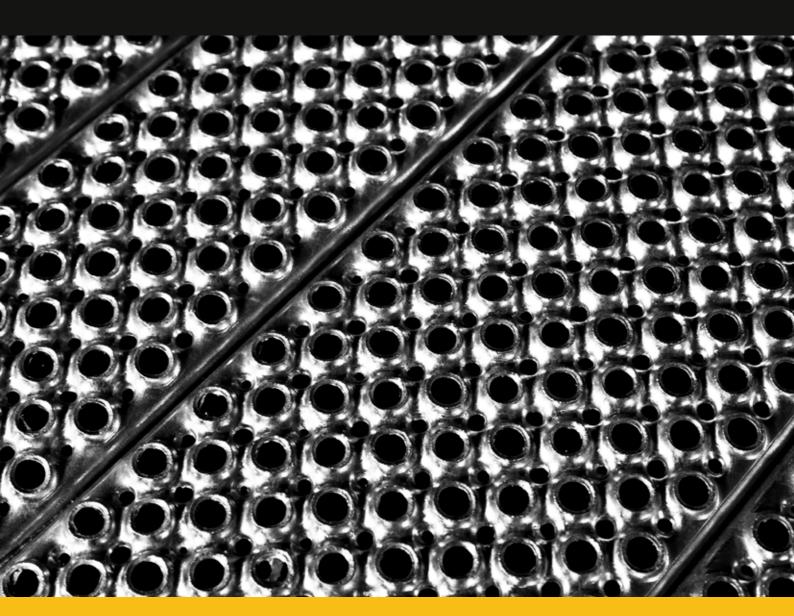
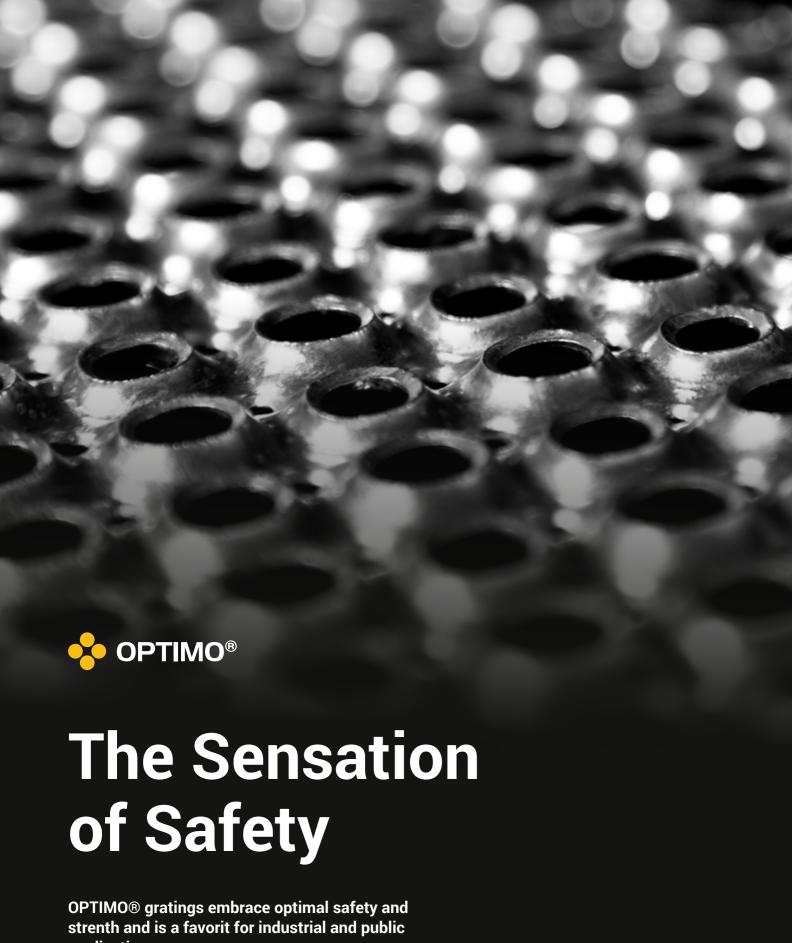


# OPTIMO®

- Optimal comfort and security where even the strictest safety is required.







applications.

## **Best-in-class in** comfort & security

#### **Pioneering Safety**

Ever since its introduction in 1967, the OPTIMO® series of planks, panels, and treads have been synonymous with safety and stability. The OPTIMO® safety gratings design contains the characteristic punched hole pattern, allowing essential properties such as high slip resistance, drainage, optimal airflow, and strength to weight ratio, recognised by clients and industries through decades.

#### The story behind OPTIMO®

Fueled by the spirit of innovation, Peder Farsen Pedersen the son of Peder Chr. Pedersen, the founder of PcP, set out to design and develop an alternative to the traditional mesh gratings. The aim was to engineer a versatile yet flexible grating design, that did not have limitations regarding where it could be installed. In 1967, the so-called "Safety Gratings" saw first light and became an instant bestseller. Today, the punched hole O-gratings are now recognised under the brand name OPTIMO®.

#### No matter the industry or application **OPTIMO®** is your solution for safety!

OPTIMO gratings are very suitable for a range of applications, i.e. the industries public safety, industrial construction, building as follows:

- ✓ Platforms
- Mezzanines
- Gantries
- ✓ Walkways
- ✓ Stairways and landings





## **Benefits**

#### An all-round solution

#### Flexible by design

The unique design of the OPTIMO® line of more than 15 different types of gratings in 6 different materials, allows for almost endless possibilities. Lighter than the mesh grating but just as strong. The OPTIMO® product series is trusted through the use in public walkways, industrial complexes, platforms and much more. 10+ design variants mean OPTIMO® gratings can be multi-purposed for almost any application, wet and dry, hot and cold environments.

Furthermore, the special LHD® surface design offers unique flame-retardant capabilities, very suitable for use on transformer substations, offshore platforms, and other offshore environments. In other words, OPTI-MO® has the potential of providing comfort and security where even the strictest safety is required.

#### **Unlimited potential**

OPTIMO® consist of panels welded together to form a complete grating. These panels are also available in the form of stair treads and planks with different designs for numerous applications. Walkways, platforms, stairways, spiral stairs, scaffolding - the possibilities are endless. OPTIMO® brings together modern engineering with everyday practicality and safety.



#### **High slip resistance**

Carefully placed drainage holes and punched holes ensure that the OPTIMO® line proves end-users with maximum slip resistance.



#### Suitable for high altitudes

The OPTIMO® line is very suitable to be used at high altitudes. Even though the construction employs punched holes for its features, its low level of transparency provides the end-user with a high degree of comfort.



#### **Optimal strength to weight ratio**

The sturdy design of the OPTIMO® line ensures a construction that is as light as its strong. Lighter than a mesh grating with the same strengh.



#### Install with a breeze

OPTIMO® has been designed to be simple and easy to install. This allows for quicker installation in challenging environments, allowing safety for end-users on short notice.



#### Flexible by design

OPTIMO® gratings can be used in numerous types of climates, environments, industries, and applications. The product line is available in various widths, heights, lengths, and profile forms and can furthermore be customised to meet your exact needs.



#### **Certified Quality**

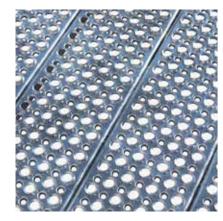
The OPTIMO® product line has been rigorously tested and approved according to the European standards EN 1991 and EN ISO 14122.



# **Design and functionality**

The flexible and sturdy design means that OPTIMO planks, panels, and treads can be installed virtually anywhere.

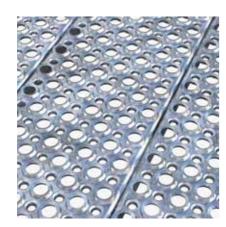
OPTIMO® gratings and treads are the best-in-class safety grating for industrial building and construction. OPTIMO® is a punch hole grating Punched and drainage holes, purposely designed to be easy to install, flexible in its construction and a strong foundation for any safety need across industries and applications. With round holes for optimal slipresistance and drainage- the design offers a very high safety for applications in the public and industrial sectors.



**OPTIMO 02** steel | stainless steel | aluminium max slip resistance pattern: dia. 9/5 mm



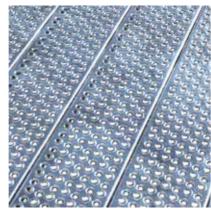
**OPTIMO LHD** steel fire protection | slip resistant pattern: dia. 6/6 mm



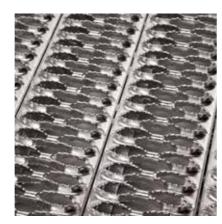
**OPTIMO 03** steel | stainless steel | aluminium max slip resistance pattern: dia. 14/8,5 mm



**OPTIMO STAR** steel | stainless steel | aluminium increased open area | slip resistant pattern: serrated dia. 21/21 mm

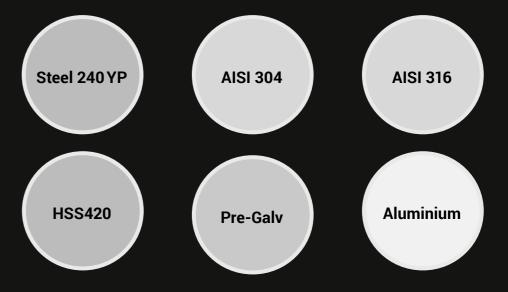


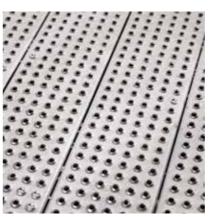
**OPTIMO 05** steel slip resistant | heel proof pattern: dia. 5/5 mm



**OPTIMO US** steel | stainless steel | aluminium increased open area | slip resistant pattern: serrated 48x14/48x14mm

#### 6 material grades





**OPTIMO SPS** steel | stainless steel | aluminium heel proof | slip resistant pattern: dia. 5 mm



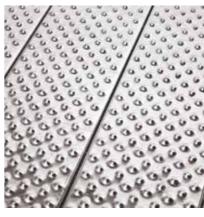
ортімо к steel decreased open area | slip resistant pattern: dia. 14/9 mm



OPTIMO E steel | stainless steel heel proof | closed surface



steel heel proof | closed surface rubber plugs available

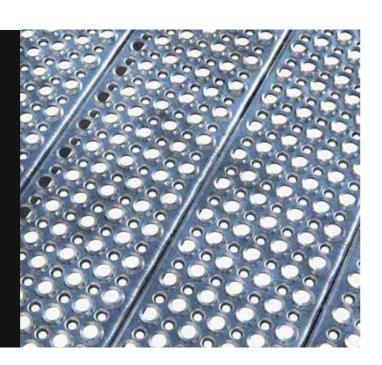


OPTIMO D steel | stainless steel | aluminium heel proof | closed surface



02

Planks, gratings and treads

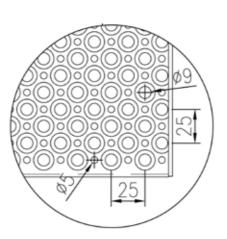


#### **Specifications**

PTV guidelines	36+ Low Slip Potential
	·
Dry PTV average	66
Wet PTV average	50
Slip resistance	R13 = slant >35° acc. to DIN 51130
Displacement Space	V10 in accordance with DIN 51130
Free area	20-25 %
Upward grip holes	dia. 9
Downward drainage holes	dia. 5 mm
C-C grid	25 x 25 mm
Load capacity	1,5 kN / 100 x 100 mm acc. to EN ISO 14122
Ball proof	15 mm in accordance with EN ISO 14122-2 20 mm in accordance with EN ISO 14122-2 35 mm in accordance with EN ISO 14122-2

#### Suitable application areas

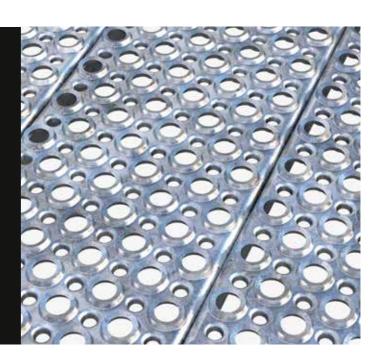
Access Walkways & Maintenance Platforms





03

Planks, gratings and treads



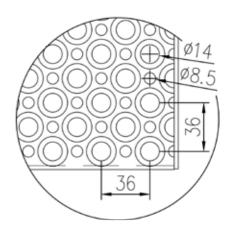
#### **Specifications**

PTV guidelines	36+ Low Slip Potential
Dry PTV average	73
Wet PTV average	51
Slip resistance	R13 = slant >35° acc. to DIN 51130
Displacement Space	V10 in accordance with DIN 51130
Free area	28-32 %
Upward grip holes	dia. 14
Downward drainage holes	dia. 8,5 mm
C-C grid	36 x 36 mm
Ball proof	15 mm in accordance with EN ISO 14122-2 20 mm in accordance with EN ISO 14122-2 35 mm in accordance with EN ISO 14122-2

#### Suitable application areas

Access Walkways & Maintenance Platforms

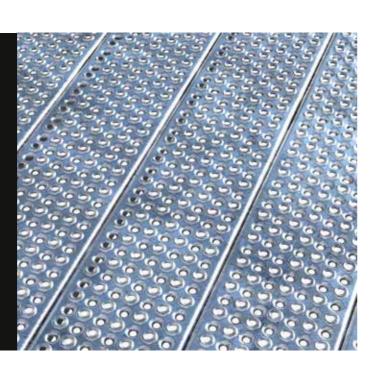
Vehicular





05

Planks, gratings and treads



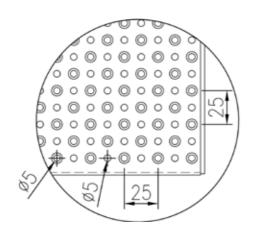
#### **Specifications**

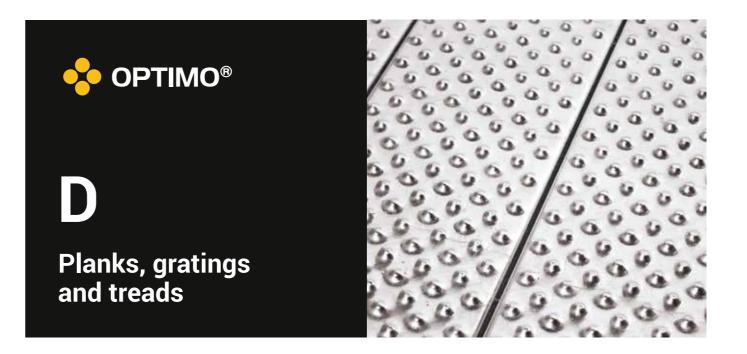
PTV guidelines	36+ Low Slip Potential
Dry PTV average	96
Wet PTV average	79
Slip resistance	R13 = slant >35° acc. to DIN 51130
Displacement Space	V10 in accordance with DIN 51130
Free area	8-9 %
Upward grip holes	dia. 5
Downward drainage holes	dia. 5 mm
C-C grid	25 x 25 mm
Heel proof	
Ball proof	15 mm in accordance with EN ISO 14122-2 20 mm in accordance with EN ISO 14122-2 35 mm in accordance with EN ISO 14122-2

#### Suitable application areas

Access Walkways & Maintenance Platforms

Balconies





#### **Specifications**

PTV guidelines	36+ Low Slip Potential
Dry PTV average	86
Wet PTV average	60
Free area	~0 %
Heel proof	
Closed surface	
Ball proof	15 mm in accordance with EN ISO 14122-2 20 mm in accordance with EN ISO 14122-2 35 mm in accordance with EN ISO 14122-2

#### Suitable application areas

Balconies	
Vehicular	
Access Walkways & Maintenance Platforms	



# LHD

Planks, gratings and treads

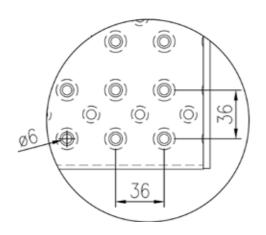


#### **Specifications**

PTV guidelines	36+ Low Slip Potential
Dry PTV average	91
Wet PTV average	55
Slip resistance	R11 = 27° > slant > 19° acc. to DIN 51130
Displacement Space	V10 in accordance with DIN 51130
Free area	2,4 - 3,7 %
Upward grip holes	dia. 6
Downward drainage holes	dia. 6 mm
C-C grid	72 x 36 mm
Ball proof	15 mm in accordance with EN ISO 14122-2 20 mm in accordance with EN ISO 14122-2 35 mm in accordance with EN ISO 14122-2

#### Suitable application areas

Transformer station bunds





# **STAR**

Planks, gratings and treads

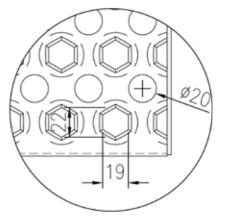


#### **Specifications**

Slip resistance	R11 = 27° > slant > 19° acc. to DIN 51130
Displacement Space	V10 in accordance with DIN 51130
Free area	25-27 %
Upward grip holes	Serrated dia. 21
Downward drainage holes	dia. 21 mm
C-C grid	50 x 50 mm
Ball proof	35 mm in accordance with EN ISO 14122-2

#### Suitable application areas

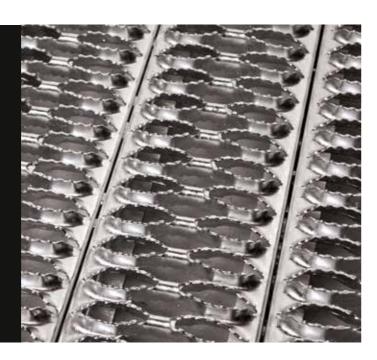
Access Walkways & Maintenance Platforms





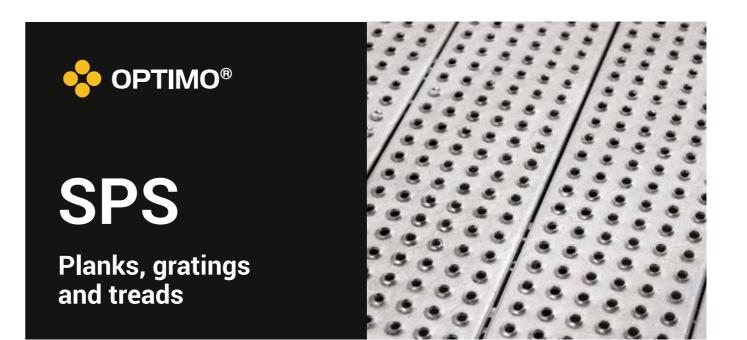
US

Planks, gratings and treads



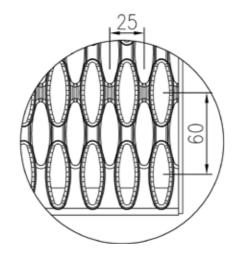
#### Specifications

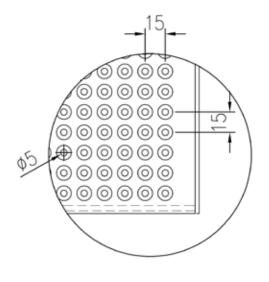
Slip resistance	R12 = 35° > slant > 27° acc. to DIN 51130
Displacement Space	V10 in accordance with DIN 51130
Free area	42 - 55 %
Upward grip holes	Serrated ellipse 48 x 14
Downward drainage holes	ellipse 48 x 14 mm
C-C grid	60 x 26 mm
Ball proof	15 mm in accordance with EN ISO 14122-2 20 mm in accordance with EN ISO 14122-2 35 mm in accordance with EN ISO 14122-2



#### Specifications

Slip resistance	C acc. to DIN 51097
Free area	9%
Upward grip holes	dia. 5
C-C grid	15 x 15 mm
Heel proof	
Ball proof	15 mm in accordance with EN ISO 14122-2 20 mm in accordance with EN ISO 14122-2 35 mm in accordance with EN ISO 14122-2

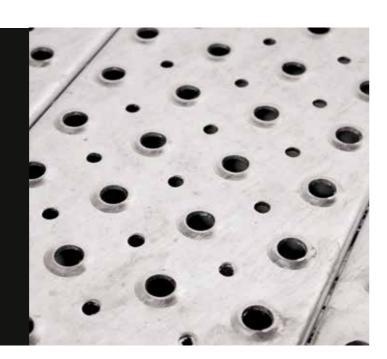






K

Planks, gratings and treads



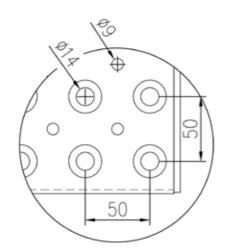
#### **Specifications**

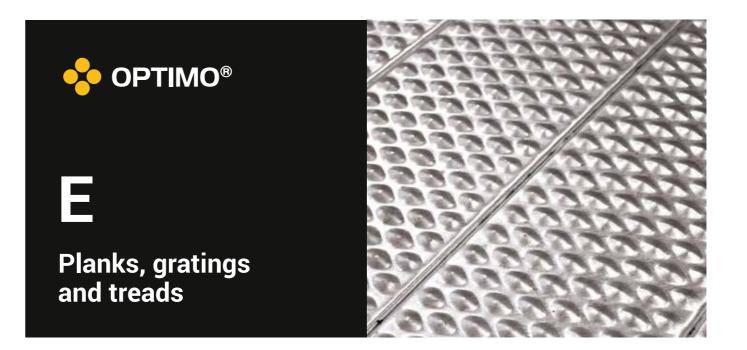
Slip resistance	R10 = 19° > slant > 10° acc. to DIN 51130
Displacement Space	V10 in accordance with DIN 51130
Free area	9 %
Upward grip holes	dia. 14
Downward drainage holes	dia. 9 mm
C-C grid	50 x 50 mm
Ball proof	15 mm in accordance with EN ISO 14122-2 20 mm in accordance with EN ISO 14122-2 35 mm in accordance with EN ISO 14122-2

#### Suitable application areas

Access Walkways & Maintenance Platforms

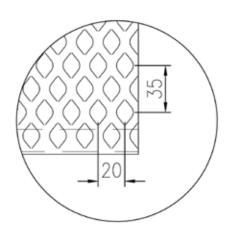
Balconies





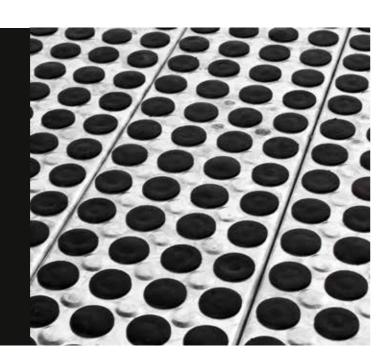
#### **Specifications**

Slip resistance	R9 = 10° > slant > 6° acc. to DIN 51130
Displacement Space	V10 in accordance with DIN 51130
Free area	~0 %
C-C grid	35 x 20 mm
Heel proof	
Closed surface	
Ball proof	15 mm in accordance with EN ISO 14122-2 20 mm in accordance with EN ISO 14122-2 35 mm in accordance with EN ISO 14122-2





Planks, gratings and treads

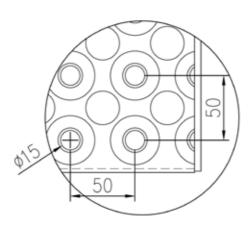


#### **Specifications**

Slip resistance	R- acc. to DIN 51130
Displacement Space	V10 in accordance with DIN 51130
Free area	~0%
C-C grid	50 x 50 mm
Heel proof	
Closed surface	
Ball proof	15 mm in accordance with EN ISO 14122-2 20 mm in accordance with EN ISO 14122-2 35 mm in accordance with EN ISO 14122-2

#### Suitable application areas

Access Walkways & Maintenance Platforms







The OPTIMO® Achil stair treads are strong, durable and slip resistant; as a result, they are good structural components for public stairways, walkways, and platforms. Generally, we recommend Achil treads for applications in public areas where many people walk. With its unique design with rolled flanges, the Achil tread prevents accidents and damages on the heal, when walking on up the stairs. The rolled flanges provide the stair tread a high load capacity, while protecting footwear and sharp edges are avoided.



Tread ACHIL 02 Steel 240 YP



Tread plank ACHIL 02 Steel 240 YP



Tread ACHIL VISUAL 02 Steel 240 YP



Tread BUILD VISUAL 02 Steel 240 YP



Tread ACHIL VISUAL 05 Steel 240 YP



Tread ACHIL 02 Aluminium 3005-16 H66

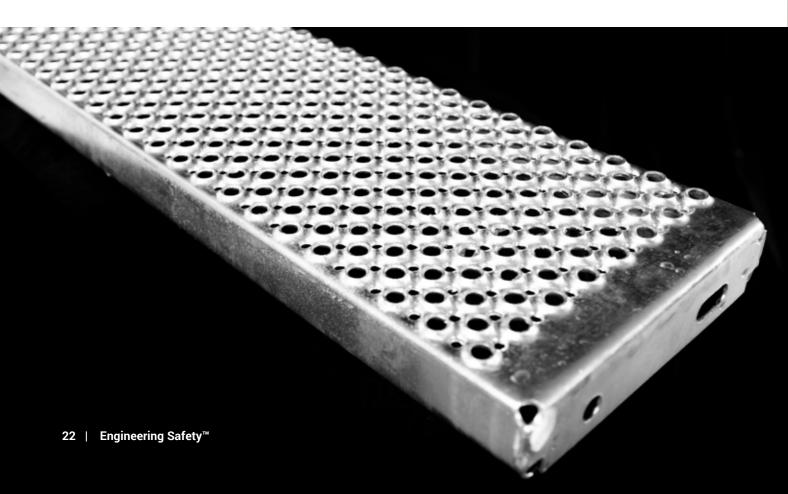
20 | Engineering Safety™

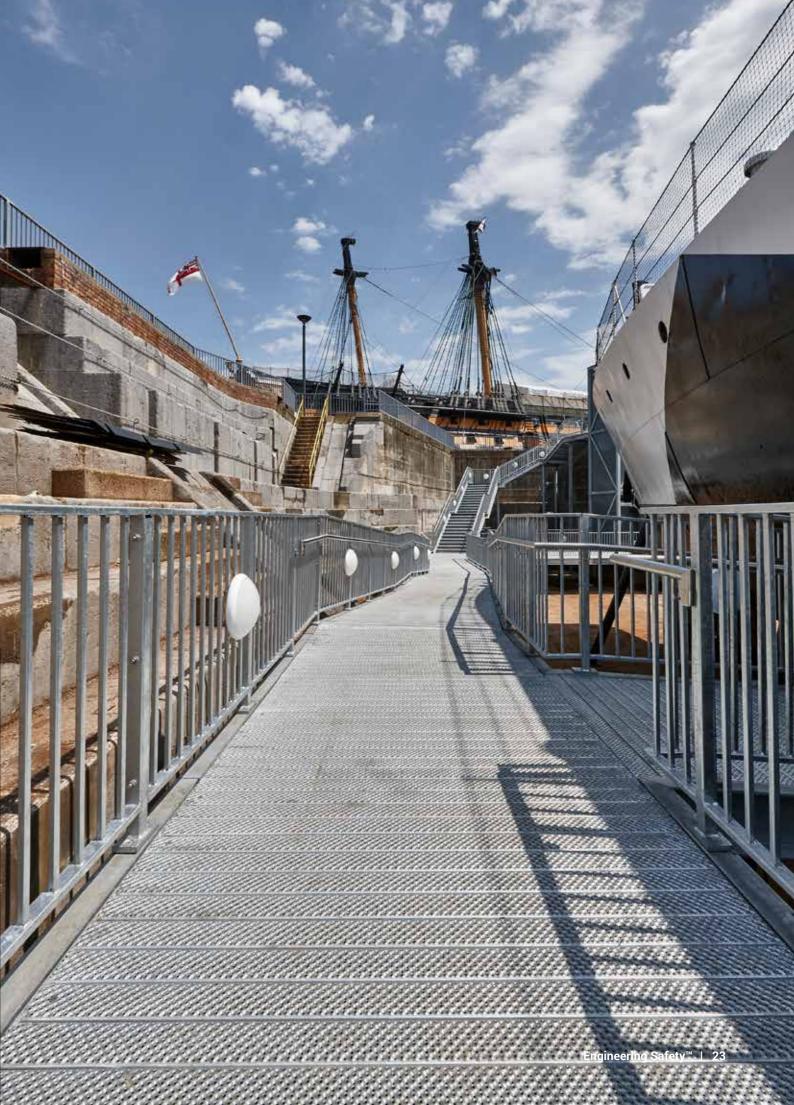


# **Engineering Safety™**

#### Safety is present in all aspects of what we do.

Safety is at the very heart of our products, solutions and through everything we do. Our drive is to enable our customers - no matter your industry - to safely operate in their business environment, supported and surrounded by innovative PcP solutions. PcP is dedicated to help professionals engineer safety into every project and strive to follow our brand promise: Engineering Safety™. Our products and solutions are used in many different types of buildings, applications, and installations. They are often exposed to harsh influences in heavy cargo, chemicals, high frequency cleaning, and weather and wind. Therefore, our products must live up to a high level of safety. The advice we offer about the dimensioning, use and maintenance of the products ensures our customers the optimal and safe solution for their particular project.







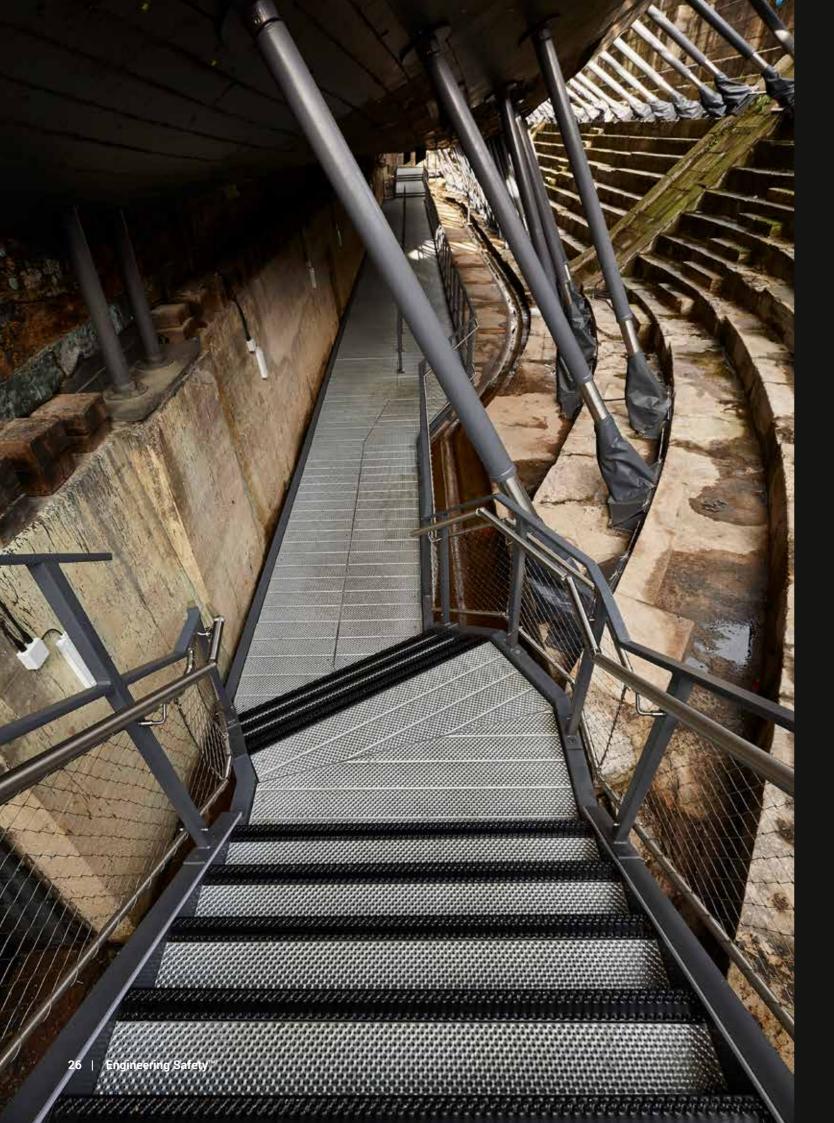
24 | Engineering Safety™

# **Bespoke Solutions**

From your first request to design, manufacturing, and delivery, PcP strives to meet your project expectations in every way possible. At PcP, we believe successful customised projects consists of committed collaboration combined with years of experience.

Wherever you are in the early stages of development of your project or further down the road we are happy to advise about norms, application-specific or industrial requirements, and much more. The OPTIMO® line is available in both standard and custom dimensions and can be modified to meet your exact project criteria. We welcome your next project with know-how and willfulness to realise your specific requirements. Since the beginning of PcP in 1927, we have delivered customised solutions of very high quality at competitive prices. Over the years, PcP has built up an excellent production capability, vast knowledge and broad experience in what it takes to make a good, safe and economically optimal solution for a wide range of applications.

# **Trusted partnership** We work with each client to understand their needs and develop customised solutions to meet each project criteria. Our experienced team is ready to take you through the challenging task from design and development to manufacturing and on-time delivery. In close collaboration, we help you define which minimum requirements your customised solution should meet. To design your solution, we only need a construction drawing of your application. When entering into a project partnership with PcP, you can expect to receive support for the following project elements: ✓ Static calculations ✓ The optimal layout of pcp products in the construction for the most economical solution ✓ Physical testing of the solution if necessary 2D drawing material on the finished solution Approval of drawings at the customer premises Production Delivery





# Pioneering safety across industries and applications

**Explore our cases and applications** 



# Stairways and landings

#### Slip resistant surface. Reliable solution.

PcP manufactures stair treads for straight-flight staircases and assembly systems suitable for industrial buildings and public spaces which are subject to strict requirements regarding slip resistance and load capacity. In designing our products, user safety is paramount.

Our products are designed according to parameters such as slip resistance, drainage, load capacity and where applicable contrasting nosing's. PcP stair treads are manufactured with different grating designs and surfaces to meet the latest criteria for safety and slip resistance for public spaces and industrial areas.

#### **Custom or standard solution? The choice is yours.**

We offer standard dimensions or tailor-made dimensions in a range of materials and finishes. Explore our extensive product range of OPTIMO® gratings and treads for maximum safety, robustness and slip resistance. OPTIMO® gratings and treads are the optimum choice for public and industrial stairways and landings, combining optimal safety and optimum strength to weight ration. OPTIMO® gratings are supplied in a range of design options and standard dimensions, and can be tailor-made to your need.

#### Benefits when using OPTIMO® in stairways and landings



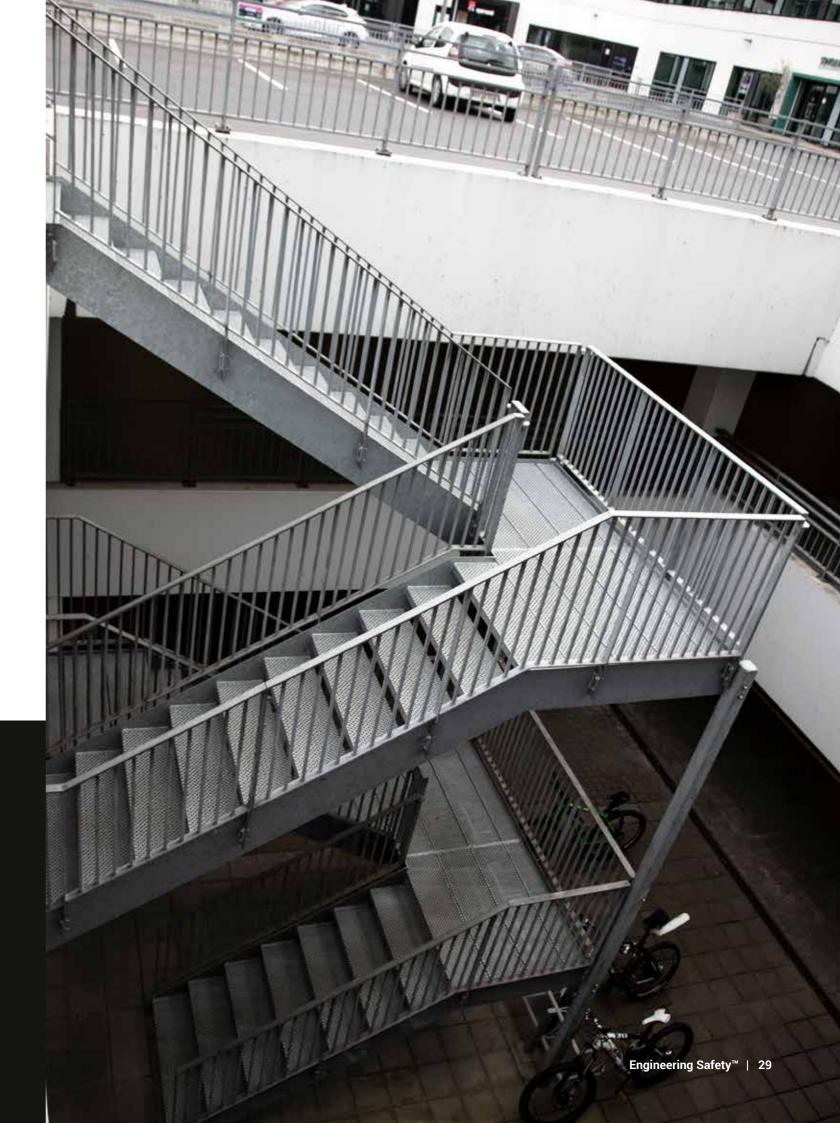
#### **Optimal slip resistance**

Carefully placed drainage holes and punched holes ensure that the OPT-IMO® treads proves end-users with maximum slip resistance.



#### High strength. Low weight

The sturdy design of the OPTIMO® line ensures a construction that is as light as its strong. Lighter than a mesh grating with the same strengh.





# **Access walkways & Maintenance platforms**

#### Steel flooring solutions for industrial and public safety

OPTIMO® gratings are the optimal solution for open steel flooring and access walkways in all industries without compromising safety or quality. OPTIMO® gratings offer optimal safety and strength and are an effortless fit for maintenance platforms, public walkways, emergency access, specialised or restricted access, i.e. areas with a specific design criterion. We have designed OPTIMO® steel flooring solutions to ensure the highest safety for the users.

#### Maximum safety on industrial maintenance platforms

We offer a wide selection of steel, stainless steel gratings and treads for industrial maintenance access platforms. With an excellent slip resistance, strength-to-weight ratio and high load capacity, OPTIMO® gratings are a safe and robust choice for industrial maintenance access and work platforms.

#### Standard or custom. The choice is yours.

We have a significant number of stock products in the CUBE® series, ready for immediate delivery. But if your project has unique requirements, our flexible production allows for quick manufacturing and low cost of your next project.

#### Benefits when using OPTIMO® in walkways and platforms



#### High strength. Low Weight

The OPTIMO® grating offers the optimal balance between weight and strength, making it a suitable and cost-efficient solution for all types of industrial applications.



#### **Enhanced slip resistance**

The slip resistance offered by the OPTIMO® complies with BS 7976-2 and with DIN 51130.









# **Motorway Gantries**

#### **Safe Motorway Gantries**

Gantries are used on a highway or railway as a walkway over a road. The gantries are communication platforms for signage typically positioned on the side of a road/ motorway. Every gantry is designed to accommodate a specific set of equipment including ladders, access platforms, signs, lights, cameras, control gear.

#### **Steel flooring for maintenance on motorway gantries**

Maintenance walkway over a road or rail like a metal bridge, a structure needs a nonslip flooring for safety and drainage. You don't want any large object to fall through the flooring. The high risk of falls can be controlled with safe platforms, gantries that are designed and built to the requirements needed for safe access. Our steel flooring products for gantries are independently tested and certified, giving the maintenance workers peace of mind needed to safely carry out their work in order to service the cameras and signs.

#### **OPTIMO** steel gratings for safe access on gantries

The requirements for a steel walkway/platform on a gantry are completely fulfilled with the OPTIMO 05 and 02 gratings. OPTIMO gratings 02 and 05 are applied where high demands for slip resistance and weight is required. The closely spaced holes form an even and transparent surface and provide an optimal strength/weight ratio. The gratings are produced in different dimensions and profiles and supplied as standard products or can be customised to your needs.

#### Benefits when using OPTIMO® gratings in gantries



#### High strength. Low Weight

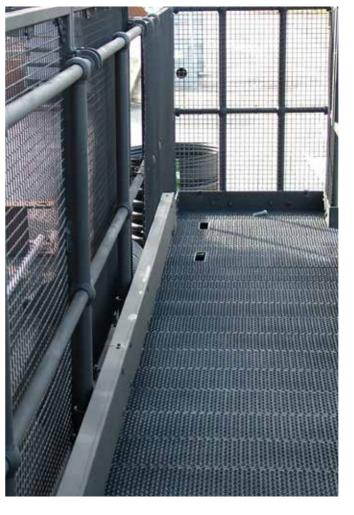
The OPTIMO® grating offers the optimal balance between weight and strength, making it a suitable and cost-efficient solution for all types of industrial applications.

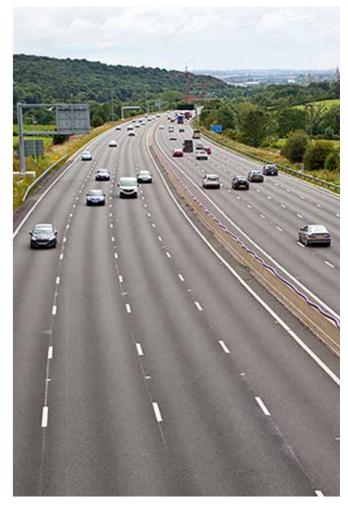


#### **Enhanced slip resistance**

The slip resistance offered by the OPTIMO® complies with BS 7976-2 and with DIN 51130.







# Backstage Upkot Studenthousing

#### Safe steel stairways and platforms for Backstage<sup>2</sup> Upkot student house in Ghent, Belgium

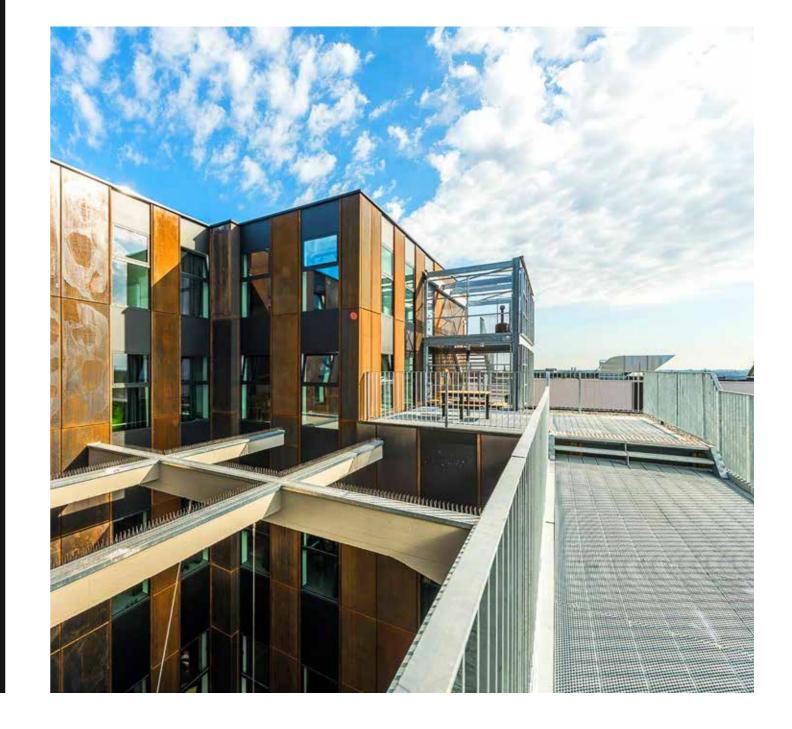
The ancient printing house of "De Vooruit" in the Center of Ghent, was completely stripped to only the ancient concrete supporting structure. From there the renovation to an ultramodern student home was to be made with steel, providing safe stairways, safe and easy to walk on platforms, as well as outside sitting areas for the students. The solution was to be made in aesthetical harmony with other building materials, such as COR-TEN steel that also was used in the project to create a modern look, aspiring to the students.

#### The solution

Lannoo Konstruktie chose the OPTIMO® O2, Spiral treads - Type K and panels, as these high-quality products met all the stated requirements for the new student accommodation building. In addition, it was a bonus that the OPTIMO® O2 perforation is easy to walk on in all types of shoes, and is even suitable for outdoor furniture, such as tables and lounge chairs.

"The strength-to-weight ratio of the PcP solution is very favourable. This was very helpful for us, as we had to mount the new steel structure onto the old concrete supporting beams. It was important to have a light but very strong panel and steps. PcP was ideal for this purpose."

- Christophe Lannoo, CEO, Lannoo Konstruktie



#### Benefits from using OPTIMO® in the solution



#### Slip-resistant platform

The risk for accidents and falls is significantly minimized.



#### **Comfort & security**

Today, it's easier and safer to check fuel and make tests



#### High strength

With CUBE gratings and treads in standard sizes, it was quick to install the platform and stairs.

#### Fast delivery

Maintenance workes feel safer during the job.





# **HMS Victory**

#### OPTIMO® gratings for access walkways, landings and stairs for public safety HMW Victory.

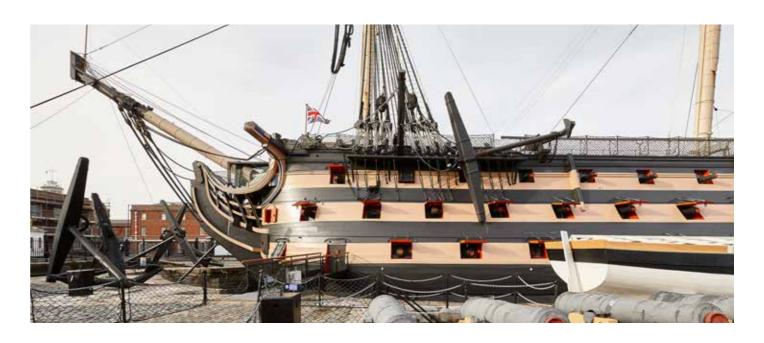
HMS Victory situated in Portsmouth Historic Dockyard, HMS Victory is best known for her role in the Battle of Trafalgar, Victory currently has a dual role as the Flagship of the First Sea Lord and as a living museum to the Georgian Navy. She transferred to The National Museum of the Royal Navy in 2012.

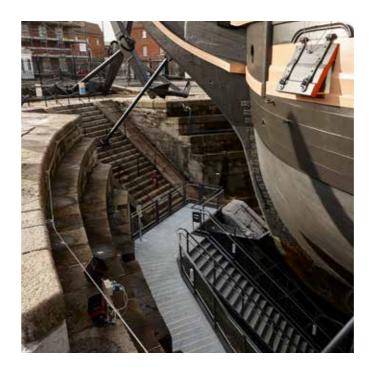
#### The solution

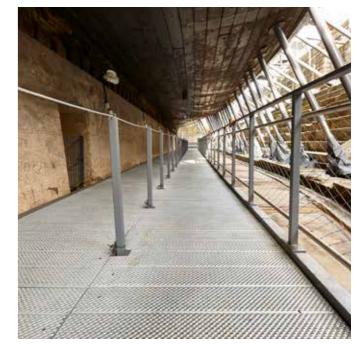
More than 150m2 walkways/landings plus stair treads with DDA compliant Nosings for public access at HMW Victory. The under-hull walkway required new access walkways, landings, and stairs for visitors to be able to visit this area of the ship. It was essential to provide a safe solution that not only met but exceeded the criteria for public access walkways, treads & landings while also meeting the design brief.

"Working with the PCP team ensured the complex arrangement of flooring required on this project was delivered and installed on time and fitted without any major issues. Our installation team appreciated the manner in which the deliveries were made and packaged helping speed up our installation task. The team were always keen to help and address any issues. Looking forward to working with them on projects in the future."

Stephen Makepeace, General Manager at Power System Services Ltd







#### Benefits from using OPTIMO® in the solution



#### **Loading Calculations**

Most economical solution with excellent high-quality finish



#### Strength

Better strength-to-weight ratio than the twisted bar that originally was considered



#### **DDA Compliance**

Product supplied fit for purpose



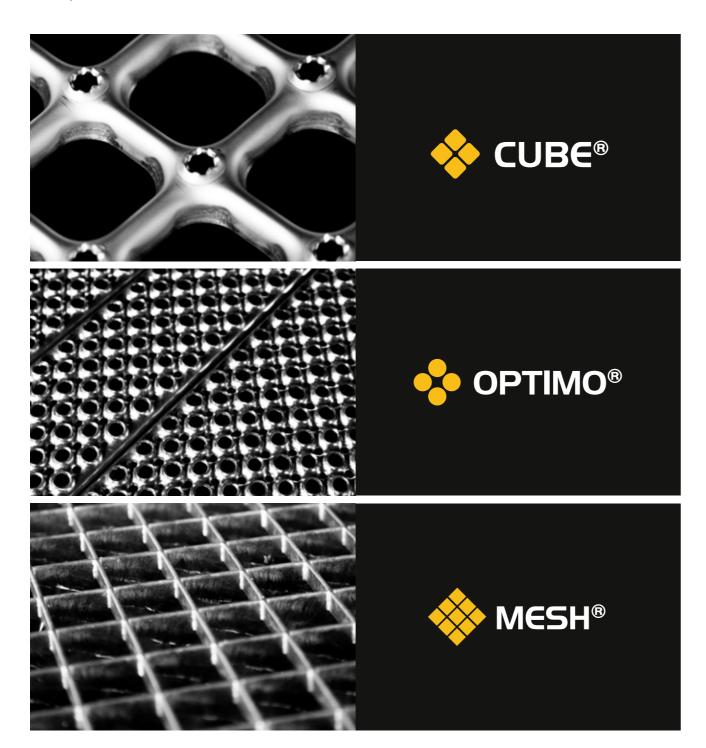
#### **Fully Dimensional Drawing**

Access to after-sales support including relevant datasheet and certification



# Extended product programme

We strive to deliver value through our diverse product brands and exceed expectations across all industries and applications. Explore our most popular brands below - gratings, treads, planks and much more. Available in standard or custom sizes.



## **Technical information**

To ensure safe handling and installation of our standard products, we provide all the relevant information. Besides, we offer the technical support and knowledge needed to optimise your application with a suitable and financial solution. We are always available to support you with technical advice and guidance - contact our experienced team if you need help to find precisely the solution that suits your needs.

### On our website www.pcp-corp.com, you can find all documentation about the standard products such as:

- ✓ 3D and 2D drawings
- ✓ Product data sheets
- ✓ Cargo specifications
- ✓ Performance Declarations
- ✓ User manuals
- ✓ Examples of typical applications



# Engineering Safety™

Safety is at the very heart of our products and through everything we do. Our drive is to enable our customers - no matter their industry - to safely operate in their business routine, supported and surrounded by innovative PcP solutions.

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