BARRIER-VARIO



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Instruction manual

- **DE ACHTUNG:** Die Verwendung des INNOTECH-Produkts ist erst zulässig, nachdem die Gebrauchsanleitung in der jeweiligen Landessprache vollständig gelesen und verstanden wurde.
- **EN ATTENTION:** Use of the INNOTECH product is only permitted after the instruction manual has been read and fully understood in the respective language.
- IT ATTENZIONE: L'utilizzo del prodotto INNOTECH è permesso solo previa lettura e comprensione dell'intero manuale di istruzioni nella lingua del relativo paese di utilizzo.
- FR ATTENTION: L'utilisation du produit INNOTECH p'est autorisée qu'après avoir entièrement lu et compris la notice d'utilisation dans la langue du pays concerné.
- NL ATTENTIE: Dit INNOTECH-product mag pas gebruikt worden nadat u de gebruikershandleiding in de taal van het betreffende land gelezen en begrepen hebt.
- ES ATENCIÓN: Se autorizará el uso de los productos INNOTECH una vez gue se hayan leído y entendido las instrucciones de uso en el idioma del país.
- PT ATENÇÃO: O uso do produto INNOTECH apenas é permitido depois de ter lido e compreendido na totalidade as instruções de uso na respetiva língua nacional.
- DK GIV AGT: Du må først bruge et produkt fra Innotech, efter du har læst og forstået brugsvejledningen i fuldt omfang i dit lands sprog.
- SV O B S : Denna INNOTECH-produkt får inte användas förrän bruksanvisningen på respektive lands språk har lästs igenom och förståtts.
- CZ POZOR: Práce s výrobkem INNOTECH je povolena teprve po kompletním prečtení porozumění návodu k použití v jazyku daného státu.
- PL UWAGA: Produkty firmy INNOTECH mogą być używane dopiero po dokładnym zapoznaniu się z całą instrukcją obsługi w ojczystym języku.
- SL POZOR: Uporaba izdelka INNOTECH je dovoljena šele po tem, ko ste navodila prebrali v celoti v ustreznem jeziku svoje dežele in jih tudi razumeli.
- SK POZOR: Produkt INNOTECH môžete používať až po prečítaní a porozumení celého návodu na použitie pre príslušnú krajinu.
- **HU FIGYELEM:** Az INNOTECH termékek használata csak azt követően engedélyezett, hogy saját nyelvén elolvasta és megértette a teljes használati utasítást.
- TR DİKKAT: INNOTECH ürününün kullanımına ancak ilgili ülkenin dilinde sunulmuş olan kullanım kılavuzunun tamamen okunmasından ve anlaşılmasından sonra izin verilir.
- ZH 注意:只有在仔细阅读并完全理解了当地语言的使用说明后,才能使用 INNOTECH 公司的产品。

1 TABLE OF CONTENTS

[2]	DESCRIPTION OF SYMBOLS	3
[3]	SAFETY INSTRUCTIONS	4
[4]	COMPONENTS/MATERIAL	6
[5]	PRODUCT SUITABILITY/APPROVAL	10
[6]	INSPECTION	11
[7]	WARRANTY	12
[8]	SIGNS & MARKINGS	12
[9]	INSTALLATION TOOLS	13
[10]	INSTALLATION	14
[11]	SYSTEM VARIO	14
[12]	SYSTEM VARIO, HINGED	26
[13]	SKYLIGHT SYSTEM	35
[14]	ESCAPE ROUTE	37
[15]	DISPOSAL	42
[16]	ACCEPTANCE LOG	43
[17]	INFORMATION ON THE SAFETY SYSTEM	45
[18]	TEST LOG	46
[19]	DEVELOPMENT & SALES	48

DESCRIPTION OF SYMBOLS

Warning/danger information



An IMMEDIATE threat of danger that can cause serious physical injuries or death.



A POTENTIALLY dangerous situation that causes serious physical injuries or death.



A POTENTIALLY dangerous situation that could lead to minor physical injuries and damage to property.



Wear protective gloves!



Wear safety spectacles!



Supplementary information/instructions



correct



incorrect



 $Comply \ with \ manufacturer's \ instructions/applicable \ instruction \ manuals.$



Work surface: Surface on which the persons stand, walk, or work. All vertical dimension specifications are provided in relation to this surface.



Danger of falling/edge

3.1

GENERAL

- The safety system may be installed only by specialised/competent experts familiar with the system safety system, and in compliance with the current state of the art.
 - The safety system may be installed or used only by persons who are:
 - trained in "personal protective equipment" (PPE),
 - in good physical and mental health (medical conditions such as cardiovascular problems, intake of medicines, consumption of alcohol, etc. negatively affect the safety of the user.)
 - familiar with the locally applicable safety regulations.
- A plan must be available that specifies the rescue procedures for all possible emergencies.
- Before starting work, ensure that no objects from the work site can fall to the
- ground The area below the work site (pavement, etc.) must be kept clear.

 Plan, install, and use the safety system in such a way that no-one can fall over the edge if it is used correctly. See planning documents at www.innotech.at.
- Do not make any changes to the safety system.
- The maximum roof pitch of the installation substructure must not exceed 10°.
- If used on inclined roof surfaces, roof avalanches (ice, snow) must be avoided by means of suitable snow interception devices.
- During the installation/use of the safety system, the relevant accident prevention regulations must be complied with, as must the rules and standards for the use of personal protective equipment designed to prevent falls.
- When installation is complete, this instruction manual must be stored by the building owner and made available to the user.
- If you supply the safety system to external contractors, these latter must confirm in writing that they have understood this instruction manual.
- If the equipment is sold to another country, the instructions of use must be provided in the respective national language.
- Comply with the local lightning protection regulations.



SAFETY INSTRUCTIONS

3.2 FOR FITTERS: FOR SAFE INSTALLATION

- All stainless steel bolts must be greased with a suitable lubricant before installation (provided: Weicon AntiSeize ASW 10000 or equivalent quality)
- Ensure that stainless steel does not come into contact with swarf or steel tools, as this can lead to corrosion.
- For installation, always select a safety system that is suitable for the prevailing conditions.
- The fitter must ensure that the substructure is suited for fixing the anchorage device
- The substructure must be free of snow and ice throughout the installation.
- The safety system must consist of at least 2 posts.
- Use dowel logs and photos of each installation situation to document the professional attachment of the safety system to the building structure.
- The roof covering must be correctly sealed as per applicable guidelines.



If uncertainties arise during the installation, it is imperative that you contact the manufacturer.

3.3 FOR USERS: FOR SAFE USE

- Correct use of the individual elements including "personal protective equipment" must be ensured, because otherwise the safe functioning of the safety system is NOT guaranteed.
- Do not use safety systems if wind speeds exceed normal parameters (max. wind zone 4).

COMPONENTS/MATERIAL

4.1 COMPONENTS

Instruction manual



Z11: Rating plate





4.1 SYSTEM COMPONENTS

F20: Aluminium Toe board



F22: Aluminium, stainless steel 304
Toe board bracket for fastening the toe board to the VARIO BARRIER-V12 foot unit





F23: Aluminium, stainless steel 304 Toe board connection set





R11: Aluminium Aluminium pipe, straight



4

COMPONENTS/MATERIAL

R21: Aluminium, stainless steel 304 Linear tie





R31: Aluminium, plastic, stainless steel 304 Corner tie





R41: Aluminium, stainless steel 304 Wall tie





R51: Aluminium, stainless steel 304 End seal





R70: Aluminium/zinc, stainless steel 304 Pipe bracket for BARRIER-R11 aluminium pipe



R91: Plastic

Cap for BARRIER-R11 aluminium pipe



\$20-1140: Aluminium, aluminium/zinc,

stainless steel 304 Post, system VARIO

Standard length: 1140 mm Special lengths upon request



S21-1050: Aluminium, aluminium/zinc,

stainless steel 304 Post, PARAPET system Standard length: 1050 mm Special lengths upon request



S22-450/-1300/-1500: Aluminium

Boom

Standard lengths: 450 mm, 1300 mm, 1500 mm Boom length for escape route available upon request

Special lengths upon request



S23-560: Aluminium, aluminium/zinc, stainless steel 304 Stiffening strut



T30: Aluminium, stainless steel 304 Door set





V20: Concrete VARIO weight, 12.5 kg



BBF-05.5-038-DS-A2: Stainless steel 304 Bore fasteners incl. sealing disc for 1x VARIO-weight V20



BBF-05.5-096-DS-A2: Stainless steel 304 Bore fasteners incl. sealing disc for 2x V20 VARIO-weights





COMPONENTS/MATERIAL

V12: Aluminium, stainless steel 304, plastic VARIO foot unit



V13: Aluminium, stainless steel 304, plastic VARIO foot unit, hinged



V82: Aluminium, stainless steel 304 VARIO adapter foot





V92: Aluminium, stainless steel 304 VARIO corner tie





Z22: Aluminium/zinc End cap for a standard upright



Z33-500: Polyurethane Underlay mat 500 x 500 mm



Z50-3000: Aluminium Footway rail for emergency escape route





PRODUCTSUITABILITY/APPROVAL

INNOTECH "BARRIER" was developed as a side protection system (railing) for collective, permanent fall prevention on roof surfaces which are not publicly accessible.

DANGER

DANGER TO LIFE through incorrect use.

- Use INNOTECH "BARRIER" ONLY for personal safety.
- Do NOT climb onto the INNOTECH "BARRIER".
- NEVER lean ladders against the INNOTECH "BARRIER".
- DO NOT use INNOTECH "BARRIER" as a personal leaning support for hoisting or lowering scaffolds, construction and cleaning materials, etc.



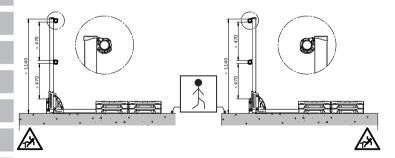
Comply with the manufacturer's instructions for the personal protective equipment being used.

INNOTECH "BARRIER" was tested and certified to the requirements of the standards EN ISO 14122-3:2016, DIN 14094-2:2017, and DIN EN 13374:2019 class A.

The notified authority participating in the type test is:

DEKRA Testing and Certification GmbH, Dinnendahlstrasse 9, D-44809 Bochum, Germany

5.1 ASSEMBLY VARIANTS





Pipe bracket always in the direction of the work surface!



6.1 INSPECT BEFORE EVERY USE

Prior to each use, INNOTECH "BARRIER" must be inspected visually for any obvious



DANGER TO LIFE through damage to the INNOTECH "BARRIER".

- INNOTECH "BARRIER" must be in perfect working condition.
- Do NOT continue to use INNOTECH "BARRIER" if
 - There is obvious damage or wear to its components,
 - Other defects were observed (loose threaded joints, deformation, corrosion, wear, etc.),
 - Strain has occurred due to a fall against or into the side protection system,
 - It is not possible to read the product labelling.

Check the entire safety system's suitability for use on the basis of the acceptance log and test log.



If there are any doubts concerning the safe use of the safety system, it must NOT be used any more, and must be checked by an expert (written documentation). If necessary, the product must be replaced.

6.2 INSPECT REGULARLY

INNOTECH "BARRIER" is maintenance-free. Every 2 years, the system must be inspected by an expert, familiar with the safety system. The user's safety depends on the effectiveness and durability of the equipment.

Shorter inspection intervals may be required, depending on the intensity of use and the environment (e.g. in corrosive atmospheres, etc.).

Document the inspection by the specialist/competent expert in the test log of the instruction manual, and keep this with the instruction manual.



Refer to the test log for inspection intervals.

The warranty period for manufacturing defects on all components (under normal conditions of use) is 2 years from the date of purchase. The time limit is shortened if it is used in corrosive atmospheres.

If there is strain (a fall, weight of snow, etc.), the warranty claim is void for those components that are designed to absorb energy or to deform.



For system installation and for components planned and installed under the responsibility of specialised installation companies, INNOTECH assumes neither responsibility nor warranty in the case of incorrect installation.

SIGNS & MARKINGS

- A) Name or logo of the manufacturer/retailer:
- B) Type designation:
- C) Signs stating that instructions for use must be followed:
- D) Year of manufacture and manufacturer's serial number:
- E) Numbers of the applicable standards:
- F) System no.:
- G) Length:
- H) Date of installation:
- I) Name & address of the installation company:

INNOTECH BARRIER



JJJJ-..-...

DIN EN 13374:2019 class A, DIN EN ISO 14122-3:2016.

DIN 14094-2:2017

Allocation of numbers if there are several side protection systems Length of the side protection

system in metres Year installed: ☒

Installed by:

B

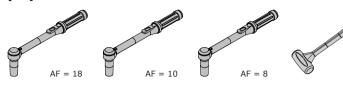
A INNOTECH BARRIER

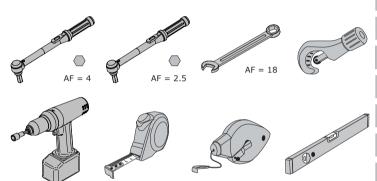
F system no.
G length: m
E DIN BN 13374:2019 dass A
E NISO 14122-3:2016
DN 14092-2:2017
DN 5Mr: JJJJ-...
www.innotech.at i 1:49+1:410-44/446eer-8No XXXX ■ XXXX ■ XXXX ■



INSTALLATION TOOLS

[mm]







AF = 8

Installation tools, various replacement parts and accessories are available from INNOTECH (www.innotech.at) (see INNOTECH price list).

10 INSTALLATION



DANGER TO LIFE if NOT correctly installed.

- Install INNOTECH "BARRIER" correctly as per the instruction manual.
- Comply with the specified tightening torques.



INJURIES from sharp edges on components.

- Wear protective gloves for the installation work.



EYE INJURIES from dust/splinters/liquid.

- Wear eye protection/safety glasses for the installation work.



11.1

The number of VARIO weights, separations, angles, etc. may vary according to the circumstances of the side protection system.

11 SYSTEM VARIO

IMPORTANT INFORMATION ON THE SYSTEM VARIO

For the SYSTEM VARIO:

- a parapet must be present on the building, and
- the parapet must have a height of at least 50 mm above the work surface.

If no parapet is present on the building, then special measures must be taken for the installation of the VARIO foot unit (additional fastenings, e.g. flame scarf angle).

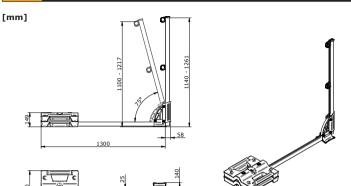
Before positioning the VARIO weights, the maximum permitted loading capacity of the roof must be tested. The maximum pressure load is 0.068 kg/cm².



If uncertainties arise during the installation, it is imperative that you contact the manufacturer.

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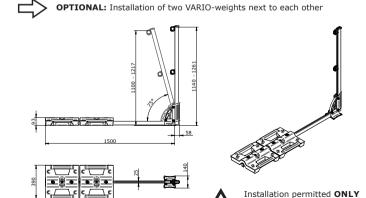
11.2 DIMENSIONS



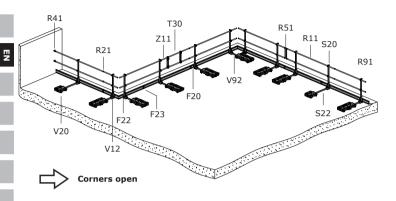
min. 2x V20 VARIO-weights

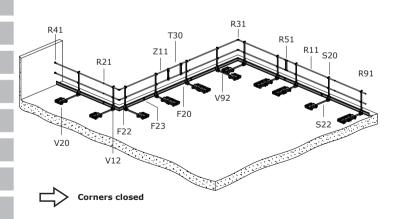
using longer S22-1500

boom.



11.3 OVERVIEW

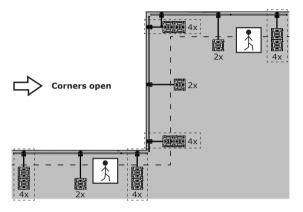


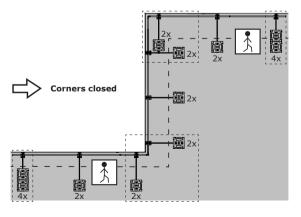


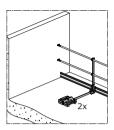
11.4 NUMBER OF WEIGHTS

1. Work surface on the loaded side of the side protection system:

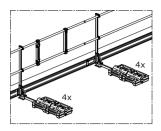
- Install two V20 VARIO-weights on every post
- Install four V20 VARIO-weights on all corner and end points







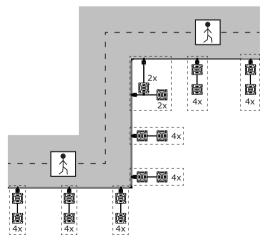
Wall tie R41: Install two V20 VARIO-weights.



Door set T30: Install four V20 VARIO-weights.

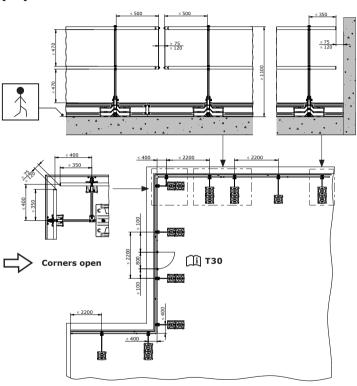
2. Work surface on the unloaded side of the side protection system:

- Install four V20 VARIO-weights on every post



11.5 IMPORTANT DISTANCES

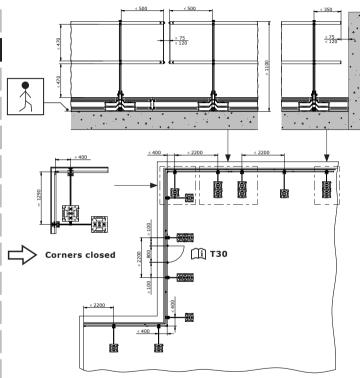
[mm]





The dimensions vertical to the floor always relate to the work $\boldsymbol{surface}.$

[mm]



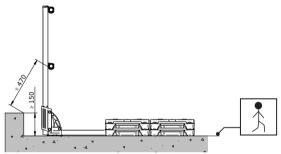


The dimensions vertical to the floor always relate to the work surface.

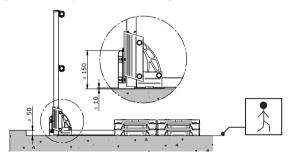
11.6 TOE BOARD

[mm]

If the parapet is ≥ 150 mm or the separation between the top edge of the parapet and the intermediate beam of the side protection system is ≤ 470 mm, then no toe board is required.



If the parapet is \leq 150 mm, then a toe board is required.





The dimensions vertical to the floor always relate to the work **surface**.

INSTALLATION

Set the desired inclination (90° or 75°).

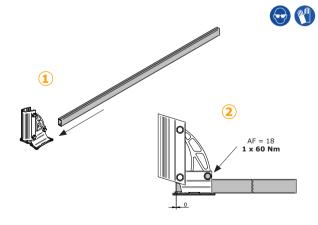




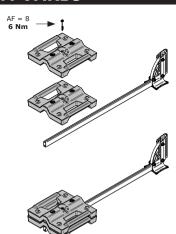














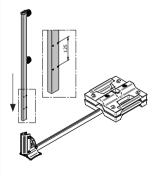


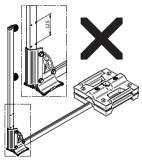
4.

Set the desired height. (Adjustment range = 125 mm)





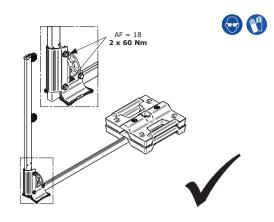






Comply with the adjustment range.





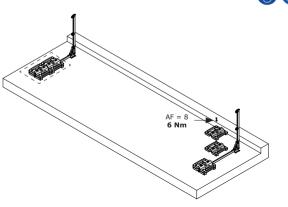
6.

For end and corner points, install four V20 VARIO-weights.

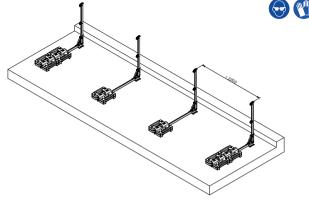










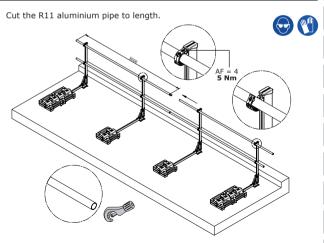










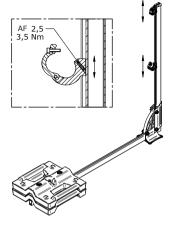














OPTIONAL: Height adjustment of the pipe bracket

SYSTEM VARIO, HINGED

12.1 IMPORTANT INFORMATION ON THE SYSTEM VARIO

For the SYSTEM VARIO:

- a parapet must be present on the building, and
- the parapet must have a height of at least 50 mm above the work surface.

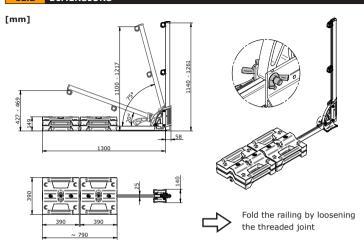
If no parapet is present on the building, then special measures must be taken for the installation of the VARIO foot unit (additional fastenings, e.g. flame scarf angle).

Before positioning the VARIO weights, the maximum permitted loading capacity of the roof must be tested. The maximum pressure load is 0.068 kg/cm².

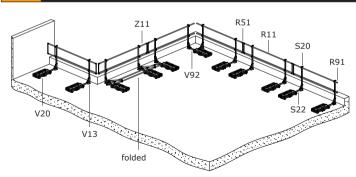


If uncertainties arise during the installation, it is imperative that you contact the manufacturer.

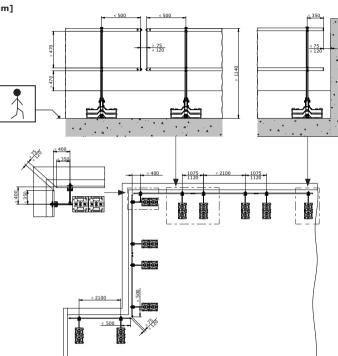
DIMENSIONS 12.2



12.3 OVERVIEW



[mm]





The dimensions vertical to the floor always relate to the work surface.

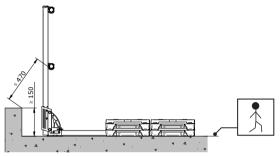
Work surface on the loaded side of the side protection system:

- Install four VARIO-weights on every post
- Install four VARIO-weights on all corner and end points

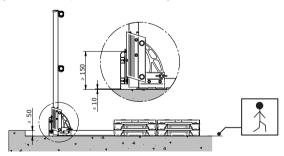
12.5 TOE BOARD

[mm]

If the parapet is ≥ 150 mm or the separation between the top edge of the parapet and the intermediate beam of the side protection system is ≤ 470 mm, then no toe board is required.



If the parapet is \leq 150 mm, then a toe board is required.





The dimensions vertical to the floor always relate to the work $\boldsymbol{surface}.$

INSTALLATION

Set the desired inclination (90° or 75°).





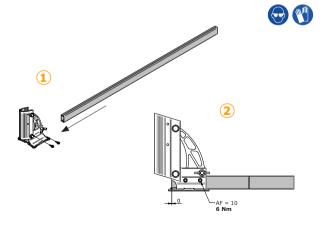




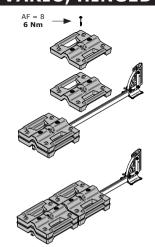












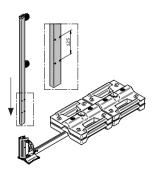


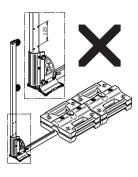


Set the desired height. (Adjustment range = 125 mm)





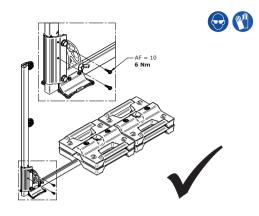


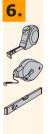


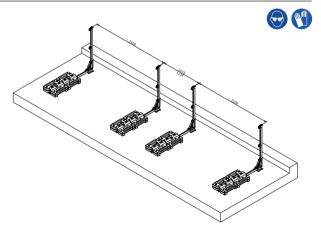


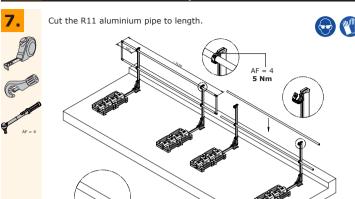
Comply with the adjustment range.



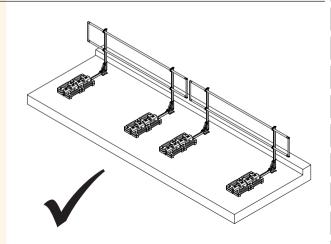






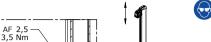
















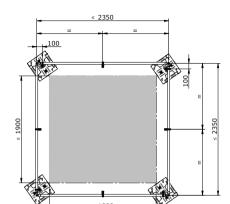


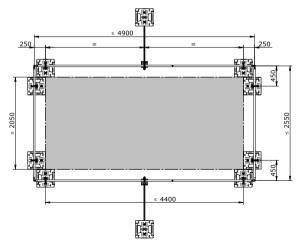
OPTIONAL: Height adjustment of the pipe bracket

13.1

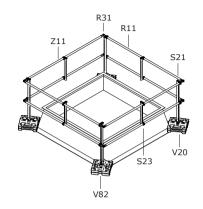
[mm]

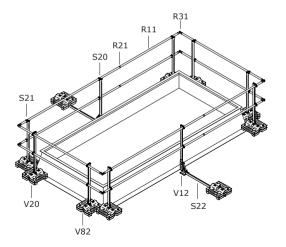
DIMENSIONS





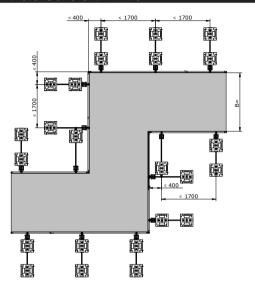
[mm]

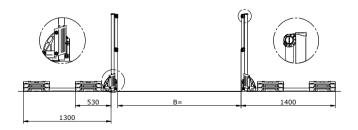




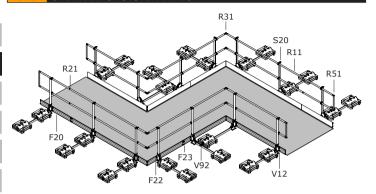


14.1 DIMENSIONS OF SYSTEM VARIO

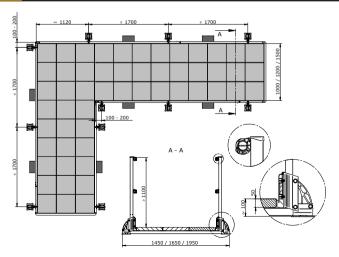




14.2 OVERVIEW OF SYSTEM VARIO

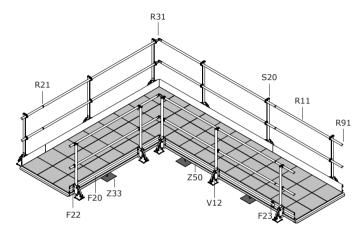


14.3 DIMENSIONS OF ESCAPE ROUTE USING CONCRETE SLABS

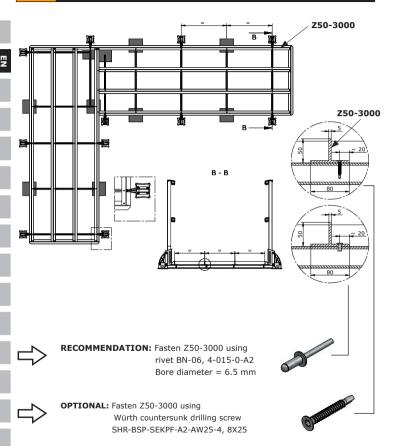


14.4 0

OVERVIEW OF ESCAPE ROUTE USING CONCRETE SLABS



LAYING PLAN OF ESCAPE ROUTE USING CONCRETE SLABS



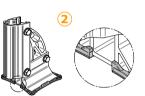
14.6 INSTALLATION INSTRUCTION





















15 DISPOSAL





Protect by means of an alternative safety system.

Do NOT dispose of the safety system in household waste.
As per national requirements, collect the used parts together, and dispose of them in an environmentally correct manner.

16 COPY TEMPLATE ACCEPTANCE LOG

-	
1	ACCEPTANCE LOG NO (PART 1/2)
	SIDE PROTECTION SYSTEM
	ORDER NUMBER: PROJECT:
	CLIENT: Specialist: Company address:
1 .	
1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	CONTRACTOR: Specialist: Company address:
5	INSTALLATION: Side protection system
	DESIGNATION : Side protection system no Length:m
1 2 1 1 1	Specialist: Company address:

TEMPLATE C

COPY TE

16 COPY TEMPLATE ACCEPTANCE LOG

ACCEDI		OC NO	
ACCEP	IANCEL	LOG NO.	(PART 2/2

 TEMPLATE

COPY

COPY

FASTENER & PHOTO DOCUMENTATION

INSTALLATION SUBSTRUCTURE

(e.g.: solid concrete quality: C20/25)

Date:	Location:	Dowel type: Fastening/ adhesive type:	Setting depth: [mm]	Drill bit Ø: [mm]	Tightening torque:	Photos: (storage location)
			mm	mm	Nm	
			mm	mm	Nm	
			mm	mm	Nm	

The installation company who signs warrants correct workmanship (edge spacing, inspection of the substructure, proper cleaning of bores, compliance with curing times and processing temperature, compliance with the dowed manufacturer's guidelines, etc.) The client accepts the work performed by the contractor. The user instructions, documentation of the fastenings, and photo documentation and test sheets have been transferred to the client (building owner) and have been made available to the user. When accessing the fall protection system, the building owner must document the positions of the side protection system by means of diagrams (e.g. top view of the roof).

The expert installer familiar with the fall protection system confirms that the installation work has been executed

correctly, as per the state of the art, and in accordance with the manufacturer's instructions for use. The technical safety reliability is confirmed by the installation company.

Comments:		
Included in lightning protection system?	Yes	00 74 80
Name:		
Client	Fitter, anchorage points	lu
		TEMPLATE
Date, company stamp, signature	Date, company stamp, signature	
	Fitter of side protection system	8

44

Date, company stamp, signature

INSTRUCTIONS FOR THE EXISTING SAFETY SYSTEM

The building owner must affix this notice in a conspicuous location at the access point to the system.

This system must be used in accordance with the state of the art and the instruction manual.

The storage location for the instruction manuals, test logs, etc. is:

Overview plan showing the position of the side protection system:

Draw in the areas where there is a break-through hazard (such as skylights and/or light strips)!

18 COPY TEMPLATE TEST LOG

TEST LOG NO (PART 1/2)	75
SIDE PROTECTION SYSTEM	
ORDER NUMBER:	TEMPLATE
PROJECT:	_
PRODUCT: Item Year of construction/Serial number: Type designation EAP/anchorage point)	COPY
SYSTEM INSPECTION CARRIED OUT ON:	—
ATEST DATE FOR SYSTEM INSPECTION:	= 47
CLIENT: Specialist:	 TEMPLATE
CONTRACTOR: Specialist: Company address:	COPY
INSPECTION POINTS: ☑ inspected and OK. DEFECTS DETECTED: (Description of defects/measures)	TEMPLATE
DOCUMENTATION:	MPL
☐ Instruction manual	7 19
☐ Acceptance logs/fastener documentation/ photo documentation	
Adapters and attachment: (firm seat, threaded joints (tightening torque), no deformation, etc.)	COPY
□ VARIO: □ V20 □ V12 □ V82 □ V92	8
□ PARAPET: □ A10 □ □ A11 □ A22 □ A31 □ R00F: □ D10 □ D82	\dashv
VARIO: S20 PARAPET: S21	TEMPLATE
Separations: (Max. separation between posts 2200 mm, separation from the work surface, etc.)	
☐ Separations for the applicable system as per instruction manual	COPY
□ Aluminium pipes □ R11	_
RADDIED-VADIO/190527/www.innotech.at	

COPY TEMPLATE

Date, company stamp, signature

Date, company stamp, signature

INNOTECH Arbeitsschutz GmbH, Laizing 10, 4656 Kirchham/Austria www.innotech.at

