

■ Green Up the Roof!

DIADEM®

TECHNICAL MANUAL

DiaSafe® Floor-Fix and Iso-Fix Fall Protection Anchoring Systems

Anchoring points as per standards EN 795:2012 and CEN/TS 16415:2013



DiaSafe® Floor-Fix	Single Duo
DiaSafe® Iso-Fix	Single Duo
DiaSafe® Floor-Fix	Glide Duo



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1 Description of symbols

Pictograms in the Technical Manual have the following meanings:



System users are obliged to carefully read this manual and the related service book, and shall closely follow all relevant safety regulations and user requirements listed herein.



Number of system users simultaneously. In this case max. 2 users at a time.



Usage of personal protective equipment is required. Manufacturer's prescriptions of the given equipment shall be observed.



Danger, which could lead to severe injury or death.



2 Introduction – General description

2.1 Single anchoring points

2.1.1 DiaSafe® Floor-Fix Single Duo

DiaSafe® Floor-Fix Single Duo was developed as an anchor point for the personal fall prevention for max. **2 persons** at a time in accordance with standards **EN 795:2012 (Type A)** and **CEN/TS 16415:2013**.

The anchoring point is suitable for use as the following fall prevention systems as per EN 363:2008:

- Fall arrest system (single anchoring point)
- Restraint system

2.1.2 DiaSafe® Iso-Fix Single Duo

DiaSafe® Iso-Fix Single Duo was developed as an anchor point for the personal fall prevention for max. **2 persons** at a time in accordance with standards **EN 795:2012 (Type A)** and **CEN/TS 16415:2013**.

The anchoring point is suitable for use as the following fall prevention systems as per EN 363:2008:

- Fall arrest system (single anchoring point)
- Restraint system

2.2 Glide line system

2.2.1 DiaSafe® Floor-Fix Glide Duo

DiaSafe® Floor-Fix Glide Duo was developed as horizontal line system with glider for the personal fall prevention for max. **2 persons** at a time in accordance with standards **EN 795:2012 (Type C)** and **CEN/TS 16415:2013**.

The anchoring point is suitable for use as the following fall prevention systems as per EN 363:2008:

- Fall arrest system (single anchoring point)
- Restraint system

2.2.2 Combination with DiaSafe® Ballasted systems

All types of **DiaSafe®** Glide safety systems (Floor-Fix Glide, Ballasted Glide and Wall-Fix) may be combined with each other, making a coherent cable system mounted on different surfaces.

3 Safety instructions

3.1 General safety instructions

- The safety system may only be used by appropriately trained, competent persons who are familiar with the safety system.
- The system user must be familiar and comply with the local, and labour safety regulations.
- The system may only be used by people who:
 - are trained in the use of PPE (Personal Protective Equipment).
 - are physically and psychologically fit (health restrictions such as heart and circulatory problems, medication, alcohol consumption, etc. reduce user safety).
 - understood and accepted the possibilities, restrictions and risks of using the protective equipment.
- The rescue of anyone who may have fallen down must be provided on site.
- Before works begin, measures must be taken to ensure that no objects can fall down from the workspace. The area under the workspace (pavement ..etc.) is to be kept clear.
- If after the acceptance of the safety system, renovation work is undertaken in its immediate vicinity, it must be established that this renovation has no impact on the safety of the installed safety system! In case of doubt, the installer or the manufacturer must be consulted
- After being subjected to the stress of fall, the entire safety system is to be taken out of operation and inspected by a qualified professional.
- The installed safety system must not be altered in any way.
- It is forbidden to use the safety system as a lightning protection system. Components of the lightning protection system statically should not load the safety system. The system is not allowed to be used as an earth cable. Relevant regulations must be complied with.
- Never hang loads on the safety system that are not approved in this manual, and never use it as an alpinist suspension point.



3.2 Application

- The minimum free space necessary under the edge is calculated as follows: Deformation of the anchor device in case of stress + manufacturer's specification of the PPE (Personal Protective Equipment) used, including deflection of the cable + body height + 1m safety margin.
- Proper use of the individual components, including the PPE must be ensured, since the effectiveness of the fall prevention system is otherwise not guaranteed.
- Attachment to the fall protection system is completed with a carabiner and must be used with a PPE in accordance with standards EN 361 (safety harness) and EN 363 (fall arrest system).
- ATTENTION! For horizontal use, only such connecting elements can be used which are designed for this purpose and tested for the respective edge type (sharp edges, trapezoidal sheet, steel grids, concrete, etc.).
- Do not use fall arrest systems if wind speeds exceed normal parameters.
- The fall protection system must not be used by children or pregnant women.

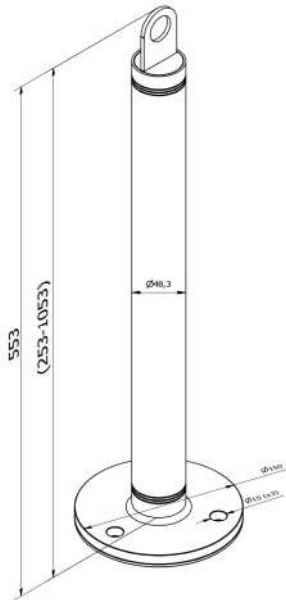
4 Manufacturer's responsibility

- Manufacturer's responsibility covers faulty products, unless the fault occurred as a result of inappropriate use. Manufacturer shall only replace faulty or damaged components. No further claims (indirect or property damage) are acknowledged by the manufacturer
- A major prerequisite of long term fall protection system operation is regular maintenance as prescribed by the manufacturer. Should maintenance steps fail to be executed in due time, then the system can only be used for own risk. Should any damage or accident happens on an unchecked system the manufacturer's responsibility shall terminate.
- System checks should be carried out at least once in every 12 months. Check interval durations depend on relevant regional regulations, system use frequency, as well as local conditions (e.g. chemical hazards).
- DiaSafe® systems can be extended using original accessories developed exclusively by the manufacturer. Should any components or products of any other manufacturer be installed or used in the system, manufacturer's responsibility and guarantee terminate immediately.
- Should the system not be installed or assembled by the manufacturer or a contractor authorised for installation, the manufacturer shall accept no claims, other than for faulty products.
- Should a fall occur, the system must be discarded and it is PROHIBITED to use it any longer! System use can only be resumed after an official interim inspection. In accordance with the inspection, relevant system components or the whole system must be overhauled or replaced. As long as the distraint or the inspection is not carried out, the manufacturer is not liable for the use of the system any longer.
- Manufacturer shall cease to take any further responsibility for the system in the following cases: alterations due to extreme environmental conditions, normal wear and tear, misuse and an aesthetic alteration.

5 Components

5.1 Single anchoring points

5.1.1 DiaSafe® Floor-Fix Single Duo



DS Floor-Fix Single Duo Product No.: 130912

EPS polystyrene beads thermal insulation
Integrated thermal insulation layer under the foot „Thermostop“

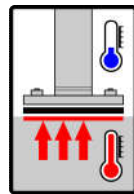
Loading direction: 360° (horizontal)

Material: stainless steel 1.4404 (head), 1.4301 (foot, body),
IR/SBR elastomeric base (Thermostop)

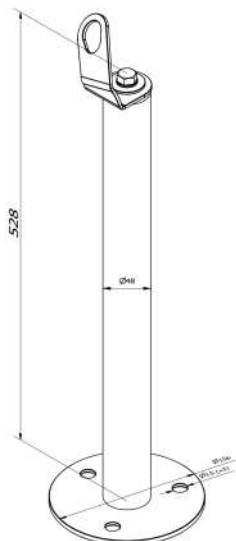
Standard height: 553 mm

Custom sizes can be ordered (253-1053 mm)

Weight: 2,6 kg



5.1.2 DiaSafe® Iso-Fix Single Duo



DS Iso-Fix Single Duo Product No.: 130908

Hőhidmentes kialakítás, hőszigetelő anyaggal kitöltött
kikötési pont, fejjel, M12 rögzítőcsavarral

Loading direction: 360° (horizontal)

Material: stainless steel 1.4301 (post),
glass fiber reinforced polyester (tube),
Sicomins insulating foam PB 170 filling

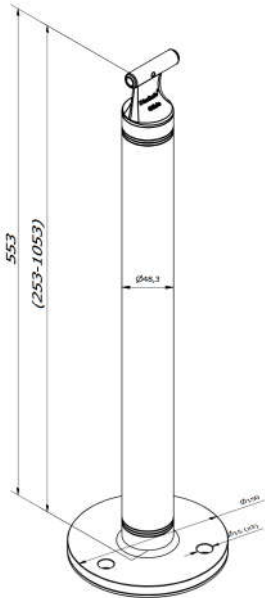
Standard height: 528 mm

Weight: 2,2 kg



5.2 Glide line system

5.2.1 DiaSafe® Floor-Fix Glide Duo



DS Floor-Fix Glide Duo

Product No.: 130913

EPS polystyrene beads thermal insulation

Integrated thermal insulation layer under the foot „Thermostop“

Loading direction: 360° (horizontal)

Material: stainless steel 1.4404 (head), 1.4301 (foot, body), IR/SBR elastomeric base (Thermostop)

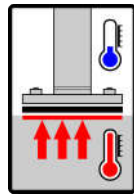
Min. distance of posts: 0,5 m

Optimal distance of posts: 10 m (*max. 15 m*)

Standard height: 553 mm

Custom sizes can be ordered (253-1053 mm)

Weight: 2,9 kg



5.2.2 DiaSafe® Floor-Fix Glide Duo / line system components



DS stainless steel anchoring wire
Product No.: 100268
Material: stainless steel 1.4404
Diameter: Ø 8 mm (7 × 19 threads)
Tensile strength: F = 33,4 kN



DS swaged square end
Product No.: 100354
Material: stainless steel 1.4404



DS DiaGlider (with karabiner)
Product No.: 100350



DS swaged turn buckle (optional)
Product No.: 100356
Material: stainless steel 1.4404
Adjustable length: 325 - 400 mm
Diameter: Ø 9 mm

5.3 Accessories

5.3.1 Fastening elements of anchor posts



Product No.: 130911
Floor-Fix and Iso-Fix Anchor-Kit for concrete (3 pcs.)

5.3.2 Insulating collar



Product No.: 130914
Floor-Fix and Iso-Fix insulating collar
Types: Bitumen, EPDM



Product No.: 130915
Floor-Fix and Iso-Fix insulating collar
Types: PVC

6 Documentation folder

The manufacturer provides a documentation folder for each **DiaSafe®** system, containing the documents related to the given system.



- Installation Guide
- Technical Manual
- Service Manual:
 - Handover protocol (incl. torque- and photo documentation)
 - Annual inspection protocol
 - Validating stickers
- Control label
- Copy of the TÜV certificate

7 Technical data

Maximum deflection and forces (Temperature: 20 °C)

System	Type	Test	Deflection [mm]	Max. Force [kN]	System build-up (Type + height)
DiaSafe® Floor-Fix	Glide Duo	Dynamic	1944	10,06	Glide 50 + Ballasted (distance: 8 m)
DiaSafe® Floor-Fix	Glide Duo	Dynamic	2854	16,35	Glide 50 (distance: 15 m)
DiaSafe® Floor-Fix	Single Duo	Deformation	2	0,7	Glide 100
DiaSafe® Floor-Fix	Single Duo	Dynamic	1013	12,58	Glide 100
DiaSafe® Floor-Fix	Glide Duo	Dynamic	1907	14,06	Glide 20 (distance: 15 m)
DiaSafe® Floor-Fix	Single Duo	Deformation	3	0,7	Single 50
DiaSafe® Floor-Fix	Single Duo	Dynamic	574	10,28	Single 50
DiaSafe® Floor-Fix	Single Duo	Deformation	0	0,7	Single 20
DiaSafe® Floor-Fix	Single Duo	Dynamic	251	10,32	Single 20
DiaSafe® Floor-Fix	Single Duo	Static	-	16,5	Single 20
DiaSafe® Floor-Fix	Glide Duo	Dynamic	608	6,48	Glide 60 (distance: 50 cm)

The minimum free space necessary under the user is always has to be taken into consideration! The measure of deflection may differ from what is given by the manufacturer depending on the length of the anchoring wire.



8 Requirements for the mounting surface

See the product specific Installation Guide!

9 Installation

See the product specific Installation Guide!

10 Disposal

Do not dispose of the fall protection system in the house waste. Following national requirements, gather the used parts and dispose of them in an environmentally responsible fashion

11 Manufacturer, certification

The **DiaSafe**® fall protection systems have been tested and certified by TÜV Austria Services GmbH.



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DiaSafe® product manufacturer and distributor:



APP Kft.
H-9028 Győr
Fehérvári út 75.
Phone: +36 96 512 910
Fax: +36 96 512 914
info@diadem.com
www.diadem.com



APP Dachgarten GmbH
Jurastrasse 21
D-85049 Ingolstadt
Phone: +49 841 370 9496
Fax: +49 841 370 9498
info@grundach.com
www.diadem.com