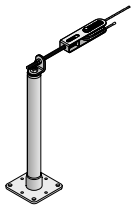
FALL PROTECTION SYSTEMS AND PROTECTIVE EQUIPMENT

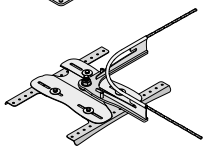
SAFETY, FOR INDUSTRY AND CONSTRUCTION

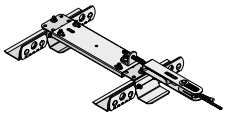
rothoblaas

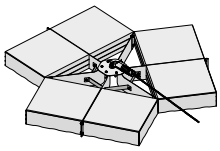
Solutions for Safety

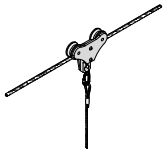
LIFELINE AND RAIL SYSTEMS 17

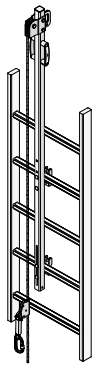


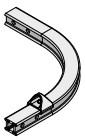


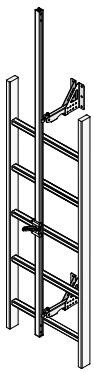


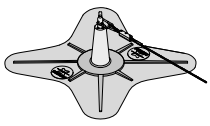












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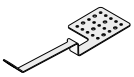

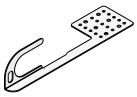

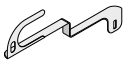

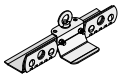

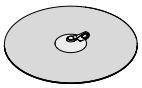

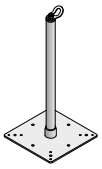

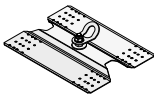

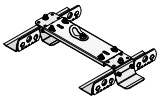

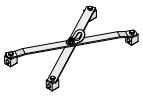

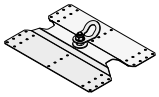

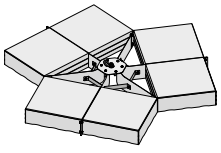

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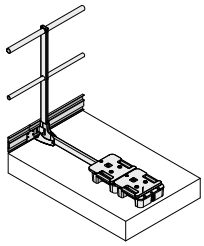

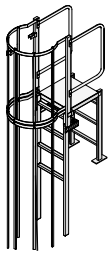

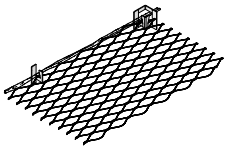

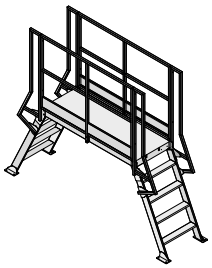

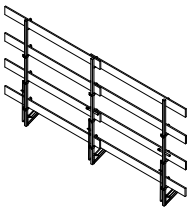

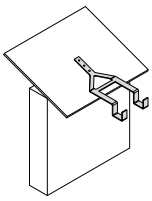

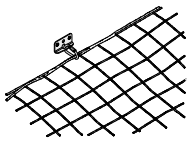

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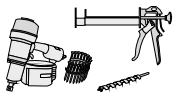

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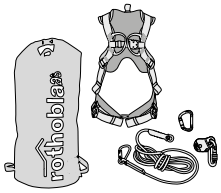
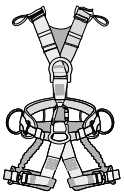
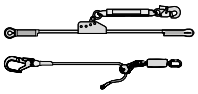
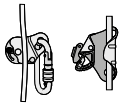
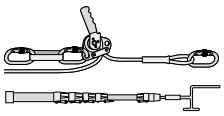
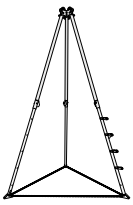












CONTENTS

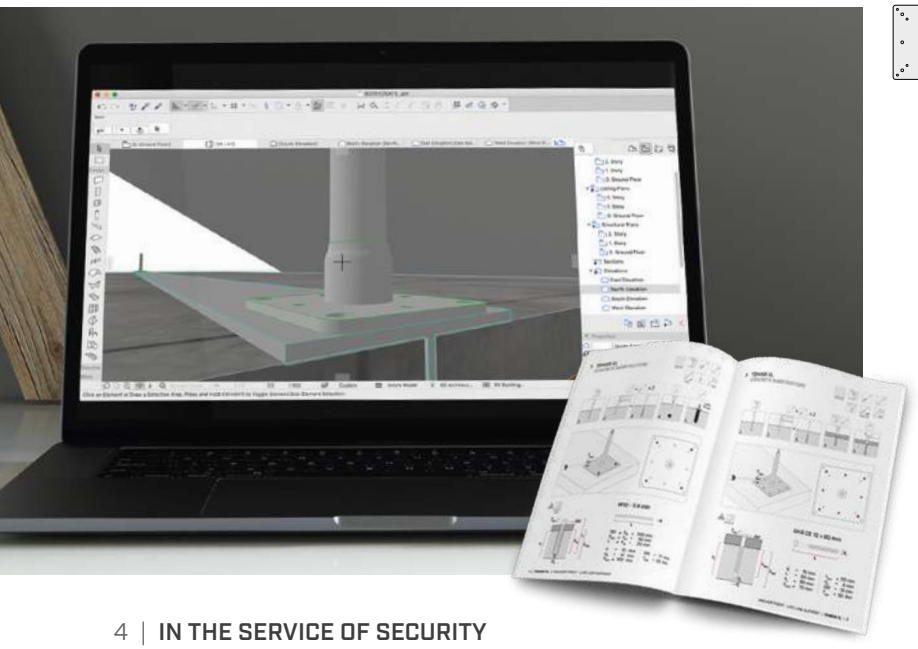
IN THE SERVICE OF SECURITY

IN-HOUSE PRODUCT DEVELOPMENT AND TESTING

When developing a new product, we directly follow all stages: market analysis, feasibility studies, planning and design, functional and effectiveness tests, including tests on fixings and substrates. All tests are carried out using the replication of a real roof.

EXTERNAL CERTIFICATION

In the certification process of our products, we are followed by an external certification body. The tests are carried out on the different types of substructure according to current technical standards, which include deformation tests, dynamic tests, static tests, failure tests and corrosion tests. The certification also takes into account the technical documentation, which must be drawn up according to certain characteristics.



ONLINE DOCUMENTATION

On our website you will find all the documentation relating to our products, in various languages: installation and user manuals, technical data sheets, certificates, BIM/CAD objects, assembly videos, software for calculating and verifying lifelines and support for the correct preparation of an estimate. Our safety solutions are designed together with the substructure fixings and waterproofing systems, so that we can guarantee professional installation.

WHO USES OUR PRODUCTS?

INTEGRATED SOLUTIONS FOR INDUSTRY

Our product range is constantly being updated in order to meet the constant demands of the market. Whether you are involved in industrial safety, specialised distribution of fall protection systems, renewable energy or plant safety, you will find the right solution for you.

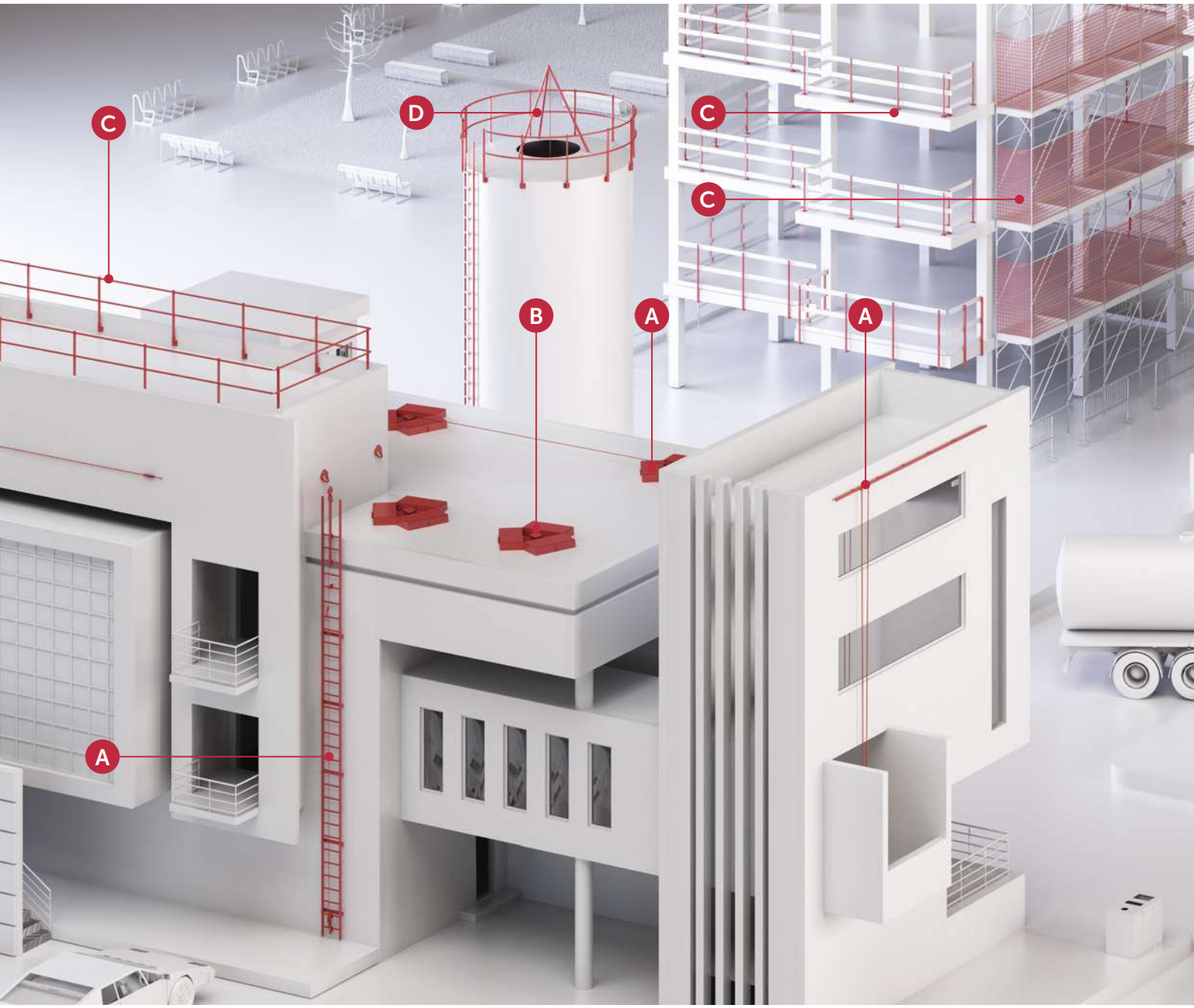
SYSTEMS AND PRODUCTS FOR SITE SAFETY

Our products are ideal for ensuring safety at work for builders of timber houses and large glulam and CLT structures, carpenters, tinsmiths and building renovation professionals.

RESALE-FRIENDLY DISPLAY

Do you have an exhibition space? We provide you with the tools to present your products in the best possible way in your building materials shop, hardware shop or retail outlet. Metal displays, communication tools and gadgets for your customers will help you maximise your business.

COMPLETE RANGE



A LIFELINE AND RAIL SYSTEMS

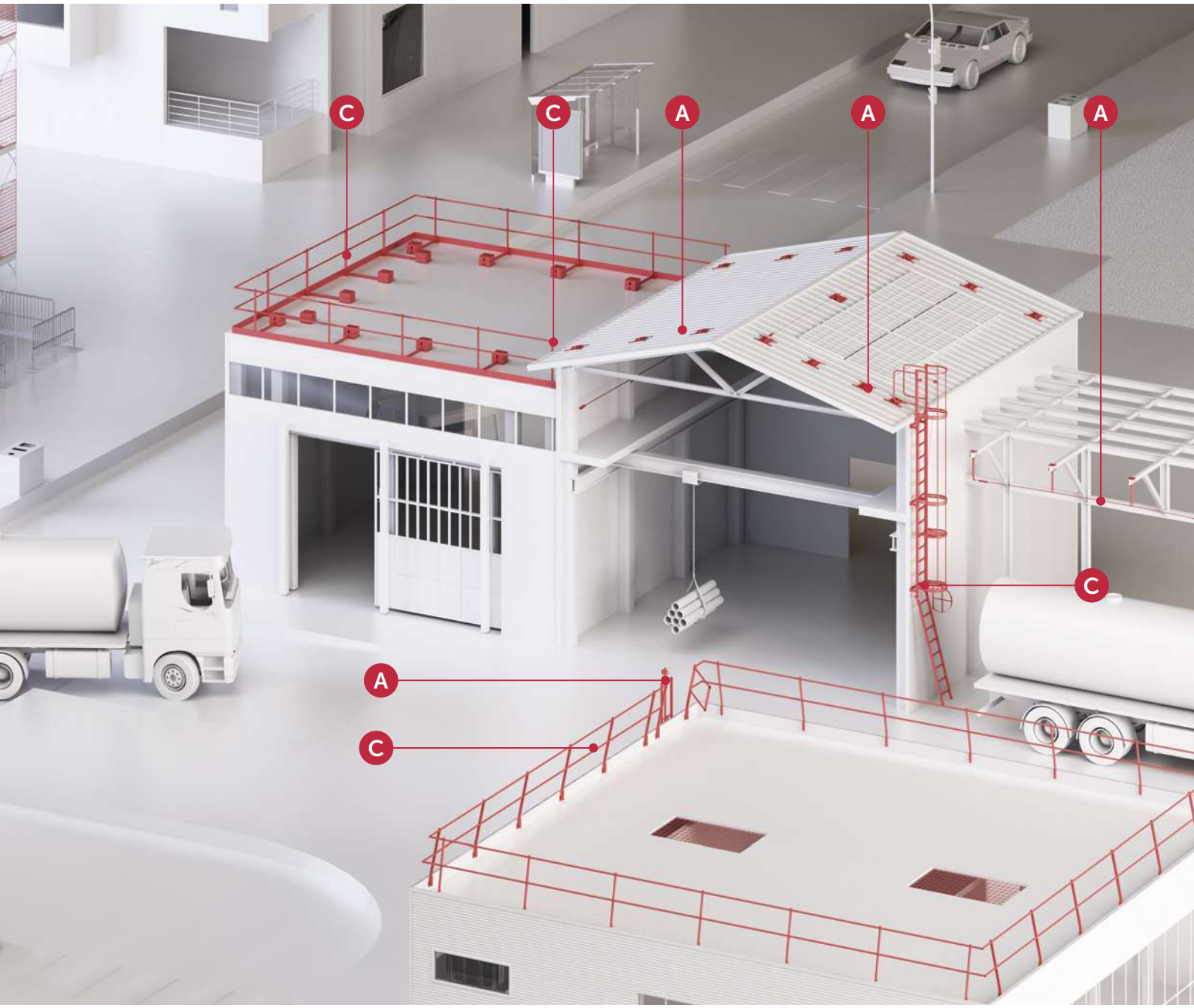
Our lifeline systems meet every design requirement: rope or rail, fixed or temporary, horizontal or vertical.

They are convenient systems for the operators: they allow easier movement than single points, are comfortable in use thanks to the through systems and offer the possibility of securing up to 4 operators at the same time.

B ANCHOR POINTS

Anchor points are the alternative or complement to lifelines. Those in the Rothoblaas Solutions for Safety range are designed to meet different construction requirements and to adapt to substrates made of various materials.

Designed for use with different techniques (anti-fall, restraint, suspension), they allow direct connection with the PPE, offering safety to a number of operators that can vary from 1 to 4 depending on the type of device.



C COLLECTIVE PROTECTION

Collective Protective Equipment (CPE) include all temporary or permanent devices designed to protect more than one operator from the risk of falling. These include, for example, railings, textile and metal nets, ladders with and without cages, steps and other types of protection.

Thanks to the CPE it is possible to work safely even without PPE.

D PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment (PPE) includes any type of equipment designed to be worn or used by the workers in order to protect them from risks that could threaten their safety while carrying out operations at height.

ONLINE RESOURCES

COMPLETE MULTILINGUAL DOCUMENTATION

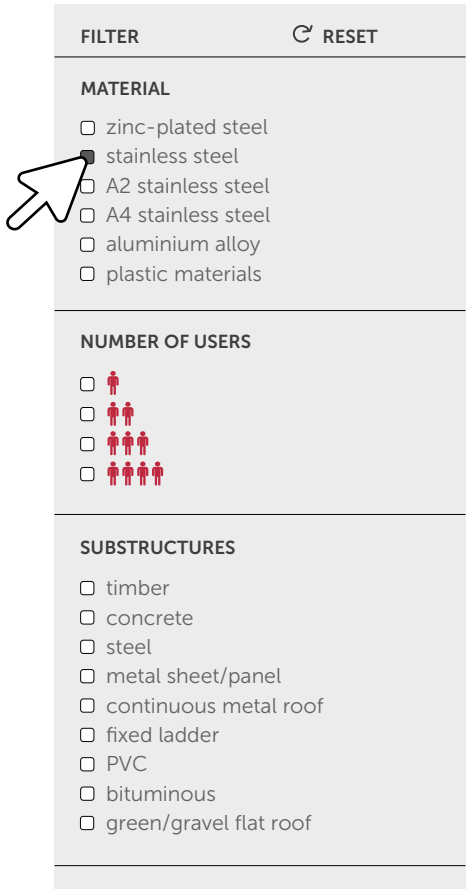
On our website we provide documentation and tools to simplify your work. The documents are easily accessible, either by scanning the QR codes you find in the catalogue next to the products, or through the advanced search function on the site, **using the appropriate filters.**

Among the available documentation you will find:

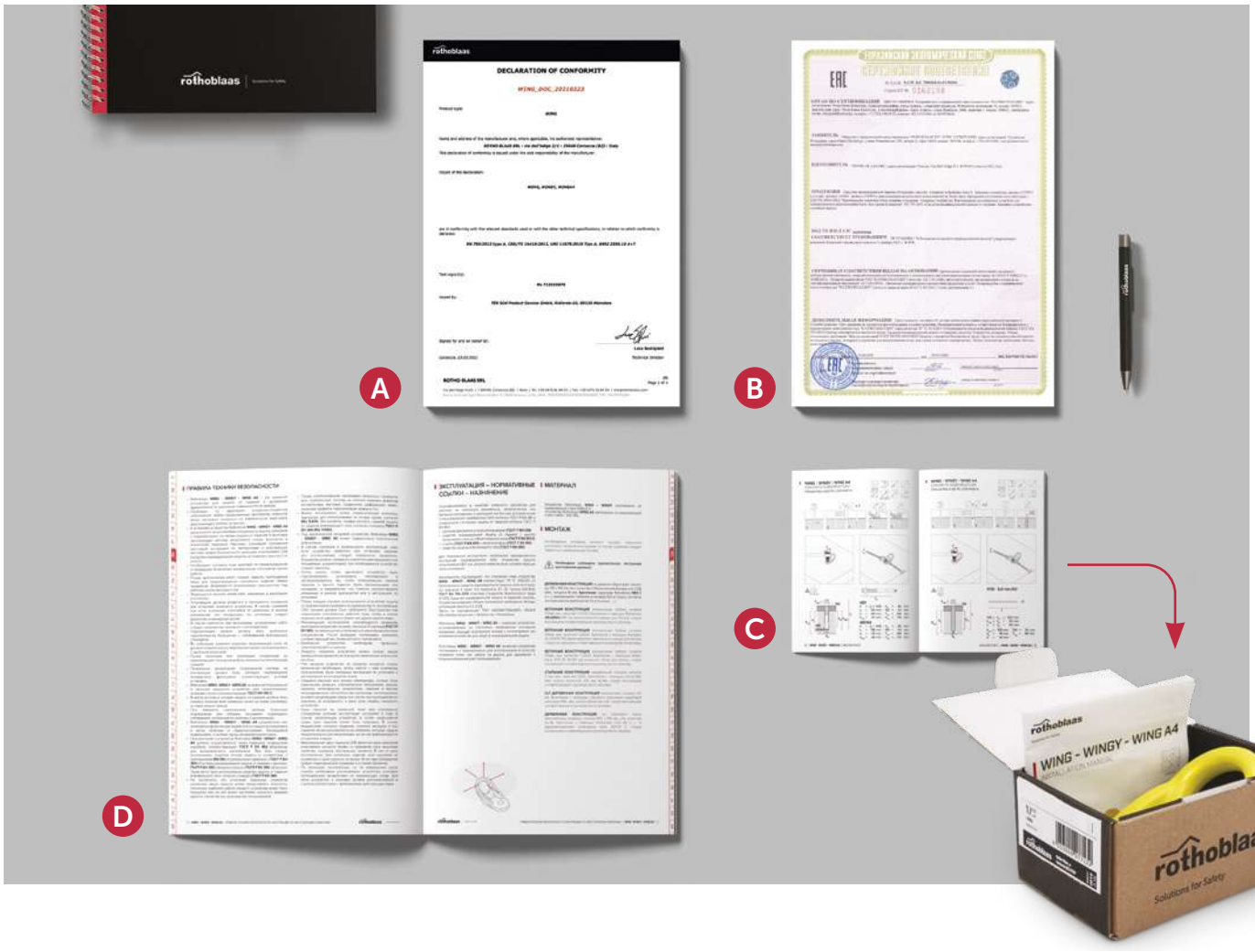
- catalogue
- technical data sheets
- installation manuals and safety regulations
- certificates
- declaration of conformity
- technical data

To support your planning, you will also find on our website:

- BIM and CAD objects
- calculation software for lifeline
- video available on our YouTube channel



PRODUCT



A DECLARATION OF CONFORMITY

C INSTALLATION MANUAL

B CERTIFICATE

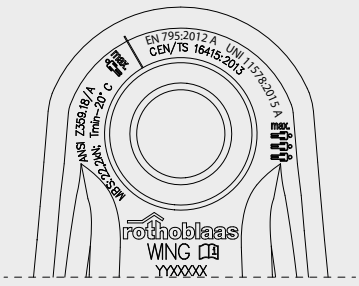
D SAFETY REGULATIONS

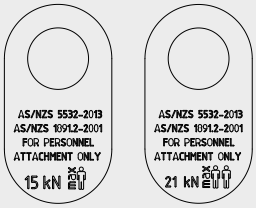
CERTIFIED PRODUCTS

Our products are tested in the presence of certification bodies that validate the tests performed and certify them according to the relevant standards.

The marking contains normative references, product traceability and information for correct use.

The documentation for the devices (declarations of conformity, certificates, installation manuals and safety regulations) are available on our web site www.rothoblaas.com, easily traceable thanks to the QR codes found inside this catalogue.



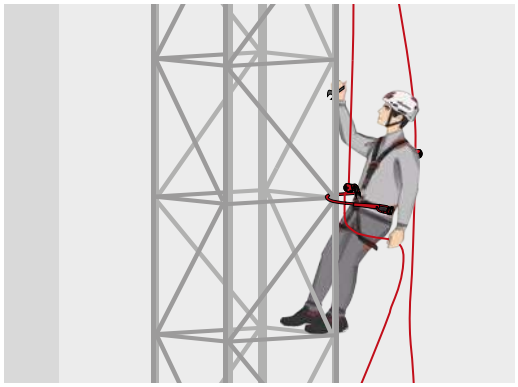


TECHNIQUES FOR WORK AT HEIGHT

POSITIONING

Working technique that allows the operator to work under tension with its devices, hands free:

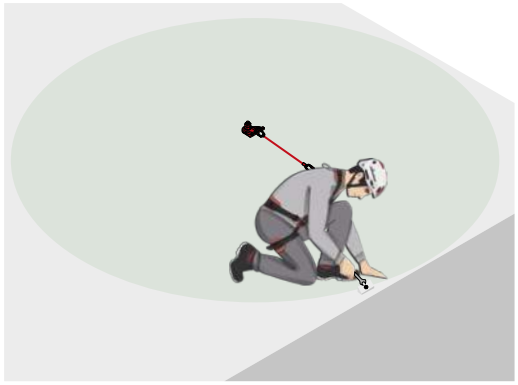
- in the case where the risk of falling into the void is null: positioning harness and positioning lanyard.
- if there is a risk of falling (uncovered roof, roof not protected by collective protection, steep slope, etc.): positioning and fall protection harness, positioning lanyard, fall arrest system.



RESTRAINT

Work with restraint involve a system that limits worker movement to prevent them reaching areas in which a fall from height could occur. This system does not arrest a fall from height, but instead prevents it.

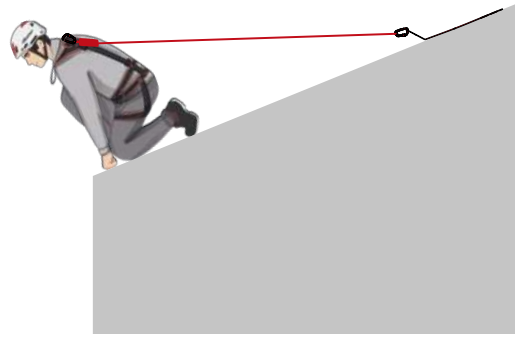
This system is generally preferable compared to working with a fall protection system.



FALL PROTECTION

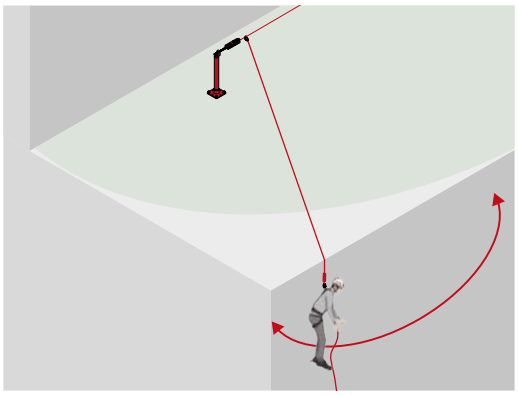
The fall arrest system has the purpose of:

- reducing the distance required to arrest a fall;
- absorbing the energy of the fall to limit the arresting force transmitted to the human body;
- keeping the injured in an appropriate position to limit the effects of inert suspension.



RISKS: PENDULUM EFFECT

The "pendulum effect" refers to a lateral movement that occurs after a fall when the anchor is not located vertically with respect to the worker. This situation can be dangerous, as it can cause the worker to collide with an obstacle located along the fall trajectory.



PRINCIPLES OF WORK AT HEIGHT

VERTICAL CLEARANCE

When working in fall protection, the **VERTICAL CLEARANCE** must be taken into account:

$$TA = LC + L_{max} + HA + D_{SIC} (+ f) \quad [m]$$

TA vertical clearance

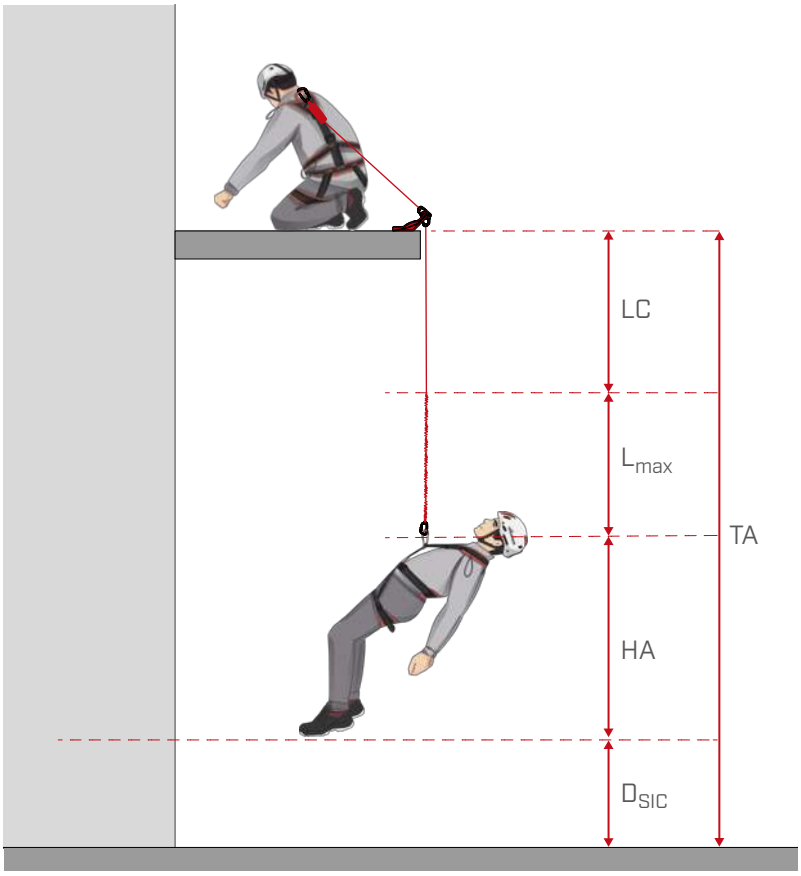
LC length of the rope from the fixed anchoring point to the roof to the anchoring point of the harness at the moment the rope begins to stop the fall

L_{max} maximum extension of the energy absorber (maximum 1,75 m)

HA 1,50 m average height above the operator's feet from the sternal/ dorsal anchor point of the harness

D_{SIC} safety distance (minimum 1 m)

f possible deformation of the system caused by a fall



FALL FACTOR

The **FALL FACTOR** expresses the degree of danger of a fall:

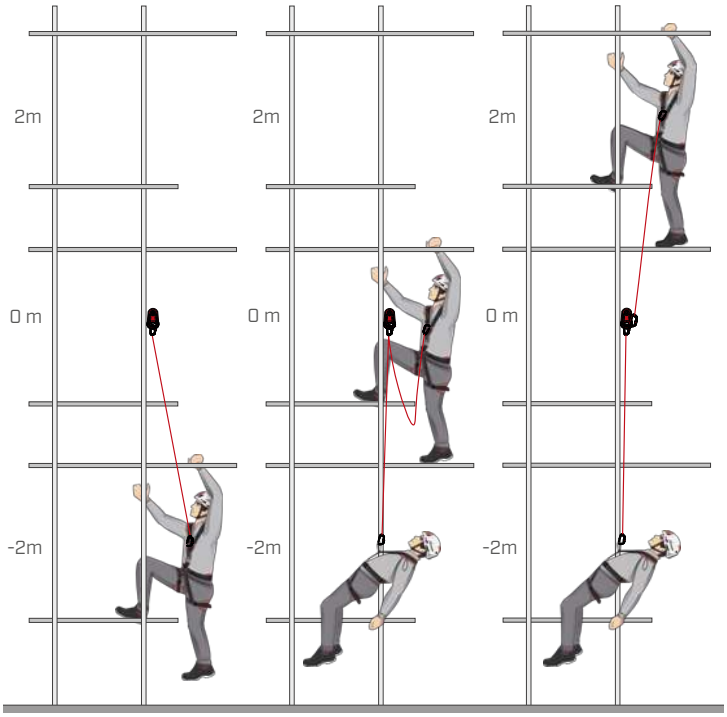
$$F_C = H / L$$

F_C fall factor

H height fallen during the fall

L length of the rope / connection device

The value obtained from the equation must be between 0 and 2, with 2 representing the maximum fall factor.
The lower the value of the fall factor, the less stress will be placed on the operator's body. On the other hand, a high fall factor can result in high decelerations that are difficult for a human body to withstand and cause serious injuries to the operator.

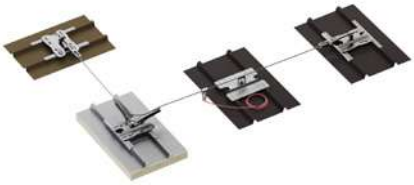


	F_C0	F_C1	F_C2
without energy absorber	✓	!	✗
with energy absorber	✓	✓	!

STANDARDS

OVERVIEW OF REGULATIONS ON LIFELINES, RAILS AND ANCHOR POINTS

PATROL + SHIELD



EAC

EN 795:2012 C

CEN/TS 16415:2013

UNI 11578:2015 C

AS/NZS 1891.2:2001

AS/NZS 1891.4:2009

AOS01 + BLOCK

CE

EN 795:2012 E

H-RAIL ON FLOOR

EN 795:2012 D

CEN/TS 16415:2013

UNI 11578:2015 D

device type	Type A	Type B	Type C	Type D	Type E	CEN/TS 16415:2013	Type A	Type C	Type D
STANDARD	EN 795:2012 + CEN/TS 16415:2013						UNI 11578:2015		
CE	-	●	-	-	●	-	-	-	-
EAC	-	-	-	-	-	-	-	-	-
deformation test	0,7 kN	0,7 kN	0,7 kN	0,7 kN	0,7 kN		0,7 kN	0,7 kN	0,7 kN
dynamic test according to standard (applied load)	9 kN	9 kN	9 kN	9 kN	9 kN	12 kN 9 kN + 2 kN 9 kN + 3 kN	9 kN 12 kN 9 kN + 2 kN 9 kN + 3 kN	9 kN 12 kN 9 kN + 2 kN 9 kN + 3 kN	9 kN 12 kN 9 kN + 2 kN 9 kN + 3 kN
dynamic-mass test	100 kg	100 kg	100 kg	100 kg	100 kg	100 kg / 200 kg	100 kg / 200 kg	100 kg / 200 kg	100 kg / 200 kg
static test according to standard (applied load)	12 kN	12 kN	12 kN	12 kN	12 kN	13 kN 14 kN 15 kN	12 kN 13 kN 14 kN 15 kN	12 kN 13 kN 14 kN 15 kN	12 kN 13 kN 14 kN 15 kN

Comparable mechanical tests between the various standards were considered.

V-RAIL

CE

EN 353-1:2014 + A1:2017

RfU 11.119

VERTIGRIP

CE EAC

EN 353-1:2014 + A1:2017

RfU 11.119

WING

EAC

EN 795:2012 A

CEN/TS 16415:2013

UNI 11578:2015 A

AS/NZS 5532:2013

AS/NZS 1891.4:2009

ANSI Z359.18/A

STANDARD	TP TC 019/2011	EN 353-1:2014 + A1:2017, RfU11.119	ANSI Z359.18/A	AS/NZS 5532:2013 AS/NZS 1891.4:2009	AS/NZS 1891.2:2001 AS/NZS 1891.4:2009
CE	-	●	-	-	-
EAC	●	-	-	-	-
deformation test	0,7 kN	-	-	-	-
dynamic test according to standard (applied load)	9 kN 12 kN 9 kN + 2 kN 9 kN + 3 kN	●	-	-	-
dynamic-mass test	1100 kg / 200 kg	100 kg	128 kg	100 kg 150 kg	100 kg
static test according to standard (applied load)	12 kN 13 kN 14 kN 15 kN	min. 15 kN	22,2 kN	15 kN 21 kN	15 kN

LIFELINE AND RAIL SYSTEMS

LIFELINE AND RAIL SYSTEMS

LIFELINE AND RAIL SYSTEMS

HORIZONTAL LIFELINE

VERTICAL LIFELINE

HORIZONTAL RAIL

VERTICAL RAIL

GREEN ROOF LIFELINE

TEMPORARY DEVICES

PATROL
HORIZONTAL LIFELINE

MODULAR, SIMPLE, SAFE SYSTEM.

With PATROL LIFELINE SYSTEMS, horizontal, overhead or façade lifelines, both through and overhead, are child's play. Dedicated brackets allow you to quickly install the system on timber, metal or concrete substrates, and with the wide selection of specific accessories it is easy to meet all project requirements.

PATROL | overview

PATROL + TOWER

LIFILINE ON SUPPORT FOR TIMBER, CONCRETE AND STEEL ROOFS

EN 795:2012 C | CEN/TS 16415:2013 | UNI 11578:2015 C | AS/NZS 1891.2:2001 | AS/NZS 1891.4:2009

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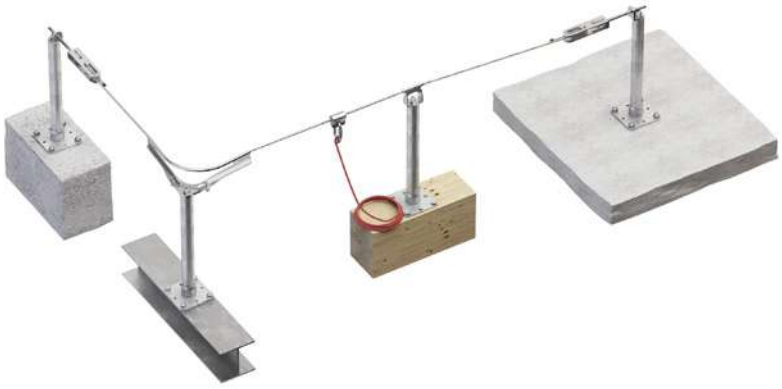

PATROL + TOWER A2

LIFILINE ON STAINLESS STEEL SUPPORT FOR TIMBER, STEEL AND CONCRETE ROOFS

A2 AISI 304

EN 795:2012 C | CEN/TS 16415:2013 | UNI 11578:2015 C | AS/NZS 1891.2:2001 | AS/NZS 1891.4:2009

PAGE 24

PATROL + TOWER XL

LIFILINE ON SUPPORT WITH INCREASED BOTTOM PLATE FOR TIMBER, STEEL AND CONCRETE ROOFS

EN 795:2012 C | CEN/TS 16415:2013 | UNI 11578:2015 C

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PATROL + SHIELD | SHIELD 2

LIFELINE ON SUPPORT FOR TRAPEZOIDAL METAL ROOFS WITH AND WITHOUT INSULATION LAYER

A2 AISI 304

EN 795:2012 C | CEN/TS 16415:2013 | UNI 11578:2015 C | AS/NZS 1891.2:2001 | AS/NZS 1891.4:2009

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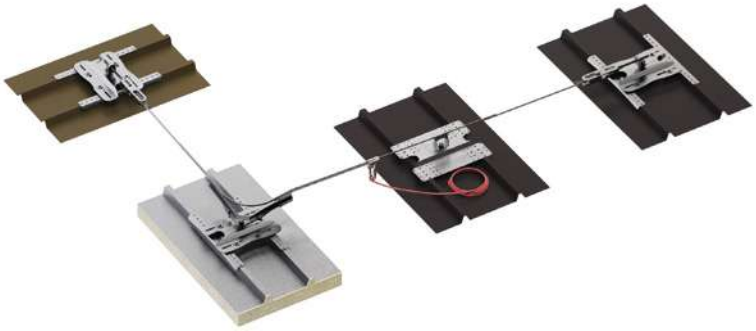


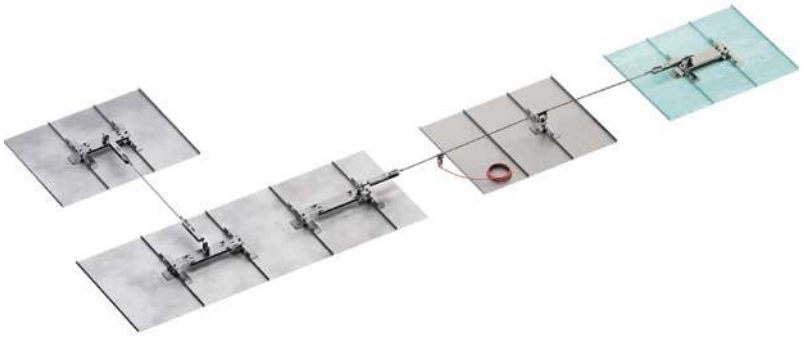
PATROL | overview

PATROL + SIANK 4 | SIANKINT

LIFELINE ON SUPPORT
FOR STANDING SEAM METAL ROOFS

EAC A2 AISI 304

EN 795:2012 C | CEN/TS 16415:2013 | UNI 11578:2015 C



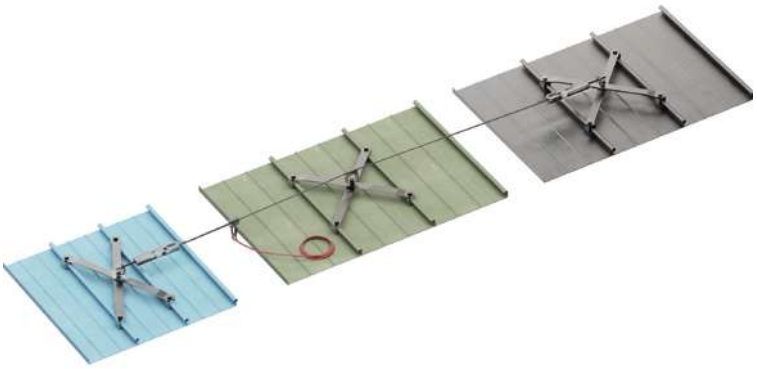
PAGE 30

PATROL + SEAMO

LIFELINE ON SUPPORT
FOR ROUND SEAM METAL ROOFS

A2 AISI 304

EN 795:2012 C | CEN/TS 16415:2013 | UNI 11578:2015 C



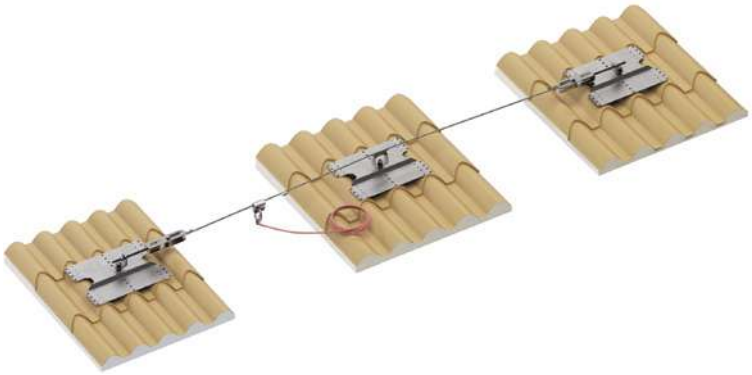
PAGE 32

PATROL + COPPO

LIFELINE ON SUPPORT ROOFS
WITH FAUX TILES

A2 AISI 304

EN 795:2012 C | CEN/TS 16415:2013 | UNI 11578:2015 C



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PATROL + TWIST

LIFELINE ON SUPPORT FOR CONTINUOUS
ROOFS AND PVC/TPO AND OSB ROOFS

A2 AISI 304

EN 795:2012 C | CEN/TS 16415:2013 | UNI 11578:2015 C

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PATROL + BLOCK

LIFELINE ON SUPPORT
WITH BALLAST FOR FLAT ROOFS

A2 AISI 304

EN 795:2012 E + C

CEN/TS 16415:2013

PAGE 38

PATROL + PATROLEND

LIFELINE WITH DIRECT FASTENING ON
STEEL AND CONCRETE SUBSTRUCTURES

EAC

A2 AISI 304

A4 AISI 316

EN 795:2012 C

CEN/TS 16415:2013

UNI 11578:2015 C

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PATROL OVERHEAD

OVERHEAD LIFELINE ON STEEL
AND CONCRETE

EAC

A2 AISI 304

A4 AISI 316

EN 795:2012 C

CEN/TS 16415:2013

UNI 11578:2015 C

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PATROL ON WALL

WALL-MOUNTED LIFELINE ON STEEL
AND CONCRETE

EAC

A2 AISI 304

A4 AISI 316

EN 795:2012 C

CEN/TS 16415:2013

UNI 11578:2015 C

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PATROL + TOWER

LIFELINE ON SUPPORT FOR TIMBER, CONCRETE AND STEEL ROOFS

EN 795:2012 C | CEN/TS 16415:2013 | UNI 11578:2015 C | AS/NZS 1891.2:2001 | AS/NZS 1891.4:2009

ADJUSTABLE
Support height between 300 and 600 mm to adapt to different thicknesses of roofing packages.

AESTHETICS
Small-sized cylindrical support to minimize the visual impact on the roofing.

SAFETY
Controlled deformation device to reduce the load on the fastening systems and structure.

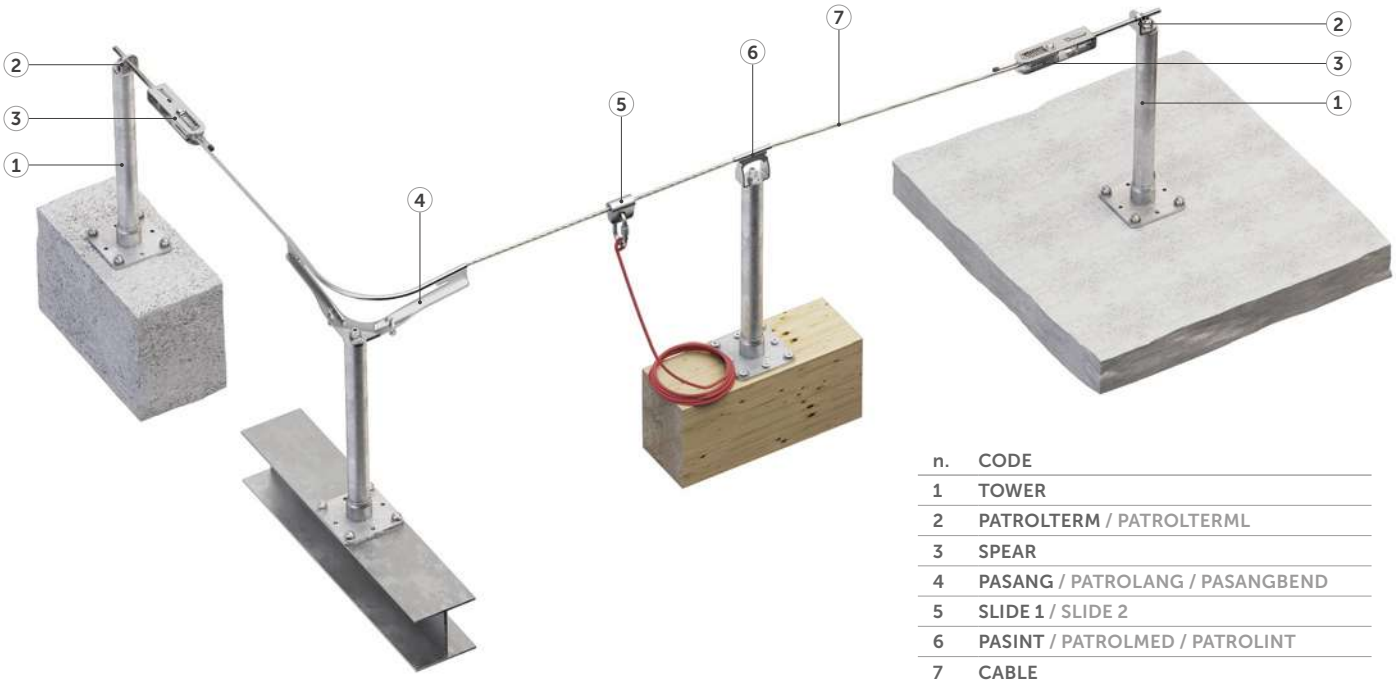
LOAD DIRECTION

TYPES OF APPLICATION

VIDEO | MANUALS

Installation of a PATROL lifeline on TOWER supports on a structural glulam roof.

PATROL LIFELINE COMPONENTS

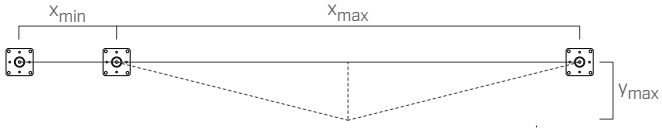


n.	CODE
1	TOWER
2	**PATROLTERM** / PATROLTERML
3	SPEAR
4	**PASANG** / PATROLANG / PASANGBEND
5	**SLIDE 1** / SLIDE 2
6	**PASINT** / PATROLMED / PATROLINT
7	CABLE

TECHNICAL DATA*

substructure	minimum thickness	fasteners
GL24h	160 x 160 mm	VGS Ø9
CLT	200 mm	VGS Ø9
C20/25	140 mm	AB1 Ø12
		rod Ø12
		VIN-FIX HYB-FIX
S235JR	6 mm	EKS + ULS + MUT

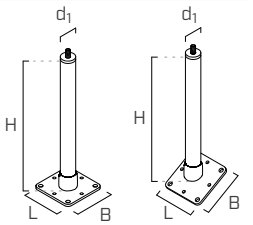
			with SPEAR
Minimum spacing	X_{min}	[m]	2
Maximum spacing	X_{max}	[m]	15
Maximum deflection	Y_{max}	[m]	3,26



** The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.*

TOWER | CODES AND DIMENSIONS

CODE	material	d_1 [mm]	B [mm]	H [mm]	L [mm]	pcs
TOWER300	S235JR zinc plated steel	48	150	300	150	1
TOWER400	S235JR zinc plated steel	48	150	400	150	1
TOWER500	S235JR zinc plated steel	48	150	500	150	1
TOWER600	S235JR zinc plated steel	48	150	600	150	1
TOWER22500	S235JR zinc plated steel	48	150	500	150	1



COMPLEMENTARY PRODUCTS

CODE	description	page	
TOWERPEAK	adaptor for double layer ridge piece	228	
TOWERSLOPE	fastening guide for rafter	228	
TOWLATEVO	TOWER fastening to the wall	229	

CODE	description	page	
TOPLATE	counterplate	229	
BEF201VGS **BEF202VGS**	fastening set	231	
MANPOST1	adhesive sealing sleeve for outdoors	232	
MANPOST2			
MANEPDM	EPDM sleeve	232	
MANLEAD	lead waterproofing cover		

PATROL + TOWER A2

LIFELINE ON STAINLESS STEEL SUPPORT ON TIMBER, STEEL AND CONCRETE ROOFS

EN 795:2012 C | CEN/TS 16415:2013 | UNI 11578:2015 C | AS/NZS 1891.2:2001 | AS/NZS 1891.4:2009

MATERIAL

A2 stainless steel support that guarantees excellent resistance and durability in corrosive environments.

AESTHETICS

Product that meets high aesthetic and functional requirements.

SAFETY

Controlled deformation device to reduce the load on the fastening systems and structure.

LOAD DIRECTION

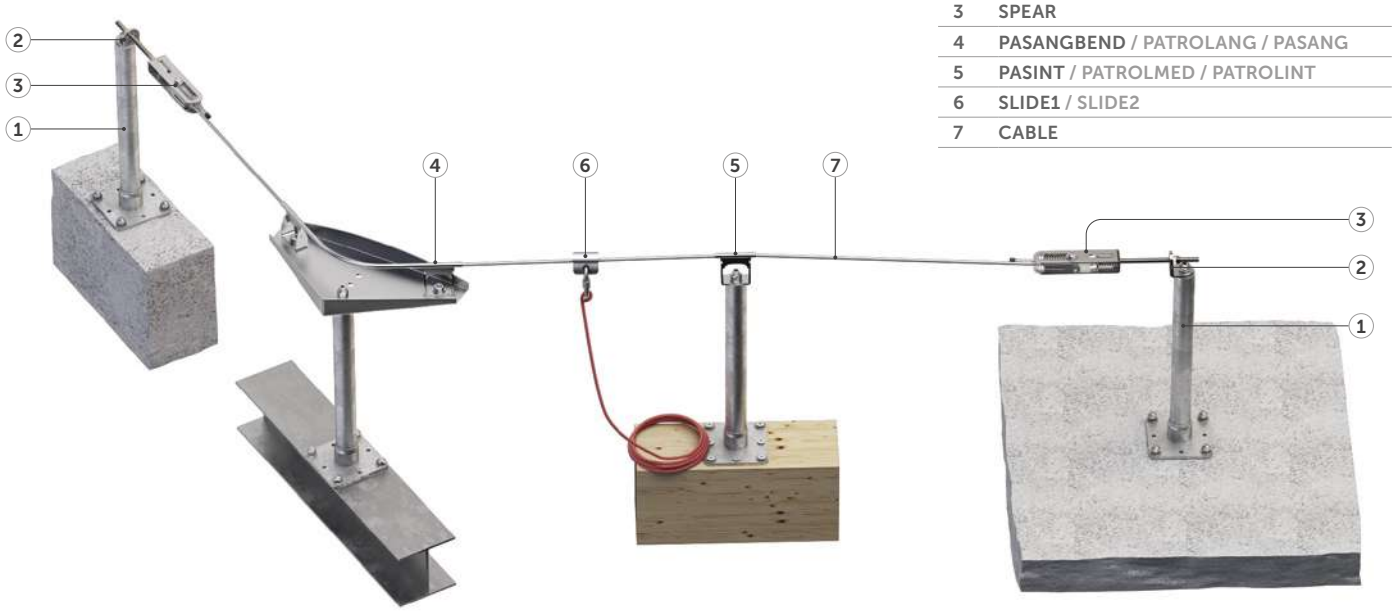
TYPES OF APPLICATION

VIDEO | MANUALS

Installation of a PATROL lifeline with stainless steel TOWER A2 steel supports on a structure close to the edge.

PATROL LIFELINE COMPONENTS

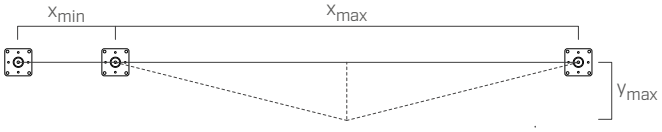
n.	CODE
1	TOWER A2
2	PATROLTERM / PATROLTERML
3	SPEAR
4	PASANGBEND / PATROLANG / PASANG
5	PASINT / PATROLMED / PATROLINT
6	SLIDE1 / SLIDE2
7	CABLE



TECHNICAL DATA*

substructure	minimum thickness	fasteners
GL24h	160 x 160	VGS Ø9
CLT	200	VGS Ø9
C20/25	140	AB1 Ø12
		rod Ø12
		VIN-FIX HYB-FIX
S235JR	6	EKS + ULS + MUT

			with SPEAR
Minimum spacing	X_{min}	[m]	2
Maximum spacing	X_{max}	[m]	15
Maximum deflection	Y_{max}	[m]	3,26



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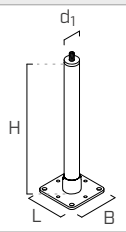
TOWER A2 | CODES AND DIMENSIONS

A2 AISI 304

CODE	material	d_1 [mm]	B [mm]	H [mm]	L [mm]	pcs
TOWERA2300	AISI 304 stainless steel grade 1.4301	48	150	300	150	1
TOWERA2400	AISI 304 stainless steel grade 1.4301	48	150	400	150	1
TOWERA2500	AISI 304 stainless steel grade 1.4301	48	150	500	150	1



COMPLEMENTARY PRODUCTS

CODE	description	page	
BEF201VGS BEF202VGS	fastening set	231	
MANPOST1 MANPOST2	adhesive sealing sleeve for outdoors	232	

CODE	description	page	
MANEPDM	EPDM sleeve	232	
MANLEAD	lead waterproofing cover		

PATROL + TOWER XL

LIFELINE ON SUPPORT WITH INCREASED BOTTOM PLATE FOR TIMBER, STEEL AND CONCRETE ROOFS

EN 795:2012 C

CEN/TS 16415:2013

UNI 11578:2015 C

VERSATILE

It can be mounted on various types of structure with tested fastenings.

ADJUSTABLE

Support height between 300 and 800 mm to adapt to different thicknesses of roofing packages.

SAFE

The enlarged bottom plate makes it possible to distribute the actions arising from the anchoring devices over a larger area.

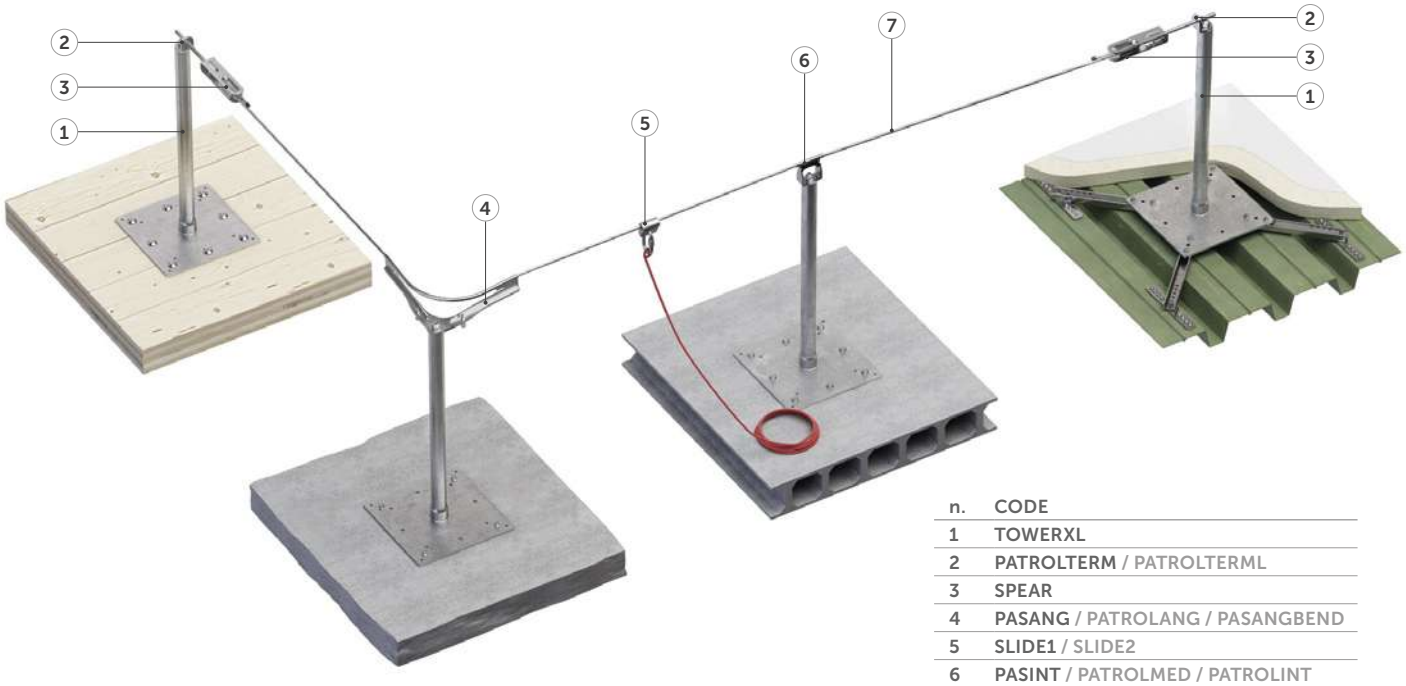
LOAD DIRECTION

TYPES OF APPLICATION

VIDEO MANUALS

Installation of a PATROL lifeline with TOWER XL supports on a flat roof with CLT structure and waterproofed with a synthetic covering.

PATROL LIFELINE COMPONENTS

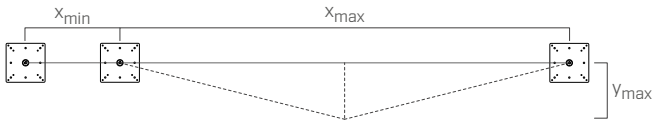


n.	CODE
1	**TOWERXL**
2	**PATROLTERM** / PATROLTERML
3	**SPEAR**
4	**PASANG** / PATROLANG / PASANGBEND
5	**SLIDE1** / SLIDE2
6	**PASINT** / PATROLMED / PATROLINT
7	**CABLE**

TECHNICAL DATA*

substructure	minimum thickness	fasteners
CLT	100 mm	VGS Ø11
C20/25	110 mm	AB7 Ø10
		rod Ø10
		VIN-FIX
		SKR CE Ø10
C45/55	30 mm	BEFTOWERXL1
	0,75 mm	MTS A2 AISI 304

			with SPEAR
minimum spacing	X_{min}	[m]	2
maximum spacing	X_{max}	[m]	15
maximum deflection	Y_{max}	[m]	3,60



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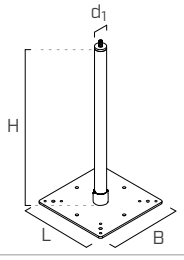
TOWER XL | CODES AND DIMENSIONS

CODE	material	d_1 [mm]	B [mm]	H [mm]	L [mm]	pcs
TOWERXL300	S235JR zinc plated steel	48	350	300	350	1
TOWERXL400	S235JR zinc plated steel	48	350	400	350	1
TOWERXL500	S235JR zinc plated steel	48	350	500	350	1
TOWERXL600	S235JR zinc plated steel	48	350	600	350	1
TOWERXL700	S235JR zinc plated steel	48	350	700	350	1
TOWERXL800	S235JR zinc plated steel	48	350	800	350	1



COMPLEMENTARY PRODUCTS

CODE	description	page
MANPOST1 / **MANPOST2**	adhesive sealing sleeve for outdoors	232
MANEPDM	EPDM sleeve	232
MANLEAD	lead waterproofing cover	232

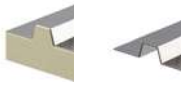
CODE	description	page
TOPLATE 2.0	counterplate	230
TRAPO	support for trapezoidal steel deck	230
BEFTOWERXL1	fastening set for aerated cement	231

PATROL + SHIELD | SHIELD 2

LIFELINE ON SUPPORT FOR TRAPEZOIDAL METAL ROOFS WITH AND WITHOUT INSULATION LAYER

EN 795:2012 C | CEN/TS 16415:2013 | UNI 11578:2015 C | AS/NZS 1891.2:2001 | AS/NZS 1891.4:2009

COMPLETE
The package includes fasteners and cellular rubber seals, to ensure waterproofing.



APPLICATION
Used on all trapezoidal metal roofs with and without insulation layer with spacing between frets of up to 420 mm.

USE
SHIELD for use as a start, end or corner lifeline; SHIELD 2 for use as a straight intermediate point.

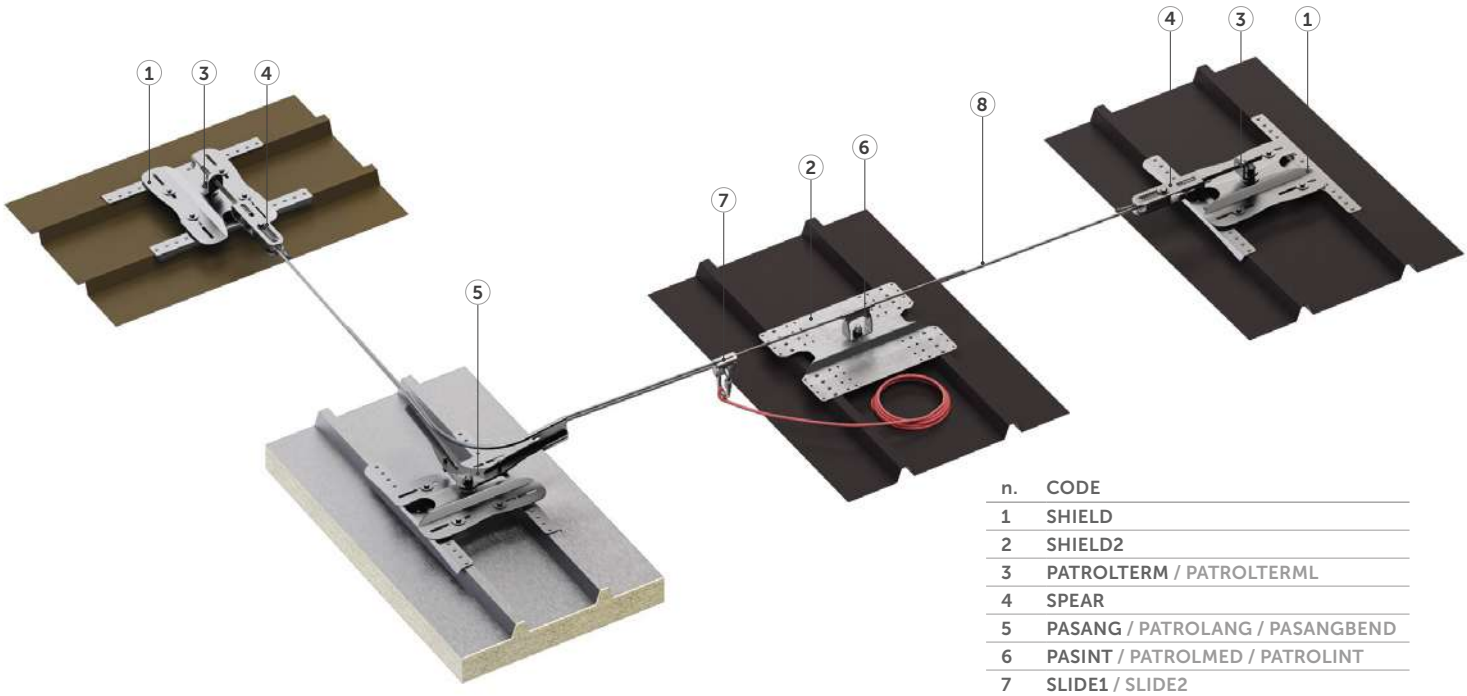
LOAD DIRECTION

TYPES OF APPLICATION

VIDEO | MANUALS

Installation of a PATROL lifeline with SHIELD supports on a steel sandwich panel roof.

PATROL LIFELINE COMPONENTS

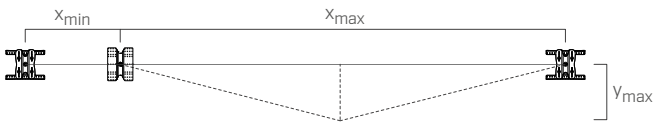


n.	CODE
1	SHIELD
2	SHIELD2
3	PATROLTERM / PATROLTERML
4	SPEAR
5	PASANG / PATROLANG / PASANGBEND
6	PASINT / PATROLMED / PATROLINT
7	SLIDE1 / SLIDE2
8	CABLE

TECHNICAL DATA*

substructure	minimum thickness	fastening systems included
Fe	0,5 mm	SHIELD: rivet 6,3 x 20,2 mm with EPDM washer (x 32) SHIELD2: rivet 6,3 x 20,2 mm with EPDM washer (x 16)
Fe	0,5 mm	
Al	1 mm	
Al	1 mm	

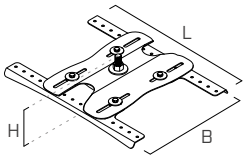
		with SPEAR	with SPEAREVO
minimum spacing	x_{min} [m]	2	-
maximum spacing	x_{max} [m]	7,5	-
maximum deflection	y_{max} [m]	1,44	-



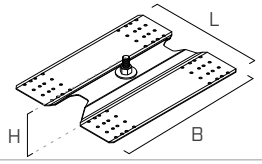
** The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.*

SHIELD | CODES AND DIMENSIONS

A2 AISI 304

CODE	description	material	B [mm]	H [mm]	L [mm]	pcs	
SHIELD	lifeline support	AISI 304 stainless steel grade 1.4301	180-420	85	476	1	

SHIELD 2 | CODES AND DIMENSIONS

CODE	description	material	B [mm]	H [mm]	L [mm]	pcs	
SHIELD2	intermediate lifeline support	AISI 304 stainless steel grade 1.4301	420	65	322	1	

COMPLEMENTARY PRODUCTS

CODE	description	pcs
RIV6320	rivets 6,3 x 20,2 mm with EPDM washer	33

PATROL + SIANK 4 | SIANKINT

LIFELINE ON SUPPORT FOR STANDING SEAM METAL ROOFS

EN 795:2012 C

CEN/TS 16415:2013

UNI 11578:2015 C

PRACTICAL
The system can be installed on existing roofs without having to remove the metal sheet.

SAFE
Installation does not require the sheet metal to be drilled, thanks to the gripper which distributes the load over the double seam, thus ensuring the integrity of the building envelope.

SIMPLE
Designed to ensure quick and easy assembly with just a few tools.

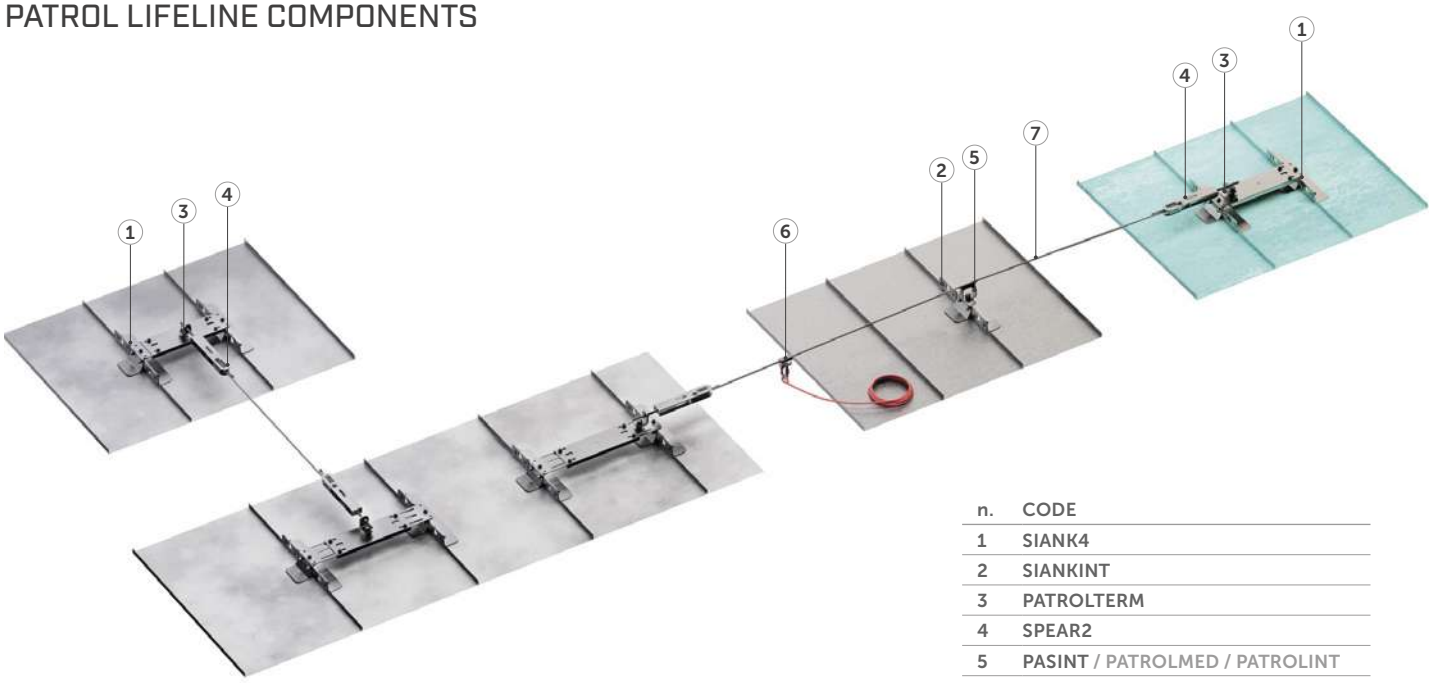
LOAD DIRECTION

TYPES OF APPLICATION

VIDEO MANUALS

Installation of a PATROL lifeline with SIANK 4 supports on standing seam sheet.

PATROL LIFELINE COMPONENTS

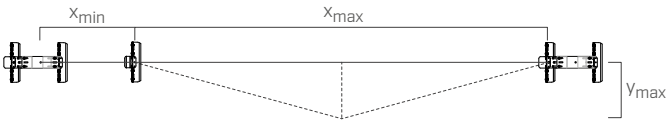


n.	CODE
1	SIANK4
2	SIANKINT
3	PATROLTERM
4	SPEAR2
5	PASINT / PATROLMED / PATROLINT
6	SLIDE1 / SLIDE2
7	CABLE

TECHNICAL DATA*

substructure	minimum thickness
Fe	0,5 mm
Al	0,7 mm
Cu	0,5 mm
Zn - Ti	0,7 mm
stainless steel	0.4 mm

			with SPEAR2
minimum spacing	X_{min}	[m]	4
maximum spacing	X_{max}	[m]	8
maximum recommended system length	L	[m]	50
maximum deflection	Y_{max}	[m]	1,60



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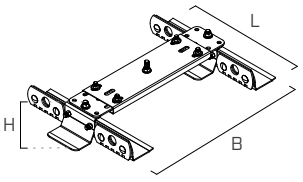
SIANK 4 | CODES AND DIMENSIONS

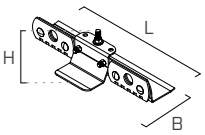
A2 AISI 304

CODE	description	material	B [mm]	H [mm]	L [mm]	pcs
SIANK4	lifeline support	AISI 304 stainless steel grade 1.4301	430-600	90	400	1
SIANK465	lifeline support	AISI 304 stainless steel grade 1.4301	430-600	113	400	1



SIANKINT | CODES AND DIMENSIONS

CODE	description	material	B [mm]	H [mm]	L [mm]	pcs
SIANKINT	intermediate lifeline support	AISI 304 stainless steel grade 1.4301	163	80	400	1
SIANKINT65	intermediate lifeline support	AISI 304 stainless steel grade 1.4301	104	113	400	1



PATROL + SEAMO

LIFELINE ON SUPPORT FOR ROUND SEAM METAL ROOFS

EN 795:2012 C

CEN/TS 16415:2013

UNI 11578:2015 C

PRACTICAL
Device to be fastened to the seam with four clamps, without the need to make openings in the sheet metal.

SAFE
The fastening is done on two round seams of the sheet, to ensure greater strength.

SIMPLE
Fast and safe assembly on different spacing between seams.

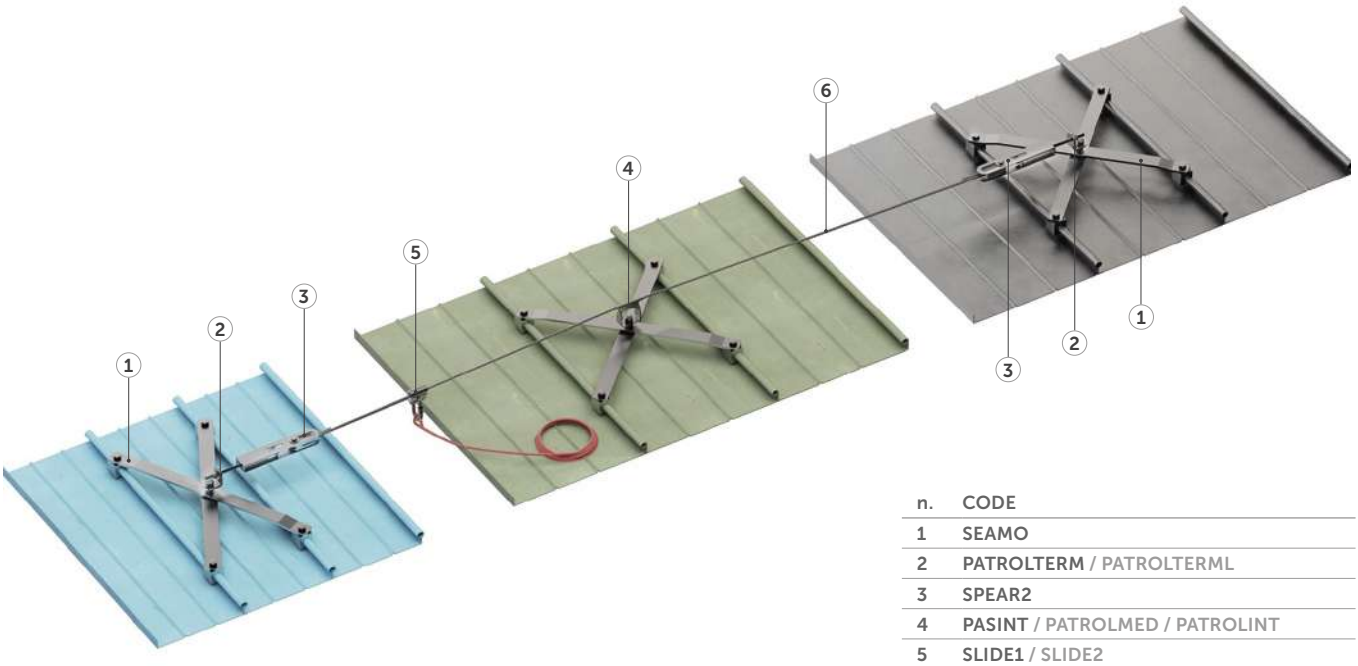
LOAD DIRECTION

TYPES OF APPLICATION

VIDEO MANUALS

Installation of a PATROL lifeline with SEAMO brackets on round seams

PATROL LIFELINE COMPONENTS

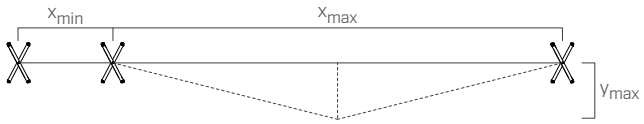


n.	CODE
1	**SEAMO**
2	**PATROLTERM** / PATROLTERML
3	**SPEAR2**
4	**PASINT** / PATROLMED / PATROLINT
5	**SLIDE1** / SLIDE2
6	**CABLE**

TECHNICAL DATA*

substructure		minimum thickness
ALUFALZ, INTERFALZ, BEMO ROOF, KALZIP	**Fe**	0,6 mm
	Al	0,8 mm

			with SPEAR2
minimum spacing	X_{min}	[m]	4
maximum spacing	X_{max}	[m]	10
maximum recommended system length	**L**	[m]	50
maximum deflection	Y_{max}	[m]	1,80



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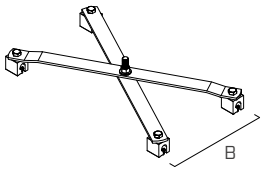
SEAMO | CODES AND DIMENSIONS

A2 AISI 304

CODE	material	B [mm]	pcs	
SEAMO	AISI 304 stainless steel grade 1.4301 - EN AW 6061 T6	305-500	1	

PATROL + COPPO

LIFELINE ON SUPPORT FOR ROOFS WITH FAUX TILES

EN 795:2012 C

CEN/TS 16415:2013

UNI 11578:2015 C

COMPLETE
The package includes fasteners and cellular rubber seals, to ensure roof waterproofing.

ADJUSTABLE
Pre-drilled plate with holes at different distances to suit various types of sheet metal.

FAST
Very quick assembly after covering with just a few tools.

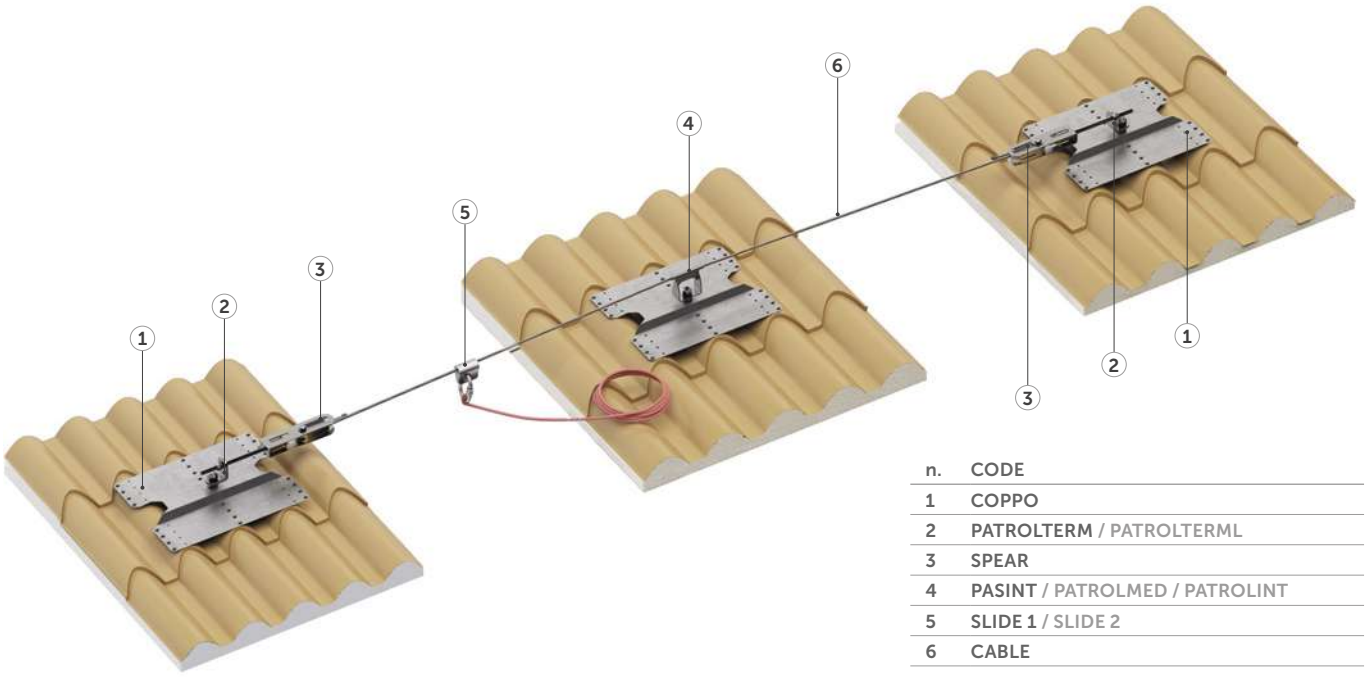
LOAD DIRECTION

TYPES OF APPLICATION

VIDEO MANUALS

Installation of a PATROL lifeline with COPPO supports on a sandwich panel of the "faux tiles" type

PATROL LIFELINE COMPONENTS

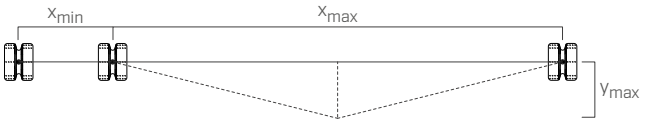


n.	CODE
1	COPPO
2	PATROLTERM / PATROLTERML
3	SPEAR
4	PASINT / PATROLMED / PATROLINT
5	SLIDE 1 / SLIDE 2
6	CABLE

TECHNICAL DATA*

substructure	minimum thickness	fastening systems included
Fe	0,5 mm	rivet 6,3 x 20,2 mm with EPDM washer (x 24)
Al	0,7 mm	

			with SPEAR
minimum spacing	X_{min}	[m]	2
maximum spacing	X_{max}	[m]	7,5
maximum deflection	Y_{max}	[m]	1,44



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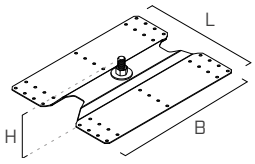
COPPO | CODES AND DIMENSIONS

A2 AISI 304

CODE	material	B [mm]	H [mm]	L [mm]	pcs	
COPPO	AISI 304 stainless steel grade 1.4301	420	65	322	1	

COMPLEMENTARY PRODUCTS

CODE	description	pcs
RIV6320	rivets 6,3 x 20,2 mm with EPDM washer	33

PATROL + TWIST

LIFELINE ON SUPPORT FOR CONTINUOUS ROOFS AND PVC/TPO AND OSB ROOFS

EN 795:2012 C

CEN/TS 16415:2013

UNI 11578:2015 C

UNIVERSAL

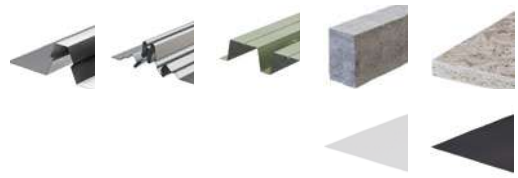
Unique fall absorption system offering solutions on several types of structure.

ADJUSTABLE

The various sizes of the bottom plates guarantee a solution for every substructure and sheet metal option.

SAFE

Certified fastening kits and installation accessories ensure that the structure is waterproofed to the highest standard.

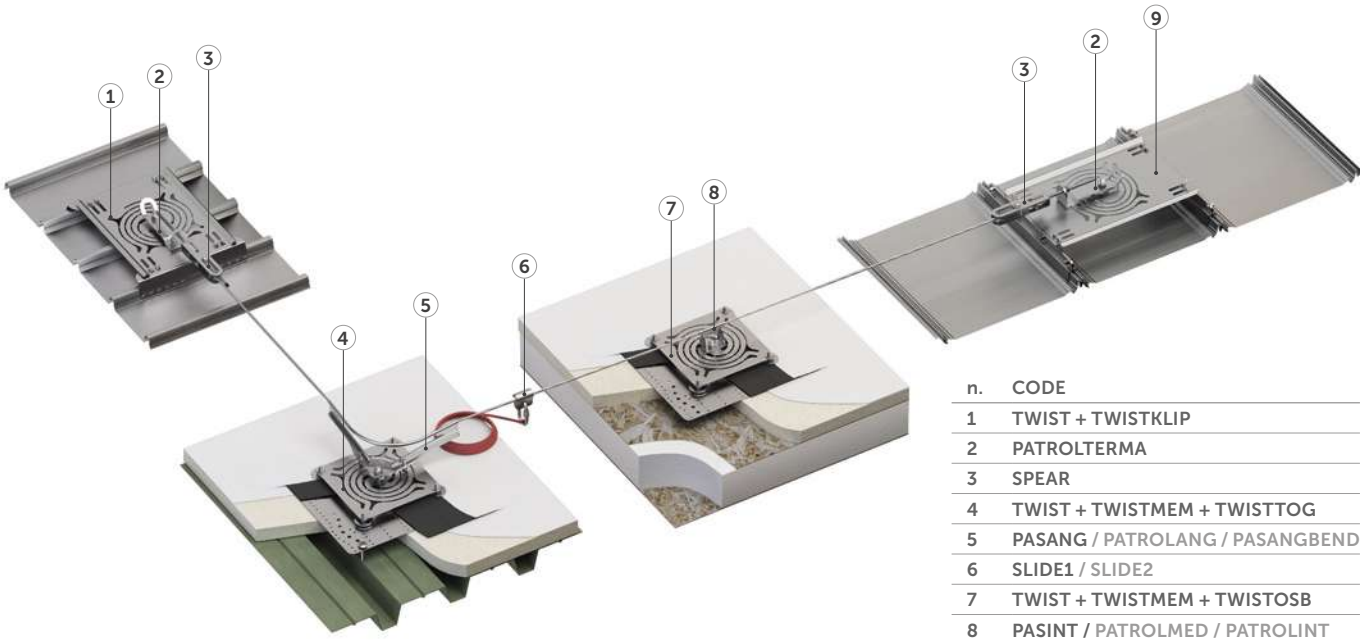


LOAD DIRECTION

TYPES OF APPLICATION

Installation of a PATROL lifeline with TWIST supports for continuous roofing.

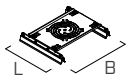
PATROL LIFELINE COMPONENTS



n.	CODE
1	TWIST + TWISTKLIP
2	PATROLTERMA
3	SPEAR
4	TWIST + TWISTMEM + TWISTTOG
5	PASANG / PATROLANG / PASANGBEND
6	SLIDE1 / SLIDE2
7	TWIST + TWISTMEM + TWISTOSB
8	PASINT / PATROLMED / PATROLINT
9	TWIST + TWISTRIVER

A2 AISI 304

TWIST | CODES AND DIMENSIONS

CODE	description	material	B [mm]	L [mm]	pcs	
TWIST300	universal plate	AISI 304 stainless steel grade 1.4301	300	300	1	
TWIST460	universal plate	AISI 304 stainless steel grade 1.4301	460	352	1	
TWIST540	universal plate	AISI 304 stainless steel grade 1.4301	540	352	1	
TWIST640	universal plate	AISI 304 stainless steel grade 1.4301	640	352	1	
TWISTRIVER	fastening kit for roofs Riverclack	AISI 304 stainless steel grade 1.4301	-	-	1	
TWISTKLIP	fastening kit for roofs Kliplok	AISI 304 stainless steel grade 1.4301	-	-	1	
TWISTMEM	fastening kit for roofs with membrane	AISI 304 stainless steel grade 1.4301	-	-	1	
PALTROLTERMA	end element with anchor point	AISI 304 stainless steel grade 1.4301	235	60	1	
TWISTOSB	kit for fastening on OSB	bright zinc plated carbon steel	-	-	1	
TWISTTOG	fastening kit with toggle bolt	bright zinc plated carbon steel	-	-	1	
TWISTSCR	fastening kit with screws for metal	bright zinc plated carbon steel	-	-	1	

SCAN FOR **UPDATES**

PATROL + BLOCK

LIFELINE ON SUPPORT WITH BALLAST FOR FLAT ROOFS

EN 795:2012 E + C

CEN/TS 16415:2013

WITHOUT DRILLING

It is designed for installation on flat roofs, and does not require to drill the roof covering, avoiding thermal bridges and preserving the waterproofing layer of the structure.

FLAT ROOFS

Designed for flat roofs with inclines up to 5° with PVC or bituminous final covering, with or without gravel.

SIMPLE

Concrete ballast slabs in standard sizes.

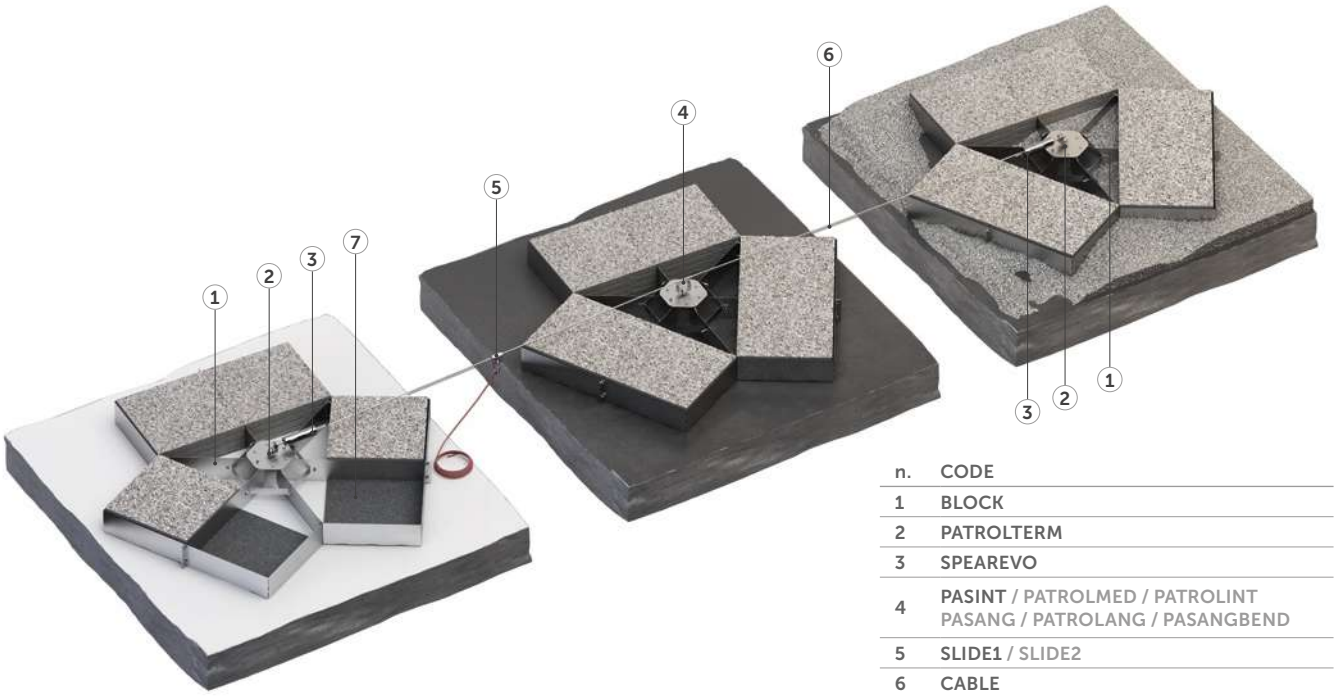
LOAD DIRECTION

TYPES OF APPLICATION

VIDEO MANUALS

Installation of a PATROL lifeline on a flat roof using BLOCK ballast supports.

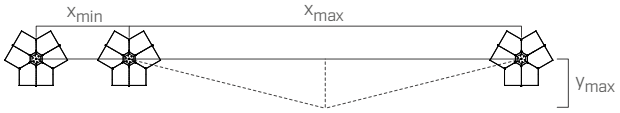
PATROL LIFELINE COMPONENTS



n.	CODE
1	BLOCK
2	PATROLTERM
3	SPEAREVO
4	PASINT / PATROLMED / PATROLINT PASANG / PATROLANG / PASANGBEND
5	SLIDE1 / SLIDE2
6	CABLE
7	BLOCKMAT

TECHNICAL DATA*

			with SPEAREVO
minimum spacing	X_{min}	[m]	-
maximum spacing	X_{max}	[m]	-
maximum deflection	Y_{max}	[m]	-

with SPEAREVO


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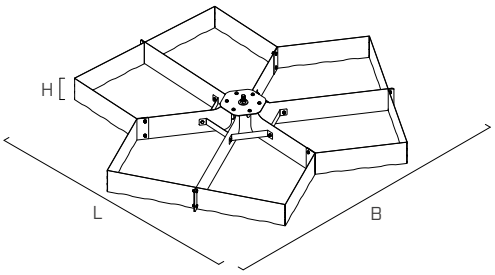
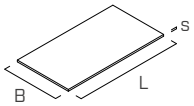
BLOCK | CODES AND DIMENSIONS

A2 AISI 304

CODE	material	B [mm]	H [mm]	L [mm]	pcs	
BLOCK	AISI 304 stainless steel grade 1.4301	1870	165	1645	1	

COMPLEMENTARY PRODUCTS

CODE	description	B [mm]	L [mm]	s [mm]	pcs	
BLOCKMAT (1)	BLOCKMAT mats not included in the supply of the BLOCK item (3 pieces per BLOCK are required) it can be ordered separately.	550	1050	6	1	

(1) Concrete slabs (500 x 500 x 40 mm) for ballasting not included (24 pieces per BLOCK to achieve a total weight of 530 kg).
Example of single system composition EN 795:2012 C+E:
- BLOCK 1 pc
- BLOCKMAT 3 pcs

PATROL + PATROLEND

LIFELINE WITH DIRECT FASTENING ON STEEL AND CONCRETE SUBSTRUCTURES

EN 795:2012 C

CEN/TS 16415:2013

UNI 11578:2015 C

EASY
Quick and easy assembly directly onto concrete or steel structure.

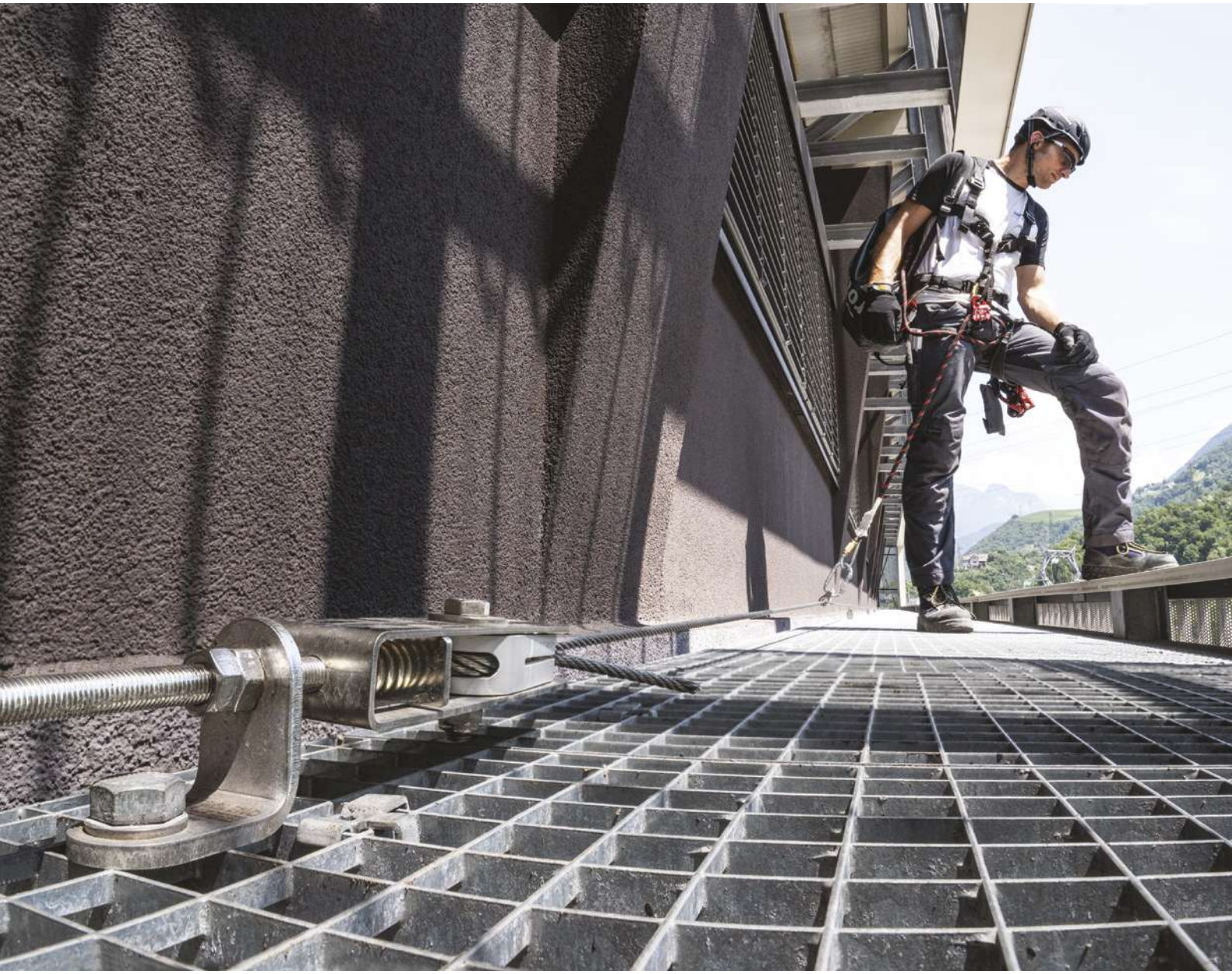
UNIVERSAL
System designed for different applications: flat, façade, overhead.

USE
Specially designed shuttles can be used to enable the operator to overcome bends and intermediate points without ever becoming disconnected from the system.

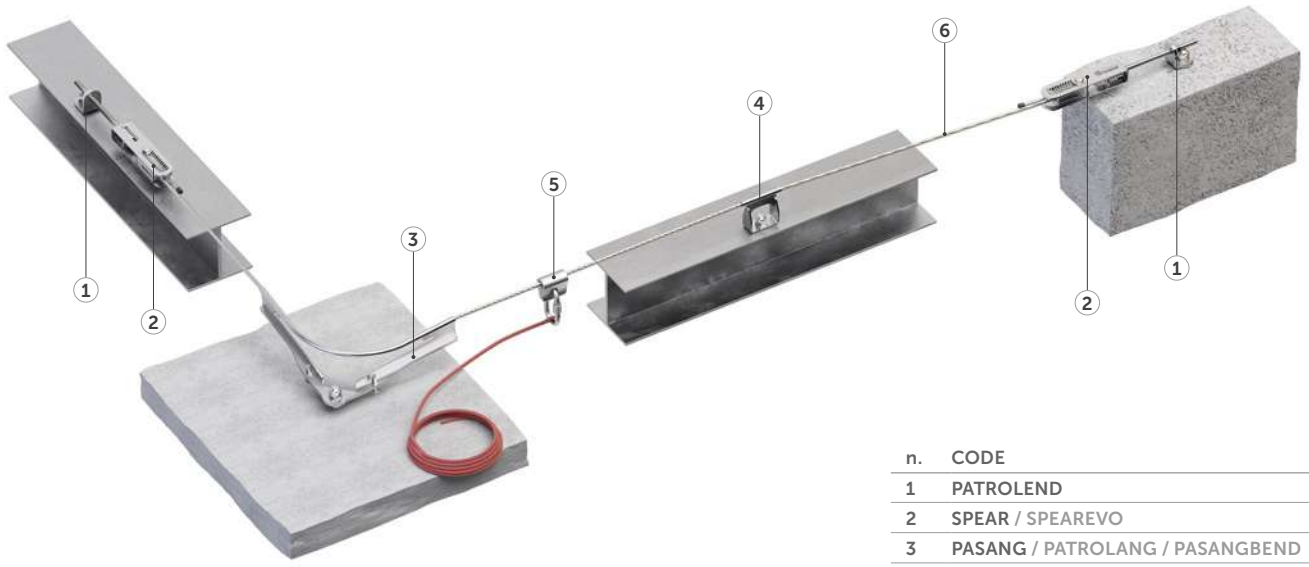
LOAD DIRECTION

TYPES OF APPLICATION

Installation of a PATROL lifeline directly on the steel or concrete supporting structure.



PATROL LIFELINE COMPONENTS

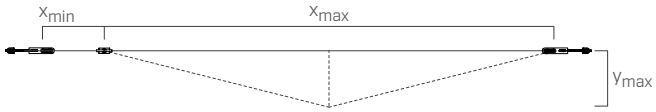


n.	CODE
1	**PATROLEND**
2	**SPEAR** / SPEAREVO
3	**PASANG** / PATROLANG / PASANGBEND
4	**PASINT** / PATROLMED / PATROLINT
5	**SLIDE 1** / SLIDE 2
6	**CABLE**

TECHNICAL DATA*

substructure	minimum thickness	fasteners
C20/25	140 mm	rod Ø16
		VIN-FIX HYB-FIX
S235JR	5 mm	EKS + ULS + MUT

			with SPEAR	with SPEAREVO
minimum spacing	X_{min}	[m]	2	-
maximum spacing	X_{max}	[m]	7,5	-
maximum deflection	Y_{max}	[m]	1,30	-



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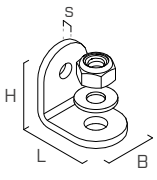
PATROLEND | CODES AND DIMENSIONS

A2 AISI 304

CODE	material	B [mm]	H [mm]	L [mm]	s [mm]	pcs	
PATROLEND	AISI 304 stainless steel grade 1.4301	40	61	66	6	1	

PATROL OVERHEAD

OVERHEAD LIFELINE ON STEEL AND CONCRETE

EN 795:2012 C

CEN/TS 16415:2013

UNI 11578:2015 C

APPLICATION
Lifeline for aerial applications such as maintenance of coaches, trucks, machinery and aeroplanes.

SAFE
Sliding device that allows operators to pass intermediate elements and curves without ever disengaging from the system.

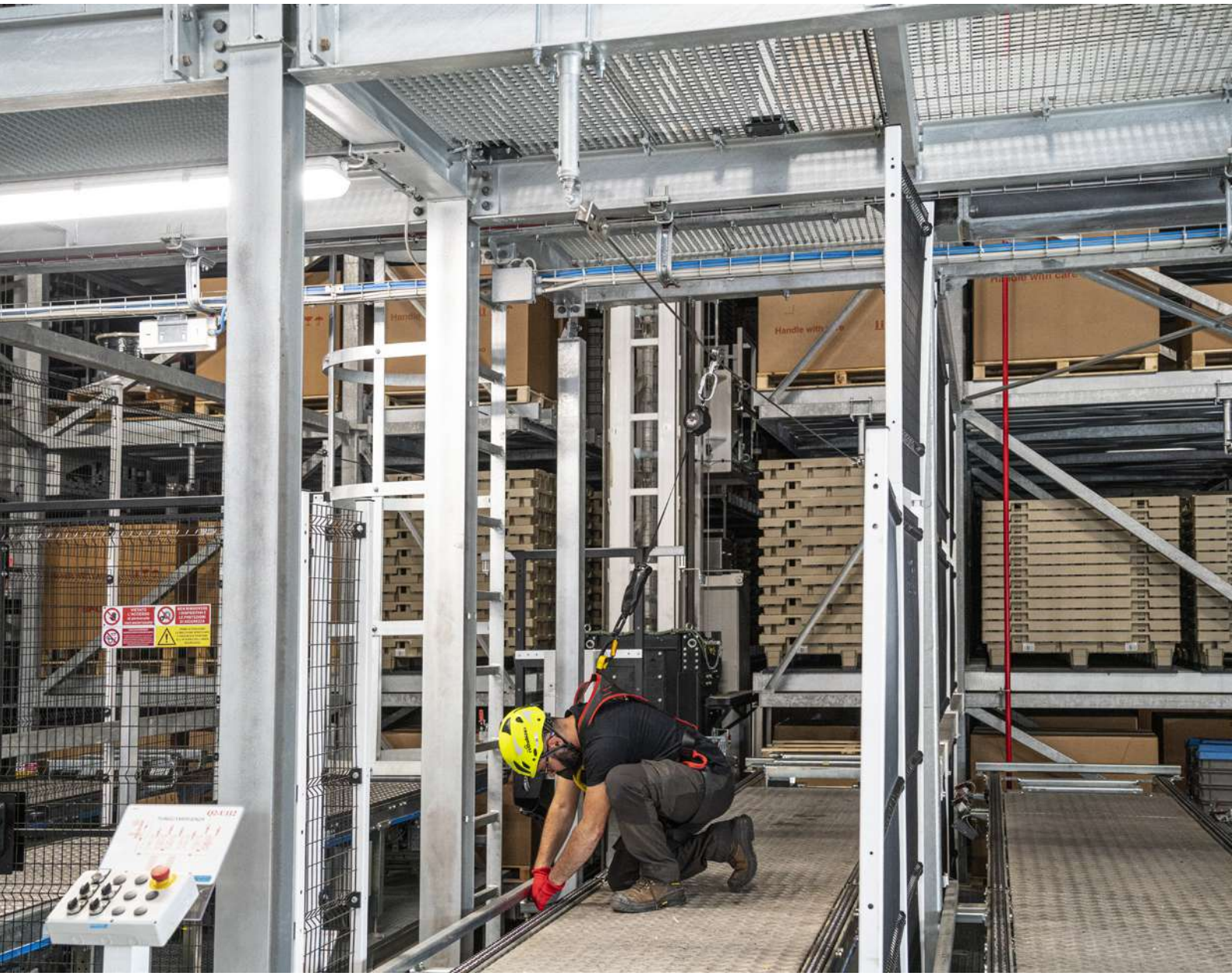
PRACTICAL
Possibility of anchoring to the upside-down TOWER support to lower the lifeline relative to the ceiling.

LOAD DIRECTION

TYPES OF APPLICATION

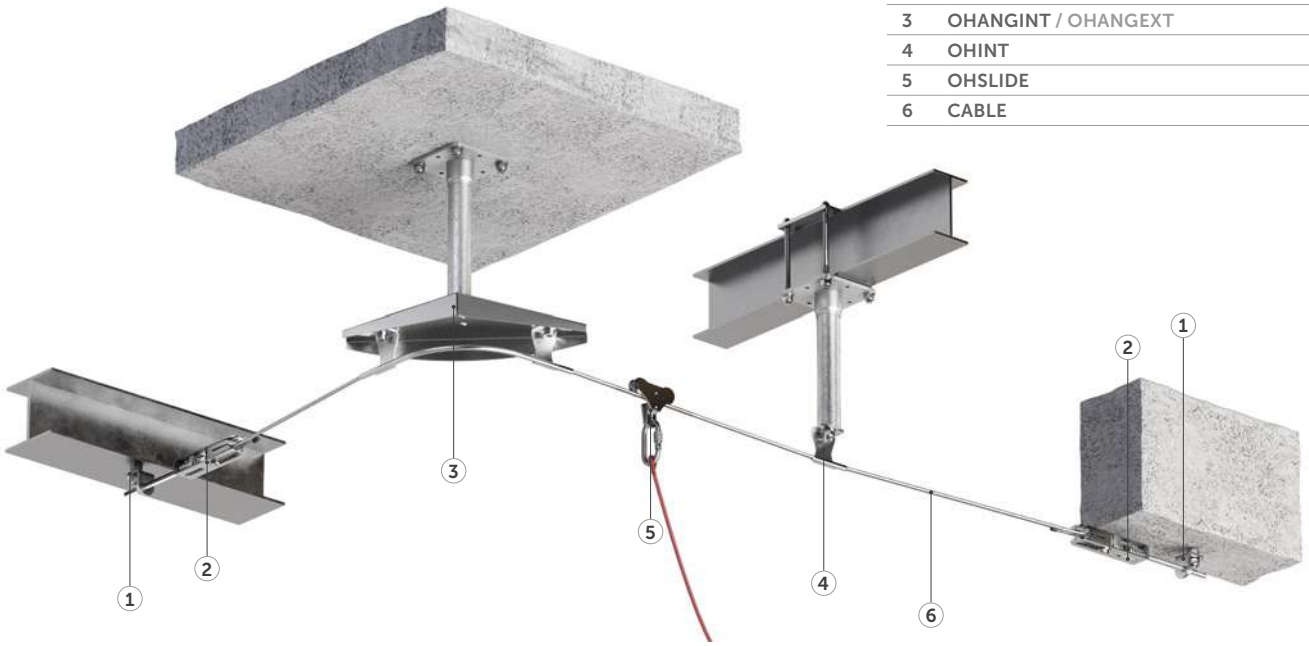
VIDEO MANUALS

Installation of an overhead PATROL lifeline directly on the steel or concrete supporting structure.



PATROL LIFELINE COMPONENTS

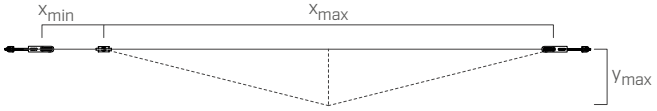
n.	CODE
1	**PATROLEND** / PATROLTERM
2	**SPEAR** / SPEAREVO
3	**OHANGINT** / OHANGEXT
4	**OHINT**
5	**OHSLIDE**
6	**CABLE**



TECHNICAL DATA*

substructure	minimum thickness	fasteners
C20/25	140 mm	rod Ø12/Ø16
		VIN-FIX HYB-FIX
S235JR	5 mm	EKS + ULS + MUT

			with SPEAR	with SPEAREVO
minimum spacing	X_{min}	[m]	2	-
maximum spacing	X_{max}	[m]	7,5	-
maximum deflection	Y_{max}	[m]	1,30	-



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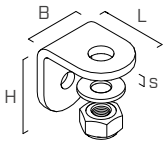
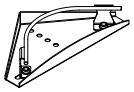
A2 AISI 304

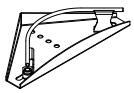
PATROLEND | CODES AND DIMENSIONS

CODE	material	B [mm]	H [mm]	L [mm]	s [mm]	pcs
PATROLEND	AISI 304 stainless steel grade 1.4301	40	61	66	6	1
PATROLTERM	AISI 304 stainless steel grade 1.4301					



COMPLEMENTARY PRODUCTS

CODE	description	page	
OHINT	pass-through intermediate element for aerial application	48	
OHANGINT	inside pass-through angle bracket for aerial application in A4	49	

CODE	description	page	
OHANGEXT	outside pass-through angle bracket for aerial application in A4	50	

For TOWER codes see page 22.

PATROL ON WALL

WALL-MOUNTED LIFELINE ON STEEL AND CONCRETE

EN 795:2012 C

CEN/TS 16415:2013

UNI 11578:2015 C

AESTHETICS
The size of the components minimises the aesthetic impact of the safety device on the roof.

FUNCTIONAL
Thanks to the different components available, it is possible to create life-lines according to site requirements.

PRACTICAL
Possibility of using components that allow the operator to pass through intermediate points and curves by means of a sliding device.

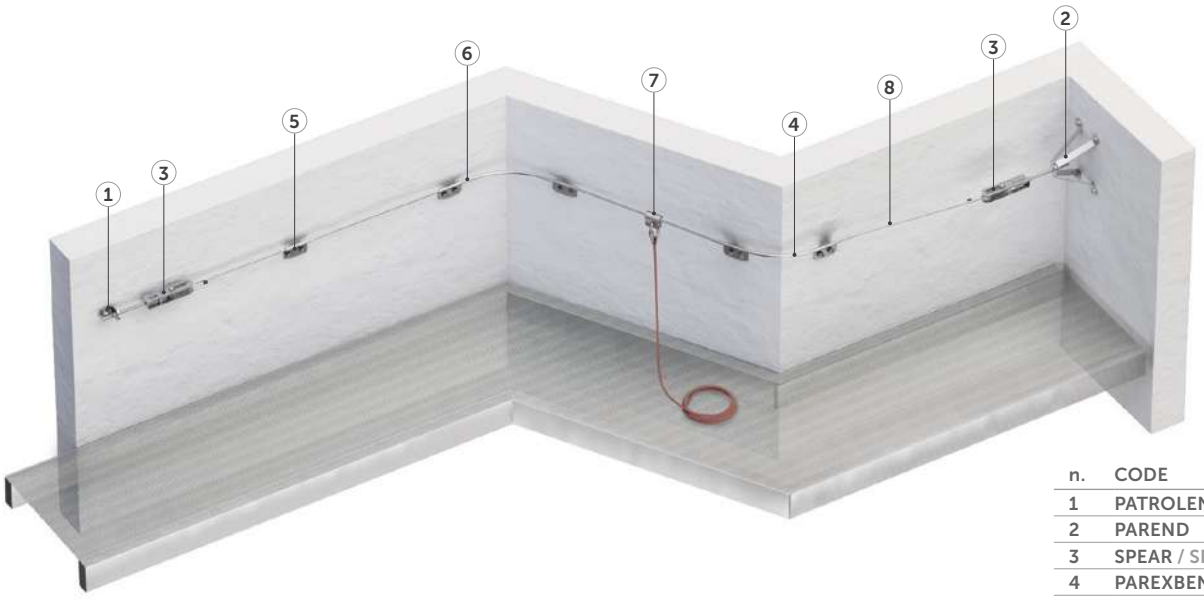
LOAD DIRECTION

TYPES OF APPLICATION

VIDEO MANUALS

PATROL lifeline installed on the wall directly on a steel or concrete support structure.

PATROL LIFELINE COMPONENTS

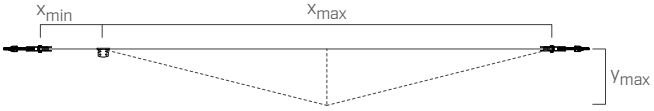


n.	CODE
1	PATROLEND
2	PAREND
3	SPEAR / SPEAREVO
4	PAREXBEND / PAREX
5	PARINTER
6	PARINBEND / PARIN
7	SLIDE 1 / SLIDE 2
8	CABLE

TECHNICAL DATA*

substructure	minimum thickness	fasteners
C20/25	140 mm	rod Ø12/Ø16
		VIN-FIX HYB-FIX
S235JR	5 mm	EKS + ULS + MUT

			with SPEAR	with SPEAREVO
minimum spacing	X_{min}	[m]	2	-
maximum spacing	X_{max}	[m]	7,5	-
maximum deflection	Y_{max}	[m]	1,30	-



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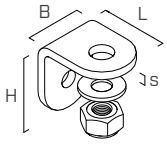
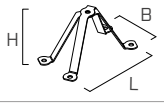
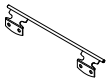
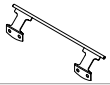
PATROLEND | CODES AND DIMENSIONS

A2 AISI 304

CODE	material	B [mm]	H [mm]	L [mm]	s [mm]	pcs	
PATROLEND	AISI 316 stainless steel grade 1.4401	40	61	66	6	1	
PAREND	AISI 304 stainless steel grade 1.4301	300	150	300	-	1	

COMPLEMENTARY PRODUCTS

CODE	description	page	
PAREX	external pass through angle bracket for façades	49	
PARIN	internal pass through angle bracket for façades	50	
PARINTER	pass through intermediate element for façades	49	

CODE	description	page	
PARINBEND	internal pass-through angle bracket for façades adjustable 105°-165°	50	
PAREXBEND	external pass-through angle bracket for façades adjustable 105°-165°	50	

PATROL A4

A4
AISI 316

LIFELINE WITH A4 STAINLESS STEEL COMPONENTS

EN 795:2012 C

CEN/TS 16415:2013

UNI 11578:2015 C

STRONG
AISI 316 stainless steel elements provide excellent corrosion resistance in marine and industrial environments.

USE
Specially designed shuttles can be used to enable the operator to pass through bends and intermediate points without ever disconnecting.

ASSEMBLY
Quick and easy directly on concrete or steel structure.

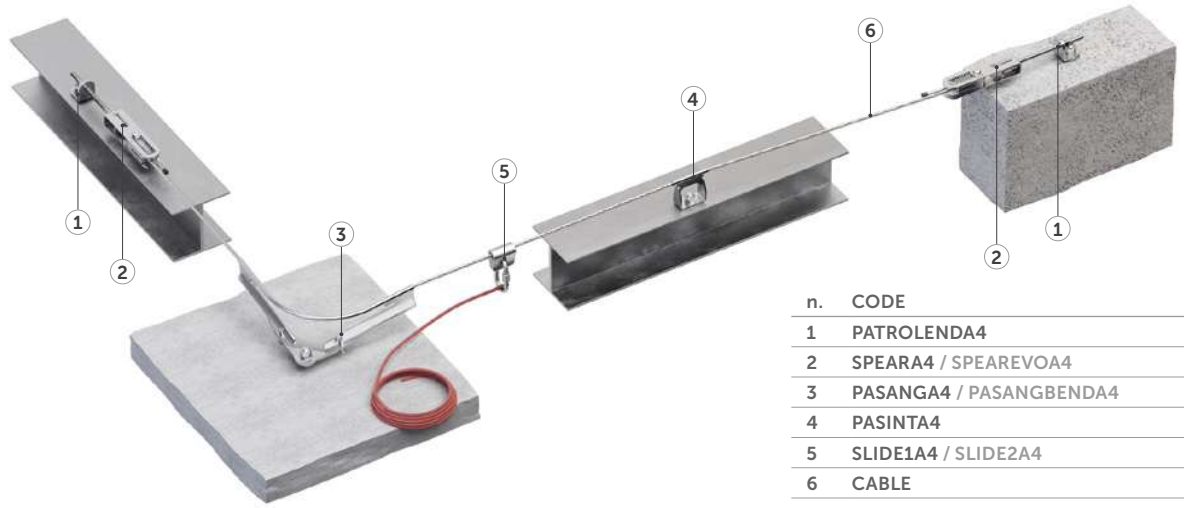
LOAD DIRECTION

TYPES OF APPLICATION

VIDEO MANUALS

PATROL lifeline installed with stainless steel supports on the deck of a ship.

PATROL A4 LIFELINE COMPONENTS

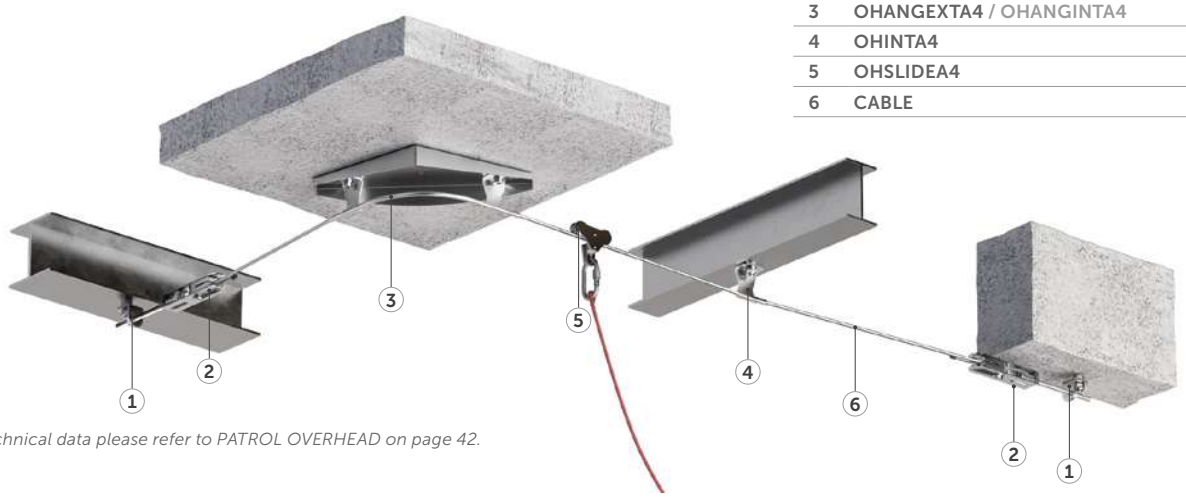


n.	CODE
1	PATROLENDA4
2	SPEARA4 / SPEAREVOA4
3	PASANGA4 / PASANGBENDA4
4	PASINTA4
5	SLIDE1A4 / SLIDE2A4
6	CABLE

For technical data please refer to PATROL + PATROLEND on page 40.

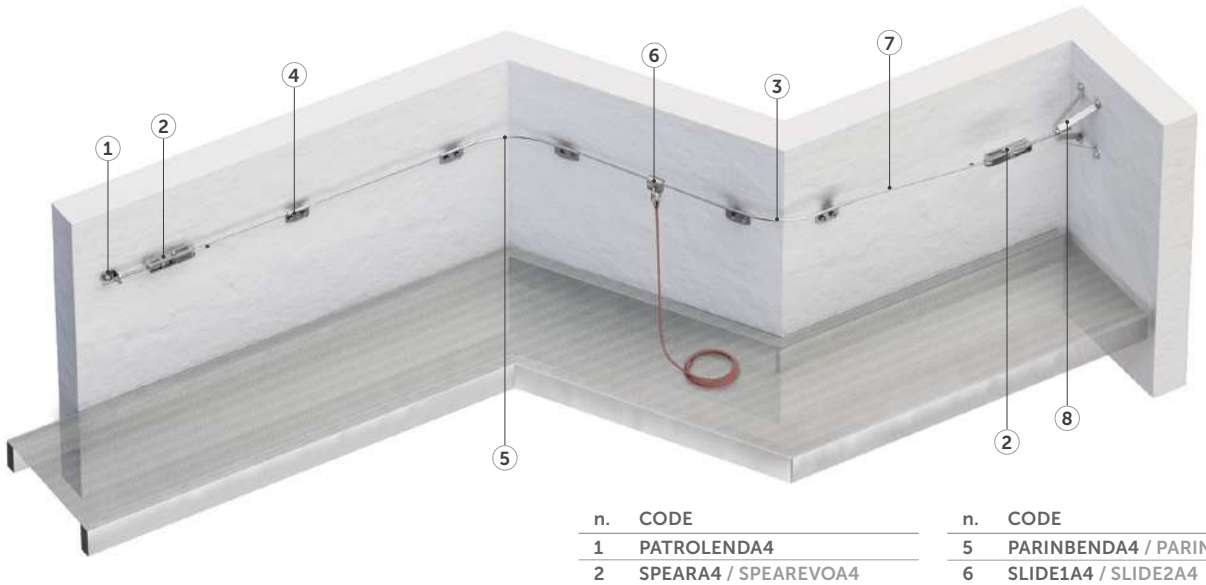
PATROL OVERHEAD A4 LIFELINE COMPONENTS

n.	CODE
1	PATROLENDA4
2	SPEARA4 / SPEAREVOA4
3	OHANGEXTA4 / OHANGINTA4
4	OHINTA4
5	OHSLIDEA4
6	CABLE



For technical data please refer to PATROL OVERHEAD on page 42.

PATROL ON WALL A4 LIFELINE COMPONENTS



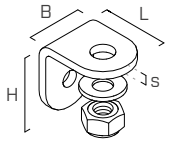
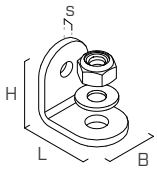
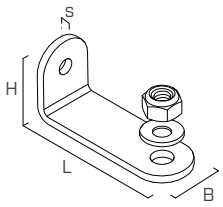
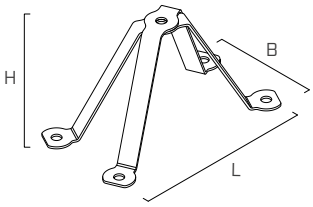
n.	CODE
1	PATROLENDA4
2	SPEARA4 / SPEAREVOA4
3	PAREXBENDA4 / PAREXA4
4	PARINTERA4

n.	CODE
5	PARINBENDA4 / PARINA4
6	SLIDE1A4 / SLIDE2A4
7	CABLE
8	PARENDA4

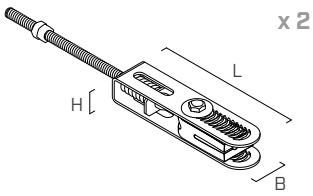
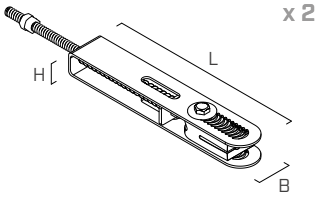
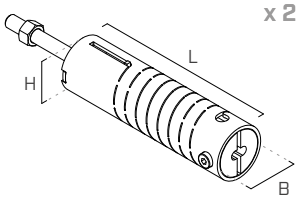
For technical data please refer to PATROL ON WALL on page 44.

PATROL | components

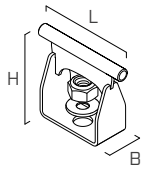
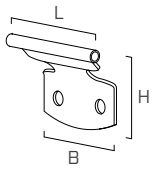
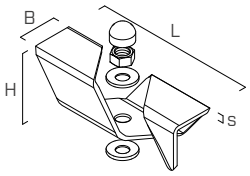
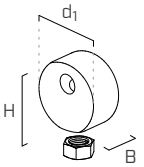
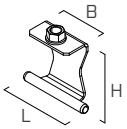
TERMINAL ELEMENTS | CODES AND DIMENSIONS

CODE	description	material	B [mm]	H [mm]	L [mm]	s [mm]	pcs	
PATROLTERM	terminal element	AISI 304 stainless steel grade 1.4301	40	61	66	6	1	
PATROLEND	terminal element	AISI 304 stainless steel grade 1.4301	40	61	66	6	1	
PATROLENDA4	A4 stainless steel terminal element	AISI 316 stainless steel grade 1.4401						
PATROLTERML	long terminal	AISI 304 stainless steel grade 1.4301	40	61	180	6	1	
PAREND	terminal element with 4 feet per side	AISI 304 stainless steel grade 1.4301	300	150	300	-	1	
PARENDA4	terminal element with 4 feet per façade made of A4 stainless steel	AISI 316 stainless steel grade 1.4401						

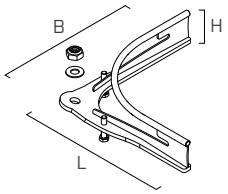
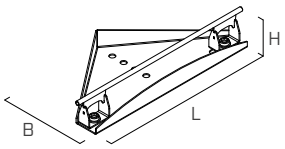
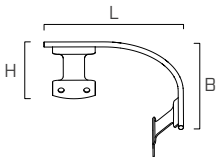
TENSIONERS AND ENERGY ABSORBERS | CODES AND DIMENSIONS

CODE	description	material	B [mm]	H [mm]	L [mm]	s [mm]	pcs	
SPEAR	set of pair of tensioners with absorber	AISI 304 stainless steel grade 1.4301 EN AW 6082 aluminium	50	63	380	-	1	x 2 
SPEARA4	set of pair of tensioners with A4 absorber	AISI 316 stainless steel grade 1.4401 EN AW 6082 aluminium						
SPEAR2	set of pair of tensioners with absorber for standing seam roofs	AISI 304 stainless steel grade 1.4301 EN AW 6082 aluminium	50	63	472	-	1	x 2 
SPEAREVO	set of pair of tensioners with absorber	AISI 304 stainless steel grade 1.4301	57	53	263	-	1	x 2 
SPEAREVOA4	set of pair of tensioners with A4 absorber	AISI 316 stainless steel grade 1.4401						

INTERMEDIATE ELEMENTS | CODES AND DIMENSIONS

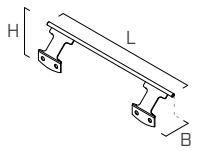
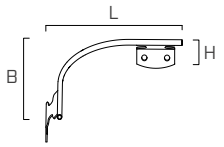
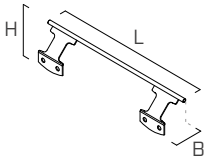
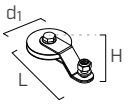
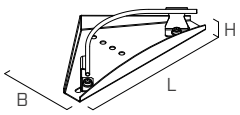
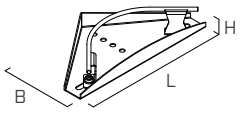
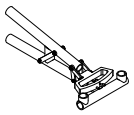
CODE	description	material	d_1 [mm]	B [mm]	H [mm]	L [mm]	s [mm]	pcs	
PASINT	pass-through intermediate element	AISI 304 stainless steel grade 1.4301	-	35	86	100	-	1	
PASINTA4	pass-through intermediate element INOX A4	AISI 316 stainless steel grade 1.4401							
PARINTER	pass through intermediate element for façades	AISI 304 stainless steel grade 1.4301	-	100	88	120	-	1	
PARINTERA4	A4 stainless steel pass through intermediate element for façades	AISI 316 stainless steel grade 1.4401							
PATROLINT	semi-pass-through intermediate element	AISI 304 stainless steel grade 1.4301	-	50	50	375	5	1	
PATROLMED	non-pass-through intermediate element	AISI 304 stainless steel grade 1.4301 EN AW 6082 aluminium	55	30	50	-	-	1	
OHINT	pass-through interme-diate element for aerial application	AISI 304 stainless steel grade 1.4301	-	35	83	100	-	1	
OHINTA4	pass-through intermediate element for aerial applica-tion in A4	AISI 316 stainless steel grade 1.4401							

ANGLE BRACKETS | CODES AND DIMENSIONS

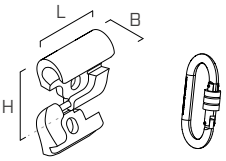
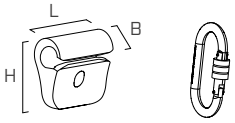
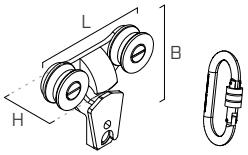
CODE	description	material	d_1 [mm]	B [mm]	H [mm]	L [mm]	pcs	
PASANG	corner pass-through element	AISI 304 stainless steel grade 1.4301	-	300	69	300	1	
PASANGA4	A4 stainless steel pass through angle bracket	AISI 316 stainless steel grade 1.4401						
PASANGBEND	pass-through angle bracket for adjustable supports 105°-165°	AISI 304 stainless steel grade 1.4301	-	260	89	565	1	
PASANGBENDA4	pass-through angle bracket for adjustable A4 supports 105°-165°	AISI 316 stainless steel grade 1.4401						
PAREX	external pass through angle bracket for façades	AISI 304 stainless steel grade 1.4301	-	326	117	326	1	
PAREXA4	external pass through angle bracket for A4 façades	AISI 316 stainless steel grade 1.4401						

PATROL | components

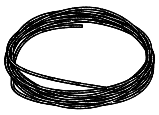
ANGLE BRACKETS | CODES AND DIMENSIONS

CODE	description	material	d_1 [mm]	B [mm]	H [mm]	L [mm]	pcs	
PAREXBEND	external pass-through angle bracket for façades adjustable 105°-165°	AISI 304 stainless steel grade 1.4301	-	116	137	557	1	
PAREXBENDA4	external pass-through angle bracket for A4 façades adjustable 105°-165°	AISI 316 stainless steel grade 1.4401						
PARIN	internal pass through angle bracket for façades	AISI 304 stainless steel grade 1.4301	-	357	88	357	1	
PARINA4	internal pass through angle bracket for A4 façades	AISI 316 stainless steel grade 1.4401						
PARINBEND	internal pass-through angle bracket for façades adjustable 105°-165°	AISI 304 stainless steel grade 1.4301	-	87	115	557	1	
PARINBENDA4	internal pass-through angle bracket for A4 façades adjustable 105°-165°	AISI 316 stainless steel grade 1.4401						
PATROLANG	non-pass-through angle bracket	AISI 304 stainless steel grade 1.4301 EN AW 6082 aluminium	90	-	58	175	1	
OHANGINT	internal pass through angle bracket for overhead application	AISI 304 stainless steel grade 1.4301	-	260	89	565	1	
OHANGINTA4	inside pass-through angle bracket for aerial application in A4	AISI 316 stainless steel grade 1.4401						
OHANGEXT	external pass-through angle bracket for overhead application	AISI 304 stainless steel grade 1.4301	-	260	89	565	1	
OHANGEXTA4	outside pass-through angle bracket for aerial application in A4	AISI 316 stainless steel grade 1.4401						
BENDTOOL	adjustable angle bracket bending tool	S235JR zinc plated steel	-	199	435	200	1	

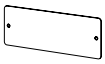
SLIDING DEVICES | CODES AND DIMENSIONS

CODE	description	material	d_1 [mm]	B [mm]	H [mm]	L [mm]	pcs	
SLIDE1	removable sliding device	AISI 304 stainless steel grade 1.4301	-	30	60	60	1	
SLIDE1A4	removable A4 sliding device	AISI 316 stainless steel grade 1.4401						
SLIDE2	fixed sliding device	AISI 304 stainless steel grade 1.4301	-	30	60	60	1	
SLIDE2A4	fixed A4 sliding device	AISI 316 stainless steel grade 1.4401						
OHSLIDE	removable sliding device for overhead lifeline	AISI 304 stainless steel grade 1.4301	-	120	30	102	1	
OHSLIDEA4	removable sliding device for overhead A4 lifeline	AISI 316 stainless steel grade 1.4401						

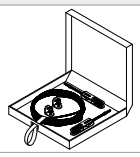
ROPE | CODES AND DIMENSIONS

CODE	description	material	pcs	
CABLE	stainless steel rope Ø8 7x7	AISI 316 stainless steel grade 1.4401	1	

INFORMATION PLATES AND ACCESSORIES | CODES AND DIMENSIONS

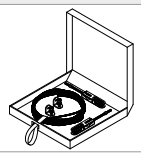
CODE	description	pcs	
TARGA	system information plate	1	
TARGASTI1	additional adhesive for TARGA: PL-SK-CZ-HU-RO	1	
TARGASTI2	additional adhesive for TARGA: NL-SV-NO-FI-RU	1	
PATROLSTOP	limit switch element	1	

PATROLKIT10 | 10 m LIFELINE KIT

CODE		description	material		
PATROLKIT10	PATROLTERM	terminal element	AISI 304 stainless steel grade 1.4301	2	
	SPEAR	set of pair of tensioners with absorber	AISI 304 stainless steel grade 1.4301 EN AW 6082 aluminium	1	
	CABLE	stainless steel rope Ø8 7x7 11 m	AISI 316 stainless steel grade 1.4401	1	

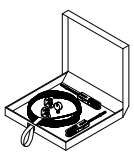
Also includes a 22 kN webbing length 0.4 m EN 795/B EN 566 - EN 354.

PATROLKIT15 | 15 m LIFELINE KIT

CODE		description	material		
PATROLKIT15	PATROLTERM	terminal element	AISI 304 stainless steel grade 1.4301	2	
	SPEAR	set of pair of tensioners with absorber	AISI 304 stainless steel grade 1.4301 EN AW 6082 aluminium	1	
	CABLE	stainless steel rope Ø8 7x7 16 m	AISI 304 stainless steel grade 1.4301	1	

Also includes a 22 kN webbing length 0.4 m EN 795/B EN 566 - EN 354.

PATROLKIT30 | 30 m LIFELINE KIT

CODE		description	material		
PATROLKIT30	PATROLTERM	terminal element	AISI 304 stainless steel grade 1.4301	2	
	SPEAR	set of pair of tensioners with absorber	AISI 304 stainless steel grade 1.4301 EN AW 6082 aluminium	1	
	PATROLMED	non-pass-through intermediate element	AISI 304 stainless steel grade 1.4301 EN AW 6082 aluminium	1	
	CABLE	stainless steel rope Ø8 7x7 31 m	AISI 316 stainless steel grade 1.4401	1	

Also includes a 22 kN webbing length 0.4 m EN 795/B EN 566 - EN 354.

PATROL | tensioners with absorber

SPEAR
Pair of tensioners with absorber.

SPEAR 2
Pair of tensioners with absorber for lifeline on double and round seam.

SPEAR EVO
Pair of tensioners with absorber. It further reduces the strain on the terminals.

characteristics	SPEAR	SPEAR 2	SPEAR EVO
complete set for both terminals	●	●	●
few components	●	●	●
compact	●	-	●
lubricant included	●	●	●
installation in just a few steps	●	●	●
installation with standard tools	●	●	●
adjustable during assembly	●	●	●
indication of pretension	●	●	●
easy to inspect	●	●	●
entirely made of stainless steel	-	-	●
rope closing with self-locking function	-	-	●
designed and tested to further reduce strain on terminals	-	-	●
designed and tested to increase the distance between supports	-	-	●
designed and tested to increase the number of users	-	-	●
compatible supports	TOWER, TOWERA2, TOWERXL, PATROLEND, PAREND, SHIELD, COPPO, TWIST	SIANK4, SEAMO	BLOCK, SHIELD, PATROLEND, PAREND

PATROL | intermediate - angle brackets

PRODUCTS WITH FIXED GEOMETRY

PARINTER

PARIN/PAREX

PASANG

PASINT

FLEXIBLE / ADAPTABLE "BEND" PRODUCTS

PARINBEND/PAREXBEND
Internal/external pass through angle bracket for façades.
An angle of 165°-105° can be adjusted using the BENDTOOL.

PASANGBEND
Adjustable pass-through angle bracket for supports.
An angle of 165°-105° can be adjusted using the BENDTOOL.

BENDTOOL

Tool for adjusting the angle of PARINBEND/PAREXBEND/PASANGBEND devices between 165° and 105°.

1. Insert the selected bendable angle element into the BENDTOOL bending device.

2. Bend the angle element by levering with the bending device.

3. Remove the angle element from the bending device. The element is ready to be installed.

VERTIGRIP
VERTICAL LIFELINE

SIMPLE, MODULAR, DURABLE.

The VERTIGRIP vertical lifeline is the ideal system for ensuring safety on ladders and vertical accesses.
Fast and easy to assemble, installation only takes a few steps. Modular system that can meet any design requirement thanks to the wide range of available accessories offering greater versatility of use. Complete system in AISI 316 stainless steel - AISI 304 stainless steel - EN AW 6082 aluminium alloy, guarantees good corrosion resistance.

VERTIGRIP | overview

VERTIGRIP ON LADDER

VERTICAL LIFELINE ON LADDERS

A2 AISI 304

EN 353-1:2014 + A1:2017

RfU 11.119

PAGE 56

VERTIGRIP ON WALL

VERTICAL LIFELINE ON WALL

A4 AISI 316

EN 353-1:2014 + A1:2017

RfU 11.119

PAGE 58

VERTIGRIP A4

VERTICAL LIFELINE WITH A4 STAINLESS STEEL ELEMENTS

A4 AISI 316

EN 353-1:2014 + A1:2017

RfU 11.119

PAGE 60

VERTIGRIP ON LADDER

VERTICAL LIFELINE ON LADDERS

EN 353-1:2014 + A1:2017

RfU 11.119

QUALITY
Complete system in AISI 316 stainless steel - AISI 304 stainless steel EN AW 6082 aluminium alloy, guarantees excellent corrosion resistance.

TOTAL CONTROL
Guided type fall arrester on rope with integrated energy absorber, which allows a controlled ascent and descent in safe conditions.

PRACTICAL
The system can be assembled off-centre on the ladder.

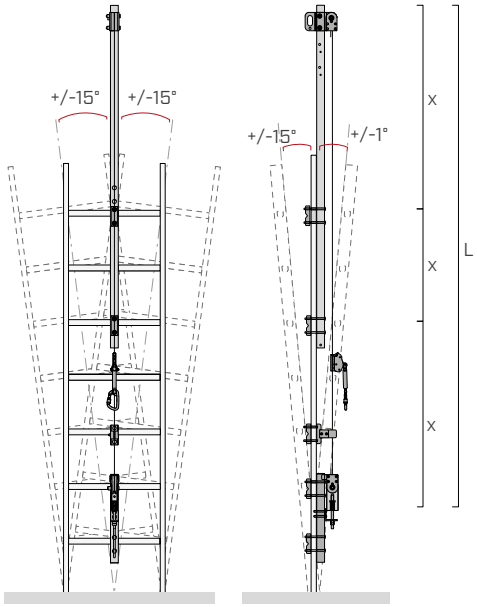
VIDEO MANUALS

Installation of a VERTIGRIP vertical lifeline on a ladder for maintenance of an automated warehouse.

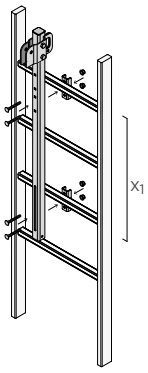
VERTICAL LIFELINE COMPONENTS

n.	CODE
1	VERTBASE
2	VERTSPEAR
3	VERTHAND
4	VERTSUP
5	CABLE
6	VERTINTPAS1 / VERTINTPAS2 / VERTINT
7	VERTSLIDEPAS / VERTSLIDE
8	VERTOP17 / VERTOP09

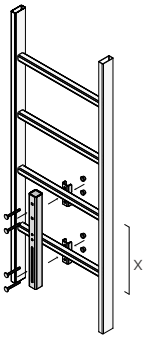
TECHNICAL DATA*



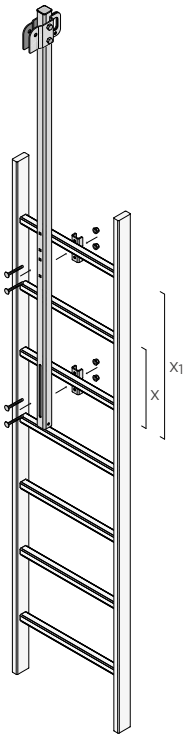
L = max 200 m
x = max 5 m



450 mm ≤ x_1 ≤ 700 mm

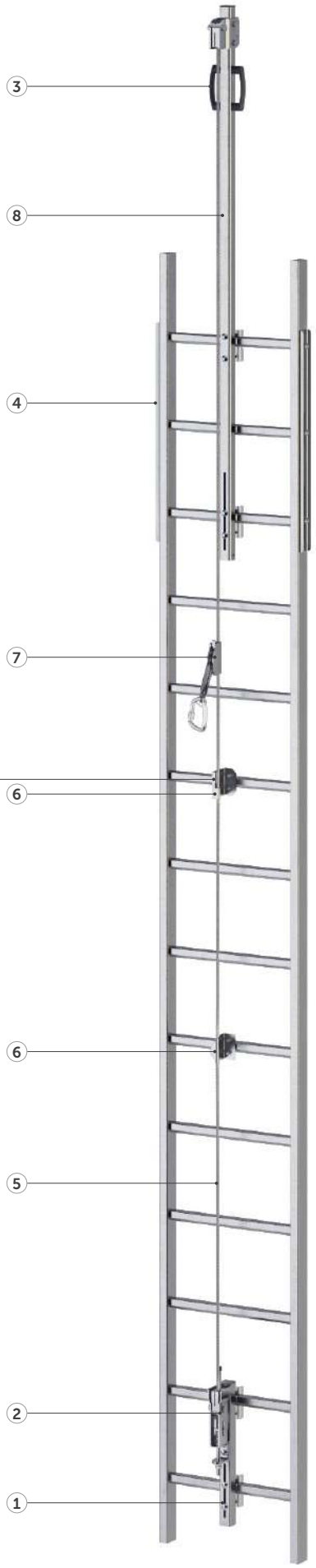


225 mm ≤ x ≤ 350 mm



450 mm ≤ x_1 ≤ 700 mm
225 mm ≤ x ≤ 350 mm

A2
AISI 304



** The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.*

VERTIGRIP ON WALL

VERTICAL LIFELINE ON WALL

A2 AISI 304

CE

EN 353-1:2014 + A1:2017

RfU 11.119

ALTERNATIVE

Alternative solution when it is not possible to assemble the vertical lifeline on the ladder.

ADJUSTABLE

Possibility of adjusting the distance of the lifeline from the wall.

FUNCTIONAL

It can be installed on walls inclined at an angle of up to 15° from the vertical.

VIDEO MANUALS

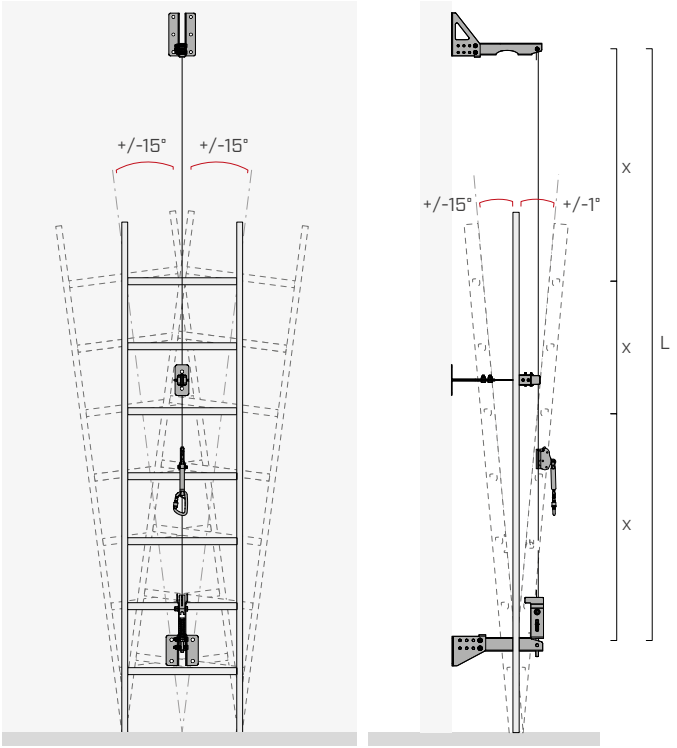
Installation of VERTIGRIP vertical lifeline on a ladder for maintenance of a high voltage tower.

VERTICAL LIFELINE COMPONENTS

n.	CODE
1	**VERTBASEW**
2	**VERTSPEAR**
3	**CABLE**
4	**VERTINTPAS1** / VERTINTPAS1 / VERTINTPAS2
5	**VERTSLIDEPAS** / VERTSLIDE
6	**VERTOPW**
7	**VERTINTPAS1** / VERTINTPAS2 / VERTINT

TECHNICAL DATA*

substructure	minimum thickness	fasteners
CLT	200 mm	VGS Ø9
C20/25	140 mm	AB1 Ø12
		rod Ø12
		VIN-FIX HYB-FIX
S235JR	6 mm	EKS + ULS + MUT



L = max 200 m
x = max 5 m

** The values indicated are derived from experimental tests carried out under the supervision of third party organisations according to the referenced standard. For a calculation report with minimum distances, according to the referenced normative requirements, the substructure must be verified by a qualified engineer before installation.*

VERTIGRIP A4

VERTICAL LIFELINE WITH A4 STAINLESS STEEL ELEMENTS

A4 AISI 316

CE

EN 353-1:2014 + A1:2017

RfU 11.119

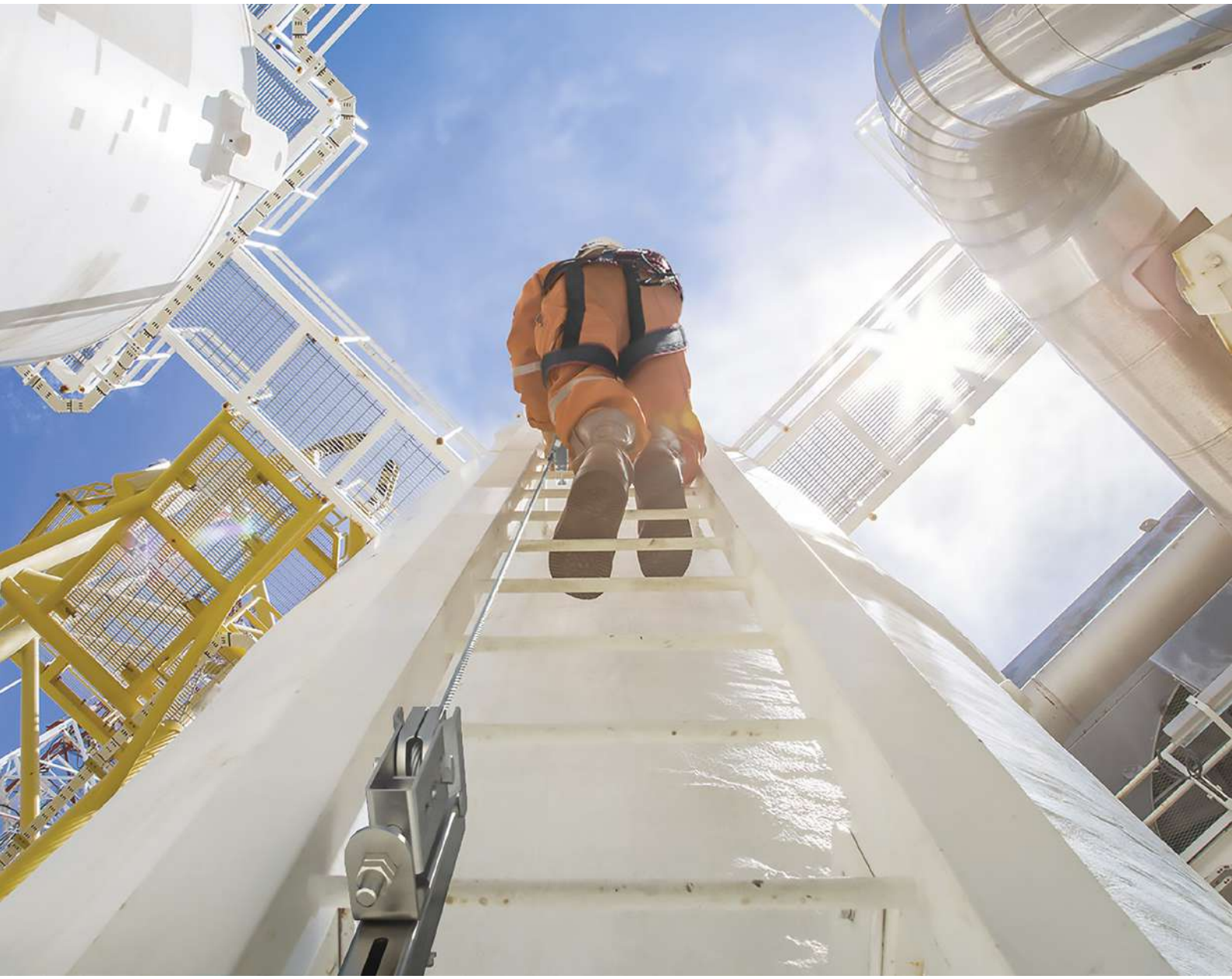
STRONG
AISI 316 stainless steel elements provide excellent corrosion resistance in marine and industrial environments.

TOTAL CONTROL
Guided type fall arrester on rope with integrated energy absorber, which allows a controlled ascent and descent in safe conditions.

FUNCTIONAL
It can be installed on walls inclined at an angle of up to 15° from the vertical.

VIDEO MANUALS

Installation of VERTIGRIP A4 vertical lifeline on a ladder for maintenance of an offshore installation.



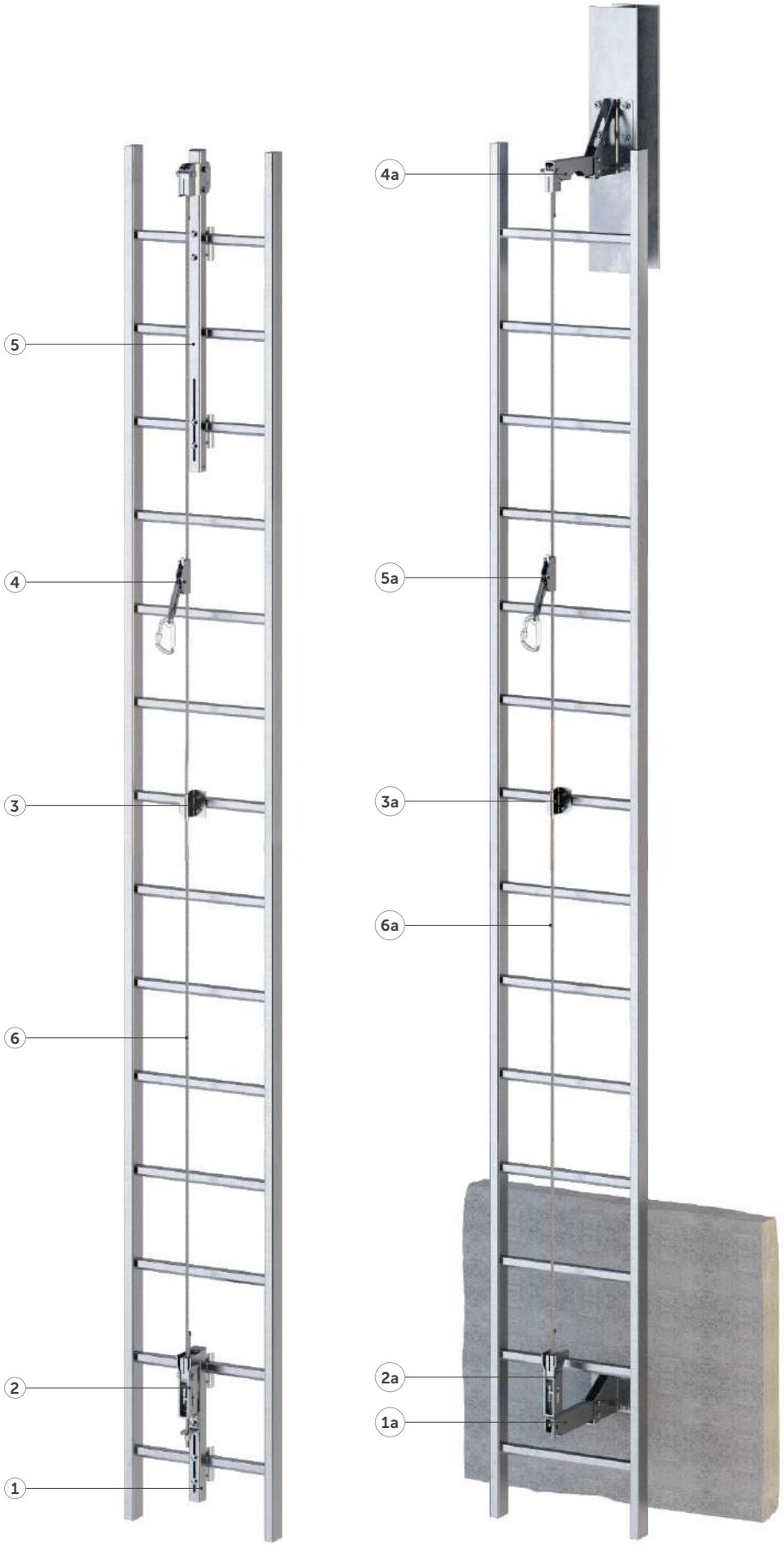
VERTICAL LIFELINE COMPONENTS

n.	CODE
1	**VERTBASEA4**
2	**VERTSPEARA4**
3	**VERTINTPAS1A4** / VERTINTA4 / VERTINTPAS2A4
4	**VERTSLIDEPAS** / VERTSLIDE
5	**VERTOP09A4**
6	**CABLE**

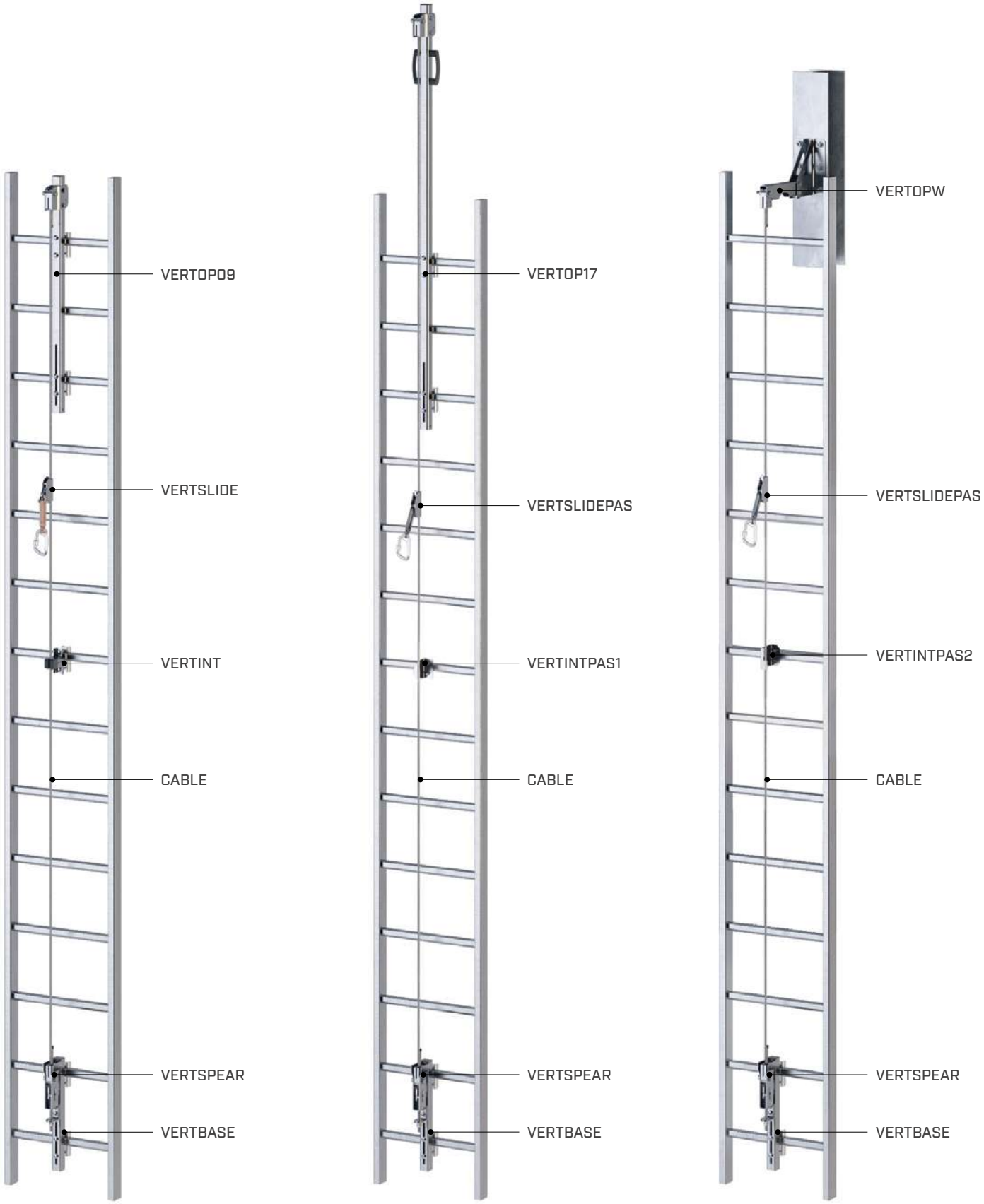
TECHNICAL DATA
For technical data, please refer to the VERTIGRIP ON LADDER page 56.

n.	CODE
1a	**VERTBASEWA4**
2a	**VERTSPEARA4**
3a	**VERTINTPAS1A4** / VERTINTPAS2A4 VERTINTA4 / VERTINTWA4
4a	**VERTOPWA4**
5a	**VERTSLIDEPAS** / VERTSLIDE
6a	**CABLE**

TECHNICAL DATA
For technical data, please refer to the VERTIGRIP ON WALL page 58.



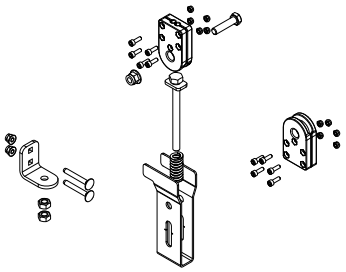
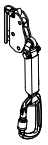
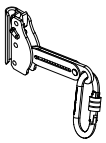
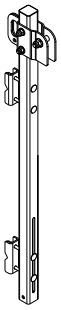
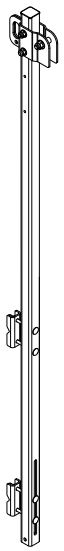
VERTIGRIP | combinations




VERTOPW
VERTSLIDEPAS
VERTINTPAS1
CABLE
VERTSPEAR
VERTBASEW
VERTOP09
VERTSLIDE
VERTINTW
CABLE
VERTSPEAR
VERTBASEW
VERTOP17
VERTSLIDE
VERTINT
CABLE
VERTSPEAR
VERTBASEW

VERTIGRIP | components

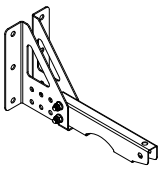
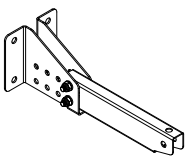
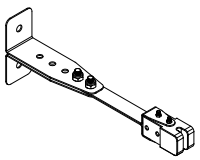
MAIN COMPONENTS OF THE VERTICAL LIFELINE

GROUP	CODE	description	material	weight [kg]	pcs	
TENSIONER	VERTSPEAR	set for vertical lifeline with clamps and tensioner	stainless steel 1.4301 / AISI 304 EN AW 6082 aluminium	2,60	1	
	VERTSPEARA4	set for vertical lifeline with A4 clamps and tensioner	AISI 316 stainless steel grade 1.4401			
ROPE	CABLE	stainless steel rope AISI 316 Ø8 mm 7x7	AISI 316 stainless steel	0,259	1	
GUIDED TYPE FALL ARRESTER	VERTSLIDE	removable guided type fall arrester with energy absorber for vertical lifeline	AISI 304 stainless steel grade 1.4301 EN AW 7075 T6 aluminium	0,465	1	
	VERTSLIDEPAS	removable sliding through fall arrest device with energy absorber for vertical lifeline	AISI 304 stainless steel grade 1.4301	0,67	1	
UPPER ANCHOR SYSTEM	VERTOP09	upper anchor system (0,9 m) for vertical lifeline on ladder	AISI 304 stainless steel grade 1.4301	4,44	1	
	VERTOP09A4	upper anchor system (0,9 m) for vertical lifeline on A4 ladder	AISI 316 stainless steel grade 1.4401			
	VERTOP17	upper anchor system (1,7 m) for vertical lifeline on ladder	AISI 304 stainless steel grade 1.4301	9,46	1	
	VERTOP17A4	upper anchor system (1,7 m) for vertical lifeline on A4 ladder	AISI 316 stainless steel grade 1.4401			

GROUP	CODE	description	material	weight [kg]	pcs	
LOWER ANCHOR SYSTEM	VERTBASE	lower anchor system for vertical lifeline on ladder	AISI 304 stainless steel grade 1.4301	1,84	1	
	VERTBASEA4	lower anchor system for vertical lifeline on A4 ladder	AISI 316 stainless steel grade 1.4401			
INTERMEDIATE BRACKET*	VERTINT	intermediate bracket for vertical lifeline on ladder	AISI 304 stainless steel grade 1.4301 - ABS	0,64	1	
	VERTINTA4	intermediate anchor system for vertical lifeline on A4 ladder	AISI 316 stainless steel grade 1.4401 - ABS			
	VERTINTPAS1	fixed pass-through intermediate for vertical lifeline	AISI 304 stainless steel grade 1.4301	0,126	1	
	VERTINTPAS1A4	fixed pass-through intermediate element for vertical A4 lifeline	AISI 316 stainless steel grade 1.4401			
	VERTINTPAS2	removable pass-through intermediate element for vertical lifeline	AISI 304 stainless steel grade 1.4301	0,155	1	
	VERTINTPAS2A4	removable pass-through intermediate element for vertical A4 lifeline	AISI 316 stainless steel grade 1.4401			

**Recommended every 5 meters.*

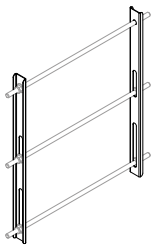
SUPPORT FOR VERTICAL LIFELINE ON STRUCTURE

GROUP	CODE	description	material	weight [kg]	pcs	
UPPER ANCHOR SYSTEM	VERTOPW	upper anchor system for vertical lifeline on structure	stainless steel 1.4301 / AISI 304	5,17	1	
	VERTOPWA4	upper anchor system for vertical lifeline on A4 structure	AISI 316 stainless steel grade 1.4401			
LOWER ANCHOR SYSTEM	VERTBASEW	lower anchor system for vertical lifeline on structure	stainless steel 1.4301 / AISI 304	4,52	1	
	VERTBASEWA4	lower anchor system for vertical lifeline on A4 structure	AISI 316 stainless steel grade 1.4401			
INTERMEDIATE BRACKET*	VERTINTW	intermediate bracket for vertical lifeline on structure	stainless steel 1.4301 / AISI 304 - ABS	1,52	1	
	VERTINTWA4	intermediate anchor system for vertical lifeline on A4 structure	AISI 316 stainless steel grade 1.4401 - ABS			

**Recommended every 5 meters.*

VERTIGRIP | components

VERTICAL LIFELINE ACCESSORIES

GROUP	CODE	description	material	weight [kg]	pcs	
HANDLE	VERTHAND	set of handles for VERTOP17	PA6 - stainless steel 1.4301 / AISI 304	0,14	1	
LADDER REINFORCE-MENT	VERTSUP1	additional reinforcement set for ladder*	stainless steel 1.4301 / AISI 304	1,48	1	

**Threaded bars, nuts and washers not included in the set.*

INFORMATION PLATE

CODE	description	pcs
TARGA	system information plate: IT-EN-DE-ES-FR	1
TARGASTI1	additional adhesive for TARGA: PL-SK-CZ-HU-RO	1
TARGASTI2	additional adhesive for TARGA: NL-SV-NO-FI-RU	1

VERTIGRIP | sliding devices

VERTSLIDE
Removable guided type fall arrester with energy absorber for vertical lifeline.

VERTSLIDEPAS
Removable sliding through fall arrest device with energy absorber for vertical lifeline.

technical features		VERTSLIDE	VERTSLIDEPAS
standard		EN 353-1:2014 + A1:2017	EN 353-1:2014 + A1:2017
absorber		fabric	stainless steel
types		semi - pass-through	through
cable diameter	[mm]	8	8
dimensions	[mm]	150 x 80 x 25	150 x 80 x 25
weight	[g]	200	300
type of closure		double block	triple block

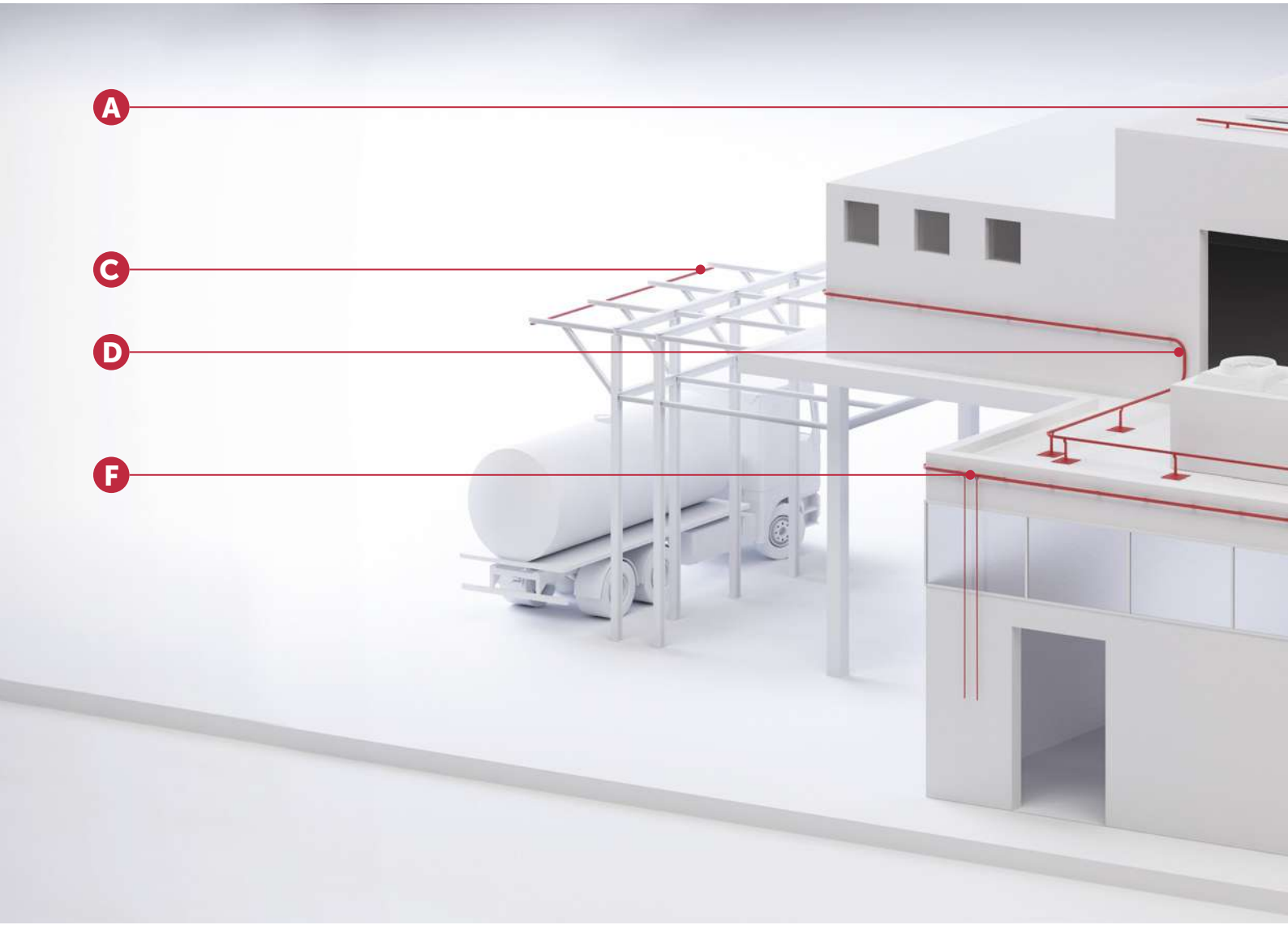
VERTIGRIP | ELEMENTS AND INTERMEDIATE ELEMENTS

VERTINTPAS1
Fixed pass-through intermediate element for vertical lifeline.

VERTINTPAS2
Removable intermediate element for vertical lifeline.

VERTINT
Intermediate bracket for vertical lifeline on ladder.

RAIL SYSTEM OVERVIEW



A H-RAIL ON FLOOR

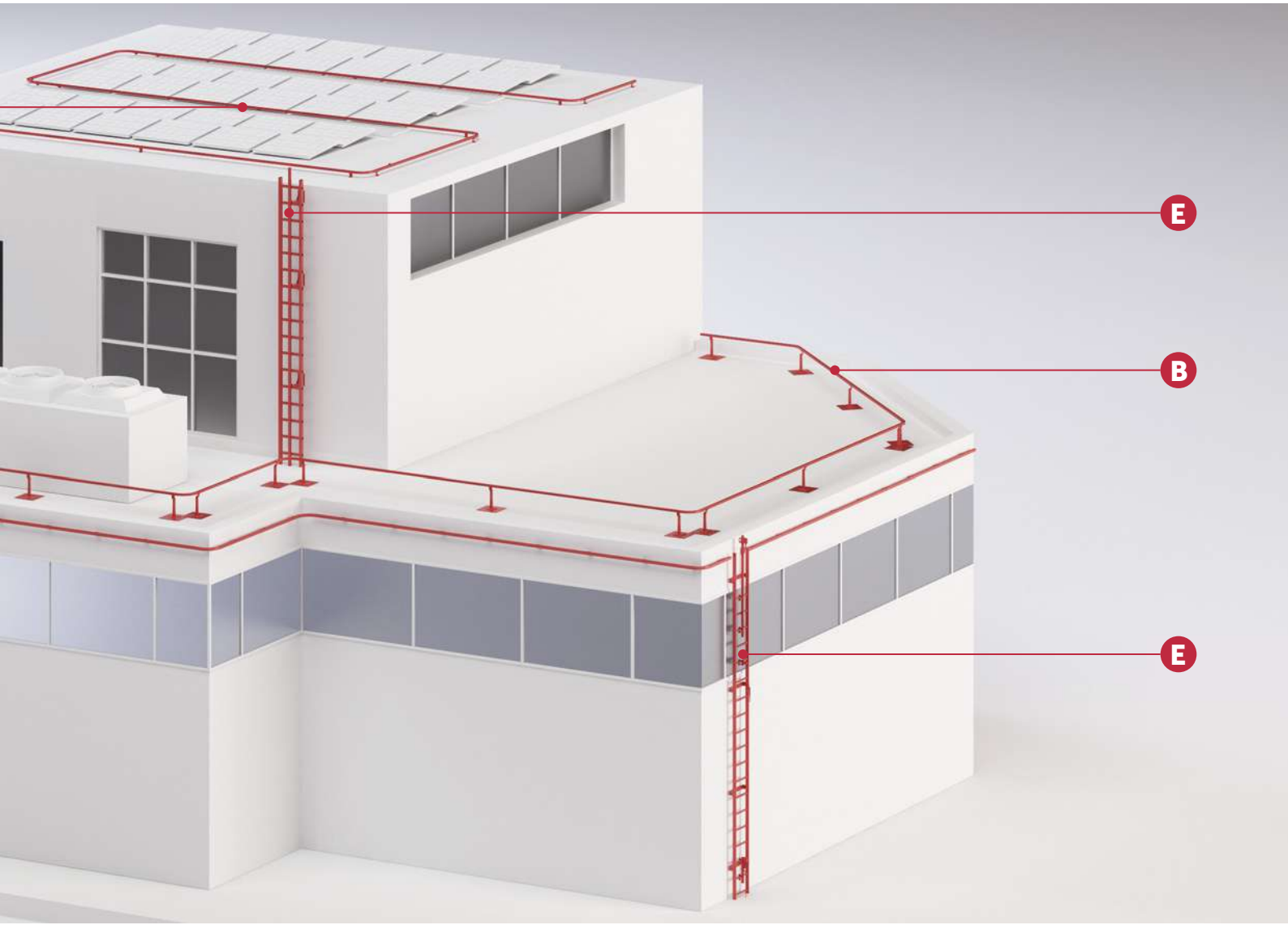
Rigid pass-through LIFELINE for horizontal use for direct application with or without metal brackets on different types of substructure. The accessories allow the rigid LIFELINE to be conformed to the structure on which it is assembled.
Possible use of detachable sliding device along the whole system.

B H-RAIL + TOWER

Rigid pass-through LIFELINE for horizontal use with TOWER bracket application, for assembly on various types of substructure. Ideal for elevated installation for overcoming obstacles.

C H-RAIL OVERHEAD

Rigid pass-through LIFELINE for direct application with or without metal brackets on different types of substructure. Ideal for carrying out operations in special conditions, such as working on tanks, tankers, unsafe walkways and other potentially dangerous situations. Equipped with a sliding device with wheels for optimal sliding on the rail.



D H-RAIL ON WALL

Rigid pass-through life line for horizontal use for direct application with or without metal brackets on different types of structure. Sliding device suitable for assembled rail with both vertical and horizontal fastening.

E V-RAIL

Rigid pass-through life line for vertical use for direct application on different types of substructure or for application with metal brackets on the rungs of fixed ladders. Equipped with a sliding device to lock immediately if the operator falls.

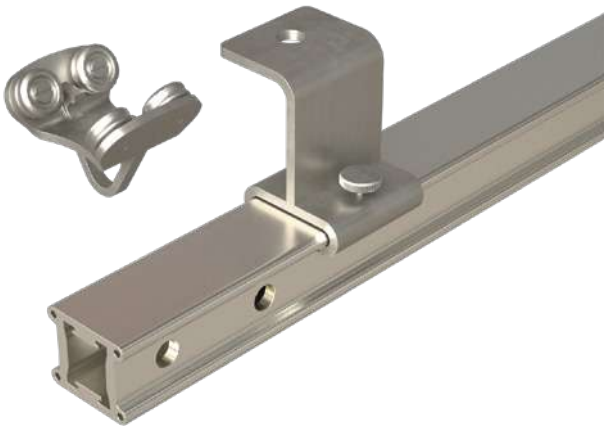
F S-RAIL

Rigid pass-through life line for use in suspension for direct application with metal brackets on different types of substructure. The sliding device is designed to facilitate the movement of the operator during suspended work, ensuring comfort of use.

H-RAIL
HORIZONTAL RAIL SYSTEM

TO ALWAYS WORK ON THE RIGHT RAIL.

The H-RAIL rail LIFELINE system is safe and versatile. It is possible to create horizontal rigid LIFELINEs, using only a few fasteners, and thanks to the modularity of the system it is possible to create curved or straight rigid LIFELINEs. H-RAIL is also suitable for suspended work on building façades. The three sliding devices available meet different needs: choose the one that suits you and operate safely with H-RAIL!

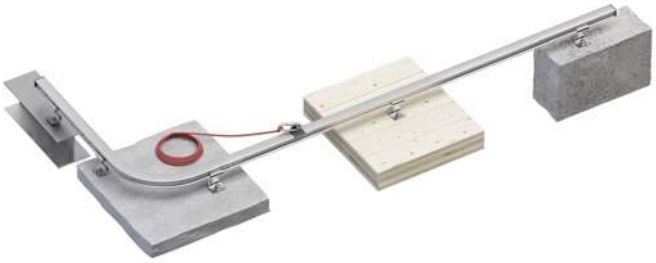


H-RAIL | overview

H-RAIL ON FLOOR

HORIZONTAL RAIL SYSTEM

EN 795:2012 D | CEN/TS 16415:2013 | UNI 11578:2015 D



PAGE 72

H-RAIL + TOWER

HORIZONTAL RAIL SYSTEM ON SUPPORTS

EN 795:2012 D | CEN/TS 16415:2013 | UNI 11578:2015 D

PAGE 74

H-RAIL OVERHEAD

HORIZONTAL OVERHEAD RAIL SYSTEM

EN 795:2012 D | CEN/TS 16415:2013 | UNI 11578:2015 D

PAGE 76

H-RAIL ON WALL

HORIZONTAL WALL-MOUNTED RAIL SYSTEM

EN 795:2012 D | CEN/TS 16415:2013 | UNI 11578:2015 D

PAGE 78

H-RAIL ON FLOOR

HORIZONTAL RAIL SYSTEM

EN 795:2012 D

CEN/TS 16415:2013

UNI 11578:2015 D

UNOBTRUSIVE

The rail ensures a small footprint on the cover and thus a minimal visual impact.

COMPLETE

The system can be used for different applications (horizontal, vertical and overhead) by using the specific sliding devices.

FAST INSTALLATION

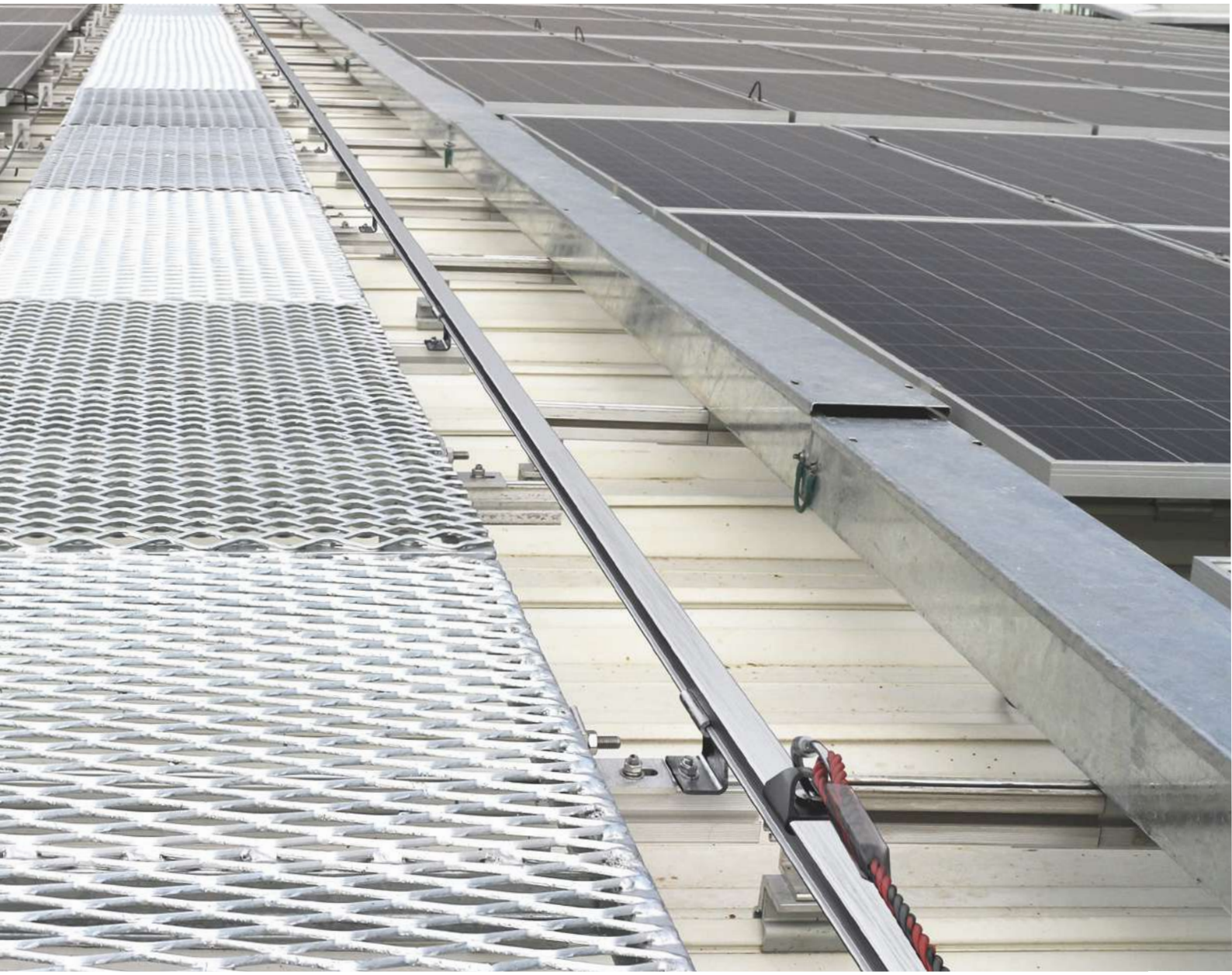
Thanks to the large centre distance between the rail fasteners (6 m), assembly requires a limited number of fastening points.

LOAD DIRECTION

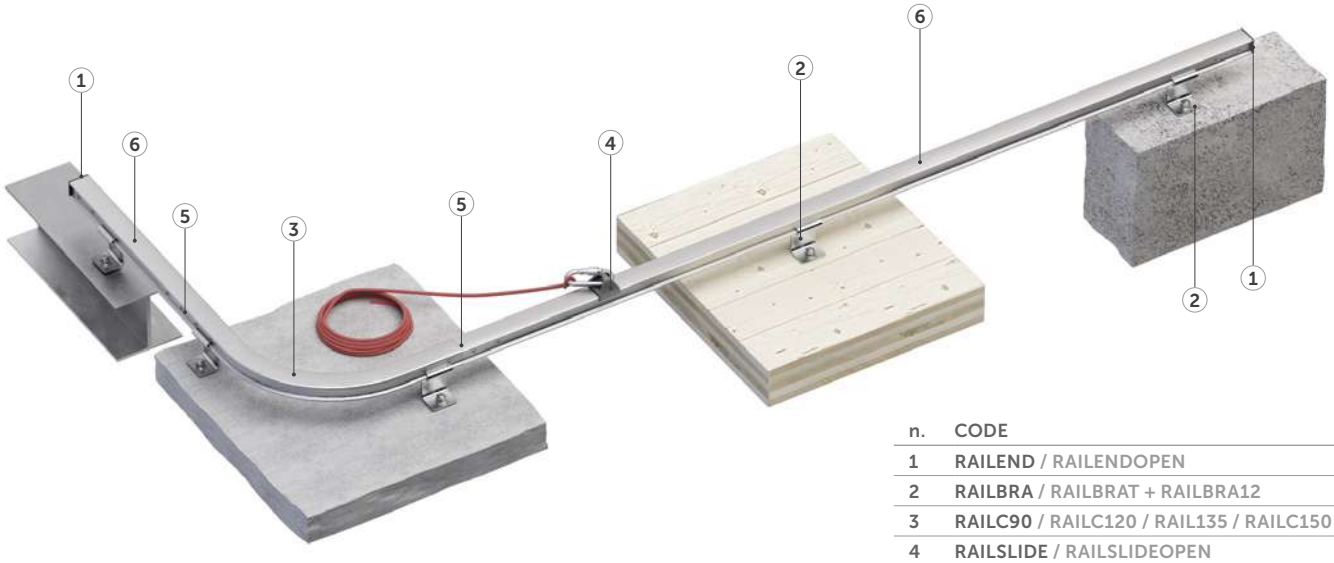
TYPES OF APPLICATION

VIDEO MANUALS

Installation of H-RAIL rail on flat roof for use as a walkway for the maintenance of a photo-voltaic system.



H-RAIL COMPONENTS



n.	CODE
1	**RAILEND** / RAILENDOPEN
2	**RAILBRA** / RAILBRAT + RAILBRA12
3	**RAILC90** / RAILC120 / RAIL135 / RAILC150
4	**RAILSLIDE** / RAILSLIDEOPEN
5	**RAILJUN**
6	**RAIL3000**

TECHNICAL DATA*

substructure	minimum thickness	fastening	
		direct	with RAILBRA
GL24h	100 mm	VGS Ø11	HBS12
CLT	100 mm	VGS Ø11	HBS12
C20/25	140 mm	AB1	SKS10
S235JR	6 mm	EKS10	EKS10

work method	max supports pacing [m]	max. no. of system operators	no. of users per span
 fall protection/ restraint	6	4	4
 suspension	1,5	4	1

** The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.*

RAILSLIDE

Universal sliding device for rail. Its shape ensures excellent sliding. With locking screw included. Anchorage point also suitable for large connectors.

RAILBRA

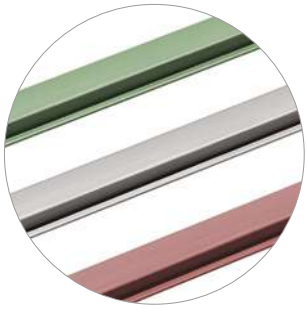
Universal support for maximum versatility and convenience in mounting on different substrates.

RAILENDOPEN

Openable end stop, allowing entry and exit from the system.

RAIL3000

Available in various RAL colours on request.



H-RAIL + TOWER

HORIZONTAL RAIL SYSTEM ON SUPPORTS

EN 795:2012 D

CEN/TS 16415:2013

UNI 11578:2015 D

COMBINABLE

It can be assembled in combination with all TOWER brackets.

FUNCTIONAL

The combination with TOWER supports gives the possibility to raise the rail to overcome obstacles in the roof.

EASY

The rail is simply mounted on the TOWER brackets using the dedicated plate.

LOAD DIRECTION

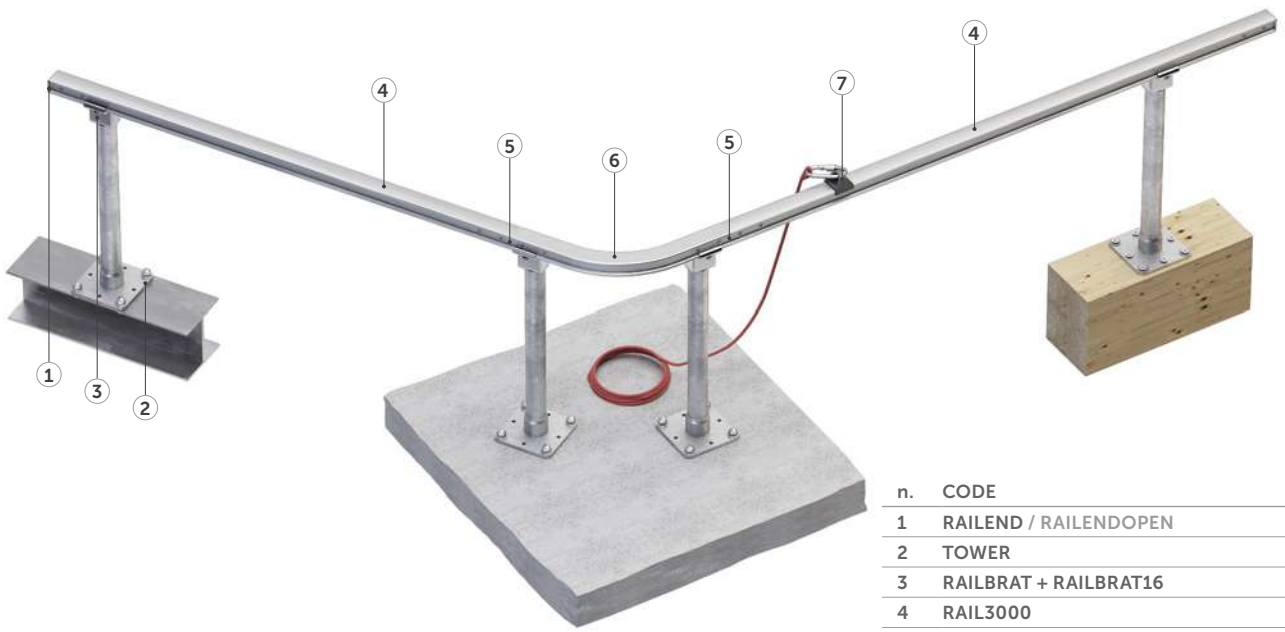
TYPES OF APPLICATION

VIDEO

MANUALS

Installation of H-RAIL rail with TOWER supports on a flat, insulated concrete roof.

H-RAIL COMPONENTS



n.	CODE
1	**RAILEND** / RAILENDOPEN
2	**TOWER**
3	**RAILBRAT + RAILBRAT16**
4	**RAIL3000**
5	**RAILJUN**
6	**RAILC120** / RAILC90 / RAILC135 / RAILC150
7	**RAILSLIDE** / RAILSLIDEOPEN

TECHNICAL DATA*

substructure	minimum thickness	TOWER fastening	rail supports
GL24h	160 x 160 mm	VGS Ø9	RAILBRAT + RAILBRA16
CLT	200 mm	VGS Ø9	
C20/25	140 mm	AB1 Ø12	
		rod Ø12	
		VIN-FIX HYB-FIX	
S235JR	6 mm	EKS + ULS + MUT	

work method	max supports pacing [m]	max. no. of system operators	no. of users per span
fall protection/ restraint	6	4	4

** The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.*

RAILSLIDEOPEN

Openable sliding device. It can be installed and removed in any position on the rail.

RAILC120, RAILC135, RAILC150

H-RAIL includes bends with different angles to meet specific site requirements.

RAILJUN

Universal rail joint. Simple to install. Complete with fastening screws.

RAILJUNTOOL

Jig for drilling joint holes for rails cut to size on site.

H-RAIL OVERHEAD

HORIZONTAL OVERHEAD RAIL SYSTEM

EN 795:2012 D

CEN/TS 16415:2013

UNI 11578:2015 D

ADJUSTABLE

Possibility of assembling the rail directly on various substructures with the appropriate plates.

FUNCTIONAL

Rail that allows operators to work with their hands free and in safety by using sliding and retractable devices.

SAFE

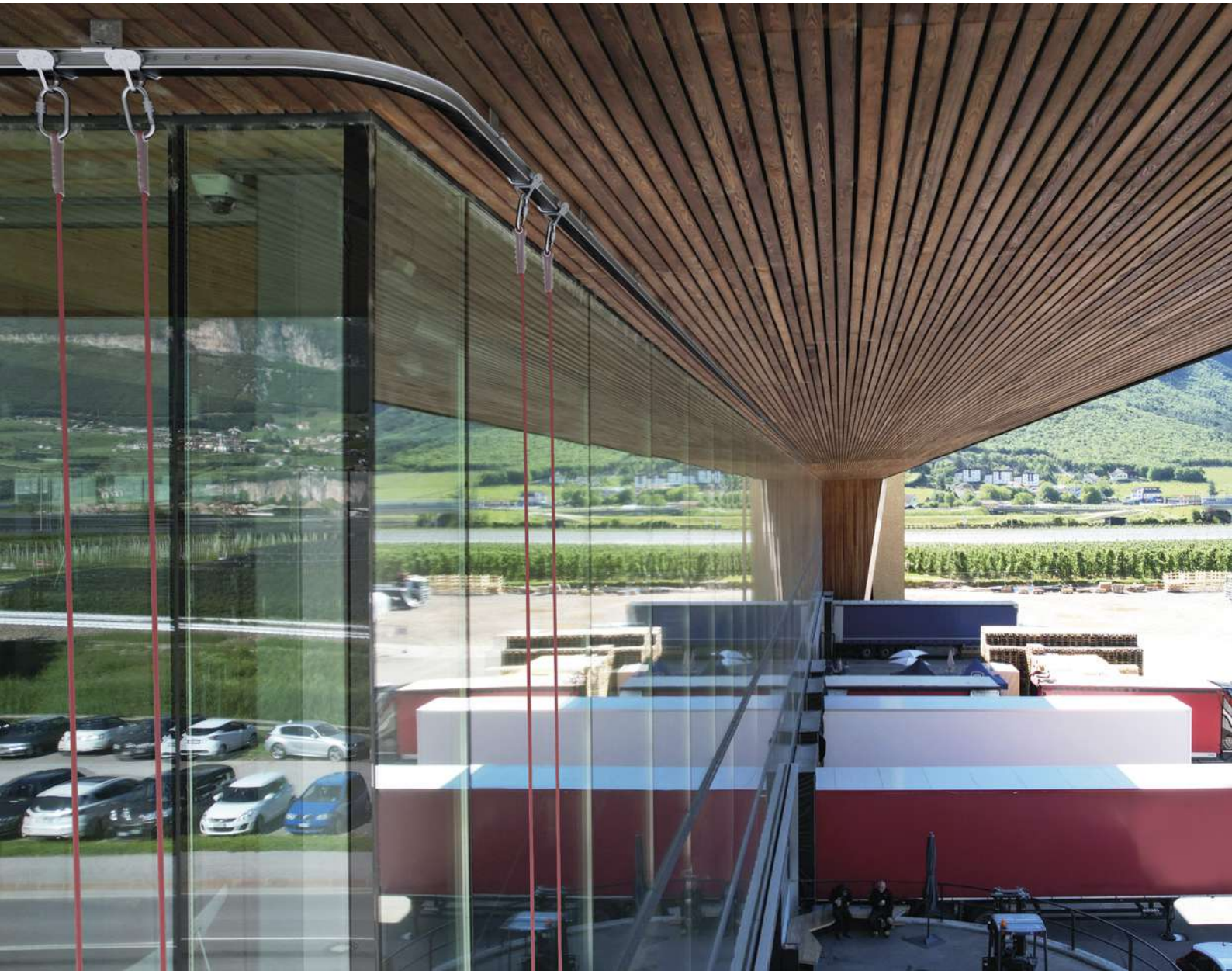
The system is also suitable and tested for multi-operator suspension use.

LOAD DIRECTION

TYPES OF APPLICATION

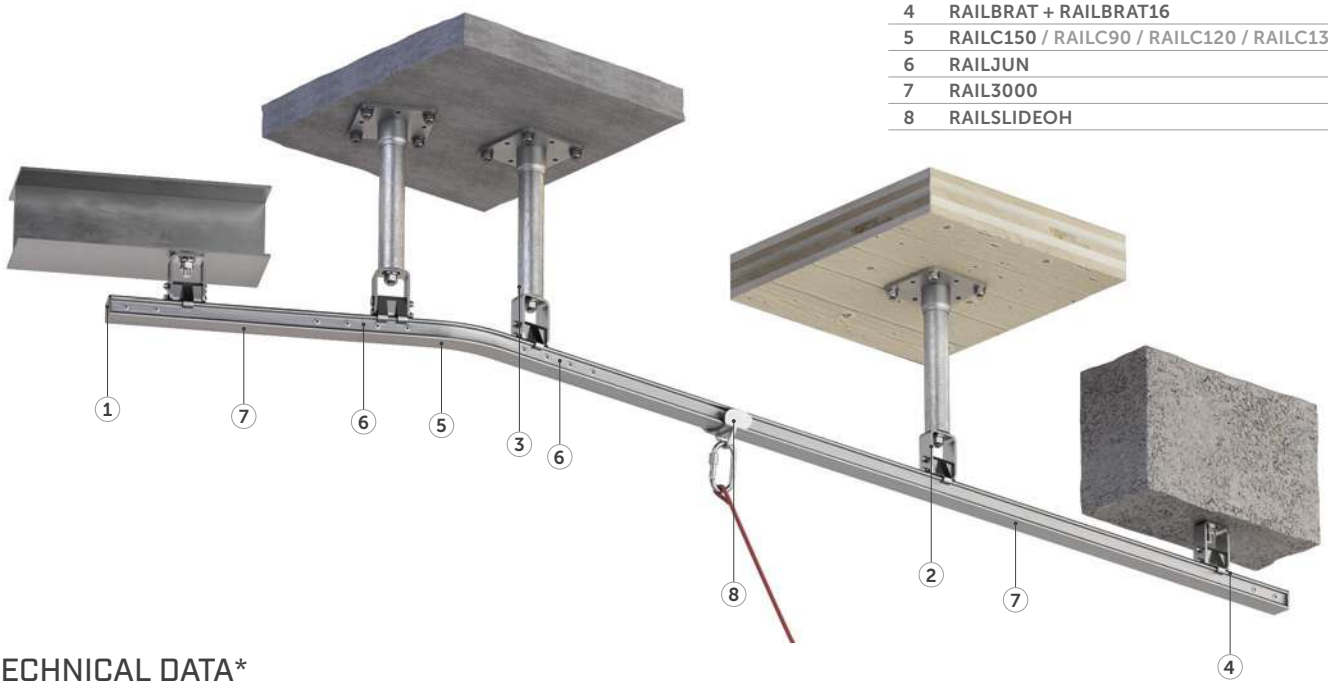
VIDEO MANUALS

Installation of H-RAIL ceiling rail for suspended work for façade cleaning.



H-RAIL COMPONENTS

n.	CODE
1	RAILEND / RAILENDOPEN
2	RAILBRAOH
3	TOWER
4	RAILBRAT + RAILBRAT16
5	RAILC150 / RAILC90 / RAILC120 / RAILC135
6	RAILJUN
7	RAIL3000
8	RAILSLIDEOH



TECHNICAL DATA*

substructure	minimum thickness	fastening	
		direct	with RAILBRA
GL24h	100 mm	VGS Ø11	HBS12
CLT	200 mm	VGS Ø11	HBS12
C20/25	150 mm	AB1	SKS10
S235JR	6 mm	EKS10	EKS10
TOWER	-	-	-

work method	max supports pacing [m]	max. no. of system operators	no. of users per span
fall protection/ restraint	6	4	4
suspension	1,5	4	1

** The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.*

RAILSLIDEOH

Sliding device for overhead application for fall protection and suspension work. Equipped with four wheels that guarantee excellent sliding even under vertical load.

RAILBRAOH

Support for overhead application. It allows a two-step installation by first installing the bracket on the substructure and then the rail.

H-RAIL

H-RAIL can also be installed without support directly on various substructures. Use the RAILFIXTOOL template to drill the holes.

RAILFIXTOOL

Positioning jig and drilling guide for direct installation on various substructures.

H-RAIL ON WALL

HORIZONTAL WALL-MOUNTED RAIL SYSTEM

EN 795:2012 D

CEN/TS 16415:2013

UNI 11578:2015 D

AESTHETICS
It can be fixed directly to the structure without the use of special plates.

COMFORT
Operation by means of a sliding device that can be opened at any point of the system.

ASSEMBLY
It can be assembled on different substructures (timber, concrete and steel) to suit all contruction site requirements.

LOAD DIRECTION

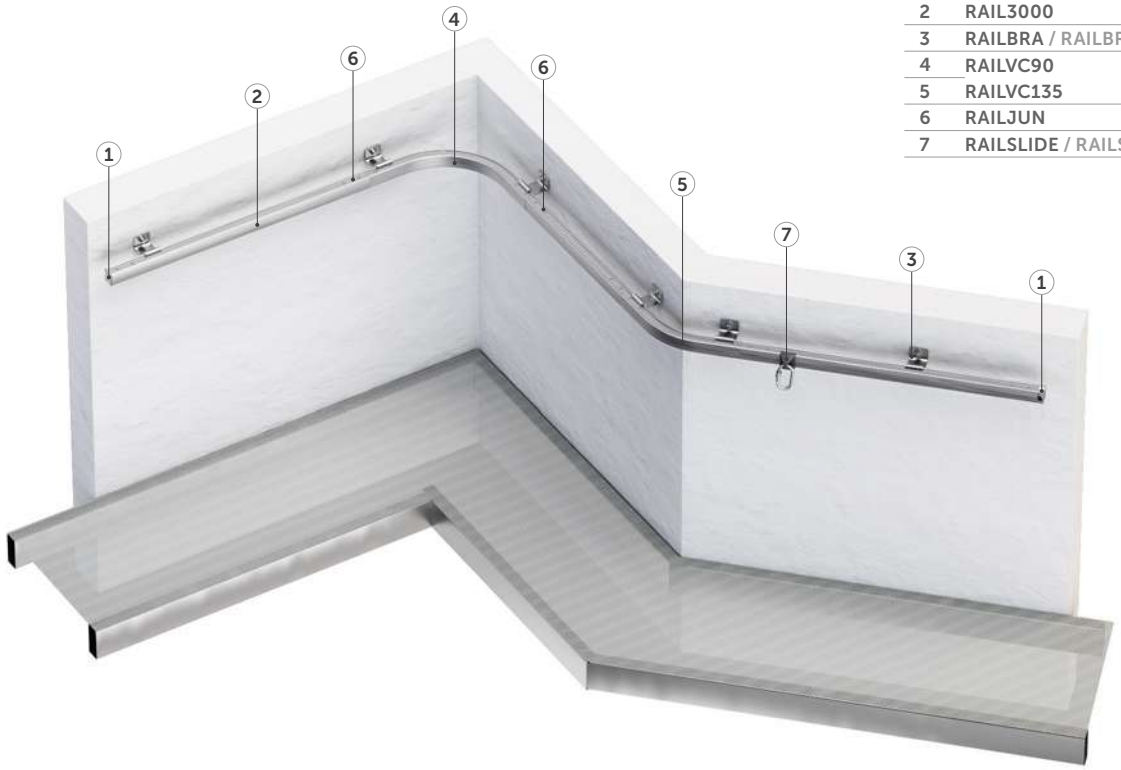
TYPES OF APPLICATION

VIDEO MANUALS

Installation of H-RAILON WALL rail for façade maintenance.

H-RAIL COMPONENTS

n.	CODE
1	**RAILEND** / RAILENDOPEN
2	**RAIL3000**
3	**RAILBRA** / RAILBRAT + RAILBRAT12
4	**RAILVC90**
5	**RAILVC135**
6	**RAILJUN**
7	**RAILSLIDE** / RAILSLIDEOPEN



TECHNICAL DATA*

substructure	fastening		
	minimum thickness	direct	with RAILBRA
GL24h	100 mm	VGS Ø11	HBS12
CLT	200 mm	VGS Ø11	HBS12
C20/25	150 mm	AB1	SKS10
S235JR	6 mm	EKS10	EKS10

work method	max supports pacing [m]	max. no. of system operators	no. of users per span
fall protection/ restraint	6	4	4
suspension	1,5	4	1

** The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.*

RAILSLIDE

Universal sliding device for rail. Its shape ensures excellent sliding. With locking screw. Anchorage point also suitable for large connectors.

RAILFIXTOOL

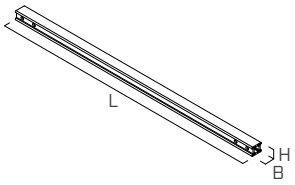
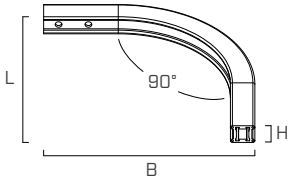
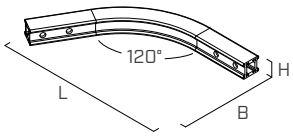
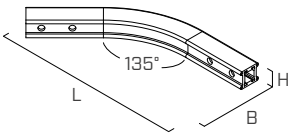
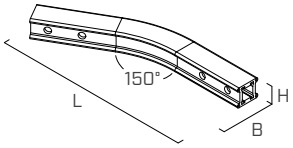
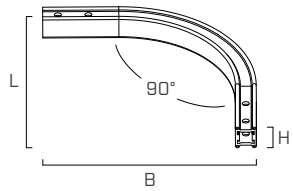
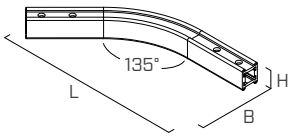
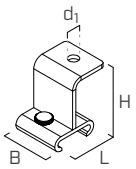
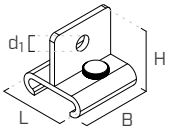
Positioning jig and drilling guide for direct installation on various substructures.

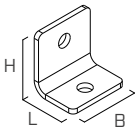
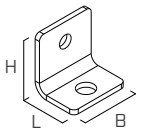
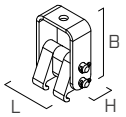
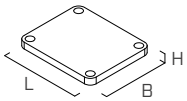
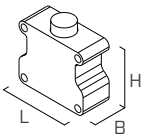
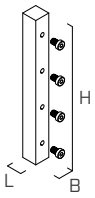
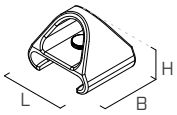
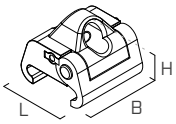
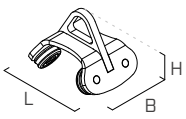
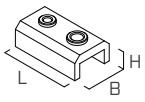
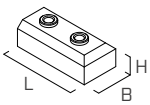
RAILBRAT, RAILBRA12

Universal support for maximum versatility and convenience in mounting on different substrates.

H-RAIL | components

MAIN COMPONENTS FOR HORIZONTAL RAIL

GROUP	CODE	description	material	B [mm]	H [mm]	L [mm]	pcs	
RAIL	**RAIL3000**	3 m aluminium rail	EN AW 6063 (T6)	49	41	3000	1	
	RAILC90	aluminium 90° bend for rail	EN AW 6063 (T6)	424	41	424	1	
	RAILC120	aluminium 120° bend for rial	EN AW 6063 (T6)	292	41	463	1	
	RAILC135	aluminium 135° bend for rial	EN AW 6063 (T6)	221	41	450	1	
	RAILC150	aluminium 150° bend for rial	EN AW 6063 (T6)	154	41	418	1	
	RAILVC90	aluminium vertical 90° bend for rail	EN AW 6063 (T6)	400	49	400	1	
	RAILVC135	aluminium vertical 135° bend for rail	EN AW 6063 (T6)	214	49	447	1	
SUPPORT	**RAILBRA**	single element support with hole d_1= 12 mm	AISI 304 stainless steel grade 1.4301	60	84	78	1	
	RAILBRAT	coupled support upper element with hole d_1= 12 mm to combine with RAILBRA12 or RAILBRA16	AISI 304 stainless steel grade 1.4301	60	64	60	1	

GROUP	CODE	description	material	B [mm]	H [mm]	L [mm]	pcs	
SUPPORT	RAILBRAT12	coupled support bottom element M12 fastener for RAILBRAT included	AISI 304 stainless steel grade 1.4301	60	60	45	1	
	RAILBRAT16	coupled support bottom element M16 fastener for RAILBRAT included	AISI 304 stainless steel grade 1.4301	60	60	45	1	
	RAILBRAOH	support for overhead application	AISI 304 stainless steel grade 1.4301	114	60	84	1	
TERMINAL ELEMENT	RAILEND	fixed end element fastening screws included	AISI 304 stainless steel grade 1.4301	41	4	49	1	
	RAILENDOPEN	openable end element fastening screws included	AISI 304 stainless steel grade 1.4301	20	47	49	1	
JOINT	RAILJUN	junction element for rail fastening screws included	AISI 304 stainless steel grade 1.4301	25	240	25	1	
SLIDING DEVICE	RAILSLIDE	sliding device	AISI 304 stainless steel grade 1.4301	50	49	60	1	
	RAILSLIDEOPEN	removable sliding device	AISI 304 stainless steel grade 1.4301	50	42	60	1	
	RAILSLIDEOH	sliding device for overhead applications and suspended work	AISI 304 stainless steel grade 1.4301	70	72	95	1	
TOOL	RAILFIXTOOL	template for holes for direct fastening on the rail	EN AW 6082 - 1.1191 (C45E) aluminium	70	45	120	1	
	RAILJUNTOOL	template for rail junction holes	EN AW 6082 - 1.1191 (C45E) aluminium	62	45	130	1	

V-RAIL

VERTICAL RAIL SYSTEM

EN 353-1:2014 + A1:2017

RfU 11.119

TOTAL CONTROL

Guided type fall arrester with integrated energy absorber, which allows a controlled ascent and descent in safe conditions.

FUNCTIONAL

It can be installed on walls inclined at an angle of up to 15° from the vertical.

PRACTICAL

Possibility of off-centre assembly of the system on a ladder.

TYPES OF APPLICATION

Installation of V-RAIL rail on existing ladder for roof maintenance.

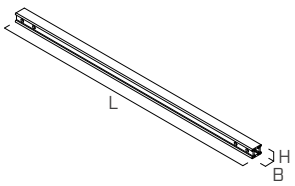
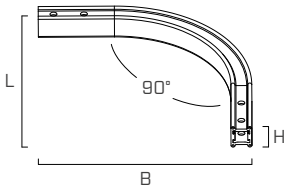
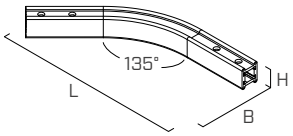
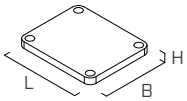
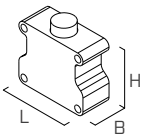
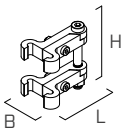
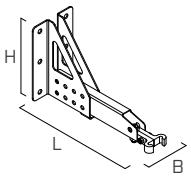
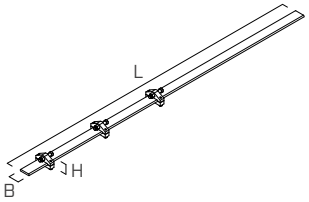
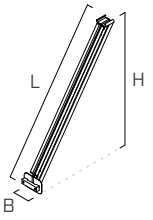
V-RAIL COMPONENTS

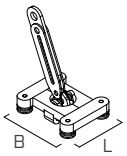
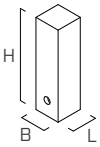
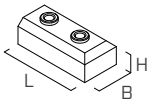
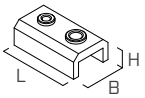
n.	CODE
1	RAILENDOPEN
2	VRAILBRAL
3	RAIL3000
4	VRAILJUN
5	VRAILSLIDE
6	VRAILSUPTOP
7	RAILVC90 / RAILVC135
8	VRAILSUPD

n.	CODE
1a	RAILENDOPEN
2a	VRAILBRAW
3a	RAIL3000
4a	VRAILJUN
5a	VRAILSLIDE
6a	VRAILSUPTOP
7a	RAILVC90 / RAILVC135
8a	VRAILSUPD

SCAN FOR **UPDATES**

CODES AND DIMENSIONS

GROUP	CODE	description	material	B [mm]	H [mm]	L [mm]	pcs	
RAIL	**RAIL3000**	3 m aluminium rail	EN AW 6063 (T6)	49	41	3000	1	
	RAILVC90	aluminium vertical 90° bend for rail	EN AW 6063 (T6)	400	49	400	1	
	RAILVC135	aluminium vertical 135° bend for rail	EN AW 6063 (T6)	214	49	447	1	
TERMINAL ELEMENT	**RAILEND**	fixed end element	AISI 304 stainless steel grade 1.4301	41	4	49	1	
	RAILENDOPEN	openable end element	AISI 304 stainless steel grade 1.4301	20	47	49	1	
SUPPORT	**VRAILBRAL**	support for fastening on ladder	AISI 304 stainless steel grade 1.4301	66	107	100	1	
	VRAILBRAW	support for wall mounting	AISI 304 stainless steel grade 1.4301	140	275	354	1	
	VRAILSUPTOP	rail extension support	AISI 304 stainless steel grade 1.4301	79	52	1500	1	
	VRAILSUPD	diagonal support for horizontal exit rail	AISI 304 stainless steel grade 1.4301	95	608	735	1	

GROUP	CODE	description	material	B [mm]	H [mm]	L [mm]	pcs	
SLIDING DEVICE	VRAILSLIDE	sliding device with energy absorber for vertical rigid lifeline	AISI 304 stainless steel grade 1.4301	118	-	97	1	
JOINT	VRAILJUN	joint element for vertical rail	AISI 304 stainless steel grade 1.4301	25	90	25	1	
TOOL	RAILJUNTOOL	template for rail junction holes	EN AW 6082 - 1.1191 (C45E) aluminium	-	-	-	1	
	RAILFIXTOOL	template for holes for direct fastening on the rail	EN AW 6082 - 1.1191 (C45E) aluminium	-	-	-	1	

VRAILSLIDE

Sliding device with integrated energy absorber allowing vertical movements in comfort and safety.

RAILENDOPEN

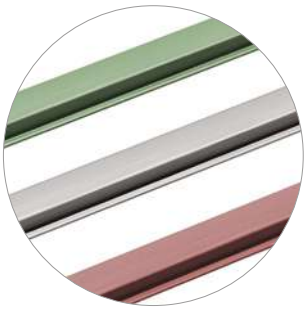
Openable end element allowing fast and safe entry into the system using the standard sliding device.

VRAILBRAL

Support for vertical rail adaptable to any standard ladder. Simple to install.

RAIL3000

Available in various RAL colours on request.



GREEN LINE

LIFE LINE ON SUPPORTS WITH BALLAST

EN 795:2012 C

CEN/TS 16415:2013

FUNCTIONAL
Supporting system that does not require roof perforation. It avoids thermal bridges and respects the waterproofing of the structure.

FAST INSTALLATION
The system consists of few components which facilitate and speed up mounting.

UNOBTRUSIVE
System with reduced visual impact, almost invisible once installed.

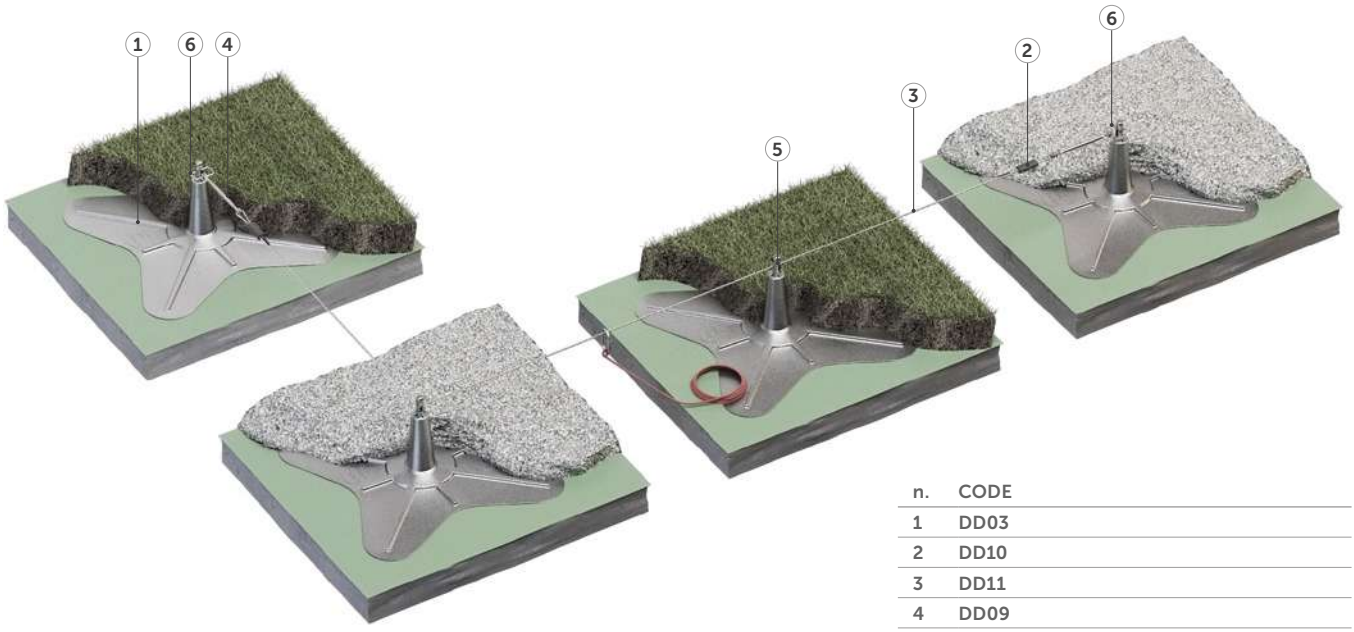
LOAD DIRECTION

TYPES OF APPLICATION

MANUALS

Life line on supports installed at "dead weight" on a flat roof.

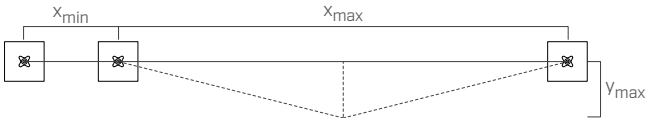
PATROL LIFELINE COMPONENTS



n.	CODE
1	DD03
2	DD10
3	DD11
4	DD09
5	DD06 + D005
6	DD07

TECHNICAL DATA

			GREEN LINE tensioner
minimum spacing	X_{min}	[m]	1,5
maximum spacing	X_{max}	[m]	8
maximum deflection	Y_{max}	[m]	2,38

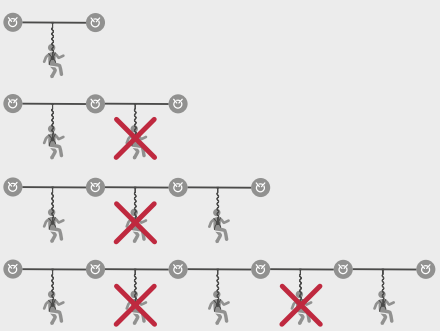


		system characteristics
ballast support dimensions	[cm]	300 x 300 (±5%) x 30 (±1%)
support for ballast		glass-fibre reinforced plastic cone with laminated ballast mat (frost-resistant)
distance between supports	[m]	1,5 - 8
minimum weight of material for ballast*	[kg/m^2]	80
steel rope type	[mm]	Ø8 (7 x 19)
durability		weatherproof (UV-resistant, it can be used in frost and heat)

** If an additional mat is used: 30 kg/m^2. All technical data are average values.*
They are based on measurements from various test institutes and measurement laboratories. We reserve the right to make technical changes

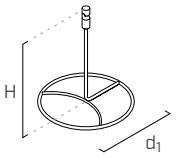
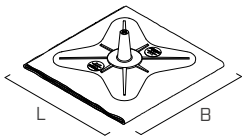
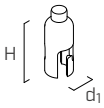
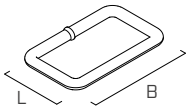
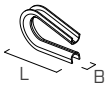
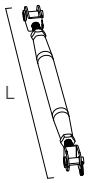
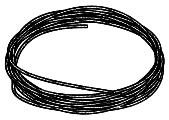
NUMBER OF USERS

Unlimited. Each operator working on one span must have at least both spans beside it free of operators. See diagram aside.



GREEN LINE | components

CODES AND DIMENSIONS

CODE	description	material	d_1 [mm]	B [mm]	H [mm]	L [mm]	s [mm]	pcs	
DD02	internal side anchor point	AISI 316L stainless steel grade 1.4404	250	-	300	-	-	1	
DD03	tarpaulin with possibility of installing ballasts 3 x 3 m with external cone	glass fibre reinforced plastic (GFRP)	-	3000	-	3000	-	1	
DD05	fastening head	AISI 316L stainless steel grade 1.4404	28	-	60	-	-	1	
DD06	fastening ring	AISI 316L stainless steel grade 1.4404	31,5	-	23	-	-	1	
DD07	square ring	AISI 316L stainless steel grade 1.4404	-	57,5	-	87,5	-	1	
DD08	eyelet to form rope loop	AISI 316L stainless steel grade 1.4404	-	38	-	58	-	1	
DD09	cable tensioner	AISI 316L stainless steel grade 1.4404	-	-	-	290-415	-	1	
DD10	clamp	aluminium	-	-	-	-	-	1	
DD11	Ø8 7 x 19 steel rope	AISI 316L stainless steel grade 1.4404	Ø8	-	-	-	-	1	

NOISE PROTECTION FOR METAL SHEET ROOFS

TRASPIR METAL is a highly breathable membrane paired with a 3D mat and a protective felt. The top felt prevents impurities from getting into the mat and improves resistance to treading, preventing water stagnation. It is a soundproofing solution, the only one of its kind to have been tested on site for acoustic insulation against the sound of driving rain on the roof.

SO THE NOISE STAYS OUT, AND YOU CAN SLEEP SOUNDLY.

Find out how TRASPIR METAL protects you from noise

www.rothoblaas.com

rothoblaas

Solutions for Building Technology

TEMPORARY DEVICES

TEMPORARY

TEMPORARY LIFE LINE

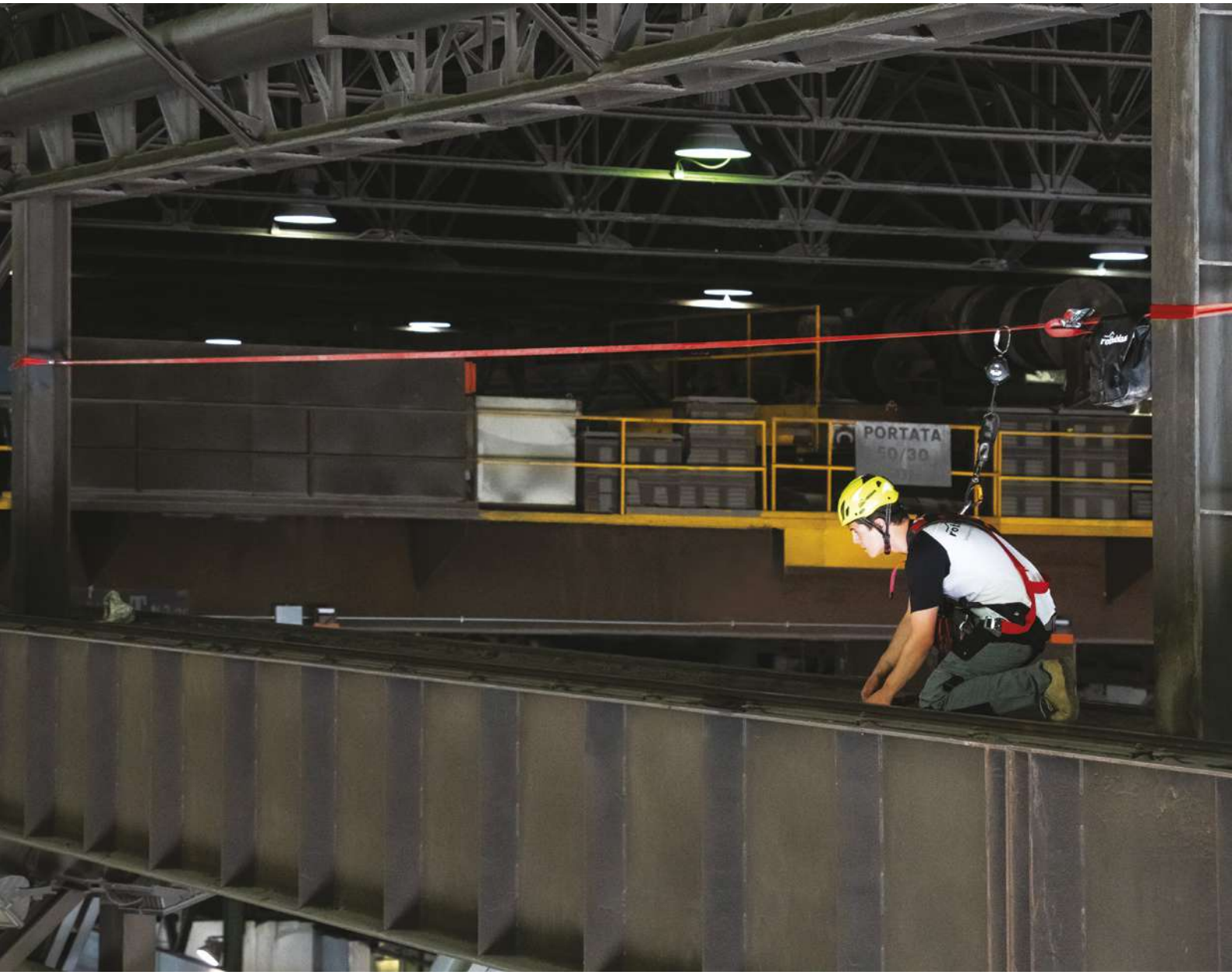
- Horizontal temporary life line that is easy to install, with 30 mm polyester band with high load bearing capacity and excellent visibility.
- Number of users: 2 (**1 each span)**

CODE	description	standard	pcs
TEMP20	temporary life line L = 20 m	EN 795:2012 B+C, CEN/TS 16415:2013	1

COMPLEMENTARY PRODUCTS

CODE	description	standard	pcs
OVALSTE	large carabiner	CE - EN 362/M	2

Temporary lifeline installed on fixed and temporary anchor points.



HOLD-SYSTEM®

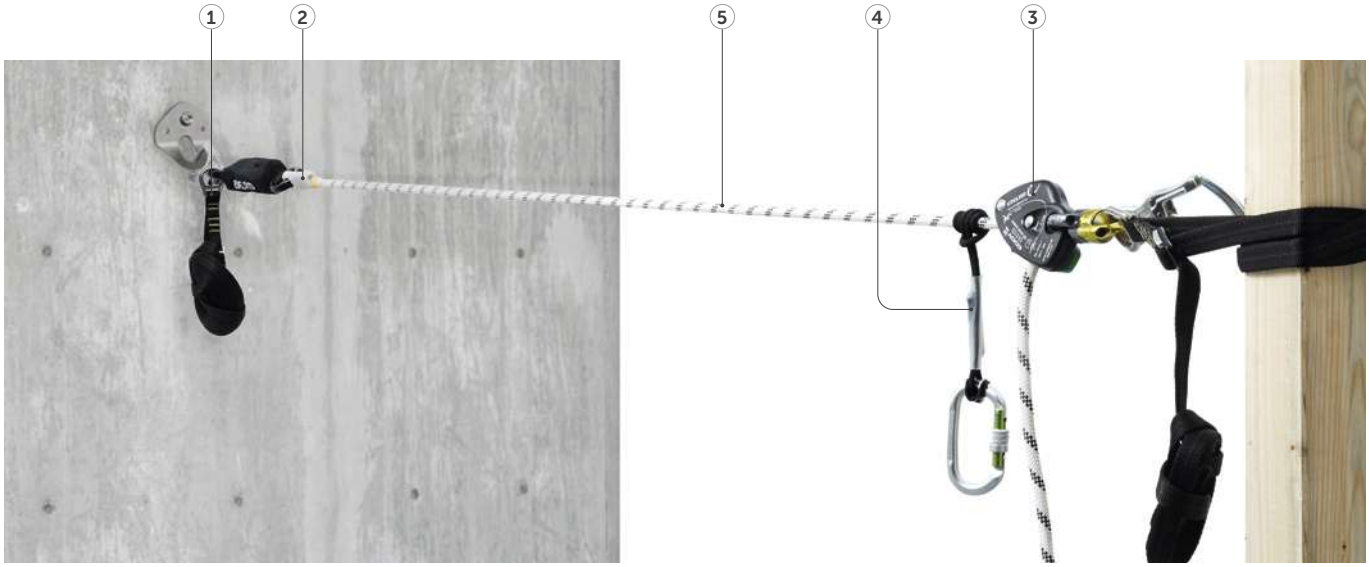
TEMPORARY HORIZONTAL ANCHORING DEVICE

EN 795:2012 B+C

CEN/TS 16415:2013

- Complete system of carabiners and webbing for fastening
- Quick and easy tensioning of the system by one operator using Prusik knot system and self-locking device
- The structure or anchorage points to which the system will be installed must withstand a recommended stress of 9 kN
- Number of users: **2**
- Maximum span: **12 m**
- R_{min} (anchor points) ≤ **6 - 9 kN**

VIDEO MANUALS



n.	description
1	assembly with carabiner or webbing
2	product label
3	self-locking device with emergency release
4	Prusik locking knot for tensioning
5	lifeline for connection with retractable fall arrest device or lanyards with energy absorber

CODES AND DIMENSIONS

CODE	standard	L [m]	pcs
TEMPLUS20	EN 795:2012 B+C, CEN/TS 16415:2013	20	1
TEMPLUS30	EN 795:2012 B+C, CEN/TS 16415:2013	30	1
TEMPLUS40	EN 795:2012 B+C, CEN/TS 16415:2013	40	1
TEMPLUS60	EN 795:2012 B+C, CEN/TS 16415:2013	60	1

COMPLEMENTARY PRODUCTS

CODE	description	L [m]	pcs
HSG2RB	retractable webbing device EN 360	2	1

HSG2RB

ANCHOR POINTS

ANCHOR POINTS

ANCHOR POINTS

THE RIGHT ANCHOR POINT FOR EACH STRUCTURE

TIMBER

WING

page 99

WING

page 99

LOOP

page 104

SLIM

page 105

HOOK EVO

page 100

HOOK EVO 2.0

page 101

HOOK SPIKE

page 103

AOS

page 109

KITE

page 107

AOS01 + TOWER/A2

page 119

AOS01 + TOWER XL

page 121

STEEL

WING

page 99

AOS

page 109

KITE

page 107

WING 2

page 114

AOS01 + TOWER/A2

page 119

MOBILE

page 114

ROD

page 115

CARRIER

page 115

CONCRETE

WING 2

page 114

KITE

page 107

LOOP

page 104

HOOK EVO 2.0

page 101

WING

page 99

AOS01 + TOWER XL

page 121

AOS01 + TOWER XL

page 121

AOS01 + TOWER/A2

page 119

AOS

page 109

METAL SHEET

AOS01 + SEAMO

page 125

AOS01 + SHIELD 2

page 123

AOS01 + SHIELD

page 122

AOS01 + TOWER XL

page 121

SIANK

page 110

AOS01 + COPPO

page 126

AOS01 + SIANK 4

page 124

OTHER

GLUE ANCHOR

page 113

GLUE ANCHOR

page 113

AOS01 + BLOCK

page 127

AOS01 + BLOCK

page 127

GREEN POINT

page 111

WING

ANCHOR POINT FOR WORK AT HEIGHT AND IN SUSPENSION

EN 795:2012 A | CEN/TS 16415:2013 | UNI 11578:2015 A | ANSI Z359.18/A | EAC

AS/NZS 5532:2013 | AS/NZS 1891.4:2009

SOLID
Extremely robust and reliable.

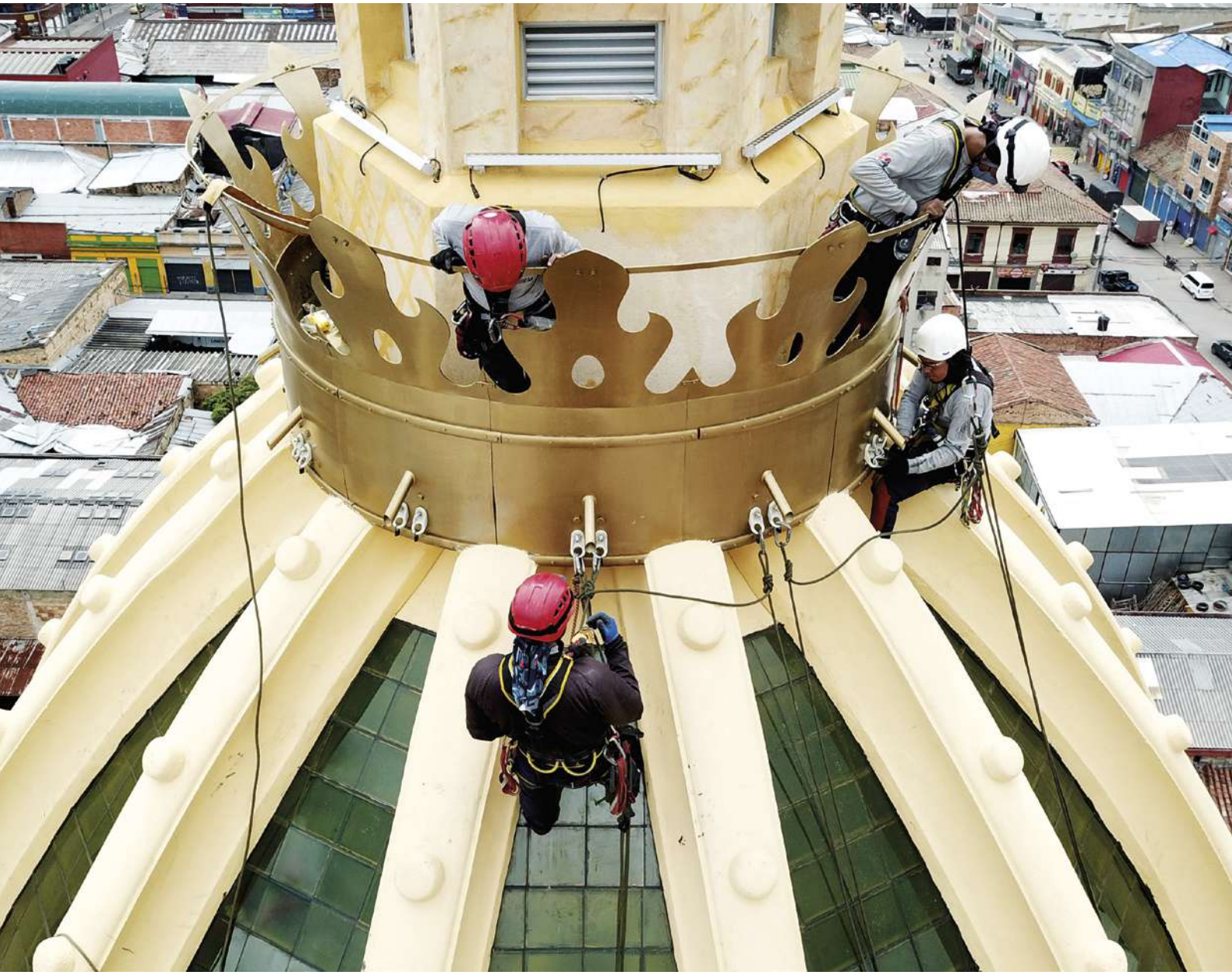
VERSATILE
Can be used both for suspended work (1 person) and for protection against falls from height (3 people).

MULTIPURPOSE
With three different versions of two materials and in three different colours, you will always find the right product for every application and environmental condition.

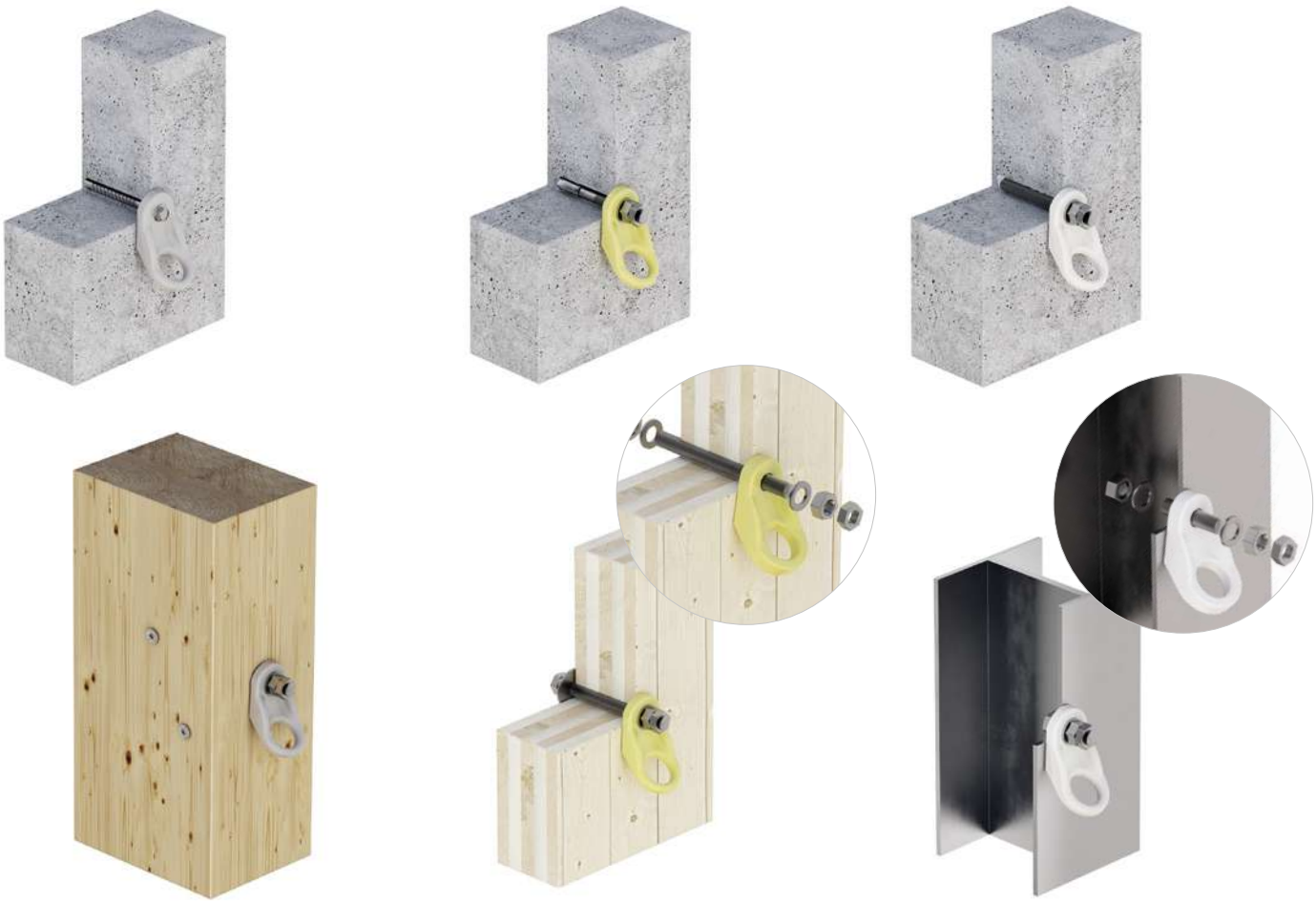
LOAD DIRECTION — TYPES OF APPLICATION

VIDEO | MANUALS

Single WING anchorage points installed for use in suspension for the maintenance of a church dome.



FIELDS OF APPLICATION



TECHNICAL DATA*

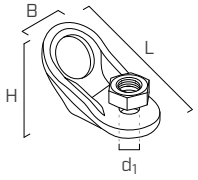
substructure	minimum thickness	fasteners
GL24h	100 x 160 mm	VGS Ø11
		XEPOX F
		M16 rod + MUT + ULS
CLT	100 mm	8.8 Ø16 rod + MUT + ULS

substructure	minimum thickness	fasteners
C20/25	158 mm	AB1 Ø16 AB1A4 Ø16
		M16 + ULS + MUT (8.8/A2/A4)
		VIN-FIX HYB-FIX
		SKR CE Ø16
S235JR	5 mm	EKS M16 + MUT + ULS (8.8/A2/A4)

** The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.*

CODES AND DIMENSIONS

CODE	material	d_1 [mm]	B [mm]	H [mm]	L [mm]	pcs
WING	S355J2 - zinc plated Fe/Zn 12µ + powder coated (RAL7032-grey)	17	65	56	115	1
WINGY	S355J2 - zinc plated Fe/Zn 12µ + powder coated (RAL1016-yellow)					
WINGA4	AISI 316L stainless steel grade 1.4404					



HOOK EVO

ANCHOR POINT

EN 795:2012 A

UNI 11578:2015 A

UNOBTRUSIVE

Under-tile fastening ensures a low visual impact in the roofing, for an aesthetically satisfactory result.

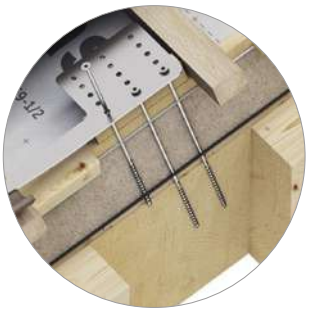
ADJUSTABLE

Quick and easy installation using Ø8 HBS screws. The base plate with an increased number of holes allows the anchor to be mounted in different positions, depending on the type of roof tiles.

LOAD DIRECTION

TYPES OF APPLICATION

VIDEO MANUALS



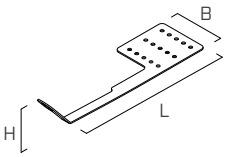
TECHNICAL DATA*

substructure	minimum thickness	fasteners
GL24h	100 x 100 mm	HBS Ø8

** The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.*

CODES AND DIMENSIONS

CODE	material	B [mm]	H [mm]	L [mm]	pcs
HOOKEVO	AISI 430 stainless steel grade 1.4016	132	79	490	1



HOOK EVO 2.0

ANCHOR POINT

EN 795:2012 A

UNI 11578:2015 A

UNOBTRUSIVE

Under-tile fastening ensures a low visual impact in the roofing, for an aesthetically satisfactory result.

PRACTICAL

Fast, simple installation. The bottom plate allows the anchor to be assembled in different positions on both timber and concrete, depending on the height of the battens and the type of tiles.

LOAD DIRECTION

TYPES OF APPLICATION

VIDEO MANUALS

TECHNICAL DATA*

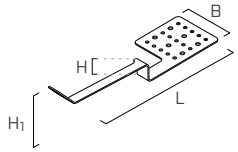
substructure	minimum thickness	fasteners
GL24h	80 X 100 mm + 18 mm of wooden plank	HBS Ø8

substructure	minimum thickness	fasteners
C20/25	100 mm	AB1 Ø10
		M10 rod + ULS + MUT
		VIN-FIX/HYB-FIX

** The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.*

CODES AND DIMENSIONS

CODE	material	B [mm]	H [mm]	H_1 [mm]	L [mm]	pcs
HOOKEVO20	AISI 304 stainless steel grade 1.4301	132	20	92	520	5
HOOKEVO50	AISI 304 stainless steel grade 1.4301	132	50	122	520	5
HOOKEVO100	AISI 304 stainless steel grade 1.4301	132	100	172	520	5



HOOK SPIKE

ANCHOR POINT WITH LADDER HOOK

EN 517-B: 2006

PRACTICAL
Shape designed to be able to attach a portable ladder to facilitate the operator's ascent on steep roofs.

SAFE
Tested according to the standard directly on the substructure, it guarantees safety and freedom of movement in all directions.

VERSATILE
Thanks to the three different heights of the plate, it is possible to choose and assemble the hook according to the type of tile installed on the roof.

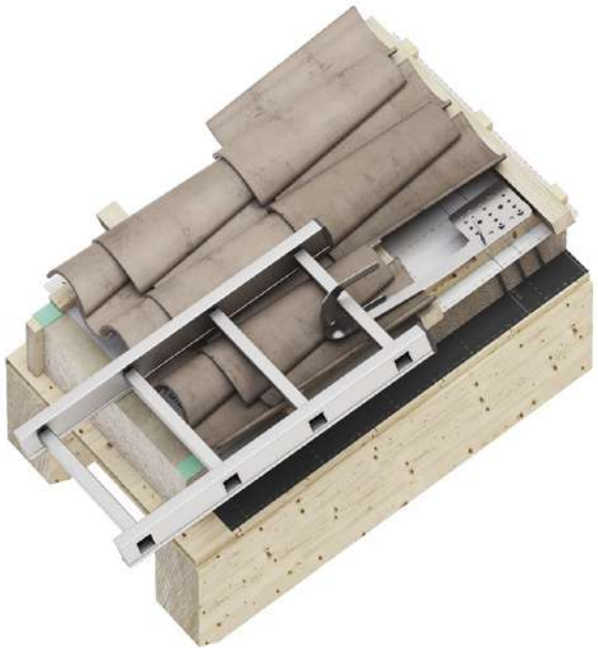

LOAD DIRECTION


TYPES OF APPLICATION

VIDEO MANUALS

Installation of anchor point with HOOK SPIKE ladder hook on timber roofing.

FIELDS OF APPLICATION



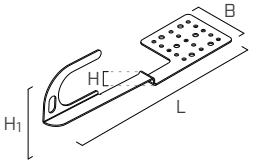
TECHNICAL DATA*

substructure	minimum thickness	fasteners
GL24h	100 x 100 mm	HBS Ø8

** The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.*

CODES AND DIMENSIONS

CODE	description	material	B [mm]	H [mm]	H_1 [mm]	L [mm]	pcs
HOOKS	anchor point with ladder hook	AISI 304 stainless steel grade 1.4301	132	-	112	520	1
HOOKS20	anchor point with ladder hook	AISI 304 stainless steel grade 1.4301	132	20	144	520	1
HOOKS50	anchor point with ladder hook	AISI 304 stainless steel grade 1.4301	132	50	174	520	1
HOOKSB	anchor point with brown ladder hook	AISI 304 stainless steel grade 1.4301	132	-	112	520	1
HOOKSB20	anchor point with brown ladder hook	AISI 304 stainless steel grade 1.4301	132	20	144	520	1
HOOKSB50	anchor point with brown ladder hook	AISI 304 stainless steel grade 1.4301	132	50	174	520	1
HOOKSA	anchor point with anthra-cite-coloured ladder hook	AISI 304 stainless steel grade 1.4301	132	-	112	520	1
HOOKSA20	anchor point with anthra-cite-coloured ladder hook	AISI 304 stainless steel grade 1.4301	132	20	144	520	1
HOOKSA50	anchor point with anthra-cite-coloured ladder hook	AISI 304 stainless steel grade 1.4301	132	50	174	520	1



LOOP

ANCHOR POINT

EN 795:2012 A

UNI 11578:2015 A

UNOBTRUSIVE

Under-tile fastening ensures a low visual impact, ideal for installation on roofs in historic centres.

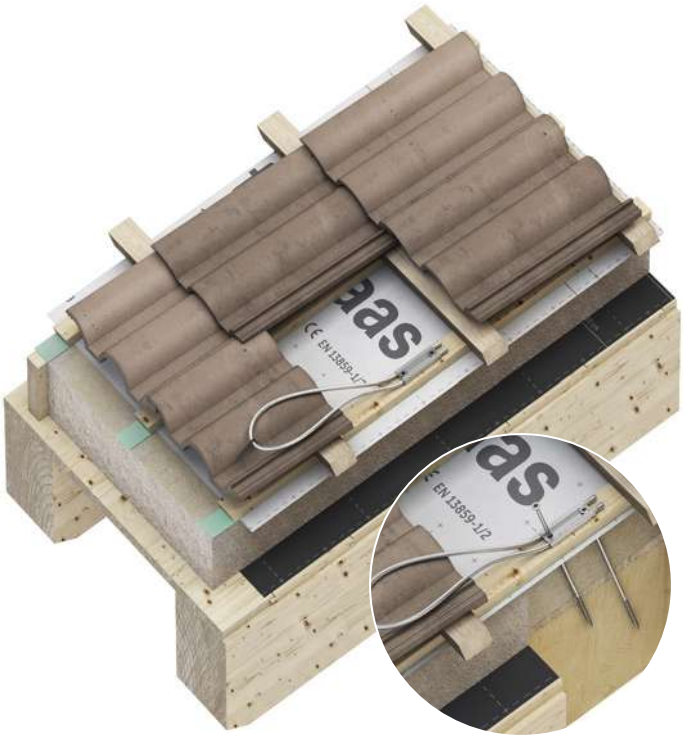
FAST

Fast and easy installation, with just two HBS Ø8 screws.

LOAD DIRECTION

TYPES OF APPLICATION

VIDEO MANUALS



TECHNICAL DATA*

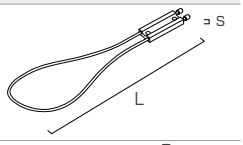
substructure	minimum thickness	fasteners
GL24h	100 x 100 mm	HBS Ø8

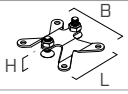
** The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.*

substructure	minimum thickness	fastening + KRAKEN
C20/25	100 mm	M8 5.8 rod + ULS + MUT
		VINFIX/HYBFIX

CODES AND DIMENSIONS

CODE	material	B [mm]	H [mm]	L [mm]	pcs
LOOP	AISI 316 stainless steel grade 1.4401 / EN AW 6060 T6	-	12	456	1
LOOPXL	AISI 316 stainless steel grade 1.4401 / EN AW 6060 T6	-	12	756	1
KRAKEN	AISI 430 stainless steel grade 1.4016 IIA	100	18	116	1





CODE	description	page
PALMIFIX	universal counterplate	230
OMEGA	accessory for PALMIFIX	230

CODE	description	page
BEFPALMI	fastening set for PALMIFIX	231

SLIM

ANCHOR POINT FOR SMALL STRUCTURES

EN 795:2012 A | EN 517-B:2006 | UNI 11578:2015 A | CE

ADJUSTABLE
Can be installed on small beams, with minimum dimensions of 38 x 68 mm with no limits on maximum width.

MULTIPURPOSE
Can be used as single points or as a hook for ladders.

LOAD DIRECTION

TYPES OF APPLICATION

VIDEO | MANUALS

BEFSLIM2

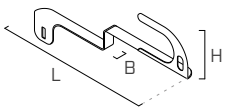
BEFSLIM1

TECHNICAL DATA*

substructure	minimum thickness	fastening set
	114 x 68 mm	BEFSLIM1, BEFSLIM2 

** The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.*

CODES AND DIMENSIONS

CODE	material	B [mm]	H [mm]	L [mm]	pcs	
SLIM	AISI 430 stainless steel grade 1.4016	30	173	500	5	

CODE	description	page	
BEFSLIM1	fastening set for SLIM	231	

CODE	description	page	
BEFSLIM2	height-adjustable fastening set for SLIM	231	

KITE

ANCHOR POINT

EN 795:2012 A

UNI 11578:2015 A

PRACTICAL
Thanks to its lightweight and compact size, this anchor can be installed quickly and easily.

SAFE
Laser cut from a single piece with no welding points, it improves safety in all its applications.

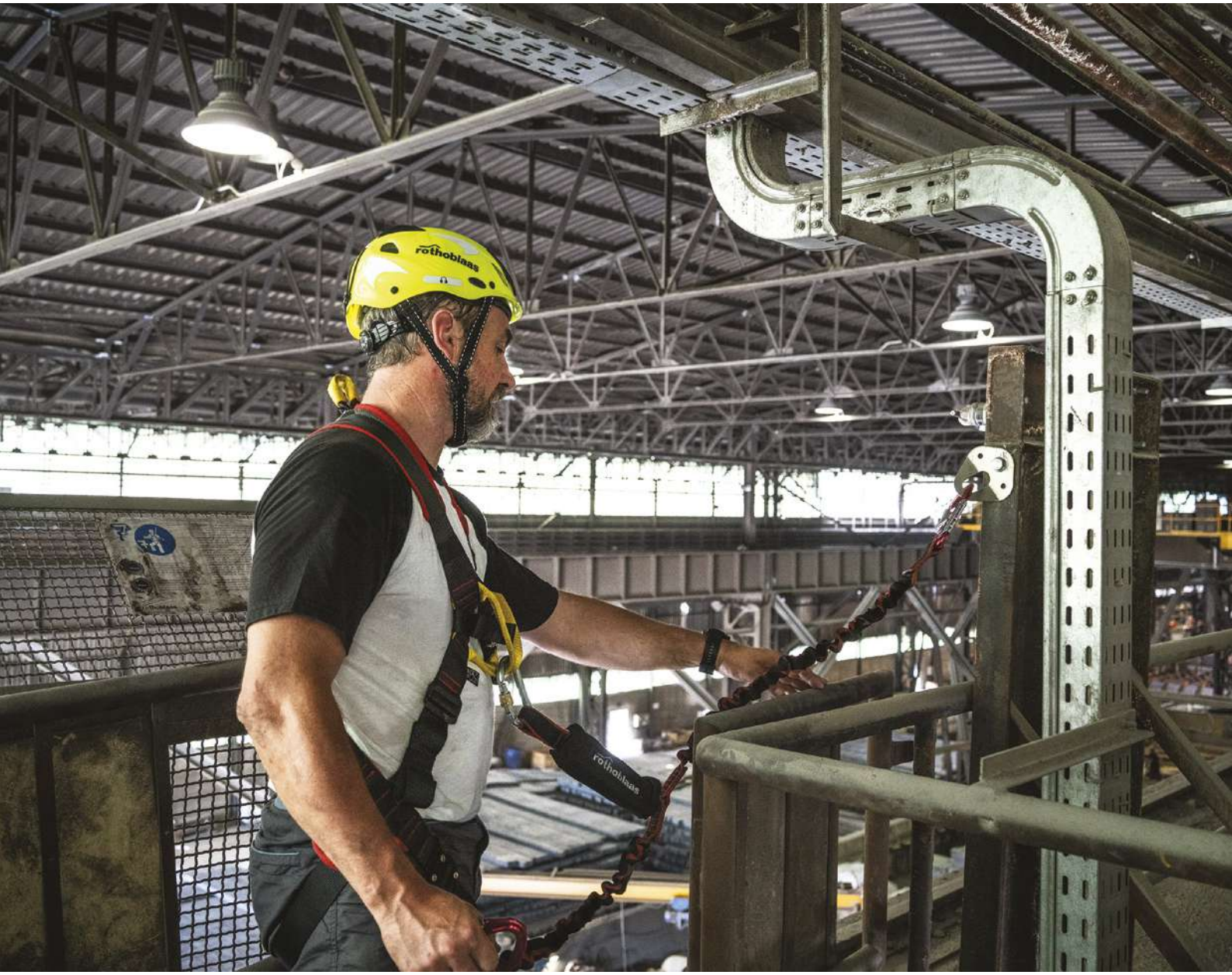
VERSATILE
Ideal as an anchor point in multiple environments, it allows the operator to safely access.

LOAD DIRECTION

TYPES OF APPLICATION

VIDEO MANUALS

KITE anchor point installed in an industrial environment.



FIELDS OF APPLICATION

TECHNICAL DATA*

substructure	minimum thickness	fasteners
GL24h	100 x 100 mm	2 x HBS Ø8
		1x VGS Ø11
S235JR	5 mm	EKS M12 8.8 + ULS + nut

substructure	minimum thickness	fasteners
C20/25	140 mm	AB1 Ø12
		M12 8.8 rod + ULS + MUT
		VIN-FIX HYB-FIX

** The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.*

CODES AND DIMENSIONS

CODE	material	B [mm]	L [mm]	pcs	
KITE	AISI 430 stainless steel grade 1.4016	101	100	1	

ACCESSORIES

CODE	material	
BEFKITE	KITE fastening set for timber	

AOS

ANCHOR POINT

EN 795:2012 A

CEN/TS 16415:2013

UNI 11578:2015 A

FUNCTIONAL
The 360° swivel eyelet allows the operator total freedom of movement.

COMPLETE
Supplied in a handy kit complete with bolts and washers for installation.

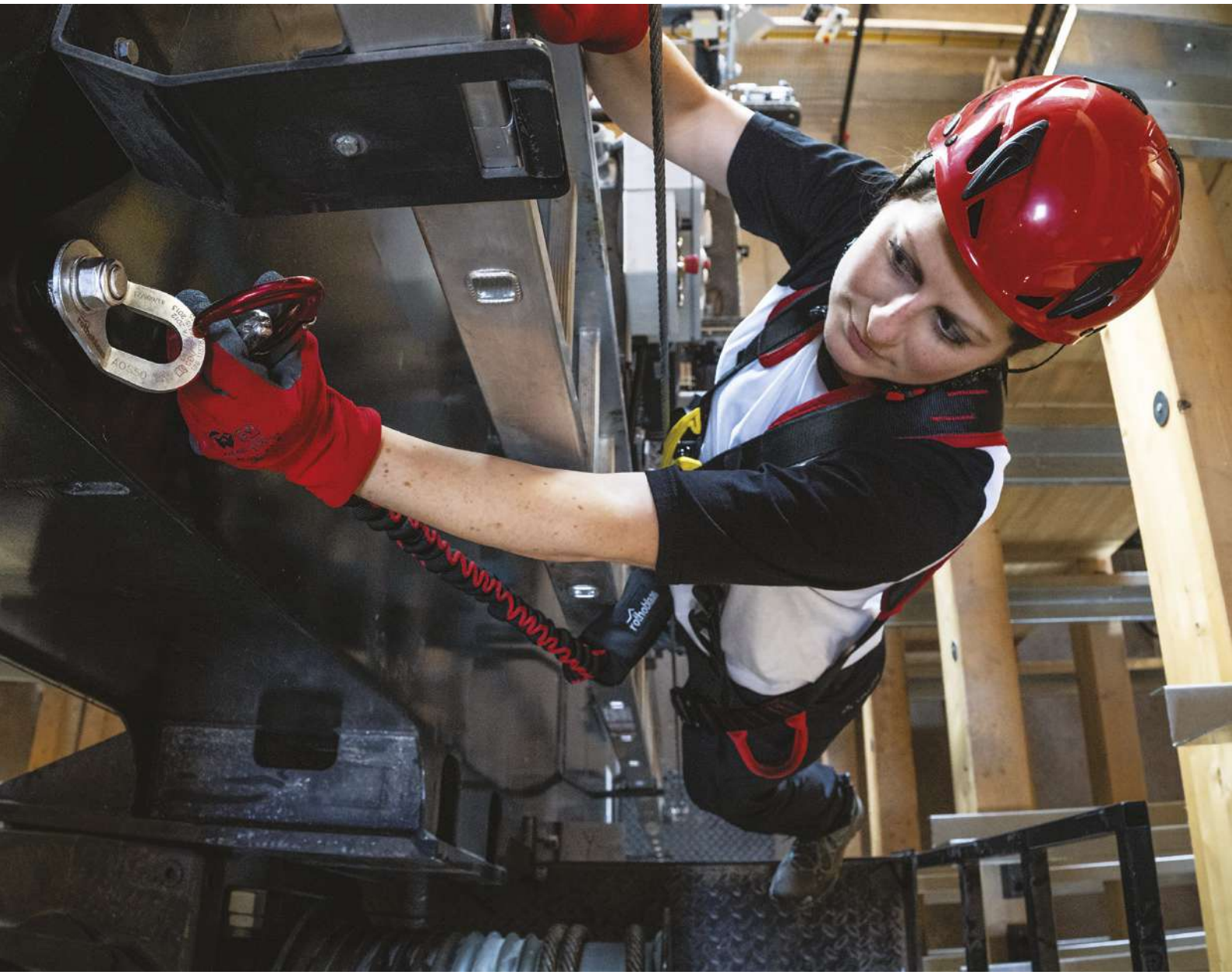
UNIVERSAL
The threaded rod available in various lengths allows the anchor to adapt to any type of timber, concrete and steel structure.

LOAD DIRECTION

TYPES OF APPLICATION

VIDEO MANUALS

AOS anchor points installed on a steel structure for securing an industrial environment.



FIELDS OF APPLICATION

OMEGA + PALMIFIX

TECHNICAL DATA*

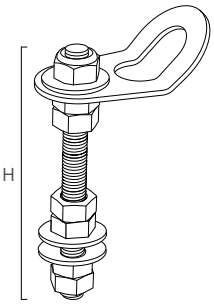
substructure	minimum thickness
GL24h	100 x 120 mm
S235JR	5 mm

substructure	minimum thickness	fasteners
C20/25	164 mm	VIN-FIX HYB-FIX

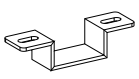
** The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.*

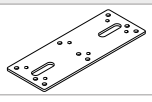
CODES AND DIMENSIONS

CODE	material	max. thickness of fixture [mm]	H [mm]	pcs
AOS50	AISI 304 stainless steel grade 1.4301	29	80	1
AOS130	AISI 304 stainless steel grade 1.4301	132	175	1
AOS200	AISI 304 stainless steel grade 1.4301	164	250	1
AOS300	AISI 304 stainless steel grade 1.4301	264	350	1
AOS400	AISI 304 stainless steel grade 1.4301	364	450	1
AOS500	AISI 304 stainless steel grade 1.4301	464	550	1



ACCESSORIES

CODE	material	page	
OMEGA	accessory for PALMIFIX	230	

CODE	material	page	
PALMIFIX	fixed counterplate	230	

SIANK

EN 795:2012 A | CEN/TS 16415:2013 | UNI 11578:2015 A

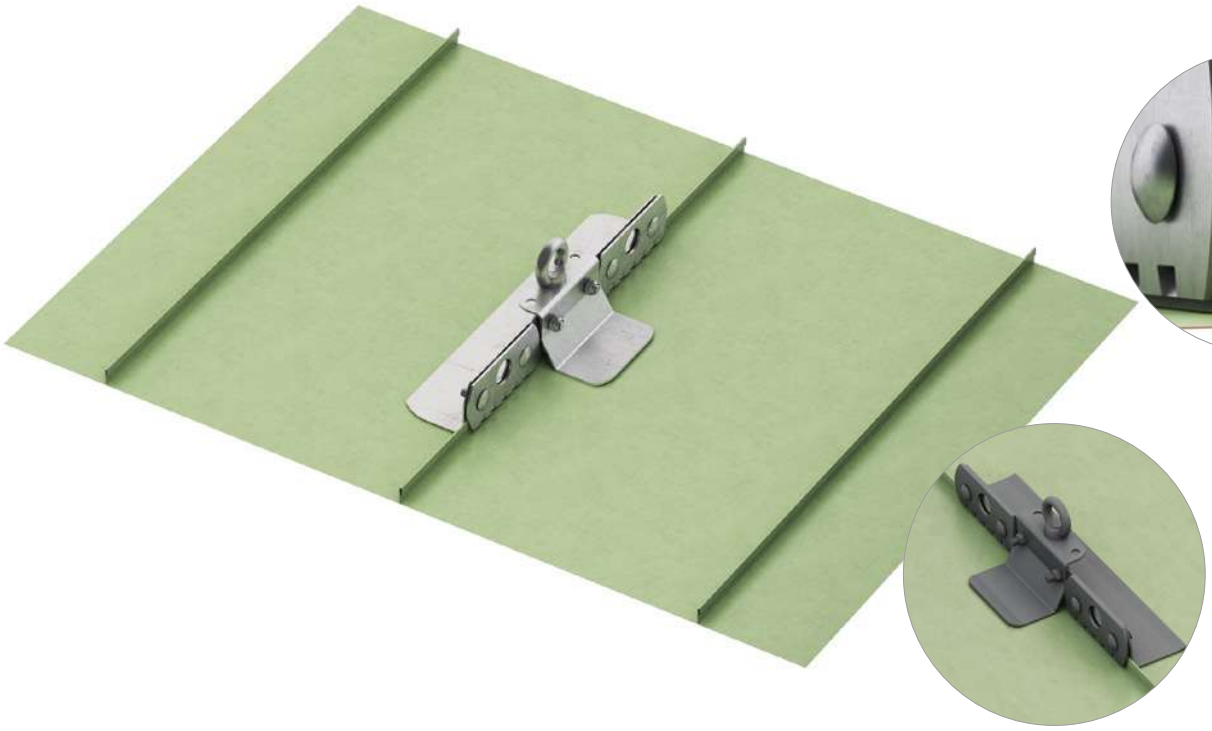
ANCHOR POINT
FOR STANDING SEAM METAL ROOFS

EFFICIENT
The system is fixed to a single seam of the sheet using a few tools.

UNOBTRUSIVE
Device fixed to the seam by means of a single clamp, without the need to drill holes in the metal sheet, guaranteeing its impermeability and durability.


LOAD DIRECTION


TYPES OF APPLICATION



TECHNICAL DATA*

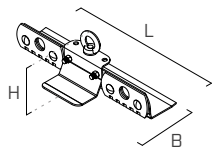
substructure	minimum thickness
Fe	0,5 mm
Al	0,7 mm
Cu	0,5 mm

substructure	minimum thickness
Zn - Ti	0,7 mm
stainless steel	0.4 mm

** The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.*

CODES AND DIMENSIONS

CODE	description	material	B [mm]	H [mm]	L [mm]	pcs
SIANK	anchor point for seaming 25 mm	AISI 304 stainless steel grade 1.4301	163	130	400	1
SIANK65	anchor point for seaming 65 mm	AISI 304 stainless steel grade 1.4301	104	163	400	1
SIANKA	anthracite-colour anchorage point for seaming 25 mm	AISI 304 stainless steel grade 1.4301	163	130	400	1
SIANKB	brown anchorage point for seaming 25 mm	AISI 304 stainless steel grade 1.4301	163	130	400	1



GREEN POINT

ANCHOR POINT WITH BALLASTS

> 80 kg/m² EN 795:2012 A

> 200 kg/m² EN 795:2012 A

> 200 kg/m² CEN/TS 16415:2013

FAST INSTALLATION

The system consists of few components which facilitate and speed up mounting.

FUNCTIONAL

Support system which does not require the roofing to be drilled, thereby preventing thermal bridges and ensuring the structure waterproofing.

LOAD DIRECTION

TYPES OF APPLICATION

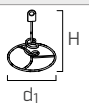
MANUALS

TECHNICAL DATA*

no. of operators	dimensions	material weight	total weight
	standard tarpaulin dimensions 3x3 m VLF non-woven geotextile	for ballast > 80 kg/m^2	for each pole = 720 kg
	standard tarpaulin dimensions 3x3 m VLF non-woven geotextile	for ballast > 200 kg/m^2	for each pole = 1800 kg

** They are based on measurements from various test institutes and measurement laboratories. We reserve the right to make technical changes.*

CODES AND DIMENSIONS

CODE	description	material	d_1 [mm]	B [mm]	H [mm]	L [mm]	pcs	
DD01	anchor point internal element	AISI 316L stainless steel grade 1.4404	250	-	300	-	1	
DD03	tarpaulin with possibility of installing ballasts 3x3 m with external cone	glass fibre reinforced plastic (GFRP)	-	3000	-	3000	1	

GLUE ANCHOR

GLUED ANCHOR POINT
ùFOR BITUMEN AND PVC ROOFS

GLUEPVC

EN 795:2012 A

GLUEBIT

CE

ETA 16/0663

FUNCTIONAL
The application does not require any perforation of the PVC or bituminous sheathing, guaranteeing perfect waterproofing of the roof.

FAST INSTALLATION
The system is quickly installed with very few tools.

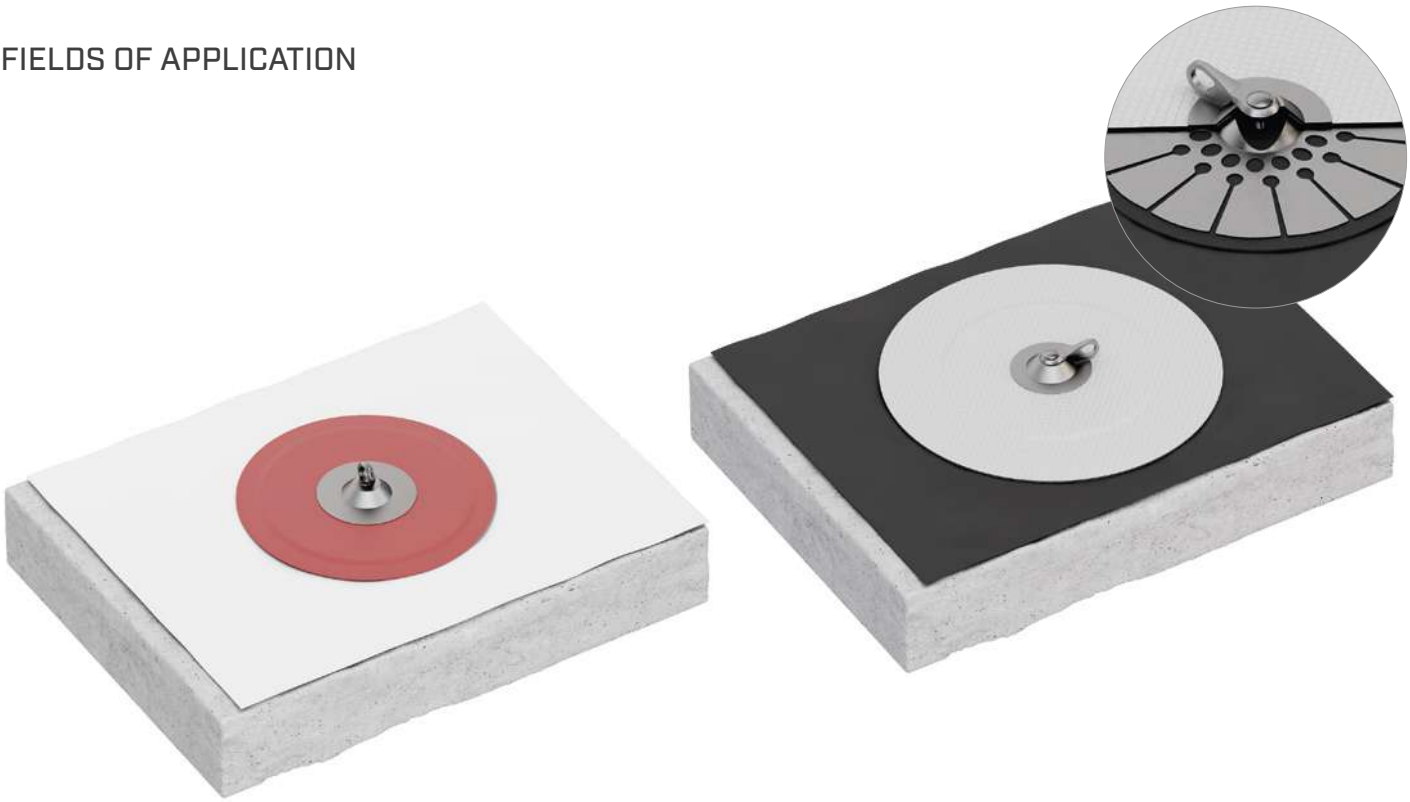
VERSATILE
Equipped with a 360° swivel eyelet to facilitate work operations.

TYPES OF APPLICATION

MANUALS

Single anchor point welded onto a bituminous layer for securing a flat roof.

FIELDS OF APPLICATION

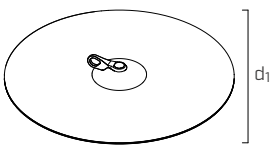
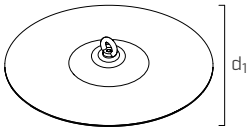


TECHNICAL DATA*

	GLUEPVC	GLUEBIT
ambient temperature of use	-	min. -30° C / max. 90°C
substrate material requirement	-	ABB / SBS multilayer bitumen membrane with at least one polyester core PVC / polyester reinforced membrane
substrate tensile strength	≥ 900N/50 mm (EN 12311-2)	340 ± 20% N/50 mm
max. roof slope 15°	15°	15°
minimum surface around the anchor point (from the centre)	1,80 m	2 m
other substrate requirements	The substrate must be clean, free of dust, moss and algae. Of course, the substrate must be completely dry	1. Mechanically fastened (MF) with a minimum of 3 fasteners per m^2
		2. Ballasted with gravel at least 40 mm thick (approx. 60 kg/m^2)
		3. Partially glued (50% of total surface area) to a mechanically fixed bituminous roof waterproofing system

** The values indicated are derived from experimental tests carried out under the supervision of third party organisations according to the referenced standard. For a calculation report with minimum distances, according to the referenced normative requirements, the substructure must be verified by a qualified engineer before installation.*

CODES AND DIMENSIONS

CODE	material	d_1 [mm]	pcs	
GLUEBIT	glued anchor point for bitumen roof with swivel eyelet	700	1	
GLUEPVC	glued anchor point for PVC roofs	520	1	
GLUEBITGRA	gravel anchor system protection	-	1	

WING 2

ANCHOR POINT FOR SUSPENDED WORK

A4 AISI 316

EN 795 - A

UNOBTRUSIVE
Very compact device that provides an anchorage point for an operator.

PRACTICAL
With its light weight, it is ideal as an anchor point for the safety rope during suspension work.

CODES AND DIMENSIONS

CODE	material	weight	anchor system diameter*	pcs
		[g]		
WING2	stainless steel AISI 316	44	M12	1

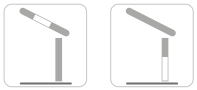
** The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.*

MOBILE

MOBILE ANCHOR POINT

EN 795 - B

CE



REMOVABLE
It can be assembled and disassembled easily and quickly, to safely ensure temporary access to the roofing.

FUNCTIONAL
It can be temporarily installed on doors, windows and inclined skylights, with no structural damage.

CODES AND DIMENSIONS

CODE	material	L	B	H	weight	pcs
		[mm]	[mm]	[mm]	[kg]	
MOBILE	EE30 aluminium	1450	770	175	6,7	1

The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.

ROD

ANCHOR POINT FOR STEEL STRUCTURES

EN 795 - A

PRACTICAL
Thanks to its compact size, this anchor can be installed quickly and easily.

VERSATILE
It can be assembled on tubular and box-type steel structures of different sizes.

CODES AND DIMENSIONS

CODE	material	dimensions	anchor point diameter	weight	pcs
		[mm]	[mm]	[kg]	
ROD	stainless steel	208 x 97 x 75-140	17	2,5	1

The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.

CARRIER

SLIDING ANCHOR FOR STEEL STRUCTURES

EN 795 - B

CE

FUNCTIONAL
Thanks to the integrated rollers, the device slides smoothly along the entire steel structure.

PRACTICAL
Quick and easy to install anchorage on steel beams with different widths, from 50 to 120 mm.

CODES AND DIMENSIONS

CODE	material	dimensions	B	H	weight	pcs
		[mm]	[mm]	[mm]	[kg]	
CARRIER	zinc plated steel	195 x 176 x 212	50-120	60	5,2	1

The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.

AOS01
ANCHOR POINT

FREEDOM OF MOVEMENT, SAFETY AND DURABILITY.

AOS01 is the universal device that allows you to make anchor points with all Rothoblaas supports. The 360° swivel eyelet provides total freedom of movement, ensuring reduced visual impact once installed on the roof. Completely made of stainless steel, AOS01 resists corrosion and atmospheric agents, maintaining its effectiveness over time.

AOS01 | overview

AOS01 + TOWER/TOWER A2

ANCHOR POINT FOR TIMBER,
CONCRETE AND STEEL ROOFS

EN 795:2012 A | CEN/TS 16415:2013 | UNI 11578:2015 A | AS/NZS 5532:2013 | AS/NZS 1891.4:2009

PAGE 118

AOS01 + TOWER XL

ANCHOR POINT WITH INCREASED
BOTTOM PLATE FOR TIMBER,
STEEL AND CONCRETE ROOFS

EN 795:2012 A | CEN/TS 16415:2013 | UNI 11578:2015 A

PAGE 120

AOS01 + SHIELD

ANCHOR POINT
FOR TRAPEZOIDAL METAL ROOFS

EN 795:2012 A | CEN/TS 16415:2013 | UNI 11578:2015 A | AS/NZS 5532:2013 | AS/NZS 1891.4:2009

PAGE 122

AOS01 + SHIELD 2

ANCHOR POINT
FOR TRAPEZOIDAL METAL ROOFS

EN 795:2012 A | CEN/TS 16415:2013 | UNI 11578:2015 A | AS/NZS 5532:2013 | AS/NZS 1891.4:2009

PAGE 123

AOS01 + SIANK 4

ANCHOR POINT
FOR STANDING SEAM METAL ROOFS

EN 795:2012 A | CEN/TS 16415:2013 | UNI 11578:2015 A

PAGE 124

AOS01 + SEAMO

ANCHOR POINT
FOR ROUND SEAM METAL ROOFS

EN 795:2012 A | CEN/TS 16415:2013 | UNI 11578:2015 A

PAGE 125

AOS01 + COPPO

ANCHOR POINT
FOR ROOFS WITH FAUX TILES

EN 795:2012 A | CEN/TS 16415:2013 | UNI 11578:2015 A

PAGE 126

AOS01 + BLOCK

ANCHOR POINT
WITH BALLAST FOR FLAT ROOFS

EN 795:2012 E

PAGE 127

AOS01 + TOWER/TOWER A2

ANCHOR POINT FOR TIMBER, CONCRETE AND STEEL ROOFS

EN 795:2012 A | CEN/TS 16415:2013 | UNI 11578:2015 A | AS/NZS 5532:2013 | AS/NZS 1891.4:2009

PRACTICAL
Support height is between 300 and 600 mm to adapt to different roofing thicknesses.

EFFECTIVE
Device with controlled deformation to limit load transfer to the structure.

UNOBTRUSIVE
Small-sized cylindrical system, minimizes the visual impact on the roofing.

LOAD DIRECTION

TYPES OF APPLICATION

VIDEO | MANUALS | TOWER | TOWER A2

Anchor point AOS01 installed on TOWER support for maintenance of industrial sheet metal roof.

FIELDS OF APPLICATION

TECHNICAL DATA*

substructure	minimum thickness	fasteners
GL24h	160 x 160 mm	VGS Ø9
CLT	200 mm	VGS Ø9
S235JR	6 mm	EKS+ULS+MUT

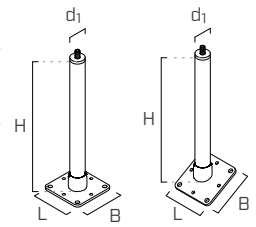
substructure	minimum thickness	fasteners
C20/25	140 mm	AB1 Ø12
		rod Ø12
		VIN-FIX HYB-FIX

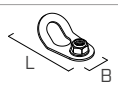
** The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.*

TOWER/TOWER A2 | CODES AND DIMENSIONS

A2 AISI 304

CODE	material	d_1 [mm]	B [mm]	H [mm]	L [mm]	pcs
TOWER300	S235JR zinc plated steel	48	150	300	150	1
TOWERA2300	AISI 304 stainless steel grade 1.4301					
TOWER400	S235JR zinc plated steel	48	150	400	150	1
TOWERA2400	AISI 304 stainless steel grade 1.4301					
TOWER500	S235JR zinc plated steel	48	150	500	150	1
TOWERA2500	AISI 304 stainless steel grade 1.4301					
TOWER600	S235JR zinc plated steel	48	150	600	150	1
TOWER22500	S235JR zinc plated steel	48	150	500	150	1
AOS01	AISI 304 stainless steel grade 1.4301	-	60	-	98	1





COMPLEMENTARY PRODUCTS

CODE	description	page
TOWERPEAK	adaptor for double layer ridge piece	228
TOWERSLOPE	fastening guide for rafter	228
TOWLATEVO	TOWER fastening to the wall	229

CODE	description	page
TOPLATE	counterplate	230
BEF201VGS BEF202VGS	fastening set	231
MANPOST1 MANPOST2	adhesive sealing sleeve for outdoors	232
MANEPDM	EPDM sleeve	232
MANLEAD	lead waterproofing cover	

AOS01 + TOWER XL

ANCHOR POINT WITH INCREASED BOTTOM PLATE FOR TIMBER, STEEL AND CONCRETE ROOFS

EN 795:2012 A

CEN/TS 16415:2013 A

UNI 11578:2015 A

PRACTICAL
Support height between 300 and 800 mm to adapt to different roofing thicknesses.

SAFE
The enlarged bottom plate allows for the distribution of actions resulting from the
anchoring devices over a wider area.

EFFECTIVE
Device with controlled deformation, it dissipates a part of the energy built up during a fall to limit the load transferred to the fastening and the structure.

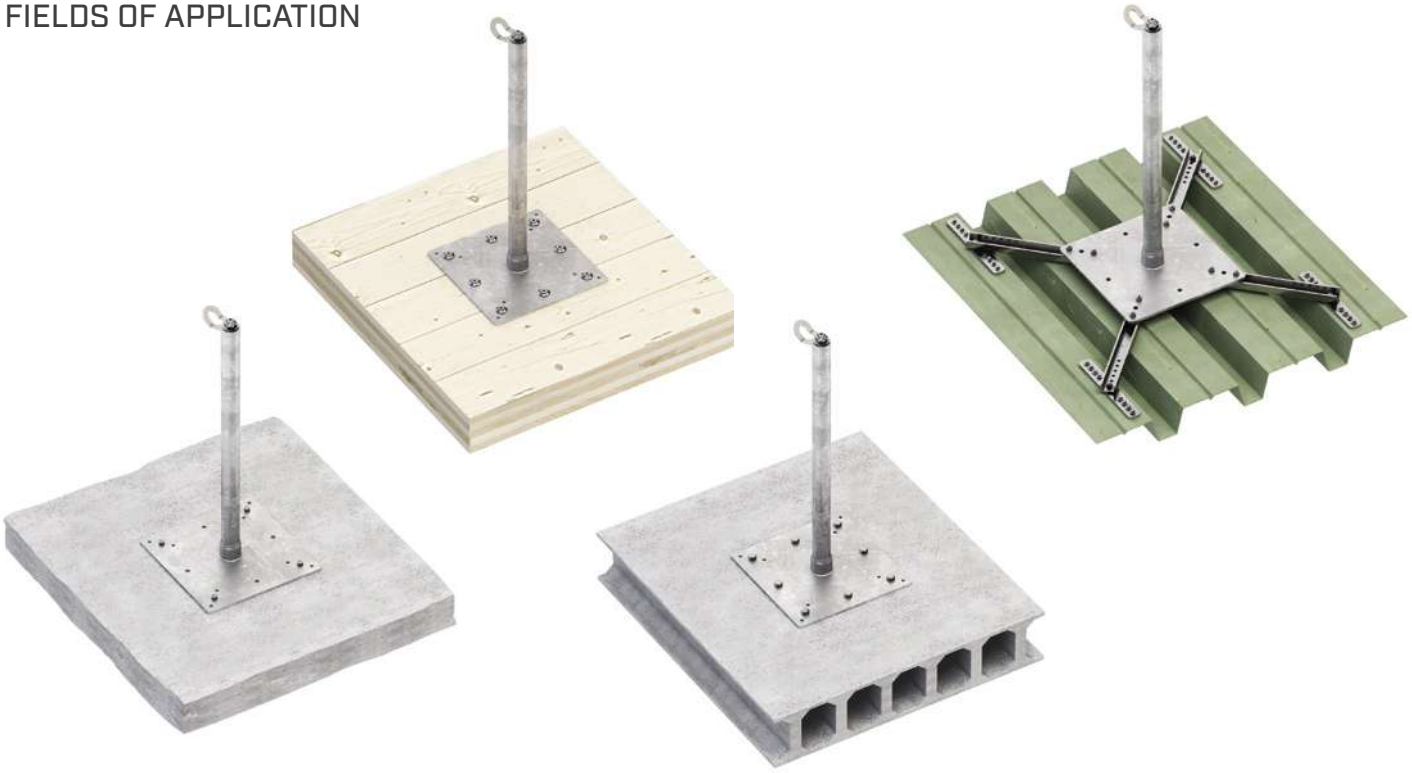
LOAD DIRECTION

TYPES OF APPLICATION

VIDEO MANUALS

Anchorage point AOS01 installed on TOWER XL support for maintenance of CLT flat roof.

FIELDS OF APPLICATION



TECHNICAL DATA*

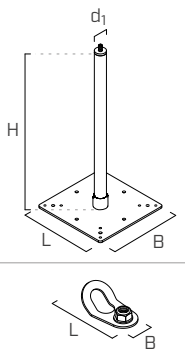
substructure	minimum thickness	fasteners
CLT	100 mm	VGS Ø11
C45/55	30 mm	BEFTOWERXL1
	0,75 mm	set TRAPO

substructure	minimum thickness	fasteners
C20/25	110 mm	AB7 Ø10
		rod Ø10
		VIN-FIX
		SKR CE Ø10

** The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.*

TOWER XL | CODES AND DIMENSIONS

CODE	material	d_1 [mm]	B [mm]	H [mm]	L [mm]	pcs
TOWERXL300	S235JR zinc plated steel	48	350	300	350	1
TOWERXL400	S235JR zinc plated steel	48	350	400	350	1
TOWERXL500	S235JR zinc plated steel	48	350	500	350	1
TOWERXL600	S235JR zinc plated steel	48	350	600	350	1
TOWERXL700	S235JR zinc plated steel	48	350	700	350	1
TOWERXL800	S235JR zinc plated steel	48	350	800	350	1
AOS01	AISI 304 stainless steel grade 1.4301	-	60	-	98	1



COMPLEMENTARY PRODUCTS

CODE	description	page
MANPOST1 **MANPOST2**	adhesive sealing sleeve for outdoors	232
MANEPDM	EPDM sleeve	232
MANLEAD	lead waterproofing cover	232

CODE	description	page
TRAPO	support for trapezoidal steel deck	230
BEFTOWERXL1	fastening set for aerated cement	231

AOS01 + SHIELD

EN 795:2012 A | CEN/TS 16415:2013 | UNI 11578:2015 A | AS/NZS 5532:2013 | AS/NZS 1891.4:2009

ANCHOR POINT
FOR TRAPEZOIDAL METAL ROOFS

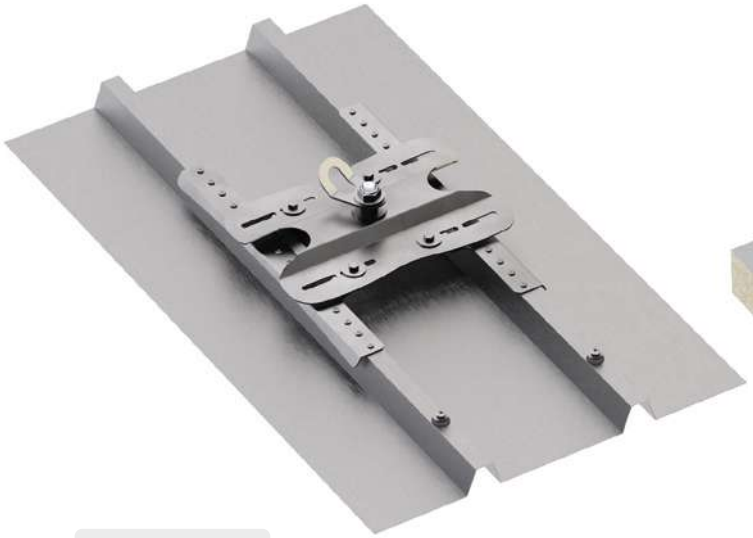
UNOBTRUSIVE
It ensures a reduced visual impact thanks to its small size.

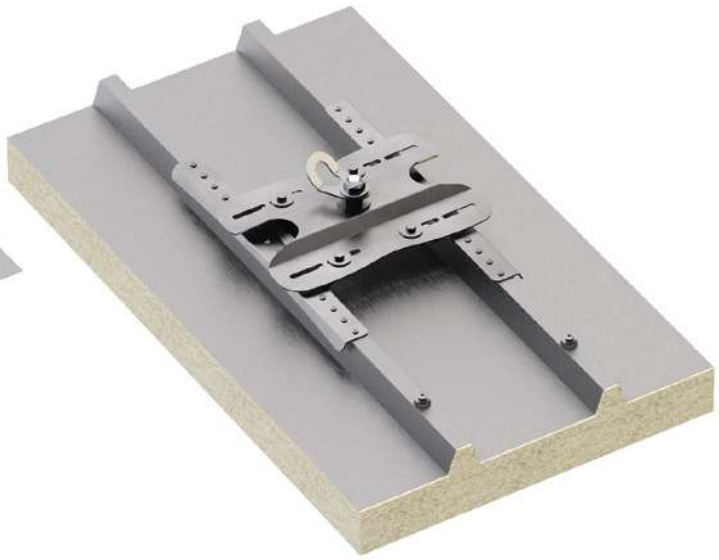
PACKAGING
Supplied complete with mounting rivets and cellular rubber seals for perfect waterproofing.

LOAD DIRECTION

TYPES OF APPLICATION

VIDEO | MANUALS





INCLUDED IN THE PACKAGE

TECHNICAL DATA*

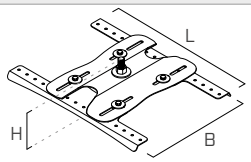
substructure	minimum thickness	fastening systems included
Fe	0.4 mm	rivet 6,3 x 20,2 mm with EPDM washer (x 32)
Fe	0.4 mm	

substructure	minimum thickness	fastening systems included
Al	0,6 mm	rivet 6,3 x 20,2 mm with EPDM washer (x 32)
Al	0,6 mm	

** The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.*

SHIELD | CODES AND DIMENSIONS

A2 AISI 304

CODE	material	B [mm]	H [mm]	L [mm]	pcs	
SHIELD	AISI 304 stainless steel grade 1.4301	180-420	85	476	1	
AOS01	AISI 304 stainless steel grade 1.4301	60	-	98	1	
RIV6320	rivets 6,3 x 20,2 mm with EPDM washer	-	-	-	33	

AOS01 + SHIELD 2

EN 795:2012 A | CEN/TS 16415:2013 | UNI 11578:2015 A | AS/NZS 5532:2013 | AS/NZS 1891.4:2009

ANCHOR POINT
FOR TRAPEZOIDAL METAL ROOFS

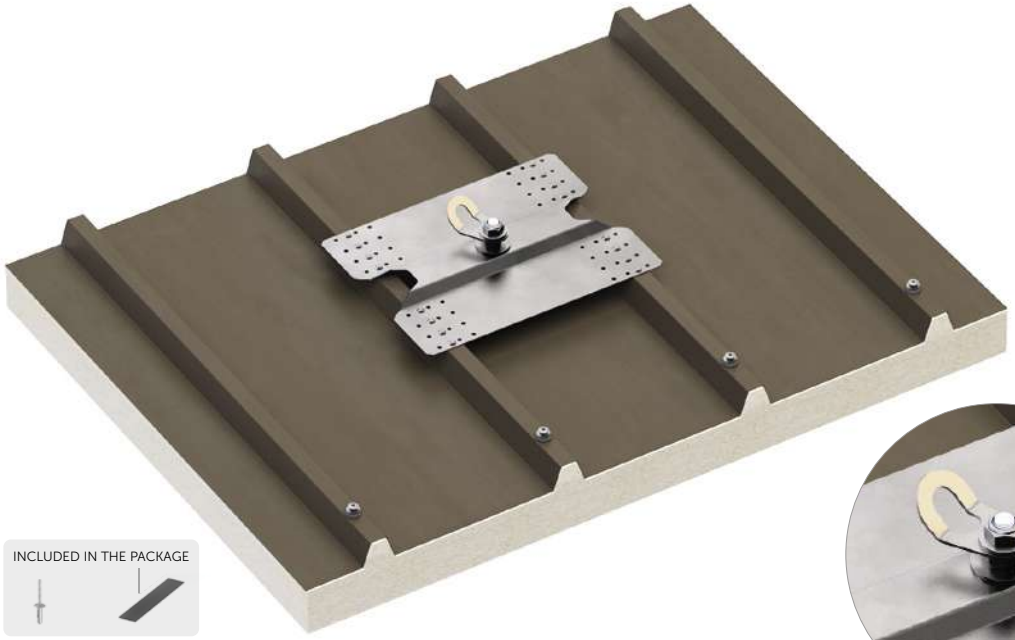
FAST
Easy installation because it is configured as a single plate.

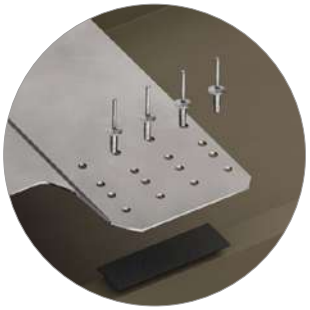
COMPLETE
The package includes fasteners and cellular rubber seals, to ensure waterproofing.


LOAD DIRECTION


TYPES OF APPLICATION

VIDEO MANUALS





INCLUDED IN THE PACKAGE

TECHNICAL DATA*

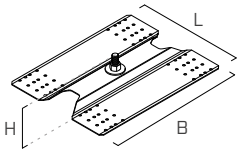
substructure	minimum thickness	fastening systems included
Fe	0,5 mm	rivet 6,3 x 20,2 mm with EPDM washer (x 16)
Fe	0,5 mm	

substructure	minimum thickness	fastening systems included
Al	1 mm	rivet 6,3 x 20,2 mm with EPDM washer (x 16)
Al	0,7 mm	

** The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.*

SHIELD 2 | CODES AND DIMENSIONS

A2 AISI 304

CODE	material	B [mm]	H [mm]	L [mm]	pcs	
SHIELD2	AISI 304 stainless steel grade 1.4301	420	65	322	1	
AOS01	AISI 304 stainless steel grade 1.4301	60	-	98	1	
RIV6320	rivets 6,3 x 20,2 mm with EPDM washer	-	-	-	33	

AOS01 + SIANK 4

EN 795:2012 A | CEN/TS 16415:2013 | UNI 11578:2015 A

ANCHOR POINT
FOR STANDING SEAM METAL ROOFS

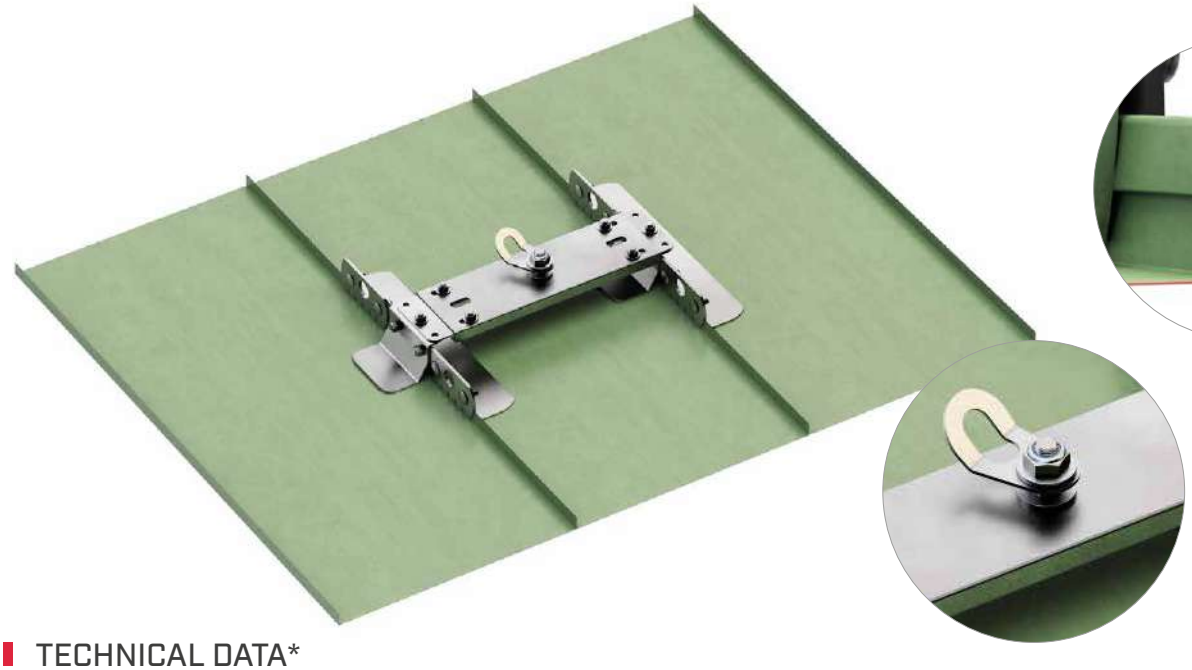
ROBUST
Fixed on two crimps for improved resistance.

HIGH PERFORMANCE
Up to four workers can be attached.

SAFETY
Installation does not require the sheet metal to be drilled, thanks to the gripper which distributes the load over the double seam, thus ensuring the integrity of the building envelope.


LOAD DIRECTION


TYPES OF APPLICATION



TECHNICAL DATA*

substructure	minimum thickness
Fe	0,5 mm
Al	0,7 mm
Cu	0,5 mm

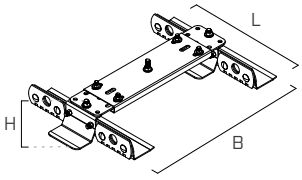
substructure	minimum thickness
Zn - Ti	0,7 mm
stainless steel	0.4 mm

** The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.*

SIANK 4 | CODES AND DIMENSIONS

A2 AISI 304

CODE	material	B [mm]	H [mm]	L [mm]	pcs
SIANK4	AISI 304 stainless steel grade 1.4301	430-600	90	400	1
SIANK465	AISI 304 stainless steel grade 1.4301	430-600	113	400	1
AOS01	AISI 304 stainless steel grade 1.4301	60	-	98	1



AOS01 + SEAMO

EN 795:2012 A

CEN/TS 16415:2013

UNI 11578:2015 A

ANCHOR POINT
FOR ROUND SEAM METAL ROOFS

SIMPLE
Fastened to the seam with four clamps, without the need to make openings in the sheet metal.

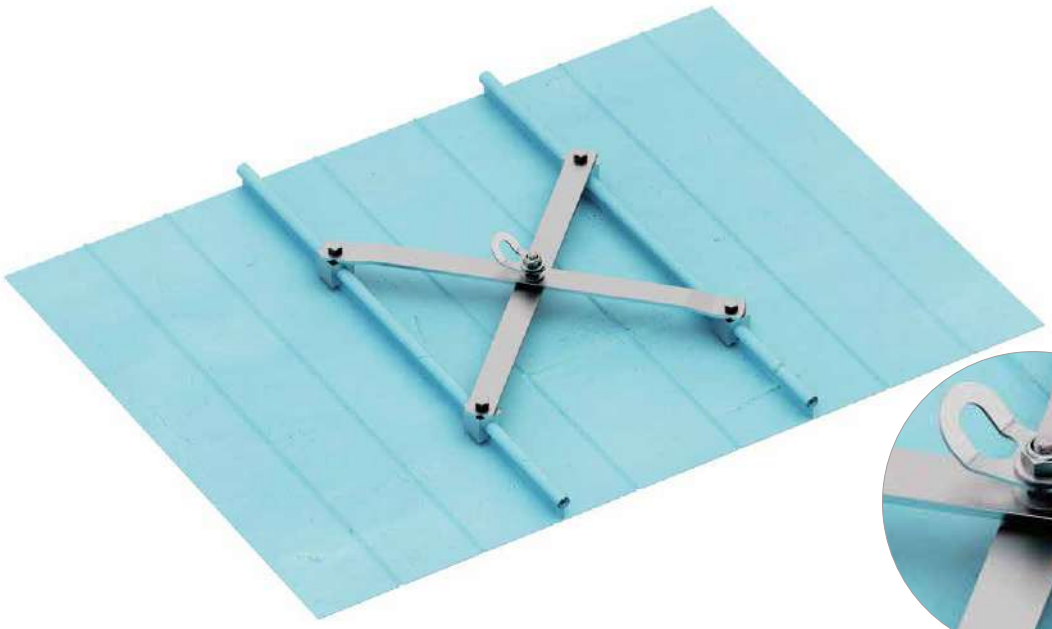
ROBUST
Fixed on two round crimps for improved resistance.

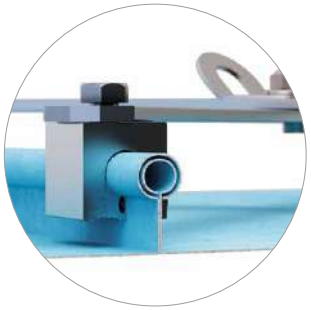
LOAD DIRECTION

TYPES OF APPLICATION

VIDEO

MANUALS





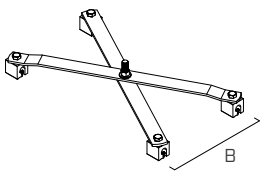
TECHNICAL DATA*

substructure	minimum thickness	substructure	minimum thickness
Fe ALUFALZ, INTERFALZ, BEMO ROOF, KALZIP	0,6 mm	Al ALUFALZ, INTERFALZ, BEMO ROOF, KALZIP	0,8 mm

** The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.*

SEAMO | CODES AND DIMENSIONS

A2 AISI 304

CODE	material	B [mm]	H [mm]	L [mm]	pcs	
SEAMO	AISI 304 stainless steel grade 1.4301	305-500	-	-	1	
AOS01	AISI 304 stainless steel grade 1.4301	60	-	98	1	

AOS01 + COPPO

EN 795:2012 A | CEN/TS 16415:2013 | UNI 11578:2015 A

ANCHOR POINT
FOR ROOFS WITH FAUX TILES

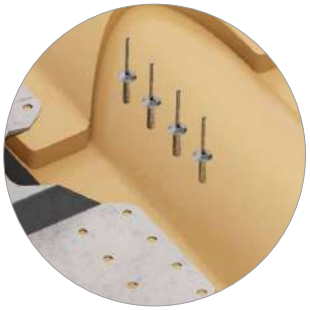
FAST
Easy installation because it is configured as a single plate.

COMPLETE
The package includes fasteners and cellular rubber seals, to ensure waterproofing.

LOAD DIRECTION

TYPES OF APPLICATION

VIDEO | MANUALS



INCLUDED IN THE PACKAGE

TECHNICAL DATA*

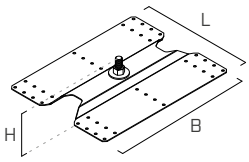
substructure	minimum thickness	fastening systems included
Fe	0,5 mm	rivet 6,3 x 20,2 mm with EPDM washer (x 24)

substructure	minimum thickness	fastening systems included
Al	0,7 mm	rivet 6,3 x 20,2 mm with EPDM washer (x 24)

** The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.*

COPPO | CODES AND DIMENSIONS

A2 AISI 304

CODE	material	B [mm]	H [mm]	L [mm]	pcs	
COPPO	AISI 304 stainless steel grade 1.4301	420	65	322	1	
AOS01	AISI 304 stainless steel grade 1.4301	60	-	98	1	
RIV6320	rivets 6,3 x 20,2 mm with EPDM washer	-	-	-	33	

AOS01 + BLOCK

EN 795:2012 E

CE

ANCHOR POINT
WITH BALLAST FOR FLAT ROOFS

WITHOUT PERFORATIONS

It is designed for installation on flat roofs, and does not require to drill the roof covering, avoiding thermal bridges and preserving the waterproofing layer of the structure.

FLAT ROOFS

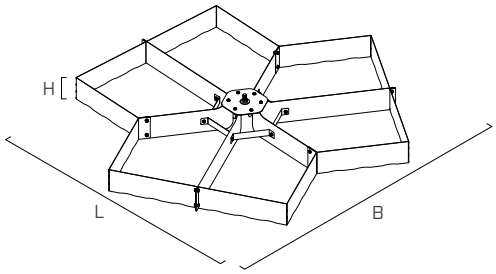
Designed for flat roofs with inclines up to 5° with PVC or bituminous final covering, with or without gravel.

LOAD DIRECTION

TYPES OF APPLICATION

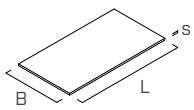
BLOCK | CODES AND DIMENSIONS

A2 AISI 304

CODE	material	B [mm]	H [mm]	L [mm]	pcs	
BLOCK	AISI 304 stainless steel grade 1.4301	1870	165	1645	1	
AOS01	AISI 304 stainless steel grade 1.4301	60	-	98	1	

** The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.*

COMPLEMENTARY PRODUCTS

CODE	description	B [mm]	L [mm]	s [mm]	pcs	
BLOCKMAT	BLOCKMAT mats not included in the supply of the BLOCK item (3 pieces per BLOCK are required) it can be ordered separately.	550	1050	6	1	

COLLECTIVE PROTECTION

COLLECTIVE PROTECTION

COLLECTIVE PROTECTION

PERMANENT RAILING BARRIERS

FIXED LADDERS

FIXED FALL PROTECTION NETS

WALKWAYS AND OVERPASSES

TEMPORARY RAILING BARRIERS

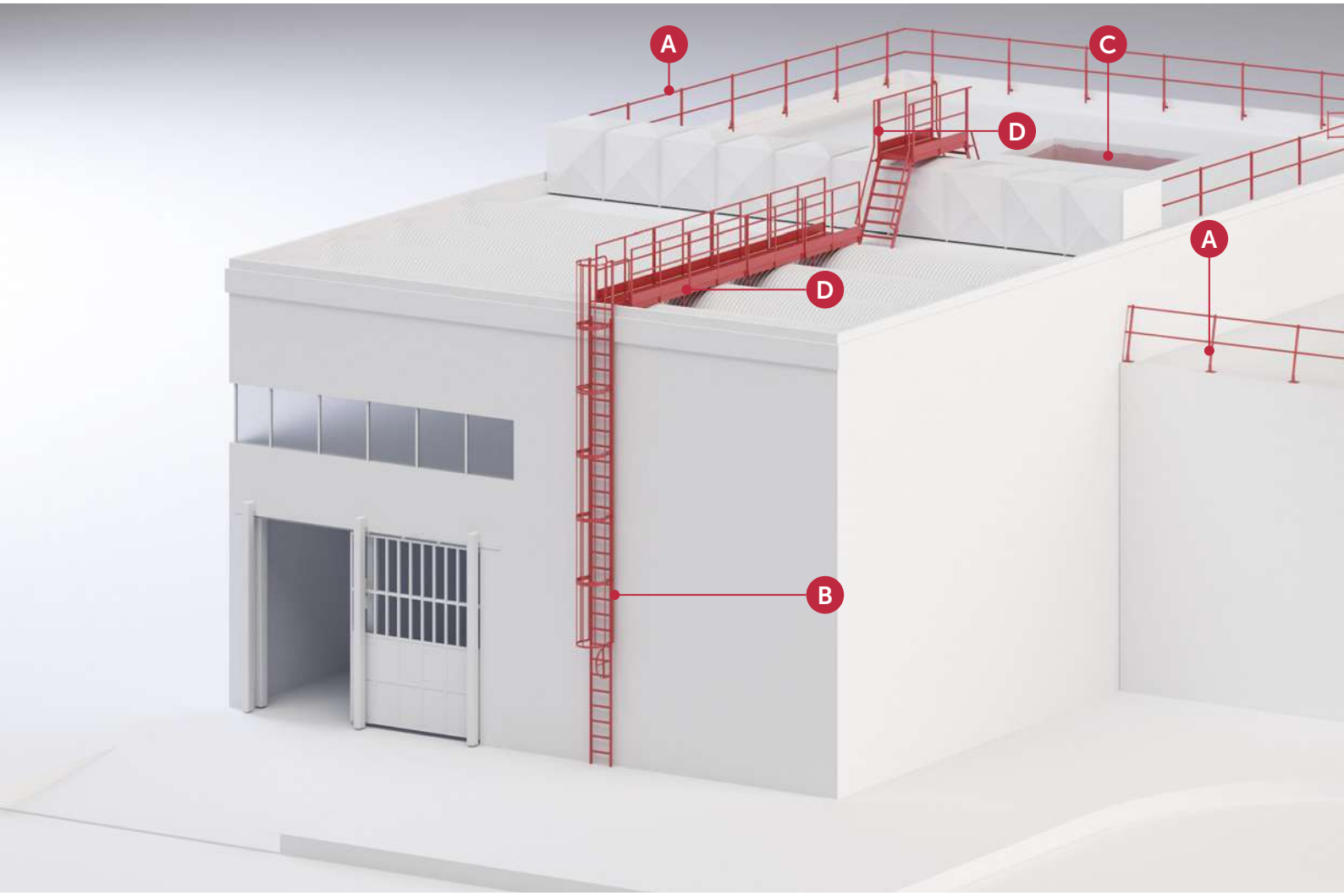
LADDER HOOKS

TEMPORARY FALL PROTECTION NETS

COLLECTIVE PROTECTIVE EQUIPMENT AND ACCESSES

COLLECTIVE PROTECTIVE EQUIPMENT

Collective Protective Equipment (CPE) are aimed at safeguarding people's health and safety. The use of **CPE** should be seen as a priority with respect to the the use of **Personal Protective Equipment (PPE)**.



A **PERMANENT RAILING BARRIERS**

Permanent protections protect everyone who climbs on roofs from falls. Workers can move freely without PPE when permanent railings are installed. Compliant with standards EN 14122-3.

B **FIXED LADDERS**

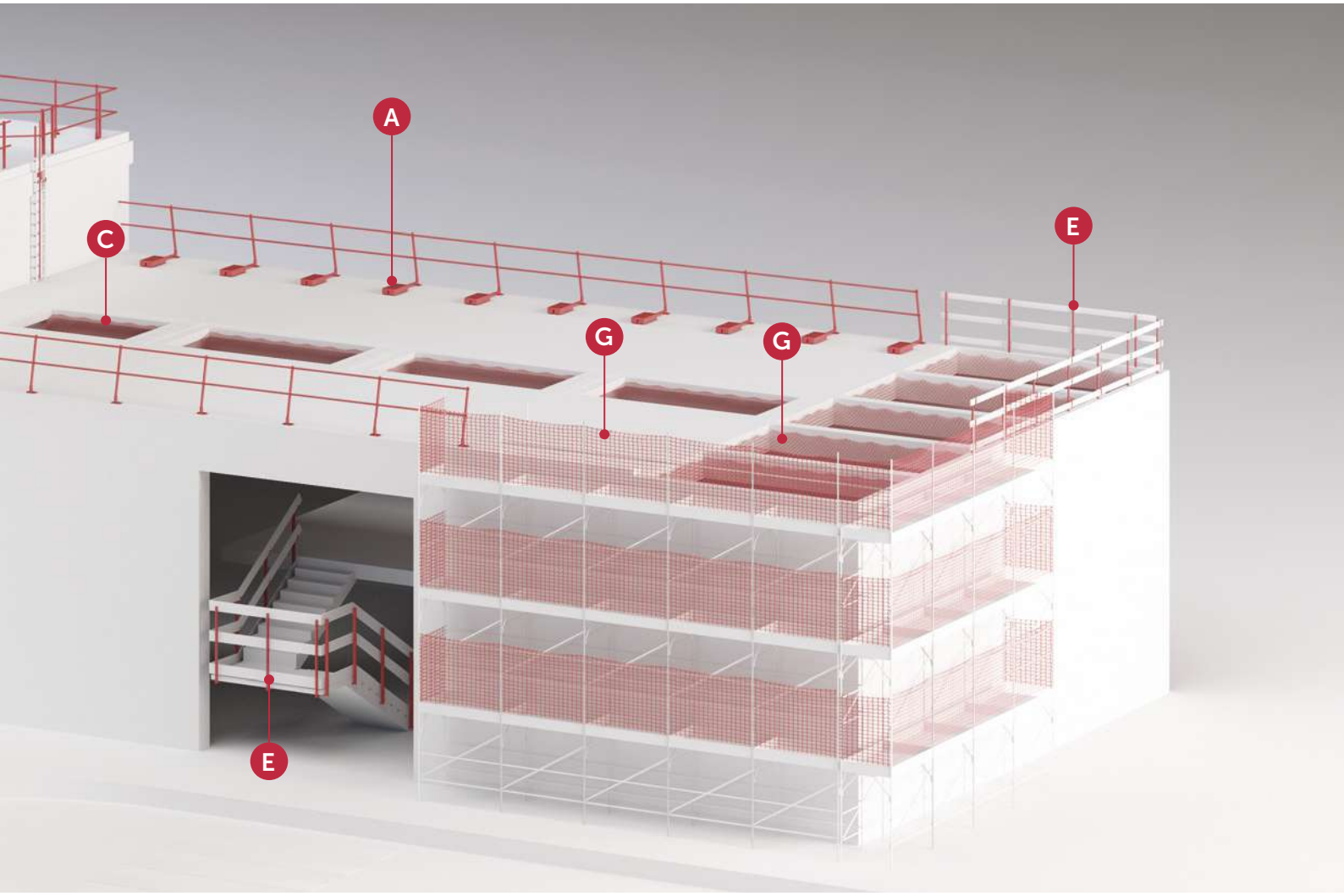
Ladders for safe access to workplaces at height, with or without cage. Versions without a cage can be combined with the VERTIGRIP vertical lifeline system. All ladders are designed according to Legislative Decree 09/04/2008 no. 81 "Testo Unico" and according to EN 14122-4.

C **PERMANENT FALL PROTECTION NET**

They protect workers from falling inside the building and are permanently mounted.

ACCESSES

The term "access" identifies a point, that can be reached via a path allowing the safe transfer of one or more operators, materials and tools to the roofing.



D **WALKWAYS AND OVERPASSES**

Walkways that allow to create safe routes on fragile roofs and overcome obstacles. These systems comply with EN 14122-2 and EN 14122-3.

E **TEMPORARY RAILING BARRIERS**

Temporary protection against falls from height during installation and maintenance work. Compliant with standard 13374.

F **LADDER HOOKS**

Ladder hooks are designed to prevent portable ladders from sliding sideways and frontally. Ideal for use where there is no internal access to the roof.

G **TEMPORARY FALL PROTECTION NETS**

Fall protection nets for maintenance workers and technicians.
They offer freedom of movement and absorb the impact in the event of a fall.

GUARD

PERMANENT ALUMINIUM RAILINGS

EN 14122-3: 2016 | EN 13374+A1: 2018 | NTC 2018 | NF E85-015: 2019

SIMPLE
Fast and easy to assemble, installation only takes a few steps.

COMBINABLE
Modular system, can meet any design requirement thanks to the wide range of available accessories.

AESTHETICS AND DURABILITY
The aluminium alloy guarantees an aesthetic system and good corrosion resistance in the long term.

VIDEO MANUALS

Installation of permanent railings for securing an industrial roof.

TYPES OF FASTENING

GUARD H
HORIZONTAL
FASTENING

GUARD V/GUARD VD
VERTICAL SPACED

GUARD W
SELF-SUPPORTING

Z GUARD
Z SHAPED BASE
(FASTENING)

GUARD M ON METAL
SHEET/METAL
PANEL

TYPES OF UPRIGHTS

STRAIGHT
UPRIGHT - S

INCLINED
UPRIGHT - I

FOLDING
UPRIGHT - F*

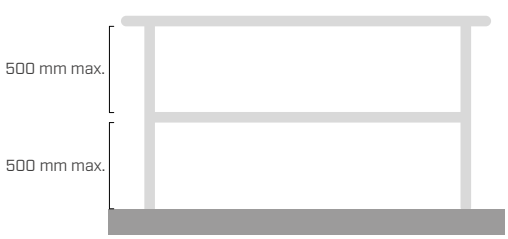
Material: EN AW-6063 aluminium,
anodised or powder-coated on request (RAL colours)

** On demand.*

SPACING BY TYPE OF FASTENER

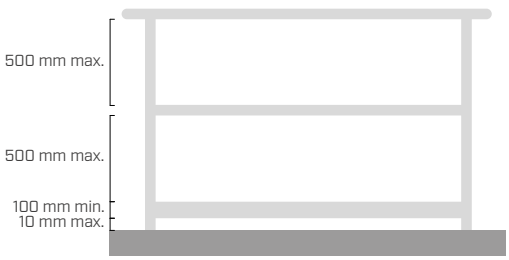
TYPE	upright/frets	SPACING FOR UPRIGHT H_{max} = 118 cm			
		EN 14122-3:2016	EN 13374+A1:2018	NTC 2018	NF E85-015:2019
		[cm]	[cm]	[cm]	[cm]
GUARD H	straight	150	-	133	150
	inclined	150	-	100	150
GUARD V - VD	straight	150	-	133	150
	inclined	150	-	100	150
GUARD W	straight	150	250	75	150
	inclined	150	250	75	150
GUARD Z	straight	150	-	133	150
	inclined	150	-	100	150
GUARD M	frets spacing 250 mm	150	-	-	150
	frets spacing 333 mm	166	-	-	166

RAILING WITHOUT TOE BOARD



with curb greater than 150 mm

RAILING WITH TOE BOARD

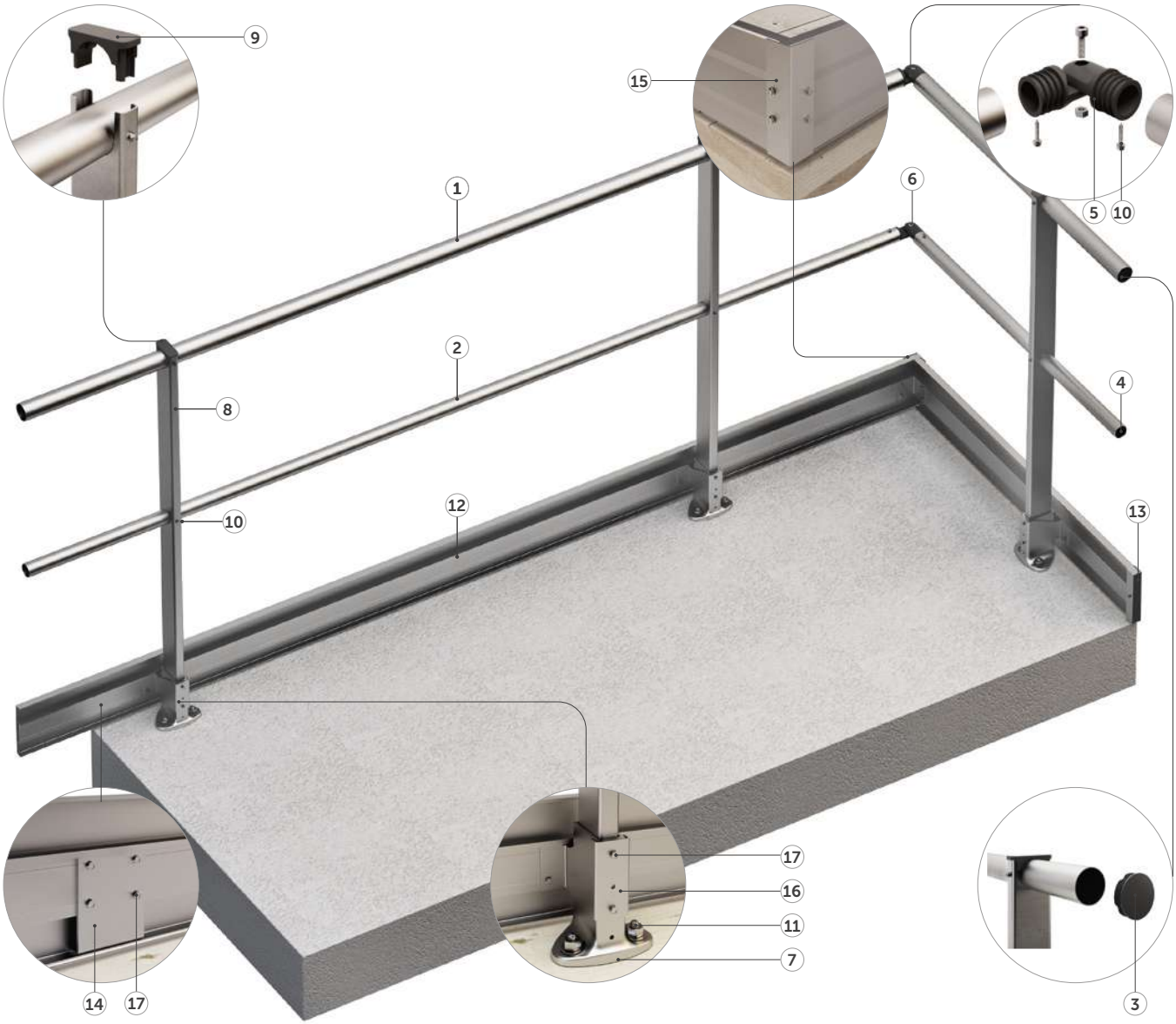


without curb or less than 150 mm

GUARD H

HORIZONTAL FASTENING RAILING

EN 14122-3: 2016 | NTC 2018 | NF E85-015: 2019



	CODE	description
1	RBGBAR45	Ø45 mm handrail with flush-mounted ring nuts L = 3000 mm
2	RBGBAR35	Ø35 mm intermediate rail with flush-mounted ring nuts L = 3000 mm
3	RBGCAP45	cap for handrail Ø45 mm
4	RBGCAP35	cap for intermediate rail Ø35 mm
5	RBGCOR45	angle bracket for handrail Ø45 mm
6	RBGCOR35	angle bracket for intermediate rail Ø35 mm
5-6	RBGCORAL	aluminium angle bracket for handrail and intermediate rail (alternative to RBGCOR45/ RBGCOR35)
7	RBGBASEH	bottom plate horizontal fastening painted grey GUARD H with grub screws included
8	RBGSUP110	straight upright H = 1105 mm groove Ø45 mm
	RBGSUP118	straight upright H = 1182 mm groove Ø45 mm
	RBGSUP115I	inclined upright H = 1157 mm groove Ø45 mm
	RBGBASEHKIT	waterproofing kit for GUARD H base

	CODE	description
9	RBGCAP	upright cap 68 x 28 mm groove Ø45 mm
10	RBGSCR4825	stainless steel self-drilling screw 4,8 x 25 mm
11	RBGSCR810	grub screw M8 x 10 mm (spare part)
12	RBGTB	toe board 3000 x 150 x 19 mm
13	RBGTBCAP	cap for toe board H = 150 mm
14	RBGTBJUN	straight connector toe board H = 150 mm
15	RBGTBCOR	angle bracket for toe board H = 150 mm
16	RBGTBH	support for toe board H = 150 mm
17	RBGSCR4816	stainless steel self-drilling screw 4,8 x 16 mm

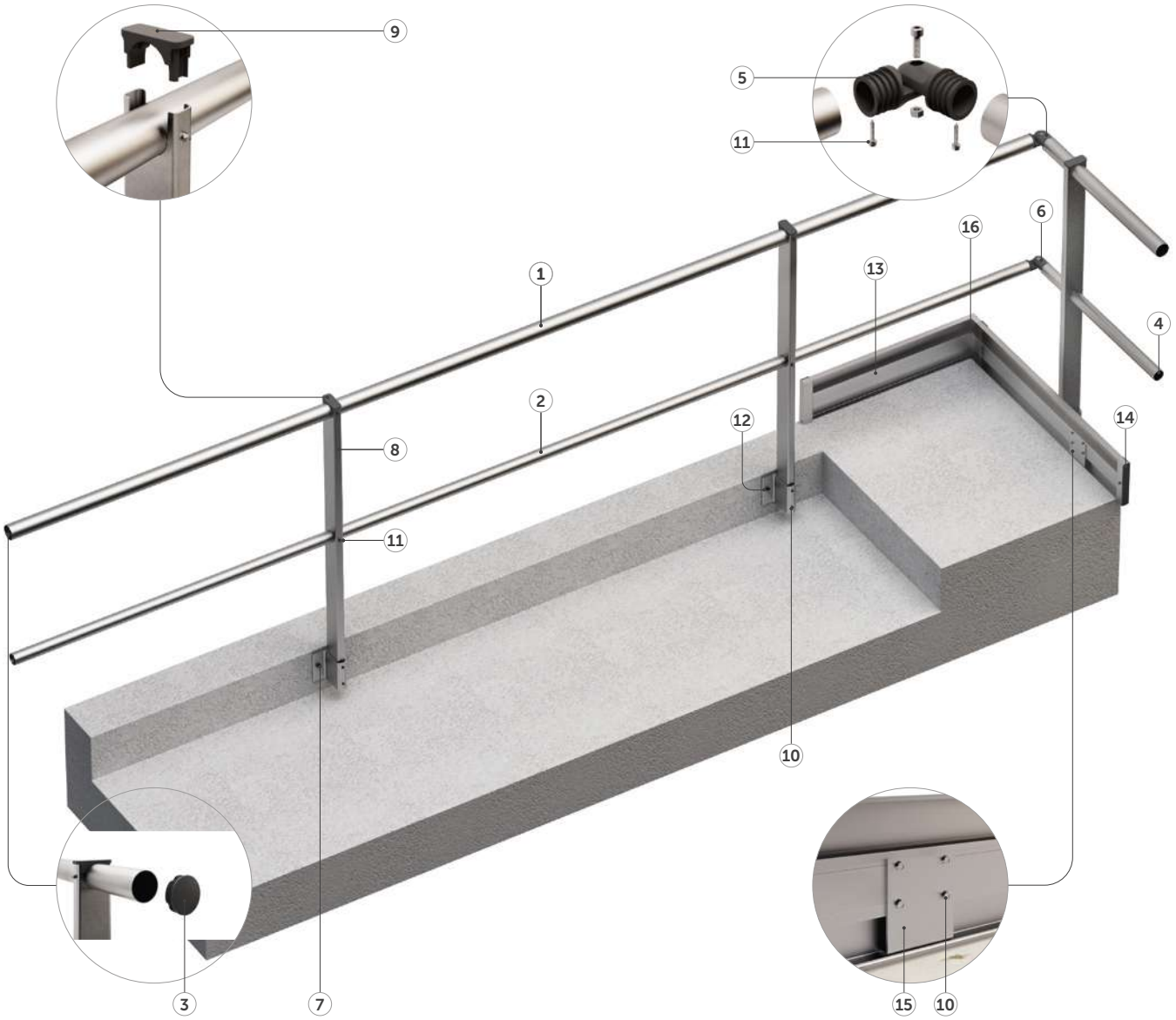
For wall fastening:

	RBGWALL45	end element for handrail Ø45 mm
	RBGWALL35	end element for round intermediate rail Ø35 mm
	RBGWALLAL	aluminium end element for handrail and intermediate rail

GUARD V/GUARD VD

EN 14122-3: 2016 | NTC 2018 | NF E85-015: 2019

RAILING VERTICAL AND VERTICAL SPACED FASTENING



	CODE	description
1	RBGBAR45	Ø45 mm handrail with flush-mounted ring nuts L = 3000 mm
2	RBGBAR35	Ø35 intermediate rail with flush-mounted ring nuts L = 3000 mm
3	RBGCAP45	cap for handrail Ø45 mm
4	RBGCAP35	cap for intermediate rail Ø35 mm
5	RBGCOR45	angle bracket for handrail Ø45 mm
6	RBGCOR35	angle bracket for intermediate rail Ø35 mm
5-6	RBGCORAL	aluminium angle bracket for handrail and intermediate rail (alternative to RBGCOR45/ RBGCOR35)
7	RBGBASEV	bottom plate for wall fastening GUARD V
	RBGBASEVD	bottom plate for fastening on projecting wall GUARD VD
8	RBGSUP118	straight upright H = 1182 mm groove Ø45 mm
	RBGSUP130	straight upright H = 1300 mm groove Ø45 mm
9	RBGCAP	upright cap 68 x 28 mm groove Ø45 mm

	CODE	description
10	RBGSCR4816	stainless steel self-drilling screw 4,8 x 16 mm
11	RBGSCR4825	stainless steel self-drilling screw 4,8 x 25 mm
12	RBGSCR4832	stainless steel self-drilling screw 4,8 x 32 mm
13	RBGTB	toe board 3000 x 150 x 19 mm
14	RBGTBCAP	cap for toe board H = 150 mm
15	RBGTBJUN	straight connector toe board H = 150
16	RBGTBCOR	angle bracket for toe board H = 150 mm
	RBGSUP115I	inclined upright H = 1157 mm groove Ø45 mm
	RBGDIST	spacer element GUARD V-VD + 35 mm

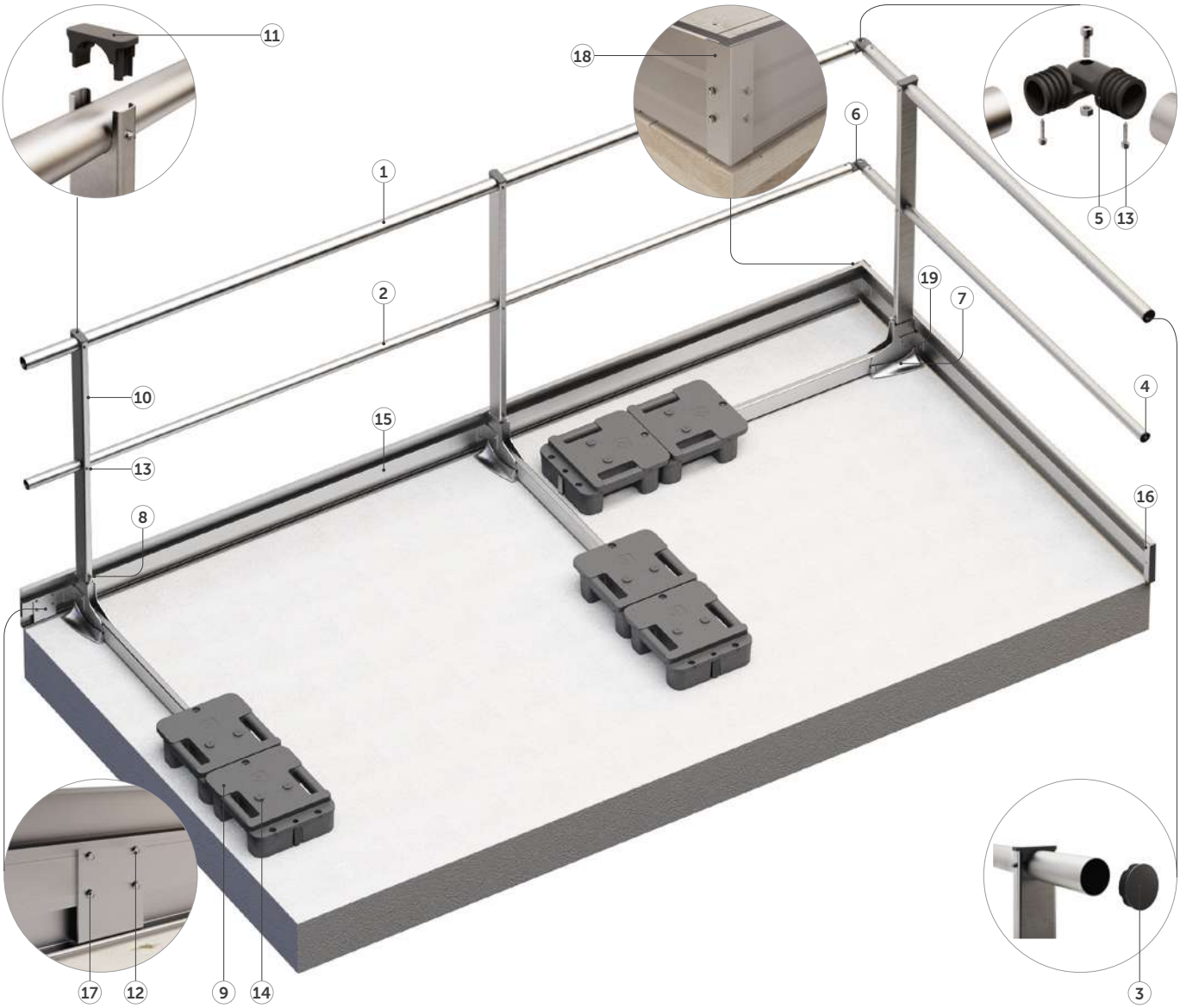
For wall fastening:

	RBGWALL45	end element for handrail Ø45 mm
	RBGWALL35	end element for round intermediate rail Ø35 mm
	RBGWALLAL	aluminium end element for handrail and intermediate rail

GUARD W

SELF-SUPPORTING RAILING

EN 14122-3: 2016 | EN 13374+A1: 2018 | NTC 2018 | NF E85-015: 2019



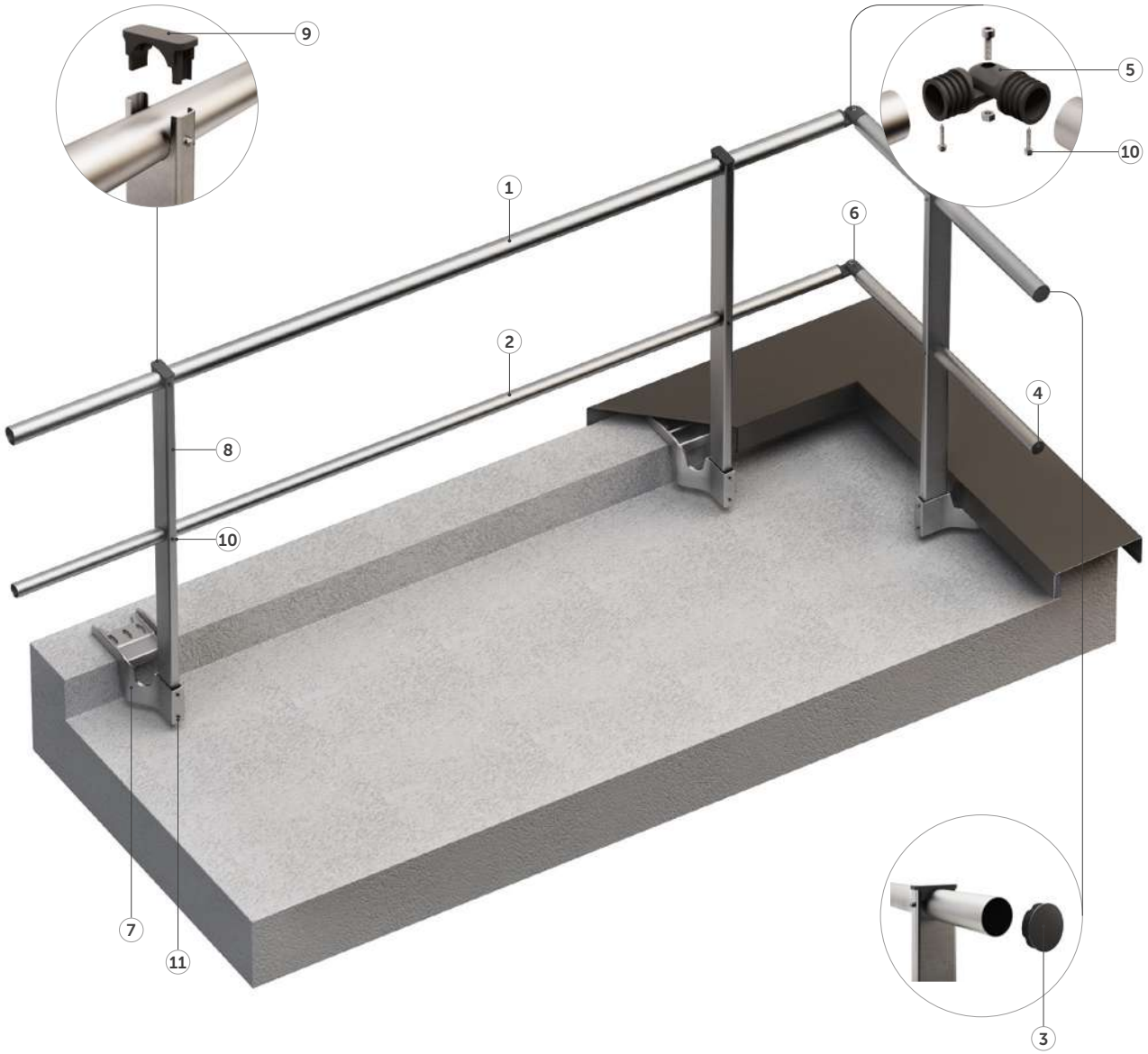
	CODE	description
1	RBGBAR45	Ø45 mm handrail with flush-mounted ring nuts L = 3000 mm
2	RBGBAR35	Ø35 intermediate rail with flush-mounted ring nuts L = 3000 mm
3	RBGCAP45	cap for handrail Ø45 mm
4	RBGCAP35	cap for intermediate rail Ø35 mm
5	RBGCOR45	angle bracket for handrail Ø45 mm
6	RBGCOR35	angle bracket for intermediate rail Ø35 mm
5-6	RBGCORAL	aluminium angle bracket for handrail and intermediate rail (alternative to RBGCOR45/ RBGCOR35)
7	RBGBASEW	base for self-supporting GUARD W straight with support leg including mounting wedge
8	RBGBASEWE	locking wedge for GUARD W (spare part)
	RBGBASEWI	base for self-supporting GUARD W inclined with support leg
9	RBGWEIGHT	plastic counterweight 12,5 kg for GUARD W
10	RBGSUP110	straight upright H = 1105 mm groove Ø45 mm
	RBGSUP118	straight upright H = 1182 mm groove Ø45 mm

	CODE	description
11	RBGCAP	upright cap 68 x 28 mm groove Ø45 mm
12	RBGSCR4816	stainless steel self-drilling screw 4,8 x 16 mm
13	RBGSCR4825	stainless steel self-drilling screw 4,8 x 25 mm
14	RBGSCR4850	stainless steel self-drilling screw 4,8 x 50 mm
15	RBGTB	toe board 3000 x 150 x 19 mm
16	RBGTBCAP	cap for toe board H = 150 mm
17	RBGTBJUN	straight connector toe board H = 150 mm
18	RBGTBCOR	angle bracket for toe board H = 150 mm
19	RBGTBH	support for toe board H = 150 mm
For wall fastening:		
	RBGWALL45	end element for handrail Ø45 mm
	RBGWALL35	end element for round intermediate rail Ø35 mm
	RBGWALLAL	aluminium end element for handrail and intermediate rail

GUARD Z

A Z FASTENING RAILING

EN 14122-3: 2016 | NTC 2018 | NF E85-015: 2019



	CODE	description
1	RBGBAR45	Ø45 mm handrail with flush-mounted ring nuts L = 3000 mm
2	RBGBAR35	Ø35 intermediate rail with flush-mounted ring nuts L = 3000 mm
3	RBGCAP45	cap for handrail Ø45 mm
4	RBGCAP35	cap for intermediate rail Ø35 mm
5	RBGCOR45	angle bracket for handrail Ø45 mm
6	RBGCOR35	angle bracket for intermediate rail Ø35 mm
5-6	RBGCORAL	aluminium angle bracket for handrail and intermediate rail (alternative to RBGCOR45/ RBGCOR35)
7	RBGBASEZ	standard aluminium base Z for perimeter wall without insulation GUARD Z with grub screws included
8	RBGSUP110	straight upright H = 1105 mm groove Ø45 mm
	RBGSUP118	straight upright H = 1182 mm groove Ø45 mm
	RBGSUP115I	inclined upright H = 1157 mm groove Ø45 mm
9	RBGCAP	upright cap 68 x 28 mm groove Ø45 mm
10	RBGSCR4825	stainless steel self-drilling screw 4,8 x 25 mm

	CODE	description
11	RBGSCR810	grub screw M8 x 10 mm (spare part)

For wall fastening:

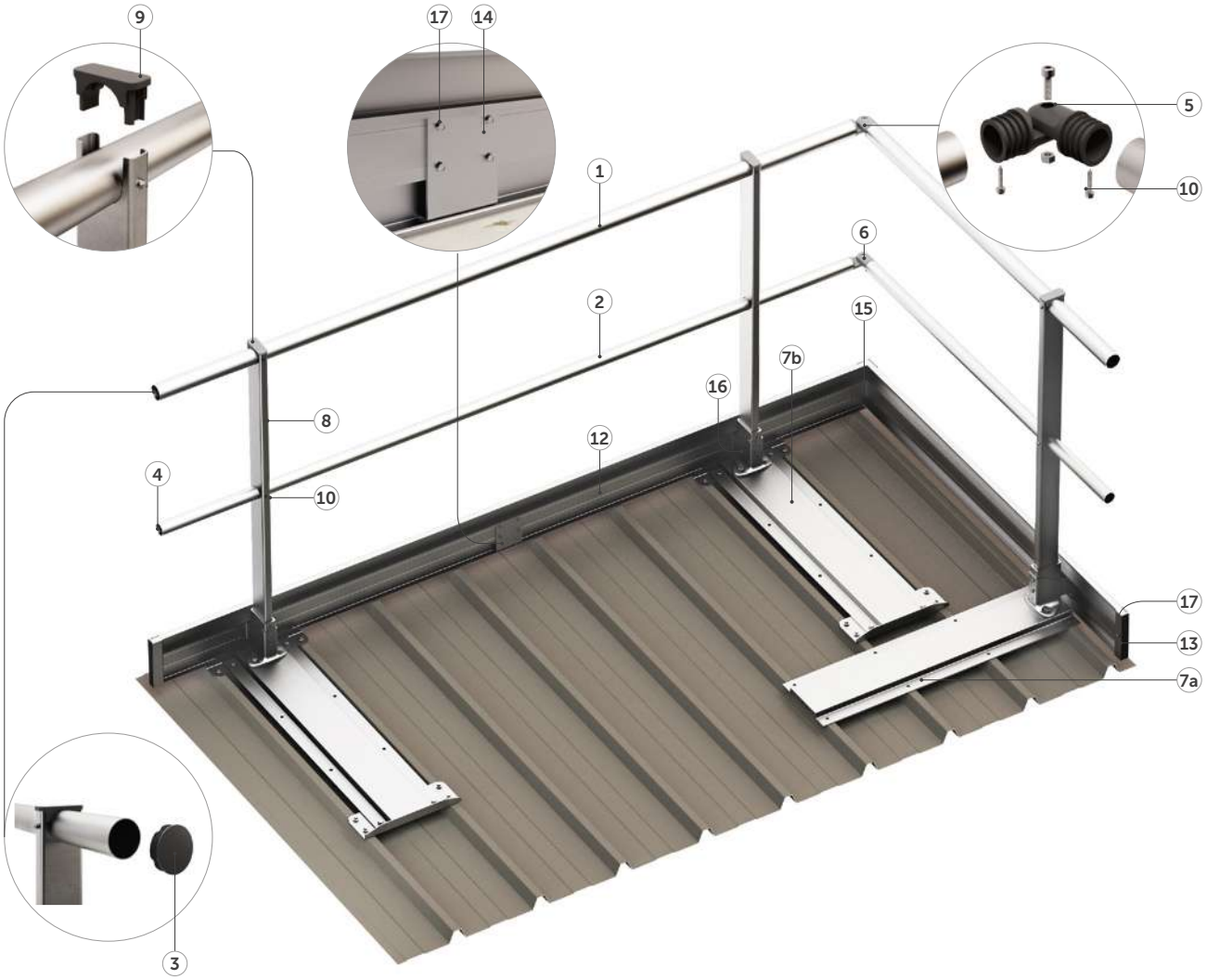
	RBGWALL45	end element for handrail Ø45 mm
	RBGWALL35	end element for round intermediate rail Ø35 mm
	RBGWALLAL	aluminium end element for handrail and intermediate rail

GUARD M

EN 14122-3: 2016

NF E85-015: 2019

RAILING FASTENING ON TRAPEZOIDAL METAL ROOF



	CODE	description
1	RBGBAR45	Ø45 mm handrail with flush-mounted ring nuts L = 3000 mm
2	RBGBAR35	Ø35 intermediate rail with flush-mounted ring nuts L = 3000 mm
3	RBGCAP45	cap for handrail Ø45 mm
4	RBGCAP35	cap for intermediate rail Ø35 mm
5	RBGCOR45	angle bracket for handrail Ø45 mm
6	RBGCOR35	angle bracket for intermediate rail Ø35 mm
5-6	RBGCORAL	aluminium angle bracket for handrail and intermediate rail (alternative to RBGCOR45/RBGCOR35)
7a	RBGBASE250PE	plate for fastening to trapezoidal sheet metal, pitch 250 mm, perpendicular to the frets (excluding screws)
	RBGBASE333PE	plate for fastening to trapezoidal sheet metal, pitch 333 mm, perpendicular to trapezoidal sheet metal (excluding screws)
7b	RBGBASE250PA	plate for fastening to trapezoidal sheet metal, pitch 250 mm, parallel to trapezoidal sheet metal (excluding screws)
	RBGBASE333PA	plate for fastening to trapezoidal sheet metal, pitch 333 mm, parallel to trapezoidal sheet metal (excluding screws)

	CODE	description
8	RBGSUP110	straight upright H = 1105 mm groove Ø45 mm
	RBGSUP118	straight upright H = 1182 mm groove Ø45 mm
	RBGSUP115I	inclined upright H = 1157 mm groove Ø45 mm

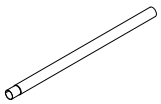
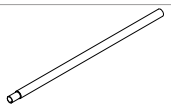
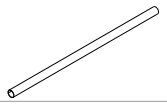
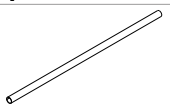
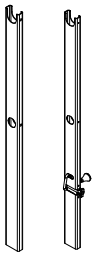
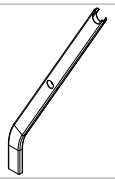
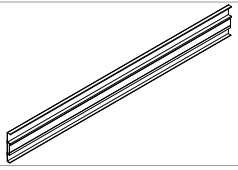
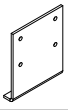
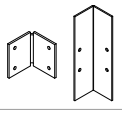
	CODE	description
9	RBGCAP	upright cap 68 x 28 mm groove Ø45 mm
10	RBGSCR4825	stainless steel self-drilling screw 4,8 x 25 mm
11	RBGSCR810	M8 x 10 mm grub screw included in the base
12	RBGTB	toe board 3000 x 150 x 19 mm
13	RBGTBCAP	cap for toe board H = 150 mm
14	RBGTBJUN	straight connector toe board H = 150 mm
15	RBGTBCOR	angle bracket for toe board H = 150 mm
16	RBGTBH	support for toe board H = 150 mm
17	RBGSCR4816	stainless steel self-drilling screw 4,8 x 16 mm

For wall fastening:

	RBGWALL45	end element for handrail Ø45 mm
	RBGWALL35	end element for round intermediate rail Ø35 mm
	RBGWALLAL	aluminium end element for handrail and intermediate rail

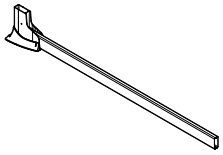
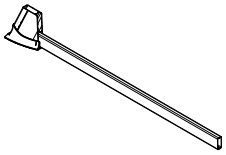
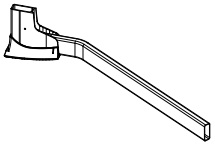
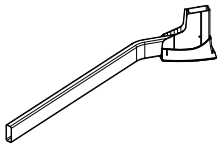
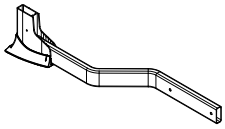
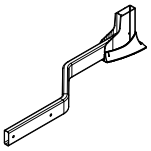
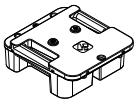
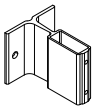
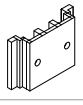
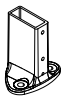
GUARD | components

CODES AND DIMENSIONS

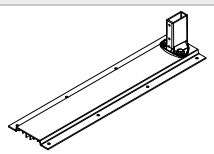
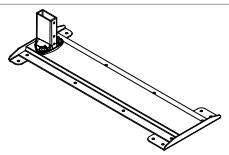
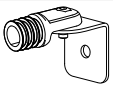
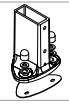
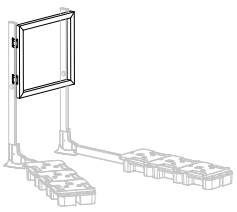
GROUP	CODE	description	pcs	
HANDRAILS AND INTERMEDIATE RAILS	RBGBAR45	Ø45 mm handrail with flush-mounted ring nuts L = 3000 mm	1	
	RBGBAR35	Ø35 intermediate rail with flush-mounted ring nuts L = 3000 mm	1	
	RBGBAR45F	handrail without flush-mounted ring nuts Ø45 mm L = 3000 mm	1	
	RBGBAR35F	handrail without flush-mounted ring nuts Ø35 mm L = 3000 mm	1	
	RBGCAP	upright cap 68 x 28 mm groove Ø45 mm	1	
UPRIGHTS	RBGSUP100	straight upright H = 1028 mm groove Ø45 mm	1	
	RBGSUP110	straight upright H = 1105 mm groove Ø45 mm	1	
	RBGSUP118	straight upright H = 1182 mm groove Ø45 mm	1	
	RBGSUP110F	pull-down upright H = 1105 mm groove Ø45 mm	1	
	RBGSUP100F	pull-down upright H = 1010 mm groove Ø45 mm	1	
	RBGSUP130	straight upright H = 1300 mm groove Ø45 mm	1	
	RBGSUP115I	inclined upright H = 1157 mm groove Ø45 mm	1	
TOE BOARD AND ACCESSORIES	RBGTB	toe board 3000 x 150 x 19 mm	1	
	RBGTBJUN	straight connector of toe board H = 150 mm	1	
	RBGTBCOR	angle bracket for toe board H = 150 mm	1	
	RBGTBCAP	cap for toe board H = 150 mm	1	
	RBGTBW	support for toe board H = 150 mm for GUARD W	1	
	RBGTBH	support for toe board H = 150 mm	1	
	RBGTBVD	bottom plate for fastening on projecting wall GUARD VD	1	

GUARD | components

CODES AND DIMENSIONS

GROUP	CODE	description	pcs	
STANDARD BASES	**RBGBASEW**	base for self-supporting GUARD W straight with support leg	1	
	RBGBASEWI	base for self-supporting GUARD W inclined with support leg	1	
	RBGBASEWFCR	shank curved at right at 25° per angle	1	
	RBGBASEWFCL	shank curved at left at 25° per angle	1	
	RBGBASEWFR	shank with curve at right for folding railing	1	
	RBGBASEWFL	shank with curve at left for folding railing	1	
	RBGBASEWE	locking wedge for GUARD W (spare part)	1	
	RBGWEIGHT	plastic counterweight 12,5 kg for GUARD W	3	
	RBGBASEV	bottom plate for wall fastening GUARD V	1	
	RBGBASEVD	bottom plate for fastening on projecting wall GUARD VD	1	
	RBGDIST	spacer piece GUARD V-VD + 35 mm	1	
	RBGBASEH	bottom plate horizontal fastening painted grey GUARD H	1	
	RBGBASEZ	standard aluminium base Z for perimeter wall without insulation GUARD Z	1	

CODES AND DIMENSIONS

GROUP	CODE	description	pcs	
BASES FOR FASTENING ON TRAPEZOIDAL METAL ROOF	RBGBASE250PA	plate for fastening to trapezoidal sheet metal, pitch 250 mm, parallel to trapezoidal sheet metal (excluding screws)	1	
	RBGBASE333PA	plate for fastening to trapezoidal sheet metal, pitch 333 mm, parallel to trapezoidal sheet metal (excluding screws)	1	
	RBGBASE250PE	plate for fastening to trapezoidal sheet metal, pitch 250 mm, perpendicular to the frets (excluding screws)	1	
	RBGBASE333PE	plate for fastening to trapezoidal sheet metal, pitch 333 mm, perpendicular to trapezoidal sheet metal (excluding screws)	1	
ACCESSORIES	RBGCAP45	cap for handrail Ø45 mm	1	
	RBGCAP35	cap for intermediate rail Ø35 mm	1	
	RBGCOR45	angle bracket for handrail Ø45 mm	1	
	RBGCOR35	angle bracket for intermediate rail Ø35 mm	1	
	RBGWALL45	end element for handrail Ø45 mm	1	
	RBGWALL35	end element for intermediate rail Ø35 mm	1	
	RBGCORAL	aluminium angle bracket for handrail	1	
	RBGWALLAL	aluminium end element for handrail	1	
	RBGBASEHKIT	waterproofing kit for base GUARD H	1	
	RBGWEDGE	plastic wedge for shimming	1	
FASTENING SCREWS	RBGSCR4816	stainless steel self-drilling screw 4,8 x 16 mm	25	
	RBGSCR4825	stainless steel self-drilling screw 4,8 x 25 mm	25	
	RBGSCR4832	stainless steel self-drilling screw 4,8 x 32 mm	25	
	RBGSCR4850	stainless steel self-drilling screw 4,8 x 50 mm	25	
	RBGSCR627	self-drilling screw for stainless steel sheet 6 x 27 mm	25	
	RBGSCR810	grub screw M8 x 10 (spare part)	10	
	RBGSCRWAS	sealing washer	25	
SAFETY GATES KIT	RBGGATE600	safety door 500 mm height with hinges assembled L = 600 mm	1	
	RBGGATE1100	safety door 500 mm height with hinges width L = 1100 mm	1	
MANUALS	RBGUARDHMAN	manual for GUARD H	1	
	RBGUARDVMAN	manual for GUARD V	1	
	RBGUARDMMAN	manual for GUARD M	1	
	RBGUARDZMAN	manual for GUARD Z	1	
	RBGUARDWMAN	manual for GUARD W	1	

LADSTEP

CAGED LADDERS

D.Lgs. 81/2008

EN 14122-4

DURABLE
Made of aluminium alloy, they offer high mechanical resistance and resist corrosion and environmental conditions.

RELIABLE
Guarantee the utmost safety for the user and give the installer the serenity that comes with a reliable product that is easy to assemble.

COMBINABLE
Thanks to the wide range of available components, the modular system can meet any design requirement.

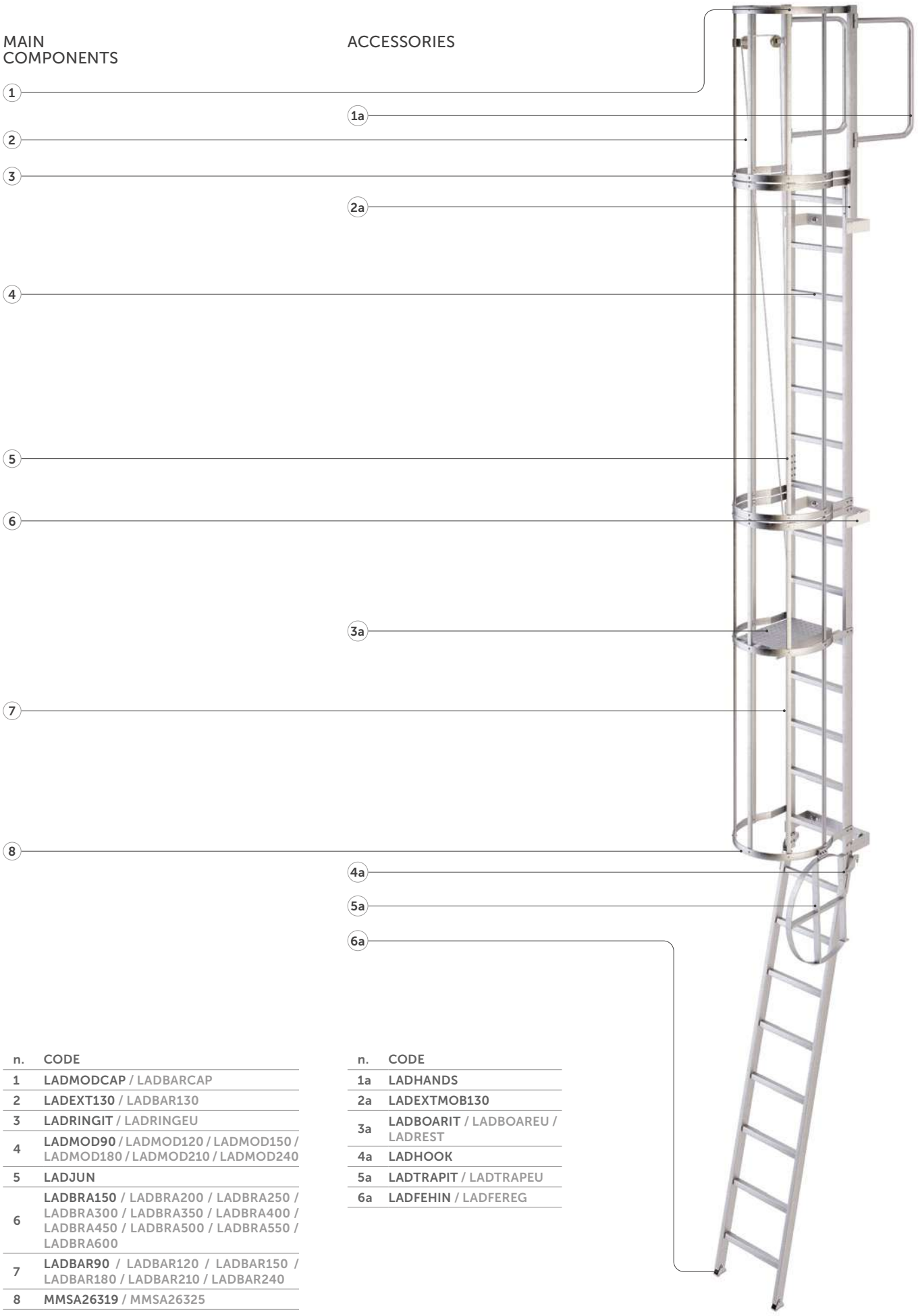
VIDEO MANUALS

Aluminium ladder with landing platforms for access to industrial roof.

CAGED LADDERS COMPONENTS

MAIN COMPONENTS

ACCESSORIES

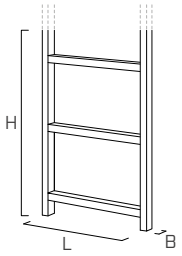
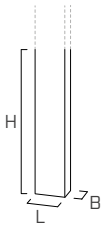
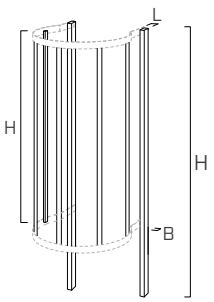


n.	CODE
1	**LADMODCAP** / LADBARCAP
2	**LADEXT130** / LADBAR130
3	**LADRINGIT** / LADRINGEU
4	**LADMOD90** / LADMOD120 / LADMOD150 / LADMOD180 / LADMOD210 / LADMOD240
5	**LADJUN**
6	**LADBRA150** / LADBRA200 / LADBRA250 / LADBRA300 / LADBRA350 / LADBRA400 / LADBRA450 / LADBRA500 / LADBRA550 / LADBRA600
7	**LADBAR90** / LADBAR120 / LADBAR150 / LADBAR180 / LADBAR210 / LADBAR240
8	**MMSA26319** / MMSA26325

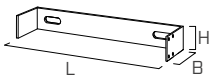
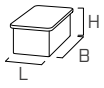
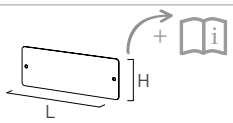
n.	CODE
1a	**LADHANDS**
2a	**LADEXTMOB130**
3a	**LADBOARIT** / LADBOAREU / LADREST
4a	**LADHOOK**
5a	**LADTRAPIT** / LADTRAPEU
6a	**LADFEHIN** / LADFEREG

LADSTEP | basic components

CODES OF BASIC COMPONENTS FOR FIXED CAGED/CAGELESS LADDERS

GROUP	CODE	description	B [mm]	L [mm]	H [mm]	
LADDER MODULES	LADMOD90	ladder module 0,90 m - 3 steps	60	500	900	
	LADMOD120	ladder module 1,20 m - 4 steps	60	500	1200	
	LADMOD150	ladder module 1,50 m - 5 steps	60	500	1500	
	LADMOD180	ladder module 1,80 m - 6 steps	60	500	1800	
	LADMOD210	ladder module 2,10 m - 7 steps	60	500	2100	
	LADMOD240	ladder module 2,40 m - 8 steps	60	500	2400	
CAGE BARS	LADBAR90	kit of 5 cage bars 0,90 m	15	25	900	
	LADBAR120	kit of 5 cage bars 1,20 m	15	25	1200	
	LADBAR150	kit of 5 cage bars 1,50 m	15	25	1500	
	LADBAR180	kit of 5 cage bars 1,80 m	15	25	1800	
	LADBAR210	kit of 5 cage bars 2,10 m	15	25	2100	
	LADBAR240	kit of 5 cage bars 2,40 m	15	25	2400	
RINGS	LADRINGIT	cage ring Leg. Decree 81/2008	662	600	40	
	LADRINGEU	cage ring EN 14122	762	700	40	
FINAL PROTECTION	LADEXT130	extension 1.30 m	60	30	1300	
	LADBAR130	kit of 5 cage bars 1,04 m	15	25	1040	

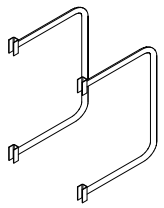
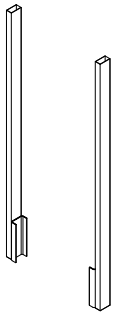
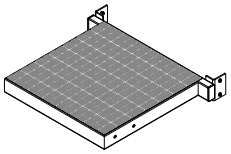
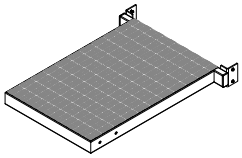
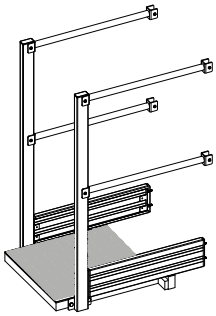
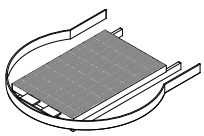
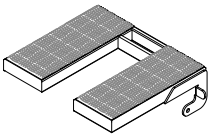
Add two rings: LADRINGIT or LADRINGEU to complete the final protection.

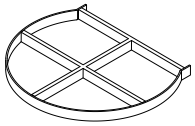
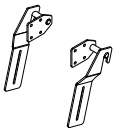
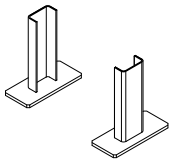
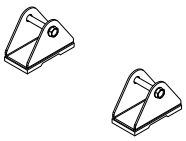
GROUP	CODE	description	B [mm]	L [mm]	H [mm]	
BRACKETS	**LADBRA150**	bracket for wall spacing 150 mm	210	512	60	
	LADBRA200	bracket for wall spacing 200 mm	260	512	60	
	LADBRA250	bracket for wall spacing 250 mm	310	512	60	
	LADBRA300	bracket for wall spacing 300 mm	360	512	60	
	LADBRA350	bracket for wall spacing 350 mm	410	512	60	
	LADBRA400 + LADSTRAP400	bracket for wall spacing 400 mm + clearance with screws included	460	512	60	
	LADBRA450 + LADSTRAP450	bracket for wall spacing 450 mm + clearance with screws included	510	512	60	
	LADBRA500 + LADSTRAP500	bracket for wall spacing 500 mm + clearance with screws included	560	512	60	
	LADBRA550 + LADSTRAP550	bracket for wall spacing 550 mm + clearance with screws included	610	512	60	
	LADBRA600 + LADSTRAP600	bracket for wall spacing 600 mm + clearance with screws included	660	512	60	
JOINTS	**LADJUN**	ladder joint	55	25	150	
CAPS	**LADMODCAP**	cap for upper upright closure	60	30	20	
	LADBARCAP	cap for bar closure	15	25	15	
LABEL	**LADPLATEIT**	label Leg. Decree 81/2008 + IT manual	-	110	50	
	LADPLATEEU	label EN 14122-4 + EN manual	-	110	50	
STANDARD FASTENING	**MMSA26319**	stainless steel screw DIN 7504 A2 K 6,3 x 19 mm				
BRACKETS FASTENING	**MMSA26325**	stainless steel screw DIN 7504 A2 K 6,3 x 25 mm				

Other codes/components available on request.

LADSTEP | accessory components

CODES OF ACCESSORY COMPONENTS FOR FIXED CAGED/CAGELESS LADDERS*

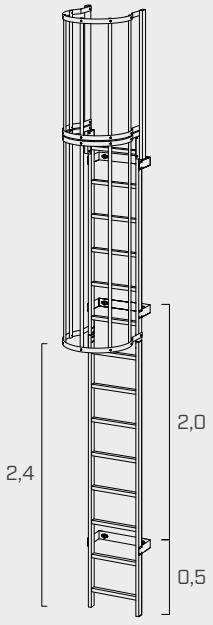
GROUP	CODE	description	
HANDLES	LADHANDS	kit of 2 landing handles 450 mm	
INTERLOCKING EXTENSION	LADEXTMOB130	interlocking extension 1.30 m for easy access to the roof	
LANDING PLATFORMS	LADLAND500	500 x 500 mm final landing platform, non-slip	
	LADLAND750	500 x 750 mm final landing platform, non-slip	
PROTECTION KIT	LADPROT750	750 mm platform protection kit complete with 4 handrails, 2 aluminium toeboards	
FOLDING PLATFORMS	LADBOARIT	folding or resting platform for ladder subdivision (with lifting and lowering system) Leg. Decree 81/2008 Ø600 mm	
	LADBOAREU	folding or resting platform for ladder subdivision (with lifting and lowering system) EN 14122-4 Ø700 mm	
	LADREST	folding resting platform for ladder with lifeline	

GROUP	CODE	description	
SAFETY CLOSURES	LADTRAPIT	safety closure prepared for padlock (not included) Leg. Decree 81/2008 Ø600 mm	
	LADTRAPEU	safety closure prepared for padlock (not included) EN 14122-4 Ø700 mm	
HOOKS FOR SEPARATE LADDER	LADHOOK	fastening hooks for separate ladder	
FEET	LADFEREG	kit of 2 adjustable support feets with holes for fastening to the ground	
	LADFEHIN	kit of 2 hinged support feets	

Screws, joints, caps always included in the single codes.

LADDER COMPOSITION INDICATIONS

- Applicable regulations (Leg. Decree 81/2008 - EN 14122-4 - local regulations) must be defined by the designer of the work
- Choice of components according to the regulations applied
- First ladder module with length of 2,4 m
- Cage start at 2,4 m
- First bracket at 0,5 m
- Subsequent brackets installed every 2,0 m



Other components are available on request.
For the composition, use the handbook or the component spreadsheet, both available on our website: www.rothoblaas.com.

SAFENET

CUSTOMIZABLE HORIZONTAL FALL PROTECTION NET

GS BAU 18:2015 | ETA-13/0650 | ÖNORM B 3417:2016-5

COMPLETE
Complete system with A4 stainless steel mesh, pre-assembled perimeter rope, brackets and fasteners included for all types of substructure.

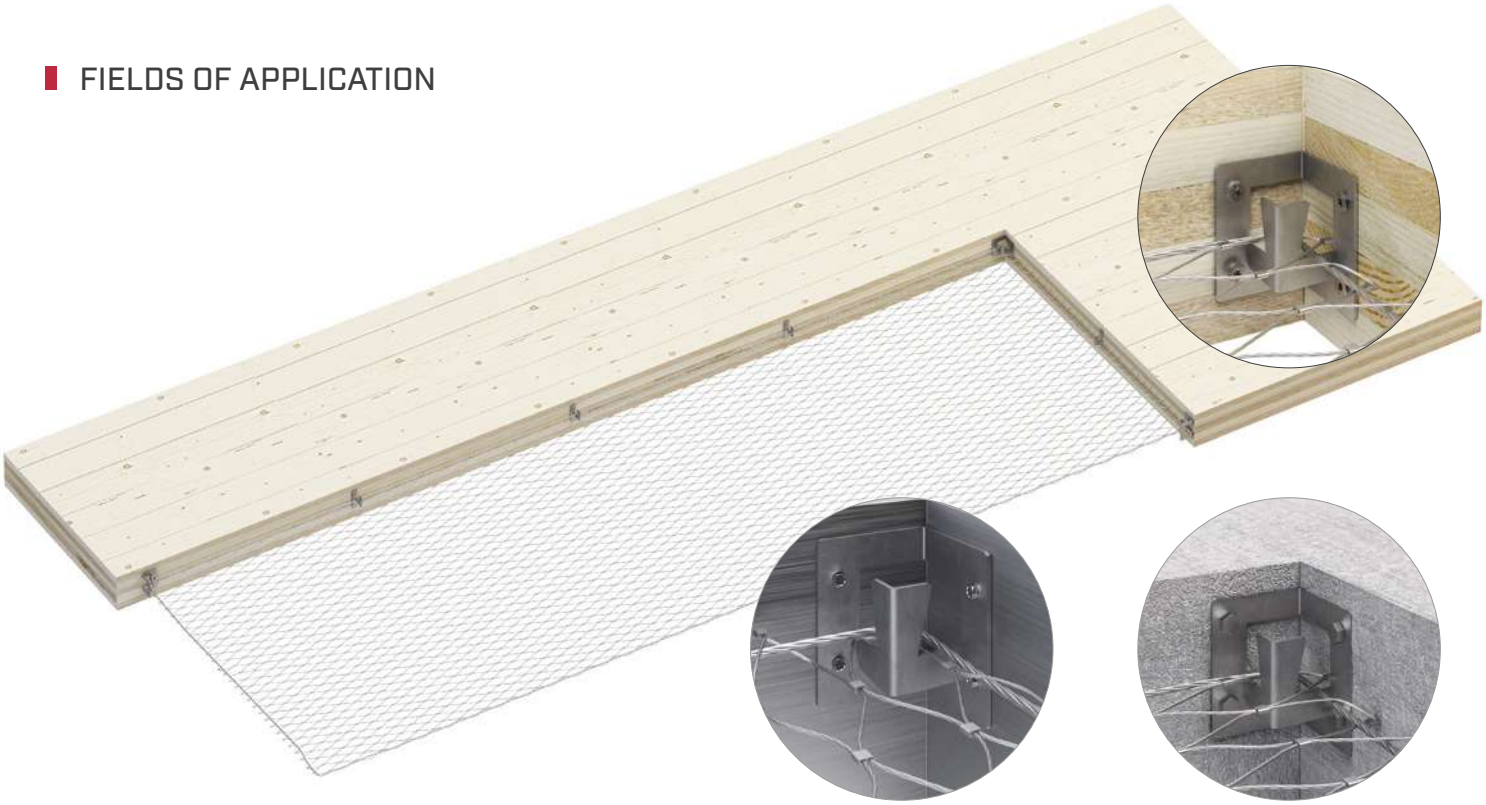
SIMPLE
Quick and easy assembly with the aid of corner and straight fastening systems.
Anti-intrusion plate included.

VERSATILE
Possibility of application to structures of various materials (timber, steel, concrete).

VIDEO | MANUALS

Installation of permanent fall protection safety net in A4 stainless steel for securing a skylight on a flat roof.

FIELDS OF APPLICATION



CODES AND DIMENSIONS

A4 stainless steel mesh with fasteners for various substructures included.

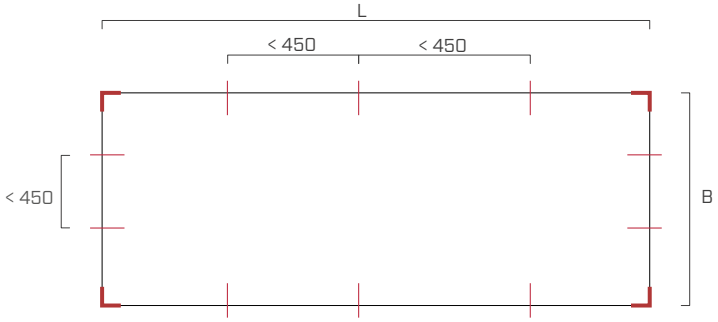
RANGE CODE	description		net surface (from A to B m^2)
SN01	stainless steel mesh A4	0 - 1 m^2	from 0,00 to 1.00 m^2
SN02	stainless steel mesh A4	1 - 2 m^2	from 1 to 2 m^2
SN03	stainless steel mesh A4	2 - 3 m^2	from 2 to 3 m^2
SN04	stainless steel mesh A4	3 - 4 m^2	from 3 to 4 m^2
SN05	stainless steel mesh A4	4 - 6 m^2	from 4 to 6 m^2
SN06	stainless steel mesh A4	6 - 10 m^2	from 6 to 10 m^2
SN07	stainless steel mesh A4	10 - 15 m^2	from 10 to 15 m^2
SN08	stainless steel mesh A4	surface over 15 m^2	from 15 to M m^2

MATERIAL ORDERING SCHEME

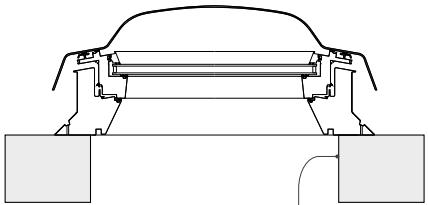
Example: skylight with steel structure 0,8 m x 1,2 m = 0,96 m^2.

SN01	**+ M**	**+ 0080**	**+ 0120**
RANGE CODE surface	fastening on: (**W**) wood (**C**) concrete (**M**) metal	L [m] length	B [m] width

Code created: **SN01M00800120**.



Maximum distances to position the fastening brackets



Application of the support element

ROLLNET

HORIZONTAL FIXED FALL PROTECTION NET

EN 14963:2007 | EN 1873:2006 | EN 15057:2006

ADJUSTABLE
Available in various sizes, to meet all needs of the construction site.

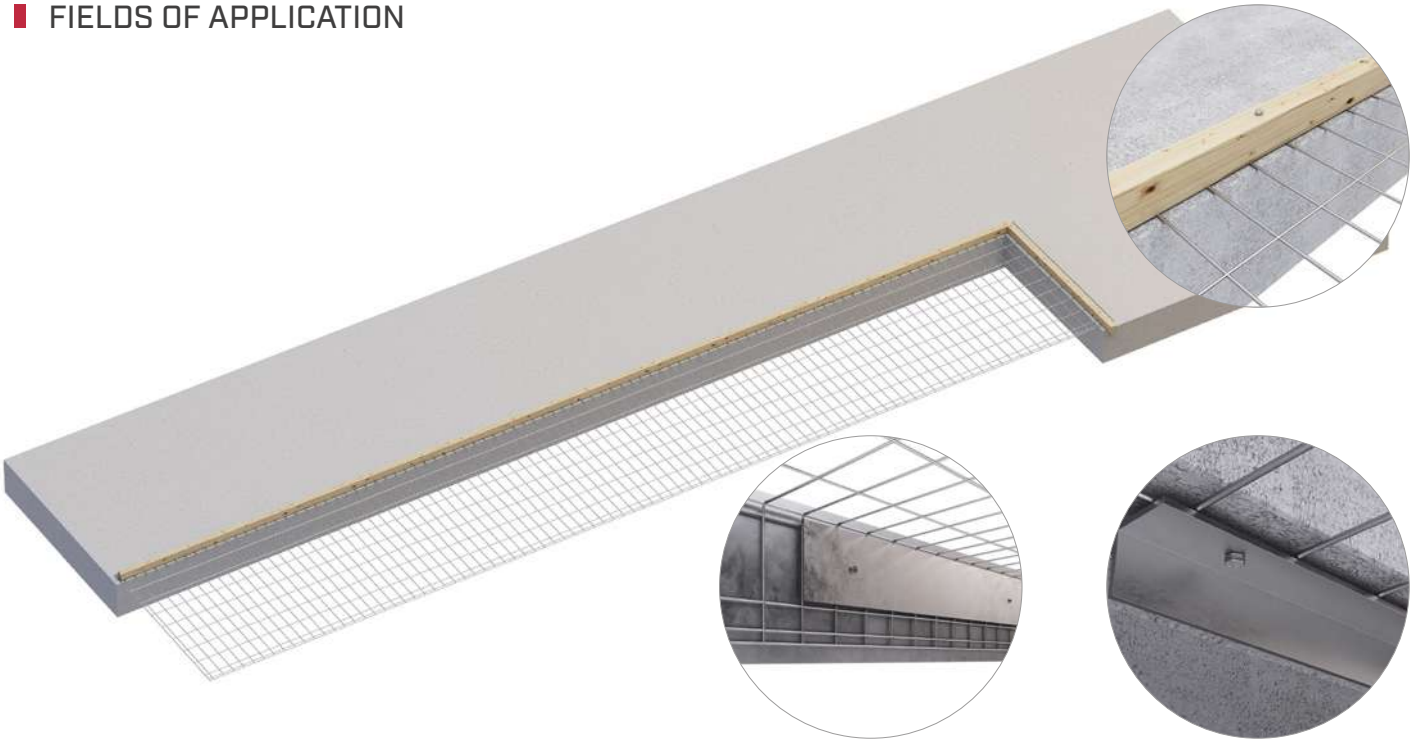
TRANSPORTATION
Supplied in convenient rolls that facilitate transport and installation.

EXISTING STRUCTURES
It can be installed on finished buildings without having to disassemble skylights.

VIDEO | MANUALS

Installation of permanent fall protection safety net for securing a skylight on a roof.

FIELDS OF APPLICATION



CODES AND DIMENSIONS

CODE	description	B [mm]	L [m]	pcs
RONET1020	zinc-plated steel	1020	25	1
RONET1220	zinc-plated steel	1220	25	1
RONET1520	zinc-plated steel	1520	25	1
RONET1830	zinc-plated steel	1830	25	1
RONET2030	zinc-plated steel	2030	25	1
RONET2230	zinc-plated steel	2230	25	1
RONET2530	zinc-plated steel	2530	25	1

INSTALLATION

Wood batten 30 x 40 mm / steel angle bracket 30 x 30 x 3 mm / steel profile 30 x 3 mm

model	B [mm]	clear width space [mm]	fastening spacing [mm]
A-C	1020	0 - 770	1000
	1220	730 - 970	900
	1520	930 - 1270	700
	1830	1230 - 1580	600
	2030	1530 - 1780	500
	2230	1730 - 1980	400
	2530	1930 - 2280	300
B	1020	0 - 840	1000
	1220	820 - 1040	900
	1520	1020 - 1340	700
	1830	1320 - 1650	600
	2030	1630 - 1850	500
	2230	1830 - 2050	400
	2530	2030 - 2350	300

MODEL A

MODEL B

MODEL C

COMPLEMENTARY PRODUCTS

CODE	description	d_1 [mm]
HBS	screw for timber	6
SKR	screw anchor for concrete	7,5

CODE	description	d_1 [mm]	L [m]	B [mm]	s [mm]
SBS6360	self-drilling timber-metal screw	6,3	60	-	-
SBS6370		6,3	70	-	-
SBS6385		6,3	85	-	-
LBB4030	perforated strap	-	50	40	3

WALKWAYS

WALKSAFE

D.LGS.81/08

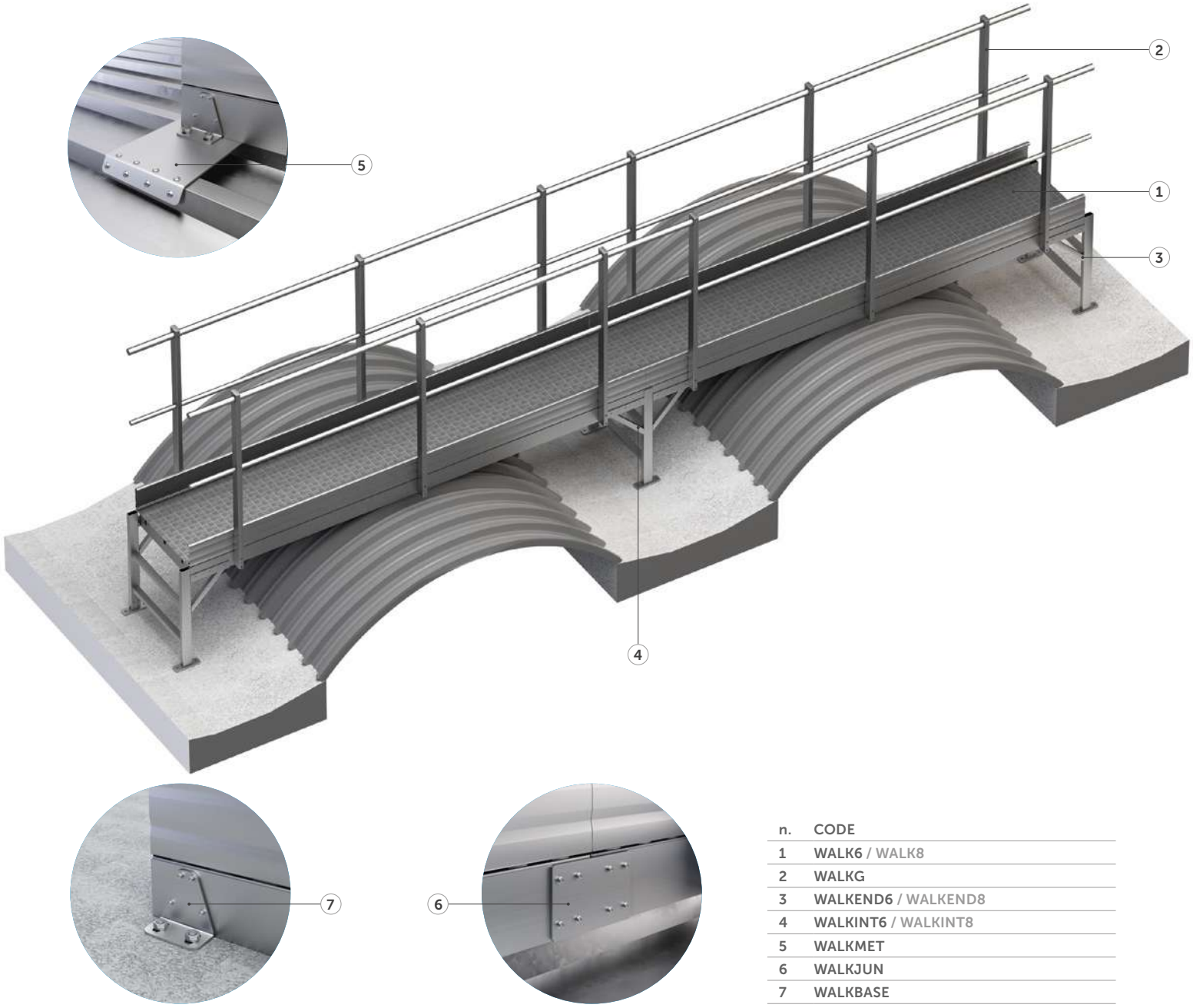
UNI EN 14122-2

WALKWAYS

RELIABLE
The non-slip, anti-oil, anti-heel and ice resistant coating ensures safe footing.

STANDARD MODULES
Available in 1,50 and 3,0 m long modules, from 60 to 80 cm wide. Additional sizes available upon request.

MODULAR
Available with or without railing and toe boards, or single-sided. Possibility to be fixed directly or with supports of various heights.



n.	CODE
1	**WALK6** / WALK8
2	**WALKG**
3	**WALKEND6** / WALKEND8
4	**WALKINT6** / WALKINT8
5	**WALKMET**
6	**WALKJUN**
7	**WALKBASE**

CODES AND DIMENSIONS

WALKWAY MODULE

CODE	description	width (B) [mm]	length (L) [mm]
WALK615	walkway module	600	1500
WALK620	walkway module	600	2000
WALK625	walkway module	600	2500
WALK630	walkway module	600	3000
WALK815	walkway module	800	1500
WALK820	walkway module	800	2000
WALK825	walkway module	800	2500
WALK830	walkway module	800	3000

Other lengths available on request.

RAILING MODULE WITH OPTIONAL TOE BOARD*

CODE	description	length (L) [mm]	no. of uprights included
WALKG15	railing module with toe board	1500	2
WALKG20	railing module with toe board	2000	2
WALKG25	railing module with toe board	2500	3
WALKG30	railing module with toe board	3000	3

Other lengths available on request.
**The code is for the single side.*

RAISED END SUPPORTS

CODE	description	width (B) [mm]	height (H) [mm]
WALKEND6200	end support	600	200
WALKEND6300	end support	600	300
WALKEND6400	end support	600	400
WALKEND6500	end support	600	500
WALKEND6600	end support	600	600
WALKEND8200	end support	800	200
WALKEND8300	end support	800	300
WALKEND8400	end support	800	400
WALKEND8500	end support	800	500
WALKEND8600	end support	**800**	**600**

Other heights available on request.

RAISED INTERMEDIATE SUPPORTS

CODE	description	width (B) [mm]	height (H) [mm]
WALKINT6200	intermediate support	600	200
WALKINT6300	intermediate support	600	300
WALKINT6400	intermediate support	600	400
WALKINT6500	intermediate support	600	500
WALKINT6600	intermediate support	600	600
WALKINT8200	intermediate support	800	200
WALKINT8300	intermediate support	800	300
WALKINT8400	intermediate support	800	400
WALKINT8500	intermediate support	800	500
WALKINT8600	intermediate support	800	600

Other heights available on request.

OTHER SUPPORTS AND JOINTS

CODE	description	frets pitch [mm]	height (H) [mm]
WALKMET250	support for sandwich panels	250	55
WALKMET333	support for sandwich panels	300	55
WALKMET500	support for sandwich panels	500	55

CODE	description
WALKBASE	base support for direct fastening/bracket for WALKMET
WALKJUN	fastening joint for WALK module

Other components are available on request.
For the composition, use the handbook or the component spreadsheet, both available on our website: www.rothoblaas.com.

WALKWAYS

OVERLANE

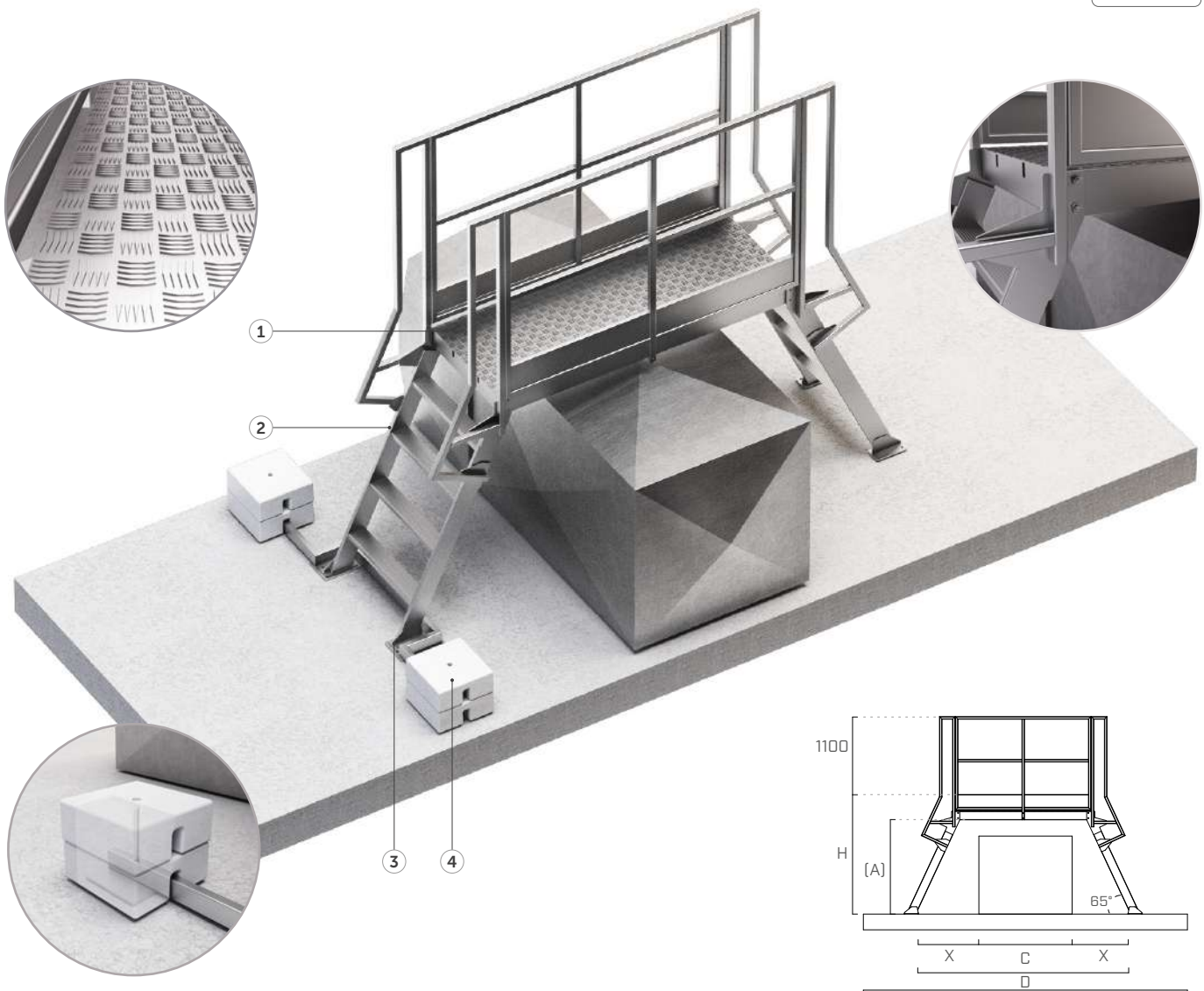
D.LGS.81/08 | EN 14122-3 | EN 14122-2

OVERPASS WALKWAY

LIGHT
Thanks to the prefabrication and lightness of aluminium, it can be easily transported and is simple to install.

ADJUSTABLE
With various lengths and widths of both the landing platform and the side steps, it provides a solution for overcoming any obstacle.

RELIABLE
The non-slip covering means difficult areas of roofs or machinery can be reached safely.



n.	CODE
1	**OVERPLAT6** / OVERPLAT8
2	**OVERSTEP6** / OVERSTEP8
3	**OVERBAR**
4	**OVERWEIGHT**

CODES AND DIMENSIONS

LANDING WITH DOUBLE RAILING AND TOE BOARD

CODE	description	width (B) [mm]	length (L) [mm]	useful length (C) [mm]
OVERPLAT606	landing with railing	600	600	480
OVERPLAT608	landing with railing	600	800	680
OVERPLAT610	landing with railing	600	1000	880
OVERPLAT612	landing with railing	600	1200	1080
OVERPLAT614	landing with railing	600	1400	1280
OVERPLAT616	landing with railing	600	1600	1480
OVERPLAT618	landing with railing	600	1800	1680
OVERPLAT620	landing with railing	600	2000	1880
OVERPLAT622	landing with railing	600	2200	2080
OVERPLAT624	landing with railing	600	2400	2280
OVERPLAT806	landing with railing	800	600	480
OVERPLAT808	landing with railing	800	800	680
OVERPLAT810	landing with railing	800	1000	880
OVERPLAT812	landing with railing	800	1200	1080
OVERPLAT814	landing with railing	800	1400	1280
OVERPLAT816	landing with railing	800	1600	1480
OVERPLAT818	landing with railing	800	1800	1680
OVERPLAT820	landing with railing	800	2000	1880
OVERPLAT822	landing with railing	800	2200	2080
OVERPLAT824	landing with railing	800	2400	2280

Other dimensions are available on request.

SIDE STEPS WITH RAILING*

CODE	description	width (B) [mm]	height (H) [mm]	useful height (A) [mm]	depth (B) [mm]	no. of steps
OVERSTEP607	ladder module with railing	600	700	600	247	2
OVERSTEP610	ladder module with railing	600	950	850	364	3
OVERSTEP612	ladder module with railing	600	1200	1100	480	4
OVERSTEP615	ladder module with railing	600	1450	1350	597	5
OVERSTEP617	ladder module with railing	600	1700	1600	714	6
OVERSTEP620	ladder module with railing	600	1950	1850	820	7
OVERSTEP622	ladder module with railing	600	2200	2100	947	8
OVERSTEP807	ladder module with railing	800	700	600	247	2
OVERSTEP810	ladder module with railing	800	950	850	364	3
OVERSTEP812	ladder module with railing	800	1200	1100	480	4
OVERSTEP815	ladder module with railing	800	1450	1350	597	5
OVERSTEP817	ladder module with railing	800	1700	1600	714	6
OVERSTEP820	ladder module with railing	800	1950	1850	820	7
OVERSTEP822	ladder module with railing	800	2200	2100	947	8

Other sizes are available on request
*One on each side of the overpass.

ACCESSORIES FOR OVERPASS

CODE	description
OVERBAR	ballast holder for self-supporting fastening
OVERWEIGHT	22.5 kg concrete ballast (2 for each OVERBAR support)

EXAMPLE OF A COMPOSITION FOR A COMPLETE OVERPASS:

n.1OVERPLAT820
n.2 OVERSTEP812

If self-supporting with ballast add:
no.4 OVERBAR
no.8 OVERWEIGHT

Other components are available on request.
For the composition, use the handbook or the component spreadsheet, both available on our website: www.rothoblaas.com.

TEMPORARY RAILING BARRIERS

EDGE TEMP 1

TEMPORARY RAILING
ROOF SIDE

MANUALS

CODES AND DIMENSIONS*

CODE	standard	material	max. slope of use	max. spacing between supports [mm]	minimum thickness of fixture [mm]	substructure	weight [kg]	pcs
EDGETEMP1	EN 13374 Class A	zinc-plated steel	used as lateral protection support maximum slope 10° from horizontal	1400	from 80 to 192	timber beam	8,80	1

** The values indicated are derived from experimental tests carried out under the supervision of third party organisations according to the referenced standard. For a calculation report with minimum distances, according to the referenced normative requirements, the substructure must be verified by a qualified engineer before installation.*

EDGE TEMP 2

TEMPORARY RAILING
FRONT COVER

MANUALS

CODES AND DIMENSIONS*

CODE	standard	material	max. slope of use	max. spacing between supports [mm]	minimum thickness of fixture [mm]	substructure	weight [kg]	pcs
EDGETEMP2	EN 13374 Class B	zinc-plated steel	maximum roof slope 30°	1400	from 80 to 200	timber beam	9,00	1

** The values indicated are derived from experimental tests carried out under the supervision of third party organisations according to the referenced standard. For a calculation report with minimum distances, according to the referenced normative requirements, the substructure must be verified by a qualified engineer before installation.*

EDGE TEMP 3

TEMPORARY RAILING FOR HORIZONTAL EDGES

MANUALS

CODES AND DIMENSIONS*

CODE	standard	material	max. slope of use	max. spacing between supports [mm]	substructure	weight [kg]	pcs
EDGETEMP3	EN 13374 Class A	zinc-plated steel	the slope of the working surface (impact sound surface) must be less than 10°	1400	concrete	4,23	1

** The values indicated are derived from experimental tests carried out under the supervision of third party organisations according to the referenced standard. For a calculation report with minimum distances, according to the referenced normative requirements, the substructure must be verified by a qualified engineer before installation.*

EDGE TEMP 4

TEMPORARY UNIVERSAL RAILING WITH STEM

MANUALS

CODES AND DIMENSIONS*

CODE	standard	material	max. slope of use	max. spacing between supports [mm]	minimum thickness of fixture [mm]	substructure	weight [kg]	pcs
EDGETEMP4	EN 13374 Class A	zinc-plated steel	the slope of the working surface (impact sound surface) must be less than 10°	1400	clamp max. opening 700	timber concrete steel	5,20	1

** The values indicated are derived from experimental tests carried out under the supervision of third party organisations according to the referenced standard. For a calculation report with minimum distances, according to the referenced normative requirements, the substructure must be verified by a qualified engineer before installation.*

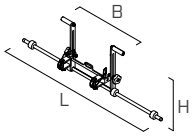
LADDER HOOKS

HANG TEMP

MOBILE LADDER HOOK

CODES AND DIMENSIONS

CODE	material	B [mm]	H [mm]	L [mm]	weight [kg]	pcs
HANGTEMP	aluminium	445	300	1000	2,2	1

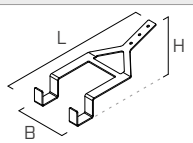


HANG ROOF

LADDER HOOK
FOR PITCHED ROOFS

CODES AND DIMENSIONS

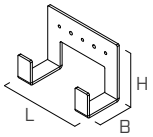
CODE	material	B [mm]	H [mm]	L [mm]	weight [kg]	pcs
HANGROOF	zinc-plated steel	280	211	640	3,6	1
HANGROOFA2	AISI 304 stainless steel grade 1.4301	280	211	640	3,6	1



HANG WALL

LADDER HOOK FOR WALL

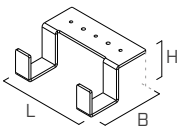
CODES AND DIMENSIONS

CODE	material	B [mm]	H [mm]	L [mm]	weight [kg]	pcs	
HANGWALL	zinc-plated steel	128	196	280	3,5	1	

HANG PLAIN

LADDER HOOK FOR FLAT SURFACES

CODES AND DIMENSIONS

CODE	material	B [mm]	H [mm]	L [mm]	weight [kg]	pcs	
HANGPLAIN	zinc-plated steel	212	116	280	3,5	1	

HORIZONTAL NET

HORIZONTAL POLYPROPYLENE FALL PROTECTION SAFETY NET

EN 1263-1 Tipo S

SAFE
It requires a limited number of fastening systems (maximum distance between anchors: 2.5 m).

MODULAR
Possibility of joining several nets together using HORCONNECT sewing rope to cover larger areas

CAN BE PERSONALIZED
Also available in other colours by request (red, blue, white) and in personalised format for specific net sizes.

VIDEO MANUALS

Installation of temporary polypropylene fall protection nets for securing a timber roof under construction

FIELDS OF APPLICATION

CODES AND DIMENSIONS

CODE	B [m]	L [m]	mesh [mm]	rope [mm]	weight [kg]	pcs
HOR510	5	10	100	Ø5	11,4	1
HOR610	6	10	100	Ø5	13,7	1
HOR7515	10	10	100	Ø5	22,9	1
HOR1010	7,5	15	100	Ø5	25,7	1

COMPLEMENTARY PRODUCTS

CODE	description	dimensions [mm]	pcs	
HORHOOKC	net hook for concrete	M12 x 110	1	
HORHOOKS	net hook for steel	M12 x 130	1	
HORHOOKU	net hook for timber, concrete, steel with carabiner included	95 x 85 x 65	1	
HORFIX	fastening cord per linear metre	Ø14	1	
HORCONNECT	sewing cord per linear metre	Ø6	1	

FASTENING FOR HORHOOKU

substructure	fasteners	pcs	
timber	HBS Ø8	2	
concrete	AB1 / AB7 Ø10	1	
steel	EKS M10 + ULS + MUT	1	

VERTICAL NET

VERTICAL POLYPROPYLENE FALL PROTECTION SAFETY NET

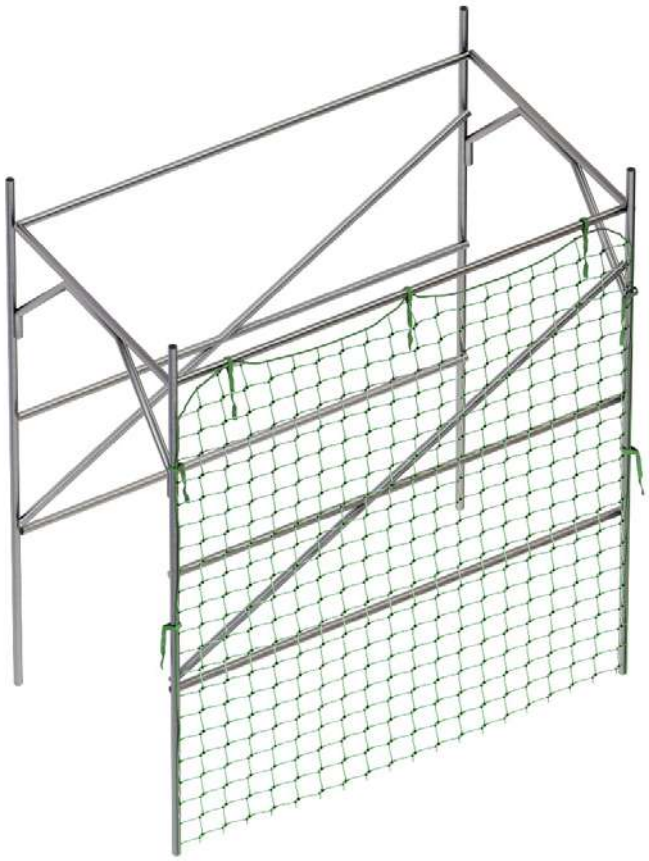
EN 1263-1 Tipo U

SAFE
Protection system for roof edges and scaffolding.

FUNCTIONAL
Installation by inserting each individual link in the scaffold pipe or via fastening straps (optional).

VERSATILE
Also available in other colours by request (red, blue, white).

VIDEO MANUALS



CODES AND DIMENSIONS

CODE	B [m]	L [m]	mesh [mm]	rope [mm]	weight [kg]	pcs
VER210	2	10	100	Ø5	4,5	1

COMPLEMENTARY PRODUCTS

CODE	description	spacing between belts fastening [mm]	L [mm]	pcs
VERBENT	fastening strap for side fall protection safety net	700	600	1

FRAME NET

FALL PROTECTION SAFETY NET WITH FRAME

EN 13374 C

FUNCTIONAL
Possibility of installation on roofs with an inclination of up to 60°.

FAST
Quick and easy assembly thanks to the few modular components.

VERSATILE
Ideal for securing the roof when there is no possibility of installing external scaffolding or perimeter protection with external fastening.

VIDEO MANUALS

CODES AND DIMENSIONS

CODE	description	weight [kg]	pcs
FRAMENET	net with frame complete with quick straps	11	1
FRAMESUP	support for net with frame	9,2	1
FRAMEHOOK	hook for net with frame	1	1

The distance between the fastening brackets is max. 2.4 m. Each first module of the protection system (near each falling edge) must be fixed with two brackets and two supports, all other modules assembled next to each other and secured with quick fastening straps are fixed with only one support and fastening bracket

PERSONAL PROTECTIVE EQUIPMENT

PERSONAL PROTECTIVE EQUIPMENT

PERSONAL PROTECTIVE EQUIPMENT

PPE STANDARDS

KIT	HELMETS	HARNESSES	FALL PROTECTION AND POSITIONING	ROPES AND ACCESSORIES	RETRACTABLE DEVICES
					
-	EN 397 ANSI Z.89.1 EN 166 EN 352-3 EN 50365	EN 361 EN 358 EN 813 EN 12275/A/C ANSI/ASSE Z359.11-2014	EN 355 EN 358 EN 353-2	EN 353-2 EN 354 EN 1891	EN 360 ATEX II 2G c T6

EQUIPMENT CARE AND MAINTENANCE

TEXTILE DEVICES

CUTS
A 2-mm edge cut reduces facric resistance by up to 40%.

ULTRA VIOLET DEGRADATION
The sun and welding can damage textile components.

ABRASIONS
An abrasion on textile components acts just like a cut when fabric threads are torn.

SEAMS
Before each use it is essential to check that there are no loose, torn, worn or missing threads.

BURNS
Caused both by heat sources and by contact with chemical and corrosive substances or materials. In particular, nylon is usually damaged when in contact with acids, and polyester with alkaline substances.

DESCENDERS | SELF-LOCKING	DESCENDERS | POSITIONING	ANCHOR SYSTEMS	CONNECTORS	PULLEYS	ACCESSORIES	TRIPODS AND CRANES
						
EN 353-2 EN 567 EN 12841 ANSI/ISEA Z359.15-2014 EN 341	EN 341 EN 62193 EN 60832-1 EN 795:2012 B	EN 795:2012 B EN 354 EN 566 RfU CNB/P/11.114	EN 362 EN 12275 ANSI Z359.12	EN 12278	EN 166 EN 352-1 EN 388	EN 795:2012 B CEN/TS 16415:2013 EN 1496 EN 360

The care and maintenance of your equipment is essential for the safety of the user. Cuts, abrasions, burns and other signs of wear adversely affect safety: a damaged device may operate improperly and cause accidents, which can be avoided with effective preventive inspections.

MECHANICAL DEVICES

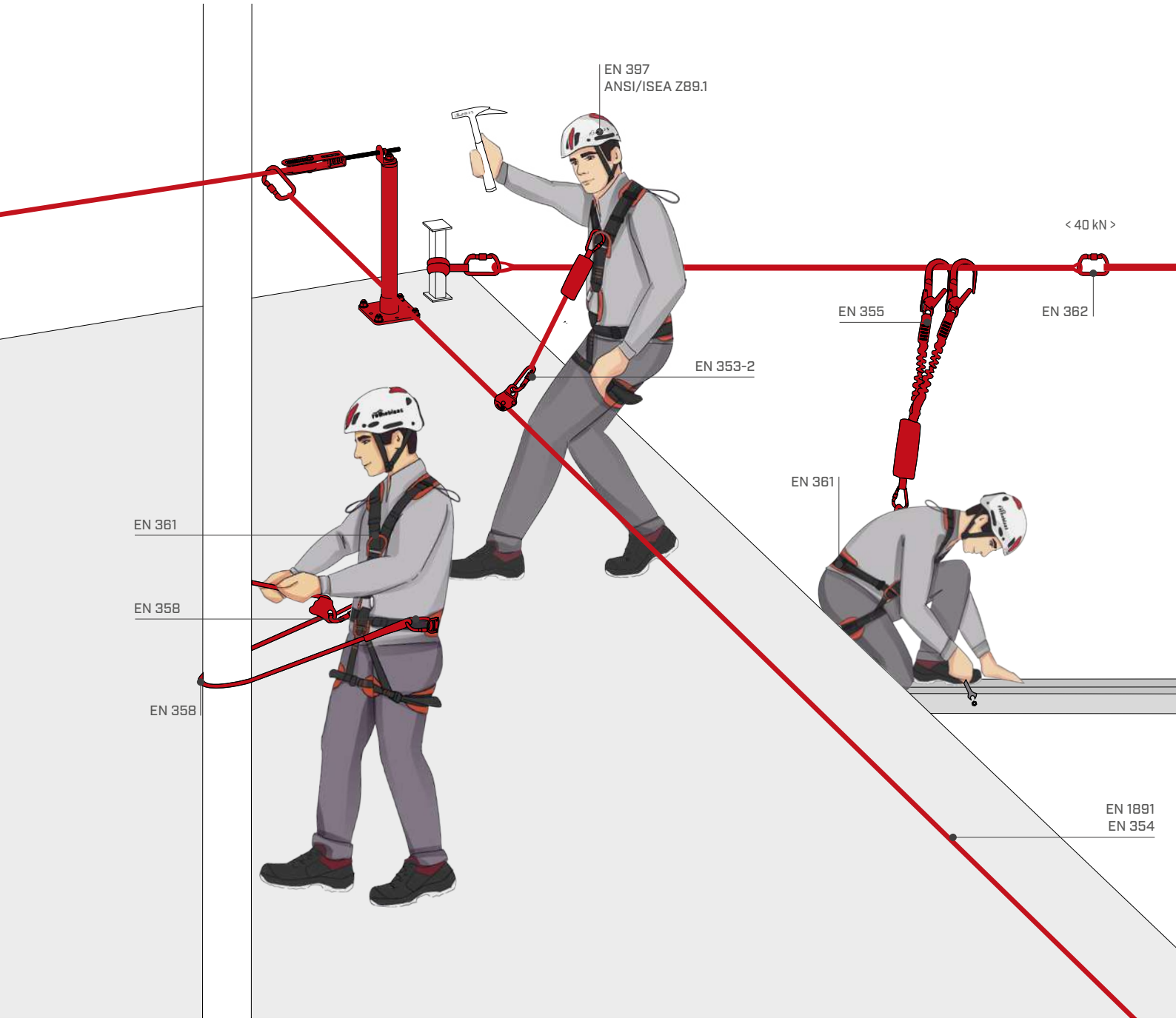
SIGNS OF WEAR
The frequent use of the device can determine accelerated wear. The frequency of checks must therefore be directly proportional to the frequency of use.

DEFORMATION
Excessive loads or misuse may result in changes and breakdown of the device.

LOOSENED PARTS
Before each use, check the device for integrity (loosened screws, signs of breakage, etc.).

CORROSION AND OXIDATION
Keep the devices away from moisture and atmospheric agents as they may deteriorate their functions.

KIT



WORK ON ROOFS

WORK ON ROOFS means all actions carried out on roofs. To work safely, the worker must be attached to an life line already installed on the ridge line. If this is not available, a temporary anchor line must be installed by a qualified worker.

A **FIXED ANCHOR LINE** must be made of certified devices, designed by a qualified professional and installed by a worker who has been adequately trained by the manufacturer. During this phase, the most important aspect is the selection of the type and number of fastenings to be used. Once installed, the anchor line must be tested and inspected on annually.

TEMPORARY ANCHOR LINES are used in situations where there is no possibility of creating an adequate anchor for a fixed anchor line.

ROOF BASE

BASIC KIT FOR WORKING ON ROOF

FAST LINK

LINOSTOP

IRIS

RBBAG

CODE			page	pcs
ROOFBASE	RBBAG	backpack	214	1
	IRIS	complete harness for fall protection systems	195	1
	LINO10	guided type fall arrester with flexible anchor line	200	1
	FASTD	fast link in carbon steel, half-round "D" shape	211	1

ROOF INT

INTERMEDIATE KIT FOR WORKING ON ROOF

FAST LINK

DOUBLE SICUROPE

LINOSTOP

METIS

RSBAG

CODE			page	pcs
ROOFINT	RSBAG	waterproof bag	214	1
	METISML	complete professional harness for fall protection systems	194	1
	LINO10	guided type fall arrester with flexible anchor line	200	1
	DSIC2	double arm rope with energy absorber	198	1
	FASTD	fast link in carbon steel, half-round "D" shape	211	1

ROOF PROFI

PROFESSIONAL KIT FOR WORKING ON ROOF

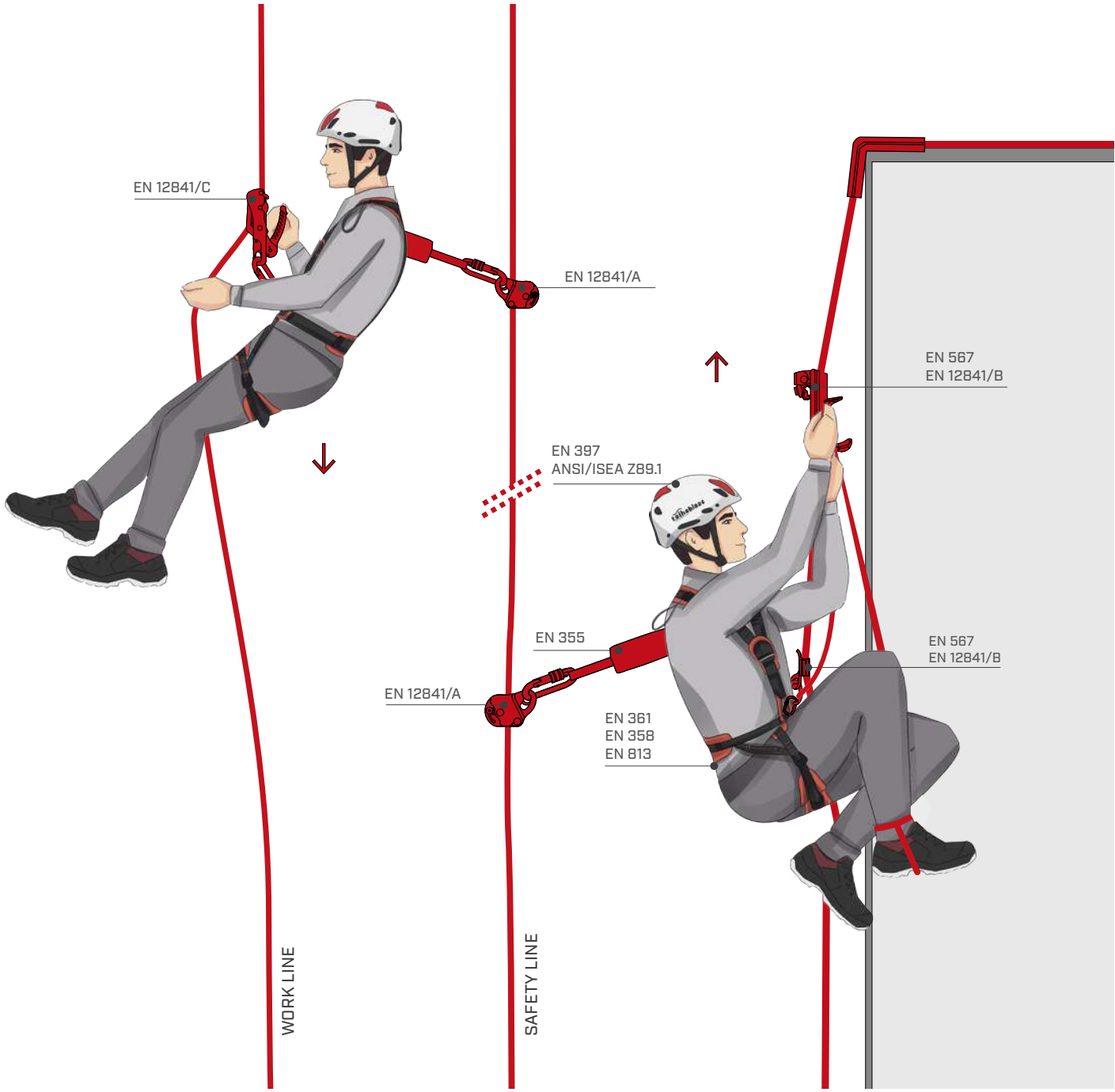
BACK

ROPE1

SPARTA

RSBAG

CODE			page	pcs
ROOFPROFI	RSBAG	waterproof bag	214	1
	SPARTAM	complete professional harness for fall protection systems, positioning, rope access work	191	1
	ROPE115	semi-static rope with sewn eyelets and self-locking carabiner	200	1
	BACK	fall protection and positioning device	204	1



WORK WITH DOUBLE ROPES

WORK WITH ROPES means situations where the worker must carry out short-term operations while freely hanging or working along a vertical wall or surface with an incline exceeding 30°. Due to their complexity, these jobs are performed by specialised workers with high level training provided by qualified entities or associations such as IRATA or SPRAT.

A rope is used when carrying out these operations, together with ascenders and descenders, which are devices that allow the worker to move up and down along the rope. A second rope must also be used, known as the "safety" rope, complete with a fall protection system which goes into action in the case the working rope breaks.

ROPE BASE

BASE KIT FOR WORK WITH DOUBLE ROPE

ROPE BRAKE

BACK

SPARTA

RSBAG

CODE			page	pcs
ROPEBASE	RSBAG	waterproof bag	214	1
	SPARTAM	complete professional harness for fall protection systems, positioning, rope access work	191	1
	BACK	fall arrester	204	1
	ROPBRA	descender	204	1

ROPE PROFI

PROFESSIONAL KIT FOR WORK WITH DOUBLE ROPE

BELLY

ROPE BRAKE

BACK

PLANK

HERA BLACK

RSBAG

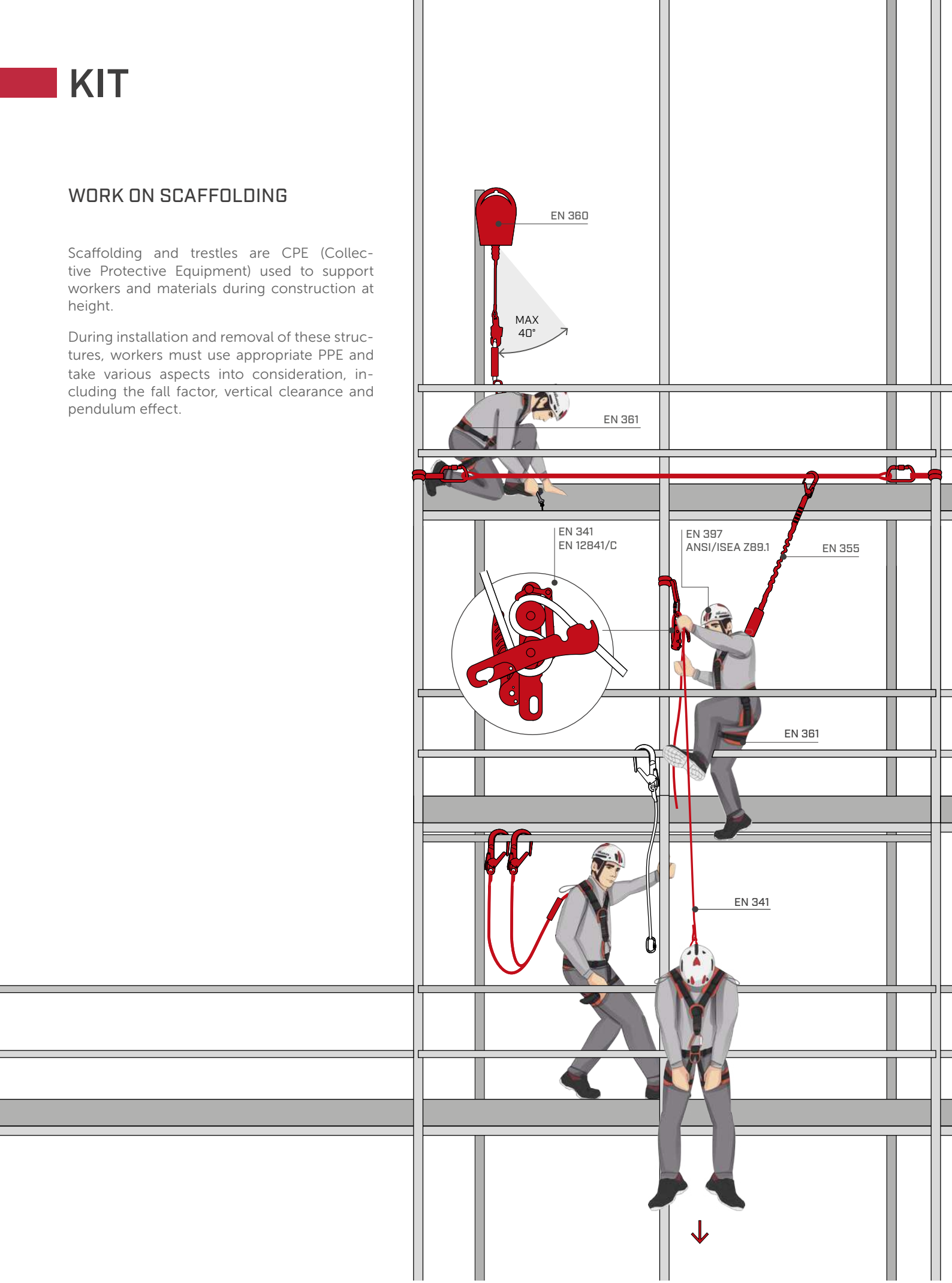
CODE			page	pcs
ROPEPROFI	PLANK	seat for extended suspension work	196	1
	RSBAG	waterproof bag	214	1
	HERABLACKML	complete professional harness for fall protection, positioning and rope access work	196	1
	BACK	fall arrester	204	1
	ROPBRA	descender	204	1
	BELLY	Cam Clean rope lock	205	1

KIT

WORK ON SCAFFOLDING

Scaffolding and trestles are CPE (Collective Protective Equipment) used to support workers and materials during construction at height.

During installation and removal of these structures, workers must use appropriate PPE and take various aspects into consideration, including the fall factor, vertical clearance and pendulum effect.



SCA BASE

BASIC KIT FOR WORKING ON SCAFFOLDING

FAST LINK

ENERGY

IRIS

RBBAG

CODE			page	pcs
SCABASE	**RBBAG**	backpack	214	1
	IRIS	complete harness for fall protection systems	195	1
	ENERGY	adjustable rope with energy absorber	199	1
	FASTD	fast link in carbon steel, half-round "D" shape	211	1

SCA PROFI

PROFESSIONAL KIT FOR WORKING ON SCAFFOLDING

SCAFFOLD DUO

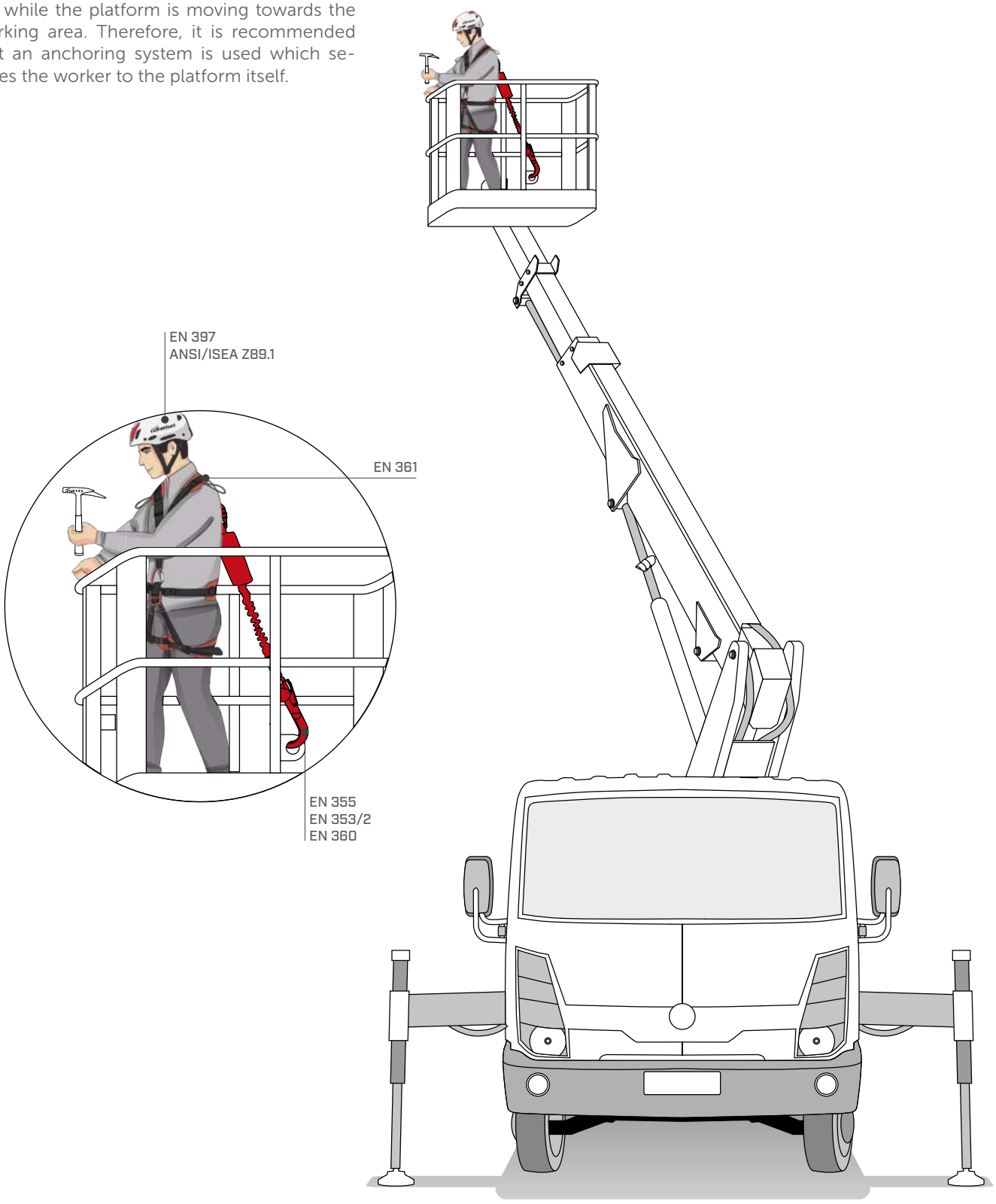
MAIA

RSBAG

CODE			page	pcs
SCAPROFI	**RSBAG**	waterproof bag	214	1
	MAIAMXL	complete professional harness for fall protection, positioning and rope access work	193	1
	SCA15	double arm rope with energy absorber	198	1

WORK ON PLATFORMS

Aerial work platforms are often used to reach working areas at height. These platforms are not without falling risks for workers, who could be thrown past the side barriers due to swinging while the platform is moving towards the working area. Therefore, it is recommended that an anchoring system is used which secures the worker to the platform itself.



PLAT BASE

BASE KIT FOR PLATFORM WORK

FAST LINK

ENERGY

IRIS

RBBAG

CODE			page	pcs
PLATBASE	RBBAG	backpack	214	1
	IRIS	complete harness for fall protection systems	195	1
	ENERGY	adjustable rope with energy absorber	199	1
	FASTD	fast link in carbon steel, half-round "D" shape	211	1

PLAT INT

INTERMEDIATE KIT FOR PLATFORM WORK

FAST LINK

PLATROPE

HESTIA

RSBAG

CODE			page	pcs
PLATINT	RSBAG	waterproof bag	214	1
	HESTIAMXL	complete harness for fall protection systems	192	1
	PLATROPE	adjustable rope with energy absorber for platforms	199	1
	FASTD	fast link in carbon steel, half-round "D" shape	211	1

PLAT PROFI

PROFESSIONAL KIT FOR PLATFORM WORK

FAST LINK

STRAP

METIS

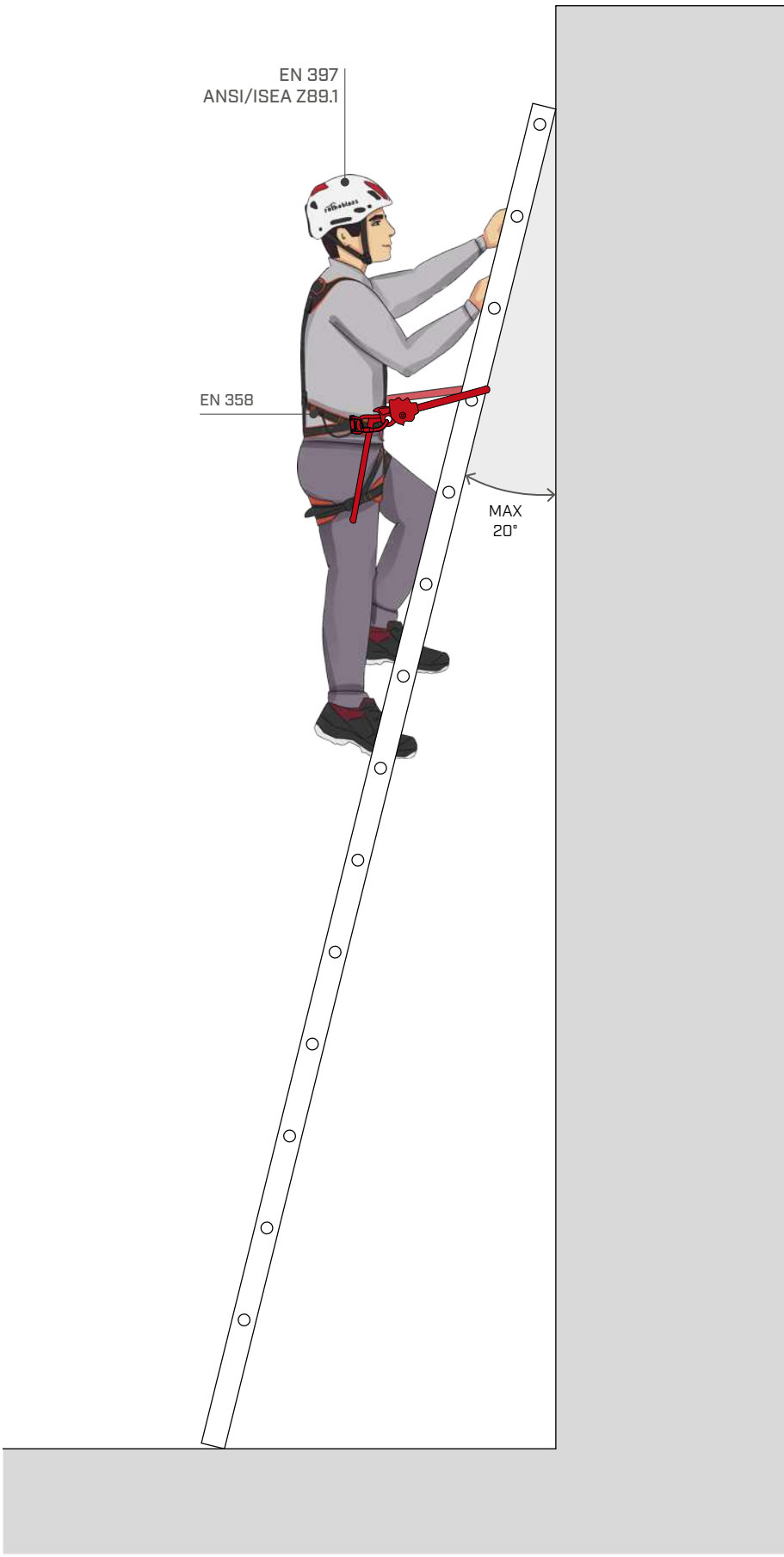
RSBAG

CODE			page	pcs
PLATPROFI	RSBAG	waterproof bag	214	1
	METISML	complete professional harness for fall protection systems	194	1
	STRAP2	retractable device	203	1
	FASTD	fast link in carbon steel, half-round "D" shape	211	1

WORK ON LADDERS

Ladders can be used to access working areas. They can be fixed or portable; in both cases they must be certified.

Fixed ladders are typically used in industrial environments where access to certain areas is very frequent for the performance of ordinary maintenance, while portable ladders are used for extraordinary maintenance. It should be remembered that whenever possible, the use of an aerial platform or scaffolding is preferable to the use of a ladder. In all cases, no worker should ascend a ladder without adequate personal protection equipment.



LAD BASE

BASE KIT FOR WORKING ON LADDERS

POSITIONING

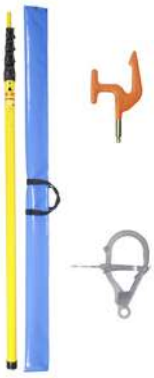
MAIA

RBBAG

CODE			page	pcs
LADBASE	RBBAG	backpack	214	1
	MAIAMXL	complete professional harness for fall protection, positioning and rope access work	193	1
	POS2	adjustable positioning lanyard	199	1

LAD PROFI

PROFESSIONAL KIT FOR WORKING ON LADDERS



EXTEND

BACK

ROPE1

SPARTA

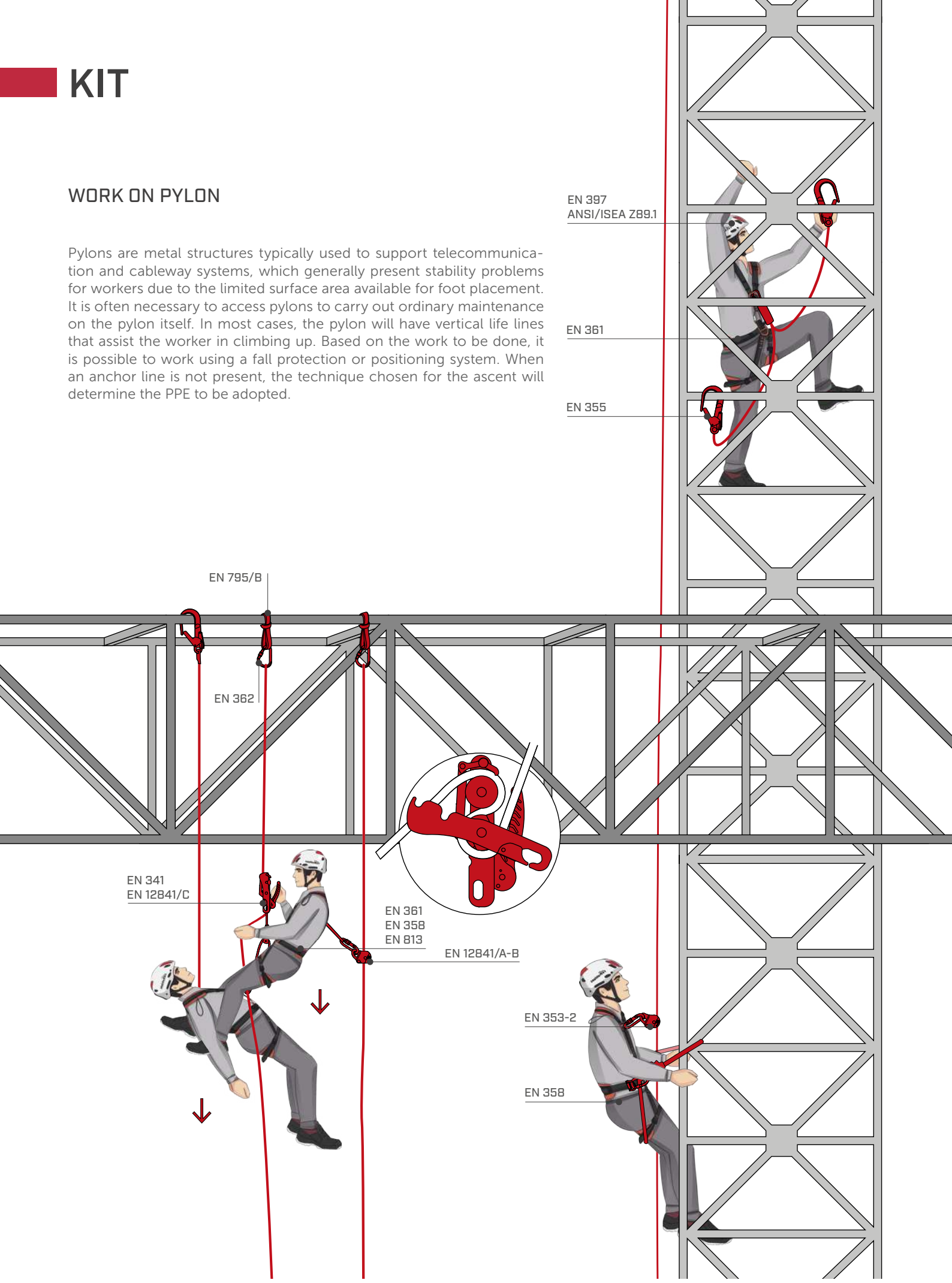
RSBAG

CODE			page	pcs
LADPROFI	RSBAG	waterproof bag	214	1
	SPARTAM	complete professional harness for fall protection systems, positioning, rope access work	191	1
	ROPE110	semi-static rope with sewn ends and automatic carabiner	200	1
	BACK	fall arrester	204	1
	EXTENSIONPOLE	telescopic bar	207	1
	EXTENSIONHOOK	hook for hanging	207	1
	EXTENSIONHEAD	work hook	207	1

KIT

WORK ON PYLON

Pylons are metal structures typically used to support telecommunication and cableway systems, which generally present stability problems for workers due to the limited surface area available for foot placement. It is often necessary to access pylons to carry out ordinary maintenance on the pylon itself. In most cases, the pylon will have vertical life lines that assist the worker in climbing up. Based on the work to be done, it is possible to work using a fall protection or positioning system. When an anchor line is not present, the technique chosen for the ascent will determine the PPE to be adopted.



STRUC BASE

BASE KIT FOR WORKING ON ELECTRICITY PYLON

BAND35

SCAFFOLD DUO

LINOSTOP

MAIA

RSBAG

CODE			page	pcs
STRUCBASE	**RSBAG**	waterproof bag	214	1
	MAIAMXL	complete professional harness for fall protection systems, positioning, rope access work	193	1
	LINO20	guided type fall arrester with flexible anchor line	200	1
	SCA15	double arm rope with energy absorber	198	1
	BAND35120	textile ring anchor with 1.2 m wear indicator max. load 35 kN	208	1

STRUC PROFI

PROFESSIONAL KIT FOR WORKING ON ELECTRICITY PYLON

BACK

SCAFFOLD DUO

ROPE1

SPARTA

RSBAG

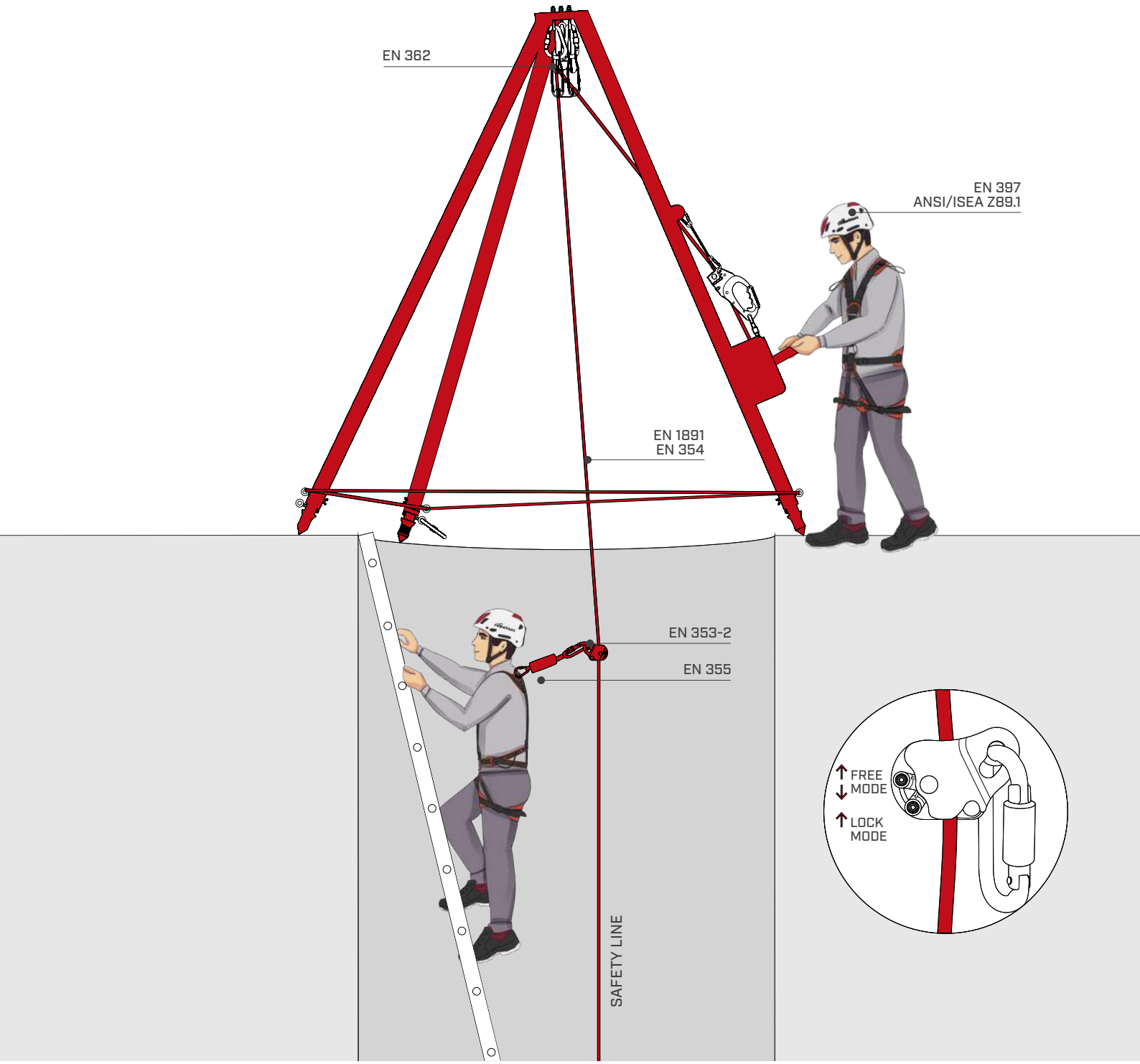
CODE			page	pcs
STRUCPROFI	**RSBAG**	waterproof bag	214	1
	SPARTAM	complete professional harness for fall protection systems, positioning, rope access work	191	1
	ROPE130	semi-static rope with sewn ends and automatic carabiner	200	1
	SCA15	double arm rope with energy absorber	198	1
	BACK	fall arrester	204	1

KIT

WORK IN CONFINED SPACE

For a correct assessment, consider:

- The type of activity
- The type of work environment
- The materials and equipment to be used and suitable PPE
- The suitability of employees



CORES BASE

BASE KIT FOR WORKING IN CONFINED SPACE

FAST LINK

IRIS

RBBAG

CODE			page	pcs
CORESBASE	RBBAG	backpack	214	1
	IRIS	complete harness for fall protection systems	195	1
	FASTD	fast link in carbon steel, half-round "D" shape	211	1

CORES INT

INTERMEDIATE KIT FOR WORKING IN CONFINED SPACE

BACK

ROPE1

BIA

RSBAG

CODE			page	pcs
CORESINT	RSBAG	waterproof bag	214	1
	BIAML	complete professional harness for fall protection systems	193	1
	ROPE115	semi-static rope with sewn ends and automatic carabiner	200	1
	BACK	fall arrester	204	1

CORES PROFI

PROFESSIONAL KIT FOR WORKING IN CONFINED SPACE

BAND23

ELEVATOR

BACK

ROPE BRAKE

ROPE1

RSBAG

CODE			page	pcs
CORESPROFI	RSBAG	waterproof bag	214	1
	ROPE120	semi-static rope with sewn ends and automatic carabiner	200	1
	ROPBRA	descender	204	1
	BACK	fall arrester	204	1
	ELEL	moveable rope lock for ascent	205	1
	BAND23120	1.2 textile ring anchor max. load 23 kN	208	1

HELMETS

PROTECTOR

HELMET FOR WORK AT HEIGHT, ON CONSTRUCTION SITE OR IN INDUSTRIAL AREAS

- Adjustable head wrap even when wearing gloves
- Positioning hooks for head lamp installation
- Pre-drilled shell for installation of visor and anti-noise earphones with specific accessories

COMPONENTS

CODES AND CHARACTERISTICS

	CODE	standard	description	material	weight [g]	colour	size	pcs
	PRO	CE - EN 397	PROTECTOR white	ABS	385		UNI 52 - 64 cm	1
	PRONEC	CE - EN 397	PROTECTOR with nape cover	ABS	385		UNI 52 - 64 cm	1
	PROORA	CE - EN 397	PROTECTOR orange	ABS	385		UNI 52 - 64 cm	1
	PRORED	CE - EN 397	PROTECTOR red	ABS	385		UNI 52 - 64 cm	1
	PROYEL	CE - EN 397	PROTECTOR yellow	ABS	385		UNI 52 - 64 cm	1
	PROYELHV	CE - EN 397	PROTECTOR high visibility	ABS	385		UNI 52 - 64 cm	1
	PROBLA	CE - EN 397	PROTECTOR black	ABS	385		UNI 52 - 64 cm	1
	PROBLASOFT	CE - EN 397	PROTECTOR rubberised black	ABS	390		UNI 52 - 64 cm	1

COMPLEMENTARY PRODUCTS

	CODE	standard	description	material	weight [g]	colour		pcs
1	VISTRA	CE - EN 166	clear visor	polycarbonate	80			1
	VISDAR	CE - EN 166	smoked visor	polycarbonate	80			1
	VISTRALON	CE - EN 166	long visor for helmet	polycarbonate	125			1
	VISTRE	CE - EN 1731	mesh visor for helmet	nylon	70			1
2	EAR26	CE - EN 352-3	set of earmuffs - 26 dB	-	185			1
	EAR30	CE - EN 352-3	set of earmuffs - 30 dB	-	216			1
	EAR32	CE - EN 352-3	set of earmuffs - 32 dB	-	245			1
3	EARADA	-	earmuffs adapter for PROTECTOR	-	-	-		1
	GEARPRO	-	spare head wrap	-	16			1
	PADPRO	-	spare padding	-	26			1
	NEC		neck protector	-	-	-	-	1

	CODE	description	output [lumen]	depth of light beam [m]	weight [g]	colour	battery life	pcs
	LIGHT	compact light with 7 modes	122	120	56		180	1
	LIGHTSOS	ultra compact light with 4 modes for use	25	25	24		96	1

HELMETS

ARCH

HELMET FOR WORKPLACE SAFETY, ON INDUSTRY AND CONSTRUCTION

- Comfortable, well-ventilated lining for a perfect fit, removable and washable padding
- It allows visor and earmuffs to be attached thanks to the integrated coupling in the shell
- Provided with 4 durable light holders to attach a head lamp

CODES AND CHARACTERISTICS

CODE	standard	material	size	colour	weight [g]	pcs
ARCH	CE - EN 397 - ANSI/ISEA 9.1 - EAC	ABS	UNI 52 - 62 cm		385	1

COMPLEMENTARY PRODUCTS

		CODE	standard	description	material	colour	weight [g]	pcs
1	VISOR	VISTRA	CE - EN 166	clear visor	polycarbonate		80	1
		VISDAR	CE - EN 166	smoked visor	polycarbonate		80	1
		VISTRALON	CE - EN 166	long visor for helmet	polycarbonate		125	1
		VISTRE	CE - EN 1731	mesh visor for helmet	nylon		70	1
2	EAR	EAR26	CE - EN 352-3	set of earmuffs - 26 dB	-		185	1
		EAR30	CE - EN 352-3	set of earmuffs - 30 dB	-		216	1
		EAR32	CE - EN 352-3	set of earmuffs - 32 dB	-		245	1
		NEC	-	neck protector	-	-	-	1

CODE	description	output [lumen]	depth of light beam [m]	battery life	colour	weight [g]	pcs
LIGHT	compact light with 7 modes	122	120	180		56	1
LIGHTSOS	ultra compact light with 4 modes for use	25	25	96		24	1

PAN

HELMET FOR WORKPLACE SAFETY, ON INDUSTRY AND CONSTRUCTION

- The nylon trappings include a rapid adjustment system
- Padded chin strap, adjustable and quick-release
- Economical helmet for everyday work on the construction site

CODES AND CHARACTERISTICS

CODE	standard	description	material	colour	weight [g]	size	pcs
PAN	CE - EN 397	white helmet	ABS		396	UNI 51 - 63 cm	1
PANORA	CE - EN 397	orange helmet	ABS		396	UNI 51 - 63 cm	1
PANYEL	CE - EN 397	yellow helmet	ABS		396	UNI 51 - 63 cm	1

DIELECTRIC HELMET

DIELECTRIC HELMET FOR WORKPLACE SAFETY, ON INDUSTRY AND CONSTRUCTION

- Ensures insulation up to **1000 volts**
- Equipped with quick-release buckle and adjustable, removable chin-strap
- Already present in the shell are the housings for headphones and visor

CODES AND CHARACTERISTICS

CODE	standard	material	colour	weight [g]	size	pcs
DIHELM	CE - EN 397 - EN 50365	ABS		390	UNI 54 - 62 cm	1

HARNESSES

SPARTA

CE

COMPLETE PROFESSIONAL HARNESS FOR FALL PROTECTION SYSTEMS, POSITIONING, ROPE ACCESS WORK

- Large padding for maximum comfort during use, lightened waistband padding to increase breathability
- Equipped with three anchor points (ventral, sternal and dorsal) and two lateral positioning rings, all in light alloy
- The upper part can be completely disconnected from the lower part for inspection and cleaning purposes
- Two special passages are provided on the shoulder straps for connecting the system for vertical recovery

The SPARTA harness used with a safety lanyard for working on a timber roof

FRONT

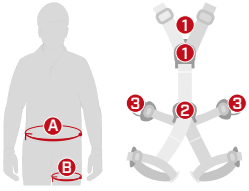
REAR

Special textile rings on the shoulder straps for storing fall arrest connectors when not in use. These rings are easy to remove thanks to the Velcro fastening.

Harness equipped with 2 foldable lateral positioning rings in light alloy.

CODES AND CHARACTERISTICS

CODE	standard	A [cm]	B [cm]	size	weight [g]	pcs
SPARTAS	CE - EN 361 - EN 358 - EN 813 EN 12277/A/C	65/85	45/60	S	-	1
SPARTAM	CE - EN 361 - EN 358 - EN 813 EN 12277/A/C	75/100	50/65	M	1780	1
SPARTALXL	CE - EN 361 - EN 358 - EN 813 EN 12277/A/C	85/120	55/70	L/XL	-	1



1. EN 361 | **15 kN**

2. EN 358 - EN 813 | **15 kN**

3. EN 358 | **15 kN**

HARNESSES

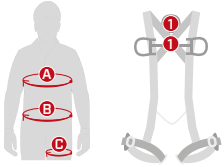
HESTIA

COMPLETE HARNESS FOR FALL PROTECTION SYSTEMS

- Three quick close buckles, pectoral and leg, for fast and effective placement
- Dorsal section and legs padded to ensure excellent comfort for workers
- Front tool holder at sternum
- Practical and easily placed work harness, thanks to quick open/close buckles
- Dorsal section and legs padded to ensure excellent comfort for workers

CODES AND CHARACTERISTICS

CODE	standard	A [cm]	B [cm]	C [cm]	size	weight [g]	pcs
HESTIAS	CE - EN 361	70/90	75/110	40/60	S	1550	1
HESTIAMXL	CE - EN 361	85/100	85/120	50/75	M/XL	1650	1
HESTIAXXL	CE - EN 361	100/130	90/140	60/85	XXL	1750	1



1. EN 361 | **15 kN**

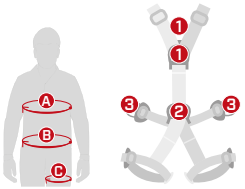
MAIA

COMPLETE PROFESSIONAL HARNESS FOR FALL PROTECTION SYSTEMS, POSITIONING, ROPE ACCESS WORK

- The elastic straps guarantee excellent fit
- Equipped with plastic material holder rings and four tool nodes
- Equipped with three anchor points (ventral, sternal and dorsal) plus lateral positioning rings

CODES AND CHARACTERISTICS

CODE	standard	A [cm]	B [cm]	C [cm]	size	weight [g]	pcs
MAIAS	CE - EN 361 - EN 358 EN 813	80/142	42/75	-	S	1720	1
MAIAMXL	CE - EN 361 - EN 358 EN 813	-	82/144	44/77	M/XL	1820	1



1. EN 361 | **15 kN**

2. EN 358 - EN 813 | **15 kN**

3. EN 358 | **15 kN**

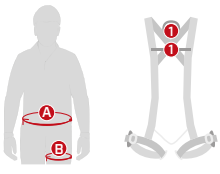
BIA

COMPLETE PROFESSIONAL HARNESS FOR FALL PROTECTION SYSTEMS

- Dorsal attachment point moved up to make wearing easier
- Front attachment point with two large fluorescent yellow rings that facilitate identification
- Gear rings made of bands
- Quick close pectoral buckle for fast and effective placement
- Work harness with new breathable ergonomic back padding for easy fitting

CODES AND CHARACTERISTICS

CODE	standard	A [cm]	B [cm]	size	weight [g]	pcs
BIAML	CE - EN 361	72/105	50/62	M/L	900	1
BIAXL	CE - EN 361	89/130	62/80	XL	950	1



1. EN 361 | **15 kN**

HARNESSES

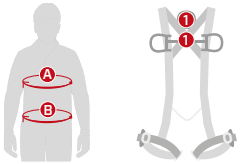
METIS

COMPLETE HARNESS FOR FALL PROTECTION SYSTEMS

- Equipped with automatic buckles on the legs for quick fitting
- Back anchor with steel ring and sternal anchor with textile webbing rings
- Equipped with two large material loops located at the sides in a rear position

CODES AND CHARACTERISTICS

CODE	standard	A [cm]	B [cm]	size	weight [g]	pcs
METISML	CE - EN 361	72/105	50/62	M/L	1170	1
METISXL	CE - EN 361	89/130	62/80	XL	1220	1



1. EN 361 | **15 kN**

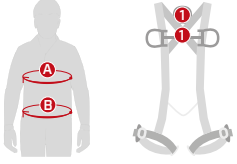
METIS ANSI

COMPLETE HARNESS FOR FALL PROTECTION SYSTEMS

- Fall arrest harness for work: light, practical and comfortable
- Equipped with load indicators to warn of falls and therefore the need to replace the product
- Equipped with two large material loops located at the sides in a rear position

CODES AND CHARACTERISTICS

CODE	standard	A [cm]	B [cm]	size	weight [g]	pcs
METISANSIML	CE - EN 361 - ANSI/AXIS Z359.11-2014	72/105	50/62	M/L	1090	1
METISANSIXL	CE - EN 361 - ANSI/AXIS Z359.11-2014	89/130	62/80	XL	1130	1



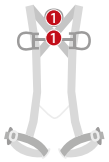
1. EN 361 | **15 kN**

HARNESSES

IRIS

HARNESS FOR FALL PROTECTION SYSTEMS

- Lightweight, ergonomic work harness
- Back anchor with steel ring and sternal anchor with textile webbing rings
- Simple and light design and materials made it ideal for short-term uses



1. EN 361 | **15 kN**

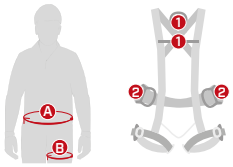
CODES AND CHARACTERISTICS

CODE	standard	size	weight [g]	pcs
IRIS	CE - EN 361	UNI	710	1

APATE

COMPLETE HARNESS FOR FALL PROTECTION AND POSITIONING SYSTEMS

- Sternal and dorsal attachment points plus lateral positioning rings
- Wide waist belt guarantees good lumbar support
- The buckles ensure fast and easy adjustment



1. EN 361 | **15 kN**
2. EN 358 | **15 kN**

CODES AND CHARACTERISTICS

CODE	standard	A [cm]	B [cm]	size	weight [g]	pcs
APATEMXL	CE - EN 361 - EN 358	85/100	85/120	M/XL	1160	1

HARNESSES

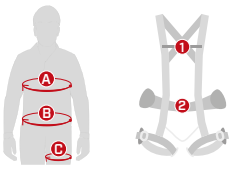
HERA BLACK

COMPLETE PROFESSIONAL HARNESS FOR FALL PROTECTION SYSTEMS, POSITIONING, ROPE ACCESS WORK

- Large padding on the legs for greater comfort during suspended work
- Waist bend with ergonomic shape and lighter structure, for the utmost versatility and comfort
- The upper portion is light, ergonomic and breathable, ensuring the utmost comfort in terms of wear and use

CODES AND CHARACTERISTICS

CODE	standard	A [cm]	B [cm]	C [cm]	size	weight [g]	pcs
HERABLACKS	CE EN 361 EN 358 EN 12277/A/C EN 813	70/85	60/95	40/60	S	1100	1
HERABLACKML	CE EN 361 EN 358 EN 12277/A/C EN 813	86/110	75/110	50/70	M/L	1150	1
HERABLACKXL	CE EN 361 EN 358 EN 12277/A/C EN 813	86/110	85/130	65/78	XL	1200	1



1. EN 361 | **15 kN**
2. EN 358 - EN 813 | **15 kN**

PLANK

SEAT FOR EXTENDED SUSPENSION WORK

- Innovative seat design for prolonged suspension
- The aluminium frame can be disassembled, guaranteeing it is extremely lightweight and small for transport
- The seat, made of braided bands, adjusts perfectly to the body; this provides incredible ergonomics
- Once disassembled and placed in its bag, PLANK takes up a surprisingly small amount of space
- Perfect for use in combination with the HERA BLACK harness with RIG3 anchor multiplier and HELICON connector

CODES AND CHARACTERISTICS

CODE	material	weight [g]	pcs
PLANK	aluminium / polyester	830	1

SIMPLIFIES HANDLING OF GREAT ELEMENTS

Introducing WASP, the lightweight and robust anchor for lifting of prefabricated elements and CLT panels. Ideal for a multitude of on-site uses, it is certified and can be used for both axial and transverse loads.

STRONG AS A WASP, LIGHT AS A BUTTERFLY.

WASP is a must-have for your construction equipment!

www.rothoblaas.com

rothoblaas

Solutions for Building Technology

FALL PROTECTION AND POSITIONING

DOUBLE SICUROPE

DOUBLE ARM ROPE WITH ENERGY ABSORBER

- Complete with steel carabiner with screw ring nut and two aluminium connectors with double safety catch
- Energy absorber with activation indicator
- Protective case for energy absorber made of fabric with Velcro closure

CODES AND CHARACTERISTICS

CODE	standard	L [m]	weight [g]	pcs
DSIC15	CE - EN 355	1,5	890	1
DSIC2	CE - EN 355	2	930	1

SCAFFOLD DUO

DOUBLE ARM ROPE WITH ENERGY ABSORBER

- Complete with steel carabiner with screw ring nut and two aluminium large aperture (56 mm) connectors with double safety catch included
- Energy absorber with activation indicator
- Protective case for energy absorber made of fabric with Velcro closure

CODES AND CHARACTERISTICS

CODE	standard	L [m]	weight [g]	pcs
SCA15	CE - EN 355	1,5	1540	1

SICUROPE

SINGLE ARM ROPE WITH ENERGY ABSORBER

- Complete with steel carabiners with screw ring nut
- Protective case for energy absorber made of fabric with Velcro closure
- Energy absorber with activation indicator

CODES AND CHARACTERISTICS

CODE	standard	L [m]	weight [g]	pcs
SIC15	CE - EN 355	1,5	715	1
SIC2	CE - EN 355	2	755	1

POSITIONING

ADJUSTABLE POSITIONING LANYARD

- Complete with steel carabiner with screw ring nut and one aluminium connector with double safety catch included
- Progressive length adjustment device for better work positioning

CODES AND CHARACTERISTICS

CODE	standard	L	weight	rope diameter	pcs
		[m]	[g]	[mm]	
POS2	CE - EN 358	2	510	Ø11	1
POS3	CE - EN 358	3	590	Ø11	1
POS4	CE - EN 358	4	670	Ø11	1

ENERGY

ADJUSTABLE ROPE WITH ENERGY ABSORBER

- Ø12 rope; one end has a knot to adjust the length, the other is sewn with an attachment knot
- Steel carabiner with screw ring nut and second steel large aperture (50 mm) carabiner with double safety catch

CODES AND CHARACTERISTICS

CODE	standard	L	rope diameter	pcs
		[m]	[mm]	
ENERGY	CE - EN 355	2	Ø12	1

PLATROPE

ADJUSTABLE ROPE WITH ENERGY ABSORBER FOR PLATFORMS

- Complete with an autoblock steel carabiner and a large opening (56 mm) aluminium connector with double safety catch included
- Provided with BACK device that follows the worker both when ascending and descending, stopping any falls
- Protective case for energy absorber made of fabric with Velcro closure

CODES AND CHARACTERISTICS

CODE	standard	L	weight	rope diameter	pcs
		[m]	[g]	[mm]	
PLATROPE	CE - EN 355 EN 353-2	1,9	1430	Ø11	1

ROPES AND ACCESSORIES

LINOSTOP

GUIDED TYPE FALL ARRESTER WITH FLEXIBLE ANCHOR LINE

- Complete with two steel carabiners with screw ring nut
- Guided and sliding-type fall protection device, with fixed installation on the rope

CODES AND DIMENSIONS

CODE	standard	rope [mm]	L [m]	weight [g]	pcs
LINO10	CE - EN 353-2	Ø12	10	2000	1
LINO15	CE - EN 353-2	Ø12	15	2500	1
LINO20	CE - EN 353-2	Ø12	20	3000	1

ROPE 1

SEMI-STATIC ROPE WITH SEWN ENDS AND AUTOMATIC CARABINER

- Complete with compact and ergonomic ends with rubber protectors
- Device suitable for use in combination with BACK guided type fall arrester

CODES AND DIMENSIONS

CODE	standard	rope [mm]	L [m]	weight [g]	pcs
ROPE110	CE - EN 354	Ø11	10	820	1
ROPE115	CE - EN 354	Ø11	15	1200	1
ROPE120	CE - EN 354	Ø11	20	1580	1
ROPE130	CE - EN 354	Ø11	30	2340	1
ROPE150	CE - EN 354	Ø11	50	3860	1

ROPE 2

SLOTTED-HOLE ROPE

- Complete with compact and ergonomic ends with rubber protections
- Equipped with rope protection sheath

CODES AND DIMENSIONS

CODE	standard	rope [mm]	L [m]	weight [g]	pcs
ROPE21	CE - EN 354	Ø11	1	135	1
ROPE215	CE - EN 354	Ø11	1,5	172	1
ROPE22	CE - EN 354	Ø11	2	210	1

EDGE

ROPE PROTECTION

- Provided with a ring at the end that allows it to be anchored to a fixed point to keep it in position
- Use at any point on the rope thanks to the Velcro fastener
- Made of cordura, for greater strength and reduced weight

CODES AND DIMENSIONS

CODE	material	L [mm]	weight [g]	pcs
EDGE	cordura	700	95	1

EDGEPRO

LIGHT ALUMINIUM ALLOY ROLLER FOR ROPE MOVEMENT

- Made of aluminium alloy for optimal weight
- Modular device with 5 articulated elements allowing adaptation to all types of terrain
- Provided with double nylon rollers that allow two ropes to move independently, even in different directions

CODES AND DIMENSIONS

CODE	material	weight [g]	pcs
EDGEPRO	aluminium / nylon alloy	1650	1

ROPES AND ACCESSORIES

ROPE105

STATIC THERMOTREATED POLYAMIDE ROPE WITH OUTER SHEATH Ø10,5 mm

- Static rope with a smooth sheath structure for improved abrasion resistance, easy intensive use and good handling

CODES AND DIMENSIONS

CODE	standard	L	material	colour	weight	strength	number of falls	elongation	knottability
		[m]			[g/m]	[kN]		[%]	
ROPE10560W	CE - EN 1891	60	PA		65,0	32	12	3,4	0,7
ROPE10570W	CE - EN 1891	70	PA		65,0	32	12	3,4	0,7
ROPE10580W	CE - EN 1891	80	PA		65,0	32	12	3,4	0,7
ROPE10590W	CE - EN 1891	90	PA		65,0	32	12	3,4	0,7
ROPE105100W	CE - EN 1891	100	PA		65,0	32	12	3,4	0,7
ROPE10560B	CE - EN 1891	60	PA		65,0	32	12	3,4	0,7
ROPE10570B	CE - EN 1891	70	PA		65,0	32	12	3,4	0,7
ROPE10580B	CE - EN 1891	80	PA		65,0	32	12	3,4	0,7
ROPE10590B	CE - EN 1891	90	PA		65,0	32	12	3,4	0,7
ROPE105100B	CE - EN 1891	100	PA		65,0	32	12	3,4	0,7
ROPE10560R	CE - EN 1891	60	PA		65,0	32	12	3,4	0,7
ROPE10570R	CE - EN 1891	70	PA		65,0	32	12	3,4	0,7
ROPE10580R	CE - EN 1891	80	PA		65,0	32	12	3,4	0,7
ROPE10590R	CE - EN 1891	90	PA		65,0	32	12	3,4	0,7
ROPE105100R	CE - EN 1891	100	PA		65,0	32	12	3,4	0,7

ROPE11

STATIC THERMOTREATED POLYAMIDE ROPE WITH OUTER SHEATH Ø11 mm

- Static rope with a smooth sheath structure for improved abrasion resistance, easy intensive use and good handling

CODES AND DIMENSIONS

CODE	standard	L	material	colour	weight	strength	number of falls	elongation	knottability
		[m]			[g/m]	[kN]		[%]	
ROPE1160W	CE - EN 1891	60	PA		77,9	37	24	3.1	0,7
ROPE1170W	CE - EN 1891	70	PA		77,9	37	24	3.1	0,7
ROPE1180W	CE - EN 1891	80	PA		77,9	37	24	3.1	0,7
ROPE1190W	CE - EN 1891	90	PA		77,9	37	24	3.1	0,7
ROPE11100W	CE - EN 1891	100	PA		77,9	37	24	3.1	0,7
ROPE1160B	CE - EN 1891	60	PA		77,9	37	24	3.1	0,7
ROPE1170B	CE - EN 1891	70	PA		77,9	37	24	3.1	0,7
ROPE1180B	CE - EN 1891	80	PA		77,9	37	24	3.1	0,7
ROPE1190B	CE - EN 1891	90	PA		77,9	37	24	3.1	0,7
ROPE11100B	CE - EN 1891	100	PA		77,9	37	24	3.1	0,7
ROPE1160R	CE - EN 1891	60	PA		77,9	37	24	3.1	0,7
ROPE1170R	CE - EN 1891	70	PA		77,9	37	24	3.1	0,7
ROPE1180R	CE - EN 1891	80	PA		77,9	37	24	3.1	0,7
ROPE1190R	CE - EN 1891	90	PA		77,9	37	24	3.1	0,7
ROPE11100R	CE - EN 1891	100	PA		77,9	37	24	3.1	0,7

RETRACTABLE DEVICES

FALL BLOCK

RETRACTABLE DEVICE WITH STEEL CABLE

- Equipped with ultra-resistant ABS shell, slotted metal cable with reel and double safety lever connector with twist-proof swivel
- The 10 m version is suitable for both horizontal and vertical use
- The 15 and 20 m versions comply with CE EN 360 and ATEX II 2 G c T6 standards for the regulation of equipment intended for use in potentially explosive atmospheres

FAL10

FAL15 - FAL20

CODES AND DIMENSIONS

CODE	standard	L [m]	weight [kg]	pcs
FAL10	CE - EN 360	10	4,6	1
FAL15	CE - EN 360 - ATEX II 2 G c T6	15	7,2	1
FAL20	CE - EN 360 - ATEX II 2 G c T6	20	7,7	1

STRAP

RETRACTABLE DEVICE

- External energy absorber with protective cover that can be opened for inspection
- Equipped with swivel top anchor point and twist-lock connector with twist-proof swivel
- Suitable for both vertical and horizontal use
- STRAP2 version can also be used in drop factor 2

STRAP2

STRAP6

CODES AND DIMENSIONS

CODE	standard	L [m]	weight [kg]	pcs
STRAP2	CE - EN 360	2	0,9	1
STRAP6	CE - EN 360	6	2,4	1

SELF-LOCKING DESCENDERS

BACK

FALL ARRESTER

- Safe and easy to operate with one hand
- It follows the operator optimally both uphill and downhill, stopping any falls
- Equipped with connector
- By pressing the button, it can also be used as a positioner or normal locking device as the device only slides upwards

BACK

BACKANSI

BACKMAG

CODES AND DIMENSIONS

CODE	standard	weight [g]	rope diameter [mm]	pcs
BACK	CE - EN 353-2 - EN 12841 A/B	420	Ø10/Ø12	1
BACKANSI	CE - EN 353-2 - EN 12841 A/B ANSI/ISEA Z359.15-2014	435	Ø10/Ø12	1
BACKMAG	-	-	-	1

Also available in the EAC version.

ROPE BRAKE

DESCENDER

- Simple easy to manoeuvre activation catch that guarantees more fluid and precise operation
- Allows two people to be lowered simultaneously for rescue operations
- Allows the cord to be recovered for ascent
- Use with Ø10-12 mm rope max. load 100 kg
- Use with Ø11-12 mm rope max. load 200 kg

CODES AND DIMENSIONS

CODE	standard	weight [g]	rope diameter [mm]	pcs
ROPBRA	CE - EN 341 - EN 12841/C	480	Ø10/Ø12	1

Also available in the EAC version.

ELEVATOR

MOVEABLE ROPE LOCK FOR ASCENT

- Excellent wear resistance and increased strength thanks to a new thermal and chemical process applied to the material
- Excellent locking ability even on rope that are particularly muddy thanks to the evacuation grooves in the cam and on the side
- Ergonomic click opening mechanism, easy to operate and protected against impact and accidental opening

ELELEF

ELERIG

CODES AND DIMENSIONS

CODE	standard	weight [g]	version	rope diameter [mm]	pcs
ELERIG	CE - EN 567 - EN 12841/B	225	for right-handed people	Ø8/Ø13	1
ELELEF	CE - EN 567 - EN 12841/B	225	for left-handed people	Ø8/Ø13	1

Also available in the EAC version.

BELLY

VENTRAL LOCKING DEVICE

- Excellent locking ability even on rope that are particularly muddy thanks to the evacuation grooves in the cam
- Excellent wear resistance and increased strength thanks to a new thermal and chemical process applied to the material
- Ergonomic click opening mechanism, easy to operate and protected against impact and accidental opening

CODES AND DIMENSIONS

CODE	standard	weight [g]	rope diameter [mm]	pcs
BELLY	CE - EN 567 - EN 12841/B	150	Ø8/Ø13	1

Also available in the EAC version.

DESCENDERS - POSITIONING

ROPE BRAKE 2

DESCENDERS FOR RESCUE WITH CONNECTORS

- Maximum capacity: **200 kg**
- Steel carabiners **with screw ring nut** included
- Practical bag for transport included

Evacuation and rescue device that is used together with individual fall protection equipment.
Appropriate for rescue in the case of injured or unconscious workers.

CODES AND DIMENSIONS

CODE	standard	L [m]	rope diameter [mm]	pcs
ROPBRA2	CE - EN 341/C	20	Ø11	1

FOOT STEP

MULTI-PURPOSE BRACKET FOR ASCENT

- Compact and lightweight adjustable multi-purpose bracket in a practical bag that can be attached to the harness
- Made with 3 mm Kevlar cord and equipped with a pedal and adjustment buckle in ultra-resistant nylon

CODES AND DIMENSIONS

CODE	material	weight [g]	pcs
FOOTSTEP	kevlar/nylon	110	1

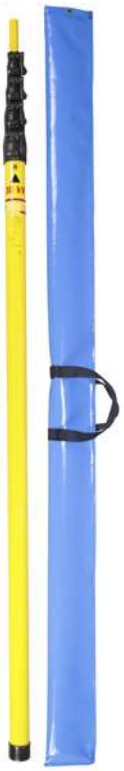
EXTEND

TELESCOPIC BAR

- Easy assembly of the EXTENSIONHEAD by screwing it on
- Locking of a particular section of the telescopic pole in any position

EXTENSIONHEAD

EXTENSIONHOOK



EXTENSIONPOLE

CODES AND DIMENSIONS

CODE	standard	description	weight	length min/max	pcs
			[g]	[mm]	
EXTENSIONPOLE	EN 62193 - EN 60832-1	telescopic bar	3,84	2060/8076	1
EXTENSIONHEAD	-	hook for hanging	-	-	1
EXTENSIONHOOK	CE - EN 795:2012 B	work hook	0,5	-	1

POLE

TELESCOPIC BAR

- Telescopic bar equipped with a coupling system that keeps the connector open
- When the anchor point is reached, simply pull and the connector will automatically close as it releases

CODES AND DIMENSIONS

CODE	material	weight	length min./max.	pcs
		[g]	[mm]	
POLE	aluminium	540	900/3500	1

TEMPORARY ANCHOR SYSTEMS

BAND23

RING WEBBING LOAD 23 kN

CODES AND DIMENSIONS

CODE	standard	L [m]	weight [g]	Q_r [kN]	colour	pcs
BAND2360	CE - EN 795/B EN 354 - EN 566	0,6	45	23	●	1
BAND2380	CE - EN 795/B EN 354 - EN 566	0,8	60	23	● ●	1
BAND23120	CE - EN 795/B EN 354 - EN 566	1,2	90	23	● ●	1
BAND23180	CE - EN 795/B EN 354 - EN 566	1,8	135	23	●	1

BAND35

RING WEBBING LOAD 35 kN

CODES AND DIMENSIONS

CODE	standard	L [m]	weight [g]	Q_r [kN]	colour	pcs
BAND3560	CE - EN 795/B - EN 354	0,6	95	35	●	1
BAND3580	CE - EN 795/B - EN 354	0,8	130	35	●	1
BAND35120	CE - EN 795/B - EN 354	1,2	185	35	●	1
BAND35150	CE - EN 795/B - EN 354	1,5	230	35	●	1
BAND35180	CE - EN 795/B - EN 354	1,8	270	35	●	1

RIG

ANCHOR MULTIPLIER

- Anchor multiplier designed to organise a work space and create an easy system of multiple anchors
- Made of light aluminium alloy

CODES AND DIMENSIONS

CODE	standard	material	n° anchor system	⧋ [kN]	pcs
RIG3	CE RfU CN-B/P/11.114	aluminium alloy	3	36	1

Also available in the EAC version

WEBAD

ADJUSTABLE WEBBING

- Adjustable 44 mm high-strength PE webbing with carbon steel anchor rings and adjustment buckle
- Use as a mobile anchor or positioning lanyard

CODES AND DIMENSIONS

CODE	standard	L [cm]	weight [kg]	Q_r [kN]	pcs
WEBAD90	CE - EN 795/B - EN 354	55/90	330	22	1
WEBAD150	CE - EN 795/B - EN 354	85/150	370	22	1

LANSTECO

LANYARD WITH STEEL CABLE CORE

- Fixed length lanyard made of 6 mm diameter (133 strands) galvanised cut-resistant steel cable covered with double polyester braid with an external diameter of 12 mm
- The double braid prevents the cable from sliding along the surface of the cable

CODES AND DIMENSIONS

CODE	standard	L [m]	weight [kg]	Q_r [kN]	pcs
LANSTECO100	CE - EN 795/B - EN 354	1	295	25	1
LANSTECO160	CE - EN 795/B - EN 354	1,6	440	25	1
LANSTECO200	CE - EN 795/B - EN 354	2	540	25	1

CONNECTORS

CLASSIC

OVAL CONNECTOR

- Oval connector available in aluminium and carbon steel, with a circular body that makes it ideal for use with mobile devices (pulleys, clamps, fall protection, etc.)
- Equipped with screw ring nut

CODES AND DIMENSIONS

CODE	standard	weight [g]	<> [kN]	⇕ [kN]	⊂⊃ [kN]	pcs
CLASTE	CE - EN 362/B	176	24	10	7	1
CLAALU	CE - EN 362/B - EN 12275/B	65	22	7	7	1

CLASTE

CLAALU

OVAL

CONNECTOR FOR CONNECTION TO FIXED POINTS

- Oval connector with wide opening. Ideal for severe conditions and for connection to structural anchor points, life lines, etc.
- ANSI certified high load connector
- Includes autoblock system.

CODES AND DIMENSIONS

CODE	standard	weight [g]	<> [kN]	⇕ [kN]	pcs
OVALSTE	CE - EN 362/M	215	40	15	1
OVALALU	CE - EN 362/B - EN 12275/B	79	26	9	1
OVALANS	CE - EN 362/M - ANSI Z359.12	220	40	20	1

OVALSTE

OVALALU

OVALANS

XXL

CONNECTOR WITH HIGH BREAKING LOAD

- Connector with wide opening and high breaking load. The "D" shape prevents the connector from rotating and allows the load to be distributed along the major axis.

CODES AND DIMENSIONS

CODE	standard	weight [g]	<> [kN]	⇕ [kN]	pcs
XXLSTE	CE - EN 362/B	240	50	13	1
XXLALU	CE - EN 362/B - EN 12275/B	95	30	9	1
XXLANS	CE - EN 362/M - ANSI Z359.12	265	50	20	1

XXLSTE

XXLALU

XXLANS

HELICON

HELICAL CONNECTOR WITH TWISTED BODY

- Special helical connector with twisted steel body
- Allows any device (descenders, ascenders, fall arrest devices, etc.) to be rotated by 90°, optimising its operating condition
- Auto Block locking ring (3 movements) in both CE and ANSI versions

CODES AND DIMENSIONS

CODE	standard	weight [g]	<> [kN]	◊ [kN]	⊂⊃ [kN]	pcs
HELICON	CE - EN 362/M	215	40	10	-	1
HELICONANSI	CE-EN 362/M ANSI Z359.12	230	40	16	12	1

FAST LINK

FAST LINKS

- Fast link in carbon steel, half-round "D" shape (1)
- Oval fast link, available in stainless steel (2)
- Trapezoidal fast link, available in stainless steel (3)
- Oval fast link with large stainless steel opening (4)

(1) FASTD

(2) FASTOVA

(3) FASTTRI

(4) FASTOVAL

CODES AND DIMENSIONS

CODE	standard	weight [g]	<> [kN]	◊ [kN]	pcs
FASTD	CE - EN 362/Q - EN 12275/Q	152	50	15	1
FASTOVA	CE - EN 362/Q - EN 12275/Q -UIAA	79	40	20	1
FASTOVA2	CE - EN 362/Q - EN 12275/Q -UIAA	142	60	20	1
FASTTRI	CE - EN 362/Q - EN 12275/Q -UIAA	89	40	10	1
FASTTRI2	CE - EN 362/Q - EN 12275/Q -UIAA	155	60	30	1
FASTOVAL	-	160	-	-	1
FASTOVAL2	-	260	-	-	1

PULLEYS

SINGLE - DOUBLE

ALUMINIUM PULLEY WITH SINGLE - DOUBLE SHEAVE

- Aluminium pulleys with movable single and double sheave flanges and high-efficiency ball bearings (96%)
- For ropes of max. 13 mm diameter
- DOUBLE version with 2 attachment points for use with complex lifting systems

SINGLE

DOUBLE

CODES AND DIMENSIONS

CODE	standard	body/pulley material	weight	Q_r	rope diameter	pcs
			[g]	[kN]	[mm]	
SINGLE	CE - EN 12278	aluminium alloy	245	30	max. Ø13	1
DOUBLE	CE - EN 12278	aluminium alloy	490	50	max. Ø13	1

LIFTING HELP

PREASSEMBLED LIFTING SYSTEM

- Preassembled system that allows a load to be lifted by applying force equal to 1/5 of the load itself
- The self-blocking device impedes the load from returning to its previous position

CODES AND DIMENSIONS

CODE	ratio	weight	rope diameter	rope lenght	pcs
		[g]	[mm]	[m]	
LIFTHELP	5 to 1	1820	10	15	1

ACCESSORIES

GLASS 1

GLASSES WITH TEMPLES WITH PANORAMIC FRAME

CODES AND DIMENSIONS

CODE	standard	pcs
GLASS1	CE - EN 166	1

GLASS 2

GLASSES WITH TEMPLES WITH SMOKED LENSES

CODES AND DIMENSIONS

CODE	standard	pcs
GLASS2	CE - EN 166	1

HEADPHONE

FOLDING EAR MUFFS

CODES AND DIMENSIONS

CODE	standard	SNR [dB]	pcs
HEAD	CE - EN 352-1	29	1

ACCESSORIES

RSBAG

WATERPROOF BAG

- Extremely robust
- Internal document pocket

CODES AND DIMENSIONS

CODE	weight [g]	capacity [L]	H [mm]	pcs
RSBAG	610	30	700	1

RBBAG

BACKPACK

- Complete with hook for lifting
- Extremely light and comfortable

CODES AND DIMENSIONS

CODE	weight [g]	capacity [L]	H [mm]	pcs
RBBAG	390	23,6	400	1

ECO

POLYESTER/NITRILE PROTECTIVE GLOVES

CODES AND DIMENSIONS

CODE	standard	size	pcs
ECO8	CE - EN 388	8	1
ECO9	CE - EN 388	9	1
ECO10	CE - EN 388	10	1

LATEX

NYLON/LATEX PROTECTIVE GLOVES

CODES AND DIMENSIONS

CODE	standard	size	pcs
LAT8	CE - EN 388	8	1
LAT9	CE - EN 388	9	1
LAT10	CE - EN 388	10	1

NITRAN

NYLON-ELASTAN/NITRILE FOAM PROTECTIVE GLOVES

CODES AND DIMENSIONS

CODE	standard	size	pcs
NIT8	CE - EN 388	8	1
NIT9	CE - EN 388	9	1
NIT10	CE - EN 388	10	1

NYLON

NYLON/LATEX PROTECTIVE GLOVES

CODES AND DIMENSIONS

CODE	standard	size	pcs
NYL8	CE - EN 388	8	1
NYL9	CE - EN 388	9	1
NYL10	CE - EN 388	10	1

TRIPODS AND CRANES

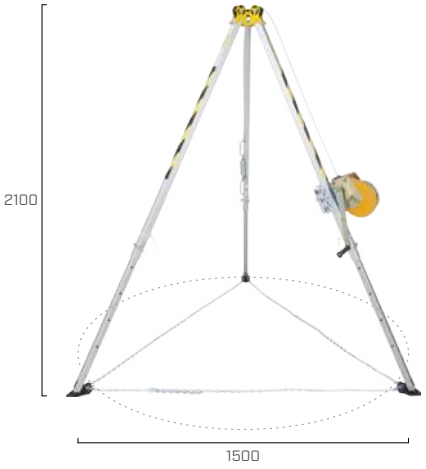
TRI

CE

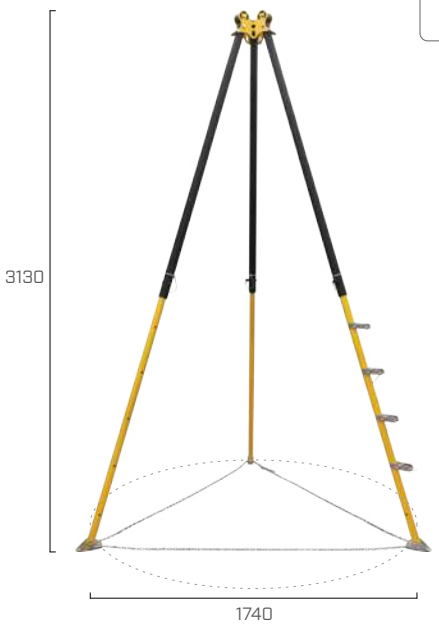
CEN/TS 16415:2013

EN 795:2012 B

MOBILE DEVICE WITH THREE FEET FOR LOWERING, LIFTING AND RECOVERY



TRI2115



TRI3117

CODES AND DIMENSIONS

		TRI2115	TRI3117
description		tripod H_{max} = 210 cm	tripod H_{max} = 313 cm
materials		painted aluminium/zinc plated steel/polyamide	painted aluminium/zinc plated steel/stainless steel/ polyamide
height	[cm]	153 -210	197 - 313
foot diameter	[cm]	109 - 150	112 - 174
space between feet	[cm]	200	206
weight	[kg]	15,45	28,7
anchor points		3	3
number of workers		3	3
transport dimensions	[cm]	175 x 25 x25	226 x 33 x 30

CODE	description	material	weight [kg]	pcs
TRIUB	universal adapter for attaching accessories	zinc-plated steel	2,25	1

CODE	description	standard	cable length [m]	cable diameter [mm]	cable type	ratio	weight [kg]	max. load capacity [kg]	pcs
TRIDAVFAL15B	adapter for retractable device TRIDAVFAL15		-	-	-	-	-	-	1
TRIDAVFAL15	retractable fall arrester device	EN 360; EN1496-B	15	4,8	7 x 19 + IWRC	1:8,8	11,0	140	1
TRIDAVFAL25B	adapter for retractable device TRIDAVFAL25		-	-	-	-	-	-	1
TRIDAVFAL25	retractable fall arrester device	EN 360; EN1496-B	25	4,8	7 x 19 + IWRC	1:7,4	15,0	140	1
TRIDAVWIN30E	automatic electric winch	-	30	6	steel	-	21	500	1
TRIDAVWIN15AC	automatic cordless winch	-	15	5	steel	-	10	140	1
TRIDAVWIN520	lifting winch	-	20	6,3	6 x 19 + NFC	1:6	13,0	140	1
TRIDAVWIN525	lifting winch	-	25	6,3	6 x 19 + NFC	1:5	14,0	140	1
TRIDAVWINU	universal winch for textile ropes	EN 1891-B	unlimited	10	textile static rope	1:40	-	-	1
TRIDAVWIN725	winch with recovery	EN 1496-B	25	6,3	6 x 19 + NFC	1:7,2	22,5	200	1
TRIDAVWIN735	winch with recovery	EN 1496-B	35	6,3	6 x 19 + NFC	1:7,2	24,5	200	1
TRIDAVWIN745	winch with recovery	EN 1496-B	45	6,3	6 x 19 + NFC	1:7,2	25,3	200	1
TRIDAVWIN750	winch with recovery	EN 1496-B	50	6,3	6 x 19 + NFC	1:7,2	26,2	200	1

ACCESSORIES INSTALLATION DIAGRAM

TRI2115

TRI3117

COMPATIBLE DEVICES

TRIUB

Universal adapter
(one for each accessory to be installed)

RETRACTABLE FALL ARREST DEVICES WITH RECOVERY FUNCTION

TRIDAVFAL15B

+

TRIDAVFAL15

TRIDAVFAL25B

+

TRIDAVFAL25

DEVICES FOR LIFTING AND RECOVERY

TRIDAVWIN525

DEVICES FOR LIFTING

TRIDAVWIN725

TRIDAVWINU

TRIDAVWIN30E

TRIDAVWIN15AC

TRIPODS AND CRANES

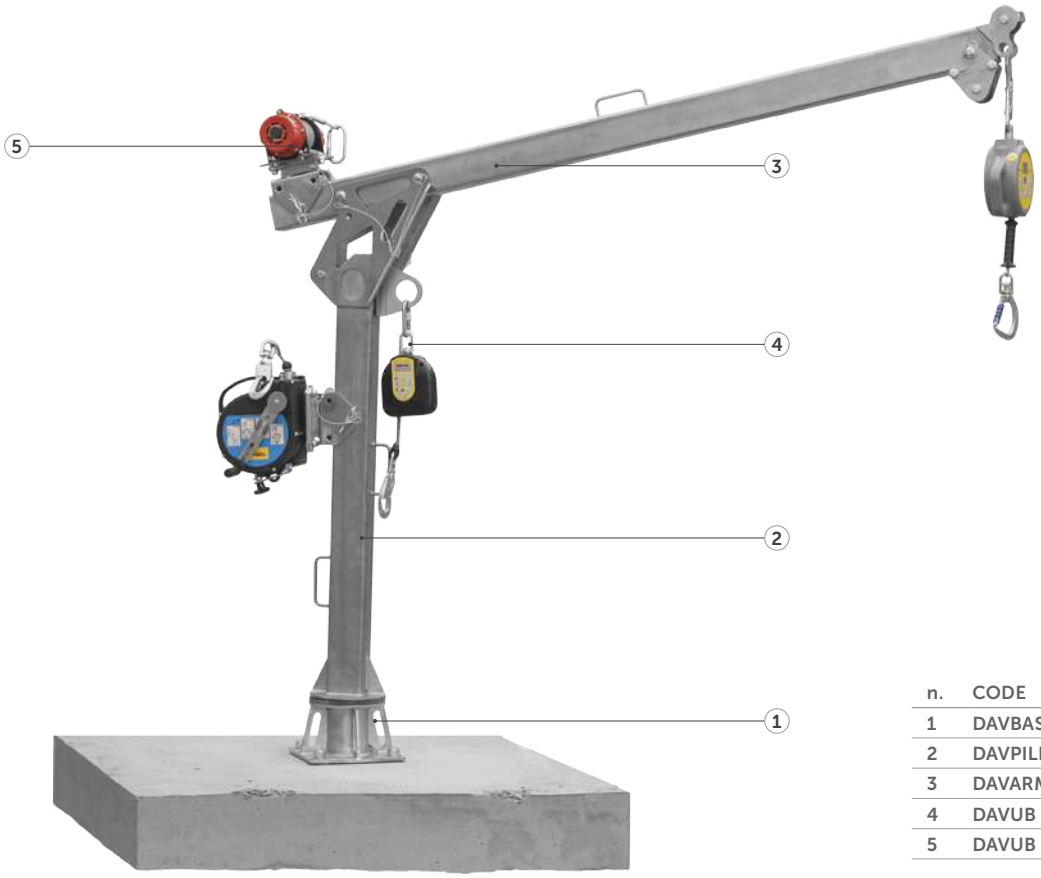
DAV

CE

CRANE FOR LIFTING PEOPLE AND LOADS

CEN/TS 16415:2013

EN 795:2012 B



DAVCOVER

n.	CODE
1	DAVBASEF / DAVBASW / DAVEBASEC
2	DAVPILL120 / DAVPILL60
3	DAVARM150 / DAVARM200
4	DAVUB + TRIDAVFAL15B + TRIDAVFAL15
5	DAVUB + TRIDAVWIN15C

CODES AND DIMENSIONS

CODE	description	length [cm]	height [cm]	weight [kg]	max. material load [kg]	maximum person load [kg]	no. of operators	pcs
DAVARM150	crane jib length 150 cm	150	-	20,7	500	140	3	1
DAVARM200	crane jib length 200 cm	200	-	26,7	300	100	1	1
DAVDPILL120	crane mast height 120 cm	-	120	18,06	-	-	-	1
DAVDPILL60	crane mast height 60 cm	-	60	25,5	-	-	-	1
DAVBASEW	wall support for DAV	-	21,8	11,45	-	-	-	1
DAVBASEF	floor support for DAV	-	17	10,6	-	-	-	1
DAVBASEC	support for DAV that can be attached	-	-	-	-	-	-	1
DAVCOVER	PVC cover for DAV	-	-	-	-	-	-	1
DAVUB	universal adapter for DAV accessories	-	-	-	-	-	-	1

ACCESSORIES INSTALLATION DIAGRAM

CLASTE + STRAP2

FLOOR SUPPORT

DAVBASEF

WALL SUPPORT

DAVBASEW

HOOKED HOLDER

DAVBASEC

** See pages 203 and 210 for more details.*

COMPATIBLE DEVICES

DAVUB
Universal adapter
(one for each accessory to be installed)

RETRACTABLE FALL ARREST DEVICES WITH RECOVERY FUNCTION

TRIDAVFAL15B +

TRIDAVFAL15

TRIDAVFAL25B +

TRIDAVFAL25

DEVICES FOR LIFTING AND RECOVERY

TRIDAVWIN525

DEVICES FOR LIFTING

TRIDAVWIN725

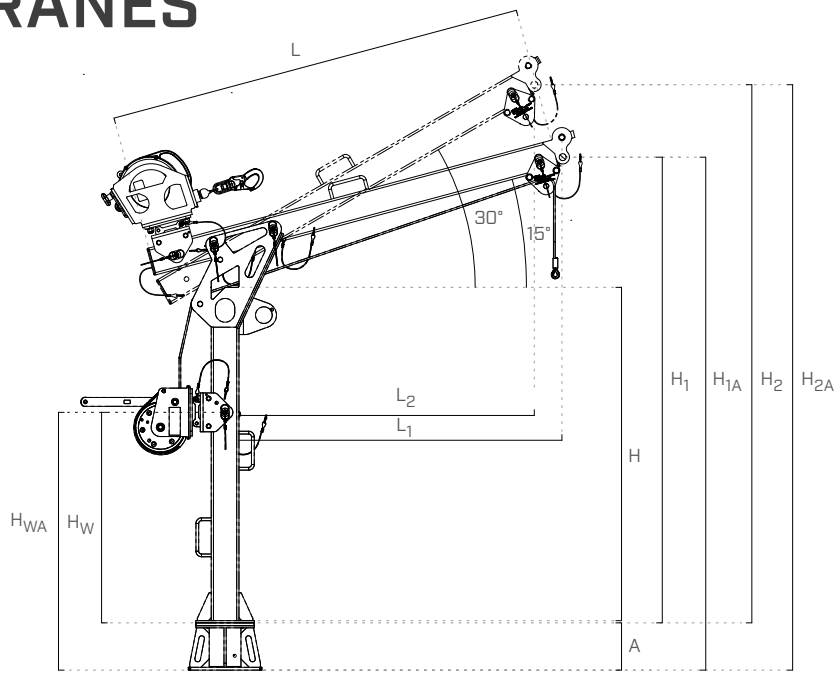
TRIDAVWINU

TRIDAVWIN30E

TRIDAVWIN15AC

** See page 216 for more details.*

TRIPODS AND CRANES



CODES AND DIMENSIONS | DIMENSIONS OF DAV COMBINATIONS

COMBINATION

H_{1A}	[m]	1,3	1,42	1,9	2,02	1,25	1,38	1,85	1,98
H_{2A}	[m]	1,56	1,81	2,16	2,41	1,51	1,76	2,11	2,36
weight	[kg]	50,22	56,21	57,66	63,65	49,43	55,42	56,87	62,86

ARM REFERENCE

		DAVARM150	DAVARM200	DAVARM150	DAVARM200	DAVARM150	DAVARM200	DAVARM150	DAVARM200
L	[m]	1,3	1,42	1,9	2,02	1,25	1,38	1,85	1,98
weight	[kg]	1,56	1,81	2,16	2,41	1,51	1,76	2,11	2,36
L_1	[m]	50,22	56,21	57,66	63,65	49,43	55,42	56,87	62,86
L_2	[m]	1,3	1,42	1,9	2,02	1,25	1,38	1,85	1,98
H_1	[m]	1,56	1,81	2,16	2,41	1,51	1,76	2,11	2,36
H_2	[m]	50,22	56,21	57,66	63,65	49,43	55,42	56,87	62,86

UPRIGHT REFERENCE

		DAVDPILL120	DAVDPILL60	DAVDPILL120	DAVDPILL60
H	[m]	0,6	1,2	0,6	1,2
H_W	[m]	0,36	0,75	0,36	0,75
H_{WA}	[m]	0,58	0,97	0,53	0,92
weight	[kg]	18,06	25,5	18,06	25,5

BASES REFERENCE

		DAVBASEW	DAVBASEG
H	[m]	0,22	0,17
weight	[kg]	11,45	10,66

STRETCHER

ROLLABLE STRETCHER

- Rolling stretcher designed to adapt perfectly to rescue needs in complicated environments
- Increased thickness offering greater resistance to rubbing, greater protection of the rescued person, greater rigidity during handling, easy to clean and disinfect
- Suspension for vertical transport in shafts or tunnels and for horizontal winching, even from a helicopter. Easy maintenance thanks to separately replaceable components.

CODES AND DIMENSIONS

CODE	standard	material	maximum load	transport dimensions	weight	length	width	pcs
			[kg]		[kg]	[cm]	[cm]	
STRETCHER	DIRECTIVE 93/42/EEC	PE - nylon	150	Ø30 x 10 cm	7,3	245	92	1

HARNESSES | comparison

	HARNESS			
				
	SPARTA	HESTIA	MAIA	BIA
CE	●	●	●	●
ANSI	-	-	-	-
EAC	-	-	-	-
	●	●	●	●
	●	-	●	-
	●	-	●	-
standard	EN 361 / EN 358 EN 813 /EN 12277/A/C	EN 361	EN 361 / EN 358 EN 813	EN 361
XXX kg	-	-	140	150
g	1780	1550-1750	1720-1820	900-950

	HARNESS				
					
	METIS ANSI	METIS	IRIS	APATE	HERA BLACK
CE	●	●	●	●	●
ANSI	●	-	-	-	-
EAC	-	●	-	-	●
	●	●	●	●	●
	-	-	-	●	●
	-	-	-	-	●
standard	EN 361 / ANSI Z359.11-2014	EN 361	EN 361	EN 361 EN 358	EN 361 /EN 358 EN 813 / EN 12277/A/C
XXX kg	140	140	-	-	-
g	1090-1130	1170-1220	710	1160	1100-1200

CONNECTORS| comparison

	CLASSIC		OVAL		
					
	CLASTE	CLAALU	OVALSTE	OVALALU	OVALANS
CE	●	●	●	●	●
ANSI	-	-	-	-	●
standard	EN 362/B	EN 362/B / EN 12275/B	EN 362/M	EN 362/B / EN 12275/B	EN 362/M / ANSI Z359.12
	screw ring nut	screw ring nut	autoblock	autoblock	autoblock
material	steel	aluminium	steel	aluminium	steel
g	176	65	215	79	220
	24	20	40	26	40
	-	7	15	9	20
	-	7	-	-	-

	XXL			HELICON	
					
	XXLSTE	XXLALU	XXLANS	HELICON	HELICON ANSI
CE	●	●	●	-	●
ANSI	-	-	●	-	●
standard	EN 362/B	EN 362/B / EN 12275/B	EN 362/M / ANSI Z359.12	EN 362/B	EN 362/M / ANSI Z359.12
	autoblock	autoblock	autoblock	autoblock	autoblock
material	steel	aluminium	steel	steel	steel
g	260	95	265	215	230
	50	30	50	40	40
	-	9	20	-	16
	-	-	-	-	-

ACCESSORIES | comparison

		GLOVES			
					
		ECO	LATEX	NITRAN	NYLON
CE symbol	CE	●	●	●	●
standard		EN 388	EN 388	EN 388	EN 388
resistance to mechanical risks EN 388 (max. no. of scale)	abrasion (4)	4	3	4	3
	shear (5)	1	1	1	1
	tear (4)	3	3	2	3
	perforation (4)	1	1	1	1

COMPLEMENTARY PRODUCTS

COMPLEMENTARY PRODUCTS

COMPLEMENTARY PRODUCTS

ACCESSORIES

FASTENERS

TOOLS

TOWER PEAK

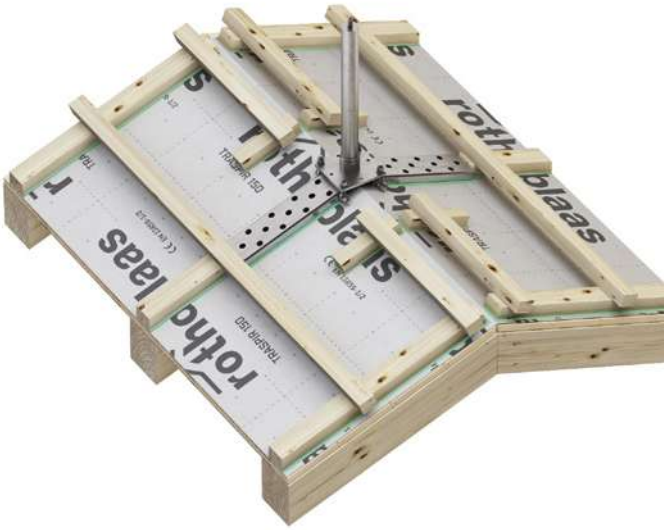
EN 795:2012 A+C

CEN/TS 16415:2013

UNI 11578:2015 A+C

ADAPTOR FOR DOUBLE LAYER RIDGE PIECE FOR TOWER

- Accessory that allows for anchor line assembly even on a closed roof package, without the need for opening and adapting to any slope
- The TOWER PEAK adaptor makes it possible to provide safety for up to four workers



CODES AND DIMENSIONS

CODE	material	B [mm]	H [mm]	L [mm]	pcs
TOWERPEAK	S235JR zinc plated steel	100	30	350	1

COMPLEMENTARY PRODUCTS

n.	CODE	description	Ø [mm]	min. dimensions GL24h beam [mm]
24	**HBS**	screw for timber	8	100 x 100

The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.

TOWER SLOPE

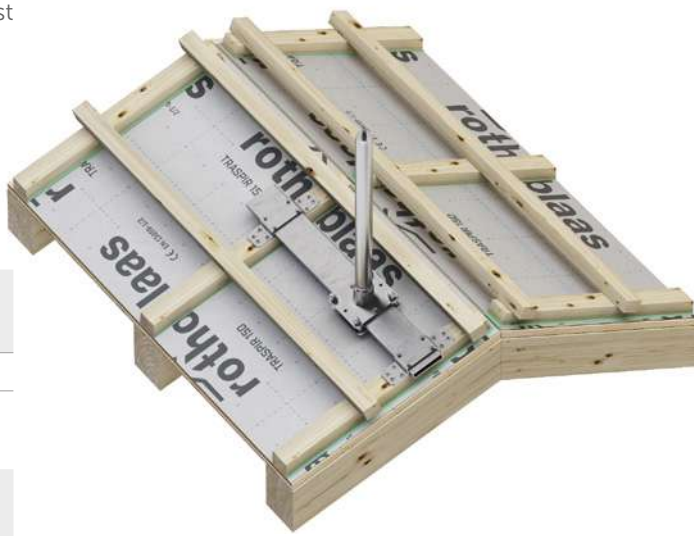
EN 795:2012 A+C

CEN/TS 16415:2013

UNI 11578:2015 A+C

FASTENING GUIDE FOR TOWER ON RAFTER

- It can be positioned at any point on the roof
- Due to the range of action from 50 to 100 cm, it can cover the most common distances between beams



CODES AND DIMENSIONS

CODE	material	B [mm]	H [mm]	L [mm]	pcs
TOWERSLOPE	S235JR zinc plated steel	100	20	1200	1

COMPLEMENTARY PRODUCTS

n.	CODE	description	Ø [mm]	min. dimensions GL24h beam [mm]
16	**HBS**	screw for timber	8	100 x 100

The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.

TOWLATEVO

TOWER FOR INSTALLATION ON VERTICAL STRUCTURES

- It allows the construction of lifelines on a TOWER support, also mounted on a vertical structure
- It supports all the required forces for an anchor line, based on EN 795:2012 C

CODES AND DIMENSIONS

CODE	material	weight	B	H	L	pcs
		[kg]	[mm]	[mm]	[mm]	
TOWLATEVO	S235JR zinc plated steel	3,5	186	227	182,5	1

TOPLATE

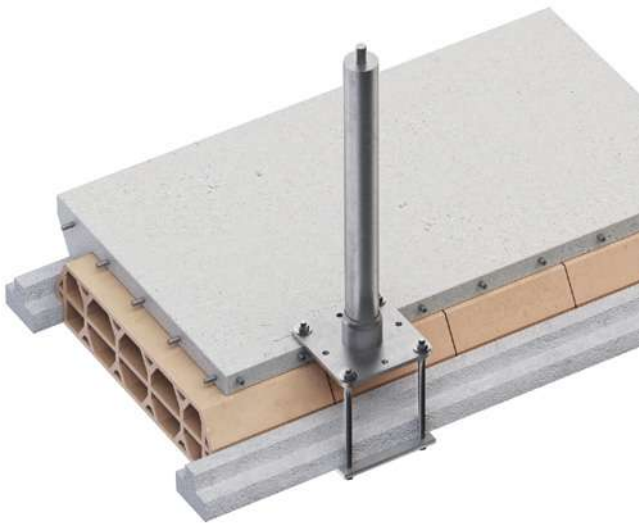
COUNTERPLATE FOR TOWER

EN 795:2012 A+C

CEN/TS 16415:2013

UNI 11578:2015 A+C

- Counterplate for TOWER and TOWER22 complete with nuts and washers



CODES AND DIMENSIONS

CODE	material	B	H	L	pcs
		[mm]	[mm]	[mm]	
TOPLATE	S235JR zinc plated steel	150	8	150	1

COMPLEMENTARY PRODUCTS

n.	CODE	description	Ø
			[mm]
4	**MGS**	threaded rod	12

The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.

TOPLATE 2.0

COUNTERPLATE FOR TOWER XL

- Counter plate for TOWER XL

CODES AND DIMENSIONS

CODE	material	H [mm]	L [mm]	B [mm]	pcs
TOPLATE2	S235JR zinc plated steel	8	350	350	1

COMPLEMENTARY PRODUCTS

n.	CODE	description	Ø [mm]
4	**MGS**	threaded rod	12

The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.

TRAPO

SUPPORT FOR TOWER XL ON TRAPEZOIDAL STEEL DECK ROOFS

- It can be assembled on trapezoidal steel decks min. thickness 0.75 mm with or without insulation layer (including fastening screws)

CODES AND DIMENSIONS

CODE	material	range [mm]	pcs
TRAPO	S235JR zinc plated steel	520 - 660	1

The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a calculation report with minimum distances according to the relevant standard requirements, the substructure must be checked by a qualified engineer before installation.

PALMIFIX

UNIVERSAL COUNTERPLATE FOR HOOK, LOOP AND AOS

PALMIFIX

CODES AND DIMENSIONS

CODE	material	B [mm]	L [mm]	H [mm]	s [mm]	pcs
PALMIFIX	S235JR zinc plated steel	350	130	-	6	1
OMEGA	S235JR zinc plated steel	290	80	68	8	1

OMEGA

COMPLEMENTARY PRODUCTS

CODE	description	Ø [mm]	pcs
MGS	threaded rod	M16	1
ULS - MUT	washer - nut	M16	1

BEF

BEF TOWERXL1 : TOWER XL FASTENING SET FOR AERATED CEMENT

CODE	n.	content	Ø [mm]	pcs
BEFTOWERXL1	8	hexagonal head bolt	M10	1
	8	heavy anchors	M10	
	8	washer	-	

BEF PALMI: LOOP FASTENING SET FOR PALMIFIX

CODE	n.	content	Ø [mm]	L [mm]	pcs
BEFPALMI	2	countersunk head bolts	8	30	1
	2	M8 self-locking nut	-	-	

BEFSLIM: FASTENING SET FOR SLIM

CODE	n.	content	Ø [mm]	pcs
BEFSLIM1	2	washer	M10	1
	2	hexagonal nut	M10	
	1	threaded rod (L = 200 mm)	M10	
	1	self-locking nut	M10	
	1	GEKA (DEXT = 50 mm)	-	
BEFSLIM2	3	washer	M10	1
	2	hexagonal nut	M10	
	1	washer	M12	
	1	threaded rod (L = 200 mm)	M10	
	2	self-blocking nut	M10	
	1	round head bolt	M10	
	1	"L" plate	-	
	1	GEKA (DEXT = 50 mm)	-	

BEFSLIM1

BEFSLIM2

BEFTOWER: FASTENING SET FOR TOWER

CODE	n.	content	Ø [mm]	L [mm]	pcs
BEF201VGS	8	VGS screws	9	160	1
	4	washer	-	-	
BEF202VGS	8	VGS screws	9	200	1
	4	washer	-	-	

BEFPLATE: TOWER - TOWER22 FASTENING SET FOR TOPLATE 2.0

CODE	n.	content		pcs
BEFPLATE	4	self-blocking nut	M12	1
	4	hexagonal head bolts 35 mm	M12	
	4	washer	-	

BEF KITE: FASTENING SET FOR KITE

CODE	n.	content	d_1 [mm]	L [mm]	pcs
BEFKITE	1	VGS screw	11	100	1
	2	HBS screws	8	100	

MANICA ROLL

SELF-ADHESIVE LEAD AND BUTYL VERSION

CODES AND DIMENSIONS

CODE	B	s	L	colour	RAL	pcs
	[mm]	[mm]	[m]			
MANROLL1	300	1,5	5	brick red	8004	1
MANROLL2	300	1,5	5	brown	8017	1
MANROLL3	300	1,5	5	dark brown	8019	1
MANROLL4	300	1,5	5	black	9005	1
MANROLL5	300	1,5	5	graphite	7016	1

Avoid contact with skin, eyes and food. Do not breathe dust.

MANICA LEAD

LEAD PROFILE WITH EPDM SLEEVE

CODES AND DIMENSIONS

CODE	s	B	L	Ø	material	pcs
	[mm]	[mm]	[mm]	[mm]		
MANEPDM	-	-	-	48	EPDM	1
MANLEAD	1	310	405	-	lead[(1)]	1

[(1)]Avoid contact with skin, eyes and food. Do not breathe dust. Waste classification (2014/955/EU): 17 09 04

MANICA POST

ADHESIVE SEALING SLEEVE FOR OUTDOORS

CODES AND DIMENSIONS

CODE	B	H	Ø	colour	pcs
	[mm]	[mm]	[mm]		
MANPOST1	300	200	25 / 32	brown	5
MANPOST2	300	200	42 / 55	brown	5
MANPOST3	230	230	42 / 55	aluminium	4

Waste classification (2014/955/EU): 17 09 04.

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Solutions for Building Technology

HBS

COUNTERSUNK SCREW

AC233
ESR-4645

BIT INCLUDED

SOFTWARE

ETA-11/0030

CODES AND DIMENSIONS

d_1 [mm]	CODE	L [mm]	b [mm]	A [mm]	pcs
8 TX 40	**HBS880**	80	52	28	100
	HBS8100	100	52	48	100
	HBS8120	120	60	60	100
	HBS8140	140	60	80	100
	HBS8160	160	80	80	100
	HBS8180	180	80	100	100
	HBS8200	200	80	120	100
	HBS8220	220	80	140	100
	HBS8240	240	80	160	100
	HBS8260	260	80	180	100
	HBS8280	280	80	200	100
	HBS8300	300	100	200	100
	HBS8320	320	100	220	100
	HBS8340	340	100	240	100
	HBS8360	360	100	260	100
	HBS8380	380	100	280	100
	HBS8400	400	100	300	100
	HBS8440	440	100	340	100
	HBS8480	480	100	380	100
	HBS8520	520	100	420	100
10 TX 40	**HBS1080**	80	52	28	50
	HBS10100	100	52	48	50
	HBS10120	120	60	60	50
	HBS10140	140	60	80	50
	HBS10160	160	80	80	50
	HBS10180	180	80	100	50
	HBS10200	200	80	120	50
	HBS10220	220	80	140	50
	HBS10240	240	80	160	50
	HBS10260	260	80	180	50
	HBS10280	280	80	200	50
	HBS10300	300	100	200	50
	HBS10320	320	100	220	50
	HBS10340	340	100	240	50
	HBS10360	360	100	260	50
	HBS10380	380	100	280	50
	HBS10400	400	100	300	50

VGS

AC233 ESR-4645 | BIT INCLUDED | MY PROJECT SOFTWARE | ETA-11/0030

FULL THREAD CONNECTOR WITH COUNTERSUNK HEAD

CODES AND DIMENSIONS

d_1 [mm]	CODE	L [mm]	b [mm]	pcs
9 TX 40	**VGS9100**	100	90	25
	VGS9120	120	110	25
	VGS9140	140	130	25
	VGS9160	160	150	25
	VGS9180	180	170	25
	VGS9200	200	190	25
	VGS9220	220	210	25
	VGS9240	240	230	25
	VGS9260	260	250	25
	VGS9280	280	270	25
	VGS9300	300	290	25
	VGS9320	320	310	25
	VGS9340	340	330	25
	VGS9360	360	350	25
	VGS9380	380	370	25
	VGS9400	400	390	25
	VGS9440	440	430	25
	VGS9480	480	470	25
	VGS9520	520	510	25

d_1 [mm]	CODE	L [mm]	b [mm]	pcs
11 TX 50	**VGS11100**	100	90	25
	VGS11125	125	115	25
	VGS11150	150	140	25
	VGS11175	175	165	25
	VGS11200	200	190	25
	VGS11225	225	215	25
	VGS11250	250	240	25
	VGS11275	275	265	25
	VGS11300	300	290	25
	VGS11325	325	315	25
	VGS11350	350	340	25
	VGS11375	375	365	25
	VGS11400	400	390	25
	VGS11450	450	440	25
	VGS11500	500	490	25
	VGS11550	550	540	25
	VGS11600	600	590	25
13 TX 50	**VGS13100**	100	90	25
	VGS13150	150	140	25
	VGS13200	200	190	25
	VGS13300	300	280	25
	VGS13400	400	380	25
	VGS13500	500	480	25
	VGS13600	600	580	25

TBS

AC233 ESR-4645 | BIT INCLUDED | MY PROJECT SOFTWARE | ETA-11/0030

FLANGE HEAD SCREW

CODES AND DIMENSIONS

d_1 [mm]	d_K [mm]	CODE	L [mm]	b [mm]	A [mm]	pcs
8 TX 40	19	**TBS840**	40	32	8	100
		TBS860	60	52	10	100
		TBS880	80	52	28	50
		TBS8100	100	52	48	50
		TBS8120	120	80	40	50
		TBS8140	140	80	60	50
		TBS8160	160	100	60	50
		TBS8180	180	100	80	50
		TBS8200	200	100	100	50
		TBS8220	220	100	120	50
		TBS8240	240	100	140	50
		TBS8260	260	100	160	50
		TBS8280	280	100	180	50
		TBS8300	300	100	200	50
		TBS8320	320	100	220	50
		TBS8340	340	100	240	50
		TBS8360	360	100	260	50
		TBS8380	380	100	280	50
		TBS8400	400	100	300	50
		TBS8440	440	100	340	50
		TBS8480	480	100	380	50
		TBS8520	520	100	420	50

d_1 [mm]	d_K [mm]	CODE	L [mm]	b [mm]	A [mm]	pcs
10 TX 50	25	**TBS10100**	100	52	48	50
		TBS10120	120	60	60	50
		TBS10140	140	60	80	50
		TBS10160	160	80	80	50
		TBS10180	180	80	100	50
		TBS10200	200	100	100	50
		TBS10220	220	100	120	50
		TBS10240	240	100	140	50
		TBS10260	260	100	160	50
		TBS10280	280	100	180	50
		TBS10300	300	100	200	50
		TBS10320	320	120	200	50
		TBS10340	340	120	220	50
		TBS10360	360	120	240	50
		TBS10380	380	120	260	50
		TBS10400	400	120	280	50
		TBS10440	440	120	320	50
		TBS10480	480	120	360	50
		TBS10520	520	120	400	50

TBS EVO

AC233 | AC257
ESR-4645

BIT INCLUDED

SOFTWARE

COATING

ETA-11/0030

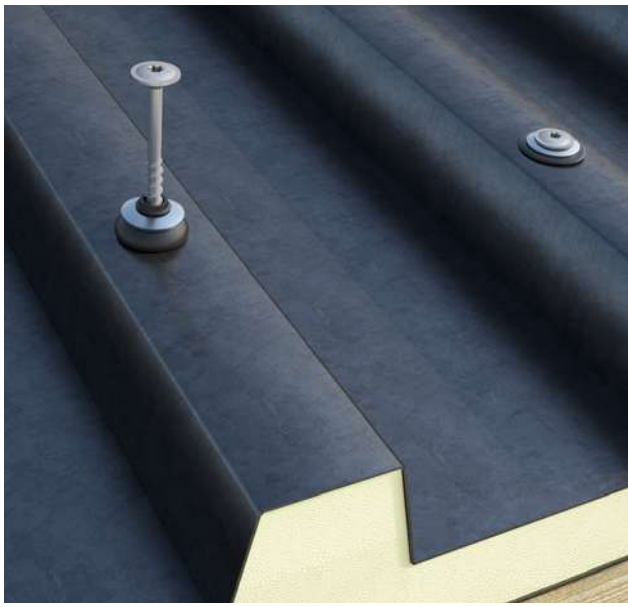
FLANGE HEAD SCREW

CODES AND DIMENSIONS

d_1 [mm]	CODE	L [mm]	b [mm]	A [mm]	pcs
6 TX 30	**TBSEVO660**	60	40	20	100
	TBSEVO680	80	50	30	100
	TBSEVO6100	100	60	40	100
	TBSEVO6120	120	75	45	100
	TBSEVO6140	140	75	65	100
	TBSEVO6160	160	75	85	100
	TBSEVO6180	180	75	105	100
	TBSEVO6200	200	75	125	100

WBAZ

STAINLESS STEEL WASHER WITH SEALING GASKET



CODES AND DIMENSIONS

CODE	screw [mm]	D_2 [mm]	H [mm]	D_1 [mm]	pcs
WBAZ25A2	6,0 - 6,5	25	15	6,5	100

MTS A2 | AISI304

A2 AISI 304

SCREWS FOR SHEET METAL

CODES AND DIMENSIONS

d_1 [mm]	CODE	SW	d_{UK} [mm]	L [mm]	b [mm]	A [mm]	pcs
6 SW 8	**MTS680**	SW 8	12,5	80	58	20÷40	100
	MTS6100	SW 8	12,5	100	58	40÷60	100
	MTS6120	SW 8	12,5	120	58	60÷80	100

MCS A2 | AISI304

A2
AISI 304

SCREW WITH WASHER FOR SHEET METAL

CODES AND DIMENSIONS

MCS A2: stainless steel

d_1 [mm]	CODE	L [mm]	pcs
4,5 TX 20	MCS4525A2	25	200
	MCS4535A2	35	200
	MCS4545A2	45	200
	MCS4560A2	60	200
	MCS4580A2	80	200
	MCS45100A2	100	200
	MCS45120A2	120	200

MCS M: RAL 8017 - chocolate brown

d_1 [mm]	CODE	L [mm]	pcs
4,5 TX 20	MCS4525A2M	25	200
	MCS4535A2M	35	200
	MCS4545A2M	45	200

MCS CU: copper finish

d_1 [mm]	CODE	L [mm]	pcs
4,5 TX 20	MCS4525CU	25	200
	MCS4535CU	35	200
	MCS4545CU	45	200
	MCS4560CU	60	200
	MCS4580CU	80	200
	MCS45100CU	100	100
	MCS45120CU	120	200

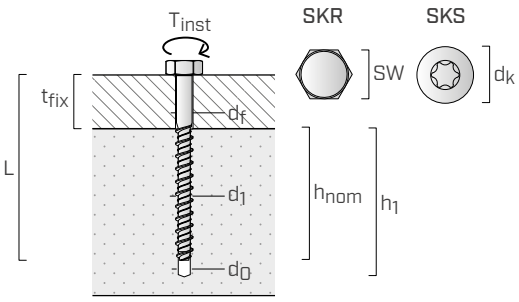
MCS B: RAL 9002 - light grey

d_1 [mm]	CODE	L [mm]	pcs
4,5 TX 20	MCS4525A2B	25	200
	MCS4535A2B	35	200
	MCS4545A2B	45	200

SKR | SKS

SCREW ANCHOR FOR CONCRETE

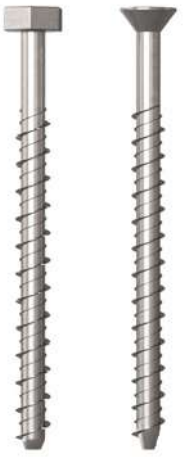
d_1	external diameter of anchor
L	anchor length
t_{fix}	maximum fastening thickness
h_1	minimum hole depth
h_{nom}	nominal anchoring depth
d_0	hole diameter in the concrete support
d_f	maximum hole diameter in the element to be fastened
SW	wrench size SKR
d_k	SKS head diameter
T_{inst}	tightening torque



CODES AND DIMENSIONS

SKR hexagonal head

CODE	d_1 [mm]	L [mm]	t_{fix} [mm]	$h_{1,min}$ [mm]	h_{nom} [mm]	d_0 [mm]	$d_{f\ timber}$ [mm]	$d_{f\ steel}$ [mm]	SW [mm]	T_{inst} [Nm]	pcs
SKR7560	**7,5**	**60**	10	60	50	6	8	8-10	13	15	50
SKR7580		**80**	30	60	50	6	8	8-10	13	15	50
SKR75100		**100**	20	90	80	6	8	8-10	13	15	50
SKR1080	**10**	**80**	30	65	50	8	10	10-12	16	25	50
SKR10100		**100**	20	95	80	8	10	10-12	16	25	25
SKR10120		**120**	40	95	80	8	10	10-12	16	25	25
SKR10140		**140**	60	95	80	8	10	10-12	16	25	25
SKR10160		**160**	80	95	80	8	10	10-12	16	25	25
SKR12100	**12**	**100**	20	100	80	10	12	12-14	18	50	25
SKR12120		**120**	40	100	80	10	12	12-14	18	50	25
SKR12140		**140**	60	100	80	10	12	12-14	18	50	25
SKR12160		**160**	80	100	80	10	12	12-14	18	50	25
SKR12200		**200**	120	100	80	10	12	12-14	18	50	25
SKR12240		**240**	160	100	80	10	12	12-14	18	50	25
SKR12280		**280**	200	100	80	10	12	12-14	18	50	25
SKR12320		**320**	240	100	80	10	12	12-14	18	50	25
SKR12400		**400**	320	100	80	10	12	12-14	18	50	25



SKR SKS

SKS countersunk head

CODE	d_1 [mm]	L [mm]	t_{fix} [mm]	$h_{1,min}$ [mm]	h_{nom} [mm]	d_0 [mm]	$d_{f\ timber}$ [mm]	d_k [mm]	TX	T_{inst} [Nm]	pcs
SKS7560	**7,5**	**60**	10	60	50	6	8	13	TX40	-	50
SKS7580		**80**	30	60	50	6	8	13	TX40	-	50
SKS75100		**100**	20	90	80	6	8	13	TX40	-	50
SKS75120		**120**	40	90	80	6	8	13	TX40	-	50
SKS75140		**140**	60	90	80	6	8	13	TX40	-	50
SKS75160		**160**	80	90	80	6	8	13	TX40	-	50

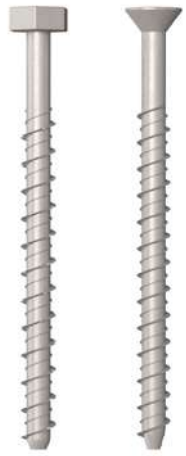
C4 EVO COATING

SKR EVO hexagonal head

CODE	d_1 [mm]	L [mm]	t_{fix} [mm]	$h_{1,min}$ [mm]	h_{nom} [mm]	d_0 [mm]	$d_{f\ timber}$ [mm]	$d_{f\ steel}$ [mm]	SW [mm]	T_{inst} [Nm]	pcs
SKREVO7560	**7,5**	**60**	10	60	50	6	8	8-10	13	15	50
SKREVO1080	**10**	**80**	30	65	50	8	10	10-12	16	25	50
SKREVO12100	**12**	**100**	20	100	80	10	12	12-14	18	50	25

SKS EVO countersunk head

CODE	d_1 [mm]	L [mm]	t_{fix} [mm]	$h_{1,min}$ [mm]	h_{nom} [mm]	d_0 [mm]	$d_{f\ timber}$ [mm]	d_k [mm]	TX	T_{inst} [Nm]	pcs
SKSEVO7580	**7,5**	**80**	30	60	50	6	8	13	TX40	-	50
SKSEVO75100		**100**	20	90	80	6	8	13	TX40	-	50
SKSEVO75120		**120**	40	90	80	6	8	13	TX40	-	50



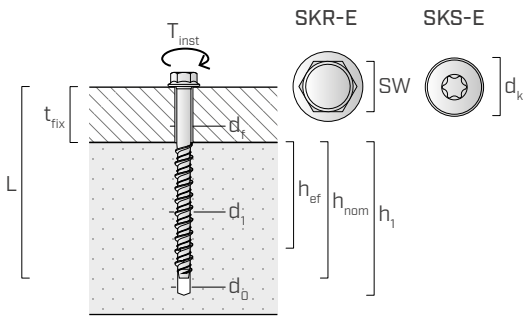
SKR EVO SKS EVO

SKR-E | SKS-E

SCREW ANCHOR FOR CONCRETE CE1

R120 | SEISMIC C2 M12-M16 | ETA-19/0100

d_1	external diameter of anchor
L	anchor length
t_{fix}	maximum fastening thickness
h_1	minimum hole depth
h_{nom}	nominal anchoring depth
h_{ef}	effective anchor depth
d_0	hole diameter in the concrete support
d_f	maximum hole diameter in the element to be fastened
SW	wrench size SKR-E
d_k	SKS-E head diameter
T_{inst}	tightening torque



CODES AND DIMENSIONS

SKR-E hexagonal head with mock washer

CODE	d_1 [mm]	L [mm]	t_{fix} [mm]	$h_{1,min}$ [mm]	h_{nom} [mm]	h_{ef} [mm]	d_0 [mm]	d_f [mm]	SW [mm]	T_{inst} [Nm]	pcs
SKR8100CE	**8**	**100**	40	75	60	48	6	9	10	20	50
SKR1080CE	**10**	**80**	10	85	70	56	8	12	13	50	50
SKR10100CE		**100**	30	85	70	56	8	12	13	50	25
SKR10120CE		**120**	50	85	70	56	8	12	13	50	25
SKR1290CE	**12**	**90**	10	100	80	64	10	14	15	80	25
SKR12110CE		**110**	30	100	80	64	10	14	15	80	25
SKR12150CE		**150**	70	100	80	64	10	14	15	80	25
SKR12210CE		**210**	130	100	80	64	10	14	15	80	20
SKR12250CE		**250**	170	100	80	64	10	14	15	80	15
SKR12290CE		**290**	210	100	80	64	10	14	15	80	15
SKR16130CE	**16**	**130**	20	140	110	85	14	18	21	160	10

SKS-E countersunk head

CODE	d_1 [mm]	L [mm]	t_{fix} [mm]	$h_{1,min}$ [mm]	h_{nom} [mm]	h_{ef} [mm]	d_0 [mm]	d_f [mm]	d_k [mm]	TX	T_{inst} [Nm]	pcs
SKS75100CE	**8**	**100**	40	75	60	48	6	9	16	TX30	20	50
SKS10100CE	**10**	**100**	30	85	70	56	8	12	20	TX40	50	50

EKS

HEXAGONAL HEAD BOLT
Steel class 8.8 - zinc plated

CODES AND DIMENSIONS

d [mm]	CODE	thread	L [mm]	pcs
M20	**EKS2040**	•	40	25
	EKS2050	•	50	25
	EKS2060	•	60	25
	EKS2070	• •	70	25
	EKS2080	• •	80	25
	EKS20100	• •	100	25

d [mm]	CODE	thread	L [mm]	pcs
M24	**EKS2440**	•	40	25
	EKS2450	•	50	25
	EKS2460	•	60	25
	EKS2465	•	65	25
	EKS2470	•	70	25
	EKS2480	• •	80	25
	EKS2485	• •	85	25

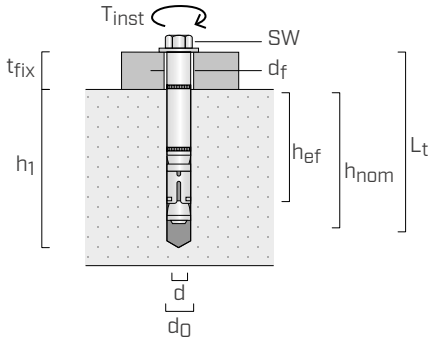
DIN 933 (ISO 4017) - fully threaded (•)
DIN 931 (ISO 4014) - partially threaded (• •)

ABS

R120 SEISMIC C2 MY PROJECT SOFTWARE CE

HEAVY-DUTY EXPANSION ANCHOR WITH CLAMP CE1

d_0	anchor diameter = hole diameter in the concrete support
d	screw diameter
L_t	anchor length
t_{fix}	maximum fastening thickness
h_1	minimum hole depth
h_{nom}	nominal anchoring depth
h_{ef}	effective anchor depth
d_f	maximum hole diameter in the element to be fastened
SW	wrench size
T_{inst}	tightening torque



CODES AND DIMENSIONS

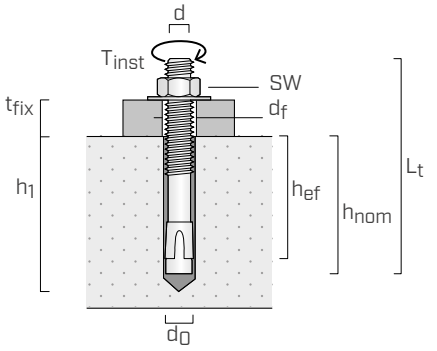
CODE	d_0 [mm]	L_t [mm]	d_{screw} [mm]	t_{fix} [mm]	$h_{1,min}$ [mm]	h_{nom} [mm]	h_{ef} [mm]	d_f [mm]	SW [mm]	T_{inst} [Nm]	pcs
ABS1070	**10**	**70**	M6	5	80	65	55	12	10	15	50
ABS10100		**100**	M6	35	80	65	55	12	10	15	50
ABS12100	**12**	**100**	M8	30	90	70	60	14	13	30	50
ABS12120		**120**	M8	50	90	70	60	14	13	30	25
ABS16120	**16**	**120**	M10	40	100	80	70	18	17	50	25
ABS16140		**140**	M10	60	100	80	70	18	17	50	20

AB1

R120 SEISMIC C2 M12-M16 MY PROJECT SOFTWARE CE

HEAVY DUTY EXPANSION ANCHOR CE1

d	anchor diameter
d_0	hole diameter in the concrete support
L_t	anchor length
t_{fix}	maximum fastening thickness
h_1	minimum hole depth
h_{nom}	nominal anchoring depth
h_{ef}	effective anchor depth
d_f	maximum hole diameter in the element to be fastened
SW	wrench size
T_{inst}	tightening torque



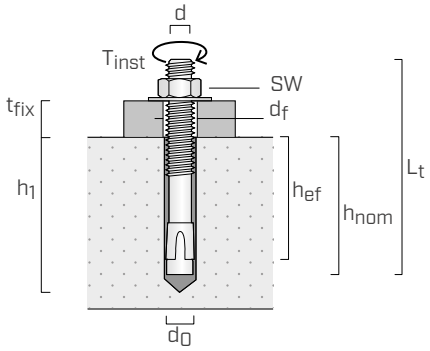
CODES AND DIMENSIONS

CODE	$d = d_0$ [mm]	L_t [mm]	t_{fix} [mm]	$h_{1,min}$ [mm]	h_{nom} [mm]	h_{ef} [mm]	d_f [mm]	SW [mm]	T_{inst} [Nm]	pcs
AB1875	**M8**	**75**	9	60	55	48	9	13	15	100
AB1895	**M8**	**95**	29	60	55	48	9	13	15	50
AB18115	**M8**	**115**	49	60	55	48	9	13	15	50
AB110115	**M10**	**115**	35	75	68	60	12	17	40	25
AB110135	**M10**	**135**	55	75	68	60	12	17	40	25
AB112100	**M12**	**100**	4	85	80	70	14	19	60	25
AB112120	**M12**	**120**	24	85	80	70	14	19	60	25
AB112150	**M12**	**150**	54	85	80	70	14	19	60	25
AB112180	**M12**	**180**	84	85	80	70	14	19	60	25
AB116145	**M16**	**145**	28	105	97	85	18	24	100	10

AB1 A4

CE1 STAINLESS STEEL HEAVY-DUTY EXPANSION ANCHOR

d	anchor diameter
d_0	hole diameter in the concrete support
L_t	anchor length
t_{fix}	maximum fastening thickness
h_1	minimum hole depth
h_{nom}	nominal anchoring depth
h_{ef}	effective anchor depth
d_f	maximum hole diameter in the element to be fastened
SW	wrench size
T_{inst}	tightening torque



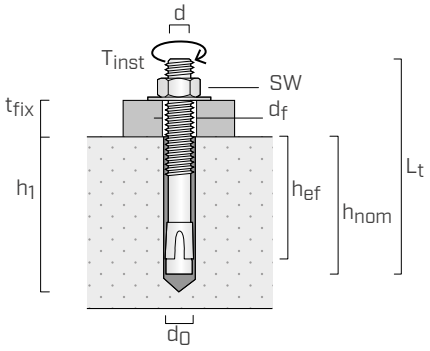
CODES AND DIMENSIONS

CODE	d = d_0 [mm]	L_t [mm]	t_{fix} [mm]	$h_{1,min}$ [mm]	h_{nom} [mm]	h_{ef} [mm]	d_f [mm]	SW [mm]	T_{inst} [Nm]	pcs
AB1892A4	**M8**	**92**	30	60	50	45	9	13	20	50
AB18112A4		**112**	50	60	50	45	9	13	20	50
AB11092A4	**M10**	**92**	10	75	68	60	12	17	35	50
AB110132A4		**132**	50	75	68	60	12	17	35	25
AB112118A4	**M12**	**118**	20	90	81	70	14	19	70	20
AB116138A4	**M16**	**138**	20	110	96	85	18	24	120	10

AB7

HEAVY DUTY EXPANSION ANCHOR CE7

d	anchor diameter
d_0	hole diameter in the concrete support
L_t	anchor length
t_{fix}	maximum fastening thickness
h_1	minimum hole depth
h_{nom}	nominal anchoring depth
h_{ef}	effective anchor depth
d_f	maximum hole diameter in the element to be fastened
SW	wrench size
T_{inst}	tightening torque



CODES AND DIMENSIONS

AB7 STANDARD washer ISO 7089

CODE	d = d_0 [mm]	L_t [mm]	t_{fix} [mm]	$h_{1,min}$ [mm]	h_{nom} [mm]	h_{ef} [mm]	d_f [mm]	SW [mm]	T_{inst} [Nm]	pcs
AB71075	**M10**	**75**	10	65	55	50	12	17	35	50
AB712100	**M12**	**100**	18	80	70	60	14	19	55	50
AB712120		**120**	38	80	70	60	14	19	55	20
AB716145	**M16**	**145**	30	110	100	85	18	24	100	15
AB716220		**220**	105	110	100	85	18	24	100	10
AB720170	**M20**	**170**	35	125	115	100	22	30	150	5

AB7 EXTRALONG large size washer ISO 7093

CODE	d = d_0 [mm]	L_t [mm]	t_{fix} [mm]	$h_{1,min}$ [mm]	h_{nom} [mm]	h_{ef} [mm]	d_f [mm]	SW [mm]	T_{inst} [Nm]	pcs
AB716300	**M16**	**300**	185	110	100	85	18	24	100	5
AB716400		**400**	245	110	100	85	18	24	100	5

VIN-FIX

VINYL ESTER CHEMICAL ANCHOR WITHOUT STYRENE

SEISMIC C2
M12-M16

ETA-20/0363

CODES AND DIMENSIONS

CODE	format [mL]	pcs
FIX300	300	12
FIX420	420	12

Expiry from date of manufacturing: 12 months for 300 mL, 18 months for 420 mL.
Storage temperature between +5 and +25° C.

VIN-FIX PRO

VINYL ESTER CHEMICAL ANCHOR WITHOUT STYRENE

LEED ®
According to
LEED® IEQ 4.1

F120

SEISMIC C1

SOFTWARE

CODES AND DIMENSIONS

CODE	format [mL]	pcs
VIN300	300	12
VIN410	410	12

Expiry from date of manufacturing: 12 months for 300 mL, 18 months for 410 mL.
Storage temperature between +5 and +25° C.

HYB-FIX

HIGH-PERFORMANCE HYBRID CHEMICAL ANCHOR

LEED ®
According to
LEED® IEQ 4.1

F120

SEISMIC C2
M12-M24

ETA-20/1285

CODES AND DIMENSIONS

CODE	format [mL]	pcs
HYB280	280	12
HYB420	420	12

Expiry from date of manufacturing: 18 months.
Storage temperature between +5 and +25° C.

EPO-FIX PLUS

HIGH-PERFORMANCE EPOXY CHEMICAL ANCHOR

F120

SEISMIC C2
M12-M20

CODES AND DIMENSIONS

CODE	format [mL]	pcs
EPO385	385	12

Expiry from date of manufacturing: 24 months.
Storage temperature between +5 and +25° C.

INA

5.8 STEEL CLASS THREADED ROD FOR CHEMICAL ANCHORS

CODES AND DIMENSIONS

CODE	d [mm]	L_t [mm]	d_0 [mm]	d_f [mm]	pcs
INA8110	**M8**	**110**	10	≤ 9	10
INA10110	**M10**	**110**	12	≤ 12	10
INA10130		**130**	12	≤ 13	10
INA12130	**M12**	**130**	14	≤ 14	10
INA12180		**180**	14	≤ 15	10
INA16160	**M16**	**160**	18	≤ 18	10
INA16190		**190**	18	≤ 18	10
INA16230		**230**	18	≤ 18	10
INA20240	**M20**	**240**	24	≤ 22	10
INA24270	**M24**	**270**	28	≤ 26	10
INA27400	**M27**	**400**	32	≤ 30	10

d_0 = hole diameter in the support / d_f = hole diameter in the element to be fastened

IHP - IHM

BUSHINGS FOR PERFORATED MATERIALS

IHP - PLASTIC MESH

CODE	d_0 [mm]	L [mm]	rod [mm]	pcs
IHP1685	**16**	**85**	M10 (M8)	10
IHP16130	**16**	**130**	M10 (M8)	10
IHP2085	**20**	**85**	M12/M16	10

IHM - METAL NET

CODE	d_0 [mm]	L [mm]	rod [mm]	pcs
IHM121000	**12**	**1000**	M8	50
IHM161000	**16**	**1000**	M8/M10	50
IHM221000	**22**	**1000**	M12/M16	25

ULS AI 9021

A2 AISI 304

WASHER

CODE	rod	d_{INT} [mm]	d_{EXT} [mm]	s [mm]	pcs
AI90218	**M8**	8,4	24	2	500
AI902110	**M10**	10,5	30	2,5	500
AI902112	**M12**	13	37	3	200
AI902116	**M16**	17	50	3	100
AI902120	**M20**	22	60	4	50

* ISO 7093 differs from DIN 9021 in the surface hardness.

Stainless steel A2 | AISI 304
DIN 9021 (ISO 7093*)

MUT AI 934

A2 AISI 304

HEXAGONAL NUT

CODE	rod	h [mm]	SW [mm]	pcs
AI9348	**M8**	6,5	13	500
AI93410	**M10**	8	16	200
AI93412	**M12**	10	18	200
AI93416	**M16**	13	24	100
AI93420	**M20**	16	30	50

* ISO 4032 differs from DIN 934 in diameters M10 and M12 for parameters h and SW.

Stainless steel A2 | AISI 304
DIN 934 (ISO 4032*)

MUT AI 985

A2 AISI 304

SELF-LOCKING NUT

CODE	rod	h [mm]	SW [mm]	pcs
AI9858	**M8**	8	13	500
AI98510	**M10**	10	17	200
AI98512	**M12**	12	19	200
AI98516	**M16**	16	24	100

* ISO 10511 differs from DIN 985 in diameters M10 and M12 for parameters h and SW.

Stainless steel A2 | AISI 304
DIN 985 (ISO 10511*)

MUT AI 1587

A2 AISI 304

BLIND NUT

CODE	rod	h [mm]	SW [mm]	pcs
AI158710	**M10**	18	17	100
AI158712	**M12**	22	19	100
AI158716	**M16**	28	24	50
AI158720	**M20**	34	30	25

Single-piece turned nut.

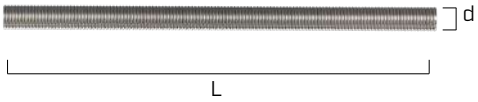
Stainless steel A2 | AISI 304
DIN 1587

MGS 1000

THREADED ROD

CODE	rod	L [mm]	pcs
MGS10008	M8	1000	10
MGS100010	M10	1000	10
MGS100012	M12	1000	10
MGS100014	M14	1000	10
MGS100016	M16	1000	10
MGS100018	M18	1000	10
MGS100020	M20	1000	10
MGS100022	M22	1000	10
MGS100024	M24	1000	10
MGS100027	M27	1000	10
MGS100030	M30	1000	10

Steel class 4.8 - zinc plated
DIN 975

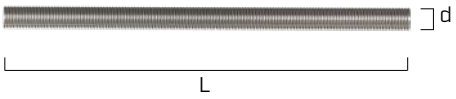


MGS 1000

THREADED ROD

CODE	rod	L [mm]	pcs
MGS10888	M8	1000	1
MGS11088	M10	1000	1
MGS11288	M12	1000	1
MGS11488	M14	1000	1
MGS11688	M16	1000	1
MGS11888	M18	1000	1
MGS12088	M20	1000	1
MGS12488	M24	1000	1
MGS12788	M27	1000	1

Steel class 8.8 - zinc plated
DIN 975



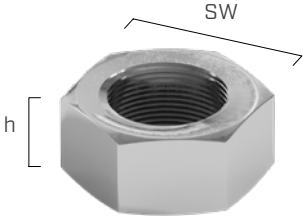
MUT 934

HEXAGONAL NUT

CODE	rod	h [mm]	SW [mm]	pcs
MUT9348	M8	6,5	13	400
MUT93410	M10	8	17	500
MUT93412	M12	10	19	500
MUT93414	M14	11	22	200
MUT93416	M16	13	24	200
MUT93418	M18	15	27	100
MUT93420	M20	16	30	100
MUT93422	M22	18	32	50
MUT93424	M24	19	36	50
MUT93427	M27	22	41	25
MUT93430	M30	24	46	25

* ISO 4032 differs from DIN 934 for parameters h and SW and diameters M10, M12, M14 and M22.

Steel class 8 - zinc plated
DIN 934 (ISO 4032*)



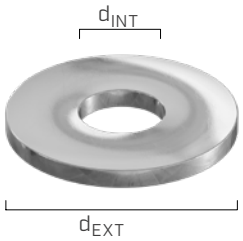
ULS 9021

WASHER

CODE	rod	d_{INT} [mm]	d_{EXT} [mm]	s [mm]	pcs
ULS8242	**M8**	8,4	24	2	200
ULS10302	**M10**	10,5	30	2,5	200
ULS13373	**M12**	13	37	3	100
ULS15443	**M14**	15	44	3	100
ULS17503	**M16**	17	50	3	100
ULS20564	**M18**	20	56	4	50
ULS22604	**M20**	22	60	4	50

* ISO 7093 differs from DIN 9021 in the surface hardness.

S235 steel - zinc plated
DIN 9021 (ISO 7093*)



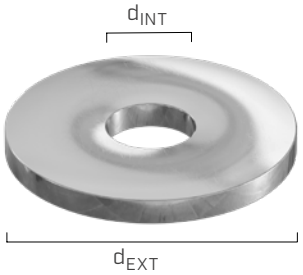
ULS 440

WASHER

CODE	rod	d_{INT} [mm]	d_{EXT} [mm]	s [mm]	pcs
ULS11343	**M10**	11	34	3	200
ULS13444	**M12**	13,5	44	4	200
ULS17565	**M16**	17,5	56	5	50
ULS22726	**M20**	22	72	6	50
ULS24806	**M22**	24	80	6	25

* ISO 7094 differs from DIN 440 R in the surface hardness.

S235 steel - zinc plated
DIN 440 R (ISO 7094*)

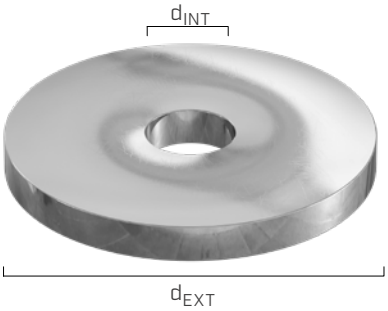


ULS 1052

WASHER

CODE	rod	d_{INT} [mm]	d_{EXT} [mm]	s [mm]	pcs
ULS14586	**M12**	14	58	6	50
ULS18686	**M16**	18	68	6	50
ULS22808	**M20**	22	80	8	25
ULS25928	**M22**	25	92	8	20
ULS271058	**M24**	27	105	8	20

S235 steel - zinc plated
DIN 1052



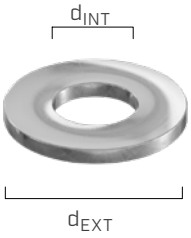
ULS 125

WASHER

CODE	rod	d_{INT} [mm]	d_{EXT} [mm]	s [mm]	pcs
ULS81616	**M8**	8,4	16	1,6	1000
ULS10202	**M10**	10,5	20	2	500
ULS13242	**M12**	13	24	2,5	500
ULS17303	**M16**	17	30	3	250
ULS21373	**M20**	21	37	3	250
ULS25444	**M24**	25	44	4	200
ULS28504	**M27**	28	50	4	100
ULS31564	**M30**	31	56	4	20

* ISO 7089 differs from DIN 125 A in the surface hardness.

S235 steel - zinc plated
DIN 125 A (ISO 7089*)



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Solutions for Building Technology

CRICKET

8 SIZES RATCHETING WRENCH

- Ratchet spanner with through hole and 8 bushings of varying sizes
- 4 ring spanners in a single tool

CODES AND CHARACTERISTICS

CODE	dimensions / thread [SW / M]	length [mm]	pcs
CRICKET	10 / M6 - 13 / M8 14 / (M8) - 17 / M10 19 / M12 - 22 / M14 24 / M16 - 27 / M18	340	1

BEAR

TORQUE WRENCH

- Precise tightening torque control
- Wide adjustment range

CODES AND CHARACTERISTICS

CODE	dimensions [mm]	weight [g]	tightening torque [Nm]	pcs
BEAR	395 x 60 x 60	1075	10 - 50	1
BEAR2	535 x 60 x 60	1457	40 - 200	1

With 1/2'' square drive.

FINCH

PROFESSIONAL RIVETING MACHINE

- Light and manoeuvrable
- Ideal for large and structural rivets

CODES AND CHARACTERISTICS

CODE	Ø rivets [mm]	weight [kg]	pcs
FINCH3064	3,0 - 4,0 - 4,8 - 6,4	1,4	1

BIRD

BATTERY-OPERATED RIVETING MACHINE

- Ergonomic and lightweight
- Excellent manoeuvrability even in tight spaces
- Equipped with two batteries with charger
- Up to 1400 rivets on one charge

CODES AND CHARACTERISTICS

CODE	battery [Ah]	Ø rivets [mm]	weight [kg]	strength [N]	pcs
BIRD5277	2,0	5,2 - 6,4 - 7,7	2,15	12.000	1

ROPE CLAMP

CABLE TENSIONER FOR ANCHOR LINE

- Used with the CABLE CLAMP, it makes it easier to lock the cable and with its lever it makes it possible to pre-tension the cable

CODES AND CHARACTERISTICS

CODE	description	standard	material	load capacity [kg]	pcs
SPAN1	cable tensioner hoist	DIN EN 818-7	zinc-plated steel	250	1

CABLE CLAMP

STEEL ROPE CLAMP

- Used in conjunction with the ROPE CLAMP, it facilitates cable clamping during pre-tensioning of the lifeline cable

CODES AND CHARACTERISTICS

CODE	description	pcs
CABLECLAMP	clamp for steel cable Ø5-10 mm	1

CABCUT

SHEARS

- For cutting steel cables up to Ø12 mm

CODES AND CHARACTERISTICS

CODE	length	max. cable resistance Ø8 mm	weight	pcs
	[mm]	[kg/mm^2]	[kg]	
CABCUT500	500	160	1,5	1

A 10 M

CORDLESS SCREWDRIVER 10,8 V

- 1/4'' Spindle for direct tool mounting
- LED lights provide illumination over large areas

CODES AND CHARACTERISTICS

CODE	description	no. of revolutions (moment)	battery	weight	pcs
		[min^{-1}] [Nm]	22 Wh/43 Wh	[kg]	
MA919901	MIDIMAX IN T-MAX	0-360 (34)/ 0-1400 (17)	1/1	0,8	1
MA919902*	MAXIMAX IN T-MAX		0/2	0,8	1

** Includes quick-change driver bit holder.*

ASB 18 M BL

CORDLESS PERCUSSION DRILL

- Brushless motor ensures long life
- 1/4" drill chuck for direct insertion of accessories
- Effective LEDs for illuminating the work area

CODES AND CHARACTERISTICS

CODE	description	no. of revolutions (moment)	battery	weight	pcs
		[min^{-1}] [Nm]	72 Wh	[kg]	
MA91A101*	MIDIMAX IN T-MAX	0-600 (90) / 0-2050 (44)	2	1,9	1

** Includes quick-change driver bit holder.*

SOCKET

BUSHINGS AND BITS

CODES AND CHARACTERISTICS

CODE	wrench size	machine housing	length [mm]	pcs
SOCKET10	10	1/2"	40	1
SOCKET12	12	1/2"	40	1
SOCKET13	13	1/2"	40	1
SOCKET15	15	1/2"	40	1
SOCKET16	16	1/2"	40	1
SOCKET17	17	1/2"	40	1
SOCKET18	18	1/2"	40	1
SOCKET19	19	1/2"	40	1
SOCKET22	22	1/2"	40	1
SOCKET24	24	1/2"	40	1
SOCKETL13	13	1/2"	80	1
SOCKETL19	19	1/2"	80	1
SOCKETBIT	bit holder 1/4"	1/2"	-	1
SOCKETHEX5	Hex 5	1/2"	60	1
HEX525	-	connector C 6.3 (1/4")	25	5

SNAIL METAL

HSS HIGH-SPEED STEEL TWIST DRILL BIT

- Super-rapid steel drill bits for drilling holes in metal structures

CODES AND CHARACTERISTICS

CODE	Ø [mm]	TL [mm]	EL [mm]	pcs
F2430065	6,5	101	**63**	1
F2430080	8,0	117	**75**	1
F2430100	10,0	133	**87**	1
F2430120	12,0	151	**101**	1
F2430130	13,0	151	**101**	1
F2599216	16,0	250	**200**	1

TORLIM

TORQUE LIMITER

CODES AND CHARACTERISTICS

CODE	description	pcs
TORLIM5	torque limiter 5 Nm	3

TUCA

RAPID FEED PIPE CUTTER 6-67 mm

CODES AND CHARACTERISTICS

CODE	description	L [mm]	H [mm]	A [mm]	E_{max} [mm]	pcs
TUCA	stainless steel pipe cutter	230	100	6-67	2,5	1

FLY

PROFESSIONAL GUN FOR 310 mL CARTRIDGES

- The FLY sealant gun is designed to be used with 310 mL soft cartridges
- Made of durable materials, it ensures easy processing

CODES AND CHARACTERISTICS

CODE	description	pcs
FLY	for cartridges of 310 mL	1

MAMMOTH

SPECIAL GUN FOR 400 mL CARTRIDGES

- Specially developed to accommodate 400 mL cartridges
- Robust and durable, it allows precise application of resin

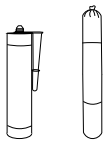
CODES AND CHARACTERISTICS

CODE	description	pcs
MAM400	for cartridges of 400 mL	1

MAMAUTO600

BATTERY-OPERATED RESIN GUN

- 7.4V/1.3 Ah lithium battery
- Adjustable forward speed (1-6)
- Up to 30 x 310 mL cartridges or 20 x 600 mL soft cartridges per battery charge



CODES AND CHARACTERISTICS

CODE	description	pcs
MAMAUTO600	for 310 mL cartridges and soft cartridges up to 600 mL	1

ESTRO

25 kN PORTABLE EXTRACTOMETER

- Detachable dual scale 25 kN digital pressure gauge
- Stroke up to 50 mm
- Complete package of accessories

CODES AND CHARACTERISTICS

CODE	description	test capabilities [kN]	Ø testable [mm]	digital pressure gauge	pcs
ESTRO25	25 kN extractometer	25	4-20	-	1
ESTRO25D*	25 kN digital extractometer	25	4-20	●	1

*Compatible with Bluetooth connected software app.

DISTY

LASER DISTANCE METER

- Measuring range 0.05 - 40 m
- Measuring accuracy 2 mm
- Rechargeable via USB-micro cable

CODES

CODE	description	pcs
DISTY	laser distance meter	1

SNAIL

MEASURING TAPE

CODES AND CHARACTERISTICS

CODE	size [m]	pcs
SNAIL5	5	1
SNAIL8	8	1

MANTA

TAPE WHEEL, STEEL

CODES AND CHARACTERISTICS

CODE	size [m]	pcs
MNT25	25	1

RBMET

FOLDING RULER

CODES

CODE	size [m]	pcs
RBMET	2	1

SNAIL PULSE

CARBIDE DRILL BIT IN HM WITH SDS DRILL CHUCK SHANK

CODES AND CHARACTERISTICS

CODE	Ø tip [mm]	TL [mm]	pcs
DUHPV505	5	50	1
DUHPV510	5	100	1
DUHPV605	6	50	1
DUHPV610	6	100	1
DUHPV615	6	150	1
DUHPV810	8	100	1
DUHPV815	8	150	1
DUHPV820	8	200	1
DUHPV840	8	400	1
DUHPV1010	10	100	1
DUHPV1015	10	150	1
DUHPV1020	10	200	1
DUHPV1040	10	400	1
DUHPV1210	12	100	1
DUHPV1215	12	150	1
DUHPV1220	12	200	1
DUHPV1240	12	400	1
DUHPV1410	14	100	1
DUHPV1420	14	200	1
DUHPV1440	14	400	1
DUHPV1625	16	250	1
DUHPV1640	16	400	1
DUHPV1820	18	200	1
DUHPV1840	18	400	1
DUHPV2020	20	200	1
DUHPV2040	20	400	1
DUHPV2240	22	400	1
DUHPV2440	24	400	1
DUHPV2540	25	400	1
DUHPV2840	28	400	1
DUHPV3040	30	400	1

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- FALL PROTECTION
- TOOLS AND MACHINES

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Rotho Blaas Srl

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