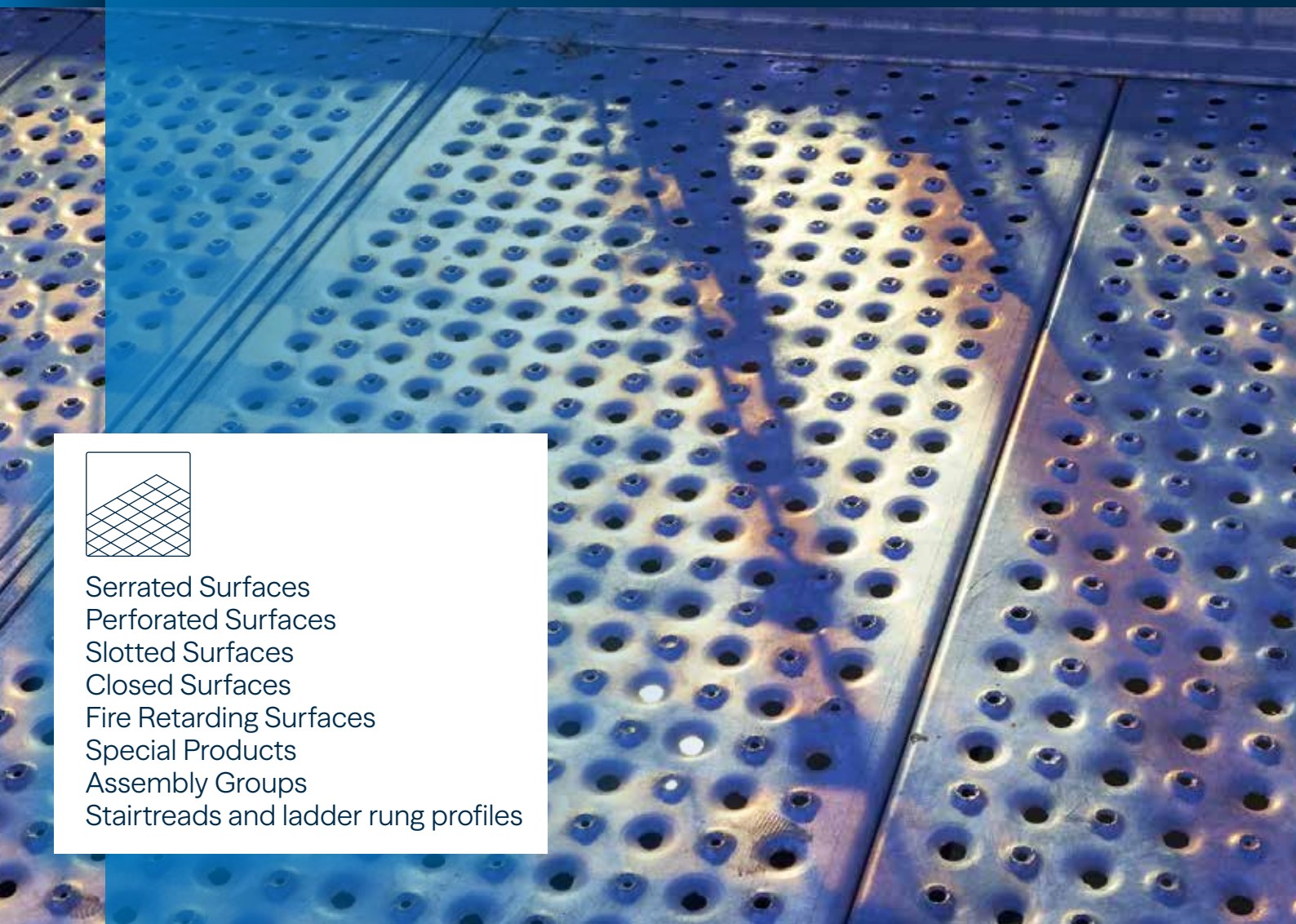
MEISER

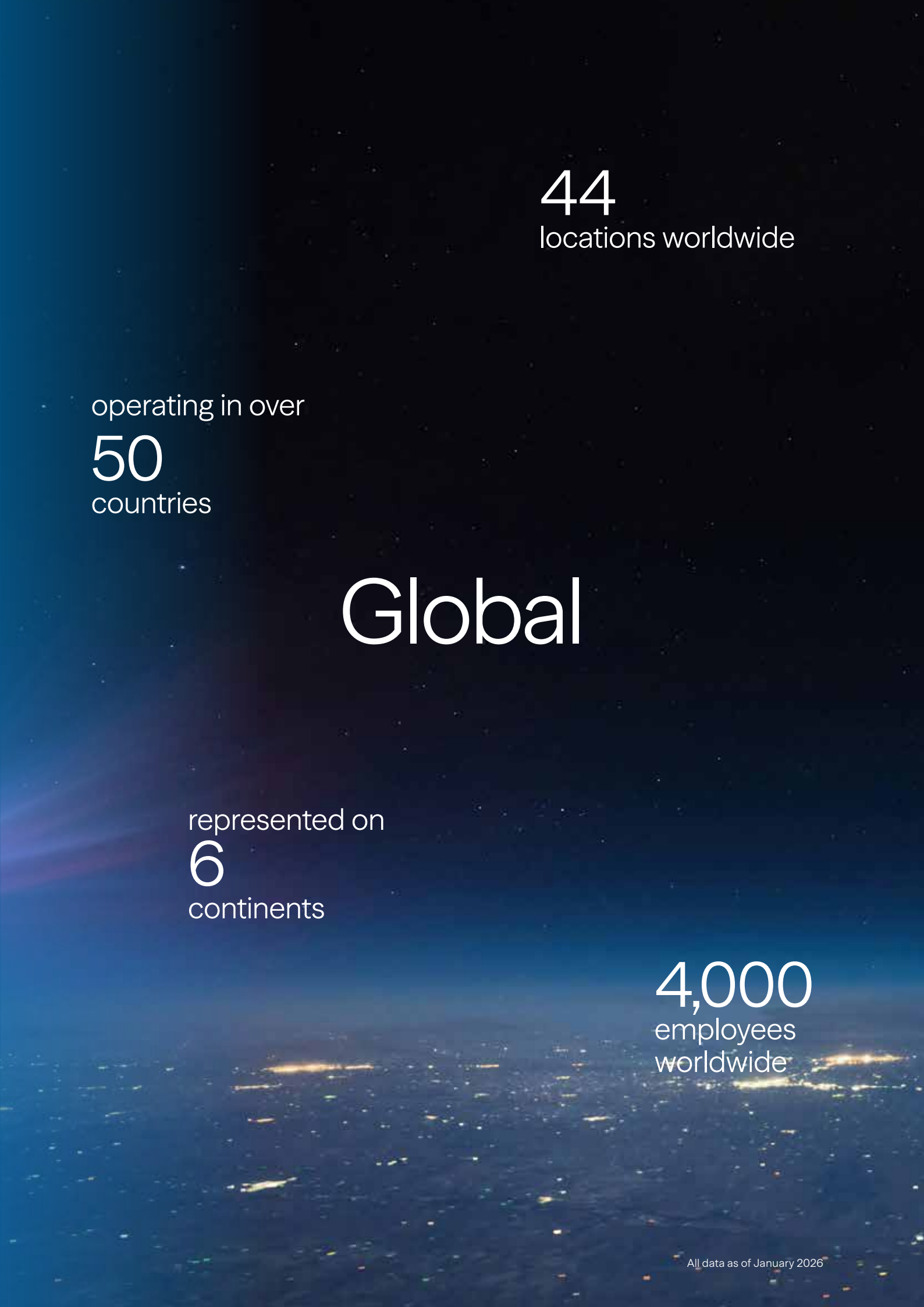
Gratings

Profile Planking



Serrated Surfaces
Perforated Surfaces
Slotted Surfaces
Closed Surfaces
Fire Retarding Surfaces
Special Products
Assembly Groups
Stairtreads and ladder rung profiles


26
locations in Europe
active for 70
years
Regional
2,800
employees
in Germany
28
own lorries


44
locations worldwide
operating in over
50
countries
Global
represented on
6
continents
4,000
employees
worldwide
All data as of January 2026

06 About us:
Facts & figures

08 MEISER portfolio

18 Testimonials & Inspiration

23 The MEISER ABC

27 Serrated Surfaces

35 Perforated Surfaces

49 Slotted Surfaces

55 Closed Surfaces

63 Fire Retarding Surfaces

69 Special Products

77 Assembly Groups

83 Stairtreads and ladder rung profiles

93 Fixing Clips

101 Statics and Loads tables

117 Safety

121 Service / Standards / Certificates

139 MEISER International



Efficiency with vision

Even after 70 years of company history, MEISER remains true to the principles that made the company strong: working reliably, thinking long term, taking responsibility and maintaining direct contact with customers. Tradition is not about looking back, but it does form the basis for the further development that extends far beyond the company's headquarters in Saarland.

Today, around 4,000 employees work for MEISER, including more than 2,800 in Germany. The two main production sites in Saarland and Saxony form the company's industrial foundation. They are complemented by production facilities in Dubai, Hungary, France, Belgium, Egypt, Brazil, Morocco, Romania, the Czech Republic, the US, Mexico and Turkey. In addition, further branches connect us with all major markets.

This creates a combination that defines MEISER: international capability and personal support on site. Customers benefit from short distances, direct communication and an understanding of regional requirements – backed by the experience of a company that has been active in different markets for decades and has a broad market presence.

As a steel-processing company, MEISER is active in the fields of gratings, sheet metal profiles, GRP, slit strip and galvanising. Further business areas, such as road safety, expanded metal, viticulture products and mounting systems for photovoltaic installations as well as scaffolding and sliding fittings, expand the portfolio and show how versatile the company's expertise can be.



Managing Directors Ulrich and Wolfgang Meiser

For us, an important factor in our quality is our high level of in-house value creation. With our own galvanising plants, slitting facilities and cold rolling mills, MEISER can control and coordinate all the central processes itself. This creates reliability – from planning through to the finished product. Modern production technology, state-of-the-art machinery and committed employees provide the foundation for stable processes and economical solutions.

Despite this growth, the focus on the customer remains decisive. For MEISER, progress means not only new technology or greater capacities, but, above all, better solutions developed through direct exchange. Many exceptional projects have emerged from this collaboration. They show what becomes possible when experience, proximity and trust come together.

We combine 70 years of company history with international presence and personal support. Customers can rely on this, today and in the future. MEISER – built for generations.

About us: Facts & Figures – at home worldwide

Whether it's Gratings, Expanded Metal or Road Safety – we develop solutions that work when it matters most. With Solar Systems, we're driving tomorrow's energy forward, whilst Agri Solutions delivers robust, practical systems. In Coating, we combine galvanising and powder coating to provide long-lasting surface protection. In addition, under Other Solutions, we bring together complementary services that complete projects. In every division, we rely on state-of-the-art technology, precision manufacturing and tailor-made concepts. People are always at the heart of what we do: Our teams, who act with experience and responsibility, and our customers, whose requirements we understand through partnership – today and in the future. That's us. That's MEISER.

150,000,000
square metres
of gratings

400,000
tonnes of steel per year

100,000
kilometres
of vehicle restraint systems

15,000
tonnes of zinc per year

8,000,000
through solar mounting
structures

more than
50,000,000
vineyard posts

Total production figures up to 2026

MEISER

Our business divisions are synonymous with leading solutions in steel processing.



From the initial concept to the finished product, we support you with our expertise and innovative solutions in steel. We manufacture, finish and deliver with clearly defined responsibilities.
We operate cost-effectively and responsibly. With strong regional roots and an international presence, we provide reliable planning for your projects – from the initial consultation through to final acceptance.



Gratings

Customised solutions for complex tasks

meiser.de/en/business-areas/gratings



Road Safety

Well-thought-out solutions for the most stringent safety requirements

meiser.de/en/business-areas/road-safety



Solar Systems

Innovative mounting technology for the energy of tomorrow

meiser.de/en/business-areas/solar-systems



Agri Solutions

Genuine expertise for growing demands

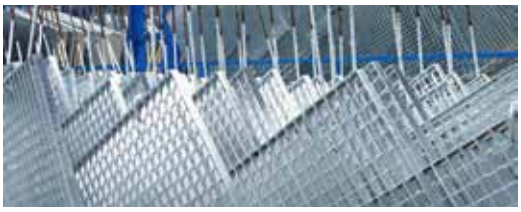
meiser.de/en/business-areas/agri-solutions



Expanded Metal

Custom-made expanded metal designs at their best

meiser.de/en/business-areas/expanded-metal



Coating

Precision coatings for reliable corrosion protection

meiser.de/en/business-areas/coating



Other Solutions

Versatile solutions for specific challenges

meiser.de/en/business-areas/other-solutions



The MEISER Portfolio

Our business divisions are synonymous with leading solutions in steel processing.

Gratings

Customised solutions for complex tasks



On the walkable roller coaster Tiger & Turtle, MEISER press gratings with anti-slip protection provide secure footing at lofty heights.



Gratings can be used both architecturally and aesthetically as well as industrially and functionally

Architects and civil engineers create cost-effective solutions by using grating in unconventional ways – for example, in combination with wood, glass or stone. Different mesh sizes create striking surface textures that offer ever-changing visual impressions depending on the angle of view and the light. We are happy to assist you with challenging design ideas. MEISER has developed over 5,000 types of grating, often based on precise specifications from customers and designers. Function is often the priority, aesthetics are frequently a consideration and the budget sometimes sets limits. When all these factors come together, special gratings are created – such as solid, comb or slatted gratings.

meiser.de/en/business-areas/gratings

SCAN

Road Safety

Well-thought-out solutions for the most stringent safety requirements



MEISER Road Safety vehicle restraint systems safeguard the demanding test tracks of AVL ZalaZONE



The honeycomb geometry of the Protector enables safe vehicle restraint

MEISER Road Safety offers high-quality vehicle restraint systems and bespoke solutions for national roads, country roads, motorways and other transport infrastructure. The systems combine high stability, durability and efficiency. They are characterised by proven safety and practical installation solutions. In this way, they combine functionality, innovative technology and aesthetic design to reliably protect road users and meet the requirements on construction sites, along busy roads and in commercial areas.

meiser.de/en/business-areas/road-safety

SCAN

Solar Systems

Innovative mounting technology for the energy of tomorrow



The two-pile MEISER Portrait mounting system in a solar park in Nonnweiler



The VOLTWING ECO on the premises of MEISER Solar in Losheim am See

MEISER develops high-performance mounting systems for photovoltaic systems that are consistently designed for durability, simple installation and maximum stability. The portfolio includes substructures for large-scale solar projects and carport systems with modular constructions.

Planning, structural design and execution go hand in hand. All the solutions are designed for practical use, planned to meet the approval requirements and geared towards efficient implementation. Development, production and galvanising are exclusively carried out exclusively in our own plants.

meiser.de/en/business-areas/solar-systems

SCAN

Agri Solutions

Genuine expertise for growing demands



At a winery in Rhineland-Palatinate, our vineyard posts bring clear structure to the rows of vines



The hooks on the MEISER vineyard post provide reliable support for wires in the vineyard

MEISER Agri Solutions brings together innovative product brands for viticulture and fruit cultivation under one roof. With solutions from market leaders such as Profil Alsace, Julien, Le Piquet, artos and MEISER Fassreifen, we support winegrowers worldwide in efficient cultivation, reliable protection of their vineyards and high-quality processing.

Quality, durability and practical technology are at the heart of everything we do, ensuring professional results under demanding conditions in daily use.

meiser.de/en/business-areas/agri-solutions

SCAN

Expanded Metal

Custom-made expanded metal designs at their best

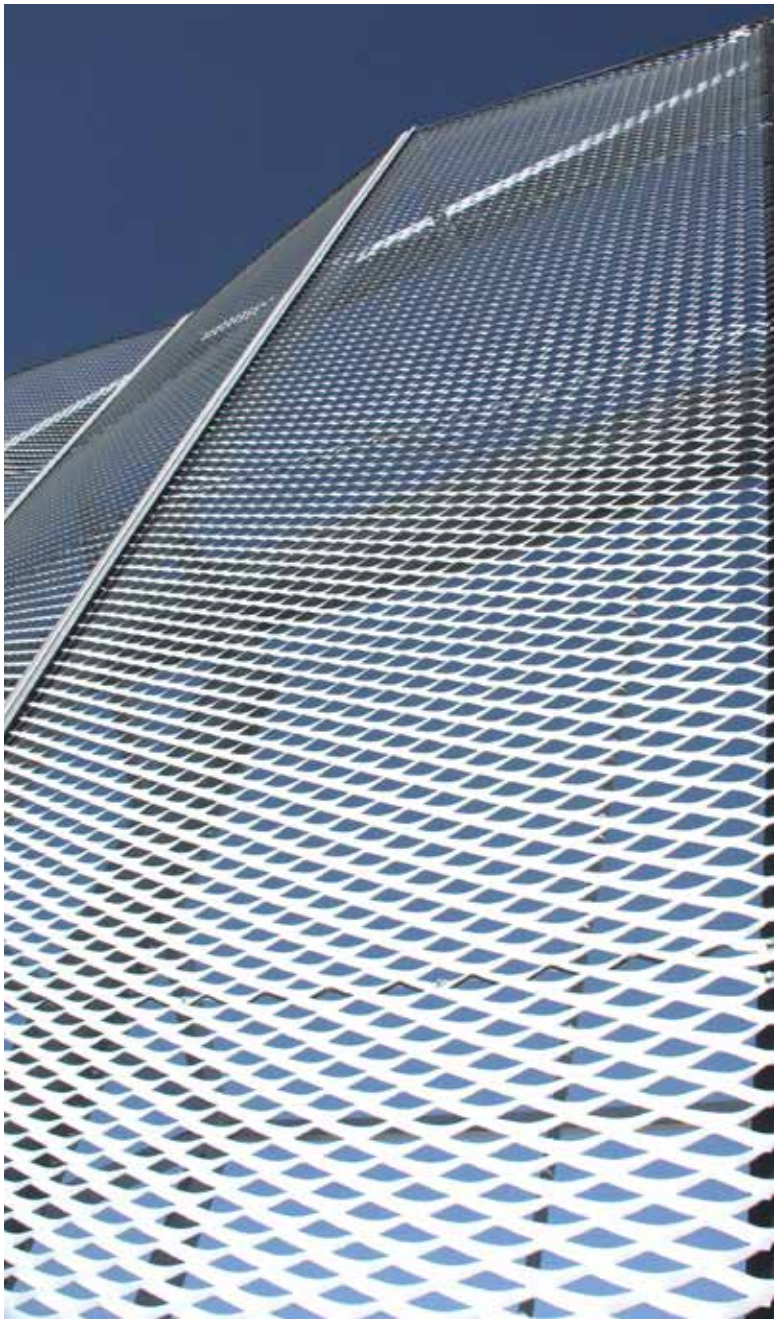
Expanded metal is a versatile and sustainable metal product created by systematically forming a sheet of metal; it combines high strength, flexibility and durability. With a variety of mesh patterns, such as diamond, square, Experf or long-bar mesh, it offers tailored solutions for architecture, industry and engineering. Expanded metal is used in applications including batteries, automotive engineering and filters as well as for protective and safety solutions, ventilated façades, balustrade infills and decorative elements – always produced in a resource-efficient manner and without material waste. Its open mesh structure combines functionality, visual transparency and light transmission whilst creating aesthetically pleasing results. Thanks to the adaptability of the mesh size and material thickness, specific requirements can be met precisely, making expanded metal an ideal choice choice for both practical and design-oriented applications.

meiser.de/en/business-areas/expanded-metal

SCAN



Our expanded metal impresses with its adaptability in a wide range of applications



On the façade of the Bilbao Exhibition Centre in Spain, MEISER expanded metal gives the architecture a modern and distinctive appearance

Coating

Precision coatings for reliable corrosion protection

Hot-dip galvanising is our core competence: Therefore, virtually all MEISER products are thus provided with long-term corrosion protection from within our own value chain. We have been carrying out our own hot-dip galvanising in Schmelz-Limbach since 1969; an additional modern hot-dip galvanising plant has been in operation here since summer 2011, followed by a further plant at the Oelsnitz site in early 2020. We complete the production process for most of our products on both lines – hot-dip galvanising is the final, crucial step and provides protection for many years without requiring any special maintenance. Whilst our site in Saarlouis continues to offer contract galvanising of individual items and powder coating services, our strip galvanising facility at the St. Ingbert site complements our portfolio, as this is where slit strip is finished using a continuous process.

meiser.de/en/business-areas/coating

SCAN



Batch galvanising provides lasting protection against corrosion, ensuring robust, low-maintenance use outdoors



Powder coating provides excellent corrosion protection and true design versatility, allowing custom colours to be realised

Continuous strip galvanising ensures a uniform surface, economical processing and consistently high material quality



Other Solutions

Versatile solutions for specific challenges



ALFIX scaffolding systems ensure safe and efficient work processes on demanding construction sites

ALFIX has been developing and manufacturing practical scaffolding systems for professional use for 75 years. The company offers solutions for façade, modular, mobile and canopy systems, meeting a wide range of requirements on construction sites. ALFIX is a MEISER company and complements the portfolio with scaffolding systems.

MEA sliding fittings are high-quality guide and load-bearing components specially developed for the manual transport of suspended loads, sliding doors and sliding gates. They feature a modular, coordinated product range that guarantees a long service life and precise functionality.

meiser.de/en/business-areas/other-solutions

SCAN



MEA sliding gate fittings set fixed structures in motion



Various MEISER sheet metal grating panels installed in an AUDI production hall

The MEISER Profile Planking

An overview of industrial flooring



Non-slip Stephuit N sheet metal grating installed at the Spitzer Stein viewing tower in St. Goar

MEISER profiled sheet gratings are an alternative to MEISER gratings, particularly when large spans need to be bridged or a solid surface is required. The special embossing and perforation of the surface ensure a very high level of slip resistance. Profiled sheet gratings are a good choice in any industrial setting where materials prone to slipping are handled.
The ability to manufacture elements up to 8.00 metres in length ensures rapid installation, which is further accelerated by clever fastening elements developed in-house.



A wide range of surface finishes ensures there is a suitable industrial floor covering for every area



The Spitzer Stein at Leuchtenburg Castle in Seitenroda features walkways made of profiled steel gratings



Sheet metal profiles offer a great deal of flexibility to meet a wide range of requirements



For indoor applications, profiled sheet metal gratings made from Sendzimir-galvanised strip steel can also be used, offering a significant cost advantage. One of our specialities is fire-retardant profiled sheet metal gratings. This version has been tested and certified by the MFPA and is suitable, for example, as transformer tank cover. Turn our strengths to your advantage.

Airstep N, Stepclair 01 and Steplarm G are in use at the Green IT Cube in Darmstadt, one of the world's largest high-performance data centres



Sheet metal walkways at the University of Innsbruck

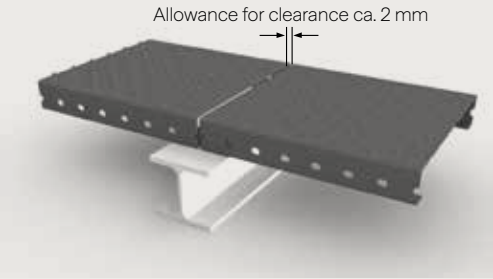
Technical terms – the MEISER

ABC

The most important information at a glance



Allowance for clearance



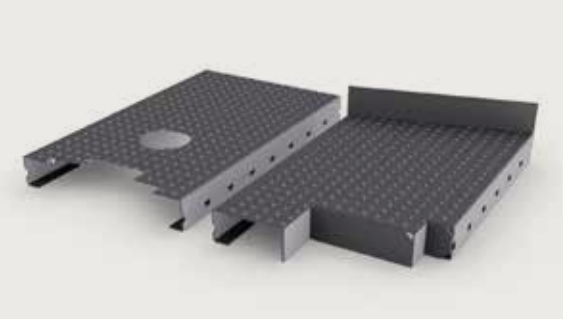
The allowance for clearance serves for the adjustment of existing tolerances between the steel construction and the profile decking.

Closed at the front



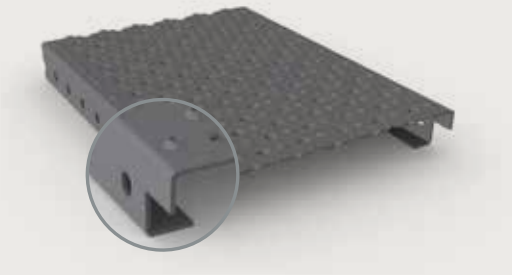
Profile planks can be designed with welded and folded plates at the front which increases the stability with overhangs and avoids look through from the side.

Cut-outs



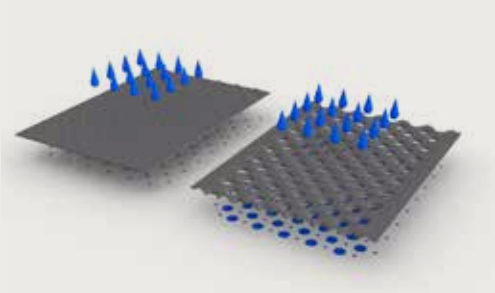
Sections, bevel cuts and cut-outs at or within the profile plank. If the length of cut is smaller than 0.5 m, we call these small cut outs.

Notch



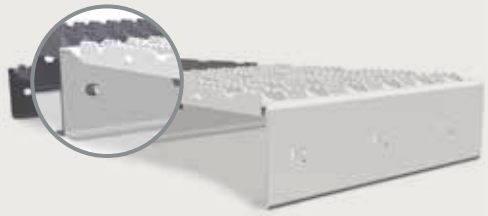
Special notches are possible up to the height of the surface of the plank, but have to be verified statically for on a case-by-case basis.

Open cross section



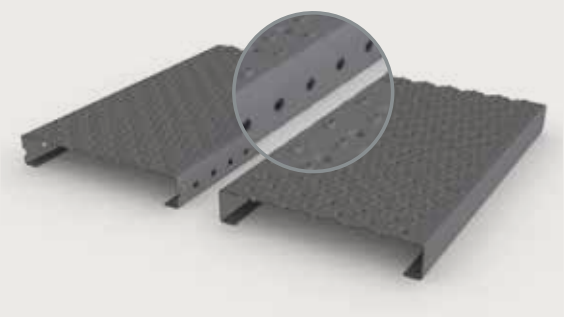
This is the free section of a perforated surface which is penetrated by water or air. It is calculated in percentage of the installed surface.

Plug-in system



The utility patent-protected MEISER plug-in nose system enables a simple and much faster assembly of large areas in contrast to previously using direct bolting or connecting plates. Furthermore, with this system a load distribution across several profiles is achieved.

Side holes



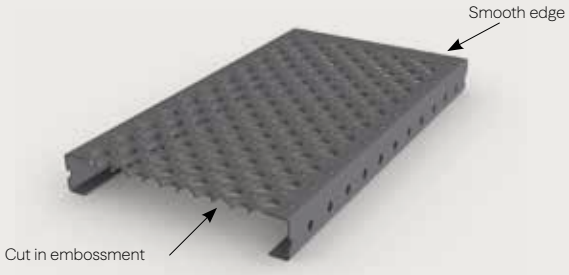
Profile planks are manufactured with side holes. The oblong slots are in each case perforated horizontally in one side and vertically on the other side. Thus, the planks can be connected easier on site using a direct fixing bolt. On request, the planks can be manufactured without side holes. Slotted holes are not possible in planks with a depth less than 25 mm.

Steps



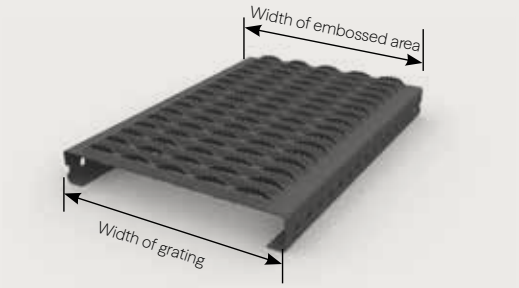
Steps consist of profile planks with closed fronts, which can be designed with end plates holed for fixing. The embossed pattern is shifted toward the front edge of the step to set as a nosing (see detail 1).
Alternatively, welded steps can be offered without end plates that can be completely welded with the staircase.

Smooth edge / cut in embossment



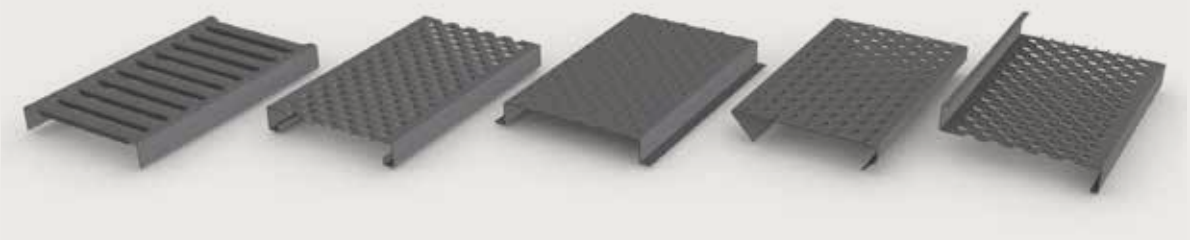
In general, the surfaces are punched to length in a certain grid dimension. If these have to be cut into in-between measures, the product can be manufactured with a double-sided smooth edge on request. By default, the surface is cut in embossment.

Width of grating, width of embossed area



With certain surfaces it is possible to design the embossed area independent from the width of the plank. In this case, the width of the embossed area can differ a lot from the width of the plank.

Special edging



In order to use profile planks for special purposes, planks can be produced with shapes other than the normal C-profile edging.

SCAN

You can find more information about our products here.



Serrated Surfaces

29 Applications
30 Stepbloc D
Stepbloc F
31 Drainstep RH3
Tolplus N
32 Tolcreneaux N



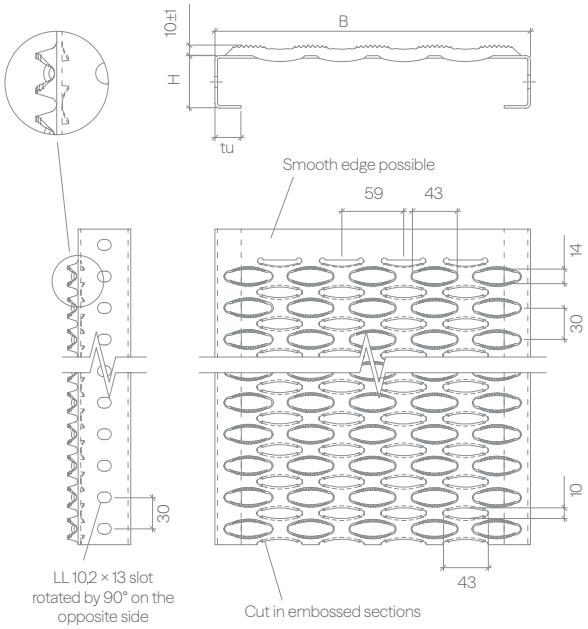
Serrated Surfaces

Because of their excellent slip resistance and drainage properties, profile planks with serrated surfaces are particularly suitable for industrial usewhere grease and oil are present.

Due to the orientation of the serrations a very high and open cross section of up to 70% can be guaranteed, which might be of interest in areas with sprinkler systems. The high drainage effect combined with the feature that small items cannot fall through make profile planks an ideal solution for mezzanine floors and walkways.

Stepbloc D

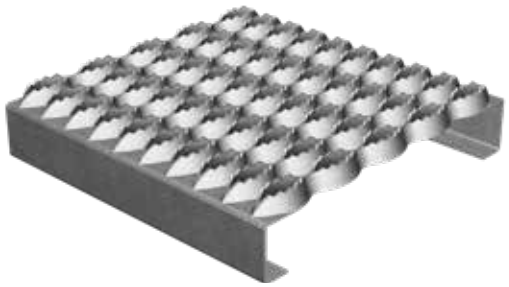


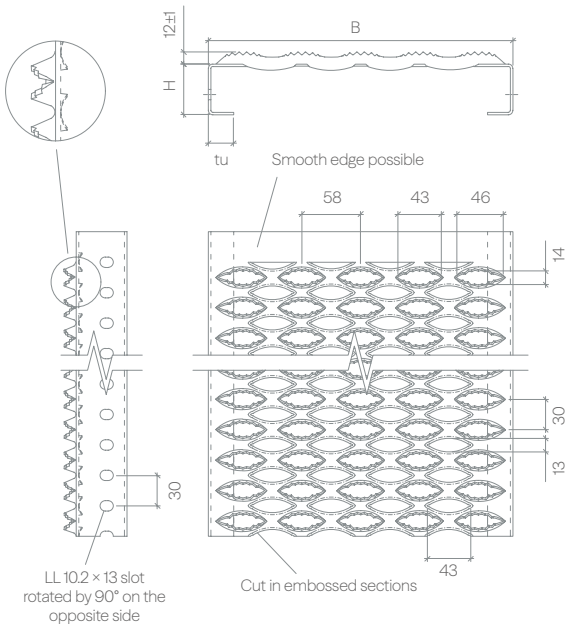


Dimensions		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5 / 3,0	R13
Sendzimir galvanised steel [DX51]	2,0 / 2,5 / 3,0	R13
Aluminium [AlMg3]	2,5 / 3,0	R13
Stainless steel [1.4301]	2,0	-
Widths	120 / 180 / 240 / 300 / 360 / 420 / 480	
Heights	40 / 50 / 75 / 100 / special heights on request	
Lengths	max. 8.000 mm	
Length factors	30 mm	

Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.

Stepbloc F



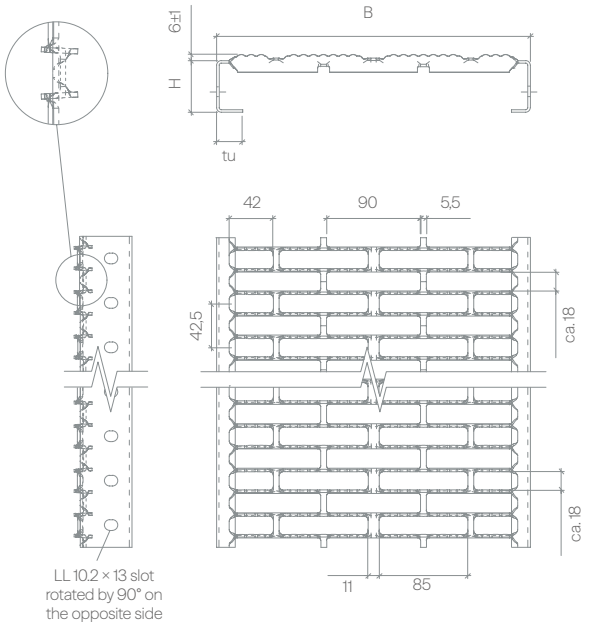


Dimensions		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5 / 3,0	R12 / R13
Sendzimir galvanised steel [DX51]	2,0 / 2,5 / 3,0	R12 / R13
Aluminium [AlMg3]	2,5 / 3,0	R13
Stainless steel [1.4301]	2,0	R12
Widths	124 / 182 / 240 / 298 / 356 / 414 / 475	
Heights	40 / 50 / 75 / 100 / special heights on request	
Lengths	max. 8.000 mm	
Length factors	30 mm	

Special sizes or materials on request. Stored sizes according to stock list.
All data in mm..

Drainstep RH3



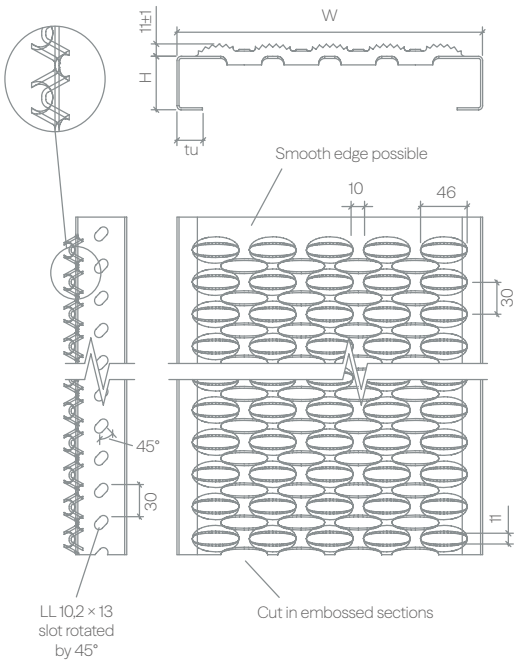


Dimensions		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5	R11
Sendzimir galvanised steel [DX51]	2,0 / 2,5	R11
Widths	200 / 300 / 312 / 324 / 333	
Heights	40-150 mm, special heights on request	
Lengths	max. 8.000 mm	
Length factors	42,5 mm	

Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.

Tolplus N*





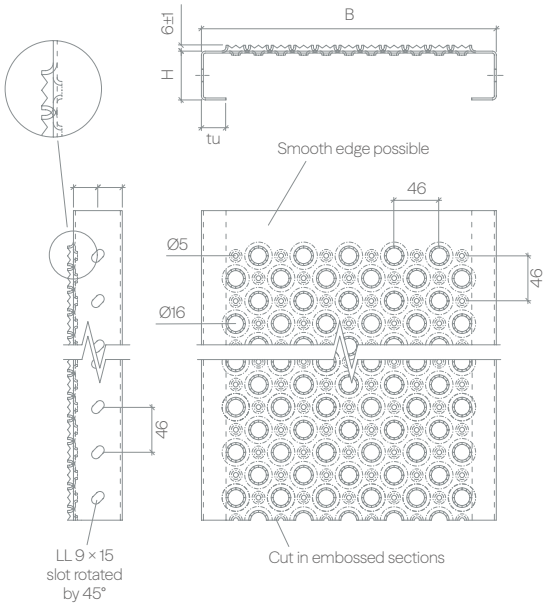
Dimensions		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5 / 3,0	R12
Sendzimir galvanised steel [DX51]	2,0 / 2,5 / 3,0	R12
Aluminium [AlMg3]	2,5 / 3,0	R12
Stainless steel [AISI 304L]	2,0	R12
Widths	124 / 182 / 240 / 298 / 330 / 356 / 414 / 475	
Heights	40 / 50 / 75 / 100 / special heights on request	
Lengths	max. 6.030 mm	
Length factors	30 mm	

Special sizes and/or special materials available upon request. Stocked dimensions according to the stock range. All dimensions are in mm.

* Made in France

Tolcreneaux N*





Dimensions		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5 / 3,0	R12
Sendzimir galvanised steel [DX51]	2,0 / 2,5 / 3,0	R12
Aluminium [AlMg3]	2,5 / 3,0	R12
Stainless steel [AISI 304L]	2,0	R12
Widths	182 / 240 / 298 / 330 / 356 / variable	
Heights	40 / 50 / 75 / 100 / special heights on request	
Lengths	max. 6.030 mm	
Length factors	46 mm	

Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.

* Made in France



Serrated Surfaces



Perforated Surfaces

36 Applications
38 Formstep N, Stephuit N
39 Aderstep N, Stepclair N
40 Formstep O4, Formstep O5
41 Formstep O6, Formstep O7
42 Airstep N, Stephuit O1
43 Stepclair O1, Tolmixte N
44 Tolhuit N, Toldeco 8
45 Toldeco 10, Tolpicot N
46 Tolplan N, Tolgrip N
47 Toltop N

Perforated Surfaces

Profile planks with perforated surfaces are a versatile solution for a wide range of applications.

The upward and downward embossing provides the profile with stability and enables an optimal anti-slip and drainage effect. Profile planks with small perforation are nearly opaque and therefore particularly suitable for staircase systems and gangway in high altitudes. No matter if in public or industrial areas, MEISER perforated profile planks are characterized by an attractive look and high level of functionality.



The Schöne Höhe Viewing Tower



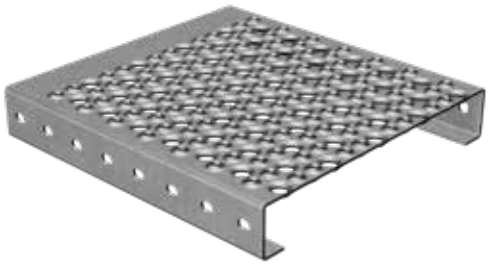


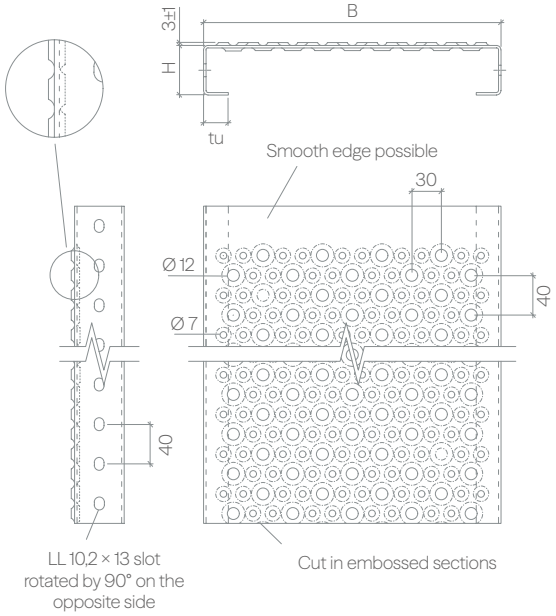


Bottom: The perforated surfaces serve as both a platform and steps

Top: Close-up

Formstep N



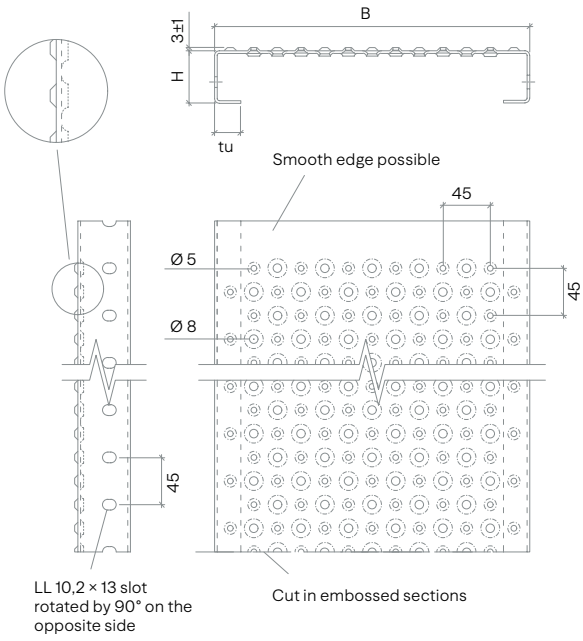


Dimensions		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5 / 3,0	R12
Sendzimir galvanised steel [DX51]	2,0 / 2,5 / 3,0	R12
Aluminium [AlMg3]	2,5 / 3,0	R12
Stainless steel [1.4301]	2,0	R11
Widths	120 / 180 / 240 / 300 / 360 / variable	
Heights	40 / 50 / 75 / 100 / special heights on request	
Lengths	max. 6.000 mm	
Length factors	40 mm	

Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.

Stephuit N

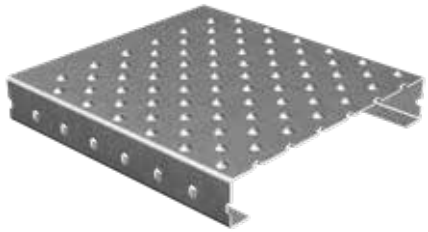




Dimensions		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5 / 3,0	R13
Sendzimir galvanised steel [DX51]	2,0 / 2,5 / 3,0	R13
Aluminium [AlMg3]	2,5 / 3,0	R13
Stainless steel [1.4301]	2,0	-
Widths	182 / 240 / 298 / 356 / variable	
Heights	40 / 50 / 75 / 100 / special heights on request	
Lengths	max. 6.030 mm	
Length factors	45 mm	

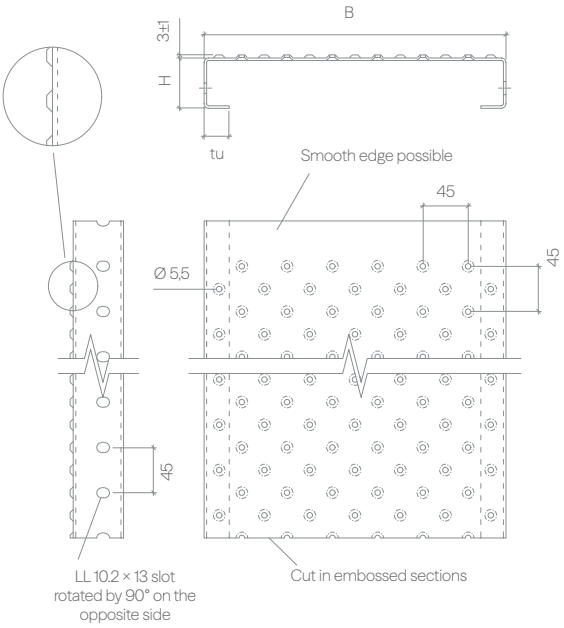
Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.

Aderstep N

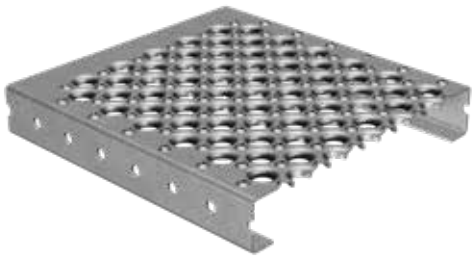


Dimensions		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5 / 3,0	R13
Sendzimir galvanised steel [DX51]	2,0 / 2,5 / 3,0	R13
Aluminium [AlMg3]	2,5 / 3,0	R13
Stainless steel [1.4301]	2,0	R12
Widths	240 / 298 / 330 / variable	
Heights	40 / 50 / 75 / 100 / special heights on request	
Lengths	max. 6.030 mm	
Length factors	45 mm	

Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.

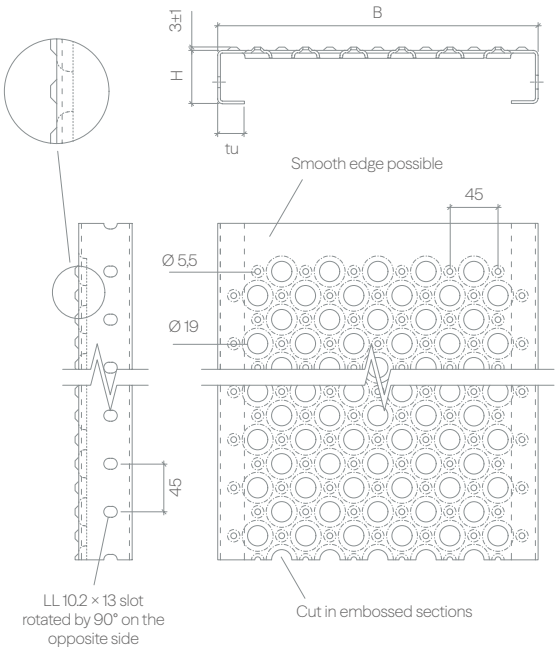


Stepclair N

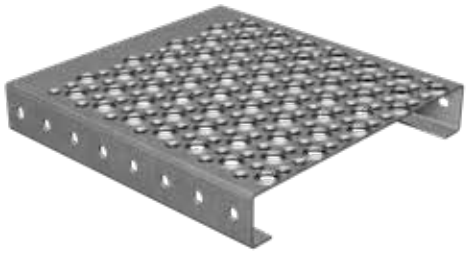


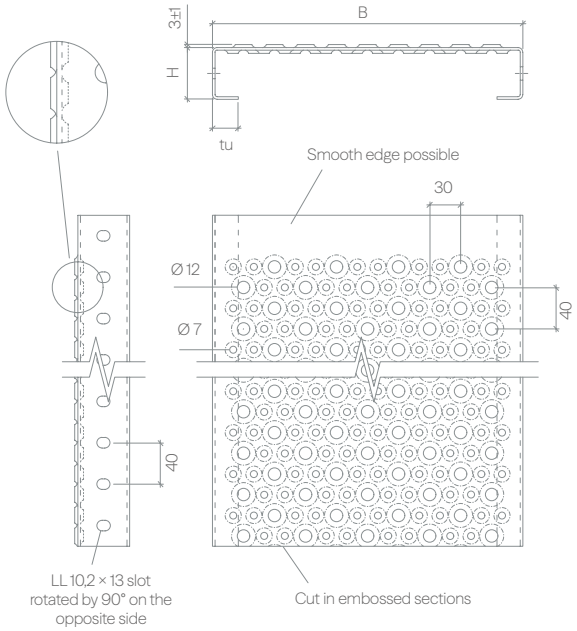
Dimensions		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5 / 3,0	R13
Sendzimir galvanised steel [DX51]	2,0 / 2,5 / 3,0	R13
Aluminium [AlMg3]	2,5 / 3,0	R13
Stainless steel [1.4301]	2,0	R12
Widths	182 / 240 / 298 / 330 / 356 / variable	
Heights	40 / 50 / 75 / 100 / special heights on request	
Lengths	max. 6.030 mm	
Length factors	45 mm	

Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.



Formstep O4

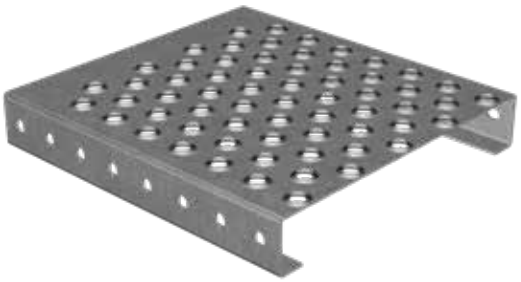


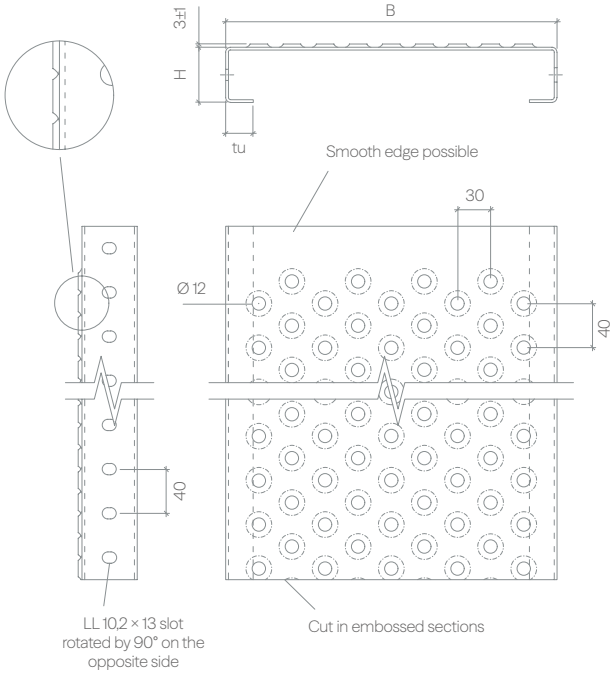


Dimensions		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5 / 3,0	R12
Sendzimir galvanised steel [DX51]	2,0 / 2,5 / 3,0	R12
Aluminium [AlMg3]	2,5 / 3,0	R12
Stainless steel [1.4301]	2,0	R12
Widths	120 / 180 / 240 / 300 / 360 / variable	
Heights	40 / 50 / 75 / 100 / special heights on request	
Lengths	max. 6.000 mm	
Length factors	40 mm	

Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.

Formstep O5



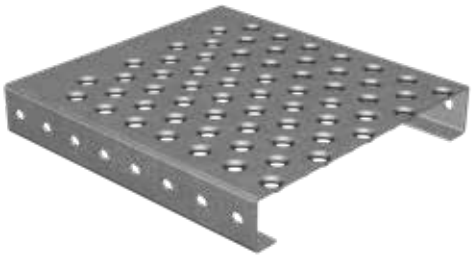


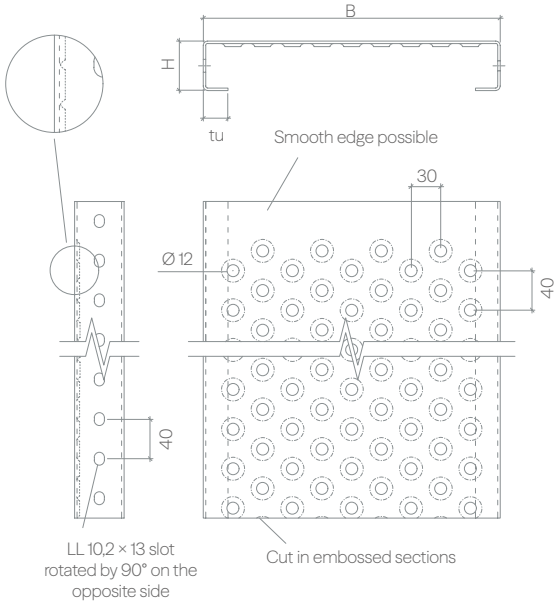
Dimensions		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5 / 3,0	R12
Sendzimir galvanised steel [DX51]	2,0 / 2,5 / 3,0	R12
Aluminium [AlMg3]	2,5 / 3,0	R12
Stainless steel [1.4301]	2,0	R12
Widths	120 / 180 / 240 / 300 / 360 / variable	
Heights	40 / 50 / 75 / 100 / special heights on request	
Lengths	max. 6.000 mm	
Length factors	40 mm	

Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.

Formstep O6

als Sonderform G6 mit Gumminoppen möglich

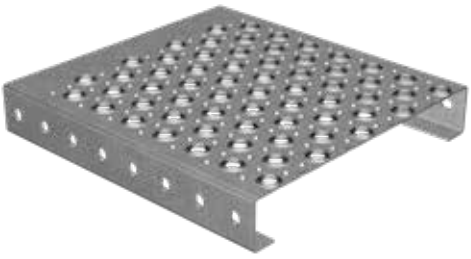


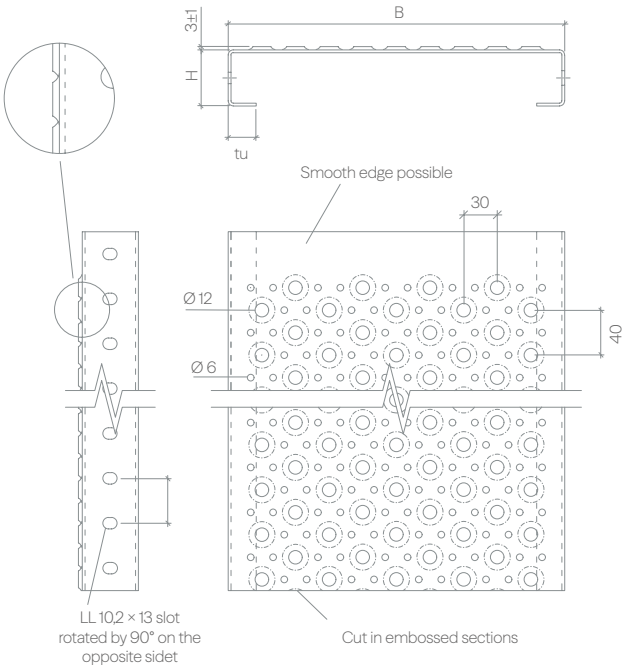


Dimensions		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5 / 3,0	-
Sendzimir galvanised steel [DX51]	2,0 / 2,5 / 3,0	-
Aluminium [AlMg3]	2,5 / 3,0	-
Stainless steel [1.4301]	2,0	-
Widths	120 / 180 / 240 / 300 / 360 / variable	
Heights	40 / 50 / 75 / 100 / special heights on request	
Lengths	max. 6.000 mm	
Length factors	40 mm	

Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.

Formstep O7



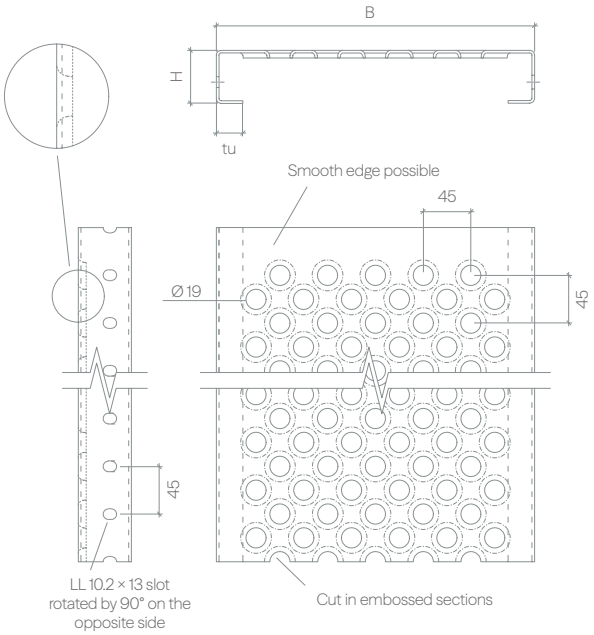


Dimensions		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5 / 3,0	R13
Stahl sendzimirverzinkt [DX51]	2,0 / 2,5 / 3,0	R13
Aluminium [AlMg3]	2,5 / 3,0	-
Stainless steel [1.4301]	2,0	R13
Widths	120 / 180 / 240 / 300 / 360 / variable	
Heights	40 / 50 / 75 / 100 / special heights on request	
Lengths	max. 6.000 mm	
Length factors	40 mm	

Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.

Airstep N



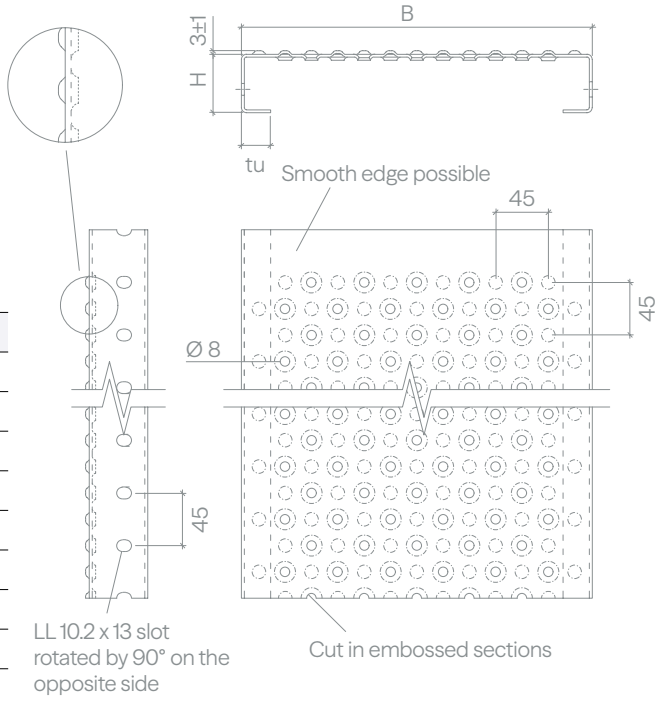


Dimensions		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5 / 3,0	-
Sendzimir galvanised steel [DX51]	2,0 / 2,5 / 3,0	-
Aluminium [AlMg3]	2,5 / 3,0	-
Stainless steel [1.4301]	2,0	-
Widths	182 / 240 / 298 / 330 / 356 / variable	
Heights	40 / 50 / 75 / 100 / special heights on request	
Lengths	max. 6.030 mm	
Length factors	45 mm	

Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.

Stephuit O1

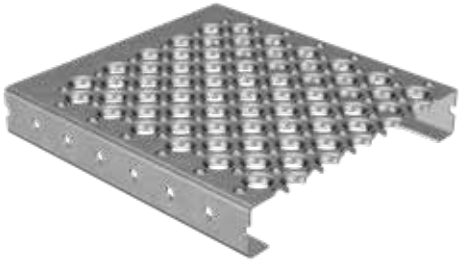


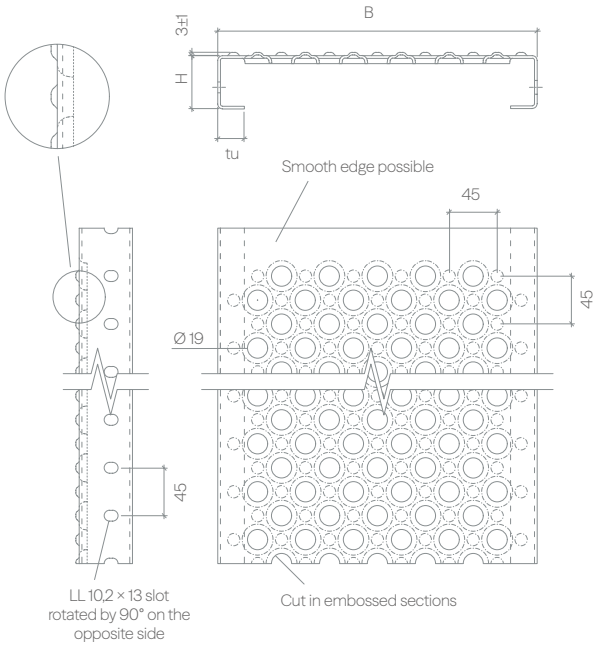


Abmessungen		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5 / 3,0	R10
Sendzimir galvanised steel [DX51]	2,0 / 2,5 / 3,0	R10
Aluminium [AlMg3]	2,5 / 3,0	-
Stainless steel [1.4301]	2,0	-
Widths	182 / 240 / 298 / 330 / 356 / variable	
Heights	40 / 50 / 75 / 100 / special heights on request	
Lengths	max. 6.030 mm	
Length factors	45 mm	

Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.

Stepclair O1



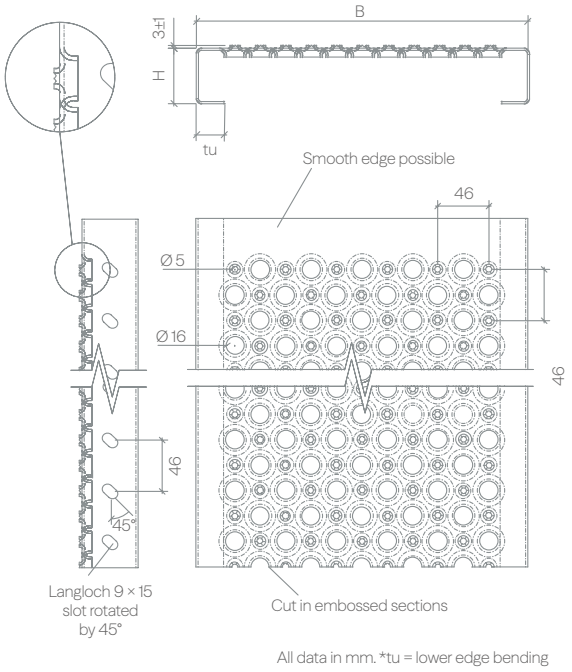


Abmessungen		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5 / 3,0	R10
Sendzimir galvanised steel [DX51]	2,0 / 2,5 / 3,0	R10
Aluminium [AlMg3]	2,5 / 3,0	-
Stainless steel [1.4301]	2,0	-
Widths	182 / 240 / 298 / 330 / 356 / variable	
Heights	40 / 50 / 75 / 100 / special heights on request	
Lengths	max. 6.030 mm	
Length factors	45 mm	

Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.

Tolmixte N*





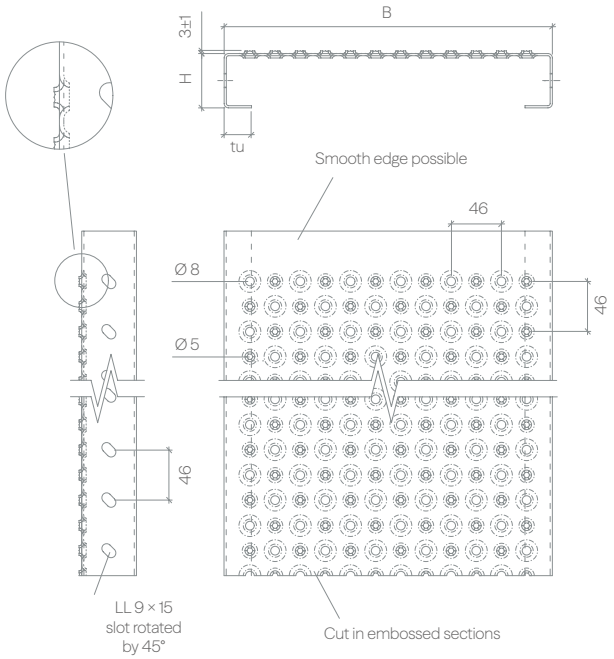
Abmessungen		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5 / 3,0	R12
Sendzimir galvanised steel [DX51]	2,0 / 2,5 / 3,0	R12
Aluminium [AlMg3]	2,5 / 3,0	R12
Stainless steel [1.4301]	2,0	-
Widths	182 / 240 / 298 / 330	
Heights	40 / 50 / 75 / 100 / special heights on request	
Lengths	max. 6.030 mm	
Length factors	46 mm	

Sondergrößen bzw. Sondermaterial auf Anfrage. Bevorratete Abmessungen laut Lagerprogramm. Alle Angaben in mm.

* Produziert in Frankreich

Tolhuit N*

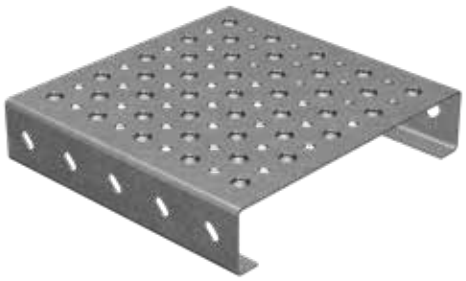


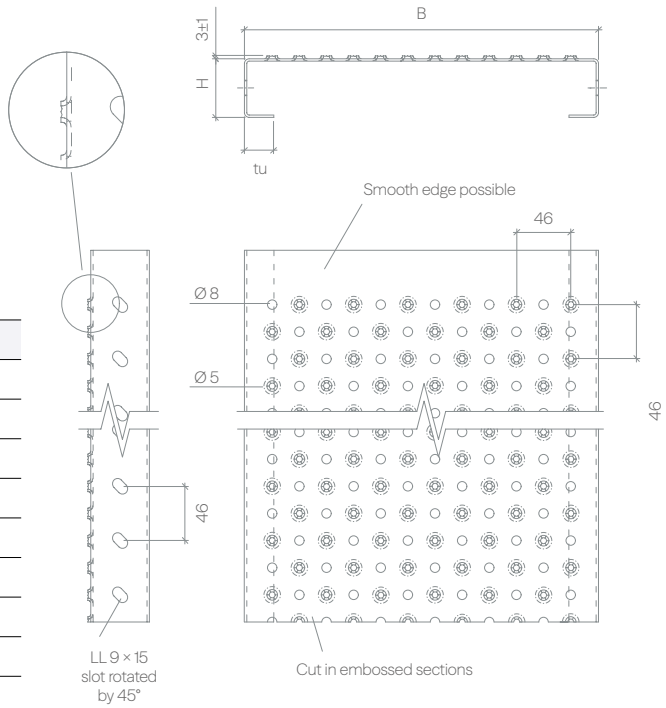


Dimensions		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5 / 3,0	R12
Sendzimir galvanised steel [DX51]	2,0 / 2,5 / 3,0	R12
Aluminium [AlMg3]	2,5 / 3,0	R12
Stainless steel [1.4301]	2,0	R12
Widths	180 / 240 / 300 / 330 / variable	
Heights	40 / 50 / 75 / 100 / special heights on request	
Lengths	max. 6.030 mm	
Length factors	46 mm	

Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.

Toldeco 8*



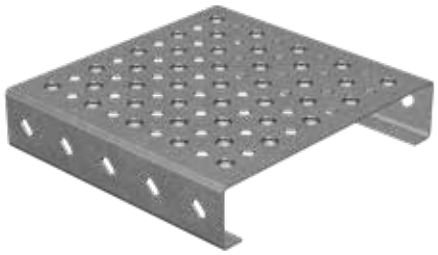


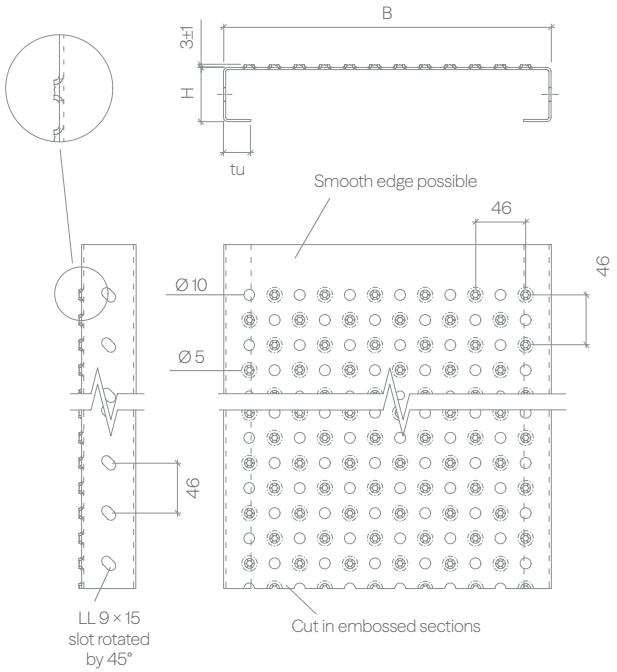
Abmessungen		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5 / 3,0	R11
Sendzimir galvanised steel [DX51]	2,0 / 2,5 / 3,0	R11
Aluminium [AlMg3]	2,0 / 3,0	R11
Stainless steel [1.4301]	2,0	R11
Widths	180 / 240 / 300 / 330 / 356 / variable	
Heights	50 / 75 / 100 / special heights on request	
Lengths	max. 6.030 mm	
Length factors	46 mm	

Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.

* Made in France

Toldeco 10*

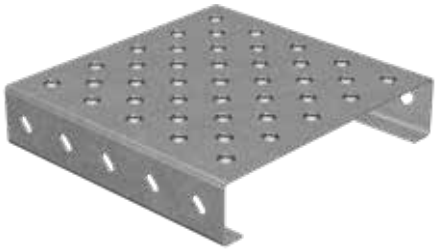


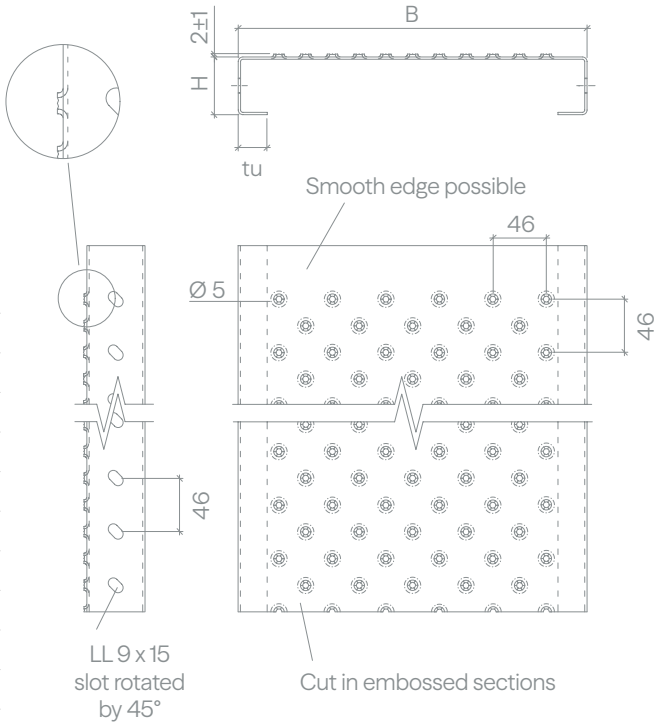


Dimensions		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5 / 3,0	R11
Sendzimir galvanised steel [DX51]	2,0 / 2,5 / 3,0	R11
Aluminium [AlMg3]	2,5 / 3,0	R11
Stainless steel [1.4301]	2,0	R11
Widths	180 / 240 / 300 / 330 / 356 / variable	
Heights	50 / 75 / 100 / special heights on request	
Lengths	max. 6.030 mm	
Length factors	46 mm	

Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.

Tolpicot N*





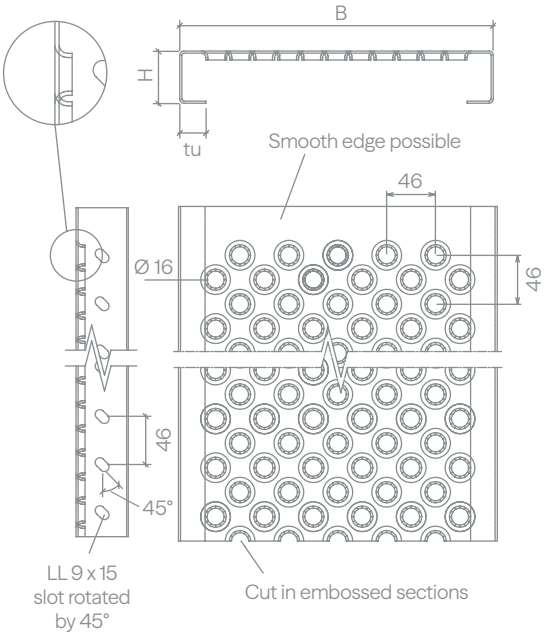
Dimensions		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5 / 3,0	R12
Sendzimir galvanised steel [DX51]	2,0 / 2,5 / 3,0	R12
Aluminium [AlMg3]	2,5 / 3,0	R12
Stainless steel [1.4301]	2,0	R12
Widths	180 / 240 / 300 / 330 / 360 / variable	
Heights	50 / 75 / 100 / special heights on request	
Lengths	max. 6.030 mm	
Length factors	46 mm	

Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.

Made in France

Tolplan N*



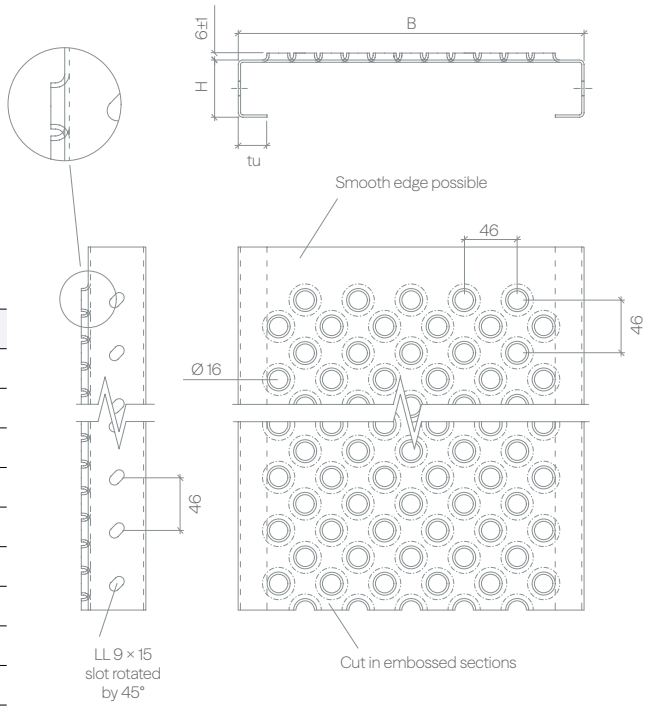


Dimensions		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5 / 3,0	R9
Sendzimir galvanised steel [DX51]	2,0 / 2,5 / 3,0	R9
Aluminium [AlMg3]	2,5 / 3,0	R9
Stainless steel [1.4301]	2,0	R9
Widths	180 / 240 / 300 / 330 / 360 / variable	
Heights	50 / 75 / 100 / special heights on request	
Lengths	max. 6.030 mm	
Length factors	46 mm	

Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.

Tolgrip N*





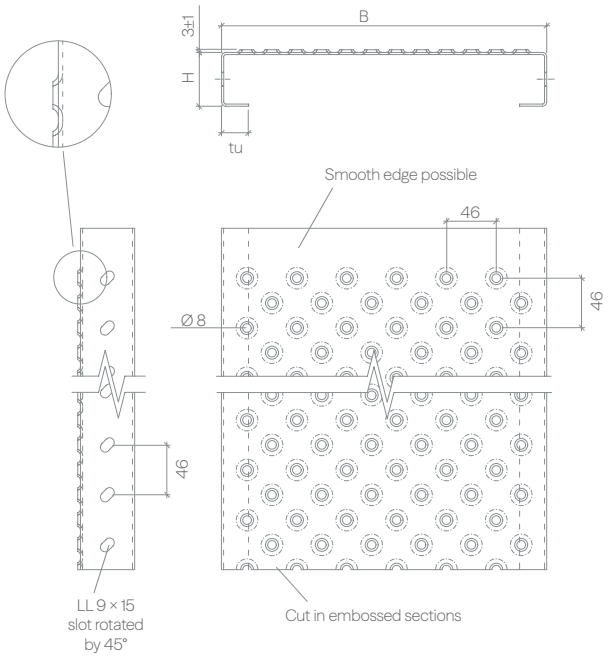
Dimensions		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5 / 3,0	R13
Sendzimir galvanised steel [DX51]	2,0 / 2,5 / 3,0	R13
Aluminium [AlMg3]	2,5 / 3,0	R13
Stainless steel [1.4301]	2,0	R13
Widths	180 / 240 / 300 / 330 / 360 / variable	
Heights	50 / 75 / 100 / special heights on request	
Lengths	max. 6.002 mm	
Length factors	46 mm	

Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.

* Made in France

Toltop N*





Dimensions		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5 / 3,0	-
Sendzimir galvanised steel [DX51]	2,0 / 2,5 / 3,0	-
Aluminium [AlMg3]	2,5 / 3,0	-
Stainless steel [1.4301]	2,0	-
Widths	180 / 240 / 300	
Heights	50 / 75 / 100 / special heights on request	
Lengths	max. 4.002 mm	
Length factors	46 mm	

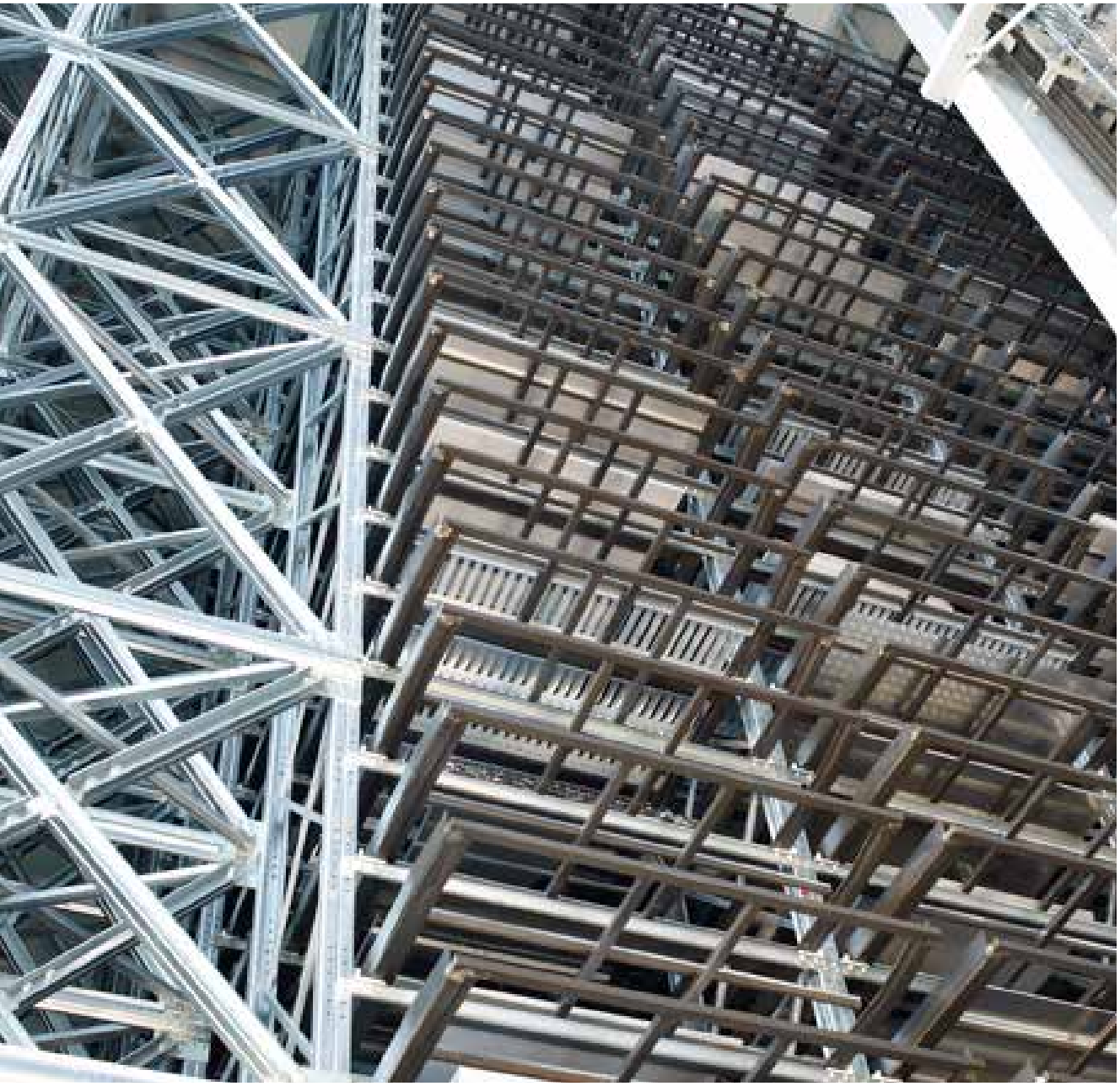
Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.



Slotted Surfaces

50 Applications
52 Stepplus N, Stepplus O1
53 Stepplus O2, Tolroc N

Slotted Surfaces



Versatile – at Carl Später's high-bay warehouse, the Stepplus O2 units were even used as shelving



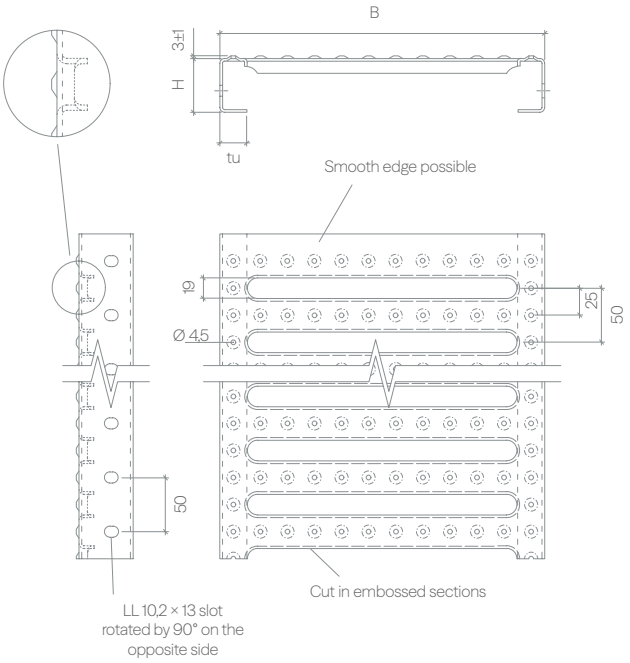
Slotted sheet metal profiles such as Stepplus 02 are both visually striking and highly functional

Thanks to their versatility profile planks with slotted surfaces are of flexible use. Large downward punched openings ensure a good drainage, as well as high light transmission.

An advantage of profile planks with slotted surfaces is an exceptional transverse stiffness which enables them to withstand high point loads. The planks can be manufactured with a profiled, slip-resistant surface or with a smooth surface. Slotted profile planks are mainly used in industry, but can also be applied in public and private sectors. Further use can be found in shelving systems or as an aesthetic element in architecture.

Stepplus N



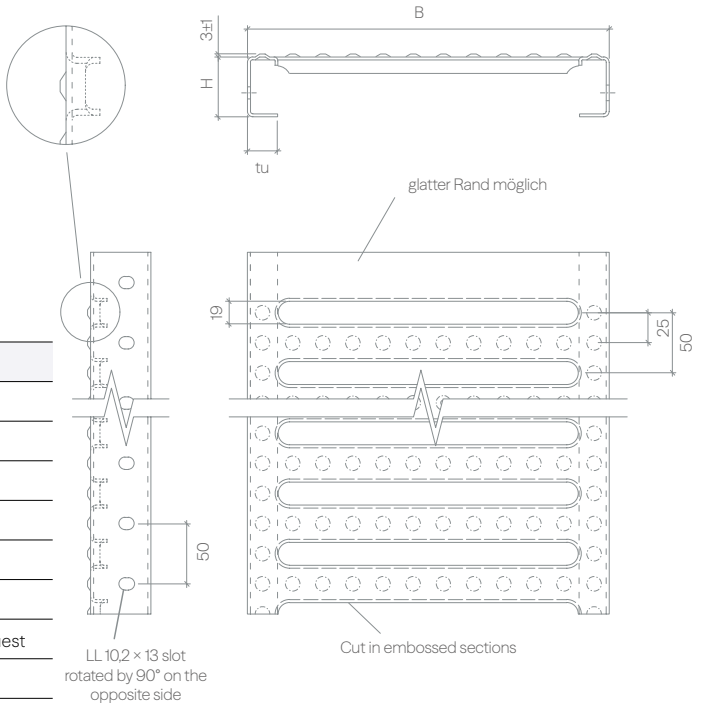


Dimensions		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5	R12
Sendzimir galvanised steel [DX51]	2,0 / 2,5	R12
Aluminium [AlMg3]	-	-
Stainless steel [1.4301]	2,0	R12
Widths	125 / 200 / 250 / 300	
Heights	40 / 50 / 75 / 100 / special heights on request	
Lengths	max. 6.000 mm	
Length factors	50 mm	

Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.

Stepplus O1



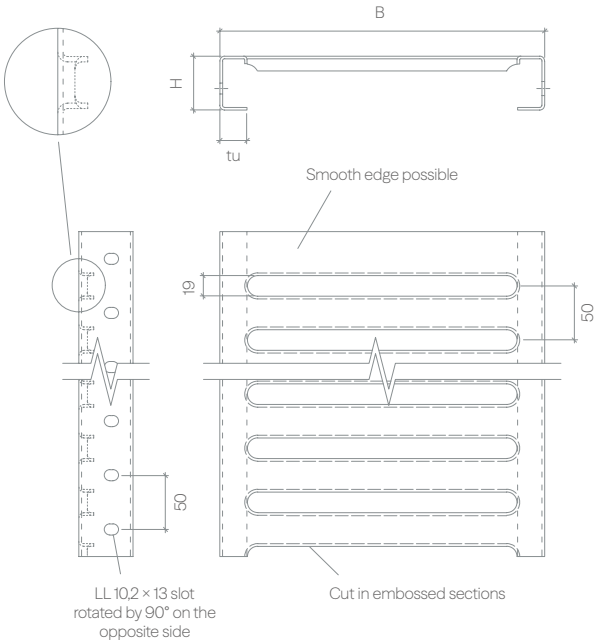


Dimensions		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5	-
Sendzimir galvanised steel [DX51]	2,0 / 2,5	-
Aluminium [AlMg3]	-	-
Stainless steel [1.4301]	2,0	-
Widths	125 / 200 / 250 / 300	
Heights	40 / 50 / 75 / 100 / special heights on request	
Lengths	max. 6.000 mm	
Length factors	50 mm	

Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.

Stepplus O2



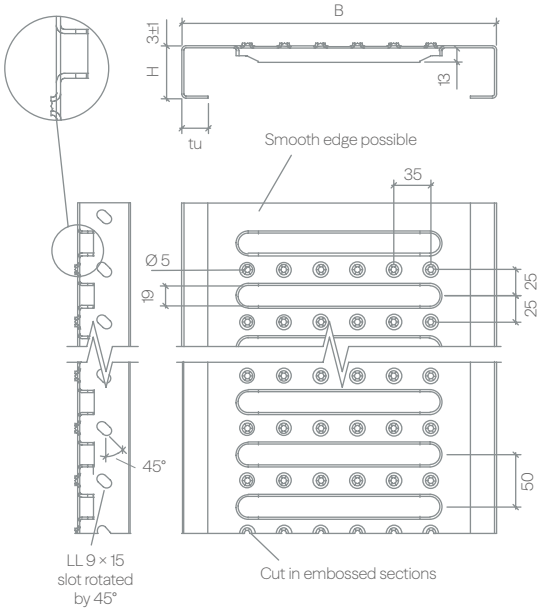


Dimensions		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5	-
Sendzimir galvanised steel [DX51]	2,0 / 2,5	-
Aluminium [AlMg3]	-	-
Stainless steel [1.4301]	2,0	-
Widths	125 / 200 / 250 / 300	
Heights	40 / 50 / 75 / 100 / special heights on request	
Lengths	max. 6.000 mm	
Length factors	50 mm	

Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.

Tolroc N*

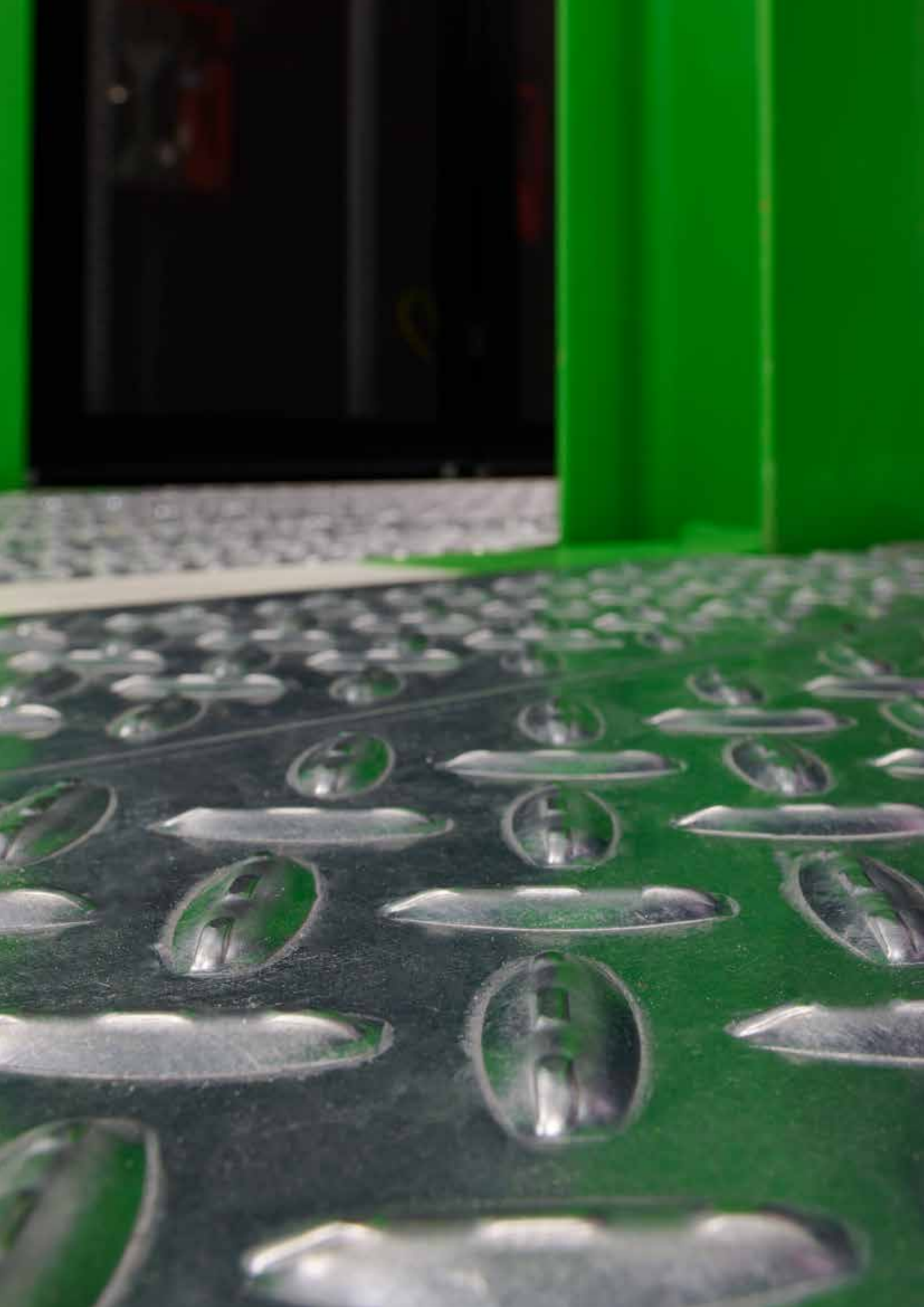




Dimensions		
Material	**Blechdicke**	**Bewertung RH**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5 / 3,0	R11
Sendzimir galvanised steel [DX51]	2,0 / 2,5 / 3,0	R11
Aluminium [AlMg3]	2,5 / 3,0	R11
Stainless steel [1.4301]	2,0	R11
Widths	160 / 180 / 240 / 320	
Heights	30 / 50 / 75 / 100 / special heights on request	
Lengths	max. 6.030 mm	
Length factors	50 mm	

Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.

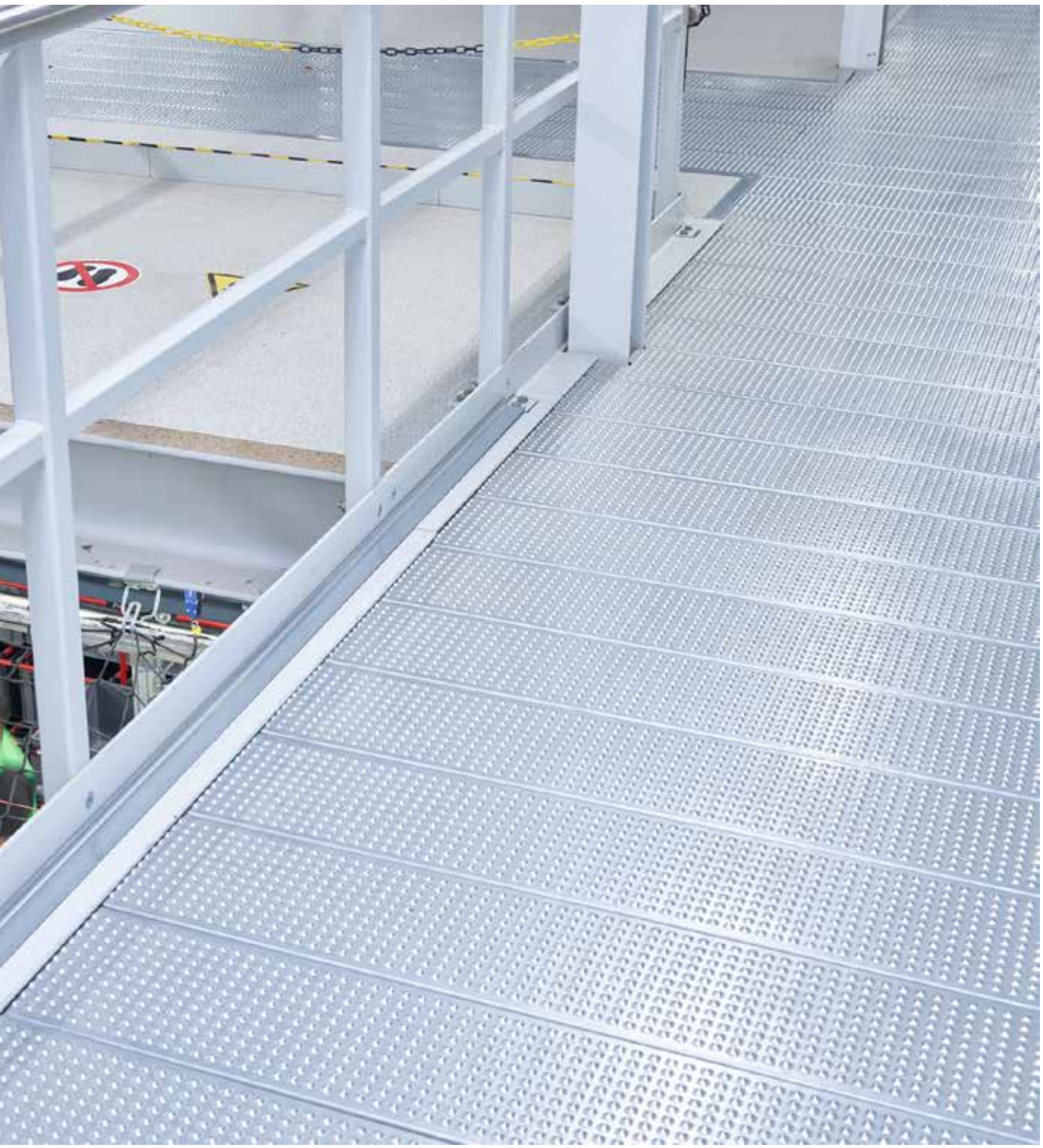
* Made in France



Closed Surfaces

56 Applications
58 Bostep G, Steplarm G
59 Aderstep G1, Glattblech
60 Toldiamant G, Tolplot

Closed Surfaces



Sheet metal grating of the Bostep G type at Cube Bikes in Marktredwitz



MEISER Bostep G profiled steel grating is being used as flooring in the stands area of the Poststadion in Berlin

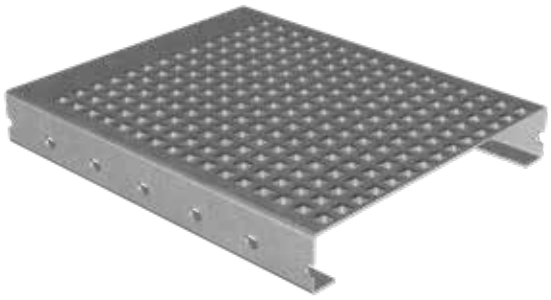




Planks with a closed surface combine the shelving systems with the advantages of profile planks. Closed surfaces are the best choice in areas where small items must not fall through or an opaque separation of different levels is required.

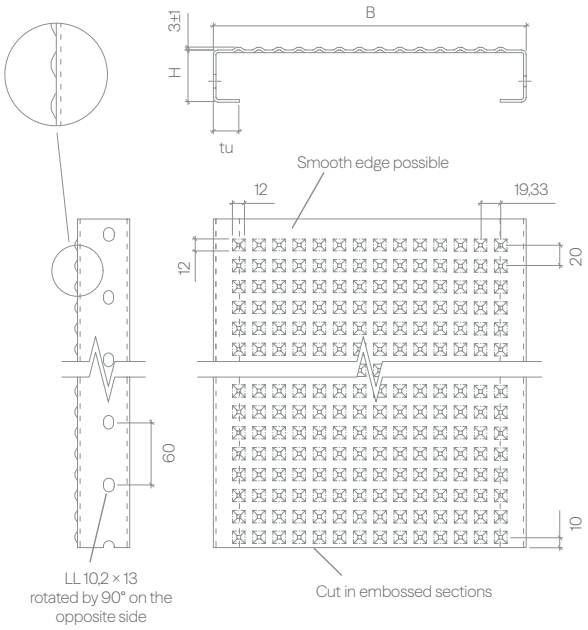
Closed profile planks offer the possibility to significantly economise sub-constructions due to large clear spans. So here we can offer a cost-effective alternative to other types of flooring.

Bostep G



Dimensions		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5 / 3,0	R10
Sendzimir galvanised steel [DX51]	2,0 / 2,5 / 3,0	R10
Aluminium [AlMg3]	2,5 / 3,0	R10
Stainless steel [1.4301]	2,0	R10
Widths	200 / 240 / 298 / variable	
Heights	50 / 75 / 100 / special heights on request	
Lengths	max. 8.000 mm	
Length factors	60 mm	

Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.

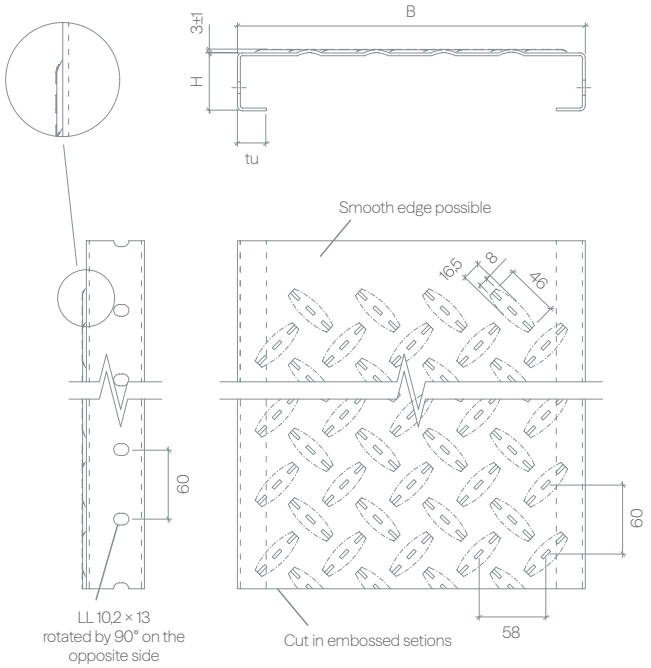


Steplarm G

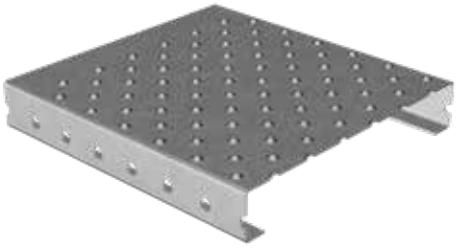


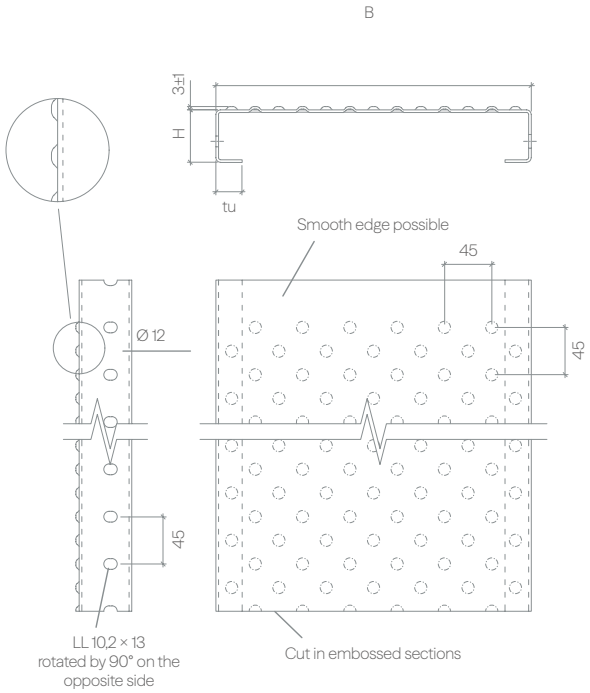
Dimensions		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5 / 3,0	R10
Sendzimir galvanised steel [DX51]	2,0 / 2,5 / 3,0	R10
Aluminium [AlMg3]	2,5 / 3,0	-
Stainless steel [1.4301]	2,0	-
Widths	200 / 240 / 270 / 298 / variable	
Heights	50 / 75 / 100 / special heights on request	
Lengths	max. 8.000 mm	
Length factors	60 mm	

Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.



Aderstep G1



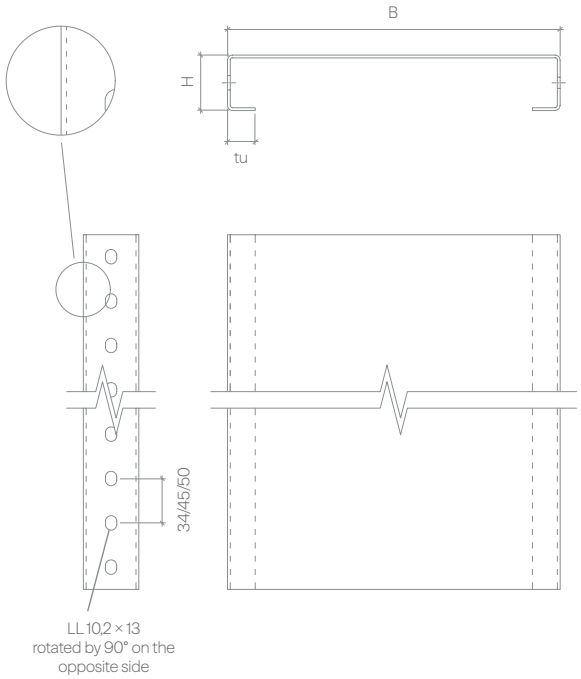


Dimensions		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5 / 3,0	R10
Sendzimir galvanised steel [DX51]	2,0 / 2,5 / 3,0	R10
Aluminium [AlMg3]	2,5 / 3,0	-
Stainless steel [1.4301]	2,0	-
Widths	182 / 240 / 298 / 330 / variable	
Heights	40 / 50 / 75 / 100 / special heights on request	
Lengths	max. 8.000 mm	
Length factors	45 mm	

Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.

Smooth Plate

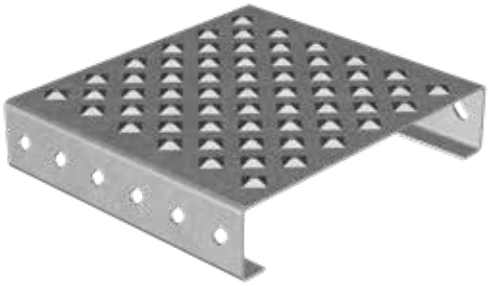


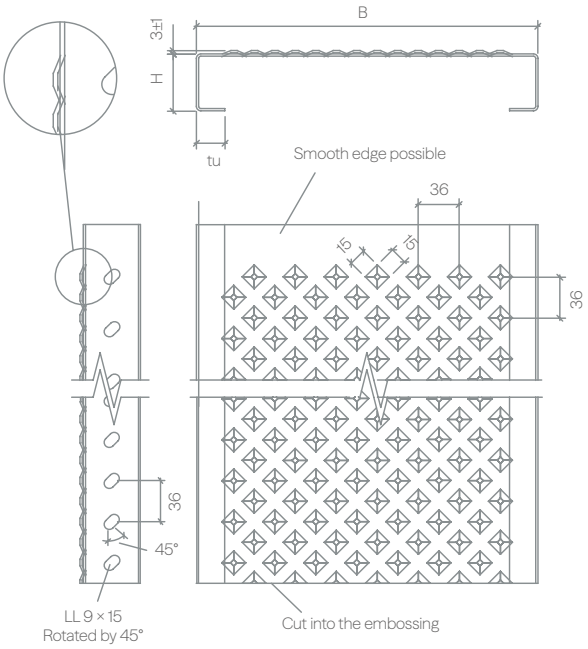


Dimensions		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5 / 3,0	-
Stahl sendzimirverzinkt [DX51]	2,0 / 2,5 / 3,0	-
Aluminium [AlMg3]	2,5 / 3,0	-
Stainless steel [1.4301]	2,0	-
Widths	120 – 360 variable	
Heights	40 / 50 / 75 / 100 / special heights on request	
Lengths	max. 8.000 mm	
Length factors	variable	

Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.

Toldiamant G



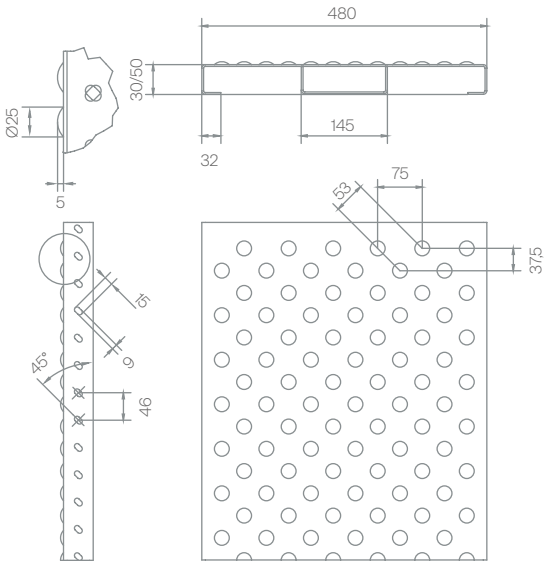


Dimensions		
Material	**Sheet thickness**	**AS class**
Raw / hot-dip galvanised steel [DD11]	2,0 / 2,5 / 3,0	R10
Sendzimir galvanised steel [DX51]	2,0 / 2,5 / 3,0	R10
Aluminium [AlMg3]	2,5 / 3,0	R10
Stainless steel [1.4301]	2,0	R10
Widths	180 / 240 / 300	
Heights	30 / 50 / 75 / 100 / special heights on request	
Lengths	max. 3.996 mm	
Length factors	36 mm	

Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.

Tolplot





Dimensions		
Material	**Sheet thickness**	**AS class**
Aluminium [AlMg3] eloxiert	2,0	-
Aluminium [AlMg3] eloxiert schwarz	2,0	-
Aluminium [AlMg3] eloxiert gold	2,0	-
Widths	480	
Heights	30 / 50	
Lengths	max. 2.000 mm	
Length factors	75 mm	

Special sizes or materials on request. Stored sizes according to stock list.
All data in mm.



Fire-Retardant Surface

66 Stephuit FH, Connecting system
67 Service hatch, Grounding

Fire Retarding Surface



Stephuit FH is ideal for use in substations and switchgear



A Stephuit FH access panel is a hinged service hatch available in various sizes



MFPA Leipzig GmbH

MFPA

Gutachten

Nr. GU 6/8-01-101-A

vom 27.02.2004, 1. Ausfertigung

Bewertung der Wirksamkeit von feuerhemmenden Abdeckungen - Elementbezeichnung „STEPHUIT-FH" - der Firma Meiser Gitterroste GmbH bei Mineralölbränden in ebenflurigen, wannenförmigen Auffangräumen unter Transformatoren

MFPA Gutachten Stephuit FH



SP

Fire test of Profile Plank for transformer pit fire protection

Johan Lindström, Michael Försth

SP Technical Research Institute of Sweden

Fire Technology

SP Arbetsrapport 2013:09

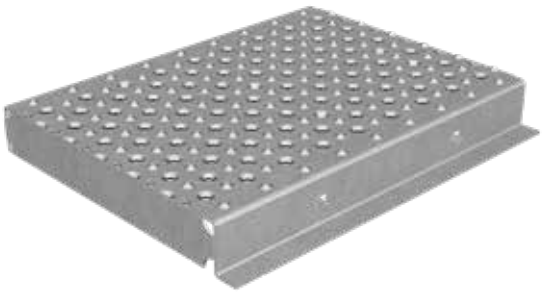
SP Gutachten Stephuit FH

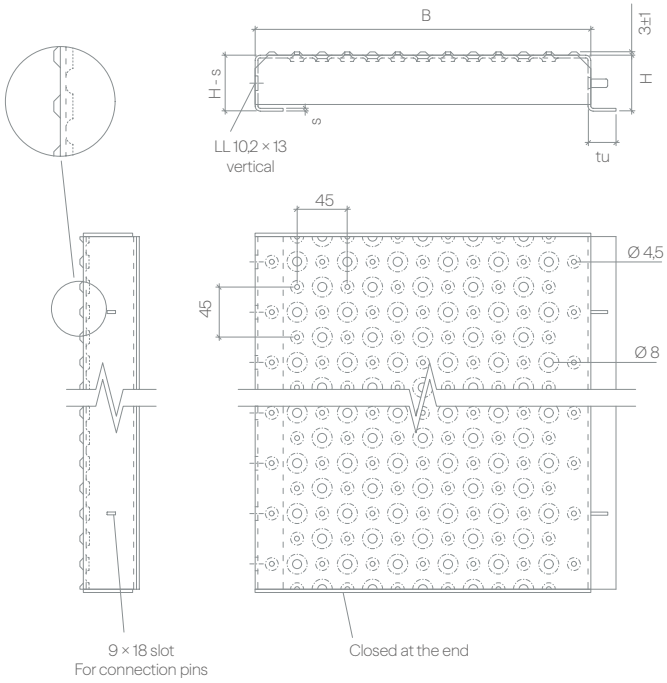
Worldwide switchboards and transformer stations are equipped with suitable oil drip trays. Conventional transformer pits are designed with oil collection trays to prevent leaking oil from seeping into the ground and causing environmental pollution. In order to contain or avoid any potential flaming, fireretardant covering is used.

To contain or prevent the spread of fire, fire-retardant coverings are used. With our STEPHUIT FH product, we have developed a state-of-the-art covering solution for transformer pits. STEPHUIT FH has been tested and certified by MFPA Leipzig GmbH for its effectiveness in the event of mineral oil fires. Therefore, this plank is especially suitable for flammable stations.

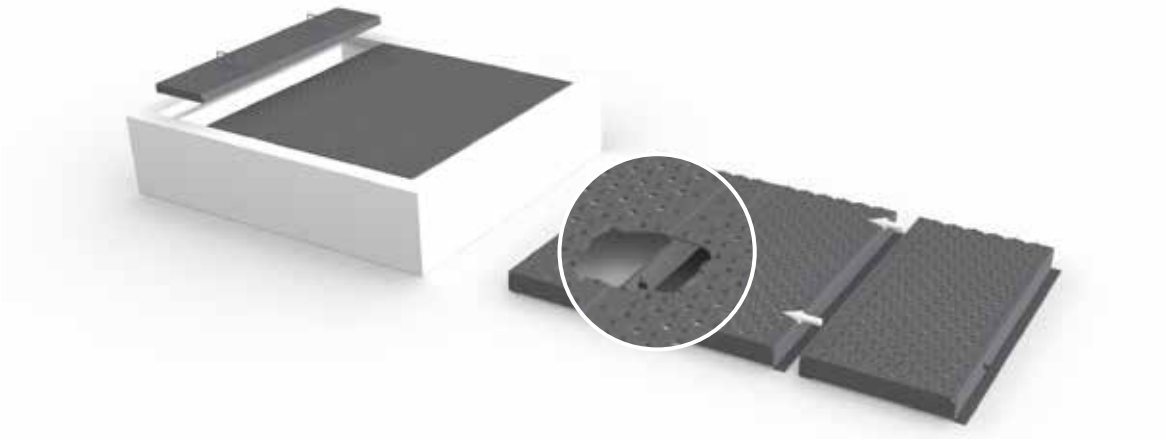
In comparison to traditional coverings, the use of STEPHUIT FH as a pit covering is very economical and environmentally friendly. It can be installed quickly and easily, helping to minimise transformer downtime.

Stephuit FH



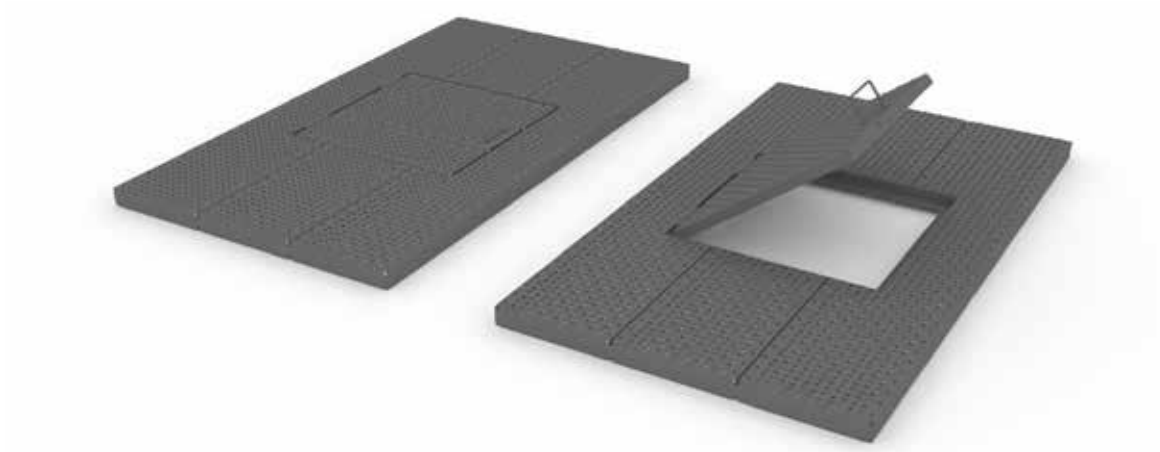


Connecting system



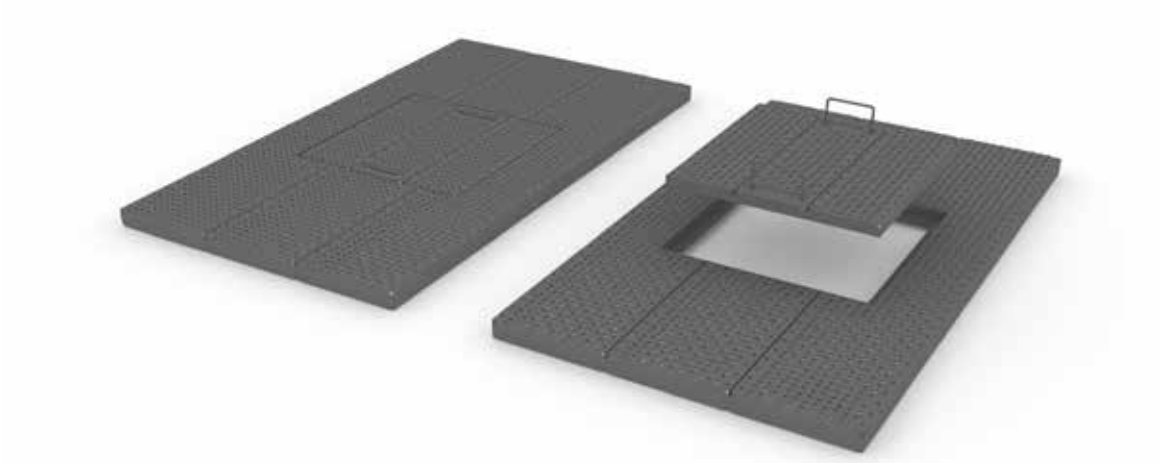
Dimensions		
Material	**Sheet thickness**	**AS class**
Hot-dip galvanised steel [DD11]	2,0 / 2,5 / 3,0	R11
Preferred heights	from 35 mm to 100 mm	
Preferred length [mm]	max. 3,000 / other lengths available on request	

Service hatch



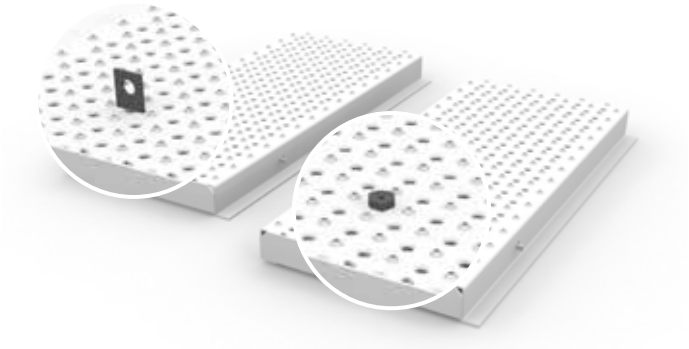
Service hatch with opening, available in dimensions 570×570 mm, 800×800 mm and 1,000×1,000 mm.

Service opening



Service opening to remove without hinge, available in dimensions 570×570 mm, 800×800 mm and 1,000×1,000 mm.

Grounding



Grounding nut, flats welded onto or underneath

All advantages at a glance

- Easy assembly & disassembly using plug system
- Minimal transformer downtime
- Reduced service times for pits, e.g. for cleaning
- Inspection openings can be integrated
- Customized adaptations possible
- Excellent fire-retardant effect and drainage



Special Products

70 Bulb plates
73 Nervopal
74 Passcran Gangway

MEISER Bulb plates

With bulb plates MEISER also offers a conventional closed covering for industrial use. On request the bulb plates can be cut, perforated, countersunk, edged or supplied with surface refinement.

Advantages of using bulb plates as floor coverings are the low height and the versatility in a wide range of applications. The disadvantage of a limited load-bearing capacity can be compensated by using structural reinforcement or applying MEISER Safety Floor.

Material
Raw/ Hot-dip galvanised steel [DD11]
Aluminium [AlMg^3]
Stainless steel [1.4301]

Sheet thickness
3/5, 5/7, 6/8, 8/10, 10/12
Special sizes or materials on request.



Your advantages

- Individually Manufactured to Your Requirements
- Installation plans prepared on request
- Lettering and positioning according to your specifications
- We make all necessary preparations for the fixing, e.g. counterbores
- Stocking of planks in various dimensions for shorter delivery times
- Quality control as standard
- MEISER bulb plates enable easy installation and assembly
- Suitable for use with lift trucks and wheelchairs



Sheet metal processing

With our comprehensively equipped machinery, we are able to manufacture for you various commission orders up to complete modules. We process virtually any punchable materials in steel, stainless steel and aluminium.

Production according to your specifications or designs is is part of our services as well as product development and prototype production. A team of experienced specialists is available to support you.

Thanks to our extensive production capabilities, we can respond flexibly to your individual requirements. We are happy to manufacture individual components as well as small- and large-scale series.





Special perforations

Our modern production facilities enable us to realise an unlimited number of hole shapes and positions for your various requirements.

Special perforations include for example, keyhole-shaped and round perforations, rasp perforations, hatch perforations and shutter perforations.





Edging, perforating, lasering – all under one roof!

Punching machines

80 – 500 t

Edging presses

150 – 600 t
Lengths up to 6.250 mm

Punching, Nibbling & Laser Cutting Machines

Hydraulic high-performance punching(300 kN)
Integrated laser cuffing

Laser power 2,5 kW, high beam quality
Max. sheet size 3.074 × 1.565 mm
Max. material thicknesses
Punching: 8 mm
Lasering: 8 mm steel
6 mm aluminium
6 mm stainless steel

Laser cutting machines

Laser power 4,4 kW
Max. sheet size 4.000 × 2.000 mm
Max. material thicknesses
25 mm steel
20 mm aluminium (V2A/ V4A)
12 mm stainless steel

Other material grades available on request

Squaring shears

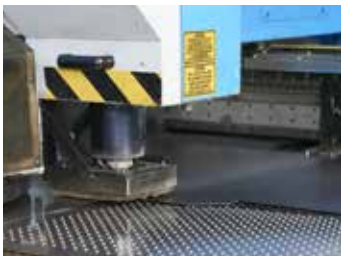
Roll bending

Welding robots

Profiling equipment

Splitting machines



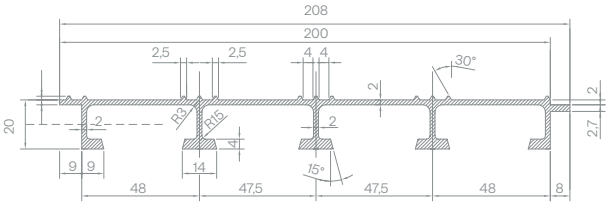
Ask us!
Production batches from 1 to 100.000 and more are possible

Nervopal*

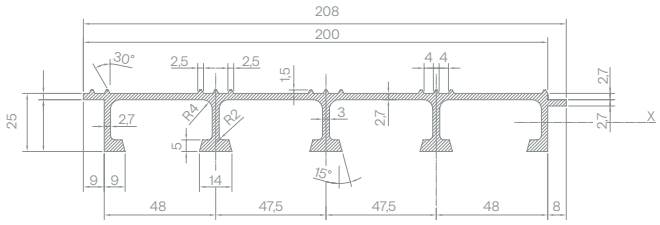
Applications

- Flooring and gangways on tankers and for refrigerated trailers and trucks
- Mobile platform for public transport vehicles
- For installations in coastal areas, jetties, refineries, and in the food and sulphur industries.

Weights	standard	perforated
Type 1 h = 20 mm	11 kg/m²	10 kg/m²
Type 2 h = 25 mm	16 kg/m²	15 kg/m²



Nervopal Type 1 h = 20 mm



Nervopal Type 2 h = 25 mm

Technical data:

- Profiled aluminium [AlMg3] alloy 6060F22
- 2 types: type 1 h = 20 mm
  type 2 h = 25 mm
- Optional perforation: (drill hole 80×15, tread 110 mm)
- Profile lengths 4000 mm or factory-assembled to size
- Clear widht for Uniformly Distributed Load
  type 1 h = 20 mm 800 mm
  type 2 h = 25 mm 1.200 mm



Nervopal standard



Nervopal perforated 80×15 tread 110 mm

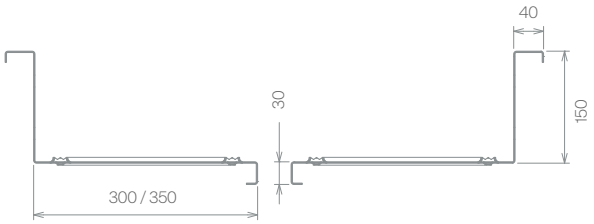
* Made in France

Passcran Gangway*

Applications:

- In chemical, petrochemical and metallurgical industries: as walkways in technical galleries
- In mining and quarries: as walkways on conveyer belts
- In all industries and ports: as walkways on cranes and travelling cranes





Advantages:

- Quick and easy to install
- Integrated kick-plates
- Conforms to EN ISO 14122 „Safety of machinery – Permanent means of access to machinery“
- Safety: anti-slip surface with effective liquid drainage
- Durable and robust: hot-dip galvanised material

Technical data

Weight:

- 16 kg/linear metre metre for two half gangways of 300 mm width each, total width 600 mm
- 18,5 kg/running metre for 2 half gangways of 350 mm width each, total width 700 mm

Material:

- Steel, hot-dip galvanised after fabrication
- Other materials or surface treatments on request
- Walkable with a load of 150 kg on a 200 × 200 mm area; span 2,500 mm
- Distributed load: 250 to 350 kg/m2. Span 2,500 mm

Standard lengths:

- 3.996, 2.996, 1.996, 996 mm
- Other lengths on request

Breite des Laufstegs:

- 600 mm oder 700 mm
- Other widths available on request

* Produced in France



Special Products



Assembly Groups

79 Applications
80 Platforms
Ladders including platforms and railings
Hatches
Steps / Ladders



Assembly Groups

An assembly group is a component of a machine or system that is essential for its overall function. Without it, the machine or system would either not function or only function to a limited extent.

MEISER assembly groups bring together components from different product groups. They are often developed from and based on our core products, profile planks and gratings, and can be complemented by laser-cut and punched parts, bent and edged components, as well as pipes.

By manufacturing assembly groups, we offer complete or partial solutions tailored to our customers' requirements. We support our customers throughout the entire process – from design and development through to the finished product.

Our aim is to work closely with our customers to develop economical solutions that combine efficiency, functionality and high quality.



Further information is available at www.meiser.de

Platforms

MEISER platforms come in a wide range of designs and always meet high standard of safety and functionality.

We would like to assist you from the planning up to the construction, so that our product meets your individual needs.

MEISER platforms are mainly used in the automotive and agricultural machinery industries, as well as in construction machinery, lifting systems and wind turbines.



Ladders including platforms and railings

Another option is to combine of several components. For example we offer a platform completely assembled with ladder and handrailing.

Of course, we support you during construction and planning. Production takes place for single parts or series production.

Together we can develop customized solutions that meet your individual requirements.



Hatches

We offer the production of hatches or covering including hinge and handle. The surface can be manufactured with an anti-slip perforation.



Steps / Ladders

We can also supply complete solutions for steps and ladders, for example on building machines. Again, we can help with design and planning.







Assembly Groups



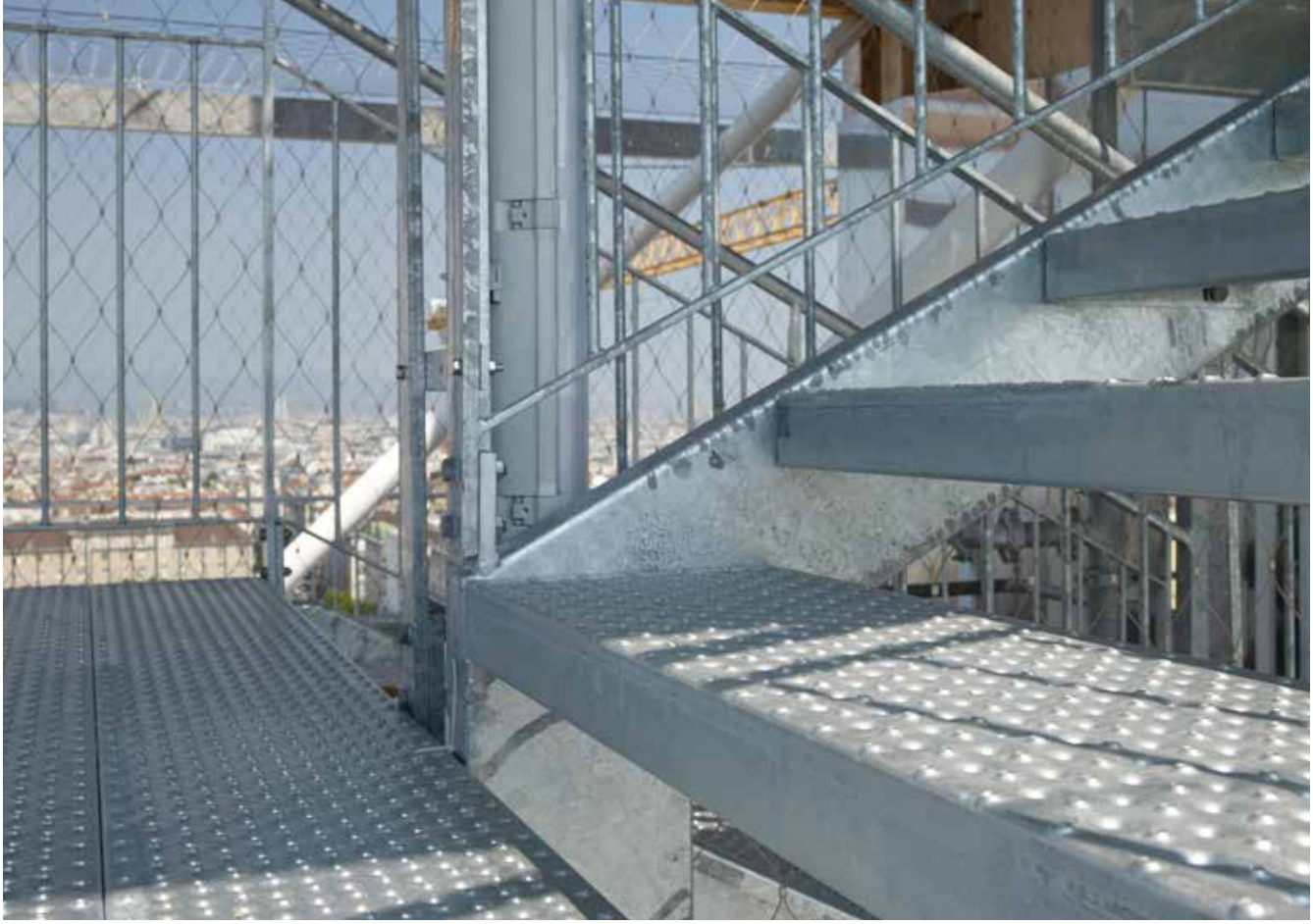
Stairtreads and ladder rung profiles

84 Applications
86 Stairtreads
87 Spiral staircase treads, Tread edges
89 Ladder rung profiles
91 Special types of ladder rung profiles

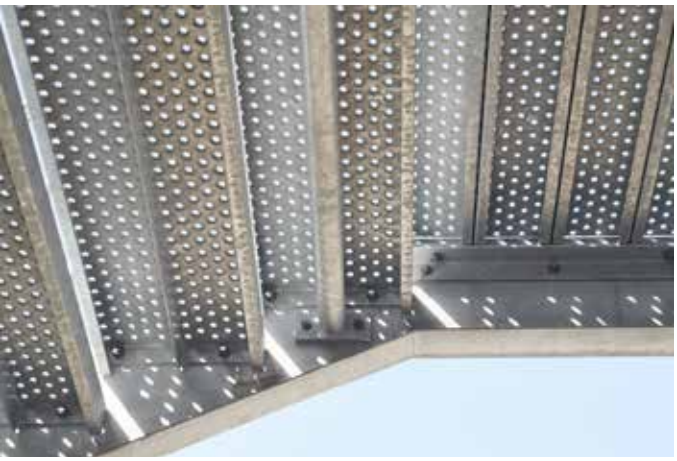
Stairtreads and ladder rung profiles



MEISER sheet metal profile steps can be manufactured with any available finish



Key factors to consider when choosing the right steps are the required load capacity and the intended use – we'd be happy to advise you





Profile plank steps, performance with aesthetical look in combina- profiles tion with highest safety standards. They are often used in all areas where mainly larger clear spans are required.

Stairtreads

MEISER profile plank stairtreads can be manufactured with all available surface designs. For safety tread edges with perforated surfaces the first hole is directly punched into the edge (Figure 1)

Alternatively, we can supply a flat bar with anti-slip notches on request (Figure 2). The end plates are either edged or welded and carried out according to our standard hole pattern 1 or 2. On request we can supply extra hole patterns.

The required load and purpose of use are main criteria for the right choice of steps. It is a pleasure for us to consult you to find an optimal solution.

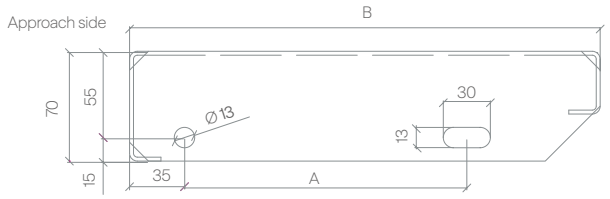


Figure 1

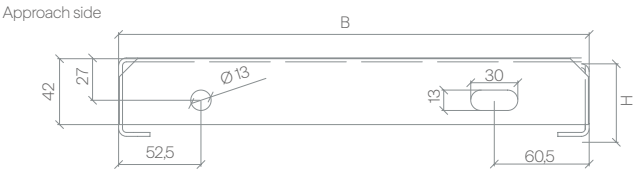


Figure 2

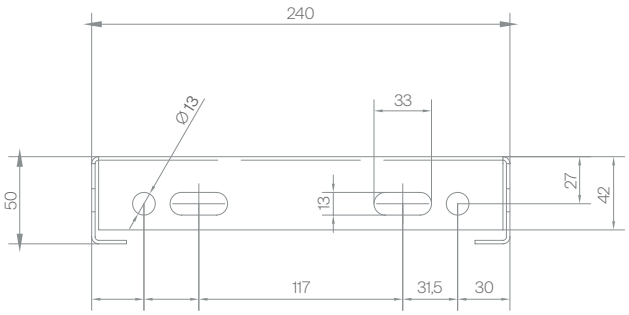
Width B of stair treads	Hole distance A
240 mm	120 mm
270 mm	150 mm
300 mm	180 mm



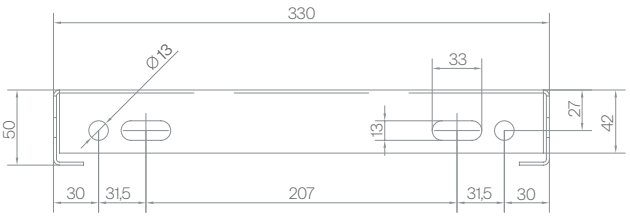
Hole Pattern 1



Hole Pattern 2



Hole Pattern 240*



Hole Pattern 330*

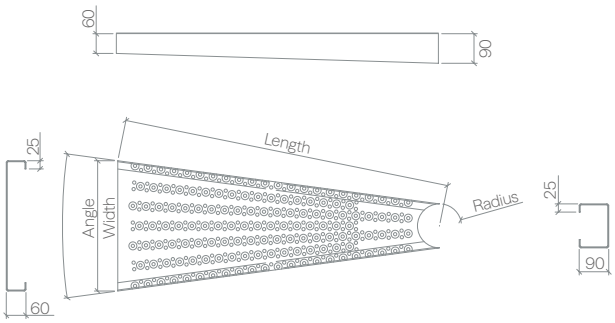
* Only for French stairtreads

Spiral staircase treads

MEISER spiral staircase treads are available with numerous different surfaces resulting in various functional and artistic possibilities for almost any application. The spiral staircase treads are supplied as unfinished components for on-site welding to the central column.

Dimensions of MEISER spiral staircase treads available from stock, suitable for both clockwise and anticlockwise configurations.



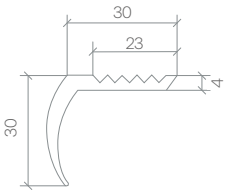


Raw steel						
Length [mm]	Width [mm]	Height [mm]	Thickness [mm]	Weight [kg]	Radius [mm]	Angle
800	368	90 / 60	3,00	5,80	57	18,5°
900	386	90 / 60	3,00	6,90	67	16,4°
1.000	403	90 / 60	3,00	7,80	67	15,7°
1.200	411	90 / 60	3,00	9,70	84	11,7°

Tread edges*

Nervopal, plain

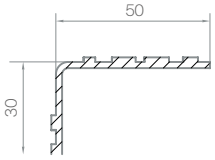




Aluminium AlMg3		
Length [mm]	Sides	Weight [kg/piece]
1.000	30 / 30	0,55
1.500	30 / 30	0,83
2.000	30 / 30	1,10

Mayol*





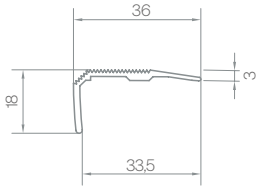
Aluminium AlMg3			
Length [mm]	Width [mm]	Height [mm] Front vertical	Mass [kg/p]
1.000	50	30	0,5
1.500	50	30	0,7
2.000	50	30	1,0
3.000	50	30	1,5

* Produced in France

Licorne*, plain, golden or black

with perforation (Ø5 mm – ca. 190 mm)



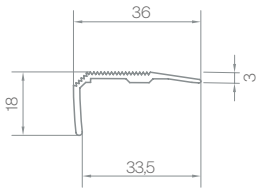


Aluminium AlMg3 Anodised Colour Plain, Golden or Black		
Length [mm]	Side	Weight [kg/piece]
2.000	36 / 18	1,10
Different designs on request		

Licorne*, plain, golden or black

without perforation



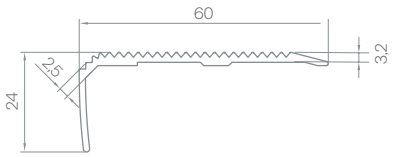


Aluminium AlMg3 Anodised Colour Plain, Golden or Black		
Length [mm]	Side	Weight [kg/piece]
2.000	36 / 18	1,10
Different designs on request		

Licorne XL*, plain or black

with perforation (Ø5 mm – ca. 190 mm)





Aluminium AlMg3 Anodised Colour Plain, Golden or Black			
Length [mm]	Width [mm]	Height [mm] Front vertical	Weight [kg/piece]
2.000	60	24	1,70
Different designs on request			

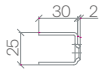
* Produced in France

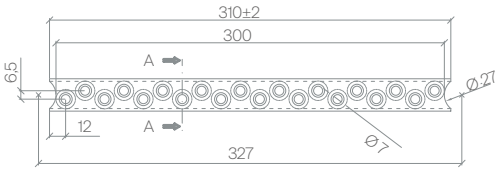
Ladder rung profiles

Variant 1



section A-A

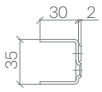


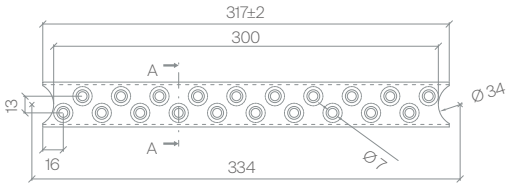


Variant 2



section A-A

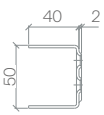


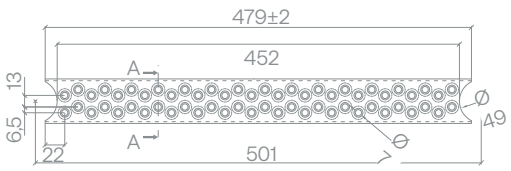


Variant 3



section A-A





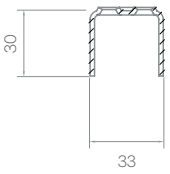
MEISER ladder rung profiles are characterized by a uniform perforation. The upward perforations guarantee an anti-slip, even in areas exposed to oil and dirt. The double-row, staggered perforation extending to the edges provides excellent slip resistance.

Ladder rung profiles		
	Length [mm]	Weight [kg/piece]
Variant 1 25 × 30 × 2 mm		
Steel StW 22	327*	0,40
	2.000	2,42
Stainless Steel V2A	327*	0,40
	2.000	2,40
Aluminium AlMg3	327*	0,14
	2.000	0,83
Stainless Steel V4A 1,4404	2.000	2,40
Variant 2 35 × 30 × 2 mm		
Steel StW 22	334*	0,47
	2.000	2,79
Stainless Steel V2A	334*	0,47
	2.000	2,81
Aluminium AlMg3	334*	0,16
	2.000	0,96
Stainless Steel V4A 1,4404	2.000	2,81
Variant 3 50 × 40 × 2 mm		
Steel StW 22	501*	0,96
	2.000	3,83
Stainless Steel V2A	501*	0,97
	2.000	3,86
Aluminium AlMg3	501*	0,33
	2.000	1,32
Stainless Steel V4A 1,4404	2.000	3,86

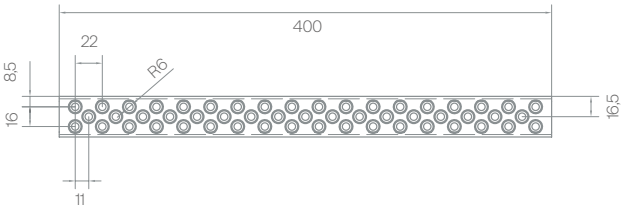
* = with notching

Cerbere*



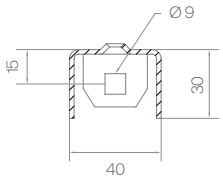


Stainless Steel V4A 1.4404				
Length [mm]	Width [mm]	Height [mm]	Sheet Thickness [mm]	Weight [kg/piece]
400	33	30	2	0,6



Tolpicot*



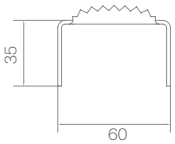


galvanized				
Length [mm]	Width [mm]	Height [mm]	Sheet Thickness [mm]	Weight [kg/piece]
400	40	30	2	0,6

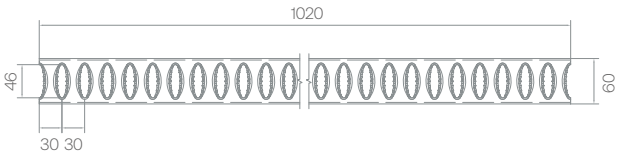


Tolplus*



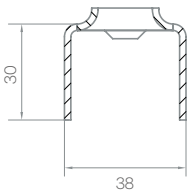


Stahl StW 22 roh				
Length [mm]	Width [mm]	Height [mm]	Sheet Thickness [mm]	Weight [kg/piece]
1.020	60	35	2	2,2



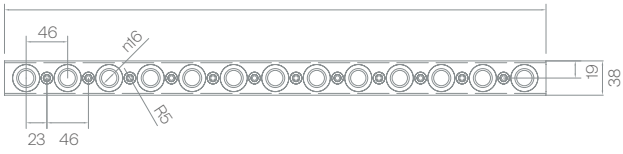
Tolrung*





Stahl StW 22 roh				
Length [mm]	Width [mm]	Height [mm]	Sheet Thickness [mm]	Weight [kg/piece]
330	33	30	2	0,6
500	38	30	2	0,8

Aluminium AlMG3				
Length [mm]	Width [mm]	Height [mm]	Sheet Thickness [mm]	Weight [kg/piece]
145	33	36	3	0,1
338	33	30	3	0,3
600	33	30	3	0,5



* Produced in France

Special types of ladder rung profiles

Non-standard variations tailored to your requirements in terms of size, shape or surface are available on request. Some include:



The Special Educational Needs Centre in Irchenried





Fixing Clips

Fixing Clips



Where many different surface textures come together, flexible fastening options are also required



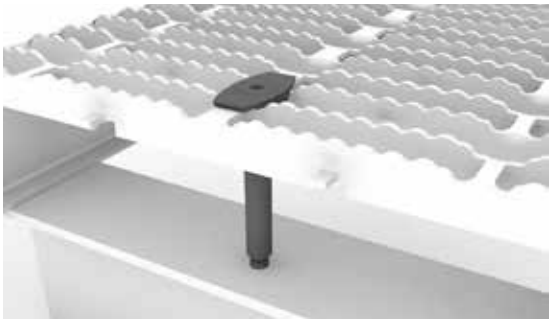
Sturdy and reliable fixings are essential for fully utilising all the benefits of profiled steel grating

MEISER fixings are an important component of our portfolio. Profile planks can only fulfil their function when they are properly secured. MEISER offers the right fixing solution for every application – enabling customised solutions to meet individual requirements.

Setting technology Drainstep RH3 & Stepbloc F

Consists of a set bolt, rondelle T03 and a countersunk head bolt with a compressed long nut.

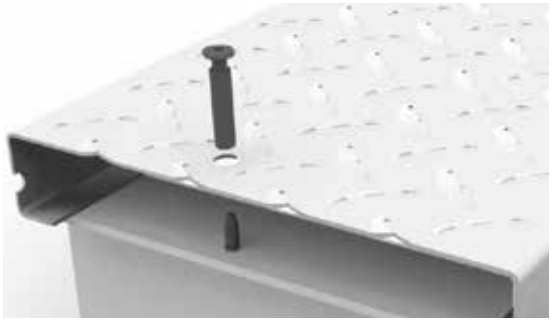




Setting technology closed surfaces

With a 13 mm hole in the profile

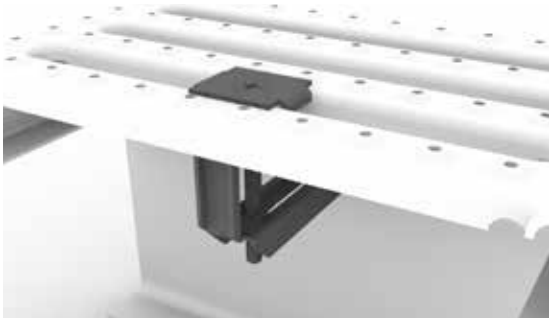




Flange

Clamp connection with cage nut and M8 countersunk head bolt.

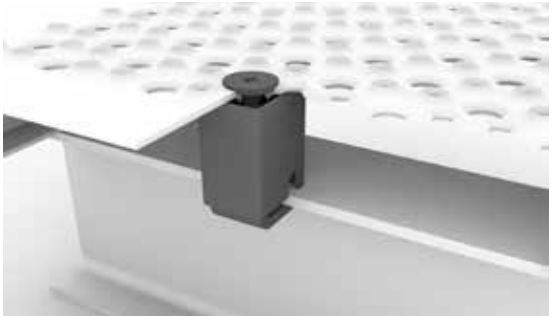




Support clip

Pre-assembled supporting clamp connection with M8 countersunk head bolt.



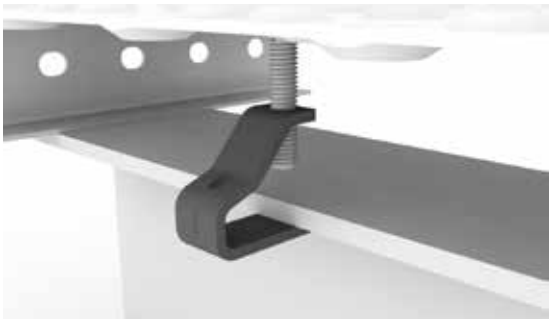


Illustrations are not installation instructions.

Fastfixing

Clamp connection with M8 countersunk head bolt.

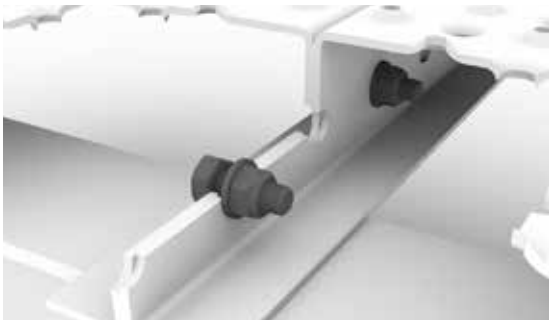




Screw connection

M8 × 20 special bolt with washers and self-locking nuts.

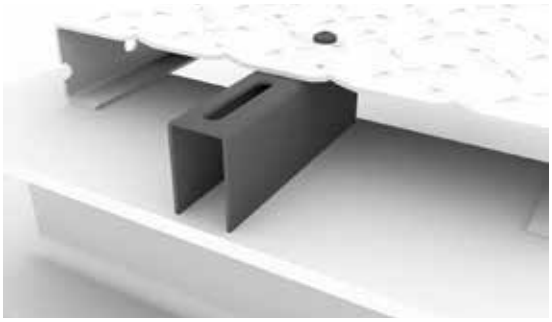




Support profile

For connecting planks at the ends and supporting them in the middle.





Universal clamp

Cast metal clamp for installation from below, available in various versions.



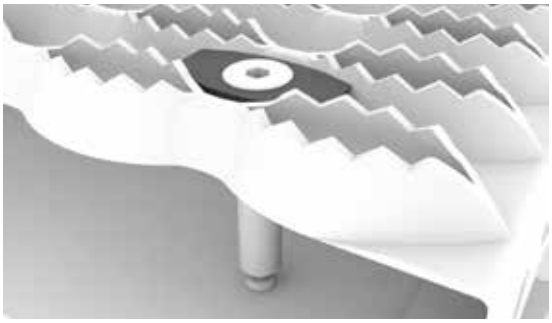


representations are no installation manuals

Rondelle T03

Cast metal upper component for all Stepbloc and Drainstep versions with a countersunk hole for DIN 7991 countersunk-head bolts.

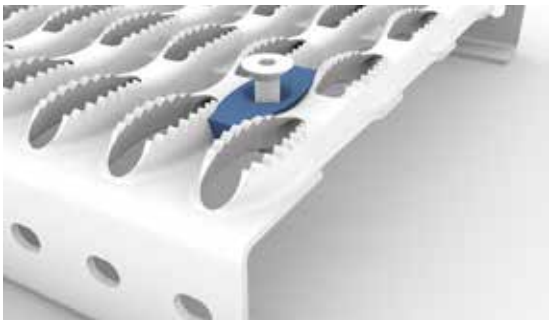




Plastic Olive

For all Stepbloc and Tolplus versions with a countersunk hole for countersunk-head bolts (DIN 7991).





Cast metal washer with a countersunk

Upper fastening component for Formstep N and Formstep 06, and all Stepclair Tolmixte, Tolplan and Airstep versions.





Plastic grommet with countersunk

Upper fastening component for all Stepclair and Airstep versions.

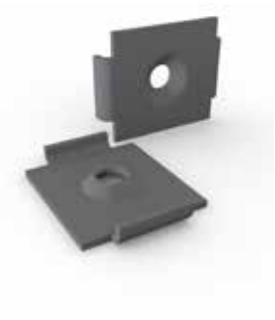


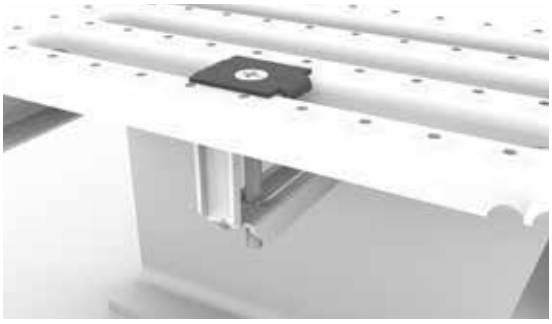


representations are no installation manuals

Counterplate

Upper component for all Stepplus versions.





Longitudinal connector with bolt

For connecting planks at the ends.





Hookfixing

With countersunk head bolt, hook compressed with collar.

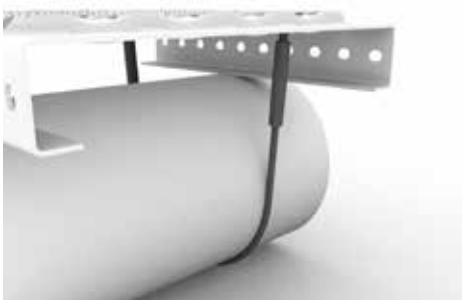




Cable connection

Available in various lengths, made of V2A stainless steel with a lengths, V2A with plastic sheath and bushings with M8 internal thread.





representations are no installation manuals

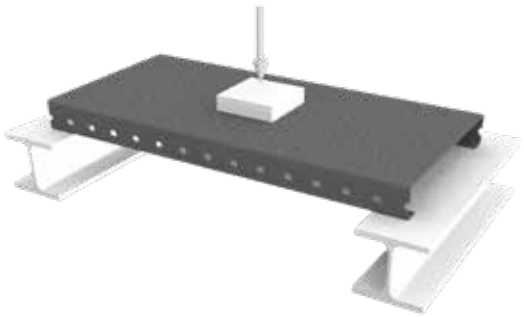


Statics and load tables

102 Point Load, Single Load, Uniformly distributed surface load, Clear Span
103 Preliminary remarks in general
104 Loadings of open serrated surfaces
106 Loadings of perforated surfaces
108 Loadings of slottet surfaces
110 Loadings of closed surfaces
114 Stairtreads

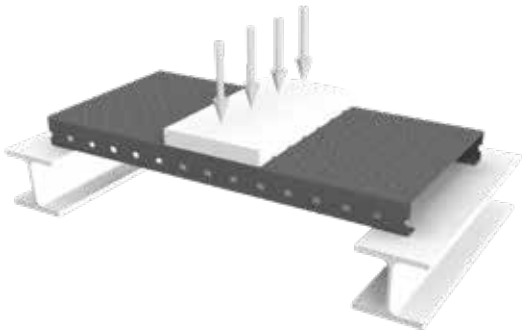
Point Load

Point load (Fp) refers to a single load applied over a square contact area.



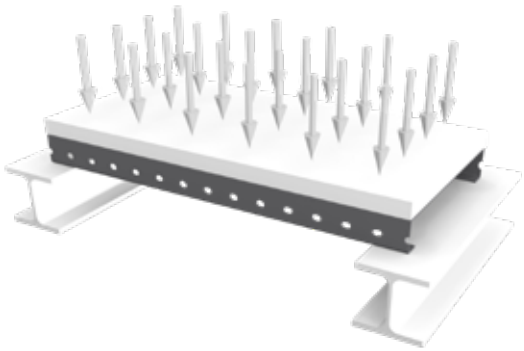
Single Load

Single load refers to a load applied over a rectangular contact area, with one side always extending across the full profile width B.



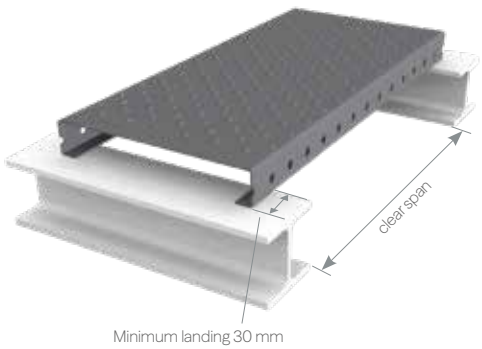
Uniformly distributed surface load

Area load (Fv) refers to a load acting per square metre.



Clear Span

The clear span (L) describes the distance between the supports.



representations are no installation manuals

General preliminary remarks

MEISER sheet metal profiles are designed for the elastic material range of materials such as DD11 and DX51. Either the permissible stress of the material, calculated according to EN 1993 and formerly RAL-GZ 639, or the permissible deflection according to RAL-GZ 638 is decisive. The table values take into account the less favourable value in each case.

For adjacent gratings, the deflection of an individual grating subjected to a point load must not exceed 4 mm (tripping edge). If the deflection is greater, e.g. with L/200ths restriction with L > 800 mm (L = clear span), the gratings must be connected to each other. The maximum spacing between the fasteners is set at 500 mm.



The Skywalk at Leuchtenburg

MEISER profiled steel gratings provide safe support even at height



Preliminary remarks on the level profile tables

For step lengths of up to 1200 mm, a point load in the centre and the surface load were taken into account, whereby both load types do not occur simultaneously. For step lengths of more than 1200 mm up to 1800 mm, two point loads were taken into account at a distance of 600 mm. All calculations include the dead weight of the profile.

The static calculation of the step profiles was carried out taking into account the stress of the material in direction L (step length) and direction B (profile width), as well as the deflection limits of L/300th and 6 mm.

Preliminary remarks on the load tables

The table values apply to a single, centrally applied point load (Fp). FP200 refers to a load contact area of 200 × 200 mm² and FP50 to 50 × 50 mm². The values for the maximum surface loads (Fv) can also be found in the tables.

The maximum load values were calculated taking into account the material stress in direction L (clear span) or in direction B (profile width), as well as by limiting the deflections L/200th or 4 mm (tripping edge). The calculations include the dead weight of the profile but do not take into account any load-increasing effects resulting from bolted connections under point loads. A static calculation with screw connection factors is available on request, as these vary depending on the profile.

For stainless steel, the table values can be multiplied by a factor of 0.81 and for aluminium by a factor of 0.33 in order to obtain an approximate estimate of the load-bearing capacities with these materials. For precise values, an individual structural calculation is recommended and can be provided on request.

Loadings of open serrated surfaces

F_p left cell value: permissible stress of the material and deflection L/200th complied with
F_p right cell value: permissible tension of the material and deflection 4 mm observed

profile [material DD11/ DX51]	type of load	clear span [mm]						
		600	800	1.000	1.200	1.400	1.600	1.800
240 × 40 × 2,0	$F_{p,200}$ [kN]	2,86 / 2,86	2,03 / 2,03	1,57 / 1,57	1,27 / 1,17	1,07 / 0,71	–	–
	$F_{p,50}$ [kN]	2,48 / 2,48	1,83 / 1,83	1,45 / 1,45	1,19 / 1,15	1,01 / 0,71	–	–
	F_v [kN/m²]	33,05	18,51	11,77	8,12	5,91	–	–
300 × 40 × 2,0	$F_{p,200}$ [kN]	2,85 / 2,85	2,03 / 2,03	1,57 / 1,57	1,27 / 1,16	1,06 / 0,7	–	–
	$F_{p,50}$ [kN]	2,05 / 2,05	1,83 / 1,83	1,44 / 1,44	1,19 / 1,15	1 / 0,7	–	–
	F_v [kN/m²]	26,41	14,78	9,39	6,46	4,70	–	–
240 × 40 × 2,5	$F_{p,200}$ [kN]	3,42 / 3,42	2,43 / 2,43	1,88 / 1,88	1,52 / 1,4	1,28 / 0,85	1,1 / 0,54	–
	$F_{p,50}$ [kN]	2,97 / 2,97	2,19 / 2,19	1,73 / 1,73	1,43 / 1,38	1,21 / 0,84	1,04 / 0,54	–
	F_v [kN/m²]	39,54	22,13	14,08	9,70	7,06	4,74	–
300 × 40 × 2,5	$F_{p,200}$ [kN]	3,41 / 3,41	2,42 / 2,42	1,87 / 1,87	1,52 / 1,39	1,27 / 0,84	1,09 / 0,53	–
	$F_{p,50}$ [kN]	2,97 / 2,97	2,19 / 2,19	1,73 / 1,73	1,42 / 1,37	1,2 / 0,83	1,03 / 0,53	–
	F_v [kN/m²]	31,59	17,67	11,23	7,73	5,61	3,76	–
240 × 40 × 3,0	$F_{p,200}$ [kN]	4,32 / 4,32	3,07 / 3,07	2,37 / 2,37	1,93 / 1,6	1,62 / 0,97	1,31 / 0,62	1,01 / 0,4
	$F_{p,50}$ [kN]	3,75 / 3,75	2,77 / 2,77	2,19 / 2,19	1,8 / 1,58	1,53 / 0,96	1,31 / 0,61	1,01 / 0,4
	F_v [kN/m²]	49,96	27,97	17,80	12,27	8,27	5,44	3,72
300 × 40 × 3,0	$F_{p,200}$ [kN]	4,31 / 4,31	3,06 / 3,06	2,37 / 2,37	1,92 / 1,59	1,61 / 0,96	1,3 / 0,6	1 / 0,38
	$F_{p,50}$ [kN]	3,75 / 3,75	2,77 / 2,77	2,18 / 2,18	1,8 / 1,57	1,52 / 0,95	1,29 / 0,6	0,99 / 0,38
	F_v [kN/m²]	39,93	22,34	14,20	9,77	6,57	4,30	2,93
240 × 50 × 2,0	$F_{p,200}$ [kN]	4,22 / 4,22	3,01 / 3,01	2,33 / 2,33	1,9 / 1,9	1,59 / 1,41	1,37 / 0,92	1,2 / 0,62
	$F_{p,50}$ [kN]	2,6 / 2,6	2,6 / 2,6	2,15 / 2,15	1,77 / 1,77	1,51 / 1,4	1,31 / 0,91	1,15 / 0,62
	F_v [kN/m²]	48,90	27,41	17,47	12,06	8,81	6,69	5,24
300 × 50 × 2,0	$F_{p,200}$ [kN]	4,22 / 4,22	3 / 3	2,32 / 2,32	1,89 / 1,89	1,59 / 1,4	1,36 / 0,91	1,19 / 0,61
	$F_{p,50}$ [kN]	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	1,77 / 1,77	1,5 / 1,39	1,3 / 0,9	1,14 / 0,61
	F_v [kN/m²]	39,09	21,90	13,94	9,62	7,02	5,33	4,17
240 × 50 × 2,5	$F_{p,200}$ [kN]	5,09 / 5,09	3,63 / 3,63	2,81 / 2,81	2,28 / 2,28	1,92 / 1,7	1,65 / 1,11	1,44 / 0,75
	$F_{p,50}$ [kN]	3,7 / 3,7	3,27 / 3,27	2,59 / 2,59	2,14 / 2,14	1,81 / 1,69	1,57 / 1,1	1,38 / 0,74
	F_v [kN/m²]	58,95	33,04	21,05	14,54	10,61	8,06	6,31
300 × 50 × 2,5	$F_{p,200}$ [kN]	5,09 / 5,09	3,62 / 3,62	2,8 / 2,8	2,28 / 2,28	1,91 / 1,69	1,64 / 1,1	1,43 / 0,73
	$F_{p,50}$ [kN]	2,97 / 2,97	2,97 / 2,97	2,59 / 2,59	2,13 / 2,13	1,81 / 1,68	1,56 / 1,09	1,37 / 0,73
	F_v [kN/m²]	47,13	26,40	16,81	11,60	8,45	6,41	5,02
240 × 50 × 3,0	$F_{p,200}$ [kN]	6,49 / 6,49	4,62 / 4,62	3,58 / 3,58	2,91 / 2,91	2,45 / 1,97	2,11 / 1,28	1,84 / 0,86
	$F_{p,50}$ [kN]	4,83 / 4,83	4,17 / 4,17	3,3 / 3,3	2,73 / 2,73	2,31 / 1,95	2,01 / 1,27	1,77 / 0,86
	F_v [kN/m²]	75,08	42,09	26,82	18,53	13,53	10,28	7,58
300 × 50 × 3,0	$F_{p,200}$ [kN]	6,48 / 6,48	4,61 / 4,61	3,57 / 3,57	2,9 / 2,9	2,44 / 1,96	2,1 / 1,27	1,83 / 0,85
	$F_{p,50}$ [kN]	3,97 / 3,97	3,97 / 3,97	3,29 / 3,29	2,72 / 2,72	2,31 / 1,94	2 / 1,26	1,75 / 0,84
	F_v [kN/m²]	60,02	33,63	21,42	14,78	10,78	8,19	6,01
240 × 75 × 2,0	$F_{p,200}$ [kN]	6,42 / 6,42	5,74 / 5,74	4,45 / 4,45	3,63 / 3,63	3,06 / 3,06	2,64 / 2,64	2,32 / 1,83
	$F_{p,50}$ [kN]	2,6 / 2,6	2,6 / 2,6	2,6 / 2,6	2,6 / 2,6	2,6 / 2,6	2,52 / 2,52	2,22 / 1,82
	F_v [kN/m²]	93,23	52,34	33,41	23,13	16,93	12,90	10,14
300 × 75 × 2,0	$F_{p,200}$ [kN]	4,35 / 4,35	4,35 / 4,35	4,35 / 4,35	3,63 / 3,63	3,06 / 3,06	2,64 / 2,64	2,31 / 1,82
	$F_{p,50}$ [kN]	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 1,81
	F_v [kN/m²]	74,56	41,84	26,70	18,47	13,51	10,29	8,09
240 × 75 × 2,5	$F_{p,200}$ [kN]	8,65 / 8,65	6,99 / 6,99	5,42 / 5,42	4,42 / 4,42	3,73 / 3,73	3,21 / 3,21	2,82 / 2,23
	$F_{p,50}$ [kN]	3,7 / 3,7	3,7 / 3,7	3,7 / 3,7	3,7 / 3,7	3,52 / 3,52	3,06 / 3,06	2,7 / 2,22
	F_v [kN/m²]	113,48	63,70	40,66	28,14	20,60	15,70	12,34
300 × 75 × 2,5	$F_{p,200}$ [kN]	6,09 / 6,09	6,09 / 6,09	5,42 / 5,42	4,41 / 4,41	3,72 / 3,72	3,21 / 3,21	2,81 / 2,22
	$F_{p,50}$ [kN]	2,97 / 2,97	2,97 / 2,97	2,97 / 2,97	2,97 / 2,97	2,97 / 2,97	2,97 / 2,97	2,69 / 2,2
	F_v [kN/m²]	90,75	50,92	32,49	22,48	16,44	12,52	9,84
240 × 75 × 3,0	$F_{p,200}$ [kN]	10,88 / 10,88	8,99 / 8,99	6,97 / 6,97	5,69 / 5,69	4,79 / 4,79	4,14 / 3,77	3,63 / 2,6
	$F_{p,50}$ [kN]	4,83 / 4,83	4,83 / 4,83	4,83 / 4,83	4,83 / 4,83	4,53 / 4,53	3,94 / 3,74	3,48 / 2,59
	F_v [kN/m²]	145,87	81,90	52,28	36,20	26,50	20,20	15,89
300 × 75 × 3,0	$F_{p,200}$ [kN]	7,84 / 7,84	7,84 / 7,84	6,96 / 6,96	5,68 / 5,68	4,78 / 4,78	4,13 / 3,76	3,62 / 2,59
	$F_{p,50}$ [kN]	3,97 / 3,97	3,97 / 3,97	3,97 / 3,97	3,97 / 3,97	3,97 / 3,97	3,93 / 3,73	3,47 / 2,57
	F_v [kN/m²]	116,66	65,48	41,78	28,92	21,16	16,12	12,67
240 × 100 × 2,0	$F_{p,200}$ [kN]	6,42 / 6,42	6,42 / 6,42	6,42 / 6,42	5,84 / 5,84	4,93 / 4,93	4,26 / 4,26	3,74 / 3,74
	$F_{p,50}$ [kN]	2,6 / 2,6	2,6 / 2,6	2,6 / 2,6	2,6 / 2,6	2,6 / 2,6	2,6 / 2,6	2,6 / 2,6
	F_v [kN/m²]	149,54	84,00	53,66	37,18	27,24	20,79	16,37
300 × 100 × 2,0	$F_{p,200}$ [kN]	4,35 / 4,35	4,35 / 4,35	4,35 / 4,35	4,35 / 4,35	4,35 / 4,35	4,25 / 4,25	3,74 / 3,74
	$F_{p,50}$ [kN]	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05
	F_v [kN/m²]	119,60	67,17	42,90	29,72	21,77	16,61	13,07
240 × 100 × 2,5	$F_{p,200}$ [kN]	8,65 / 8,65	8,65 / 8,65	8,65 / 8,65	7,15 / 7,15	6,03 / 6,03	5,21 / 5,21	4,58 / 4,58
	$F_{p,50}$ [kN]	3,7 / 3,7	3,7 / 3,7	3,7 / 3,7	3,7 / 3,7	3,7 / 3,7	3,7 / 3,7	3,7 / 3,7
	F_v [kN/m²]	182,98	102,78	65,65	45,49	33,33	25,44	20,03

profile [material DD11/ DX51]	type of load	clear span [mm]					
		2.000	2.200	2.400	2.600	2.800	3.000
240 × 40 × 2,0	$F_{p,200}$ [kN]	–	–	–	–	–	–
	$F_{p,50}$ [kN]	–	–	–	–	–	–
	F_v [kN/m²]	–	–	–	–	–	–
300 × 40 × 2,0	$F_{p,200}$ [kN]	–	–	–	–	–	–
	$F_{p,50}$ [kN]	–	–	–	–	–	–
	F_v [kN/m²]	–	–	–	–	–	–
240 × 40 × 2,5	$F_{p,200}$ [kN]	–	–	–	–	–	–
	$F_{p,50}$ [kN]	–	–	–	–	–	–
	F_v [kN/m²]	–	–	–	–	–	–
300 × 40 × 2,5	$F_{p,200}$ [kN]	–	–	–	–	–	–
	$F_{p,50}$ [kN]	–	–	–	–	–	–
	F_v [kN/m²]	–	–	–	–	–	–
240 × 40 × 3,0	$F_{p,200}$ [kN]	–	–	–	–	–	–
	$F_{p,50}$ [kN]	–	–	–	–	–	–
	F_v [kN/m²]	–	–	–	–	–	–
300 × 40 × 3,0	$F_{p,200}$ [kN]	–	–	–	–	–	–
	$F_{p,50}$ [kN]	–	–	–	–	–	–
	F_v [kN/m²]	–	–	–	–	–	–
240 × 50 × 2,0	$F_{p,200}$ [kN]	1,06 / 0,43	–	–	–	–	–
	$F_{p,50}$ [kN]	1,02 / 0,43	–	–	–	–	–
	F_v [kN/m²]	3,90	–	–	–	–	–
300 × 50 × 2,0	$F_{p,200}$ [kN]	1,05 / 0,42	–	–	–	–	–
	$F_{p,50}$ [kN]	1,01 / 0,41	–	–	–	–	–
	F_v [kN/m²]	3,09	–	–	–	–	–
240 × 50 × 2,5	$F_{p,200}$ [kN]	1,28 / 0,51	1,14 / 0,35	–	–	–	–
	$F_{p,50}$ [kN]	1,23 / 0,51	1,1 / 0,35	–	–	–	–
	F_v [kN/m²]	4,70	3,45	–	–	–	–
300 × 50 × 2,5	$F_{p,200}$ [kN]	1,27 / 0,5	1,13 / 0,34	–	–	–	–
	$F_{p,50}$ [kN]	1,22 / 0,5	1,09 / 0,34	–	–	–	–
	F_v [kN/m²]	3,72	2,73	–	–	–	–
240 × 50 × 3,0	$F_{p,200}$ [kN]	1,63 / 0,59	1,32 / 0,41	1,08 / 0,27	–	–	–
	$F_{p,50}$ [kN]	1,57 / 0,59	1,32 / 0,4	1,08 / 0,27	–	–	–
	F_v [kN/m²]	5,43	3,99	2,99	–	–	–
300 × 50 × 3,0	$F_{p,200}$ [kN]	1,62 / 0,57	1,3 / 0,39	1,06 / 0,25	–	–	–
	$F_{p,50}$ [kN]	1,56 / 0,57	1,3 / 0,39	1,06 / 0,25	–	–	–
	F_v [kN/m²]	4,30	3,15	2,35	–	–	–
240 × 75 × 2,0	$F_{p,200}$ [kN]	2,06 / 1,31	1,86 / 0,95	1,68 / 0,7	1,54 / 0,52	1,41 / 0,39	1,3 / 0,29
	$F_{p,50}$ [kN]	1,99 / 1,3	1,79 / 0,95	1,63 / 0,7	1,49 / 0,52	1,37 / 0,39	1,27 / 0,29
	F_v [kN/m²]	8,17	6,71	5,60	4,73	3,92	3,14
300 × 75 × 2,0	$F_{p,200}$ [kN]	2,05 / 1,29	1,85 / 0,94	1,67 / 0,69	1,52 / 0,51	1,4 / 0,37	1,29 / 0,27
	$F_{p,50}$ [kN]	1,98 / 1,29	1,78 / 0,94	1,62 / 0,69	1,48 / 0,51	1,36 / 0,37	1,26 / 0,27
	F_v [kN/m²]	6,51	5,34	4,45	3,76	3,11	2,48
240 × 75 × 2,5	$F_{p,200}$ [kN]	2,51 / 1,59	2,26 / 1,16	2,05 / 0,85	1,87 / 0,64	1,71 / 0,47	1,58 / 0,35
	$F_{p,50}$ [kN]	2,42 / 1,58	2,18 / 1,15	1,98 / 0,85	1,81 / 0,63	1,67 / 0,47	1,54 / 0,35
	F_v [kN/m²]	9,94	8,16	6,81	5,76	4,77	3,81
300 × 75 × 2,5	$F_{p,200}$ [kN]	2,5 / 1,57	2,24 / 1,14	2,03 / 0,84	1,85 / 0,62	1,7 / 0,45	1,57 / 0,33
	$F_{p,50}$ [kN]	2,4 / 1,57	2,17 / 1,14	1,97 / 0,83	1,8 / 0,62	1,65 / 0,45	1,53 / 0,32
	F_v [kN/m²]	7,91	6,49	5,41	4,57	3,78	3,01
240 × 75 × 3,0	$F_{p,200}$ [kN]	3,23 / 1,85	2,91 / 1,35	2,64 / 1	2,41 / 0,74	2,21 / 0,55	2,01 / 0,4
	$F_{p,50}$ [kN]	3,11 / 1,84	2,81 / 1,34	2,55 / 0,99	2,34 / 0,74	2,15 / 0,55	1,99 / 0,4
	F_v [kN/m²]	12,80	10,52	8,78	7,05	5,56	4,45
300 × 75 × 3,0	$F_{p,200}$ [kN]	3,22 / 1,84	2,89 / 1,33	2,62 / 0,97	2,39 / 0,72	2,2 / 0,52	1,98 / 0,38
	$F_{p,50}$ [kN]	3,1 / 1,83	2,79 / 1,32	2,54 / 0,97	2,32 / 0,71	2,14 / 0,52	1,97 / 0,38
	F_v [kN/m²]	10,20	8,37	6,98	5,59	4,41	3,51
240 × 100 × 2,0	$F_{p,200}$ [kN]	3,34 / 2,82	3,01 / 2,09	2,73 / 1,57	2,5 / 1,21	2,3 / 0,93	2,13 / 0,72
	$F_{p,50}$ [kN]	2,6 / 2,6	2,6 / 2,08	2,6 / 1,57	2,43 / 1,2	2,24 / 0,93	2,08 / 0,72
	F_v [kN/m²]	13,21	10,87	9,09	7,71	6,61	5,72
300 × 100 × 2,0	$F_{p,200}$ [kN]	3,33 / 2,81	3 / 2,07	2,72 / 1,56	2,49 / 1,19	2,29 / 0,92	2,12 / 0,71
	$F_{p,50}$ [kN]	2,05 / 2,05	2,05 / 2,05	2,05 / 1,56	2,05 / 1,19	2,05 / 0,91	2,05 / 0,71
	F_v [kN/m²]	10,54	8,67	7,24	6,14	5,26	4,55
240 × 100 × 2,5	$F_{p,200}$ [kN]	4,08 / 3,45	3,68 / 2,55	3,34 / 1,93	3,06 / 1,47	2,81 / 1,14	2,6 / 0,88
	$F_{p,50}$ [kN]	3,7 / 3,44	3,55 / 2,54	3,24 / 1,92	2,97 / 1,47	2,74 / 1,14	2,54 / 0,88
	F_v [kN/m²]	16,16	13,30	11,12	9,42	8,08	6,99

Loadings of open serrated surfaces

F_p left cell value: permissible stress of the material and deflection L/200th complied with
F_p right cell value: permissible tension of the material and deflection 4 mm observed

profile [material DD11/ DX51]	type of load	clear span [mm]						
		600	800	1.000	1.200	1.400	1.600	1.800
300 × 100 × 2,5	$F_{p,200}$ [kN]	6,09 / 6,09	6,09 / 6,09	6,09 / 6,09	6,09 / 6,09	6,02 / 6,02	5,2 / 5,2	4,57 / 4,57
	$F_{p,50}$ [kN]	2,97 / 2,97	2,97 / 2,97	2,97 / 2,97	2,97 / 2,97	2,97 / 2,97	2,97 / 2,97	2,97 / 2,97
	F_v [kN/m²]	146,35	82,19	52,49	36,36	26,63	20,32	15,99
240 × 100 × 3,0	$F_{p,200}$ [kN]	10,88 / 10,88	10,88 / 10,88	10,88 / 10,88	9,24 / 9,24	7,8 / 7,8	6,74 / 6,74	5,93 / 5,63
	$F_{p,50}$ [kN]	4,83 / 4,83	4,83 / 4,83	4,83 / 4,83	4,83 / 4,83	4,83 / 4,83	4,83 / 4,83	4,83 / 4,83
	F_v [kN/m²]	236,45	132,83	84,86	58,81	43,10	32,90	25,91
300 × 100 × 3,0	$F_{p,200}$ [kN]	7,84 / 7,84	7,84 / 7,84	7,84 / 7,84	7,84 / 7,84	7,79 / 7,79	6,73 / 6,73	5,91 / 5,62
	$F_{p,50}$ [kN]	3,97 / 3,97	3,97 / 3,97	3,97 / 3,97	3,97 / 3,97	3,97 / 3,97	3,97 / 3,97	3,97 / 3,97
	F_v [kN/m²]	189,12	106,22	67,85	47,01	34,44	26,28	20,69

Loadings of perforated surfaces

F_p left cell value: permissible stress of the material and deflection L/200th complied with
F_p right cell value: permissible tension of the material and deflection 4 mm observed

profile [material DD11/ DX51]	type of load	clear span [mm]						
		600	800	1.000	1.200	1.400	1.600	1.800
240 × 40 × 2,0	$F_{p,200}$ [kN]	3,01 / 3,01	2,53 / 2,53	1,96 / 1,96	1,59 / 1,35	1,34 / 0,83	1,12 / 0,53	–
	$F_{p,50}$ [kN]	1,51 / 1,51	1,51 / 1,51	1,51 / 1,51	1,49 / 1,34	1,26 / 0,82	1,09 / 0,53	–
	F_v [kN/m²]	41,13	23,05	14,68	10,13	6,99	4,61	–
300 × 40 × 2,0	$F_{p,200}$ [kN]	1,85 / 1,85	1,85 / 1,85	1,85 / 1,85	1,59 / 1,35	1,33 / 0,82	1,11 / 0,52	–
	$F_{p,50}$ [kN]	1,09 / 1,09	1,09 / 1,09	1,09 / 1,09	1,09 / 1,09	1,09 / 0,81	1,09 / 0,52	–
	F_v [kN/m²]	32,87	18,41	11,72	8,08	5,56	3,66	–
240 × 40 × 2,5	$F_{p,200}$ [kN]	4,26 / 4,26	3,03 / 3,03	2,35 / 2,35	1,91 / 1,62	1,6 / 0,99	1,34 / 0,64	1,03 / 0,42
	$F_{p,50}$ [kN]	2,37 / 2,37	2,37 / 2,37	2,17 / 2,17	1,79 / 1,6	1,52 / 0,98	1,31 / 0,63	1,03 / 0,42
	F_v [kN/m²]	49,33	27,64	17,60	12,15	8,38	5,52	3,80
300 × 40 × 2,5	$F_{p,200}$ [kN]	3,02 / 3,02	3,02 / 3,02	2,34 / 2,34	1,9 / 1,61	1,6 / 0,98	1,32 / 0,62	1,02 / 0,4
	$F_{p,50}$ [kN]	1,74 / 1,74	1,74 / 1,74	1,74 / 1,74	1,74 / 1,59	1,51 / 0,97	1,3 / 0,62	1,01 / 0,4
	F_v [kN/m²]	39,43	22,08	14,05	9,68	6,67	4,38	3,00
240 × 40 × 3,0	$F_{p,200}$ [kN]	5,4 / 5,4	3,84 / 3,84	2,98 / 2,98	2,42 / 1,87	2,03 / 1,14	1,54 / 0,73	1,19 / 0,48
	$F_{p,50}$ [kN]	3,43 / 3,43	3,43 / 3,43	2,75 / 2,75	2,27 / 1,84	1,92 / 1,13	1,53 / 0,72	1,18 / 0,48
	F_v [kN/m²]	62,51	35,03	22,32	15,41	9,64	6,35	4,36
300 × 40 × 3,0	$F_{p,200}$ [kN]	4,4 / 4,4	3,84 / 3,84	2,97 / 2,97	2,41 / 1,85	2,02 / 1,13	1,52 / 0,71	1,17 / 0,46
	$F_{p,50}$ [kN]	2,55 / 2,55	2,55 / 2,55	2,55 / 2,55	2,26 / 1,83	1,91 / 1,12	1,51 / 0,71	1,16 / 0,46
	F_v [kN/m²]	49,97	27,99	17,81	12,28	7,67	5,03	3,44
240 × 50 × 2,0	$F_{p,200}$ [kN]	3,01 / 3,01	3,01 / 3,01	2,83 / 2,83	2,31 / 2,31	1,94 / 1,62	1,67 / 1,06	1,46 / 0,72
	$F_{p,50}$ [kN]	1,51 / 1,51	1,51 / 1,51	1,51 / 1,51	1,51 / 1,51	1,51 / 1,51	1,51 / 1,05	1,4 / 0,71
	F_v [kN/m²]	59,34	33,29	21,23	14,67	10,72	8,16	6,24
300 × 50 × 2,0	$F_{p,200}$ [kN]	1,85 / 1,85	1,85 / 1,85	1,85 / 1,85	1,85 / 1,85	1,85 / 1,61	1,66 / 1,05	1,46 / 0,71
	$F_{p,50}$ [kN]	1,09 / 1,09	1,09 / 1,09	1,09 / 1,09	1,09 / 1,09	1,09 / 1,09	1,09 / 1,04	1,09 / 0,7
	F_v [kN/m²]	47,45	26,60	16,95	11,71	8,55	6,50	4,96
240 × 50 × 2,5	$F_{p,200}$ [kN]	4,81 / 4,81	4,41 / 4,41	3,42 / 3,42	2,78 / 2,78	2,34 / 1,95	2,02 / 1,28	1,77 / 0,86
	$F_{p,50}$ [kN]	2,37 / 2,37	2,37 / 2,37	2,37 / 2,37	2,37 / 2,37	2,22 / 1,94	1,92 / 1,27	1,69 / 0,86
	F_v [kN/m²]	71,72	40,22	25,65	17,73	12,95	9,86	7,53
300 × 50 × 2,5	$F_{p,200}$ [kN]	3,02 / 3,02	3,02 / 3,02	3,02 / 3,02	2,78 / 2,78	2,34 / 1,94	2,01 / 1,26	1,76 / 0,85
	$F_{p,50}$ [kN]	1,74 / 1,74	1,74 / 1,74	1,74 / 1,74	1,74 / 1,74	1,74 / 1,74	1,74 / 1,26	1,68 / 0,85
	F_v [kN/m²]	57,34	32,14	20,48	14,15	10,33	7,85	5,99
240 × 50 × 3,0	$F_{p,200}$ [kN]	6,89 / 6,89	5,63 / 5,63	4,37 / 4,37	3,56 / 3,56	3 / 2,26	2,58 / 1,48	2,26 / 1
	$F_{p,50}$ [kN]	3,43 / 3,43	3,43 / 3,43	3,43 / 3,43	3,33 / 3,33	2,83 / 2,24	2,46 / 1,47	2,17 / 0,99
	F_v [kN/m²]	91,55	51,35	32,75	22,65	16,55	12,58	8,73
300 × 50 × 3,0	$F_{p,200}$ [kN]	4,4 / 4,4	4,4 / 4,4	4,36 / 4,36	3,55 / 3,55	2,99 / 2,25	2,57 / 1,46	2,25 / 0,98
	$F_{p,50}$ [kN]	2,55 / 2,55	2,55 / 2,55	2,55 / 2,55	2,55 / 2,55	2,55 / 2,23	2,45 / 1,45	2,15 / 0,98
	F_v [kN/m²]	73,19	41,04	26,16	18,08	13,20	10,02	6,94
240 × 75 × 2,0	$F_{p,200}$ [kN]	3,01 / 3,01	3,01 / 3,01	3,01 / 3,01	3,01 / 3,01	3,01 / 3,01	3,01 / 2,96	2,71 / 2,05
	$F_{p,50}$ [kN]	1,51 / 1,51	1,51 / 1,51	1,51 / 1,51	1,51 / 1,51	1,51 / 1,51	1,51 / 1,51	1,51 / 1,51
	F_v [kN/m²]	108,71	61,04	38,98	27,00	19,77	15,08	11,86
300 × 75 × 2,0	$F_{p,200}$ [kN]	1,85 / 1,85	1,85 / 1,85	1,85 / 1,85	1,85 / 1,85	1,85 / 1,85	1,85 / 1,85	1,85 / 1,85
	$F_{p,50}$ [kN]	1,09 / 1,09	1,09 / 1,09	1,09 / 1,09	1,09 / 1,09	1,09 / 1,09	1,09 / 1,09	1,09 / 1,09
	F_v [kN/m²]	86,94	48,81	31,16	21,57	15,79	12,03	9,46

profile [material DD11/ DX51]	type of load	clear span [mm]					
		2.000	2.200	2.400	2.600	2.800	3.000
300 × 100 × 2,5	$F_{p,200}$ [kN]	4,07 / 3,44	3,67 / 2,54	3,33 / 1,91	3,04 / 1,45	2,8 / 1,12	2,59 / 0,86
	$F_{p,50}$ [kN]	2,97 / 2,97	2,97 / 2,53	2,97 / 1,9	2,95 / 1,45	2,72 / 1,12	2,52 / 0,86
	F_v [kN/m²]	12,89	10,60	8,86	7,50	6,43	5,56
240 × 100 × 3,0	$F_{p,200}$ [kN]	5,28 / 4,05	4,76 / 3	4,33 / 2,26	3,96 / 1,73	3,65 / 1,33	3,38 / 1,04
	$F_{p,50}$ [kN]	4,83 / 4,04	4,6 / 2,99	4,19 / 2,25	3,85 / 1,72	3,55 / 1,33	3,29 / 1,03
	F_v [kN/m²]	20,91	17,21	14,40	12,21	10,47	9,07
300 × 100 × 3,0	$F_{p,200}$ [kN]	5,27 / 4,04	4,75 / 2,98	4,31 / 2,24	3,94 / 1,7	3,63 / 1,31	3,36 / 1,01
	$F_{p,50}$ [kN]	3,97 / 3,97	3,97 / 2,97	3,97 / 2,23	3,83 / 1,7	3,53 / 1,31	3,27 / 1,01
	F_v [kN/m²]	16,69	13,73	11,48	9,73	8,33	7,21

profile [material DD11/ DX51]	type of load	clear span [mm]					
		2.000	2.200	2.400	2.600	2.800	3.000
240 × 40 × 2,0	$F_{p,200}$ [kN]	–	–	–	–	–	–
	$F_{p,50}$ [kN]	–	–	–	–	–	–
	F_v [kN/m²]	–	–	–	–	–	–
300 × 40 × 2,0	$F_{p,200}$ [kN]	–	–	–	–	–	–
	$F_{p,50}$ [kN]	–	–	–	–	–	–
	F_v [kN/m²]	–	–	–	–	–	–
240 × 40 × 2,5	$F_{p,200}$ [kN]	–	–	–	–	–	–
	$F_{p,50}$ [kN]	–	–	–	–	–	–
	F_v [kN/m²]	–	–	–	–	–	–
300 × 40 × 2,5	$F_{p,200}$ [kN]	–	–	–	–	–	–
	$F_{p,50}$ [kN]	–	–	–	–	–	–
	F_v [kN/m²]	–	–	–	–	–	–
240 × 40 × 3,0	$F_{p,200}$ [kN]	–	–	–	–	–	–
	$F_{p,50}$ [kN]	–	–	–	–	–	–
	F_v [kN/m²]	–	–	–	–	–	–
300 × 40 × 3,0	$F_{p,200}$ [kN]	–	–	–	–	–	–
	$F_{p,50}$ [kN]	–	–	–	–	–	–
	F_v [kN/m²]	–	–	–	–	–	–
240 × 50 × 2,0	$F_{p,200}$ [kN]	1,3 / 0,5	1,1 / 0,35	–	–	–	–
	$F_{p,50}$ [kN]	1,25 / 0,5	1,09 / 0,35	–	–	–	–
	F_v [kN/m²]	4,48	3,31	–	–	–	–
300 × 50 × 2,0	$F_{p,200}$ [kN]	1,29 / 0,49	1,08 / 0,34	–	–	–	–
	$F_{p,50}$ [kN]	1,09 / 0,48	1,08 / 0,33	–	–	–	–
	F_v [kN/m²]	3,56	2,62	–	–	–	–
240 × 50 × 2,5	$F_{p,200}$ [kN]	1,57 / 0,6	1,32 / 0,42	1,09 / 0,29	–	–	–
	$F_{p,50}$ [kN]	1,51 / 0,6	1,32 / 0,42	1,08 / 0,29	–	–	–
	F_v [kN/m²]	5,41	3,99	3,01	–	–	–
300 × 50 × 2,5	$F_{p,200}$ [kN]	1,56 / 0,58	1,31 / 0,4	1,07 / 0,27	–	–	–
	$F_{p,50}$ [kN]	1,5 / 0,58	1,3 / 0,4	1,07 / 0,27	–	–	–
	F_v [kN/m²]	4,29	3,15	2,37	–	–	–
240 × 50 × 3,0	$F_{p,200}$ [kN]	1,89 / 0,69	1,53 / 0,48	1,26 / 0,33	1,04 / 0,22	–	–
	$F_{p,50}$ [kN]	1,88 / 0,69	1,53 / 0,48	1,25 / 0,33	1,04 / 0,22	–	–
	F_v [kN/m²]	6,27	4,62	3,48	2,66	–	–
300 × 50 × 3,0	$F_{p,200}$ [kN]	1,87 / 0,67	1,51 / 0,46	1,24 / 0,31	1,02 / 0,2	–	–
	$F_{p,50}$ [kN]	1,86 / 0,67	1,51 / 0,46	1,23 / 0,31	1,02 / 0,2	–	–
	F_v [kN/m²]	4,97	3,65	2,74	2,08	–	–
240 × 75 × 2,0	$F_{p,200}$ [kN]	2,42 / 1,46	2,17 / 1,07	1,97 / 0,79	1,8 / 0,59	1,66 / 0,45	1,53 / 0,33
	$F_{p,50}$ [kN]	1,51 / 1,45	1,51 / 1,06	1,51 / 0,79	1,51 / 0,59	1,51 / 0,45	1,49 / 0,33
	F_v [kN/m²]	9,56	7,86	6,57	5,55	4,39	3,52
300 × 75 × 2,0	$F_{p,200}$ [kN]	1,85 / 1,45	1,85 / 1,06	1,85 / 0,78	1,79 / 0,58	1,65 / 0,43	1,52 / 0,32
	$F_{p,50}$ [kN]	1,09 / 1,09	1,09 / 1,05	1,09 / 0,78	1,09 / 0,58	1,09 / 0,43	1,09 / 0,32
	F_v [kN/m²]	7,62	6,26	5,23	4,41	3,48	2,79

Loadings of perforated surfaces

F_p left cell value: permissible stress of the material and deflection L/200th complied with
F_p right cell value: permissible tension of the material and deflection 4 mm observed

profile [material DD11/ DX51]]	type of load	clear span [mm]						
		600	800	1.000	1.200	1.400	1.600	1.800
240 × 75 × 2,5	$F_{p,200}$ [kN]	4,81 / 4,81	4,81 / 4,81	4,81 / 4,81	4,81 / 4,81	4,36 / 4,36	3,76 / 3,6	3,31 / 2,49
	$F_{p,50}$ [kN]	2,37 / 2,37	2,37 / 2,37	2,37 / 2,37	2,37 / 2,37	2,37 / 2,37	2,37 / 2,37	2,37 / 2,37
	F_v [kN/m²]	132,53	74,41	47,52	32,90	24,09	18,38	14,46
300 × 75 × 2,5	$F_{p,200}$ [kN]	3,02 / 3,02	3,02 / 3,02	3,02 / 3,02	3,02 / 3,02	3,02 / 3,02	3,02 / 3,02	3,02 / 2,48
	$F_{p,50}$ [kN]	1,74 / 1,74	1,74 / 1,74	1,74 / 1,74	1,74 / 1,74	1,74 / 1,74	1,74 / 1,74	1,74 / 1,74
	F_v [kN/m²]	105,99	59,50	37,98	26,29	19,24	14,67	11,53
240 × 75 × 3,0	$F_{p,200}$ [kN]	6,89 / 6,89	6,89 / 6,89	6,89 / 6,89	6,66 / 6,66	5,62 / 5,62	4,85 / 4,21	4,26 / 2,91
	$F_{p,50}$ [kN]	3,43 / 3,43	3,43 / 3,43	3,43 / 3,43	3,43 / 3,43	3,43 / 3,43	3,43 / 3,43	3,43 / 2,9
	F_v [kN/m²]	170,64	95,82	61,20	42,39	31,05	23,68	18,64
300 × 75 × 3,0	$F_{p,200}$ [kN]	4,4 / 4,4	4,4 / 4,4	4,4 / 4,4	4,4 / 4,4	4,4 / 4,4	4,4 / 4,2	4,25 / 2,9
	$F_{p,50}$ [kN]	2,55 / 2,55	2,55 / 2,55	2,55 / 2,55	2,55 / 2,55	2,55 / 2,55	2,55 / 2,55	2,55 / 2,55
	F_v [kN/m²]	136,47	76,62	48,92	33,87	24,79	18,91	14,87
240 × 100 × 2,0	$F_{p,200}$ [kN]	3,01 / 3,01	3,01 / 3,01	3,01 / 3,01	3,01 / 3,01	3,01 / 3,01	3,01 / 3,01	3,01 / 3,01
	$F_{p,50}$ [kN]	1,51 / 1,51	1,51 / 1,51	1,51 / 1,51	1,51 / 1,51	1,51 / 1,51	1,51 / 1,51	1,51 / 1,51
	F_v [kN/m²]	169,92	95,46	61,00	42,28	30,99	23,66	18,64
300 × 100 × 2,0	$F_{p,200}$ [kN]	1,85 / 1,85	1,85 / 1,85	1,85 / 1,85	1,85 / 1,85	1,85 / 1,85	1,85 / 1,85	1,85 / 1,85
	$F_{p,50}$ [kN]	1,09 / 1,09	1,09 / 1,09	1,09 / 1,09	1,09 / 1,09	1,09 / 1,09	1,09 / 1,09	1,09 / 1,09
	F_v [kN/m²]	135,91	76,34	48,77	33,79	24,76	18,90	14,88
240 × 100 × 2,5	$F_{p,200}$ [kN]	4,81 / 4,81	4,81 / 4,81	4,81 / 4,81	4,81 / 4,81	4,81 / 4,81	4,81 / 4,81	4,81 / 4,81
	$F_{p,50}$ [kN]	2,37 / 2,37	2,37 / 2,37	2,37 / 2,37	2,37 / 2,37	2,37 / 2,37	2,37 / 2,37	2,37 / 2,37
	F_v [kN/m²]	208,16	116,94	74,72	51,78	37,96	28,98	22,83
300 × 100 × 2,5	$F_{p,200}$ [kN]	3,02 / 3,02	3,02 / 3,02	3,02 / 3,02	3,02 / 3,02	3,02 / 3,02	3,02 / 3,02	3,02 / 3,02
	$F_{p,50}$ [kN]	1,74 / 1,74	1,74 / 1,74	1,74 / 1,74	1,74 / 1,74	1,74 / 1,74	1,74 / 1,74	1,74 / 1,74
	F_v [kN/m²]	166,49	93,52	59,74	41,39	30,33	23,15	18,23
240 × 100 × 3,0	$F_{p,200}$ [kN]	6,89 / 6,89	6,89 / 6,89	6,89 / 6,89	6,89 / 6,89	6,89 / 6,89	6,89 / 6,89	6,76 / 6,18
	$F_{p,50}$ [kN]	3,43 / 3,43	3,43 / 3,43	3,43 / 3,43	3,43 / 3,43	3,43 / 3,43	3,43 / 3,43	3,43 / 3,43
	F_v [kN/m²]	269,30	151,30	96,69	67,02	49,13	37,52	29,56
300 × 100 × 3,0	$F_{p,200}$ [kN]	4,4 / 4,4	4,4 / 4,4	4,4 / 4,4	4,4 / 4,4	4,4 / 4,4	4,4 / 4,4	4,4 / 4,4
	$F_{p,50}$ [kN]	2,55 / 2,55	2,55 / 2,55	2,55 / 2,55	2,55 / 2,55	2,55 / 2,55	2,55 / 2,55	2,55 / 2,55
	F_v [kN/m²]	215,40	121,00	77,31	53,57	39,26	29,98	23,61

Loadings of slottet surfaces

F_p left cell value: permissible stress of the material and deflection L/200th complied with
F_p right cell value: permissible tension of the material and deflection 4 mm observed

profile [material DD11/ DX51]	type of load	clear span [mm]						
		600	800	1.000	1.200	1.400	1.600	1.800
250 × 40 × 2,0	$F_{p,200}$ [kN]	3,55 / 3,55	2,53 / 2,53	1,96 / 1,96	1,59 / 1,35	1,34 / 0,83	1,11 / 0,53	–
	$F_{p,50}$ [kN]	1,34 / 1,34	1,34 / 1,34	1,34 / 1,34	1,34 / 1,34	1,26 / 0,82	1,09 / 0,53	–
	F_v [kN/m²]	39,48	22,12	14,09	9,72	6,71	4,42	–
300 × 40 × 2,0	$F_{p,200}$ [kN]	3,55 / 3,55	2,52 / 2,52	1,95 / 1,95	1,59 / 1,35	1,33 / 0,82	1,11 / 0,52	–
	$F_{p,50}$ [kN]	1,06 / 1,06	1,06 / 1,06	1,06 / 1,06	1,06 / 1,06	1,06 / 0,81	1,06 / 0,52	–
	F_v [kN/m²]	32,87	18,41	11,72	8,08	5,56	3,66	–
250 × 40 × 2,5	$F_{p,200}$ [kN]	4,26 / 4,26	3,03 / 3,03	2,35 / 2,35	1,91 / 1,62	1,6 / 0,99	1,33 / 0,63	1,03 / 0,42
	$F_{p,50}$ [kN]	1,63 / 1,63	1,63 / 1,63	1,63 / 1,63	1,63 / 1,6	1,51 / 0,98	1,31 / 0,63	1,02 / 0,41
	F_v [kN/m²]	47,35	26,53	16,89	11,66	8,04	5,30	3,64
300 × 40 × 2,5	$F_{p,200}$ [kN]	4,26 / 4,26	3,03 / 3,03	2,34 / 2,34	1,9 / 1,61	1,6 / 0,98	1,32 / 0,62	1,02 / 0,4
	$F_{p,50}$ [kN]	1,33 / 1,33	1,33 / 1,33	1,33 / 1,33	1,33 / 1,33	1,33 / 0,97	1,3 / 0,62	1,01 / 0,4
	F_v [kN/m²]	39,43	22,08	14,05	9,68	6,67	4,38	3,00
250 × 50 × 2,0	$F_{p,200}$ [kN]	5,13 / 5,13	3,65 / 3,65	2,83 / 2,83	2,3 / 2,3	1,94 / 1,62	1,67 / 1,06	1,46 / 0,72
	$F_{p,50}$ [kN]	1,34 / 1,34	1,34 / 1,34	1,34 / 1,34	1,34 / 1,34	1,34 / 1,34	1,34 / 1,05	1,34 / 0,71
	F_v [kN/m²]	56,96	31,95	20,37	14,08	10,29	7,83	5,98
300 × 50 × 2,0	$F_{p,200}$ [kN]	5,12 / 5,12	3,65 / 3,65	2,83 / 2,83	2,3 / 2,3	1,93 / 1,61	1,66 / 1,05	1,46 / 0,71
	$F_{p,50}$ [kN]	1,06 / 1,06	1,06 / 1,06	1,06 / 1,06	1,06 / 1,06	1,06 / 1,06	1,06 / 1,04	1,06 / 0,7
	F_v [kN/m²]	47,45	26,60	16,95	11,71	8,55	6,50	4,96
250 × 50 × 2,5	$F_{p,200}$ [kN]	6,2 / 6,2	4,41 / 4,41	3,42 / 3,42	2,78 / 2,78	2,34 / 1,95	2,02 / 1,27	1,77 / 0,86
	$F_{p,50}$ [kN]	1,63 / 1,63	1,63 / 1,63	1,63 / 1,63	1,63 / 1,63	1,63 / 1,63	1,63 / 1,27	1,63 / 0,86
	F_v [kN/m²]	68,84	38,61	24,61	17,01	12,43	9,45	7,22

profile [material DD11/ DX51]	type of load	clear span [mm]					
		2.000	2.200	2.400	2.600	2.800	3.000
240 × 75 × 2,5	$F_{p,200}$ [kN]	2,94 / 1,78	2,65 / 1,3	2,4 / 0,97	2,2 / 0,72	2,02 / 0,54	1,87 / 0,4
	$F_{p,50}$ [kN]	2,37 / 1,77	2,37 / 1,3	2,33 / 0,96	2,13 / 0,72	1,97 / 0,54	1,82 / 0,4
	F_v [kN/m²]	11,65	9,58	8,00	6,76	5,35	4,29
300 × 75 × 2,5	$F_{p,200}$ [kN]	2,93 / 1,76	2,64 / 1,28	2,39 / 0,95	2,18 / 0,7	2 / 0,52	1,85 / 0,38
	$F_{p,50}$ [kN]	1,74 / 1,74	1,74 / 1,28	1,74 / 0,94	1,74 / 0,7	1,74 / 0,52	1,74 / 0,38
	F_v [kN/m²]	9,29	7,63	6,36	5,37	4,24	3,39
240 × 75 × 3,0	$F_{p,200}$ [kN]	3,8 / 2,08	3,42 / 1,52	3,1 / 1,13	2,84 / 0,84	2,61 / 0,63	2,26 / 0,47
	$F_{p,50}$ [kN]	3,43 / 2,07	3,3 / 1,51	3 / 1,12	2,75 / 0,84	2,54 / 0,63	2,25 / 0,47
	F_v [kN/m²]	15,03	12,36	10,16	7,91	6,25	5,01
300 × 75 × 3,0	$F_{p,200}$ [kN]	3,78 / 2,06	3,4 / 1,5	3,09 / 1,11	2,82 / 0,82	2,59 / 0,61	2,23 / 0,44
	$F_{p,50}$ [kN]	2,55 / 2,05	2,55 / 1,49	2,55 / 1,1	2,55 / 0,82	2,52 / 0,61	2,23 / 0,44
	F_v [kN/m²]	11,98	9,84	8,08	6,28	4,95	3,96
240 × 100 × 2,0	$F_{p,200}$ [kN]	3,01 / 3,01	3,01 / 2,29	3,01 / 1,73	2,85 / 1,33	2,63 / 1,03	2,43 / 0,81
	$F_{p,50}$ [kN]	1,51 / 1,51	1,51 / 1,51	1,51 / 1,51	1,51 / 1,33	1,51 / 1,03	1,51 / 0,8
	F_v [kN/m²]	15,04	12,39	10,36	8,79	7,54	6,54
300 × 100 × 2,0	$F_{p,200}$ [kN]	1,85 / 1,85	1,85 / 1,85	1,85 / 1,72	1,85 / 1,31	1,85 / 1,01	1,85 / 0,79
	$F_{p,50}$ [kN]	1,09 / 1,09	1,09 / 1,09	1,09 / 1,09	1,09 / 1,09	1,09 / 1,01	1,09 / 0,79
	F_v [kN/m²]	12,01	9,88	8,26	7,01	6,01	5,20
240 × 100 × 2,5	$F_{p,200}$ [kN]	4,65 / 3,79	4,2 / 2,81	3,81 / 2,12	3,49 / 1,63	3,22 / 1,26	2,98 / 0,98
	$F_{p,50}$ [kN]	2,37 / 2,37	2,37 / 2,37	2,37 / 2,11	2,37 / 1,62	2,37 / 1,26	2,37 / 0,98
	F_v [kN/m²]	18,43	15,17	12,69	10,76	9,23	8,00
300 × 100 × 2,5	$F_{p,200}$ [kN]	3,02 / 3,02	3,02 / 2,79	3,02 / 2,1	3,02 / 1,61	3,02 / 1,24	2,96 / 0,96
	$F_{p,50}$ [kN]	1,74 / 1,74	1,74 / 1,74	1,74 / 1,74	1,74 / 1,6	1,74 / 1,24	1,74 / 0,96
	F_v [kN/m²]	14,71	12,10	10,12	8,58	7,35	6,37
240 × 100 × 3,0	$F_{p,200}$ [kN]	6,03 / 4,46	5,44 / 3,3	4,94 / 2,49	4,53 / 1,91	4,17 / 1,48	3,87 / 1,15
	$F_{p,50}$ [kN]	3,43 / 3,43	3,43 / 3,29	3,43 / 2,48	3,43 / 1,9	3,43 / 1,48	3,43 / 1,15
	F_v [kN/m²]	23,87	19,66	16,45	13,96	11,98	10,38
300 × 100 × 3,0	$F_{p,200}$ [kN]	4,4 / 4,4	4,4 / 3,28	4,4 / 2,47	4,4 / 1,89	4,16 / 1,46	3,85 / 1,13
	$F_{p,50}$ [kN]	2,55 / 2,55	2,55 / 2,55	2,55 / 2,46	2,55 / 1,88	2,55 / 1,45	2,55 / 1,13
	F_v [kN/m²]	19,05	15,68	13,12	11,12	9,54	8,26

profile [material DD11/ DX51]	type of load	clear span [mm]					
		2.000	2.200	2.400	2.600	2.800	3.000
250 × 40 × 2,0	$F_{p,200}$ [kN]	–	–	–	–	–	–
	$F_{p,50}$ [kN]	–	–	–	–	–	–
	F_v [kN/m²]	–	–	–	–	–	–
300 × 40 × 2,0	$F_{p,200}$ [kN]	–	–	–	–	–	–
	$F_{p,50}$ [kN]	–	–	–	–	–	–
	F_v [kN/m²]	–	–	–	–	–	–
250 × 40 × 2,5	$F_{p,200}$ [kN]	–	–	–	–	–	–
	$F_{p,50}$ [kN]	–	–	–	–	–	–
	F_v [kN/m²]	–	–	–	–	–	–
300 × 40 × 2,5	$F_{p,200}$ [kN]	–	–	–	–	–	–
	$F_{p,50}$ [kN]	–	–	–	–	–	–
	F_v [kN/m²]	–	–	–	–	–	–
250 × 50 × 2,0	$F_{p,200}$ [kN]	1,3 / 0,5	1,09 / 0,35	–	–	–	–
	$F_{p,50}$ [kN]	1,25 / 0,49	1,09 / 0,34	–	–	–	–
	F_v [kN/m²]	4,30	3,17	–	–	–	–
300 × 50 × 2,0	$F_{p,200}$ [kN]	1,29 / 0,49	1,08 / 0,34	–	–	–	–
	$F_{p,50}$ [kN]	1,06 / 0,48	1,06 / 0,33	–	–	–	–
	F_v [kN/m²]	3,56	2,62	–	–	–	–
250 × 50 × 2,5	$F_{p,200}$ [kN]	1,57 / 0,6	1,32 / 0,42	1,08 / 0,29	–	–	–
	$F_{p,50}$ [kN]	1,51 / 0,59	1,31 / 0,41	1,08 / 0,29	–	–	–
	F_v [kN/m²]	5,19	3,82	2,88	–	–	–

Loadings of slottet surfaces

F_p left cell value: permissible stress of the material and deflection L/200th complied with
F_p right cell value: permissible tension of the material and deflection 4 mm observed

profile [material DD11/ DX51]	type of load	clear span [mm]						
		600	800	1.000	1.200	1.400	1.600	1.800
300 × 50 × 2,5	$F_{p,200}$ [kN]	6,19 / 6,19	4,41 / 4,41	3,41 / 3,41	2,78 / 2,78	2,34 / 1,94	2,01 / 1,26	1,76 / 0,85
	$F_{p,50}$ [kN]	1,33 / 1,33	1,33 / 1,33	1,33 / 1,33	1,33 / 1,33	1,33 / 1,33	1,33 / 1,26	1,33 / 0,85
	F_v [kN/m²]	57,34	32,14	20,48	14,15	10,33	7,85	5,99
250 × 75 × 2,0	$F_{p,200}$ [kN]	6,15 / 6,15	6,15 / 6,15	5,2 / 5,2	4,24 / 4,24	3,58 / 3,58	3,09 / 2,95	2,71 / 2,04
	$F_{p,50}$ [kN]	1,34 / 1,34	1,34 / 1,34	1,34 / 1,34	1,34 / 1,34	1,34 / 1,34	1,34 / 1,34	1,34 / 1,34
	F_v [kN/m²]	104,36	58,60	37,42	25,91	18,97	14,47	11,38
300 × 75 × 2,0	$F_{p,200}$ [kN]	5,34 / 5,34	5,34 / 5,34	5,19 / 5,19	4,24 / 4,24	3,57 / 3,57	3,08 / 2,95	2,71 / 2,03
	$F_{p,50}$ [kN]	1,06 / 1,06	1,06 / 1,06	1,06 / 1,06	1,06 / 1,06	1,06 / 1,06	1,06 / 1,06	1,06 / 1,06
	F_v [kN/m²]	86,94	48,81	31,16	21,57	15,79	12,03	9,46
250 × 75 × 2,5	$F_{p,200}$ [kN]	7,88 / 7,88	7,88 / 7,88	6,33 / 6,33	5,17 / 5,17	4,36 / 4,36	3,76 / 3,6	3,3 / 2,49
	$F_{p,50}$ [kN]	1,63 / 1,63	1,63 / 1,63	1,63 / 1,63	1,63 / 1,63	1,63 / 1,63	1,63 / 1,63	1,63 / 1,63
	F_v [kN/m²]	127,22	71,43	45,61	31,58	23,12	17,63	13,87
300 × 75 × 2,5	$F_{p,200}$ [kN]	6,7 / 6,7	6,7 / 6,7	6,33 / 6,33	5,16 / 5,16	4,35 / 4,35	3,75 / 3,59	3,3 / 2,48
	$F_{p,50}$ [kN]	1,33 / 1,33	1,33 / 1,33	1,33 / 1,33	1,33 / 1,33	1,33 / 1,33	1,33 / 1,33	1,33 / 1,33
	F_v [kN/m²]	105,99	59,50	37,98	26,29	19,24	14,67	11,53
250 × 100 × 2,0	$F_{p,200}$ [kN]	6,15 / 6,15	6,15 / 6,15	6,15 / 6,15	6,15 / 6,15	5,61 / 5,61	4,84 / 4,84	4,26 / 4,26
	$F_{p,50}$ [kN]	1,34 / 1,34	1,34 / 1,34	1,34 / 1,34	1,34 / 1,34	1,34 / 1,34	1,34 / 1,34	1,34 / 1,34
	F_v [kN/m²]	163,12	91,64	58,55	40,58	29,74	22,71	17,89
300 × 100 × 2,0	$F_{p,200}$ [kN]	5,34 / 5,34	5,34 / 5,34	5,34 / 5,34	5,34 / 5,34	5,34 / 5,34	4,84 / 4,84	4,25 / 4,25
	$F_{p,50}$ [kN]	1,06 / 1,06	1,06 / 1,06	1,06 / 1,06	1,06 / 1,06	1,06 / 1,06	1,06 / 1,06	1,06 / 1,06
	F_v [kN/m²]	135,91	76,34	48,77	33,79	24,76	18,90	14,88
250 × 100 × 2,5	$F_{p,200}$ [kN]	7,88 / 7,88	7,88 / 7,88	7,88 / 7,88	7,88 / 7,88	6,87 / 6,87	5,93 / 5,93	5,22 / 5,22
	$F_{p,50}$ [kN]	1,63 / 1,63	1,63 / 1,63	1,63 / 1,63	1,63 / 1,63	1,63 / 1,63	1,63 / 1,63	1,63 / 1,63
	F_v [kN/m²]	199,82	112,25	71,72	49,71	36,43	27,81	21,91
300 × 100 × 2,5	$F_{p,200}$ [kN]	6,7 / 6,7	6,7 / 6,7	6,7 / 6,7	6,7 / 6,7	6,7 / 6,7	5,93 / 5,93	5,21 / 5,21
	$F_{p,50}$ [kN]	1,33 / 1,33	1,33 / 1,33	1,33 / 1,33	1,33 / 1,33	1,33 / 1,33	1,33 / 1,33	1,33 / 1,33
	F_v [kN/m²]	166,49	93,52	59,74	41,39	30,33	23,15	18,23

Loadings of closed surfaces

F_p left cell value: permissible stress of the material and deflection L/200th complied with
F_p right cell value: permissible tension of the material and deflection 4 mm observed

profile [material DD11/ DX51]	type of load	clear span [mm]						
		600	800	1.000	1.200	1.400	1.600	1.800
240 × 40 × 2,0	$F_{p,200}$ [kN]	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,01 / 2,01	1,7 / 1,7	1,46 / 1,11	1,28 / 0,76
	$F_{p,50}$ [kN]	1,17 / 1,17	1,17 / 1,17	1,17 / 1,17	1,17 / 1,17	1,17 / 1,17	1,17 / 1,11	1,17 / 0,75
	F_v [kN/m²]	51,89	29,10	18,55	12,82	9,37	7,13	5,59
300 × 40 × 2,0	$F_{p,200}$ [kN]	1,15 / 1,15	1,15 / 1,15	1,15 / 1,15	1,15 / 1,15	1,15 / 1,15	1,15 / 1,15	1,15 / 0,79
	$F_{p,50}$ [kN]	0,76 / 0,76	0,76 / 0,76	0,76 / 0,76	0,76 / 0,76	0,76 / 0,76	0,76 / 0,76	0,76 / 0,76
	F_v [kN/m²]	41,99	23,54	15,00	10,36	7,56	5,74	4,50
240 × 40 × 2,5	$F_{p,200}$ [kN]	3,49 / 3,49	3,49 / 3,49	2,98 / 2,98	2,43 / 2,43	2,04 / 2,04	1,76 / 1,34	1,54 / 0,91
	$F_{p,50}$ [kN]	2,03 / 2,03	2,03 / 2,03	2,03 / 2,03	2,03 / 2,03	1,93 / 1,93	1,68 / 1,33	1,48 / 0,91
	F_v [kN/m²]	62,62	35,12	22,39	15,47	11,30	8,60	6,74
300 × 40 × 2,5	$F_{p,200}$ [kN]	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	1,77 / 1,39	1,55 / 0,94
	$F_{p,50}$ [kN]	1,38 / 1,38	1,38 / 1,38	1,38 / 1,38	1,38 / 1,38	1,38 / 1,38	1,38 / 1,38	1,38 / 0,94
	F_v [kN/m²]	50,69	28,41	18,10	12,50	9,12	6,93	5,43
240 × 40 × 3,0	$F_{p,200}$ [kN]	5,31 / 5,31	4,91 / 4,91	3,81 / 3,81	3,1 / 3,1	2,61 / 2,36	2,25 / 1,54	1,97 / 1,05
	$F_{p,50}$ [kN]	3,14 / 3,14	3,14 / 3,14	3,14 / 3,14	2,9 / 2,9	2,47 / 2,34	2,14 / 1,53	1,89 / 1,04
	F_v [kN/m²]	79,83	44,78	28,55	19,74	14,42	10,97	8,61
300 × 40 × 3,0	$F_{p,200}$ [kN]	3,26 / 3,26	3,26 / 3,26	3,26 / 3,26	3,13 / 3,13	2,63 / 2,46	2,27 / 1,61	1,98 / 1,09
	$F_{p,50}$ [kN]	2,22 / 2,22	2,22 / 2,22	2,22 / 2,22	2,22 / 2,22	2,22 / 2,22	2,16 / 1,59	1,9 / 1,08
	F_v [kN/m²]	64,64	36,24	23,09	15,95	11,65	8,85	6,94
240 × 50 × 2,0	$F_{p,200}$ [kN]	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 1,54
	$F_{p,50}$ [kN]	1,17 / 1,17	1,17 / 1,17	1,17 / 1,17	1,17 / 1,17	1,17 / 1,17	1,17 / 1,17	1,17 / 1,17
	F_v [kN/m²]	85,40	47,95	30,61	21,19	15,51	11,83	9,30
300 × 50 × 2,0	$F_{p,200}$ [kN]	1,15 / 1,15	1,15 / 1,15	1,15 / 1,15	1,15 / 1,15	1,15 / 1,15	1,15 / 1,15	1,15 / 1,15
	$F_{p,50}$ [kN]	0,76 / 0,76	0,76 / 0,76	0,76 / 0,76	0,76 / 0,76	0,76 / 0,76	0,76 / 0,76	0,76 / 0,76
	F_v [kN/m²]	69,25	38,87	24,80	17,16	12,56	9,57	7,52

profile [material DD11/ DX51]	type of load	clear span [mm]					
		2.000	2.200	2.400	2.600	2.800	3.000
300 × 50 × 2,5	$F_{p,200}$ [kN]	1,56 / 0,58	1,31 / 0,4	1,07 / 0,27	–	–	–
	$F_{p,50}$ [kN]	1,33 / 0,58	1,3 / 0,4	1,07 / 0,27	–	–	–
	F_v [kN/m²]	4,29	3,15	2,37	–	–	–
250 × 75 × 2,0	$F_{p,200}$ [kN]	2,41 / 1,46	2,17 / 1,07	1,97 / 0,79	1,8 / 0,59	1,66 / 0,44	1,53 / 0,33
	$F_{p,50}$ [kN]	1,34 / 1,34	1,34 / 1,06	1,34 / 0,79	1,34 / 0,59	1,34 / 0,44	1,34 / 0,33
	F_v [kN/m²]	9,17	7,54	6,30	5,32	4,21	3,37
300 × 75 × 2,0	$F_{p,200}$ [kN]	2,41 / 1,45	2,16 / 1,06	1,96 / 0,78	1,79 / 0,58	1,65 / 0,43	1,52 / 0,32
	$F_{p,50}$ [kN]	1,06 / 1,06	1,06 / 1,05	1,06 / 0,78	1,06 / 0,58	1,06 / 0,43	1,06 / 0,32
	F_v [kN/m²]	7,62	6,26	5,23	4,41	3,48	2,79
250 × 75 × 2,5	$F_{p,200}$ [kN]	2,94 / 1,78	2,65 / 1,3	2,4 / 0,96	2,19 / 0,72	2,02 / 0,54	1,86 / 0,4
	$F_{p,50}$ [kN]	1,63 / 1,63	1,63 / 1,29	1,63 / 0,96	1,63 / 0,72	1,63 / 0,54	1,63 / 0,4
	F_v [kN/m²]	11,18	9,19	7,67	6,48	5,13	4,11
300 × 75 × 2,5	$F_{p,200}$ [kN]	2,93 / 1,76	2,64 / 1,28	2,39 / 0,95	2,18 / 0,7	2 / 0,52	1,85 / 0,38
	$F_{p,50}$ [kN]	1,33 / 1,33	1,33 / 1,28	1,33 / 0,94	1,33 / 0,7	1,33 / 0,52	1,33 / 0,38
	F_v [kN/m²]	9,29	7,63	6,36	5,37	4,24	3,39
250 × 100 × 2,0	$F_{p,200}$ [kN]	3,8 / 3,09	3,42 / 2,29	3,11 / 1,73	2,85 / 1,33	2,63 / 1,03	2,43 / 0,8
	$F_{p,50}$ [kN]	1,34 / 1,34	1,34 / 1,34	1,34 / 1,34	1,34 / 1,32	1,34 / 1,03	1,34 / 0,8
	F_v [kN/m²]	14,44	11,89	9,94	8,43	7,24	6,27
300 × 100 × 2,0	$F_{p,200}$ [kN]	3,79 / 3,08	3,42 / 2,28	3,1 / 1,72	2,84 / 1,31	2,62 / 1,01	2,42 / 0,79
	$F_{p,50}$ [kN]	1,06 / 1,06	1,06 / 1,06	1,06 / 1,06	1,06 / 1,06	1,06 / 1,01	1,06 / 0,79
	F_v [kN/m²]	12,01	9,88	8,26	7,01	6,01	5,20
250 × 100 × 2,5	$F_{p,200}$ [kN]	4,65 / 3,79	4,19 / 2,8	3,81 / 2,12	3,49 / 1,62	3,22 / 1,26	2,98 / 0,98
	$F_{p,50}$ [kN]	1,63 / 1,63	1,63 / 1,63	1,63 / 1,63	1,63 / 1,62	1,63 / 1,25	1,63 / 0,98
	F_v [kN/m²]	17,68	14,55	12,18	10,33	8,86	7,67
300 × 100 × 2,5	$F_{p,200}$ [kN]	4,64 / 3,78	4,18 / 2,79	3,8 / 2,1	3,48 / 1,61	3,2 / 1,24	2,96 / 0,96
	$F_{p,50}$ [kN]	1,33 / 1,33	1,33 / 1,33	1,33 / 1,33	1,33 / 1,33	1,33 / 1,24	1,33 / 0,96
	F_v [kN/m²]	14,71	12,10	10,12	8,58	7,35	6,37

profile [material DD11/ DX51]	type of load	clear span [mm]					
		2.000	2.200	2.400	2.600	2.800	3.000
240 × 40 × 2,0	$F_{p,200}$ [kN]	1,13 / 0,53	1,02 / 0,37	–	–	–	–
	$F_{p,50}$ [kN]	1,09 / 0,53	0,98 / 0,37	–	–	–	–
	F_v [kN/m²]	4,49	3,49	–	–	–	–
300 × 40 × 2,0	$F_{p,200}$ [kN]	1,14 / 0,55	1,02 / 0,38	–	–	–	–
	$F_{p,50}$ [kN]	0,76 / 0,54	0,76 / 0,38	–	–	–	–
	F_v [kN/m²]	3,61	2,90	–	–	–	–
240 × 40 × 2,5	$F_{p,200}$ [kN]	1,37 / 0,63	1,23 / 0,45	1,11 / 0,32	–	–	–
	$F_{p,50}$ [kN]	1,32 / 0,63	1,18 / 0,45	1,07 / 0,31	–	–	–
	F_v [kN/m²]	5,41	4,19	3,17	–	–	–
300 × 40 × 2,5	$F_{p,200}$ [kN]	1,37 / 0,65	1,23 / 0,46	1,11 / 0,32	–	–	–
	$F_{p,50}$ [kN]	1,32 / 0,65	1,19 / 0,46	1,07 / 0,32	–	–	–
	F_v [kN/m²]	4,35	3,48	2,62	–	–	–
240 × 40 × 3,0	$F_{p,200}$ [kN]	1,75 / 0,73	1,57 / 0,51	1,32 / 0,36	1,1 / 0,25	–	–
	$F_{p,50}$ [kN]	1,68 / 0,73	1,51 / 0,51	1,31 / 0,36	1,09 / 0,25	–	–
	F_v [kN/m²]	6,54	4,83	3,65	2,80	–	–
300 × 40 × 3,0	$F_{p,200}$ [kN]	1,76 / 0,75	1,57 / 0,52	1,36 / 0,36	1,13 / 0,24	–	–
	$F_{p,50}$ [kN]	1,69 / 0,75	1,52 / 0,52	1,36 / 0,36	1,13 / 0,24	–	–
	F_v [kN/m²]	5,44	4,01	3,02	2,31	–	–
240 × 50 × 2,0	$F_{p,200}$ [kN]	1,89 / 1,1	1,7 / 0,8	1,54 / 0,59	1,41 / 0,44	1,3 / 0,33	1,19 / 0,24
	$F_{p,50}$ [kN]	1,17 / 1,09	1,17 / 0,8	1,17 / 0,59	1,17 / 0,44	1,17 / 0,32	1,17 / 0,24
	F_v [kN/m²]	7,49	6,15	5,14	4,18	3,30	2,64
300 × 50 × 2,0	$F_{p,200}$ [kN]	1,15 / 1,15	1,15 / 0,84	1,15 / 0,61	1,15 / 0,45	1,15 / 0,33	1,15 / 0,24
	$F_{p,50}$ [kN]	0,76 / 0,76	0,76 / 0,76	0,76 / 0,61	0,76 / 0,45	0,76 / 0,33	0,76 / 0,24
	F_v [kN/m²]	6,05	4,97	4,14	3,50	2,77	2,21

Loadings of closed surfaces

F_p left cell value: permissible stress of the material and deflection L/200th complied with
F_p right cell value: permissible tension of the material and deflection 4 mm observed

profile [material DD11/ DX51]	type of load	clear span [mm]						
		600	800	1.000	1.200	1.400	1.600	1.800
240 × 50 × 2,5	$F_{p,200}$ [kN]	3,49 / 3,49	3,49 / 3,49	3,49 / 3,49	3,49 / 3,49	3,41 / 3,41	2,94 / 2,71	2,58 / 1,87
	$F_{p,50}$ [kN]	2,03 / 2,03	2,03 / 2,03	2,03 / 2,03	2,03 / 2,03	2,03 / 2,03	2,03 / 2,03	2,03 / 1,86
	F_v [kN/m²]	103,82	58,28	37,20	25,75	18,85	14,37	11,30
300 × 50 × 2,5	$F_{p,200}$ [kN]	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 1,97
	$F_{p,50}$ [kN]	1,38 / 1,38	1,38 / 1,38	1,38 / 1,38	1,38 / 1,38	1,38 / 1,38	1,38 / 1,38	1,38 / 1,38
	F_v [kN/m²]	84,20	47,26	30,15	20,86	15,26	11,63	9,14
240 × 50 × 3,0	$F_{p,200}$ [kN]	5,31 / 5,31	5,31 / 5,31	5,31 / 5,31	5,2 / 5,2	4,38 / 4,38	3,78 / 3,16	3,32 / 2,18
	$F_{p,50}$ [kN]	3,14 / 3,14	3,14 / 3,14	3,14 / 3,14	3,14 / 3,14	3,14 / 3,14	3,14 / 3,14	3,14 / 2,17
	F_v [kN/m²]	133,29	74,84	47,78	33,08	24,22	18,47	14,53
300 × 50 × 3,0	$F_{p,200}$ [kN]	3,26 / 3,26	3,26 / 3,26	3,26 / 3,26	3,26 / 3,26	3,26 / 3,26	3,26 / 3,26	3,26 / 2,29
	$F_{p,50}$ [kN]	2,22 / 2,22	2,22 / 2,22	2,22 / 2,22	2,22 / 2,22	2,22 / 2,22	2,22 / 2,22	2,22 / 2,22
	F_v [kN/m²]	108,14	60,70	38,74	26,81	19,62	14,95	11,75
240 × 75 × 2,0	$F_{p,200}$ [kN]	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05
	$F_{p,50}$ [kN]	1,17 / 1,17	1,17 / 1,17	1,17 / 1,17	1,17 / 1,17	1,17 / 1,17	1,17 / 1,17	1,17 / 1,17
	F_v [kN/m²]	156,69	88,03	56,25	38,99	28,58	21,83	17,19
300 × 75 × 2,0	$F_{p,200}$ [kN]	1,15 / 1,15	1,15 / 1,15	1,15 / 1,15	1,15 / 1,15	1,15 / 1,15	1,15 / 1,15	1,15 / 1,15
	$F_{p,50}$ [kN]	0,76 / 0,76	0,76 / 0,76	0,76 / 0,76	0,76 / 0,76	0,76 / 0,76	0,76 / 0,76	0,76 / 0,76
	F_v [kN/m²]	127,69	71,73	45,82	31,75	23,27	17,76	13,99
240 × 75 × 2,5	$F_{p,200}$ [kN]	3,49 / 3,49	3,49 / 3,49	3,49 / 3,49	3,49 / 3,49	3,49 / 3,49	3,49 / 3,49	3,49 / 3,49
	$F_{p,50}$ [kN]	2,03 / 2,03	2,03 / 2,03	2,03 / 2,03	2,03 / 2,03	2,03 / 2,03	2,03 / 2,03	2,03 / 2,03
	F_v [kN/m²]	191,90	107,81	68,89	47,75	35,00	26,73	21,05
300 × 75 × 2,5	$F_{p,200}$ [kN]	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05
	$F_{p,50}$ [kN]	1,38 / 1,38	1,38 / 1,38	1,38 / 1,38	1,38 / 1,38	1,38 / 1,38	1,38 / 1,38	1,38 / 1,38
	F_v [kN/m²]	156,41	87,86	56,13	38,89	28,50	21,76	17,13
240 × 75 × 3,0	$F_{p,200}$ [kN]	5,31 / 5,31	5,31 / 5,31	5,31 / 5,31	5,31 / 5,31	5,31 / 5,31	5,31 / 5,31	5,31 / 5,31
	$F_{p,50}$ [kN]	3,14 / 3,14	3,14 / 3,14	3,14 / 3,14	3,14 / 3,14	3,14 / 3,14	3,14 / 3,14	3,14 / 3,14
	F_v [kN/m²]	248,21	139,46	89,12	61,78	45,29	34,59	27,26
300 × 75 × 3,0	$F_{p,200}$ [kN]	3,26 / 3,26	3,26 / 3,26	3,26 / 3,26	3,26 / 3,26	3,26 / 3,26	3,26 / 3,26	3,26 / 3,26
	$F_{p,50}$ [kN]	2,22 / 2,22	2,22 / 2,22	2,22 / 2,22	2,22 / 2,22	2,22 / 2,22	2,22 / 2,22	2,22 / 2,22
	F_v [kN/m²]	202,34	113,67	72,63	50,34	36,89	28,17	22,19
240 × 100 × 2,0	$F_{p,200}$ [kN]	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05
	$F_{p,50}$ [kN]	1,17 / 1,17	1,17 / 1,17	1,17 / 1,17	1,17 / 1,17	1,17 / 1,17	1,17 / 1,17	1,17 / 1,17
	F_v [kN/m²]	244,12	137,20	87,71	60,83	44,62	34,10	26,88
300 × 100 × 2,0	$F_{p,200}$ [kN]	1,15 / 1,15	1,15 / 1,15	1,15 / 1,15	1,15 / 1,15	1,15 / 1,15	1,15 / 1,15	1,15 / 1,15
	$F_{p,50}$ [kN]	0,76 / 0,76	0,76 / 0,76	0,76 / 0,76	0,76 / 0,76	0,76 / 0,76	0,76 / 0,76	0,76 / 0,76
	F_v [kN/m²]	199,74	112,25	71,75	49,75	36,49	27,88	21,97
240 × 100 × 2,5	$F_{p,200}$ [kN]	3,49 / 3,49	3,49 / 3,49	3,49 / 3,49	3,49 / 3,49	3,49 / 3,49	3,49 / 3,49	3,49 / 3,49
	$F_{p,50}$ [kN]	2,03 / 2,03	2,03 / 2,03	2,03 / 2,03	2,03 / 2,03	2,03 / 2,03	2,03 / 2,03	2,03 / 2,03
	F_v [kN/m²]	300,20	168,72	107,86	74,80	54,86	41,92	33,05
300 × 100 × 2,5	$F_{p,200}$ [kN]	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05
	$F_{p,50}$ [kN]	1,38 / 1,38	1,38 / 1,38	1,38 / 1,38	1,38 / 1,38	1,38 / 1,38	1,38 / 1,38	1,38 / 1,38
	F_v [kN/m²]	245,67	138,05	88,24	61,19	44,87	34,28	27,02
240 × 100 × 3,0	$F_{p,200}$ [kN]	5,31 / 5,31	5,31 / 5,31	5,31 / 5,31	5,31 / 5,31	5,31 / 5,31	5,31 / 5,31	5,31 / 5,31
	$F_{p,50}$ [kN]	3,14 / 3,14	3,14 / 3,14	3,14 / 3,14	3,14 / 3,14	3,14 / 3,14	3,14 / 3,14	3,14 / 3,14
	F_v [kN/m²]	389,87	219,13	140,09	97,16	71,28	54,48	42,96
300 × 100 × 3,0	$F_{p,200}$ [kN]	3,26 / 3,26	3,26 / 3,26	3,26 / 3,26	3,26 / 3,26	3,26 / 3,26	3,26 / 3,26	3,26 / 3,26
	$F_{p,50}$ [kN]	2,22 / 2,22	2,22 / 2,22	2,22 / 2,22	2,22 / 2,22	2,22 / 2,22	2,22 / 2,22	2,22 / 2,22
	F_v [kN/m²]	319,11	179,34	114,64	79,50	58,31	44,56	35,13

profile [material DD11/ DX51]	type of load	clear span [mm]					
		2.000	2.200	2.400	2.600	2.800	3.000
240 × 50 × 2,5	$F_{p,200}$ [kN]	2,3 / 1,33	2,07 / 0,97	1,87 / 0,71	1,71 / 0,53	1,57 / 0,39	1,44 / 0,29
	$F_{p,50}$ [kN]	2,03 / 1,33	2 / 0,97	1,82 / 0,71	1,66 / 0,53	1,53 / 0,39	1,41 / 0,29
	F_v [kN/m²]	9,10	7,47	6,24	5,07	4,00	3,20
300 × 50 × 2,5	$F_{p,200}$ [kN]	2,05 / 1,4	2,05 / 1,01	1,89 / 0,74	1,72 / 0,55	1,58 / 0,4	1,46 / 0,29
	$F_{p,50}$ [kN]	1,38 / 1,38	1,38 / 1,01	1,38 / 0,74	1,38 / 0,55	1,38 / 0,4	1,38 / 0,29
	F_v [kN/m²]	7,35	6,03	5,03	4,25	3,35	2,67
240 × 50 × 3,0	$F_{p,200}$ [kN]	2,96 / 1,55	2,66 / 1,13	2,41 / 0,83	2,21 / 0,61	1,96 / 0,45	1,68 / 0,33
	$F_{p,50}$ [kN]	2,85 / 1,54	2,57 / 1,12	2,34 / 0,83	2,14 / 0,61	1,95 / 0,45	1,67 / 0,33
	F_v [kN/m²]	11,71	9,62	7,59	5,90	4,65	3,72
300 × 50 × 3,0	$F_{p,200}$ [kN]	2,99 / 1,62	2,69 / 1,18	2,43 / 0,86	2,22 / 0,63	2,04 / 0,46	1,75 / 0,33
	$F_{p,50}$ [kN]	2,22 / 1,62	2,22 / 1,17	2,22 / 0,86	2,16 / 0,63	1,98 / 0,46	1,75 / 0,33
	F_v [kN/m²]	9,46	7,77	6,38	4,95	3,89	3,10
240 × 75 × 2,0	$F_{p,200}$ [kN]	2,05 / 2,05	2,05 / 2,05	2,05 / 1,7	2,05 / 1,3	2,05 / 1,01	2,05 / 0,8
	$F_{p,50}$ [kN]	1,17 / 1,17	1,17 / 1,17	1,17 / 1,17	1,17 / 1,17	1,17 / 1,01	1,17 / 0,79
	F_v [kN/m²]	13,88	11,43	9,56	8,11	6,96	6,03
300 × 75 × 2,0	$F_{p,200}$ [kN]	1,15 / 1,15	1,15 / 1,15	1,15 / 1,15	1,15 / 1,15	1,15 / 1,07	1,15 / 0,84
	$F_{p,50}$ [kN]	0,76 / 0,76	0,76 / 0,76	0,76 / 0,76	0,76 / 0,76	0,76 / 0,76	0,76 / 0,76
	F_v [kN/m²]	11,29	9,29	7,77	6,59	5,65	4,89
240 × 75 × 2,5	$F_{p,200}$ [kN]	3,49 / 3,49	3,49 / 2,74	3,49 / 2,07	3,22 / 1,59	2,97 / 1,24	2,75 / 0,97
	$F_{p,50}$ [kN]	2,03 / 2,03	2,03 / 2,03	2,03 / 2,03	2,03 / 1,59	2,03 / 1,24	2,03 / 0,97
	F_v [kN/m²]	17,00	13,99	11,71	9,93	8,52	7,38
300 × 75 × 2,5	$F_{p,200}$ [kN]	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 1,68	2,05 / 1,31	2,05 / 1,02
	$F_{p,50}$ [kN]	1,38 / 1,38	1,38 / 1,38	1,38 / 1,38	1,38 / 1,38	1,38 / 1,3	1,38 / 1,02
	F_v [kN/m²]	13,82	11,38	9,52	8,07	6,92	5,99
240 × 75 × 3,0	$F_{p,200}$ [kN]	5,31 / 4,34	5,01 / 3,22	4,56 / 2,43	4,18 / 1,87	3,85 / 1,45	3,57 / 1,14
	$F_{p,50}$ [kN]	3,14 / 3,14	3,14 / 3,14	3,14 / 2,43	3,14 / 1,87	3,14 / 1,45	3,14 / 1,14
	F_v [kN/m²]	22,01	18,13	15,17	12,88	11,05	9,58
300 × 75 × 3,0	$F_{p,200}$ [kN]	3,26 / 3,26	3,26 / 3,26	3,26 / 2,58	3,26 / 1,98	3,26 / 1,53	3,26 / 1,19
	$F_{p,50}$ [kN]	2,22 / 2,22	2,22 / 2,22	2,22 / 2,22	2,22 / 1,97	2,22 / 1,53	2,22 / 1,19
	F_v [kN/m²]	17,91	14,74	12,34	10,46	8,98	7,78
240 × 100 × 2,0	$F_{p,200}$ [kN]	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 1,71
	$F_{p,50}$ [kN]	1,17 / 1,17	1,17 / 1,17	1,17 / 1,17	1,17 / 1,17	1,17 / 1,17	1,17 / 1,17
	F_v [kN/m²]	21,72	17,91	15,00	12,74	10,95	9,50
300 × 100 × 2,0	$F_{p,200}$ [kN]	1,15 / 1,15	1,15 / 1,15	1,15 / 1,15	1,15 / 1,15	1,15 / 1,15	1,15 / 1,15
	$F_{p,50}$ [kN]	0,76 / 0,76	0,76 / 0,76	0,76 / 0,76	0,76 / 0,76	0,76 / 0,76	0,76 / 0,76
	F_v [kN/m²]	17,75	14,63	12,25	10,40	8,94	7,75
240 × 100 × 2,5	$F_{p,200}$ [kN]	3,49 / 3,49	3,49 / 3,49	3,49 / 3,49	3,49 / 3,34	3,49 / 2,63	3,49 / 2,1
	$F_{p,50}$ [kN]	2,03 / 2,03	2,03 / 2,03	2,03 / 2,03	2,03 / 2,03	2,03 / 2,03	2,03 / 2,03
	F_v [kN/m²]	26,71	22,02	18,44	15,67	13,46	11,68
300 × 100 × 2,5	$F_{p,200}$ [kN]	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05	2,05 / 2,05
	$F_{p,50}$ [kN]	1,38 / 1,38	1,38 / 1,38	1,38 / 1,38	1,38 / 1,38	1,38 / 1,38	1,38 / 1,38
	F_v [kN/m²]	21,83	17,99	15,07	12,79	10,99	9,53
240 × 100 × 3,0	$F_{p,200}$ [kN]	5,31 / 5,31	5,31 / 5,31	5,31 / 5,07	5,31 / 3,94	5,31 / 3,1	5,31 / 2,47
	$F_{p,50}$ [kN]	3,14 / 3,14	3,14 / 3,14	3,14 / 3,14	3,14 / 3,14	3,14 / 3,1	3,14 / 2,47
	F_v [kN/m²]	34,72	28,62	23,99	20,38	17,52	15,21
300 × 100 × 3,0	$F_{p,200}$ [kN]	3,26 / 3,26	3,26 / 3,26	3,26 / 3,26	3,26 / 3,26	3,26 / 3,26	3,26 / 2,63
	$F_{p,50}$ [kN]	2,22 / 2,22	2,22 / 2,22	2,22 / 2,22	2,22 / 2,22	2,22 / 2,22	2,22 / 2,22
	F_v [kN/m²]	28,39	23,40	19,60	16,65	14,30	12,41

Stairtreads

Step profile table for loads according to industry standard with 1.50kN on 100×100 mm² at the start and 5.00 kN/m²				
Length [mm]	open serrated surface	perforated surfaces	slotted surfaces	closed surfaces
	height / thickness / strength [DD11 / DX51]	height / thickness / strength [DD11 / DX51]	height / thickness / strength [DD11 / DX51]	height / thickness / strength [DD11 / DX51]
600	240 / 40 / 2,0	240 / 40 / 2,0	240 / 40 / 2,0	240 / 40 / 2,5
700	240 / 50 / 2,0	240 / 40 / 2,0	240 / 40 / 2,0	240 / 40 / 2,5
800	240 / 50 / 2,0	240 / 40 / 2,0	240 / 50 / 2,0	240 / 40 / 2,5
900	240 / 50 / 2,5	240 / 50 / 2,0	240 / 50 / 2,0	240 / 40 / 2,5
1.000	240 / 50 / 2,5	240 / 50 / 2,0	240 / 50 / 2,0	240 / 40 / 2,5
1.100	240 / 60 / 2,0	240 / 50 / 2,0	240 / 50 / 2,5	240 / 50 / 2,5
1.200	240 / 60 / 2,5	240 / 50 / 2,0	240 / 50 / 2,5	240 / 50 / 2,5
1.300	240 / 60 / 2,5	240 / 50 / 2,5	240 / 60 / 2,5	240 / 50 / 2,5
1.400	240 / 70 / 2,5	240 / 60 / 2,0	240 / 70 / 2,0	240 / 50 / 2,5
1.500	240 / 70 / 2,5	240 / 60 / 2,0	240 / 70 / 2,5	240 / 60 / 2,5
1.600	240 / 70 / 3,0	240 / 60 / 2,5	240 / 70 / 2,5	240 / 60 / 2,5
1.700	240 / 80 / 2,5	240 / 70 / 2,0	240 / 70 / 3,0	240 / 60 / 2,5
1.800	240 / 80 / 3,0	240 / 70 / 2,5	240 / 80 / 2,5	240 / 70 / 2,5

Step profile table for loads according to EC1 with 2.00kN on 50×50 mm² at the start and 5.00 kN/m²			
Length [mm]	open serrated surface	perforated surfaces	closed surfaces
	height / thickness / strength [DD11 / DX51]	height / thickness / strength [DD11 / DX51]	height / thickness / strength [DD11 / DX51]
600	240 / 50 / 2,5	240 / 40 / 2,5	240 / 40 / 2,5
700	240 / 50 / 2,5	240 / 40 / 2,5	240 / 40 / 2,5
800	240 / 60 / 2,5	240 / 50 / 2,5	240 / 50 / 2,5
900	240 / 60 / 2,5	240 / 50 / 2,5	240 / 50 / 2,5
1.000	240 / 70 / 2,0	240 / 50 / 2,5	240 / 50 / 2,5
1.100	240 / 70 / 2,5	240 / 60 / 2,5	240 / 50 / 2,5
1.200	240 / 70 / 2,5	240 / 60 / 2,5	240 / 60 / 2,5
1.300	240 / 70 / 3,0	240 / 70 / 2,5	240 / 60 / 2,5
1.400	240 / 80 / 3,0	240 / 70 / 2,5	240 / 70 / 2,5
1.500	240 / 80 / 3,0	240 / 70 / 3,0	240 / 70 / 2,5
1.600	240 / 90 / 3,0	240 / 70 / 3,0	240 / 70 / 3,0
1.700	240 / 90 / 3,0	240 / 70 / 3,0	240 / 70 / 3,0
1.800	240 / 100 / 3,0	240 / 80 / 3,0	240 / 70 / 3,0

Step profile table for loads according to industry standard with 1.50kN on 100×100 mm² at the start and 5.00 kN/m²				
Length [mm]	open serrated surface	perforated surfaces	slotted surfaces	closed surfaces
	height / thickness / strength [DD11 / DX51]	height / thickness / strength [DD11 / DX51]	height / thickness / strength [DD11 / DX51]	height / thickness / strength [DD11 / DX51]
600	300 / 50 / 2,0	300 / 40 / 2,5	300 / 40 / 2,0	300 / 40 / 2,5
700	300 / 50 / 2,0	300 / 40 / 2,5	300 / 40 / 2,0	300 / 40 / 2,5
800	300 / 50 / 2,0	300 / 40 / 2,5	300 / 50 / 2,0	300 / 40 / 2,5
900	300 / 50 / 2,5	300 / 40 / 2,5	300 / 50 / 2,0	300 / 40 / 2,5
1.000	300 / 50 / 2,5	300 / 40 / 2,5	300 / 50 / 2,0	300 / 40 / 2,5
1.100	300 / 60 / 2,0	300 / 50 / 2,5	300 / 50 / 2,5	300 / 50 / 2,5
1.200	300 / 60 / 2,5	300 / 50 / 2,5	300 / 50 / 2,5	300 / 50 / 2,5
1.300	300 / 70 / 2,0	300 / 50 / 2,5	300 / 60 / 2,5	300 / 50 / 2,5
1.400	300 / 70 / 2,5	300 / 60 / 2,5	300 / 70 / 2,0	300 / 50 / 2,5
1.500	300 / 70 / 3,0	300 / 60 / 2,5	300 / 70 / 2,5	300 / 60 / 2,5
1.600	300 / 70 / 3,0	300 / 60 / 2,5	300 / 70 / 3,0	300 / 60 / 2,5
1.700	300 / 80 / 3,0	300 / 70 / 2,5	300 / 80 / 2,5	300 / 70 / 2,5
1.800	300 / 80 / 3,0	300 / 70 / 2,5	300 / 80 / 2,5	300 / 70 / 2,5

Step profile table for loads according to EC1 with 2.00 kN on 50×50 mm² at the start and 5.00 kN/m²			
Length [mm]	open serrated surface	perforated surfaces	closed surfaces
	height / thickness / strength [DD11 / DX51]	height / thickness / strength [DD11 / DX51]	height / thickness / strength [DD11 / DX51]
600	300 / 50 / 2,5	300 / 40 / 3,0	300 / 40 / 3,0
700	300 / 60 / 2,5	300 / 40 / 3,0	300 / 40 / 3,0
800	300 / 60 / 2,5	300 / 40 / 3,0	300 / 40 / 3,0
900	300 / 60 / 2,5	300 / 40 / 3,0	300 / 40 / 3,0
1.000	300 / 70 / 2,5	300 / 50 / 3,0	300 / 50 / 3,0
1.100	300 / 70 / 2,5	300 / 50 / 3,0	300 / 50 / 3,0
1.200	300 / 70 / 3,0	300 / 50 / 3,0	300 / 50 / 3,0
1.300	300 / 70 / 3,0	300 / 50 / 3,0	300 / 50 / 3,0
1.400	300 / 80 / 3,0	300 / 60 / 3,0	300 / 60 / 3,0
1.500	300 / 80 / 3,0	300 / 60 / 3,0	300 / 60 / 3,0
1.600	300 / 90 / 3,0	300 / 70 / 3,0	300 / 70 / 3,0
1.700	300 / 90 / 3,0	300 / 70 / 3,0	300 / 70 / 3,0
1.800	300 / 100 / 3,0	300 / 70 / 3,0	300 / 70 / 3,0



Safety

119 Anti-Skid-Properties

Safety



Take a confident step towards a breathtaking view

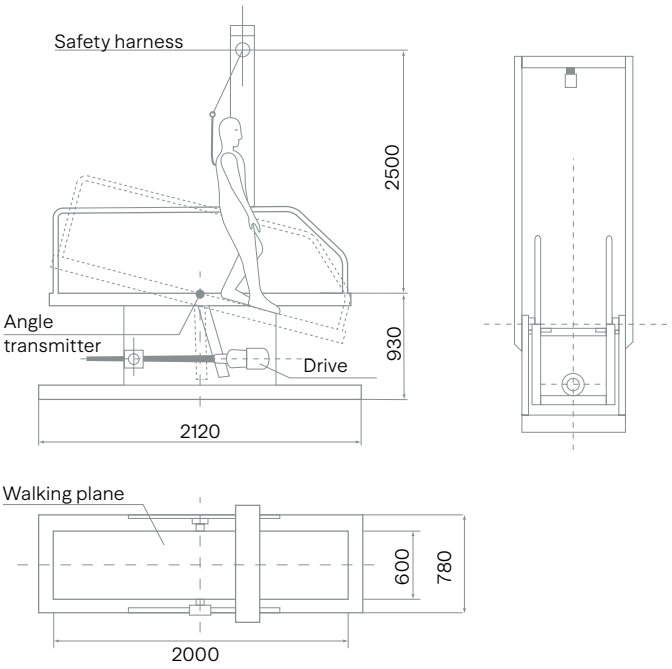
Anti-slpi properties

In recent years, the slip resistance of walkable surfaces has become increasingly important. Wherever substances such as oils, greases or emulsions are used, the risk of slipping is significantly increased.

Outdoors, the weather plays a crucial role. Rain and snow quickly transform many areas into slides. However, MEISER offers a solution to this problem and guarantees a safe grip with MEISER anti-skid profile blankings.

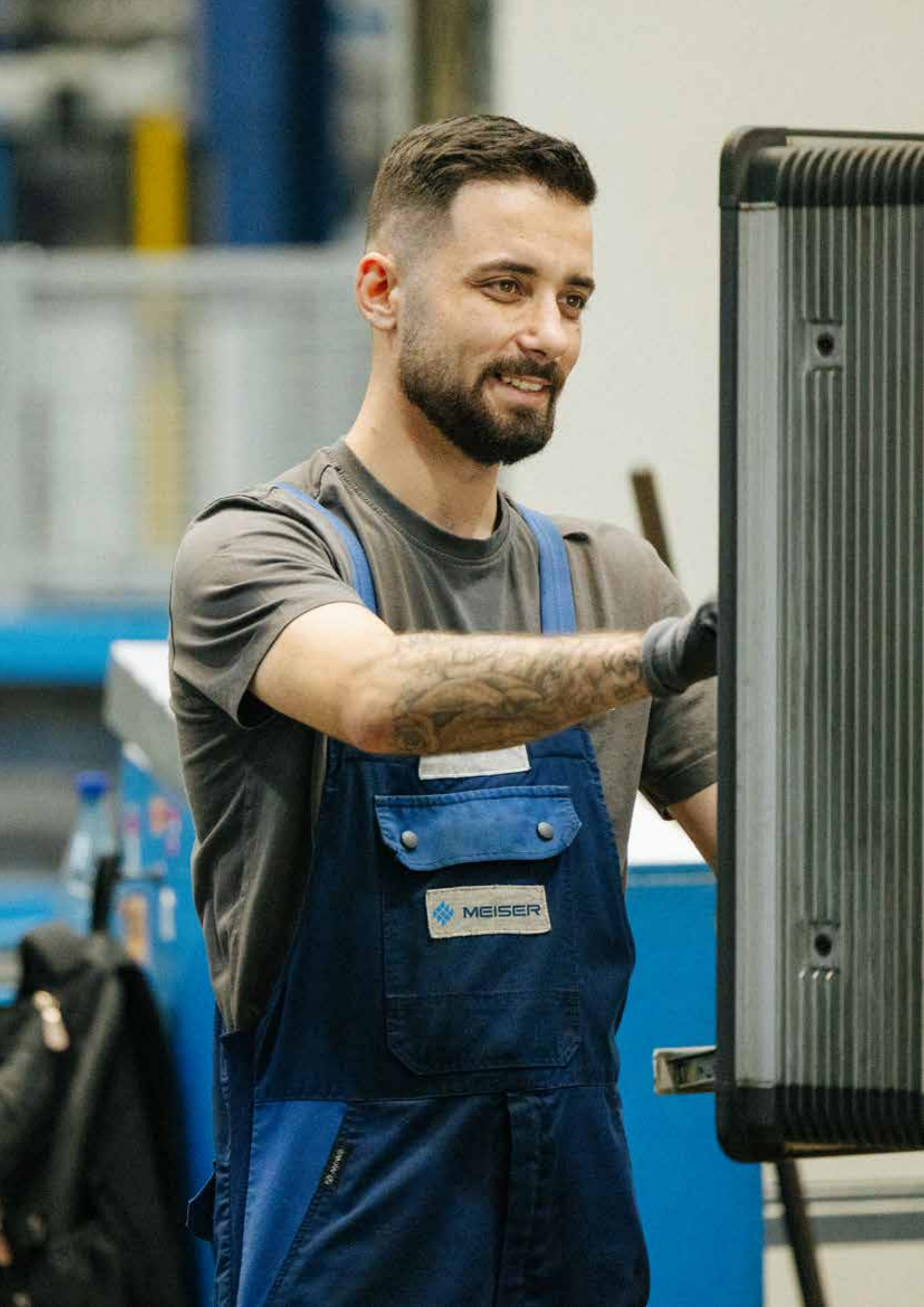
The required R rating depends on the area of application and is specified by the „Professional Association Rule for Safety and Health at Work (BGR181)“.

Slip resistance is tested by an independent testing institute using clearly defined test procedures and equipment (see illustration).



Classification	
Degrees	**Slip class**
from 3° bis 10°	R9
from 10° bis 19°	R10
from 19° bis 27°	R11
from 27° bis 35°	R12
more than 35°	R13

Overview of Slide (serration) Certificates			
Type of rust	**Slip class**	**Material**	**Surface**
Drainstep RH3	R11	DD11	galvanised
Formstep N	R12	DD11	galvanised
Formstep O5	R12	DD11	galvanised
Formstep O7	R13	DD11	galvanised
Stepbloc F	R13 / R12	DD11	galvanised
Stepbloc D	R13	DD11 / AlMg3	
Aderstep N	R13	DD11 / AlMg3	
Aderstep G1	R10	DD11	galvanised
Stephuit N	R13	DD11 / AlMg3	
Stephuit FH	R11	DD11	galvanised
Stepclair N	R13	DD11	galvanised
Stepplus N	R12	DD11	galvanised
Bostep G	R10	DD11 / V2A	galvanised
Steplarm G	R10	DD11	galvanised


MEISER

Service Standards Certificates

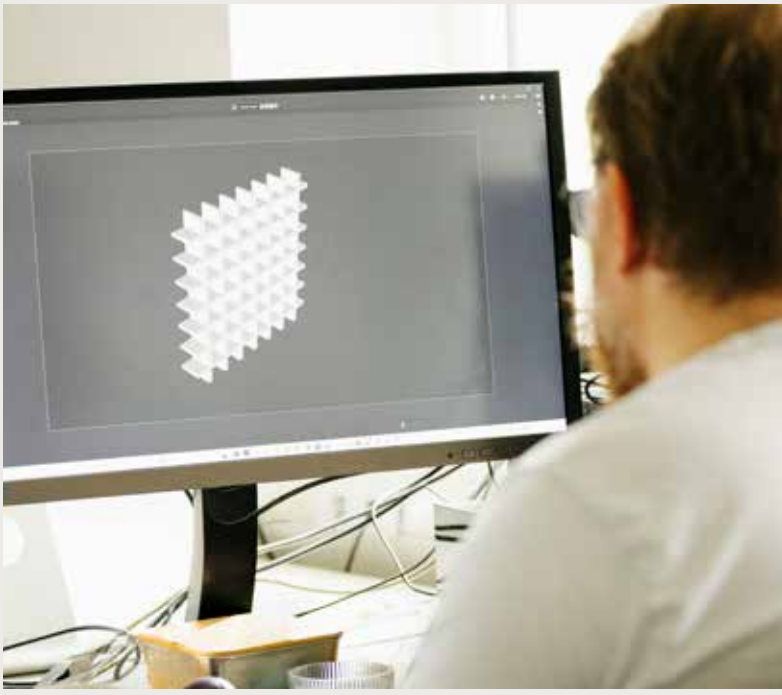
122 Service
124 Service and Complaints Management
125 Standards and certificates
126 Quality and the Environment
130 Galvanisation plants
132 Steel grades
134 Surface refinement

Service – right on the mark, every time



MEISER understands service as providing customers with the greatest possible added value with the reliable and timely delivery of high-quality products.

This begins with our offering you an extensive planning service. As professionals in the field of steel processing, we are able to plan an application faster and better than a planner who only deals with this topic from time to time or even for the first time. A further special interest of ours is solving unusual tasks. We do not want to reduce your ideas to the possibilities at our disposal, but rather expand our possibilities through the development of new solutions. That is why new tasks are not only a technical challenge to us, but also the opportunity to improve and develop as a company.



Our products are designed and manufactured in-house



MEISER operates in over 50 countries

Design and manufacture – all under one roof

Our offer to you includes the planning, manufacture and, upon request, assembly and preparation of installation plans — all under one roof. The continuous development of new products and the refinement of existing ones for a wide range of applications enable us to satisfy your requirements. Service is our top priority. For you this means:

- Advice on design, standards and regulations
- Preparation of assembly and manufacturing drawings
- Development of customer-specific special solutions

For us, quality assurance is a matter of course. The designs comply — where applicable — with the latest DIN / EN standards, the requirements of German accident prevention regulations and the specifications of the Professional Associations.

Service and Complaints Management

The key to ensuring our customers' continued satisfaction is providing excellent after-sales support.



Quality must be evident in every detail – exceptions can be subject to a comprehensive complaints management process

The prerequisite for the long-term satisfaction of our customers is good support - also after their purchase. A well-functioning service and complaints management system is an important part of our corporate culture and an essential part of successful and long-term cooperation.

We see it as our task to scrutinise our processes at regular intervals, initiate preventative measures and optimise our processes in order to be able to offer you an optimum service.

Should something go wrong, our employees ensure that complaints are handled promptly and that customers are kept regularly informed about the progress of the process.

Get in touch with us:

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Email kundenservice@meiser.de

Oelsnitz
Tel. +49 37421 50-2217

Email oe.ks@meiser.de

You'll find your contact person on our website at www.meiser.de



From the coil to the finished product, nothing can be left to chance



Do you have any questions? Please get in touch!

Standards and certificates



Applicable standards

RAL GZ 638	Grating
DIN EN ISO 14122-3	Steel staircases
DIN 24531 -2,3	Profile grating stair treads and GRP grating stair treads
DIN 24537	Grating as floor coverings - Part 1: Grating made of metallic materials
DIN EN ISO 1461	Zinc coatings applied to steel using hot dip galvanising (piece galvanising) - requirements and testing
BGI 588	Leaflet for metal grating
BGR 181	Anti-skid properties for floors in workrooms and work areas where there is a danger of slipping
BS 4592	Industrial floors and stair treads - General requirements and fitting recommendations

SCAN

Further information is available at www.meiser.de

Service and Quality



With a focus on planning services and a personal approach, we support our clients



Quality is never left to chance

From initial planning to assembly drawings and the delivery of a product that perfectly meets your requirements: We offer a comprehensive service and quality made in Germany – all from a single source. By continuously developing new products and refining existing solutions for a wide range of applications, we meet your requirements precisely – with a clear focus on service and practicality. We advise you on design, standards and regulations, prepare assembly and manufacturing drawings as well as develop customised special solutions when standard options are not sufficient. Quality assurance is an integral part of our approach. Where required, our designs comply with comply – where required – with the latest DIN/EN standards, take into account the provisions of the UVV (Accident Prevention Regulations) and meet the requirements of the employers' liability insurance associations. The result is a solution that is technically sound, safe to use and efficient to install – reliably planned, clearly documented and developed with practical application in mind. One solution – MEISER.



Helping to shape the future means taking responsibility for it

Environment and Sustainability

At MEISER, sustainability and social responsibility go hand in hand. As an international family-owned business, we consider sustainability across the entire value chain: from raw materials through production to delivery.

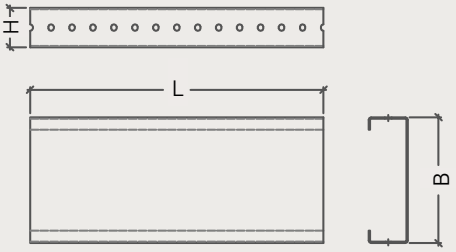
We continuously review our processes, reduce material consumption and, where appropriate, rely on resource-efficient technologies and renewable energy. We invest in efficient systems, use data for process control and think in terms of cycles – for example, when it comes to heat, water and materials. This makes responsibility tangible and transparent in our day-to-day operations.

At the same time, we create working environments that combine safety, productivity and well-being. Our development team takes a holistic approach to solutions: It designs products, plans processes through to completion and builds the necessary structures itself. This is how we ensure consistent quality and long-lasting results for applications that function reliably over the long term. For us, sustainability does not end at the factory gate. That is why we have been supporting culture, sport and education in the region and at our sites for many years. We support projects that bring people together, create opportunities and make a difference – in partnership, transparently and with a forward-looking approach.

General production tolerances for profile planks

Length, width and height tolerance

Length tolerance L:	+ 2 mm, - 4 mm
Width tolerance B:	+ 2 mm, - 4 mm
Height tolerance H:	+ 2 mm, - 4 mm



Permissible form deviation of vertical bars

a (outward inclination):	0,05 x H
b (inwards inclination):	0,05 x H
c (outward bulge):	0,05 x H



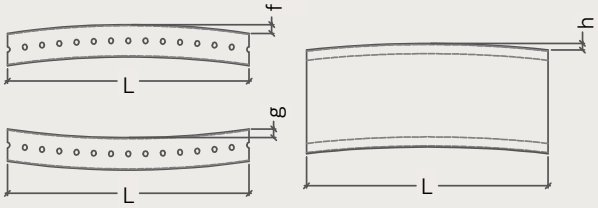
Permissible form deviation of horizontal bars

d (transverse bulging):	0,015 x B
e (transverse deflection):	0,015 x B



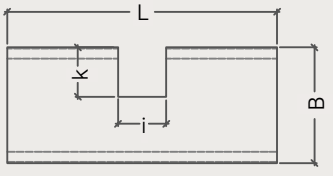
Permissible form deviation of profile plank

f (bulging in longitudinal direction):	0,004 x L
g (deflection in longitudinal direction):	0,002 x L
h (straightness):	0,002 x L



Tolerance for cut outs

i:	+ 8 mm, - 0 mm
k:	+ 8 mm, - 0 mm





Service

MEISER Galvanising Plants: modern and low-emission

Our galvanising plants in Limbach, St. Ingbert, Saarlouis and Oelsnitz are among the most modern hot-dip galvanising facilities in Europe. The state-of-the-art technology of the facilities enables MEISER to operate with reduced emissions.

Each product to be galvanised is automatically picked up by the conveyor and guided through the plant. During the preceding production stages, oils and greases are used to reduce wear and tear on the machinery.

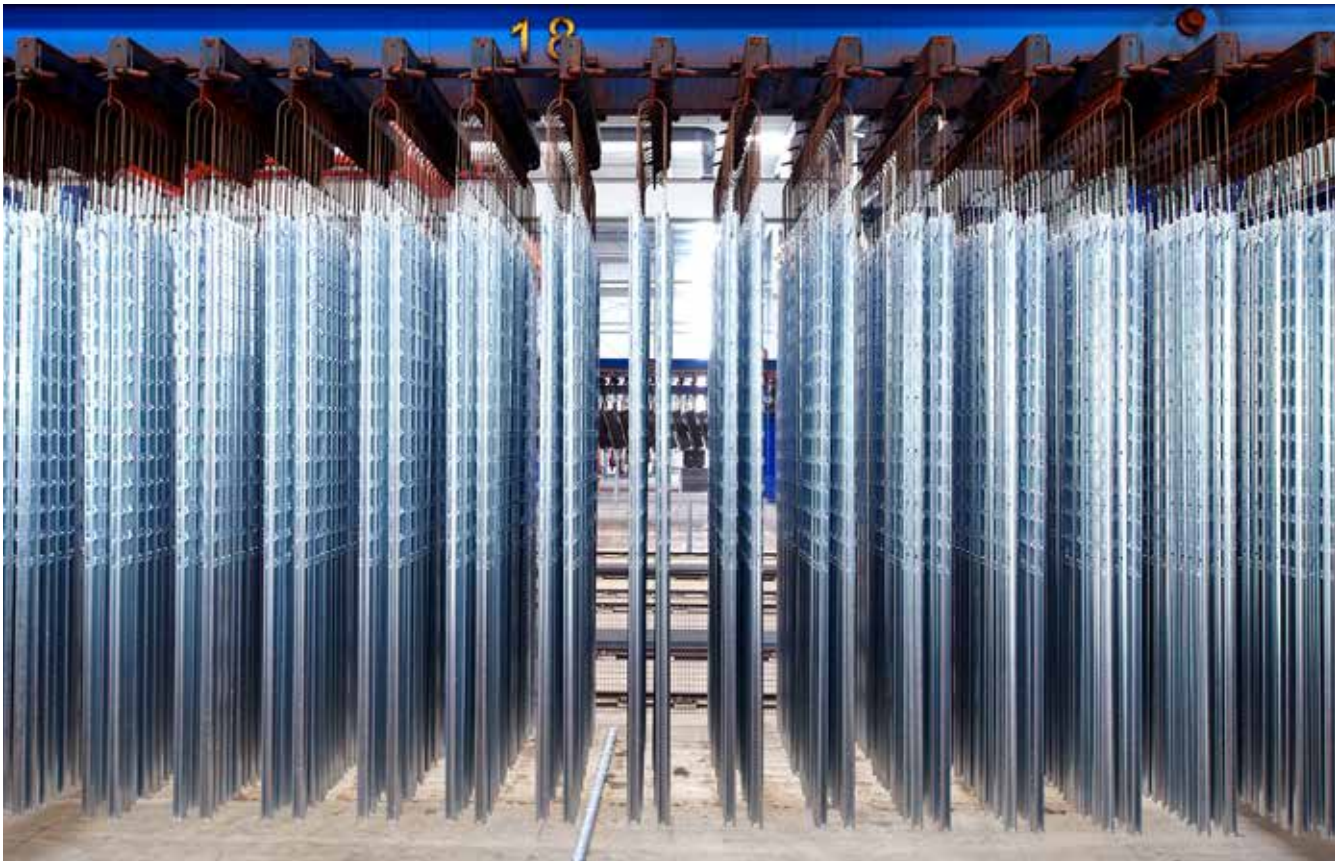
Before galvanising, however, the surface must be completely free of any contamination. Rust particles and metal dust must also be completely removed. To achieve this, the gratings pass through a series of rinsing and acid baths. The chemical pre-treatment, an environmentally sensitive process, takes place in a fully enclosed area. All resulting emissions are fed into a complex filtration system, ensuring that they do not affect the surrounding environment.

The fully automated system now transports the workpieces to the zinc baths. The molten zinc is heated to 450°C, where, the products are coated with the liquid metal. An exhaust air and dust filtration system protects both people and the environment. This helps us to, we create a safe and modern working environment for our employees.

With the long-lasting corrosion protection provided by hot-dip galvanising, our products have completed the final stage of the manufacturing process. After a highly efficient finishing process, they are on their way to you, our customers.



Modern galvanising plants for efficiency, safety and environmental protection



Ideal and state-of-the-art facilities for galvanising vineyard posts, grating, support systems and more

Category	Details
Galvanising capacity	over 250,000 tonnes per year
Plants (main sites)	3 state-of-the-art plants (Limbach, Oelsnitz, Saarlouis)
Special feature in St. Ingbert	Continuous strip galvanising line – one of only approx. 5 worldwide in this form
Special feature in Saarlouis	Additional powder coating
Galvanising plant area (Saarland)	Limbach: approx. 8,500 m² Saarlouis: approx. 5,000 m²
Kettle dimensions / zinc baths	Oelsnitz approx. 8 × 1.6 × 3,5 Saarlouis approx. 7.2 × 1.6 × 3 Limbach 2x approx. 6.5 x1.4 x2.5 and approx. 7.2 × 1.6 × 3
Zinc bath temperature	approx. 450°C



Responsibility that makes an impact: for the environment, safe working conditions and efficient processes



Working with steel also means using a versatile material in different grades for a variety of applications



State-of-the-art technology ensures products of reliable quality

Steel grades

Material No.	Tensile Strength	Yield Point	Elongation at break*
	Rm N/mm² mind.	ReL N/mm² mind.	
1.0038	360 – 510	≥ 235	26 %

Material No.	Tensile Strength	Yield Point	Elongation at break*
	Rm N/mm² mind.	ReL N/mm² mind.	
1.0332	Max. 440	170	24 %

* The values apply to product thicknesses ranging from 3 mm to 40 mm and longitudinal samples with $L_0 = 5{,}65 * \sqrt{S_0}$

Custom steel grades: the right steel for your project

MEISER has its own slitting lines, wire drawing machines and cold rolling mills.

This enables us to design steel products precisely in line with our customers' requirements and needs. Oversizing makes little sense, whilst undersizing must be avoided at all costs. The optimal combination of material thickness and height, combined with the appropriate steel grade, ensures the greatest possible economic benefit. That is our commitment – no more and no less. We would like to explain the most common variants to you below:

Grades of steel

S 235 JR (DIN EN 10025-2)
S 235 JR has proven itself in practice thanks to its good weldability, formability and strength.

S 275 JR (DIN EN 10025)
S 275 JR has comparable product properties to S 235, but stands out due to its slightly higher tensile strength and load-bearing capacity.

S 355 JR (DIN EN 10025)
The most important steels in the construction industry, alongside the well-known reinforcing steels, are S 235 JR and S 355 JR.

None of the materials listed have a passive layer and must therefore be protected against corrosion. For indoor use, a primer with an additional coat of paint or strip galvanising is sufficient. For outdoor use, hot-dip galvanising is required as a minimum.

Stainless steel

Stainless steel combines a range of beneficial properties that have become indispensable in many applications today. Naturally, it is important to know exactly which grades of stainless steel are particularly suitable for a specific application. There is therefore no such thing as a universal material suitable for every application. In Germany, two general VA designations are generally used: V2A is a type of stainless steel commonly found in everyday life, used, for example, in the construction of railings, vehicles and sinks. V4A is similar to V2A, but is additionally alloyed with 2% molybdenum (Mo). This makes the stainless steel more resistant to corrosion in chloride-containing media. V4A stainless steel is used in salt water, swimming pools and the chemical industry. It is also possible to etch and polish the surface of stainless steel. These processes are described in detail on the following page.

Aluminium

Aluminium has been used increasingly as a building material in recent years. Its many beneficial properties make it an attractive and competitive alternative to steel. In the ranking of the most commonly used metals, it is already in second place behind steel. The density of aluminium is only 2.7 kg/dm³ (approx. 1/3 the weight of steel), which, combined with its relatively high strength and good weldability, enables significant weight savings compared to steel structures in many applications.

Weather-resistant structural steels

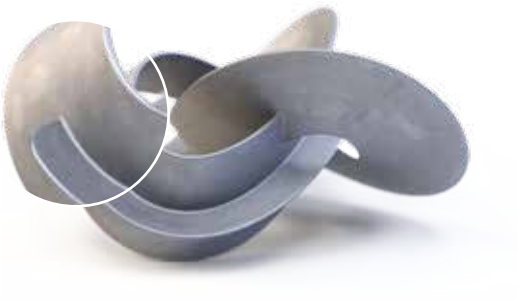
Weather-resistant structural steels (commonly known as Corten steel) form a protective layer under the influence of moisture and atmospheric oxygen, thanks to their specific alloying elements (chromium, copper, nickel, etc.), which significantly reduces the rate of corrosion. Other properties include good weldability and good cold and hot formability. Due to their resistance to weathering and their characteristic patina, weather-resistant structural steels are also used to create architectural features, such as façade cladding.

Surface refinement: Functionality and aesthetics

MEISER steel products are characterised by their durability and high quality. This crucially depends on the correct surface treatment. We offer our customers a wide range of options, whether the focus is on functionality or aesthetics. Several factors play a role in selecting the right surface treatment: our customers' individual preferences, their budget and the required level of corrosion protection.

Hot-Dip Galvanising

MEISER steel products are typically hot-dip galvanised. At our two modern facilities in Limbach and Oelsnitz, commissioned in 2011 and 2020, respectively, this process is carried out in accordance with the requirements of DIN EN ISO 1461. State-of-the-art galvanising and environmental technologies guarantee long-lasting corrosion protection that easily withstands the mechanical and chemical stresses encountered in everyday use.



Pickling (stainless steel)

MEISER stainless steel products are usually pickled after production, as the welding process can cause scale and discolouration on the surface, creating potential starting points for corrosion. During the pickling process, the gratings are immersed in a pickling bath, giving them a metallically pure and protected surface.



Natural matt finish (aluminium)

Etching is a chemical process used to treat the surface of aluminium. It involves the controlled removal of the natural oxide layer, resulting in a more uniform, slightly silvery-matt surface. Compared to anodised surfaces, it appears more natural and uniform. However, as pickling does not create an additional protective layer, the surface is more delicate than an anodised layer. It is therefore more susceptible to scratches, fingerprints and other signs of wear. For this reason, pickled aluminium is particularly suitable for architecturally sophisticated interior applications.



Electrochemical polishing (stainless steel)

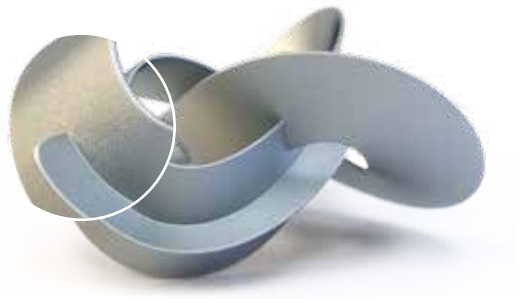
Electropolishing is essentially the reverse of electroplating. Under the influence of direct current, a thin layer of is removed from the surface of the workpiece, which is connected to the anode in an electrolyte. The process produces smooth, shiny surfaces that are highly corrosion-resistant and easy to clean.



Glass bead blasting

By using glass beads as the blasting medium, MEISER products made of stainless steel and aluminium can be further refined. The blasting process creates matt or satin-finished surfaces and helps to conceal minor surface imperfections in the material.

The resulting satin-matt finish is durable and retains its appearance over time. At the same time, the surface is cleaned of adhering foreign particles and additionally compacted, which helps to improve its durability.



Anodising (aluminium)

Anodising is an electrochemical process used to treat aluminium surfaces. It enhances the natural oxide layer and transforms it into a durable protective coating.
First, the material is degreased and etched (E6) before the anodising takes place. Electrochemical oxidation creates a solid oxide layer that bonds firmly to the base material.
The result is a uniform, functional surface with improved corrosion resistance and greater resistance to environmental influences. The anodised layer can also be coloured in shades C31 to C35, unless the natural aluminium colour (C0) is desired.
Due to the process and alloy-related factors, slight colour variations may occur. These cannot be completely avoided and do not constitute a quality defect.



Cathodic immersion bath coating (CDC)



Electrocoating offers an excellent combination of corrosion protection, quality, cost-effectiveness and environmental compatibility. It provides effective, long-lasting corrosion protection, providing good resistance to mechanical and chemical stresses.

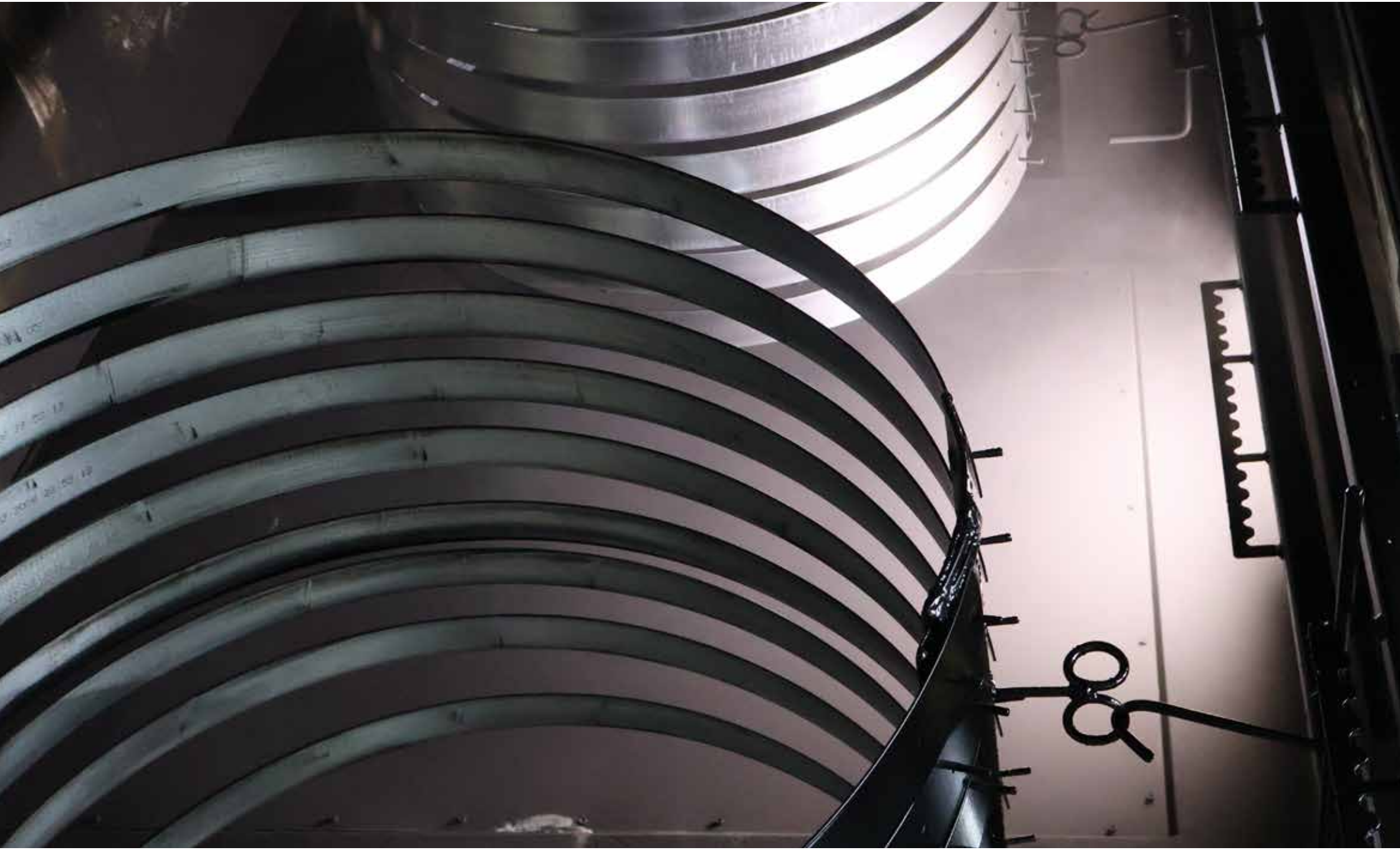
The process is based on the principle that oppositely charged particles attract each other, ensuring excellent coating adhesion.
A direct current is applied to the workpiece, which is then immersed in a coating bath containing oppositely charged coating particles. The coating is subsequently cured in an oven at approximately 180 °C to achieve maximum durability. Different film thicknesses are possible, although the range of colours is limited.

Powder coating



If you wish to colour your products, powder coating is the most cost-effective and durable solution. The process begins with the products being degreased, pickled and zinc-phosphated in immersion baths. The powder coating is then applied electrostatically and cured at approximately 180°C. The MEISER Duplex coating, consisting of hot-dip galvanising followed by powder coating, offers particularly long-lasting corrosion protection.

Powder coating is available in all RAL colours, with various gloss levels and surface textures. Furthermore, we offer coating systems for corrosivity categories C1 to C5, making them suitable for a wide range of applications.



Surface refinement



since 1956
in Schmelz-Limbach

since 1991
in Oelsnitz/Vogtland



1. Meiser UK Ltd
2. The Expanded Metal Company
3. RST Meiser Nederland B.V.
4. Meiser Sarl
5. Meiser Fameco S.A.
6. Distriroute SAS
7. Gebrüder Meiser GmbH
   Meiser Solar GmbH
   Meiser Road Safety GmbH
8. PMI MEISER Gitterroste AG
9. Meiser Agriculture Solutions S.A.S.
10. Meiser Rejillas Hispania S.L.
11. Meiser Agriculture Solutions Italia
12. Meiser Streckmetall GmbH
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14. ALFIX GmbH
15. Meiser Österreich GmbH
16. Meiser Road Safety Sp.z o.o
17. Meiser Polska SP.z o.o
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28. IKG - Houston, Texas
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    Marangoni MEISER
32. Meiser-Maghreb GmbH
33. Meiser Algerie Sarl.
34. Hady MEISER Egypt
35. Meiser AC Sarl
36. Lionweld MEISER LLC

MEISER's production sites and branches. Nationally and internationally

● Production sites

○ Offices



SCAN

Scan here to see all MEISER locations and other branches – worldwide

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