TERRACE SYSTEMS
DECKSAFE SYSTEM

SUBSTRUCTURE AND PROTECTION

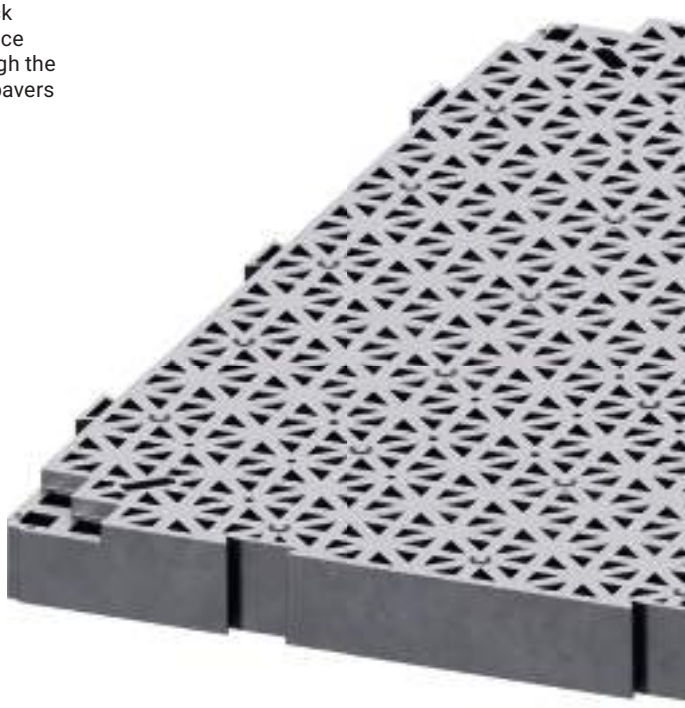
A multi-purpose system that enhances the safety and functionality of raised deck terraces. It allows for the installation of a full substructure grid beneath the terrace surface – pavers, artificial grass, etc. It protects terrace users from falling through the structure in the event of a paver breaking and offers a safety feature to prevent pavers from being lifted by very strong wind gusts (wind uplift).

Product Features:

- **Full protective** substructure beneath the terrace surface.
- **User safety** in case of paver breakage.
- Possibility of installing **pavers secured against wind uplift**.
- Freedom to lay pavers of **various geometries and shapes**.
- **High stiffness** and load-bearing strength of the grid.

Application:

- Projects requiring additional substructure.
- High-rise buildings and areas exposed to strong wind gusts.
- User protection in case of paver breakage.
- Full design freedom regarding the shape and layout of the pavers.
- Ability to use pavers of various sizes.
- Installation of soft materials, such as artificial grass.



Terrace systems

A NEW LEVEL OF TERRACE

The DeckSafe system can be used with **STANDARD**, **SPIRAL**, and **MAX** series pedestals. Using DeckSafe makes laying pavers on the terrace easier and faster. Pavers can be laid in any way.

DeckSafe System

- ✓ SPIRAL series terrace pedestals
- ✓ STANDARD series terrace pedestals
- ✓ MAX series terrace pedestals

SAFETY PARAMETERS OF THE DECKSAFE SYSTEM

The safety parameters of the DeckSafe system have been confirmed by laboratory tests and computer simulations.

- **WIND UPLIFT PROTECTION**
  The DeckSafe system was developed to meet the requirements of the American **UL 90 Uplift Rating / UL 580** standard. In the tensile strength test, the connection between the ceramic paver and the substructure grid achieved a result of 934 kg/m², significantly exceeding the required threshold of 512 kg/m².
- **PROVEN STRUCTURAL SAFETY**
  A computer simulation of a paver breakage showed that the substructure grid independently carries a load of **1.27 kN (130 kg)**, with a deflection of only **5.4 mm**. This confirms its ability to effectively protect the user from falling.
- **49% REDUCTION IN PAVER DEFLECTION**
  The use of full support in the form of the DeckSafe grid reduces the deflection of a ceramic paver (15 mm) under point pressure by **49.23%** compared to traditional corner support. This directly translates to a lower risk of paver breakage during use.
- **10 TIMES GREATER INSTALLATION TOLERANCE**
  The system is designed to work with pavers with an actual dimension ranging from 590 to 600 mm. This provides 10 times greater dimensional tolerance than competing solutions, which are dedicated to only one specific paver size.

MAIN ADVANTAGES OVER COMPETITIVE SYSTEMS:

- **Individual paver removal:** Unlike many systems, DeckSafe allows easy access to the substrate anywhere on the terrace without dismantling the entire structure.
- **No need for paver kerfing:** The system does not require any mechanical interference with the paver structure, eliminating the risk of damage and shortening installation time.
- **Full protection in case of breakage:** The grid provides an additional layer of safety that systems focused only on wind protection do not offer.
- **Completely invisible fastening system:** All structural elements are hidden under the flooring, ensuring the impeccable aesthetics of the finished surface.
- **Post-installation height adjustment:** The system is fully compatible with an adjustment key, allowing for the correction of the terrace level after the pavers have been laid.

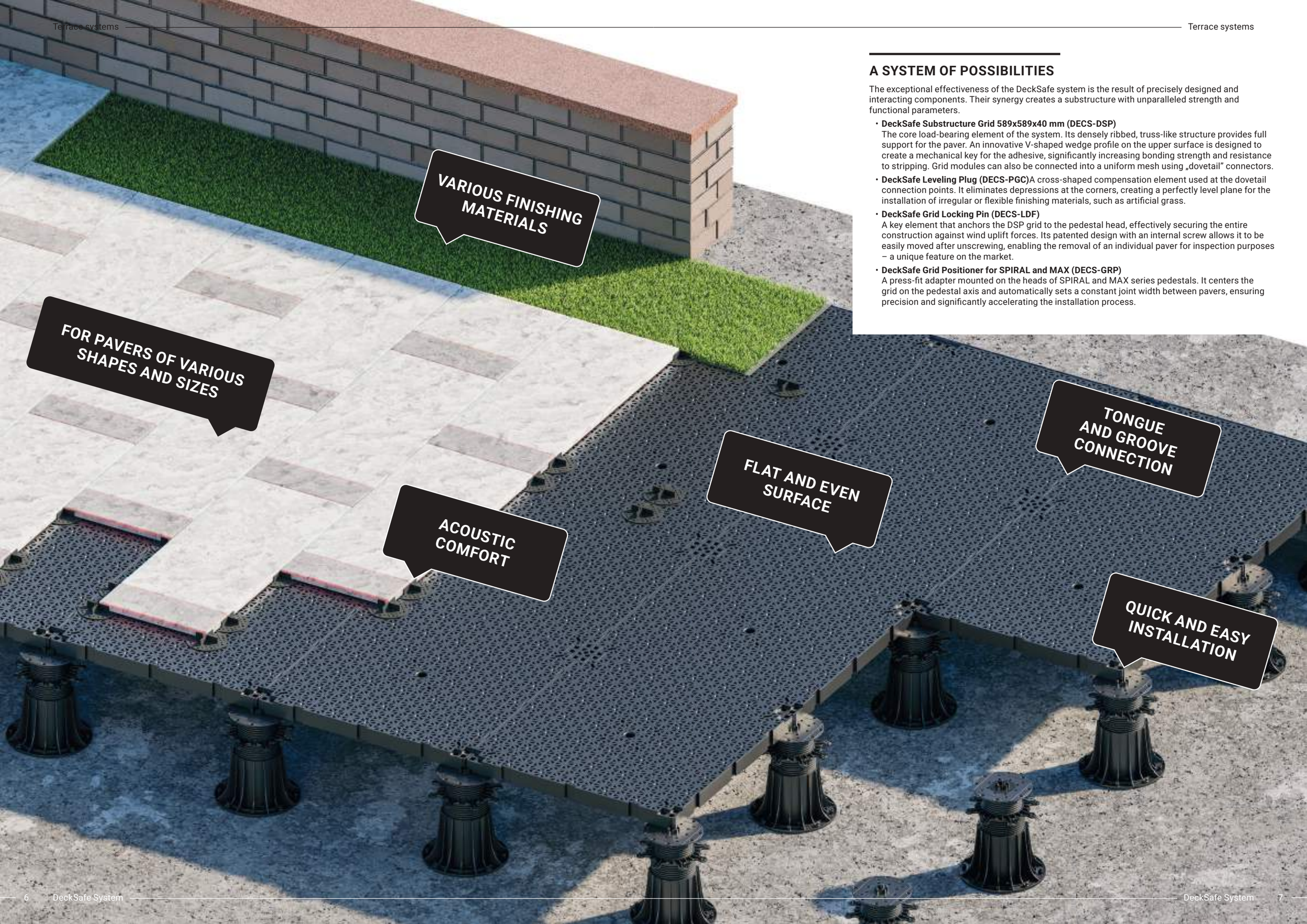
FROM POINT SUPPORT TO SURFACE SUPPORT

Traditionally, terrace pedestal systems support pavers only at the corners. **DeckSafe** introduces a revolutionary change by creating a full, ribbed structural mesh under the pavers. This solution provides:

- **Maximum stability:** Full support across the entire surface of the paver significantly reduces its deflection and stress, minimizing the risk of breakage.
- **Unmatched safety:** The system creates a coherent, integrated plane that protects users in the event of a paver breaking.
- **New material possibilities:** Thanks to the increased stiffness of the system, DeckSafe allows for the safe use of thinner and lighter pavers as well as artificial grass.

The DeckSafe system has been designed to provide the highest level of protection, confirmed by rigorous research and testing.

Terrace systems



A SYSTEM OF POSSIBILITIES

The exceptional effectiveness of the DeckSafe system is the result of precisely designed and interacting components. Their synergy creates a substructure with unparalleled strength and functional parameters.

- **DeckSafe Substructure Grid 589x589x40 mm (DECS-DSP)**
  The core load-bearing element of the system. Its densely ribbed, truss-like structure provides full support for the paver. An innovative V-shaped wedge profile on the upper surface is designed to create a mechanical key for the adhesive, significantly increasing bonding strength and resistance to stripping. Grid modules can also be connected into a uniform mesh using „dovetail" connectors.
- **DeckSafe Leveling Plug (DECS-PGC)**A cross-shaped compensation element used at the dovetail connection points. It eliminates depressions at the corners, creating a perfectly level plane for the installation of irregular or flexible finishing materials, such as artificial grass.
- **DeckSafe Grid Locking Pin (DECS-LDF)**
  A key element that anchors the DSP grid to the pedestal head, effectively securing the entire construction against wind uplift forces. Its patented design with an internal screw allows it to be easily moved after unscrewing, enabling the removal of an individual paver for inspection purposes – a unique feature on the market.
- **DeckSafe Grid Positioner for SPIRAL and MAX (DECS-GRP)**
  A press-fit adapter mounted on the heads of SPIRAL and MAX series pedestals. It centers the grid on the pedestal axis and automatically sets a constant joint width between pavers, ensuring precision and significantly accelerating the installation process.

Terrace systems

TWO METHODS OF INSTALLATION AND APPLICATION

The DeckSafe system has been designed with maximum versatility in mind, offering **two complementary installation methods** on pedestals, which allow for the flexible adaptation of the technology to the specific requirements of a given project.

INSTALLATION METHOD 1

INSTALLATION METHOD 1: FULL SURFACE AND PROTECTION

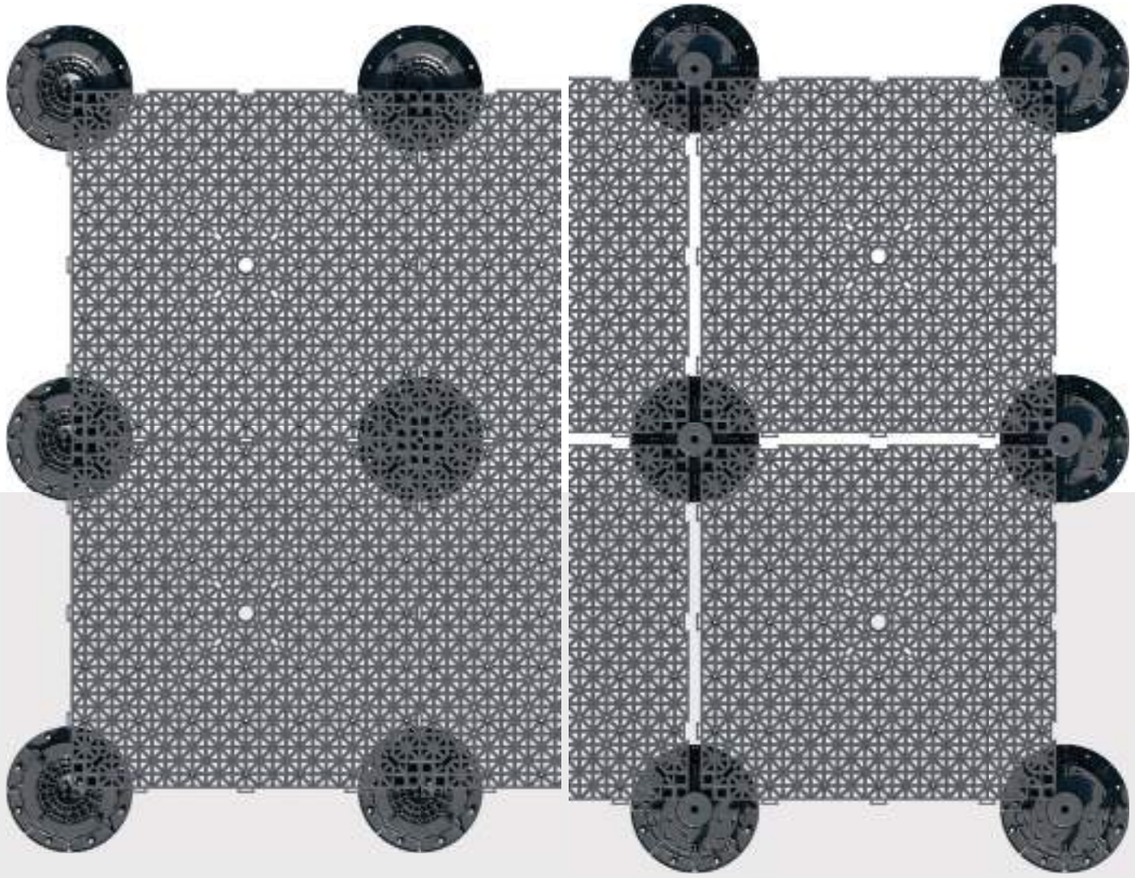
The first method uses a „dovetail" connection system to create a uniform, continuous substructure plane, which decouples the layout of the finishing pavers from the spacing of the pedestals and provides full freedom in arranging surfaces with complex geometries.

Description:

DSP grids are connected to each other using „dovetail" connectors, creating a uniform, monolithic substructure mesh across the entire terrace surface.

Main Benefits:

- **Full freedom** in designing patterns and laying pavers of various geometries.
- **Decoupling pedestal spacing** from the format and positioning of the finishing pavers.
- **Ability to easily combine different finishing materials**, e.g., pavers and artificial grass.
- **Creating a stable and even grid** under the entire terrace surface.



Key components:

DeckSafe protective grid 589×589 mm (**DECS-DSP**)

DeckSafe grid end cap with screw (**DECS-PGC**)

DeckSafe Grating Adapter for STANDARD Pedestals (**DECS-POSSTA**) or SPIRAL & MAX Pedestals (**DECS-POSSPIMAX**)

INSTALLATION METHOD 2

INSTALLATION METHOD 2: PROTECTION AGAINST WIND UPLIFT

The second installation method allows for securing terrace pavers against being lifted by strong wind gusts (wind uplift). Installation involves the individual reinforcement of each terrace paver (60x60 cm) by directly bonding a protective grid (DECS-DSP) to it. The grid, together with the bonded paver, is screwed to the pedestal and adjacent modules.

Description:

Each substructure grid is directly bonded to an individual terrace paver, creating an integrated, reinforced module.

Main Benefits:

- **Maximum protection against wind uplift** due to direct anchoring to the pedestal.
- **Patented removal feature** for each individual paver for inspection purposes.
- Versatility: Can be used with pavers of various nominal dimensions.

Key components:

DeckSafe protective grid 589×589 mm (**DECS-DSP**)

Adhesive or butyl tape

DeckSafe locking pin with screw (**DECS-LDF**)

DeckSafe Grating & Paver Locking Pin (**DECS-GRP**)

DECKSAFE SYSTEM COMPONENTS

DECS-DSP
DeckSafe protective substructure grid 589×589×40 mm for tiles and artificial grass with wind uplift protection

Wind uplift protection: Secures the surface against being lifted by strong wind gusts.

Safety upon paver breakage: In the event of an accidental paver fracture, the DECS-DSP grid carries the user's weight, preventing them from falling through the terrace structure.

Mechanical adhesive anchoring (V-Slot): Innovative V-shaped wedge profiles ensure that once the adhesive sets, it creates a physical anchor (mechanical key), drastically increasing the adhesion of pavers to the structure.

Aesthetics and maintenance: The protection system is completely invisible on the flooring surface. The unique design allows for the removal of each individual paver from the center of the terrace for substrate inspection.

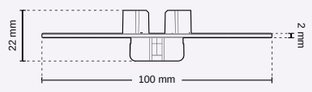
Technical Information
Total dimensions: 589 × 589 × 40 mm
Additional height: 40 mm
Temperature range: -20°C / +65°C
Material: Certified PP plastic
Color: Black

DECS-DSP-(1)

1 pc. Art. No. 108.010111

DECS-POSSTA
DeckSafe Substructure Grating Installation Adapter for STANDARD Terrace Pedestals

Fast installation: Enables precise and fast installation of DECS-DSP grids on STANDARD series adjustable pedestals.



Technical Information
Total dimensions: 100 × 100 × 22 mm
Additional height: 2 mm
Temperature range: -20°C / +65°C
Material: Certified PP plastic
Color: Black

DECS-POSSTA-(20)

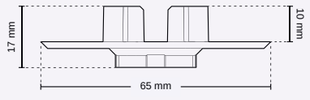
20 pcs. Art. No. 108.020321

DECS-POSSTA-(160(20x8)

160 pcs. Art. No. 108.020331

DECS-POSSPIMAX
DeckSafe Substructure Grating Installation Adapter for SPIRAL and MAX Terrace Pedestals

Fast installation: Enables precise and fast installation of DECS-DSP grids on SPIRAL and MAX series adjustable pedestals.



Technical Information
Total dimensions: 65 × 65 × 17 mm
Additional height: —
Temperature range: -20°C / +65°C
Material: Certified PP plastic
Color: Black

DECS-POSSPIMAX-(25)

25 pcs. Art. No. 108.020221

DECS-POSSPIMAX-(200)

200 pcs. Art. No. 108.020231

DECKSAFE SYSTEM COMPONENTS

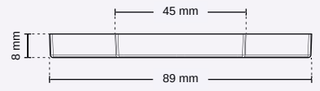
DECS-PGC
DeckSafe grid end cap with screw

Elimination of dips: Prevents the formation of hollows or dips on the upper terrace surface.

Finishing aesthetics: Provides a level and professional look for the entire raised deck terrace.

Versatility: Enables secure and aesthetic joining of different types of surfaces, e.g., ceramic pavers with artificial grass.

Structural rigidity: The ribbed design of the element guarantees resistance to pressure and maintains dimensional stability.



Technical Information
Total dimensions: 89 × 89 × 8 mm
Additional height: —
Temperature range: -20°C / +65°C
Material: Certified PP plastic
Color: Black

DECS-PGC-(200)

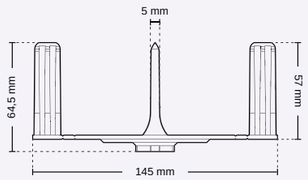
200 pcs. Art. No. 108.040121

DECS-GRP
DeckSafe Substructure Grating and Paver Positioning Pin with Locking Pin

Precision and aesthetics: Guarantees perfect alignment of terrace lines and constant joint width between pavers.

Installation speed: Simplifying the assembly process of the DeckSafe system reduces the installer's working time.

Mounting point stabilization: By positioning the grids on the pedestal axis, the installer has easier access to the screw socket for the LDF locking pin.



Technical Information
Total dimensions: 145 × 145 × 64,5 mm
Additional height: —
Temperature range: -20°C / +65°C
Material: Certified PP plastic
Color: Black

DECS-GRP-(35)

35 pcs. Art. No. 108.020121

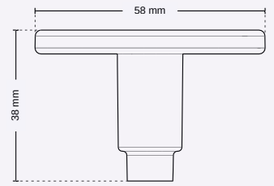
DECS-LDF
DeckSafe locking pin for substructure grid with protection against wind uplift with screw

Extreme strength: Creates a mechanical connection between the pavers and the pedestal.

Full aesthetics: The entire fastening mechanism is hidden beneath the surface and remains completely invisible to the user.

Unique mobility: The only system in the world that allows for the removal of a single paver from the center of the terrace without disturbing adjacent elements.

Paver protection: Does not require invasive kerfing of the side edges of the pavers, eliminating the risk of chipping.

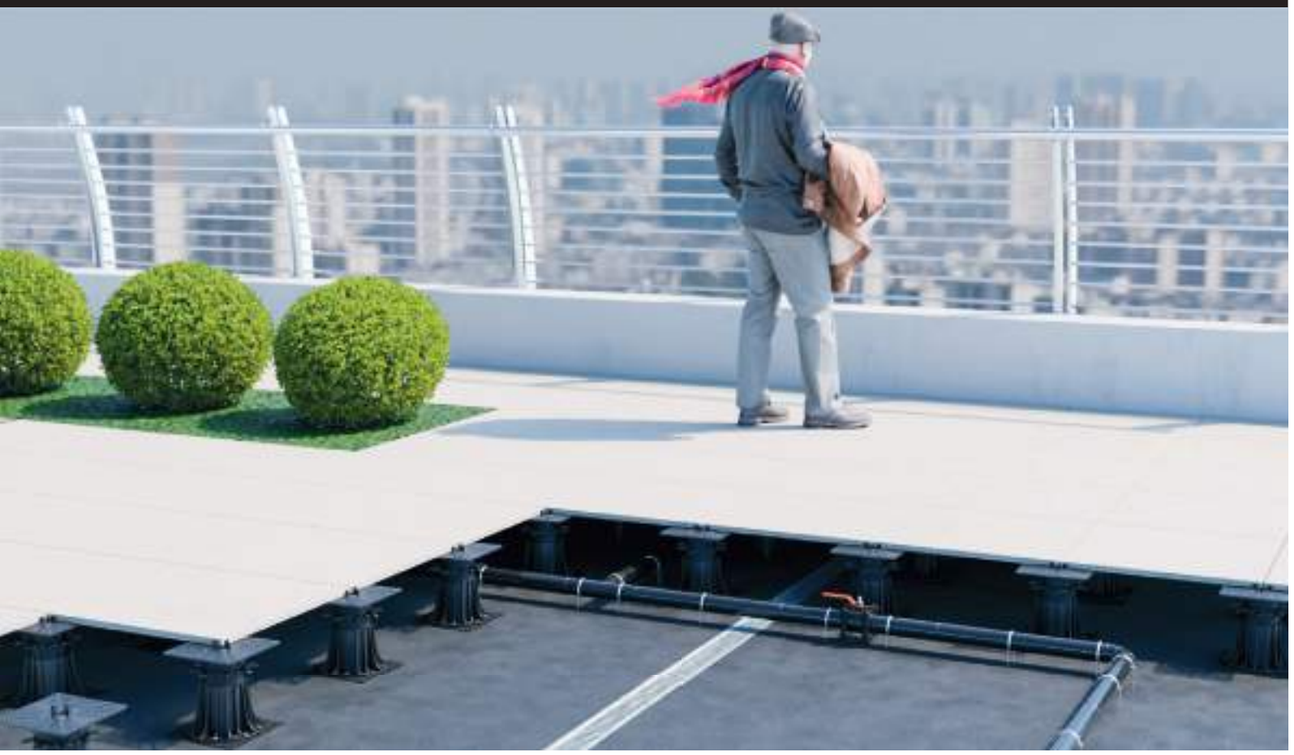


Technical Information
Total dimensions: 58 × 58 × 38 mm
Additional height: —
Temperature range: -20°C / +65°C
Material: Certified PP plastic
Color: Black

DECS-LDF-(200)

200 pcs. Art. No. 108.030121

WINDGRIP WGP RETAINER - SPIRAL & MAX



PROTECTION OF TERRACE PAVERS AGAINST WIND UPLIFT

The Windgrip WGP fastening plate is an innovative, invisible fastening plate designed to protect terrace pavers from lifting and shifting caused by strong wind gusts. It is ideal for locations where the DECS-DSP Protective Substructure Grid cannot be used due to low terrace clearance. The fastening system works discreetly—it remains completely hidden under the terrace surface, ensuring no impact on its aesthetics. Windgrip WGP plates are mounted on pedestals, increasing the support surface of the pavers and the bonding area. The solution is compatible with the most popular porcelain, concrete, and stone paver formats used in raised deck terrace systems.

Key features:

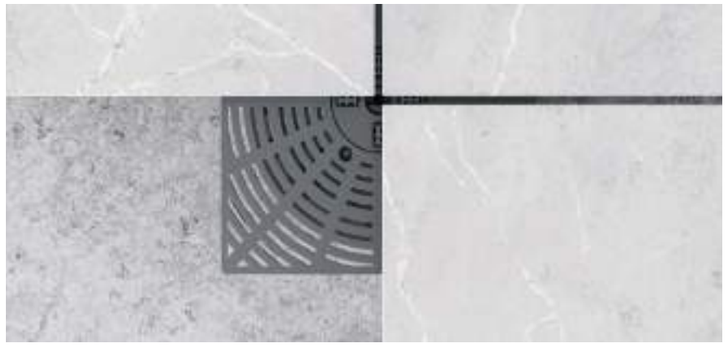
- Effective protection of pavers against wind force.
- Installation without interfering with the paver structure – no drilling or kerfing.
- Invisible fastening – no impact on the terrace appearance.
- Resistance to weather conditions and UV radiation.
- Compatibility with SPIRAL and MAX pedestal systems.

Application:

Raised deck terraces on roofs, balconies, terraces over rooms, and in open spaces with an increased risk of pavers being lifted by the wind.

INSTALLATION

The WindGrip WGP plate is placed directly onto the head of the terrace pedestal. Installation requires no additional tools—the grid fits stably, creating a larger contact surface for bonding the terrace pavers. It is compatible with the spacer disc.



OPERATION

WindGrip WGP increases the support surface of the terrace paver, facilitating a durable and stable bond to the pedestal.

SAFETY

The WindGrip WGP plate features a rough, perforated surface into which the adhesive penetrates, creating a mechanical key. This ensures a strong and lasting connection between the paver and the pedestal.

DECKSAFE SYSTEM COMPONENTS

DECS-WGP

Concealed Paver Windgrip WGP - Wind Uplift Protection Retainer for adhesive application for SPIRAL and MAX

Aesthetics: The entire protection is located beneath the pavers and is not visible on the upper terrace surface.

Uniqueness for low heights: Solves the lack of effective wind protection on terraces with very low clearance (from 17 mm), where the standard DECS-DSP substructure grid does not fit.

Increased adhesion: The innovative V-slot creates a mechanical key for the adhesive, protecting pavers from detachment even under extreme negative pressure (suction).

Ease of installation: No need for invasive processing of terrace pavers significantly reduces the risk of material damage.

Technical Information

Total dimensions: 216 × 216 × 15 mm
Additional height: 7 mm
Temperature range: -20°C / +65°C
Material: Certified PP plastic
Color: Black

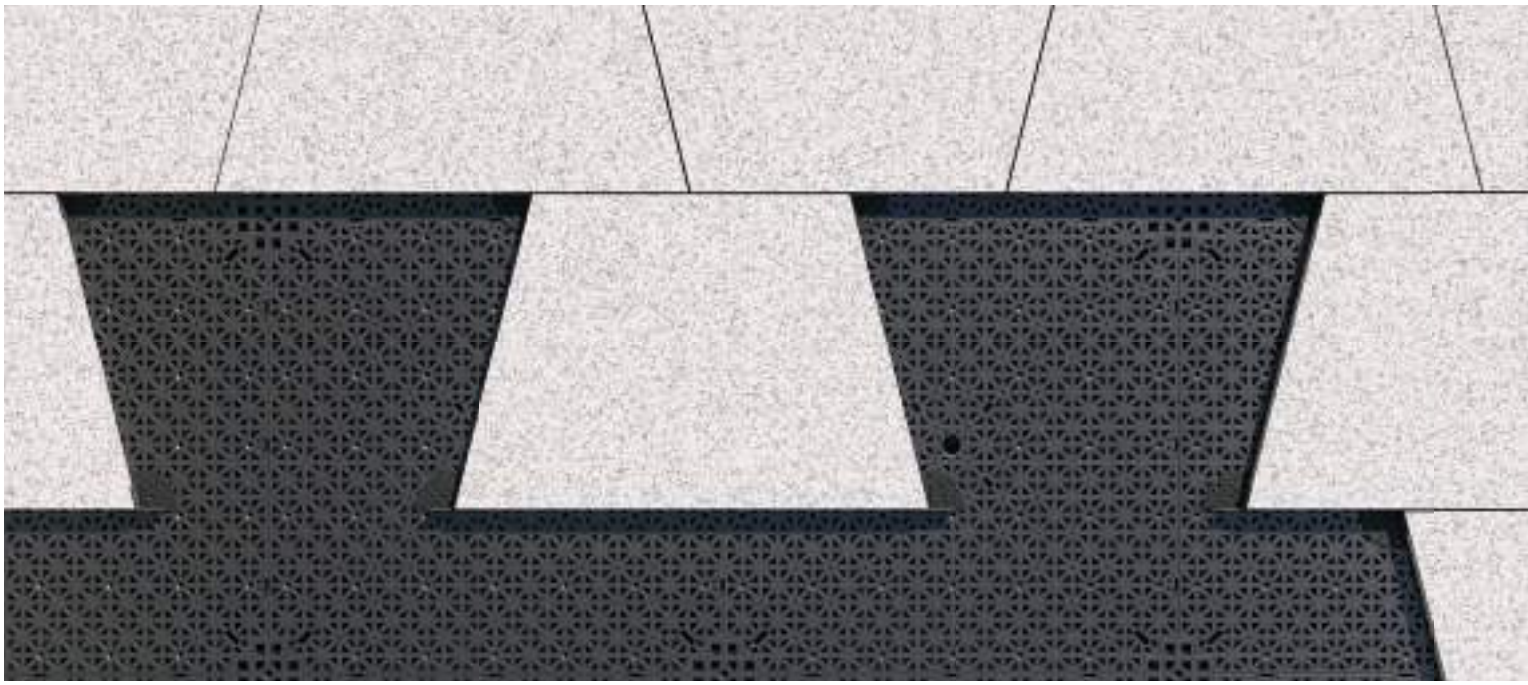
DECS-WGP-(25)	
25 pcs.	Art. No. 108.050121

DECS-WGP-(50)	
50 pcs.	Art. No. 108.050111

RECOMMENDED APPLICATION AREAS

Thanks to its unique properties, the DeckSafe system is dedicated to the most demanding applications, where safety, durability, and aesthetics are uncompromising priorities.

- **High-rise construction:** Terraces and balconies in skyscrapers and office buildings.
- **High wind load zones:** Coastal regions and areas exposed to hurricanes.
- **Commercial and public utility facilities:** Restaurants, hotels, and open recreation zones.
- **Prestigious residential construction:** Apartment buildings and high-end residences.



A SOLUTION DEDICATED TO PROFESSIONALS

- **For Architects:** A tool for realizing limitless projects with a guarantee of meeting the highest safety standards.
- **For Developers:** A way to increase investment value and safety while simultaneously reducing risk.
- **For Contractors:** Technology ensuring efficiency, precision, and the highest final quality of realized projects.