

MEZZANINES AND PLATFORMS

2019
2020

Extract from general catalog

ssi-schaefer.com

Chapter F



SSI SCHÄFER


Mezzanines and platforms – set the stage for optimum space usage

SSI SCHAEFER's mezzanines and platforms enable you to make the best use of the available space. These versatile racking systems provide both storage and a working method.

These multi-tier systems with sophisticated steel platforms and platforms create additional storage levels with the same surface area. System platforms constructed from cold-rolled and hot-rolled steel profiles can be easily and safely assembled.

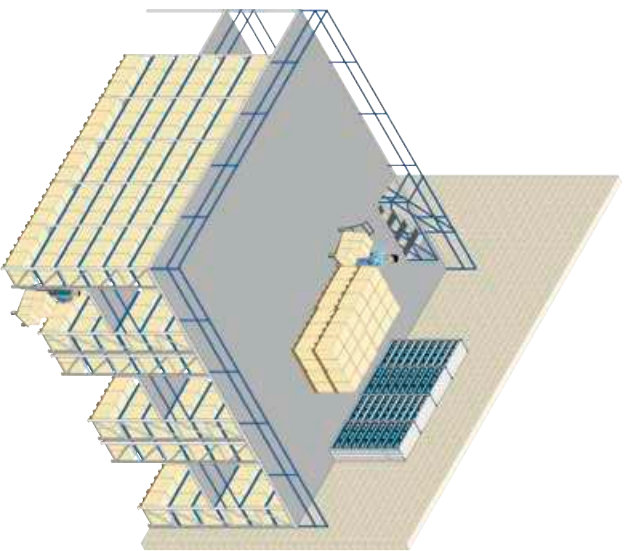
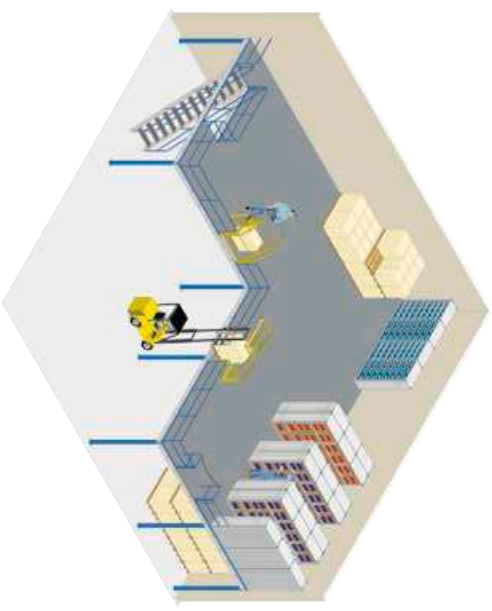
Suitable for longitudinal and front-to-back expansion to any desired extent, SSI SCHAEFER designs customized platform systems for diverse loads to meet your specific requirements.

The highest safety on every level as an integral aspect. Benefit from our extensive expert advice for modern warehouse management for a versatile and individual solution. The services speak for themselves.

 Information regarding **inspection requirements**
for **rack systems**

Chapter J, page J1





Mezzanines – one system with many options

Mezzanines

Free-standing mezzanines enable you to double your storage area. The design options are almost unlimited. Various support patterns, carrier profiles and floor coverings can be implemented, depending on your needs.

Naturally, these constructions are also available as multi-tier installations.

Platforms

With platforms, either platform alleys are installed between the rows of shelvings or complete platform surfaces are installed on the shelving systems.

This is a typical design wherever order picking represents the majority of the work and conveyor systems are also required.

The benefit lies in the fact that the different racking systems can be utilized, whether shelf, live storage or pallet racking systems.





RAL 7037

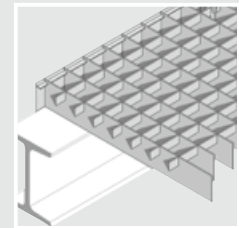


RAL 5010



- **The platform covering depends on the specific application**
and can consist of gratings, chipboard or beech plywood, with or without non-slip coating. The underside is untreated or painted white
- **Ventilation systems for platforms**
Available in various versions depending on the order picking requirements
- **Mezzanine safety**
Begins with the stairs and ends with the railing designs with transfer locks
- **Mezzanine constructions for heavy loads**
Also for stacker transport, a specialty of SSI SCHAEFER

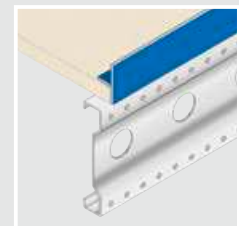
Mezzanine system design



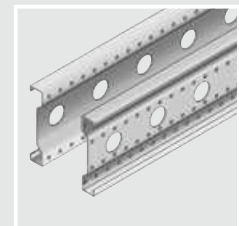
Grating



Chipboard with non-slip covering



Chipboard with edge protection, attached



System platform profile

Floor decking
page F5

Transfer position with chain
page F6

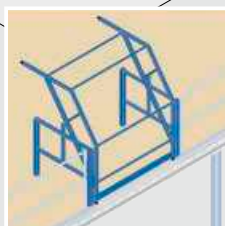
Stairs and rails
page F7

Wing door
page F6

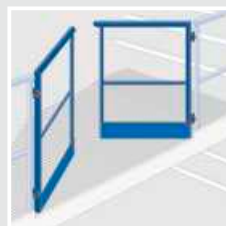
Pallet safety gate
page F6



Transfer position with chain



Pallet safety gate



Wing door

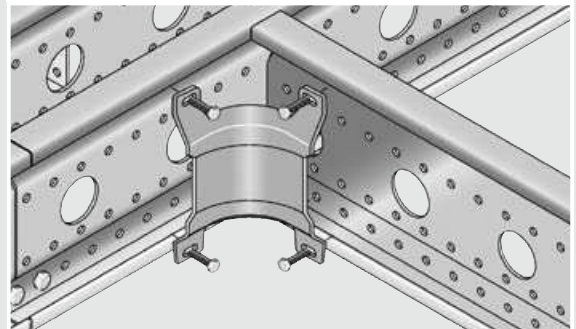


Railing

Mezzanine systems

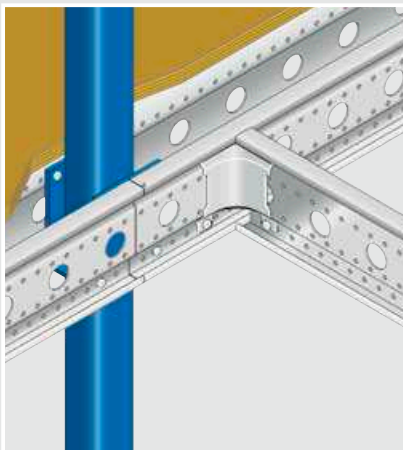


- **Supports made of square tube**
Welded to 200 x 200 mm floor plates, anchored to the floor
- **Carrier profiles**
Made of high-strength, cold profiled high quality steel, with system hole pattern for customized layouts
- **Platform covering**
Made of highly compressed special chipboard, 38 mm thick, V20 E1. Tongue and groove construction. Untreated on both sides
- **Bending of the main supports**
max. 1/300
- **Calculated as per the applicable**
DIN, FEM and BGR 234 regulations
- **Railings with knee rail**
and lower roll edge

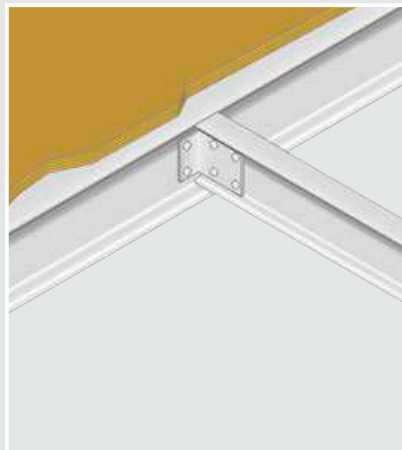


Platform supports

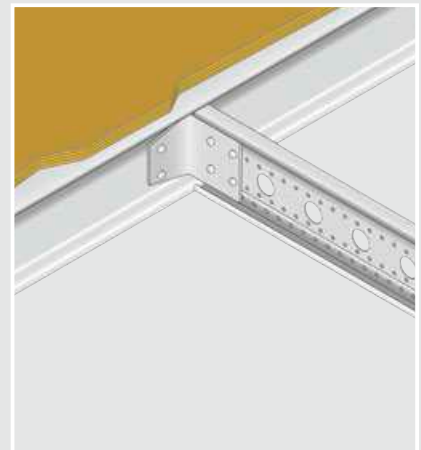
Three versions are available, ensuring the optimum platform support selection.



Platform support made of system profiles

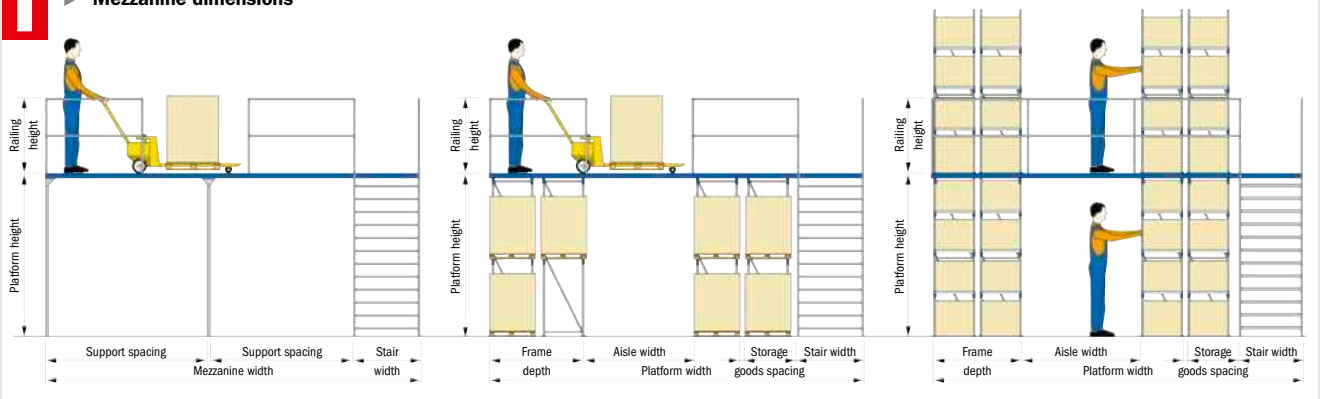


Platform supports made of hot-rolled profiles



Platform supports made of a combination of hot-rolled profiles and system profiles

Mezzanine dimensions



Platform coverings

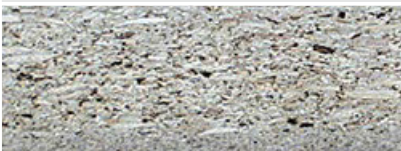
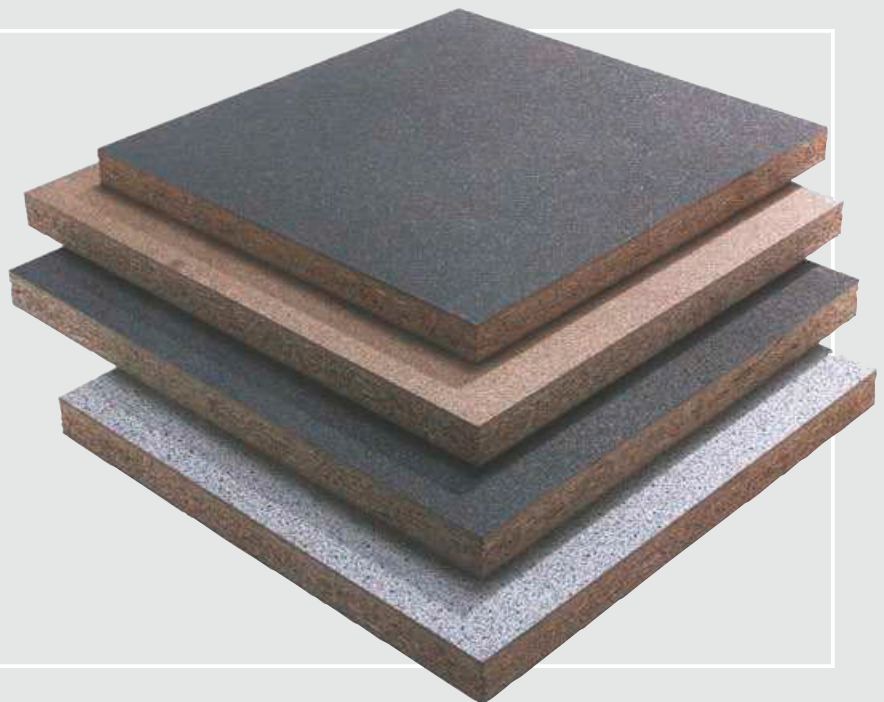


Platform covers made of chipboard

Platform covers made of chipboard have a wide range of applications and diverse designs. These surfaces are untreated, oil-hardened or with an anti-slip coating.

Normal or highly compressed, for fire class B1 or B2, with tongue and groove joint or as a cladding panel.

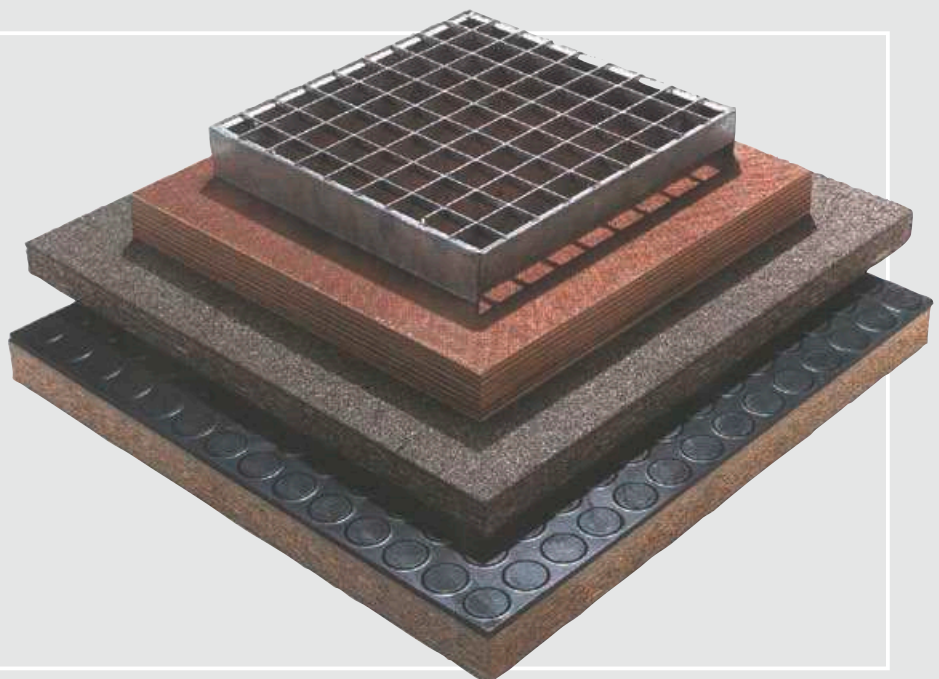
Panel thickness 30 or 38 mm.



Mesh gratings, multiplex boards and PVC coverings

We deliver special solutions for special requirements.

Mesh gratings are required either due to fire safety reasons or for ventilation purposes. Multiplex boards are the optimum solution for extremely high loads and a long service life. Conductive covers or covers with PVC nubs provide higher comfort for permanent work stations.


Boxes /
containers

Modular
shelving

Longspan
racking

Pallet
racking

Cantilever
racking

Mezzanines /
platforms

On-line shelving /
KDR shelving

Semi-automated
solutions

Logistics
systems

Appendix



Railings and transfer locations



► Platform railings

Have an extremely sturdy design and are always configured with a hand rail, new rail and lower edge plate

► Transfer locations and chain barriers

are the solutions recommended by the trade associations

► Pallet safety gates

provide optimum personal protection when handing over the transport goods. The railings are closed at the front or rear, depending on the transport paths.
Painted RAL 1018, Zinc Yellow

► Standard widths

for wing doors 1,500 / 2,000 mm

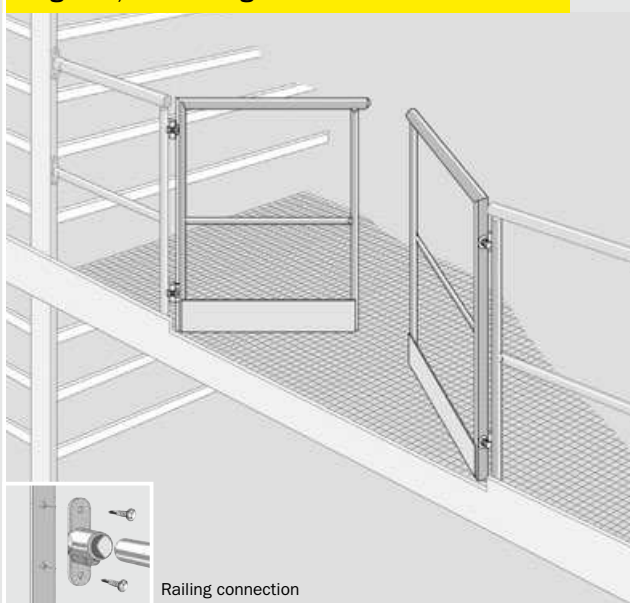
► Surface

Painted bright silver, partially galvanized.
Special colors available on request

Transfer position with chain barrier



Wing door, self locking



Pallet safety gate



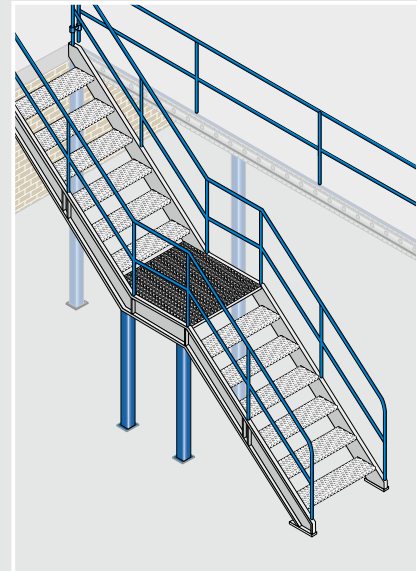
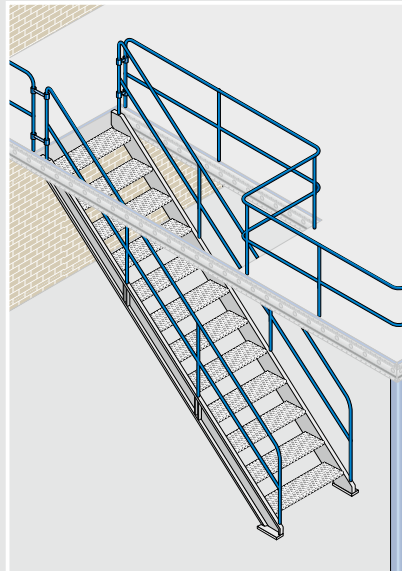
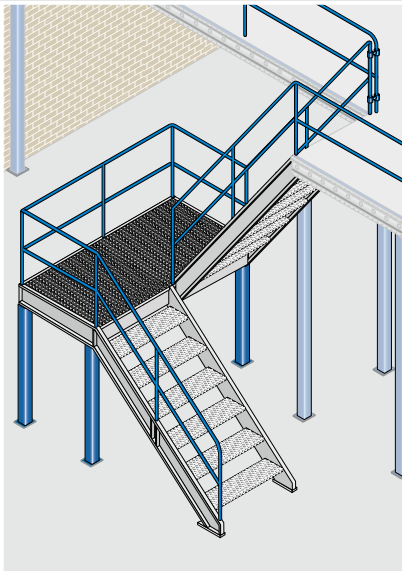


- **Standard stairs for multi-tier shelving installations**
enable safe and easy access and are also exceptionally sturdy. The requirements of DIN 24 530 (stairs made of steel) are observed. All of the steps are surrounded by, and bolted onto, side profiles. Additional stairwell platforms are required, depending on the platform height. Both designs are utilized, depending on the specific conditions.
- **Steps**
made of corrugated plate or, alternatively, grating
- **Handrails**
run the full length of the stairs
- **Railing solutions**
are sophisticated and also cover the transition from the stairs to the platform railings
- **Surface**
painted bright silver, partially galvanized.
Special colors available on request

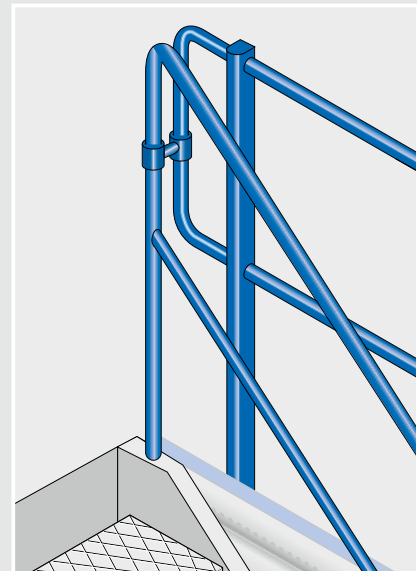
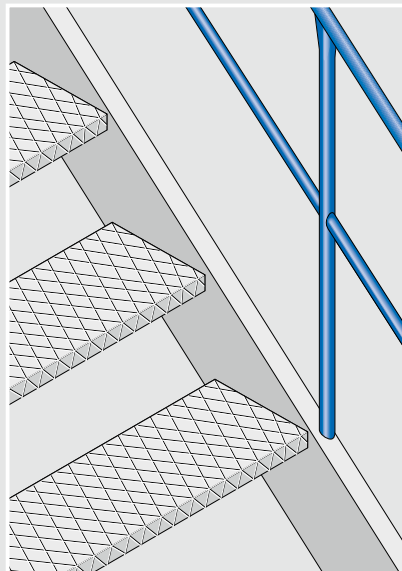
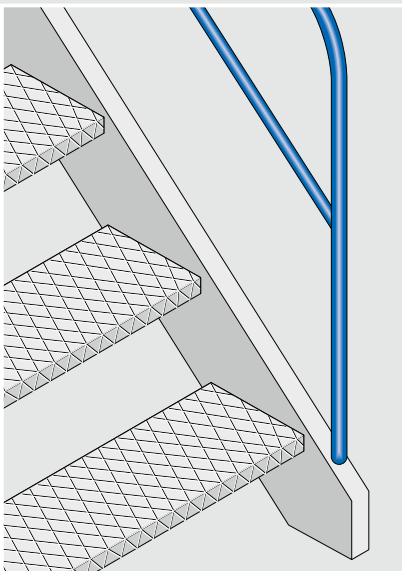


Stairs and rails

Standard stairs for multi-tier shelving installations



Steps, handrails and railing solutions





Lighting installations

The BGR 234 directives require the following:
“Storage facilities must be adequately illuminated and without blinding. The lighting installations must be designed and arranged in such a way that they are protected against mechanical damage. The nominal illumination of the general lighting should be at least 100 lx 0.85 m above the floor. For tasks requiring better visibility such as miniload systems and reading, the nominal illumination should be at least 200 lx. Light and heat sensitive goods may require alternative measures.”

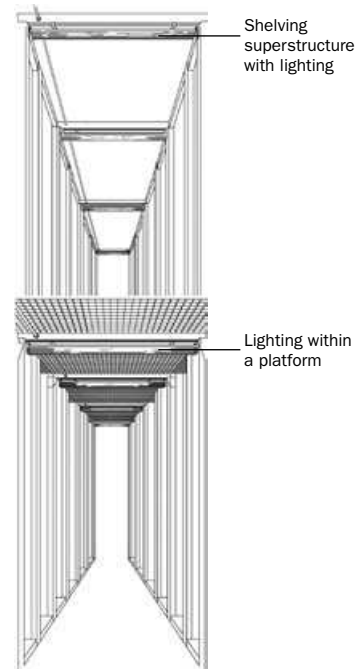
SSI SCHAEFER has developed a special lighting program for precisely this reason. It fulfills the workplace lighting requirements in every area of the platform system.

Lights from SSI SCHAEFER are integrated into the carrier construction of the platform level and they are largely protected against impact damage.

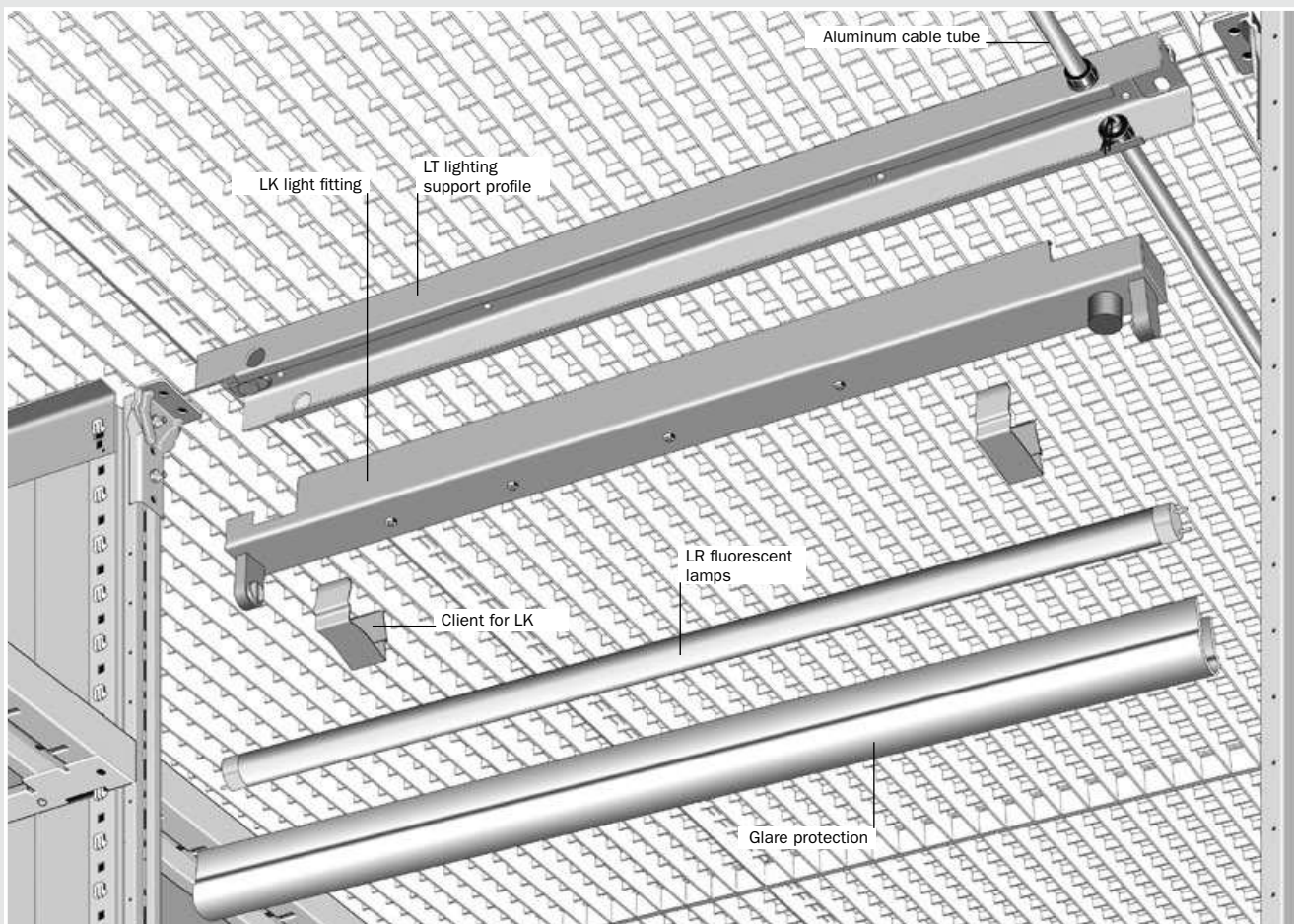
The positioning transverse to the aisle direction provides unimpeded space in front of the top rack compartment and gives the warehouse employees a clear view of the goods.

All of the carrier profiles in the aisles are prepared for fitting conventional PG 9/1 cable tubes or other installation material. SSI SCHAEFER only utilizes compensated lights.

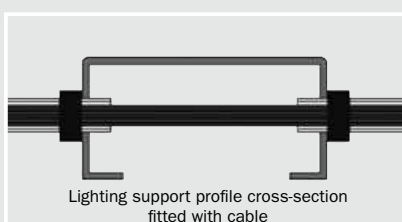
- ▶ **BGR 234 directives**
for adequate and non-blinding illumination
- ▶ **Integration into the carrier construction**
provides extensive protection against impact damage
- ▶ **The positioning transverse to the aisle direction**
provides unimpeded space in front of the top rack compartment and a clear view of the goods
- ▶ **Carrier profiles**
prepared for standard installation material
- ▶ **Compensated lights**
- ▶ **Emergency and signal lighting**
as per VDE 0108, DIN 4844 and DIN 5035 Part 5,
can also be planned and installed on request



Lighting system design



Lighting support profile, prepared for wiring material



Lighting support profile cross-section fitted with cable

LT lighting support profile

For installation underneath wooden platform covers

Without accessories.

Item	L x W x H (mm)	Order no.
LTUH 78	780 x 71 x 38	14460

For installation underneath platform gratings

With clip bolts.

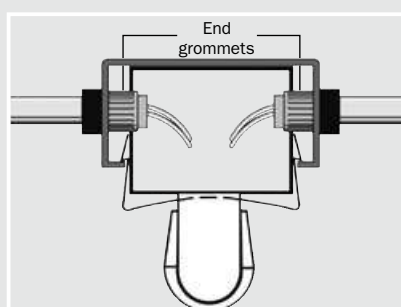
LTUG 78	780 x 71 x 38	14470
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Shelves superstructure for fitting lights

For fastening onto the R 3000 frame using special support profiles.

LTO 85	800 x 71 x 38	14480
LTO 100	1,000 x 71 x 38	14490

Order no. = on stock



Cable in aluminum tube and connection situation

Aluminum cable tube

For wiring, including 2 locking rings and end grommets

Item	Length (mm)	Order no.
PG 9/1	1,005	14440

LK light

Compensated design, with 18 or 25 W fluorescent lamps, 2 fastening clamps and glare protection.

Item	Power (W)	Order no.
SV 18/LK 85	18	14520
SV 18/LK 85/EVG		14522
SV 25/LK 85	25	14430
SV 25/LK 85/EVG		14432

LR fluorescent lamps

Item	Power (W) / Lumens	Order no.
LR 18	18/1,250	14510
LR 18 U	18/1,350	14512
LR 25	25/1,800	14500

i LED lighting installations and electrical installation specialists

on request

Boxes / containers

Modular shelving

Longspan racking

Pallet racking

Cantilever racking

Mezzanines / platforms

On-line shelving / KDR shelving

Semi-automated solutions

Logistics systems

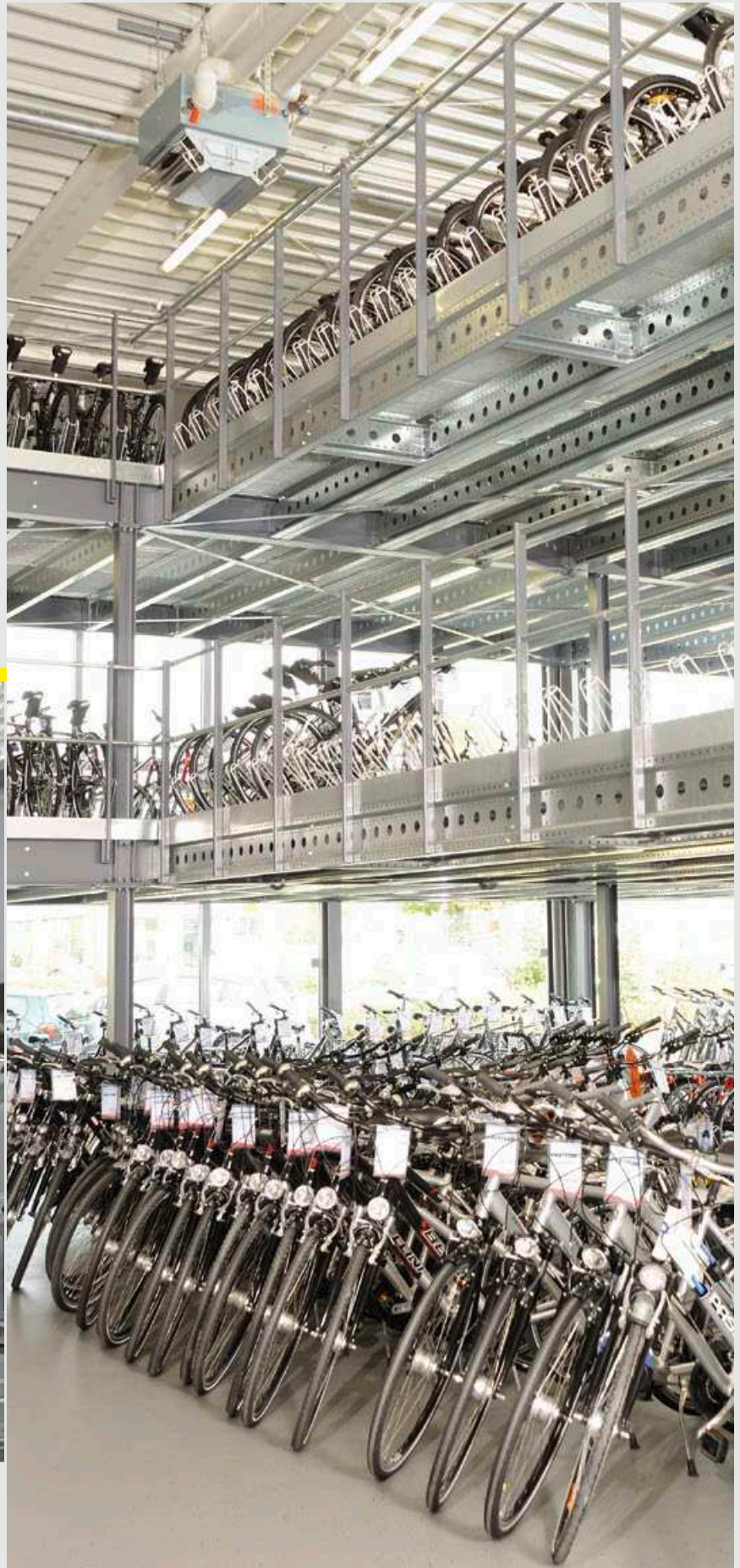
Appendix

Application example – free-standing platform

Storage and aesthetics are not necessarily mutually exclusive. SSI SCHAEFER demonstrates this with the construction of the 2-story, freestanding platform system with C-Sigma platform supports at a specialist bicycle dealer.

The platform warehouse is visually integrated into the sales room. The individual levels are accessible via stairs which are also equipped with rails enabling the bicycles to be transported easily.

In addition, floor gratings provide a clear view of the stored and pre-assembled wheels.



Detailed views of the platform support construction

Application example – Goods lift



Goods lifts integrated into the platform system simplify access to the facility and enable unrestricted access to all of the levels. Loads of up to 2,000 kg can be transported.

The sturdy, freestanding frame construction with a compact design requires a minimal amount of space and can be installed and retrofitted almost anywhere. The stacking system ensures short delivery times and easy construction without cutting or welding work.

2 to 6 retaining points can be set up and equipped with up to 12 access points. The shaft doors comply with the DIN 18 090 fire safety regulations. Safety components allow the installation above accessible areas.

The elevators are operated externally with send and deliver controls. Selected types can also be equipped with a control panel for operation from inside the cabin.



Detailed views of the elevator cabin with control panel

Boxes /
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shelvingLongspan
rackingPallet
rackingCantilever
rackingMezzanines /
platformsOn-line shelving /
KDR shelvingSemi-automated
solutionsLogistics
systems

Appendix

Modular mezzanine systems – State-of-the-art multipurpose standard mezzanine

Easily double your warehouse space with modular mezzanine systems from SSI SCHAEFER. The available surface area in the warehouse is optimally utilized by integrating an additional level. Our comprehensive line of panel elements and module types allows a variety of layout options.

Our wide range of standard options for the modular mezzanine systems meets just about every requirement regarding dimensions and load capability. These systems can be designed in any conceivable layout and are therefore easily customizable to your site.

Safety is always a sign of good quality. Thanks to their superior materials, our MSB 600 modular mezzanine systems offer guaranteed payloads of 350 kg/m² to 1,000 kg/m². The structural design of our mezzanine systems offers not only a high degree of stability, but also a maximum amount of safety for your warehouse. Use the modular mezzanine systems from SSI SCHAEFER to expand your existing warehouse.

Modular mezzanine systems from SSI SCHAEFER feature a quick and easy bolt assembly. Take advantage of your available space with our extensive selection of system components. Simply build any design layout.

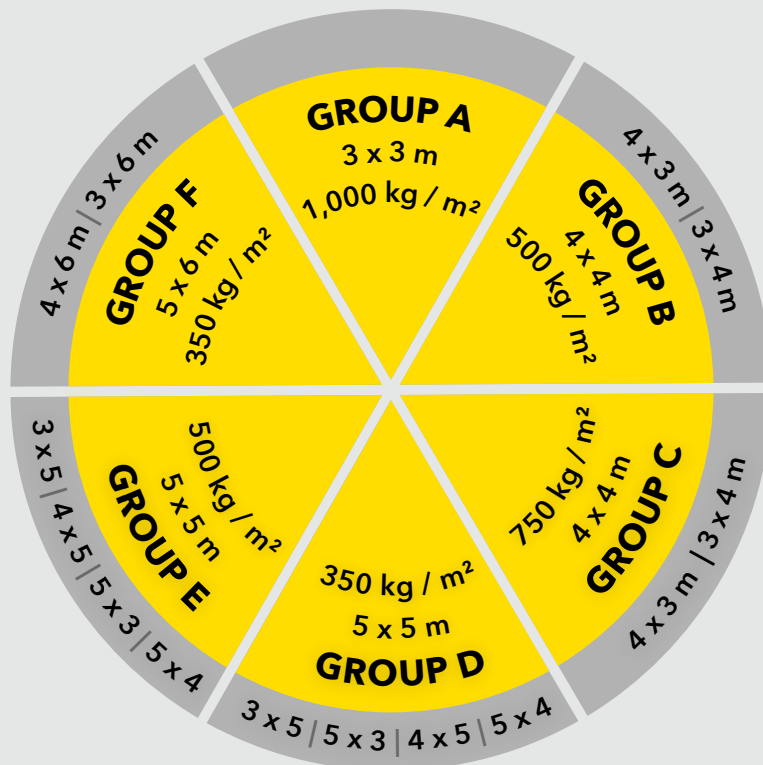


- **Surfaces**
RAL 5010 and galvanized (cold-rolled CS profiles)
- **Doubling of warehouse space**
- **Increased efficiency**
- **Extremely flexible and easy design**
- **Designed according to DIN EN 1993**
- **Suitable for international applications**

MSB 600 Module Groups

MSB 600 Modul Groups

The MSB 600 mezzanine system consist of 20 combinable modules. Organized into six groups, the mezzanine elements vary by length, width, and load capacity. The height of the modules ranges between 2.5 m and 4.5 m in intervals of 100 mm. All mezzanine system modules are fully designed and constructed.



Module Type	Dimensions W x H (m)	Surface load (kg/m²)
A1	3 x 3	1000
B1	4 x 4	500
B2	4 x 3	500
B3	3 x 4	500
C1	4 x 4	750
C1	4 x 3	750
C1	3 x 4	750
D1	5 x 5	350
D2	3 x 5	350
D3	5 x 3	350
D4	4 x 5	350
D5	5 x 4	350
E1	5 x 5	500
E2	3 x 5	500
E3	5 x 3	500
E4	4 x 5	500
E5	5 x 4	500
F1	5 x 6	350
F2	4 x 6	350
F3	3 x 6	500

Height



Length

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