualified meteorological service, and that preparations are made to discontinue operation.

3.2 Wind loads for temporary structures
For temporary structures requiring a model approval as per Art. 72 BayBO, the associated inspection log and/or construction record (original) with valid model approval, including verified stability proofs and inspection reports, are necessary. These documents define and specify the regular wind load and operating conditions for the structure as per DIN EN 13 814, 5.3.3.4 (for event structures) and/or DIN EN 13 782, 6.4.2.2 (for tents) in conjunction with the established Technical Building Regulations (as per BayBO).

For temporary structures that are not required by the building code to have a model approval, a verified or verifiable proof of stability relating to the location of the outdoor grounds must be submitted to NürnbergMesse (Event Technology Department, see TR Section 4.2). The above mentioned wind loads to DIN EN 1991-1-4 or DIN EN 13 814 must be presented and applied here in the appropriate way and scope.

*) If the working load case to DIN EN 13 814, 5.3.3.4 (Table 1) is used, the exhibitor/stand operator must take the necessary organisational measures to prepare for and ensure the necessary cessation of operation in the event of a forecast wind velocity of \( v_{10} = 15 \text{ m/s} \) and more (including single gusts).

Exceptions are possible in justifiable cases subject to more detailed proof of stability. In justified circumstances, NürnbergMesse reserves the right to have its structural engineer conduct an on-site inspection of the stability of the stand and to charge the exhibitor for this inspection.

3.3 Snow loads

Only in the case of stand construction during the winter (Nov.-March) do the regular snow loads to DIN EN 1991-1-3/NA in conjunction with the National Annex (formerly DIN 1055-5, Table 1) need to be taken into account for all load-bearing roofing/canopies and evidence of such provided:

Nürnberg: Snow load - Zone 1
4. Altitude of site around 325 m above sea level
5. Snow load: \( s = 0.65 \text{ kN/m}^2 \) (minimum basic amount)

In the case of stand structures categorised as temporary structures, reduced snow loads to DIN EN 13782 (tents), 6.4.3.3 and/or DIN EN 13814 (other temporary structures), 5.3.3.5 can be applied:

- \( s = 0.20 \text{ kN/m}^2 \), if as a result of suitable stand construction measures, like internal heating (\( + 2{\circ}C \) outside surface temperature on the entire roofing/tarpaulins) or immediate clearing of snow, the accumulation of snow (\( h > 8 \text{ cm} \)) can be verifiably prevented by corresponding operational measures.

3.4 Severe weather warnings

If severe weather events are expected (including storms, thunderstorms, heavy rain, black ice) with:

- Wind gusts > 13 m/s (wind force > 6 Beaufort – including in individual gusts)
- Severe thunderstorms with wind gusts, heavy rain or hail
- Heavy rain > 20 l/m² in an hour
- Snowfall up to 10 cm in the next 6 hours
- Localised black ice – formed by quickly freezing rain, drizzle or moisture.

NürnbergMesse GmbH will issue a general severe weather warning to exhibitors/customers with stands outdoors. Thereafter, those exhibitors operating stand structures or temporary stands on condition of reduced wind loads must take immediate action to cease operation.

To allow severe weather warnings to be passed on directly to larger stands/pavilions/facilities (> 200 m² useable area), the name and mobile phone number of a relevant person with technical responsibility must be provided to NürnbergMesse GmbH along with the registration, but at the latest by the start of the event. This must be a person who will be present at the stand/event area during the event and can immediately initiate and execute the necessary measures to halt operations.

When called on to do so by NürnbergMesse GmbH, customer/exhibitor/stand operator must take the following measures immediately to halt operations:
4. Stand construction materials and fire protection

4.2 Stand construction materials

These special fire protection and safety provisions apply to closed pavilions/rooms and stands in the outdoor grounds of NürnbergMesse.

4.1.1 Guys/anchoring cables

Structurally load-bearing guys and mountings attached to necessary ballast weights to ensure stability or to secure freestanding poles or advertising installations must be made of non-combustible materials. This applies in particular to the ballast connection of temporary structures such as stage canopies and tent structures.

4.1.2 Glass

Only heavy-duty safety glass suitable for the purpose may be used for all stands outdoors. For supporting structures made from verifiable safety glass (for walkable floors, ceilings, facades or balustrades) in stands/event areas, the requirements and provisions detailed in the latest amended versions of the following technical regulations shall apply exclusively:

- DIN 18008 (Parts 1 - 5) – Glass in building, design and construction rules
  - Part 1: Terms and general bases
  - Part 2: Linear supported glazing
  - Part 3: Point fixed glazing
  - Part 4: Additional requirements for barrier glazing
  - Part 5: Additional requirements for walk-on glazing

On the basis of the above building regulations and depending on the intended uses, all glass structures designed as

- Vertical glazing, possibly with fall-prevention function;
- Overhead glazing,
- Walk-on glazing,

must have proof of structural stability and must be executed in accordance with regulations.

4.2 Special fire protection and safety regulations

4.2.1 Exits/escape routes

Structurally enclosed stands/pavilions and/or single rooms with > 100 m² useable area or suitable for > 100 visitors must have at least two exits (minimum inside width 1.2 m) to the outside and/or leading directly to the corridors (escape routes). These exits should be as far away from one another as possible and located at opposite ends. The maximum walking distance of 30 m from each point within an enclosed stand structure to its exits outside must be observed.

All corridors and escape routes to these exits, including doors, are to be clearly and visibly marked in accordance with ASR A1.3, and/or DIN EN ISO 7010, DIN EN 1838 and DIN 4844-1. Ggf.

Doors

It must be possible to fully and easily open double-leafed doors from the inside (in the direction of evacuation) at all times using a single handle. In the event that two or more double-leafed doors are located directly next to each other, suitable door stops and blockers must be used to make sure that opening the door leaf does not interfere with the opening of the adjacent set of doors. In such cases all leaves must open to a maximum of 90°.

The use in escape routes of swing doors, rotating doors or access barriers needing to be opened by force is only possible subject to certified approval by the building authority (abZ, general building authority approvals). Swing doors in escape routes must be fitted with devices that prevent them from swinging back. Manually operated rotating doors/turnstiles are only allowed in escape routes if they are fitted with mechanical devices that ensure they can be opened easily over the entire width from the inside. Also admissible are automatic and/or electrically operated sliding door systems provided they have a valid general building approval (abZ), that all parts of the system are installed locally in conformity with the approval conditions and that escape routes are not impeded by the sliding door installation.

If external exit stairs are installed, there must also be a threshold-free exit landing (at least as wide as a door leaf) between the exit door and the steps.

4.2.2 Safety lighting

Structurally enclosed stands/pavilions and/or single rooms need their own additional safety lighting in accordance with VDE 0100-718. It must be designed so that people can still find their way outdoors in the event of a general power supply failure.

4.2.3 Ash bins and ash trays

Insofar as special stand/event areas outside of closed rooms (e.g. on terraces) have been designated for smokers, a sufficient quantity of ash trays or ash bins made of non-combustible material and with tight-fitting lids must be provided and emptied at regular intervals by customer/exhibitor.

4.2.4 Heating

The use of compressed and/or liquefied gas for heating stands is not permitted.

The operation of heating systems/equipment with suitable oil burners for stands is possible subject to consultation and agreement with NürnbergMesse. These kinds of systems including their tanks are always subject to approval and need to meet special safety and protection requirements.

The technical documentation on the heating systems/equipment and tanks (where necessary with collection device) including information on the fenced-in, inaccessible outside installation location for the system and details of the planned refuelling and safety measures, must be provided to NürnbergMesse (Event Technology Department, see TR Section 4.2) at least 28 days before stand setup as part of the approval process.

Electrical heating systems in stands are admissible. However, they need to be secured to prevent them from moving and their power cables must also be securely fastened. Glowing parts of heaters must not be exposed. The backs and sides of radiators and fan heaters must be at least 1 m away from walls and combustible items. Radiators need to be at least 3 m away from objects made from combustible materials.

4.2.5 Lightning protection

Structures and exhibits outdoors should be provided with effective lightning protection equipment. If due to their location, design or usage a lightning strike or flashover could readily occur or lead to severe consequences. Temporary stand structures and exhibits located outdoors with an overall height of more than 15 m must always be fitted with a lightning protection system to DIN EN 62305-3.

For these kinds of temporary lightning protection installations proof must be provided of an acceptance/function test conducted by the professional installer or a qualified or accredited electrical engineer (professional lightning protection).

The test report must be kept to hand and a copy sent to NürnbergMesse (Event Technology Department, see TR Section 4.2).
4.2.6 Fire alarms and smoke detectors
• In each structurally enclosed stand/pavilion with > 100 m² usable area or that is suited for > 100 visitors at any one time, an automatically activated alarm system consisting of at least a point-type optical smoke detector to DIN EN 54-7 must be professionally installed to ensure proper functioning in each enclosed room for the duration of the event.

The alarm should alert to a hazardous situation by emitting an audible signal (DIN tone to DIN 33404-3) and will serve to immediately warn people within the enclosed stand/pavilion. The audible signal from the alarm system must differ from other operational signals and exceed the general noise level by 10 dB(A) at all times.

This means that the sound emission level of the alarm signal should not be less than 65 dB(A).

The smoke alarm is to be fixed approximately in the middle of the ceiling at the highest possible point of each area used (room).

When installing the smoke alarm the manufacturer’s instructions are to be followed.
• In the case of multi-storey, extended, contiguously used stands/pavilions (≥ 200 m² and < 400 m² usable area) the required number of smoke alarms must be increased accordingly and distributed as evenly as possible in each enclosed room (max. detector spacing about 6–7 m for approximately 60–80 m² to be monitored by each detector). All smoke alarms distributed in this way are then to be connected with one another via a wireless or wired system so as to ensure that an alarm is sounded simultaneously from each detector point to provide complete coverage of the entire stand structure.

All lounge/recreation rooms inside a structurally enclosed stand/pavilion, which are enclosed on all sides (enclosed rooms) and with at least 10 extinguishing agent units must be available in suitable fire extinguisher to DIN EN 3 for fire categories A, B and C during setup and dismantling and for the duration of the event.

4.2.7 Fire extinguishers
During setup and dismantling and for the duration of the event, a suitable fire extinguisher to DIN EN 3 for fire categories A, B and C and with at least 10 extinguishing agent units must be available in each structurally enclosed stand/pavilion.

The number of fire extinguishers necessary can generally be derived from the provisions of the Guidelines on the Construction and Operation of Temporary Structures FlBauR in conjunction with the BayBO building code.

• Up to 100 m² built area:
  o at least 1 fire extinguisher (10 EAU)
  o at least 1 fire extinguisher (12 EAU)
• Up to 300 m² built area:
  o at least 2 fire extinguishers (15 EAU)
  o at least 2 fire extinguishers (18 EAU)
• Up to 500 m² built area:
  o at least 2 fire extinguishers (18 EAU)
• Up to 600 m² built area:
  o at least 2 fire extinguishers (21 EAU)
• Up to 700 m² built area:
  o at least 3 fire extinguishers (24 EAU)
• Up to 800 m² built area:
  o at least 3 fire extinguishers (27 EAU)
• Up to 900 m² built area:
  o at least 3 fire extinguishers (30 EAU)
• Up to 1,000 m² built area:
  o at least 4 fire extinguishers (34 EAU)
• For each further 500 m² built area:
  o 1 additional fire extinguisher (another 12 EAU)

In the case of two-storey stands, additional fire extinguishers are generally to be provided at the stairways, secured so that they cannot be tipped over, for the duration of the event and during the setup and dismantling period. The number of fire extinguishers needed on the top floor can be calculated using the breakdown provided above.

In kitchen/catering areas where food is prepared (hot fat, oil) suitable fire extinguishers (fire category A, F) must be provided.

In large pavilions (> 600 m² usable or floor area) additional fire extinguishers may be stipulated.

All fire extinguishers must be within easy reach, secured against falling, readily visible and provided at locations that are constantly accessible and marked in accordance with ASR A1.3.

4.2.8 Instruction of stand personnel (before event starts)
Before starting to use the structurally enclosed stand/pavilion for the purposes of the event, the entire stand and exhibitor personnel who will be present for the duration of the event must be instructed about the fire and safety installations available and the general rules of conduct in the event of alarms and emergency situations on the basis of the fire safety regulations that are to be compiled by the exhibitor (at least Part A).

These instructions should include in particular all stipulations/regulations relating to the
• General fire and safety regulations of the exhibition grounds (alarm/emergency phone number)
• Alarm installations (internal smoke detectors, signal tones etc.)
• Fire extinguishers (locations, use of)
• Emergency exits and escape routes (constant monitoring to ensure such areas are kept clear during the event)
• Special evacuation tasks (e.g. to assist vision/hearing-impaired people or wheelchair users).

The completion of staff instruction must be documented and submitted to NürnbergMesse (Event Technology Department, see TR Section 4.2) at the start of the event-related use of the stand/pavilion or at the latest when the trade fair opens. The name and phone number of the exhibitor’s representative in charge of the stand/pavilion (and present every day) must be provided in this document.

5. Stand area, design and handing back of stand area
The rental area is marked on the outdoor grounds (insofar as possible) by NürnbergMesse.

Every exhibitor/customer is obliged to inform themselves on site about the location of the stand, dimensions and any internals, safety installations etc. The stand boundaries must be strictly observed.

5.1 Floor areas

Carpets and other floor coverings provided by exhibitor/customer must be laid so that they cannot move and cause accidents or protrude beyond the stand boundaries. Exhibitors/customers wishing to lay floor coverings across general visitor walkways outdoors to connect to their stands must have approval to do so. Any carpets or floor coverings laid by exhibitors/customers must not present any thresholds or tripping risks or other accident risks. Any adhesive tape used to hold floor coverings in place must be such that it can be removed from the floor afterwards without leaving residue. This also applies to all other materials installed.

Substances like oil, grease, paint and similar must be removed from the floor/surface of the floor covering immediately. The existing surfaces may not be painted or coated.

In the event of excessive dirt or hard to remove adhesive residues on the floor surfaces, NürnbergMesse will impose a cleaning charge on the exhibitor/customer.

5.2 Advertising materials, flagpoles, presentations and stage areas
In principle the provisions of the Technical Regulations of NürnbergMesse Section 4.7.7 shall apply.

Exhibitors may only distribute printed material and use other advertising means at their own stand/event area. The use or distribution of advertising material outside the stand area/event area is only admissible following prior agreement with the organiser. Other presentations, visual, slow-moving or acoustic advertising and musical reproductions (see TR Section 5.13) are allowed provided that they do cause annoyance to neighbouring stands and do not result in crowd congestion or obstructions on the general walkways for visitors or disruptions on the roads. They must also not drown out the exhibition centre’s own PA systems in the outdoor grounds.
In the case of acoustic musical performances during the daily event period, the sound level including peaks must not exceed an admissible level of **70 dB(A)** at the boundaries of the stand or event area. Presentations or performances with an intended higher noisound level (> 70 dB(A)) outdoors must always be notified and approved. Corresponding information and documents must be submitted to NürnbergMesse (Event Technology Department, see TR Section 4.2). If advertising materials end up on the general traffic areas and/or visitor pathways due to wind or other effects, the exhibitor will be liable for any resulting damage and/or for the costs of extra cleaning. Flagpoles/masts on the outdoor grounds may not be more than 8 m high.

### 5.2.1 Stage areas for performances and other presentations

Stage areas inside exhibition stands/event areas outdoors are areas designated for artistic or other performances or presentations. The operation of larger stage areas (from 50 m²) at the exhibitor’s/customer’s outdoor stand/event area for the purpose of product presentations that may involve acoustic, musical show performances of all kinds and occasionally higher noise levels is subject to approval (see TR Section 4.2.1) and must be notified to NürnbergMesse GmbH. In this context the provisions of the latest amended versions of the Technical Regulations of NürnbergMesse and the statutory requirements will apply.

**Stage areas at stands/event areas outdoors** must be notified to NürnbergMesse (Event Technology Department, see TR Section 4.2).

A verifiable stand plan and description of the type of performance/programme, sequence of events, participants and any stage and sound equipment it is planned to use (including expected sound levels) must be submitted.

When providing this notification, the exhibitor/customer must also nominate the prescribed, suitably qualified **Event Technology Manager** who must be present on site to professionally manage and supervise the setup and dismantling, rehearsals and performances on the stage in accordance with the provisions of DGUV Regulation No. 17.

Specifically, this person must be familiar with the stage/lighting and other technical installations on the stage area and must ensure the safety and functioning of such equipment, in particular in respect of fire protection, during the operation of the event.

Even if it has previously issued its approval, NürnbergMesse is entitled to restrict or prohibit any performances that cause the approved/permitted noise levels to be exceeded or represent a visual annoyance, or that for any other reasons considerably endanger or impede the running of the exhibition or event or visitors, other exhibitors and organisers.

### 5.3 Barrier-free access for visitors to walk-on stand structures/facilities

Barrier-free access must be taken into account when designing walk-on stand structures and event areas outdoors. These facilities must be always be accessible to and usable by people with disabilities without assistance by third parties.

### 5.4 Dismantling, restoration and handing back of outdoor stand/event area

The exhibitor/customer must always hand back the stand/event area to NürnbergMesse in a clean condition, in its original state and with all structures removed, at the latest by the stipulated end of the dismantling period. All work necessary to restore the site to its original condition, such as removing adhesive tape and residues and floor coverings installed by customer/exhibitor, removal and dismantling of ballast weights, anchors etc., must have been completed by this time. Exhibitor/customer must have any demolition rubble occurring removed immediately by the NürnbergMesse GmbH service partner. Previously grassed areas are to be restored exclusively by NürnbergMesse GmbH at the expense of customer/exhibitor.

Damage and contamination by exhibitor/customer or its agents to existing outdoor structures or facilities must always be reported to NürnbergMesse.
Your partners in the Exhibition Center Nuremberg

NürnbergMesse GmbH
T +49 9 11 86 06-00, F +49 9 11 86 06-86 67
sm@nuernbergmesse.de
www.nuernbergmesse.de

MesseService
T +49 9 11 86 06-80 00, F +49 9 11 86 06-80 01
messe.service@nuernbergmesse.de
www.nuernbergmesse.de
www.standkonfigurator.de

ServicePartner

1. Personally present in the ExhibitorShop on site

Service 5/6, top floor

In the ExhibitorShop on site, the Exhibition Services Team and ServicePartners of NürnbergMesse offer their services concentrated in one place to minimize the time spent by exhibitors obtaining information. The respective times at which they are present are given in the Last Minute Information:

:mesomondo GmbH

Stand construction, furniture rental, lettering, graphics, flooring
T +49 9 11 40 08 35-0, F +49 9 11 40 08 35-29
info@mesomondo.de, www.mesomondo.de

Hoffmann Messe + Event

Stand construction
T +49 9 11 86 06-60 50, F +49 9 11 86 06-60 59
nuernbergmesse@hoffmann.de, www.hoffmann.de

2. Personally present in the ServicePartnerCenter

Brochter Gebäudemanagement GmbH

Plumbing installations
T +49 9 11 9 81 29 69, F +49 9 11 9 81 29 79
sp-messe-nb@g-a.brochter.de, www.a-brochter.de

Business & Service Brigitte Schmedding GmbH

Hostesses, exhibition events and hotels
T +49 9 11 8 60 76-0, F +49 9 11 8 60 76-11
info@business-und-service.de, www.business-und-service.de

Engelhardt & Co. Parkraummanagement u. Service GmbH

Permanent parking permits for cars, travel tickets
T +49 9 11 98 11 88-55, F +49 9 11 98 11 88-58
info@engelhardt-parkservice.de, www.engelhardt-parkservice.de

Engelhardt & Co. Sicherheit GmbH

Guarding of stands
T +49 9 11 98 11 88-0, F +49 9 11 98 11 88-88
engelhardt@engelhardt-sicherheit.de, www.engelhardt-sicherheit.de

August & Jean HILPERT Messe-Service GmbH

Plumbing installations
T +49 9 11 37 66 38-0, F +49 9 11 37 66 38-29
service@hilpert-messe.de, www.hilpert-messe.de

Friedrich Hofmann Betriebsgesellschaft mbH

Waste disposal
T +49 9 11 8 12 82 96, F +49 9 11 8 12 82 97
messe.hofmann-denkt.com, www.hofmann-denkt.de

Kiefer GmbH

Stand cleaning
T +49 9 11 86 06-61 37, F +49 9 11 9 81 72-30
info@kiefer-cleaning.de, www.kiefer-cleaning.de

Kühne + Nagel (AG & Co.) KG

Forwarding agent, transport services, container storage
T +49 9 11 98 18 56-0, F +49 9 11 98 18 56-29
exposervice.nuernberg@kuhne-nagel.com, www.kuehne-nagel.com

Schneider Deutschland AG

Forwarding agent, transport services, container storage
T +49 9 11 8 17 48-0, F +49 9 11 8 17 48-25
fairs.nuernberg@dschenken.com, www.dbschenker.com/de-en

SPIE SAG GmbH

Electricity supply, compressed air, ceiling suspensions, working platforms
T +49 9 11 86 06-68 18-0, F +49 9 11 86 06-68 18-19
sag-messe@spie.com, www.spie-servicepartner.de

3. Restaurant Behaims, West, Marco Polo und Vasco da Gama

Lehrrieder Catering-Party-Service GmbH & Co. KG

Exhibition and congress catering, event and stand catering
T +49 9 11 86 06-61 14, F +49 9 11 86 06-61 15
info@lehrieder.de, www.lehrieder.de

4. Mobile on site

Blumen Kuhn Floraldesign GmbH

Floral stand decoration, event decoration
T +49 9 11 33 01 69, F +49 9 11 20 94 83
messe@blumenkuhn.de, www.blumenkuhn.de

BSS Brandschutz Sichelstiel GmbH

Bespinkrung
T +49 9 11 6 43 77 77 22, F +49 9 11 6 43 77 77 50
volker.otto@brandschutz-sichelstiel.de, www.brandschutz-sichelstiel.de
dias Gebäudemanagement GmbH

Stand cleaning
T +49 9 11 9 80 80 80, F +49 9 11 9 80 80 81
nuernberg.messe@dias-service.de, www.dias-service.de

Fotobischof & Broel KG

Photo service
T +49 9 11 53 35 33, F +49 9 11 55 05 03

Gartengestaltung & Service Ronald Grabinger

Landscaping services, hand truck rental, rental of ladders
T +49 9 11 86 06-52 24, F +49 9 11 86 06-64 39
info@grabinger-garten.de, www.grabinger-garten.de

Lorenz Projekte GmbH & Co. KG

Lorenz Office GmbH & Co. KG

Lorenz Technik GmbH & Co. KG

Lorenz Messe + Event

Permanent parking permits for cars, travel tickets
T +49 9 11 86 06-60 11, F +49 9 11 86 06-60 11
info@engelhardt-parkservice.de, www.engelhardt-parkservice.de

Engelhardt & Co. Sicherheit GmbH

Guarding of stand
T +49 9 11 98 11 88-0, F +49 9 11 98 11 88-88
engelhardt@engelhardt-sicherheit.de, www.engelhardt-sicherheit.de

Dias Gebäudemanagement GmbH

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T +49 9 11 86 06-61 14, F +49 9 11 86 06-61 15
info@lehrieder.de, www.lehrieder.de

Kühne + Nagel (AG & Co.) KG

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T +49 9 11 8 17 48-0, F +49 9 11 8 17 48-25
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