

This factsheet explains in extracts the technical specifications and requirements for suspensions of stand construction installations requiring approval at the existing suspension points in the exhibition halls.

Unless specified otherwise herein, the Technical Regulations of ACHEMA 2021 (in particular item 4.7.5) shall apply.

Suspensions – an overview

The following overview details the possibilities for installing suspensions [suspensions for light loads (LL) – up to 50 kg – or for heavy loads (SL)] from the hall ceiling in accordance with the delivery and payment terms of DECHEMA Ausstellungs-GmbH. Orders respectively inquiries via the ACHEMA exhibitor portal, www.achema.de/exhibitorportal.

Hall	Light load	Heavy load
1.1	Available for order	Possible on request
Forum o	Possible on request	
3.0		
3.1		
4.0	Available for order	Possible on request
Foyer 4.1	Not possible	
4.1	Available for order	Possible on request
4.2		
6.0	Available for order	Possible on request
6.1		
6.2		
8.0	Possible on request, please contact Messe Frankfurt, Team Suspensions, before you start planning to avoid unnecessary costs.	
Galleria	Not possible	
9.0	Available for order	Possible on request
9.1		
9.2		
11.0	Available for order	Possible on request
11.1	Possible on request	
12.0	Available for order	Possible on request
12.1		

Please note that for 50 kg suspension points, the transfer point is an approved cable end connection that can be independently adjusted if necessary.

If required, other permissible load-securing devices (shackles, steel cables etc.) may be obtained from the corresponding Messe Frankfurt service partner on location for a fee.

The use of lifting equipment (e.g. manual and electric chain hoists) must be coordinated with Messe Frankfurt's team suspensions suspensions@messefrankfurt.com.

Please be sure to also refer to item 4.7.5 of the Technical Regulations of ACHEMA 2021, as well as the explanations below.

The lowest point for a suspension is 2.30 metres above hall floor level.

As a rule, suspensions outside the stand area are subject to the express approval of DECHEMA.

Suspensions from the hall ceiling may only be handled by companies working under contract to Messe Frankfurt. Orders for same must be submitted to DECHEMA.

Placing orders

To order suspensions for light loads or for inquiries about heavy load suspensions please use the AICHEMA exhibitor portal www.achema.de/exhibitorportal.

Here you will also receive individual offers for heavy-load suspensions, which can then be ordered directly online.

Regardless of whether you require suspension points for light loads or for heavy loads, please upload the following information with your order/inquiry until **14 April 2021**:

- Dimensioned sketch with the positions of the desired suspension points
- Sketch must clearly show the position and orientation of your stand (including cardinal directions, neighbouring stand etc.)
- Loads to be suspended from each point
- Load plan showing the total load, individual loads and line loads (only for complex systems)
- Proposed installation aids ("Genie" lift, manual/electric chain hoists)
- Desired transfer height (for suspensions for heavy loads)

Statutory requirements

Companies may only commission persons to suspend loads above people if they are in possession of the necessary skills.

With regard to the provision and use of load-securing devices, load-handling attachments, lifting equipment, suspension elements, connecting elements, cable-end connections, secondary securing apparatuses and equipment bonding, all applicable safety regulations and generally recognised engineering standards must be complied with.

In particular, the following must be observed:

DGUV 1 – General rules and regulations

DGUV 17/18 – Event and production locations for stage presentations

DGUV 54/55 – Winches, lifting and pulling equipment

DGUV Information 215-316

"Safety for productions and events/

Safety for productions and events – for practical application/

Safety for productions and events – loads suspended above people/Spotlights/

Special staged effects and processes"

IGVV SQ P1 Trusses

IGVV SQ P2 Electric chain hoists

IGVV SQ Q1 Electrical technician for event engineering

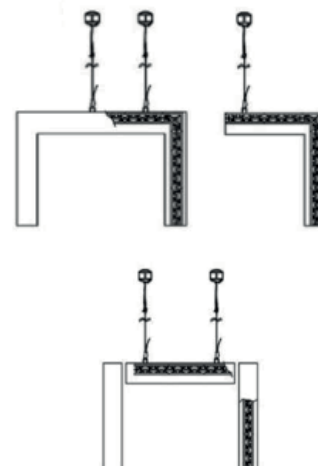
IGVV SQ Q2 Expert for event rigging

The specifications and provisions of the currently valid versions of the aforementioned rules and regulations must be checked at one's own initiative and compliance on location must be ensured.

This excerpt is intended as an overview and is not meant to be complete.

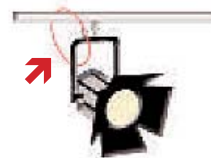
Permissible suspension types

- Securing/suspending stand construction components/ exhibits
- Suspended constructions with a rigid/frictional connection to the hall floor.
(A structural certification is mandatory here.)
- Suspensions for lighting systems, trusses and advertising banners



Secondary securing apparatus and safeties

Spotlights, speakers, effect appliances etc. must also be secured using a second, independent securing apparatus (safety cable)! The provisions of DGUV Information 215-313 must be observed with regard to the ratings/size of the safety cable. The safety attachment is to be made such that it does not allow the item being secured to drop.
If some drop is unavoidable, the drop distance is to be kept as short as possible.



Equipotential bonding for metal constructions

For trusses with electrical appliances, the constructor must fit such trusses with an additional equipotential bonding (copper, at least 10 mm²) (VDE 0100 Part 711). The transfer point on the hall floor (stand earthing) can be ordered via the AACHEMA exhibitor portal www.achema.de/exhibitorportal.

Permissible suspension elements/lifting equipment

The use of lifting equipment (e.g. manual and electric chain hoists) must be specified in the order documentation and coordinated with Messe Frankfurt Venue GmbH, Infrastructure Services.

The nominal loads specified in the manufacturer's specifications are to be observed!

Please note that the use of manual chain hoists (= dynamic loads) is not permitted with suspensions for light loads or with 5 mm and 6 mm steel cables.

In order to avoid excess load on individual suspension points, it is essential that the system is operated almost horizontal (one person per manual chain hoist!).

In accordance with DGUV Regulation 17, dynamic loads are only permissible with steel cables of at least 8 mm in diameter.

Both the live load on the suspension point and the weight of the manual chain hoist itself are to be taken into account.

Once the work has been completed, the manual chain hoist is to be removed and replaced by a suitable load-securing device (e.g. steel cable), or to be bridged using a load-securing device (secondary securing apparatus – see figure 1).

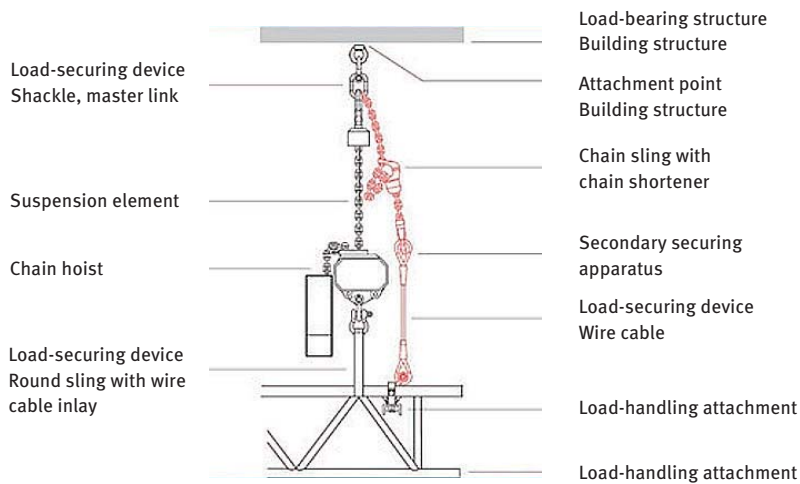


Figure 1

It is essential here that no drop is possible!

When using electric chain hoists (in accordance with the provisions of DGUV 17/18 and DGUV 54/55), the specific manufacturer's specifications must be observed!



Permissible load-securing devices and cable-end connections

Ratings/size of equipment used:

Manufacturers specify the load-bearing capacity or minimum breaking load of equipment that is used as load-securing devices or load-handling attachments.

The following applies for the suspension of loads above people:

- If the load-bearing capacity – e.g. WLL (working load limit) – is specified, this piece of equipment must not be subjected to any more than half of this value.
- If the minimum breaking load is specified, this value must be divided by the necessary working coefficient in order to determine the maximum permissible load-bearing capacity. See also the table "Minimum required working coefficients for load-securing devices" DGUV Information 215-313.

Cable end connections/cable gliders

Cable gliders:

Only permitted with certification

Please note that this type of cable glider is not suitable for dynamic loads and can therefore not be used with lifting equipment!



Example illustration

Permissible load-securing devices

Please note that the load-securing devices used must be adequate in design and size to withstand the strains resulting from operation.

Excerpt:

Wire cable with thimble

The minimum diameter for the operation of lifting equipment is 8 mm.

It is essential that the end of the suspended cable has a thimble!

Cables that are 100% encased in plastic sheathing are not permitted. It must always be possible to examine the entire cable by moving the sheathing.



Round slings

Labelling is compulsory.

Required information:

- Manufacturer
- Load-bearing capacity
- CE-marking
- Standard
- Year of manufacture



When purely polyester round slings are used, it is absolutely mandatory that the connection be bridged using a wire cable.

Round slings with steel inlays ("Steelflex") do not require any special steel safety apparatus.

Impermissible load-securing devices and impermissible cable-end connections:

- Unauthorised wire cables/cables that do not comply with the cables described under "Permissible load-securing devices"
- Sheathed wire cables (sheathing $> 1/3$ cable length)
- Long-link chains (inner length of the chain link $>$ three times the nominal diameter of the chain material) are not suitable for attachment
- The use of cable ties without a secondary securing apparatus (safety) comprising a steel wire cable with thimble and ferrule and a connecting element (DIN 56927)
- Unauthorised chain glider
- Open hooks
- Open body turnbuckles in accordance with DIN 1480
- Quick links with sleeve nuts (emergency chain links) without load-bearing capacity ratings
- Damaged load-securing devices (e.g. kinked cables, load-bearing slings with damaged sheathing, load-bearing slings without any recognisable identification)
- Other connecting elements without load-bearing capacity ratings

This factsheet only offers a condensed overview. Please be sure to also refer to the Technical Regulations of ACHEMA 2021.

Please note that punctual execution of the assembly work can only be guaranteed if the order for suspension points is received by the due date.

If you have any questions, please contact:

Messe Frankfurt Venue GmbH

Team Suspensions

E-mail: suspensions@messefrankfurt.com