

PATROL

HORIZONTAL LIFELINE

MODULAR, SIMPLE, SAFE SYSTEM.

With our PATROL LIFELINE system, horizontal, overhead or façade life-lines, both through and overhead, are child’s play. Thanks to dedicated supports, the system can be quickly installed on timber, metal or concrete substrates. Furthermore, a wide range of specific accessories ensures all your design needs can be easily met.



SLIDING DEVICE

	SLIDE1	SLIDE1 A4	SLIDE2	SLIDE2 A4	OHSLIDE	OHSLIDE A4
material	A2 AISI 304	A4 AISI 316	A2 AISI 304	A4 AISI 316	A2 AISI 304	A4 AISI 316
certification	EN 795:2012 C UNI 11578:2015 C	EN 795:2012 C UNI 11578:2015 C	EN 795:2012 C UNI 11578:2015 C	EN 795:2012 C UNI 11578:2015 C	EN 795:2012 C UNI 11578:2015 C	EN 795:2012 C UNI 11578:2015 C
removable	✓	✓			✓	✓
overhead					✓	✓
on wall	✓	✓	✓	✓		
through	✓	✓	✓	✓	✓	✓

BENEFITS OF ASSEMBLY TOOLS

The design is simple and the components are easy to assemble. All parts can be installed using common, low-cost tools. There are no crimped fastenings, so no expensive crimping machines or crimp control tools are required.

✓

SOCKET
 BUSHINGS AND BITS

▶ page 234

BEAR
 TORQUE WRENCH

▶ page 235

CANARY
 SINGLE-HANDED
 SHEARS FOR WIRE
 ROPES

▶ page 236

✗

**CRIMPING
MACHINES**

CRIMP TOOL TEST

■ KEY POINTS

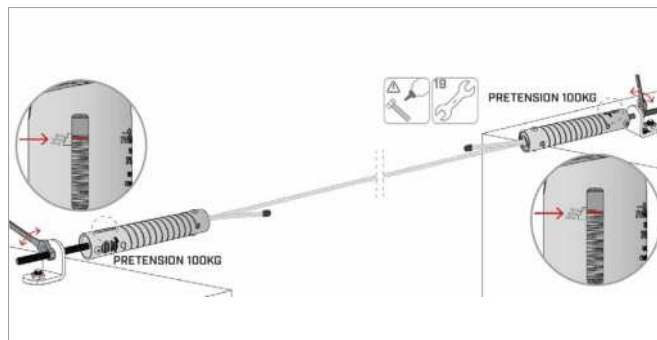
EASE OF ASSEMBLY

All PATROL components can be easily installed in just a few steps thanks to the convenient manual, available in 24 languages, and the assembly video available on our website.



CABLE TENSIONING

The double end element, which functions as both an absorber and a tensioner, facilitates cable assembly and well-distributed tensioning, even on long lines with multiple curves.



ENERGY ABSORPTION

Thanks to the SPEAREVO absorber-tensioner, it is possible to obtain maximum spans of up to 15 metres between supports, reducing stress on the end elements and, consequently, on the fastenings to the substructure.



EXPANSION CONTROL

The SPEAR and SPEAREVO end elements, featuring springs on both ends, ensure the system is able to compensate for cable expansion caused by fluctuating temperatures between summer and winter, protecting the supports from potential damage.



SYSTEM INSPECTION

All components of the PATROL system are visible. In just a few steps, the system can easily be serviced every 12 months after the initial installation.

Cable inspection and re-tensioning operations are just as simple to perform.



I PATROL + TOWER

LIFELINE ON SUPPORT FOR TIMBER,
CONCRETE AND STEEL ROOFS

ADAPTABLE

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

MINIMALIST DESIGN

Small-sized cylindrical support to minimise the visual impact on the roof.

EFFECTIVE

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

EN 795:2012 C	CEN/TS 18415:2013	UNI 11578:2015 C	AS/NZS 1891.2:2001	AS/NZS 1891.4:2009
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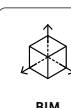
MAXIMUM NUMBER
OF USERS



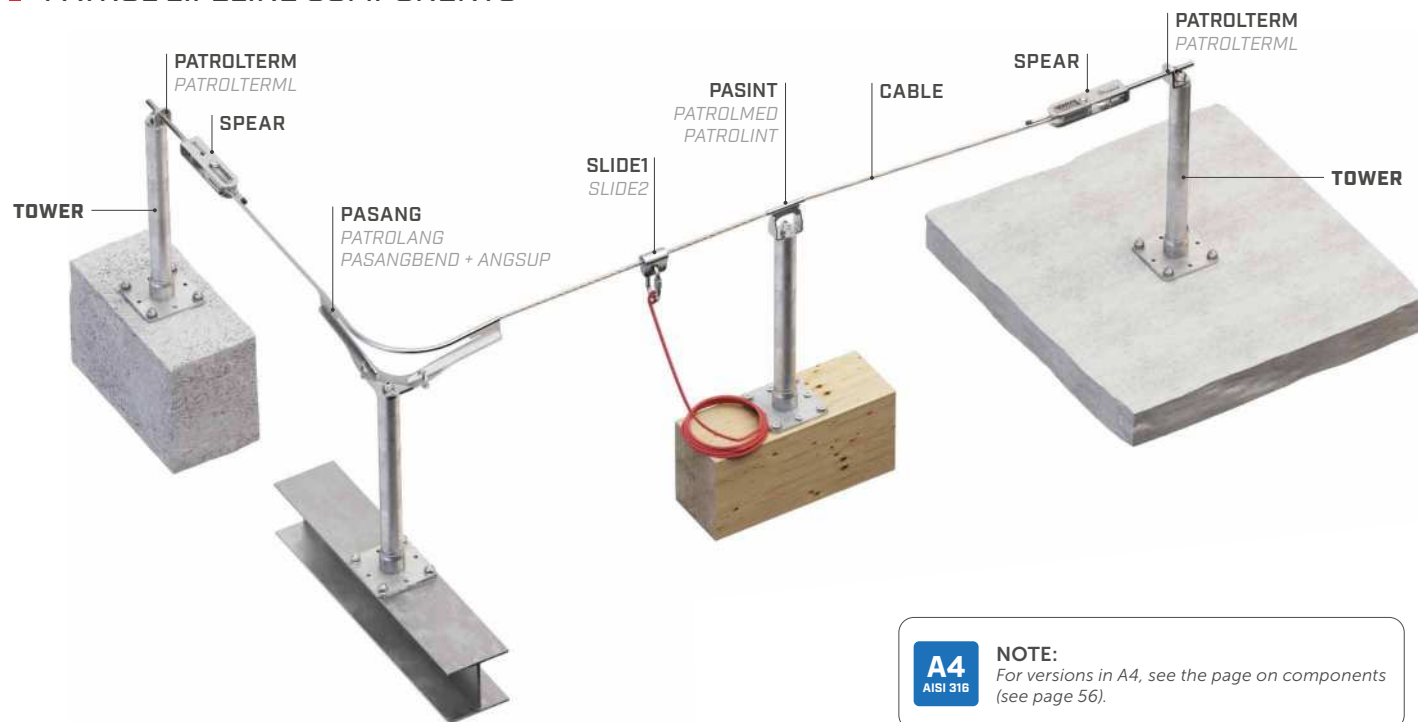
LOAD DIRECTION



TYPES OF
APPLICATION



PATROL LIFELINE COMPONENTS



A4
AISI 316

NOTE:

For versions in A4, see the page on components (see page 56).

TECHNICAL DATA*

substructure	minimum thickness	fasteners
GL24h	160 mm	VGS (EVO) Ø9 ULS Ø10
CLT	200 mm	VGS (EVO) Ø9 ULS Ø10
S235JR	6 mm	DIN 933 M12 DIN 125-1A M12 MUT AI 985 M12

substructure	minimum thickness	fasteners
C20/25	140 mm	AB1 M12 SKR Ø12 INA 5.8 M12 VIN-FIX HYB-FIX



users	no.
minimum span	x_{min} [m]
maximum span	x_{max} [m]
maximum deflection	y_{max} [m]

SPEAR			
EN 795:2012 C	CEN/TS 18415:2013	UNI 11578:2015 C	AS/NZS 1891.2:2001
2			2
15			15
3,60			3,60

* 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 correct calculation report with minimum distances according to the standard requirements, the substructure must be checked by a qualified engineer before installation.

TOWER | CODES AND DIMENSIONS

CODE	material	d ₁	B	H	L	pcs	
		[mm] [in]	[mm] [in]	[mm] [in]	[mm] [in]		
TOWER300	S235JR zinc plated steel	48 1.89	150 6	300 11 3/4	150 6	1	
TOWER400		48 1.89	150 6	400 15 3/4	150 6	1	
TOWER500		48 1.89	150 6	500 19 3/4	150 6	1	
TOWER600		48 1.89	150 6	600 23 5/8	150 6	1	
TOWER700		48 1.89	150 6	700 27 1/2	150 6	1	
TOWER800		48 1.89	150 6	800 31 1/2	150 6	1	
TOWER22500		48 1.89	150 6	500 19 3/4	150 6	1	

For related TOWERPEAK, TOWERSLOPE, TOWLATEVO and TOPLATE products, see page 250.

PATROL + TOWER A2

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

DURABLE

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

MINIMALIST DESIGN

Product that meets high aesthetic and functional requirements.

EFFECTIVE

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

EN 795:2012 C	CEN/TS 18415:2013	UNI 11578:2015 C	AS/NZS 1891.2:2001	AS/NZS 1891.4:2009
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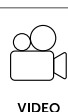
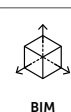
MAXIMUM NUMBER
OF USERS



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TYPES OF
APPLICATION

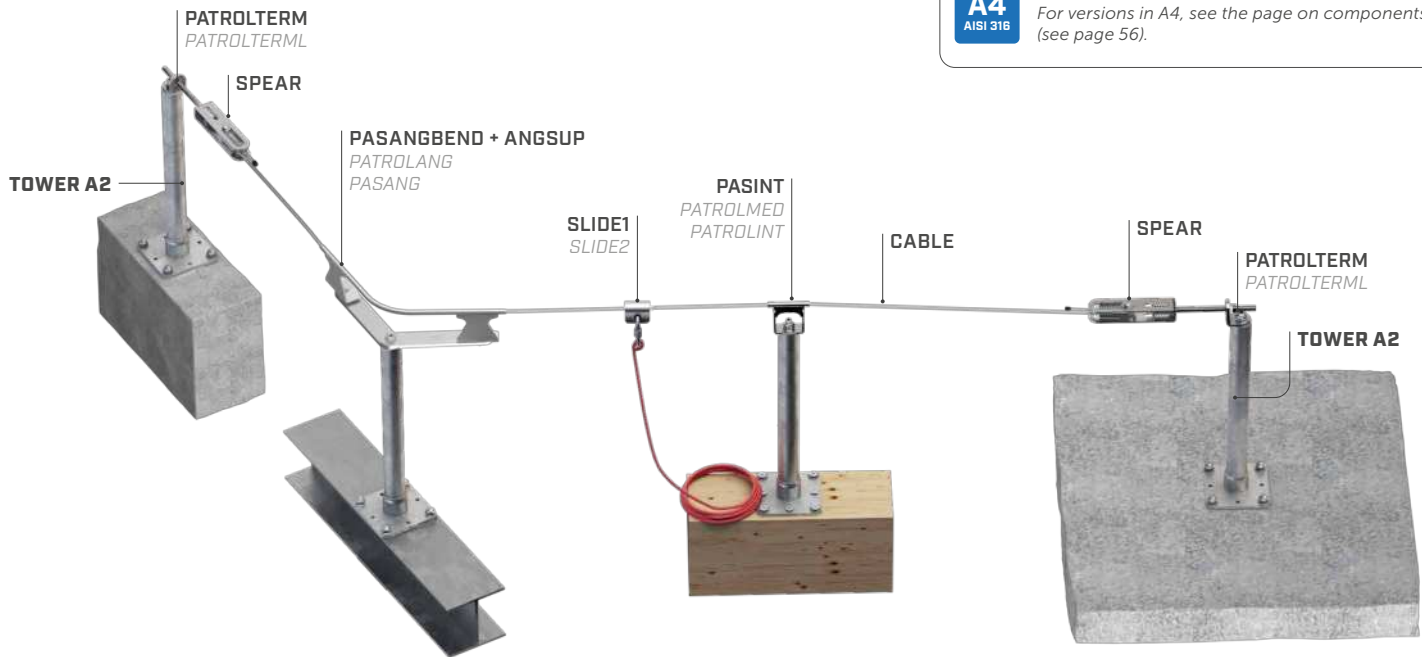


PATROL LIFELINE COMPONENTS

A4
AISI 316

NOTE:

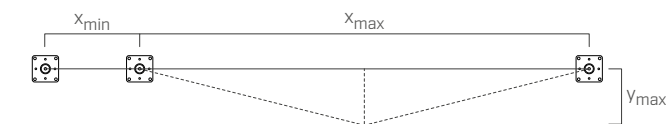
For versions in A4, see the page on components (see page 56).



TECHNICAL DATA*

substructure	minimum thickness	fasteners
GL24h	160 mm	VGS (EVO) Ø9 ULS Ø10
CLT	200 mm	VGS (EVO) Ø9 ULS Ø10
S235JR	6 mm	DIN 933 M12 DIN 125-1A M12 MUT AI 985 M12

substructure	minimum thickness	fasteners
C20/25	140 mm	AB1 M12 SKR Ø12 INA 5.8 M12 VIN-FIX HYB-FIX



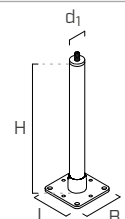
users	no.
minimum span	X_{min} [m]
maximum span	X_{max} [m]
maximum deflection	Y_{max} [m]

SPEAR			
EN 795:2012 C	CEN/TS 16415:2013	UNI 11578:2015 C	AS/NZS 1691.2:2001
2			2
15			15
3,60			3,60

* 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 correct calculation report with minimum distances according to the standard requirements, the substructure must be checked by a qualified engineer before installation.

TOWER A2 | CODES AND DIMENSIONS

CODE	material		d_1 [mm] [in]	B [mm] [in]	H [mm] [in]	L [mm] [in]	pcs
TOWERA2300			48 1.89	150 6	300 11 3/4	150 6	1
TOWERA2400	AISI 304 stainless steel grade 1.4301	A2 AISI 304	48 1.89	150 6	400 15 3/4	150 6	1
TOWERA2500			48 1.89	150 6	500 19 3/4	150 6	1



For related TOWERPEAK, TOWERSLOPE, TOWLATEVO and TOPLATE products, see page 250.

I PATROL + TOWER XL

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

VERSATILE

Compatible with different types of structures thanks to tested fastenings.

ADAPTABLE

Adjustable support height between 300 and 800 mm to adapt to different roofing thicknesses.

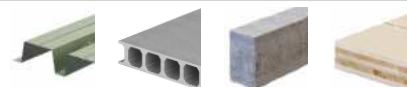
SAFE

The increased bottom plate distributes the actions arising from the anchoring devices over a larger area.

EN
795:2012
C

CEN/TS
18419:2013

UNI
11578:2015
C



MAXIMUM NUMBER
OF USERS



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TYPES OF
APPLICATION



MY
PROJECT
SAFETY



BIM



VIDEO



MANUALS





For versions in A4, see the page on components (see page 56).



EN
795:2012
C

CEN/TS
16415:2013

UNI
11578:2015
C



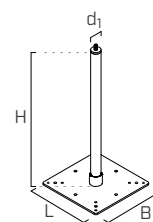
* The values indicated are the result of experimental tests carried out under the supervision of third parties in accordance with the standard referred to. For a correct calculation report with minimum distances according to the standard requirements, the substructure must be checked by a qualified engineer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

CODE

material

S235
H06

S235JR zinc
plated steel



For related BEFTOWERXL, TRAPPO, MANEPDM, MANLEAD, MAN50, MANPOST1, MANPOST2, TOPLATE 2.0 products, see page 250.

I PATROL + SOLID

LIFELINE ON RIGID SUPPORT FOR ROPE ACCESS WORK

DESIGNED FOR ROPE ACCESS WORK

The high-rigidity and high-strength support, combined with the multiple anchor plate, enables rope access work to be carried out comfortably and safely.

LIGHT

The aluminium alloy of the support facilitates handling and installation thanks to the lightweight components.

ADAPTABLE

Support height between 400 and 1000 mm to adapt to different roofing thicknesses.

EN
795:2012
A+C

CEN/TS
16415:2013

AS/NZS
1891.2:2001



MAXIMUM NUMBER
OF USERS



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TYPES OF
APPLICATION



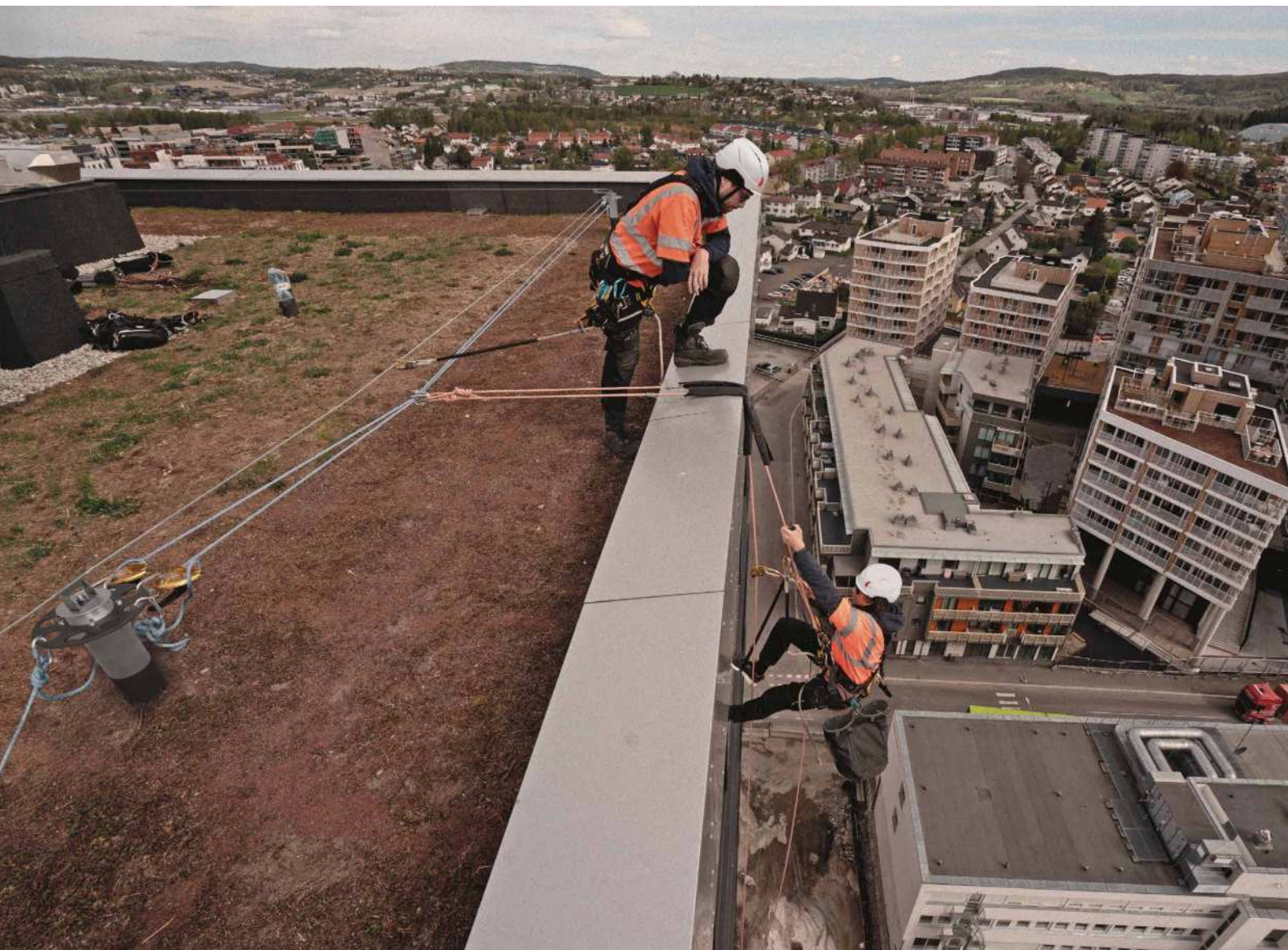
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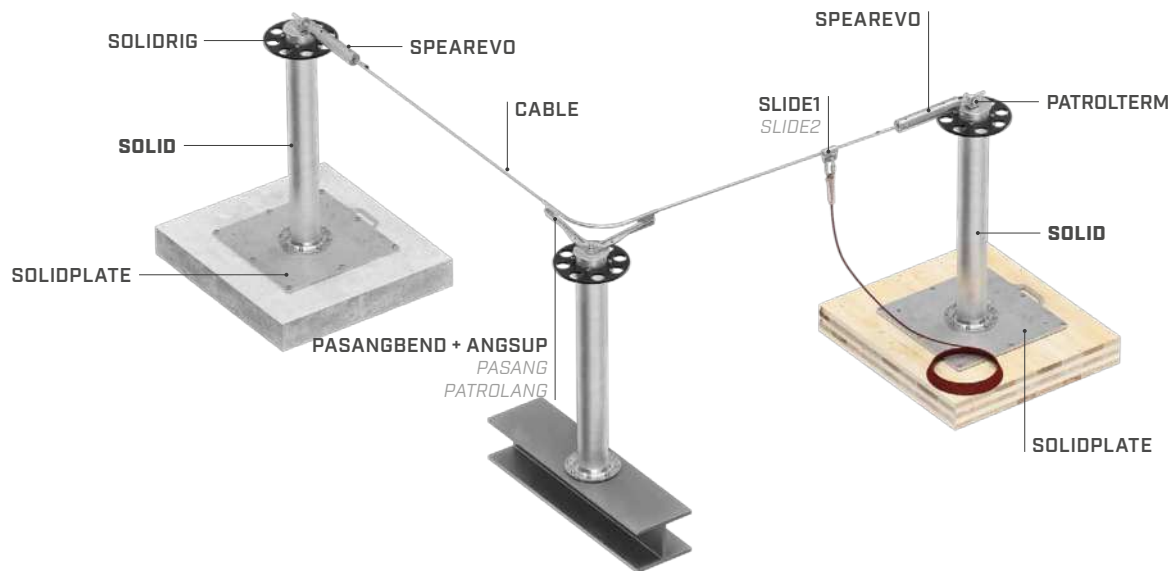
VIDEO



MANUALS



PATROL LIFELINE COMPONENTS



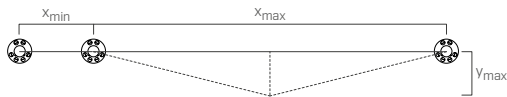
TECHNICAL DATA**

substructure	minimum thickness	fasteners
CLT	160 mm	VGS (EVO) Ø13 HUS12
S235	15 mm	bolt or rod M12 10.9

substructure	minimum thickness	fasteners
C20/25 ⁽¹⁾⁽²⁾ (uncracked)	140 mm	AB1 Ø12

⁽¹⁾ Applicable to EN 795 A and CEN/TS 16415

⁽²⁾ Applicable up to SOLID800.



users (system)	no.	
work method		fall protection / restraint (PATROL) suspension (SOLID/SOLIDRIG)
minimum span	x_{min} [m]	2
maximum span	x_{max} [m]	10
maximum deflection	y_{max} [m]	3,35

**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 correct calculation report with minimum distances according to the standard requirements, the substructure must be checked by a qualified engineer before installation.

SOLID | CODES AND DIMENSIONS

CODE	description	material	d_1 [mm]	B [mm]	L [mm]	H [mm]	pcs	
SOLID400	rigid support for rope access work	EN AW-6082-T6 	120	220	-	400	1	
SOLID600			120	220	-	600	1	
SOLID800			120	220	-	800	1	
SOLID1000			120	220	-	1000	1	
SOLIDPLATE	bottom plate for timber and concrete		-	550	595	-	1	
SOLIDRIG	multiple anchor plate for rope access work and safety disc	EN AW-6082-T6 black anodised 	310	-	-	-	1	
SOLIDPLATEFIX	fastening set comprising 8 nuts and 8 M12 8.8 bolts, for fastening SOLID to SOLIDPLATE	A2-70 stainless steel 	-	-	-	-	1	

I PATROL + T-CLAMP

LIFELINE ON SUPPORT FOR CONTINUOUS ROOFS

VERSATILE

A versatile system with special clamps allowing installation on various types of metal roofs.

ADAPTABLE

The universal plates, available in various sizes, guarantee a solution for the different spans between the seams.

MODULAR

The optional post allows the anchor point to be raised, thus overcoming obstacles on the roof.

EN 795:2012 C	CEN/TS 18415:2013	UNI 11578:2015 C	AS/NZS 1891.4:2009	AS/NZS 1891.2:2001
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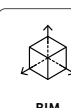
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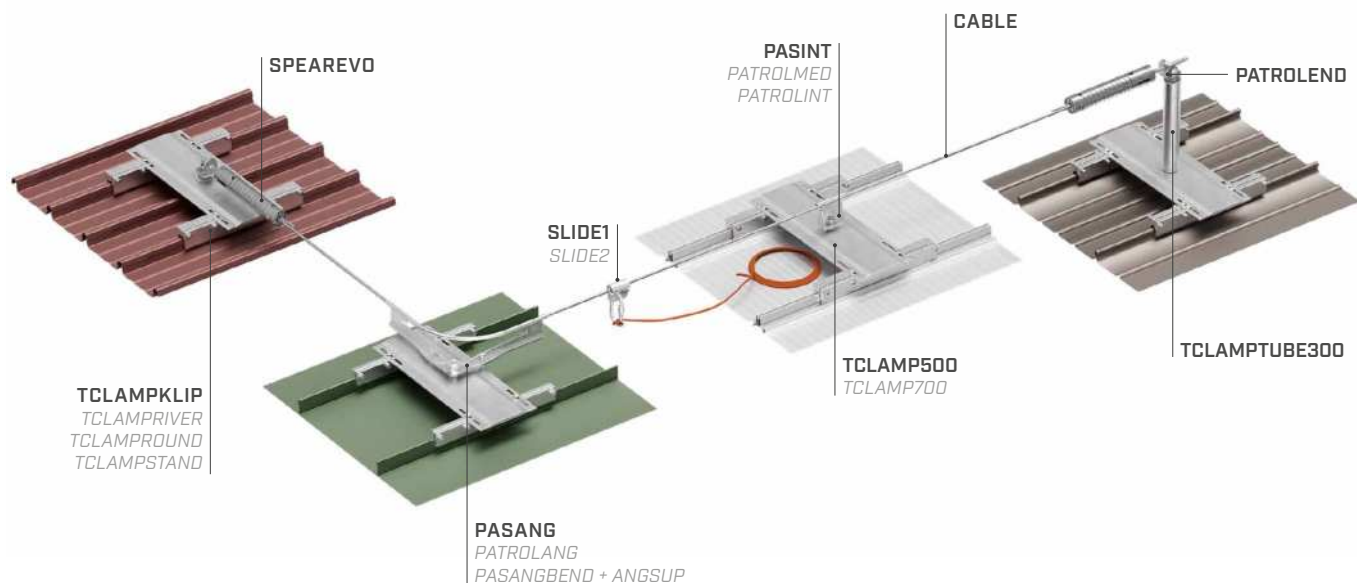
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TYPES OF
APPLICATION



PATROL LIFELINE COMPONENTS



T-CLAMP | CODES AND DIMENSIONS

CODE	description	material	B [mm] [in]	H [mm] [in]	L [mm] [in]	pcs	
TCLAMP500	universal plate for small and medium spans between seams	EN AW-6082-T6	190 7 1/2	- -	515 20 1/4	1	
			alu 6082				
TCLAMP700	universal plate for large spans between seams	EN AW-6082-T6	190 7 1/2	- -	760 29 15/16	1	
			alu 6060				
TCLAMPTUBE300	optional spacer to overcome obstacles	EN AW-6060-T6/ AISI 304	50 1 15/16	300 11 3/4	- -	1	
			A2 AISI 304				
TCLAMPKLIP	fastening clamps set for Klip-Lok type roofs	EN AW-6060-T6	- -	- -	- -	1	
			alu 6060				
TCLAMPPRIVER	fastening clamps set for Riverclack type roofs	EN AW-6060-T6	- -	- -	- -	1	
			alu 6060				
TCLAMPROUND	fastening clamps set for round standing seam roofs	EN AW-6060-T6	- -	- -	- -	1	-
			alu 6060				
TCLAMPSTAND	fastening clampsset for standing seam roofs	EN AW-6060-T6	- -	- -	- -	1	
			alu 6060				

I PATROL + SHIELD | SHIELD 2

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

COMPLETE

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

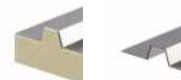
VERSATILE

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

FUNCTIONAL

SHIELD can be used as a start, end or corner lifeline; SHIELD 2 is ideal as a straight intermediate point.

EN 795:2012 C	CEN/TS 18415:2013	UNI 11578:2015 C	AS/NZS 1891.2:2001	AS/NZS 1891.4:2009
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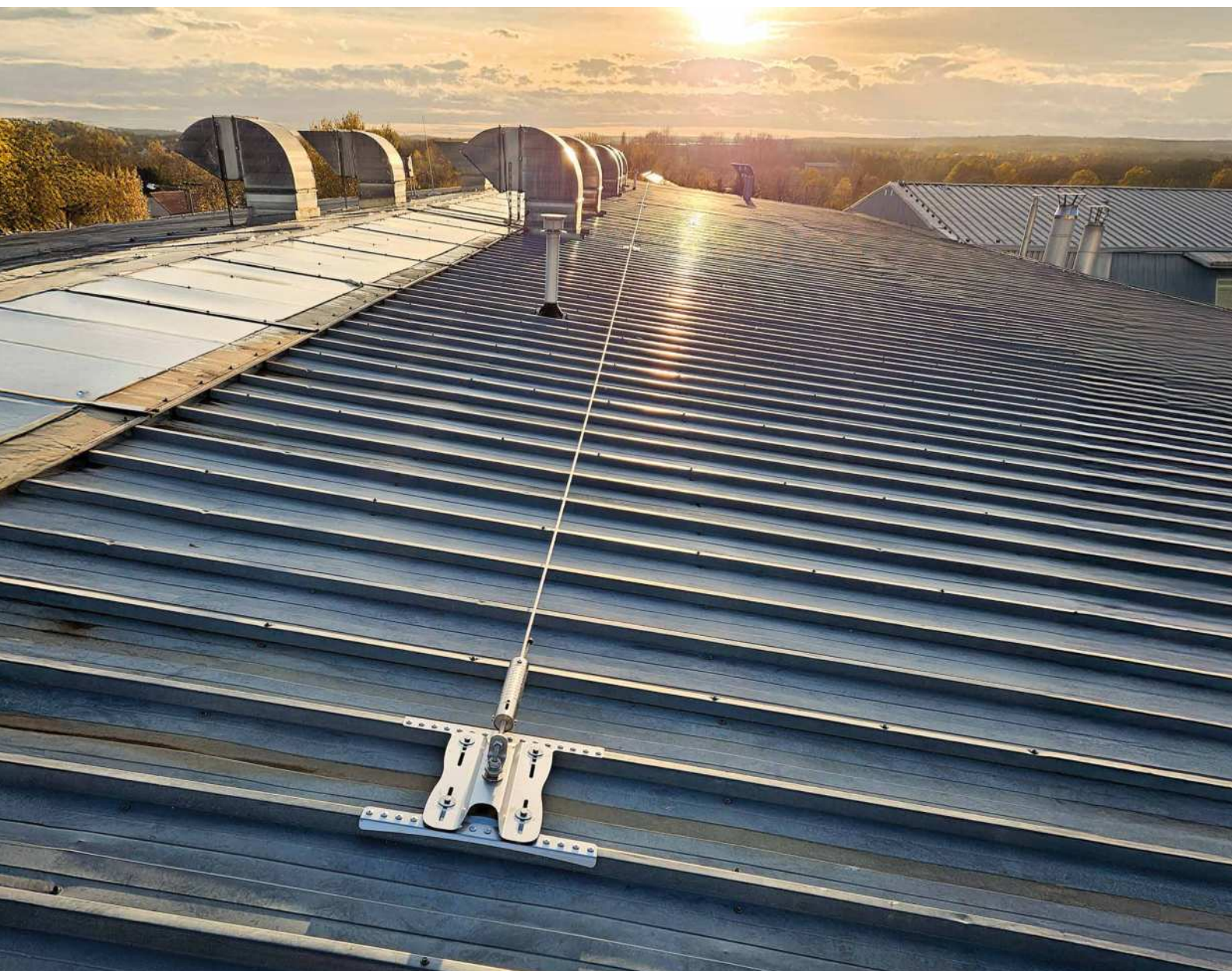
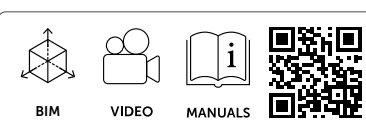
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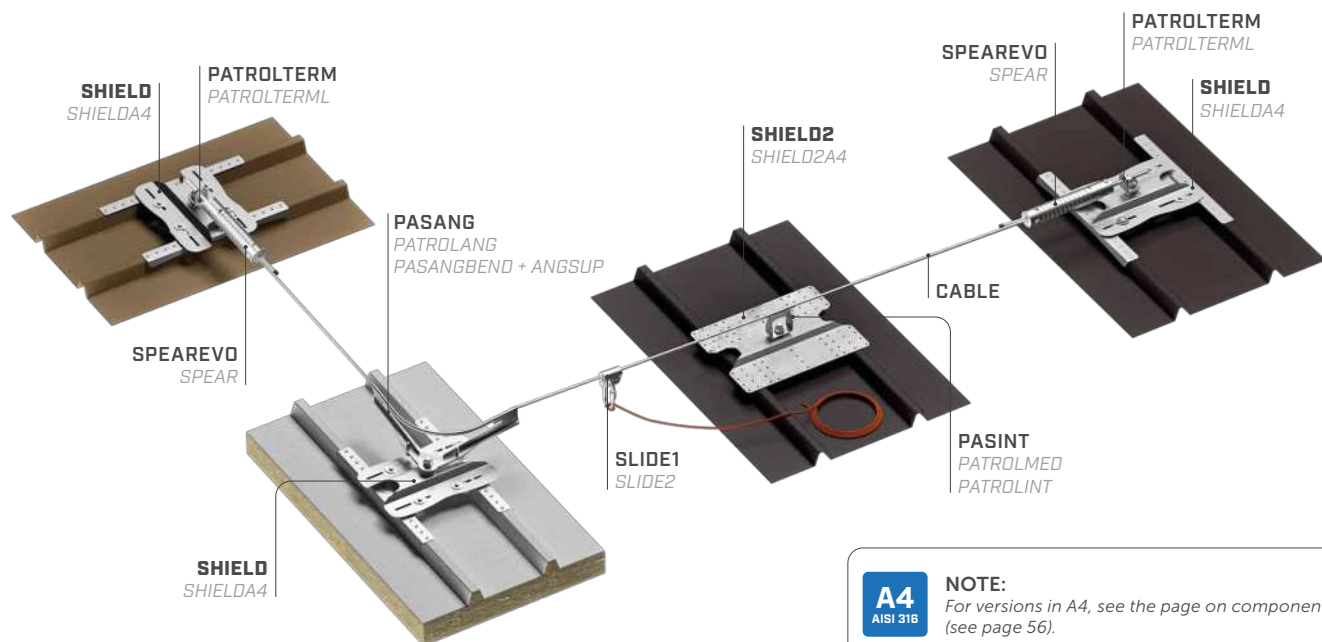
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TYPES OF
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PATROL LIFELINE COMPONENTS



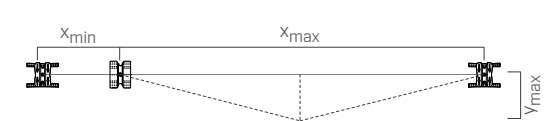
A4
AISI 316

NOTE:

For versions in A4, see the page on components (see page 56).

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		

			SPEAR					SPEAREVO						
			EN 795:2012 C	CEN/TS 16415:2013	UNI 11578:2015 C	AS/NZS 1891.2:2001	AS/NZS 1891.4:2009	EN 795:2012 C	CEN/TS 16415:2013	UNI 11578:2015 C	AS/NZS 1891.2:2001	AS/NZS 1891.4:2009		
users	no.													
minimum span	x_{min}	[m]	2				2		2				2	
maximum span	x_{max}	[m]	7,5				7,5		15				15	
maximum deflection	y_{max}	[m]	1,44				1,44		3,40				3,40	

* 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 correct calculation report with minimum distances according to the standard requirements, the substructure must be checked by a qualified engineer before installation.

SHIELD - SHIELD 2 | CODES AND DIMENSIONS

CODE	description	material		B [mm] [in]	H [mm] [in]	L [mm] [in]	pcs	
SHIELD	lifeline support	AISI 304 stainless steel grade 1.4301	A2 AISI 304	180-420 7 1/8-16 9/16	85 3 3/8	476 18 3/4	1	
SHIELDA4	lifeline support	AISI 316 stainless steel grade 1.4401	A4 AISI 316					

CODE	description	material		B [mm] [in]	H [mm] [in]	L [mm] [in]	pcs	
SHIELD2	intermediate lifeline support	AISI 304 stainless steel grade 1.4301	A2 AISI 304	250 - 370 10-14 9/16	65 2 9/16	322 12 11/16	1	
SHIELD2A4	intermediate lifeline support	AISI 316 stainless steel grade 1.4401	A4 AISI 316					

PATROL + WAVE

LIFELINE ON SUPPORT FOR CORRUGATED SHEET METAL ROOFS

SIMPLE

Simple and quick installation, thanks to the shape obtained with a single plate.

COMPLETE

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

FUNCTIONAL

WAVE can be used as either an end, intermediate or angular support for lifeline systems.

EN
795:2012
C

CEN/TS
18418:2013

UNI
11578:2015
C



MAXIMUM NUMBER
OF USERS



LOAD DIRECTION



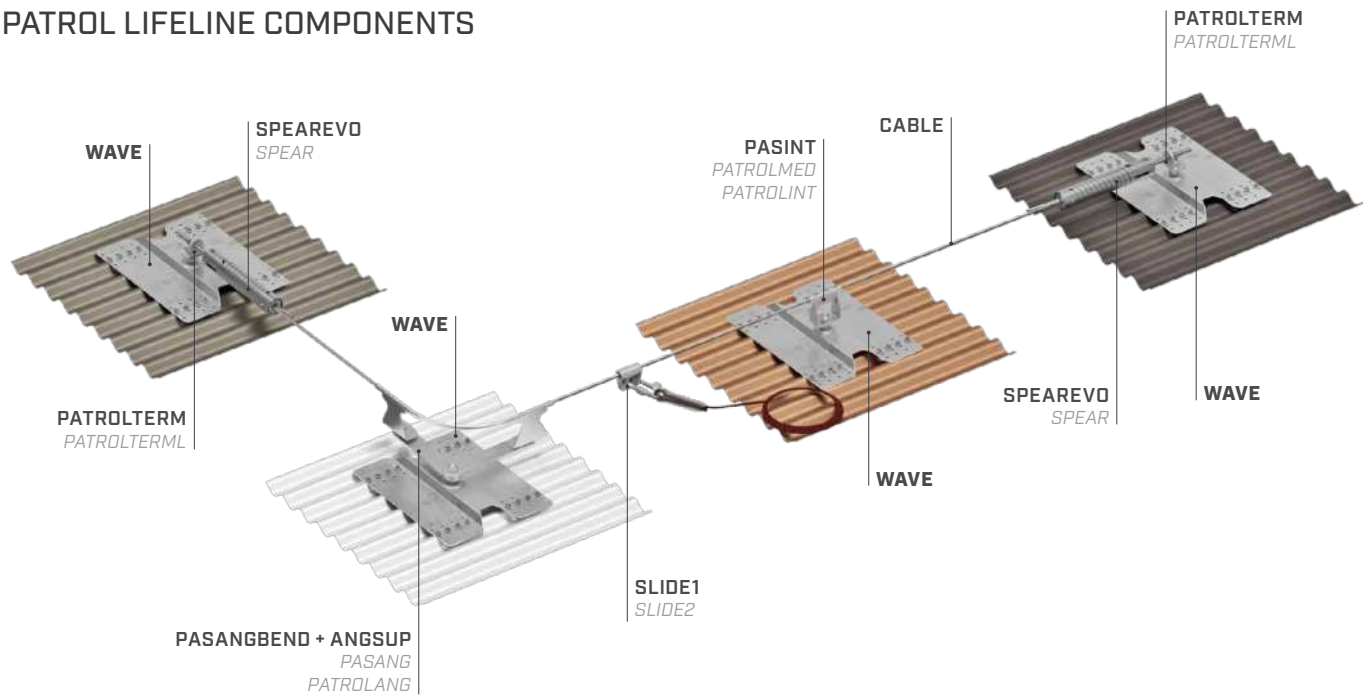
TYPES OF
APPLICATION



MY
PROJECT
SAFETY



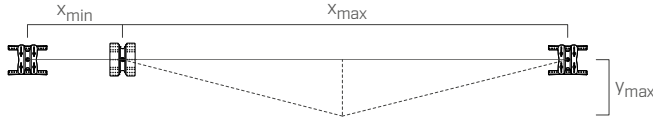
PATROL LIFELINE COMPONENTS



TECHNICAL DATA*

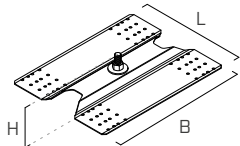
substructure	minimum thickness	fastening systems included
 Fe	0,63 mm	self-drilling screws 5,5 x 25 mm A2 with EPDM washer (x16) 4 EPDM gaskets

Wave pitch: 76 mm.

			SPEAREVO
			EN 795:2012 C CEN/TS 16415:2013 UNI 11578:2015 C
users		no.	
minimum span	x_{min}	[m]	2
maximum span	x_{max}	[m]	15
maximum deflection	y_{max}	[m]	3,40

* 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 correct calculation report with minimum distances according to the standard requirements, the substructure must be checked by a qualified engineer before installation.

WAVE | CODES AND DIMENSIONS

CODE	description	material		B [mm] [in]	H [mm] [in]	L [mm] [in]	pcs	
WAVE	support for corrugated sheet metal	AISI 304 stainless steel grade 1.4301		420 16 9/16	65 2 9/16	322 12 11/16	1	

I PATROL + COPPO

LIFELINE ON SUPPORT FOR ROOFS WITH FAUX TILES

COMPLETE

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

ADAPTABLE

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

FAST

Quick assembly upon the completion of roofing with just a few tools.

EN
795:2012
C

CEN/TS
18415:2013

UNI
11578:2015
C



MAXIMUM NUMBER
OF USERS



LOAD DIRECTION



TYPES OF
APPLICATION



MY
PROJECT
SAFETY



BIM



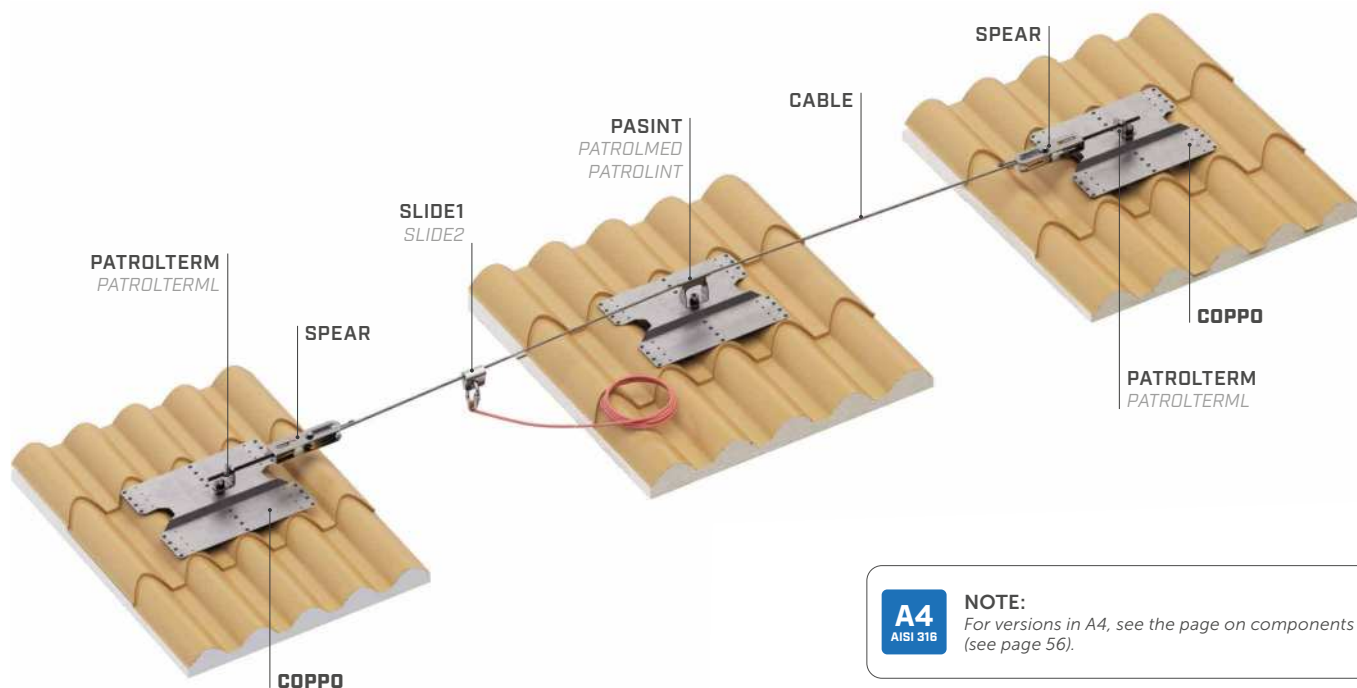
VIDEO



MANUALS



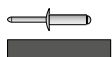
PATROL LIFELINE COMPONENTS

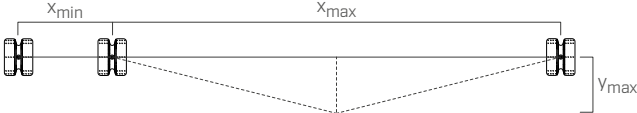


A4
AISI 316

NOTE:
For versions in A4, see the page on components (see page 56).

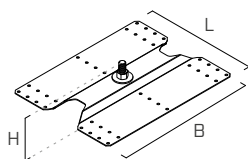
TECHNICAL DATA*

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	

			SPEAR		
			EN 795:2012 C	CEN/TS 18415:2013	UNI 11578:2015 C
users		no.			
minimum span	x_{min}	[m]	2		
maximum span	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 correct calculation report with minimum distances according to the standard requirements, the substructure must be checked by a qualified engineer before installation.

COPPO | CODES AND DIMENSIONS

CODE	description	material		B [mm] [in]	H [mm] [in]	L [mm] [in]	pcs	
COPPO	support for faux tile roofing panel	AISI 304 stainless steel grade 1.4301	A2 AISI 304	166 - 200 6 9/16 - 8	65 2 9/16	322 12 11/16	1	

PATROL + T-ROOF

LIFELINE ON SUPPORT FOR PVC/TPO AND BITUMINOUS ROOFS

WATERPROOF

The TROOFWPLATE plate ensures complete waterproofing for flat and even slightly inclined roofs. The package includes fasteners and cellular rubber gaskets, to ensure roof waterproofing.

ADAPTABLE

The various fastening kits enable specific installation for each substructure and for different insulation thicknesses.

UNIVERSAL

Universal system for application on the roof surface with installation on various supporting substructures.

EN
795:2012
C

CEN/TS
18418:2013

UNI
11578:2015
C



MAXIMUM NUMBER
OF USERS



LOAD DIRECTION



TYPES OF
APPLICATION



MY
PROJECT
SAFETY



BIM



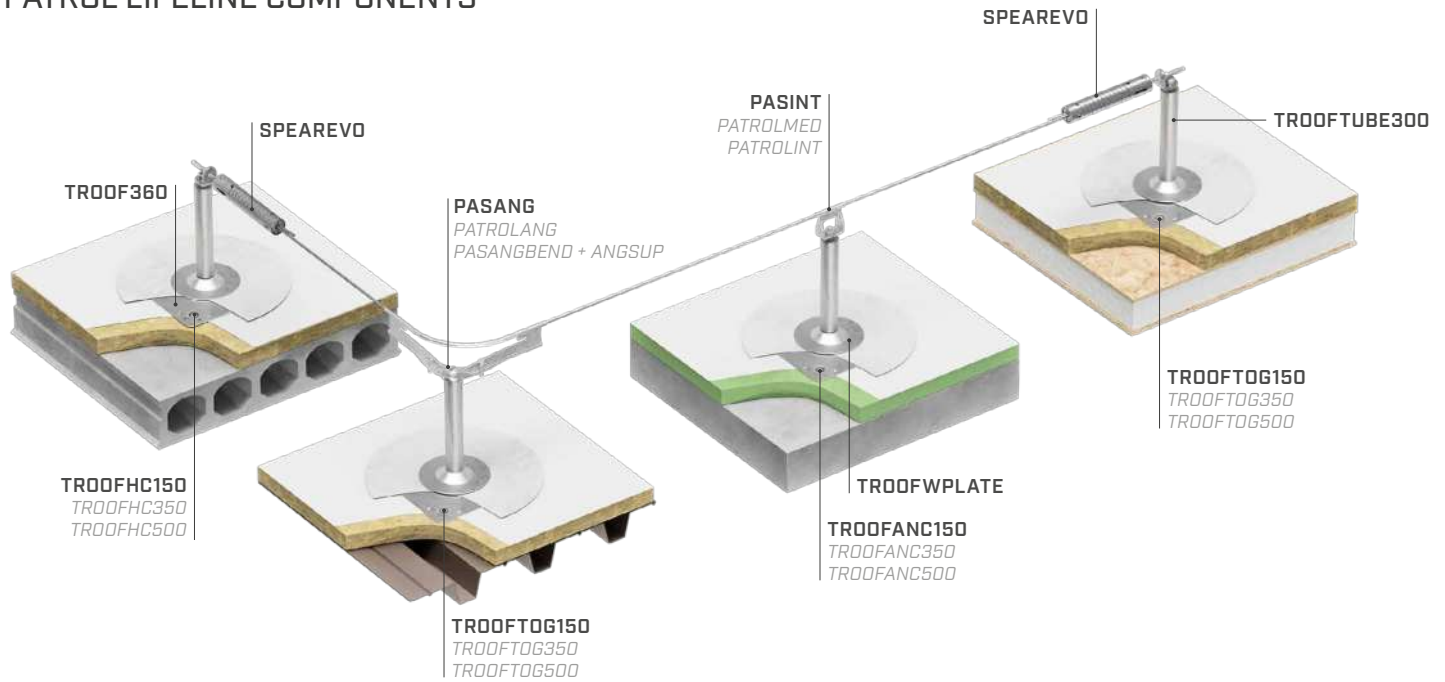
VIDEO



MANUALS



PATROL LIFELINE COMPONENTS



T-ROOF | CODES AND DIMENSIONS

CODE	description	material		B [mm]	H [mm]	L [mm]	s [mm]	pcs
TROOF360	universal plate for installation on the roof surface	AISI 304 stainless steel grade 1.4301	A2 AISI 304	360	-	360	3	1
TROOFWPLATE	waterproofing plate			Ø100	-	-	-	1
TROOFTUBE300	spacer to overcome obstacles	EN AW-6060-T6 AISI 304 stainless steel grade 1.4301	A2 AISI 304 alu 6060	50	300	-	-	1
TROOFTOG150				-	150	-	-	1
TROOFTOG350	toggle bolt kit with cup washer	bright zinc plated carbon steel	S235 H06	-	350	-	-	1
TROOFTOG500				-	500	-	-	1
TROOFHC150				-	150	-	-	1
TROOFHC350	fastening kit for substructure in aerated concrete	bright zinc plated carbon steel		-	350	-	-	1
TROOFHC500				-	500	-	-	1
TROOFANC150				-	150	-	-	1
TROOFANC350	fastening kit for concrete substructure	bright zinc plated carbon steel		-	350	-	-	1
TROOFANC500				-	500	-	-	1

PATROL + BLOCK

LIFELINE ON SUPPORT WITH BALLAST FOR FLAT ROOFS

WITHOUT DRILLING

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

FLAT ROOFS

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

SIMPLE

Concrete ballast slabs in standard sizes simplify the installation.

EN
795:2012
C

CEN/TS
18419:2013

UNI
11578:2015
C

PVC

TPO

BYTUM

MAXIMUM NUMBER
OF USERS



LOAD DIRECTION



TYPES OF
APPLICATION



MY
PROJECT
SAFETY



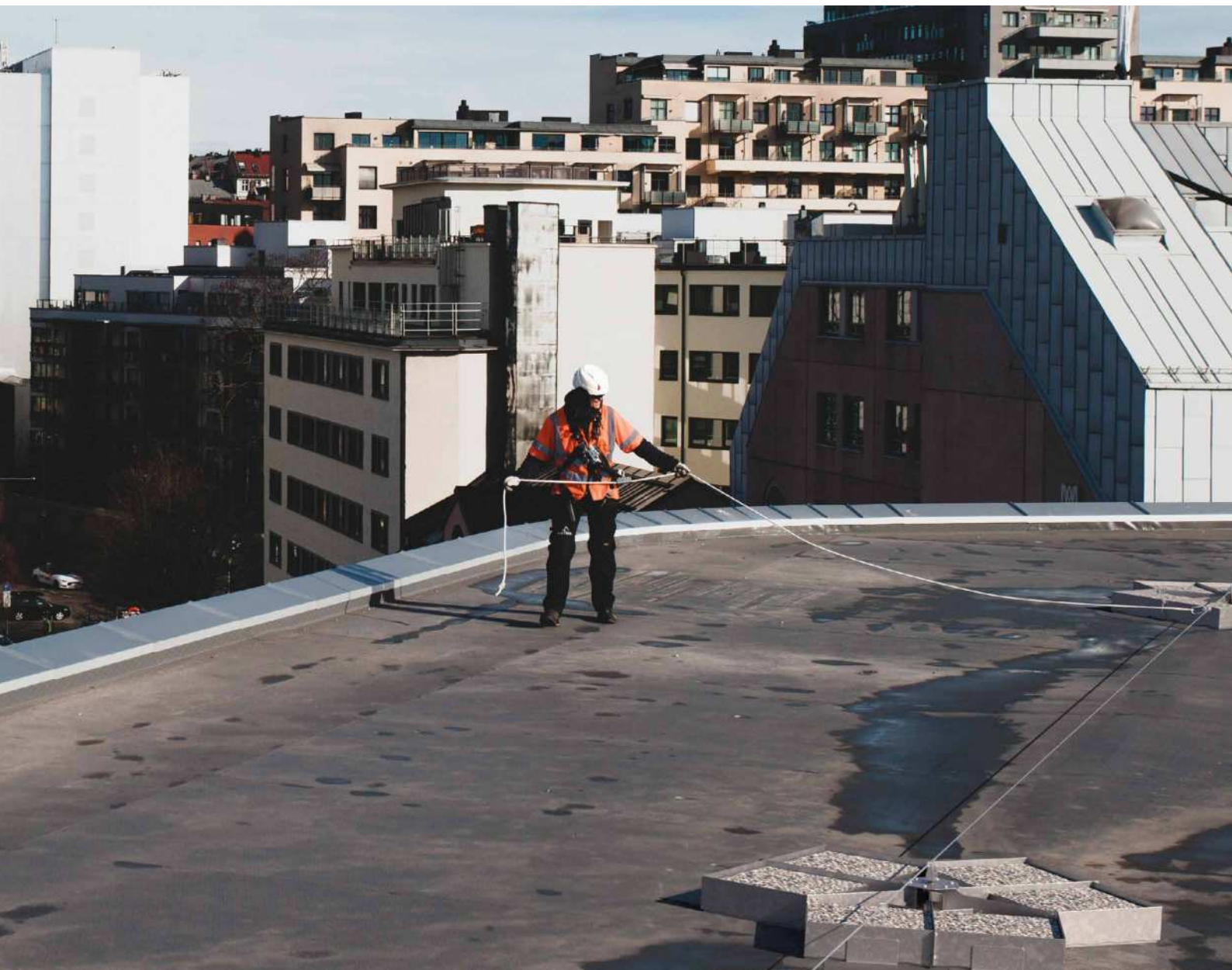
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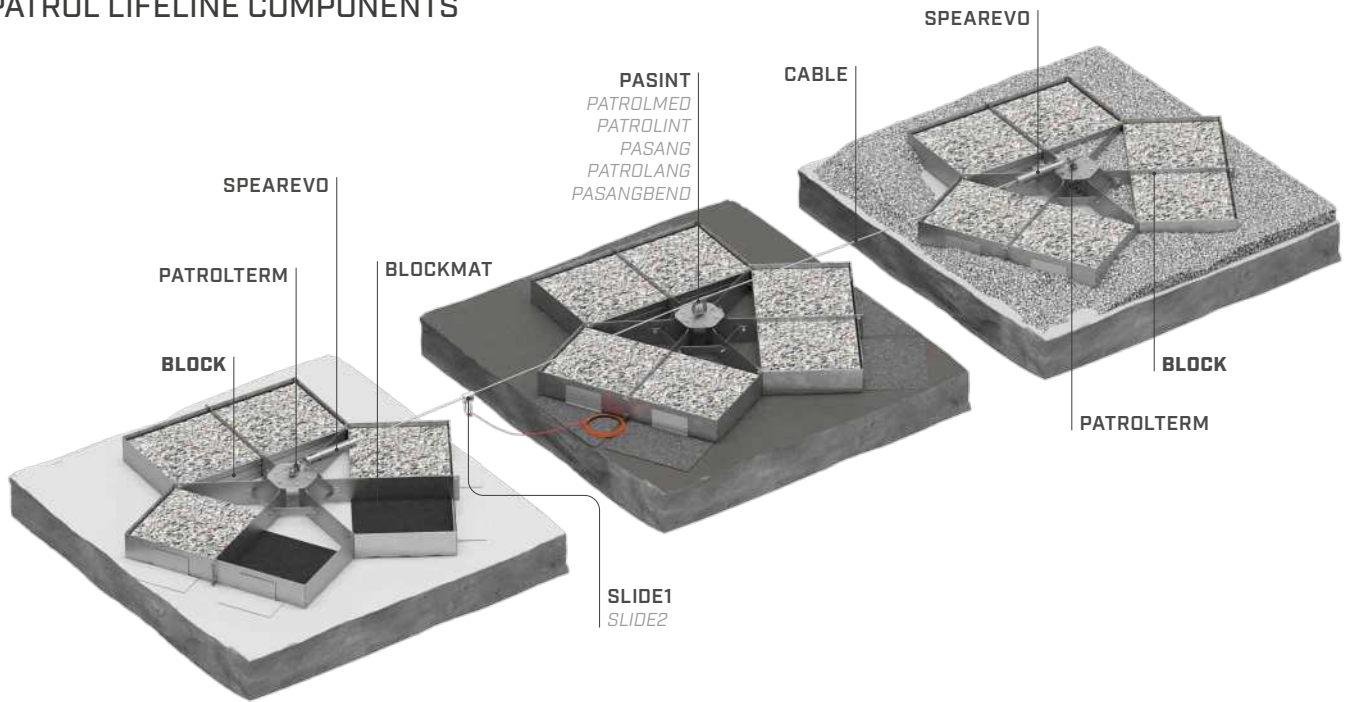
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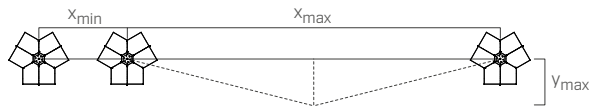
MANUALS



PATROL LIFELINE COMPONENTS



TECHNICAL DATA*



			SPEAREVO		
			EN 795:2012 C	CEN/TS 18415:2013	UNI 11578:2015 C
users		no.			
minimum span	x_{min}	[m]	2		
maximum span	x_{max}	[m]	10		
maximum deflection	y_{max}	[m]	2		

* 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 correct calculation report with minimum distances according to the standard requirements, the substructure must be checked by a qualified engineer before installation.

BLOCK | CODES AND DIMENSIONS

CODE	material		B [mm] [in]	H [mm] [in]	L [mm] [in]	pcs	
BLOCK	AISI 304 stainless steel grade 1.4301		1870 73 5/8	165 6 1/2	1645 64 3/4	1	
BLOCKPLATE	AISI 304 stainless steel grade 1.4301		120 4 3/4	120 4 3/4	240 9 7/16	1	
BLOCKMAT							optional
ballast weight							18 bricks x 21,5 kg = 387 kg
total weight							400 kg

COMPLEMENTARY PRODUCTS

CODE	description	B [mm] [in]	L [mm] [in]	s [mm] [in]	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 21 5/8	1050 41 5/16	6 0.24	1	

PATROL + PATROLEND

DIRECT FASTENING ON STEEL AND CONCRETE SUBSTRUCTURES

EASY

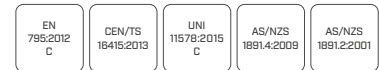
Quick and easy assembly directly onto concrete or steel structure.

UNIVERSAL

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

FUNCTIONAL

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



CSA Z259.16 READY
Validated through testing



MAXIMUM NUMBER
OF USERS



LOAD DIRECTION



TYPES OF
APPLICATION



BIM



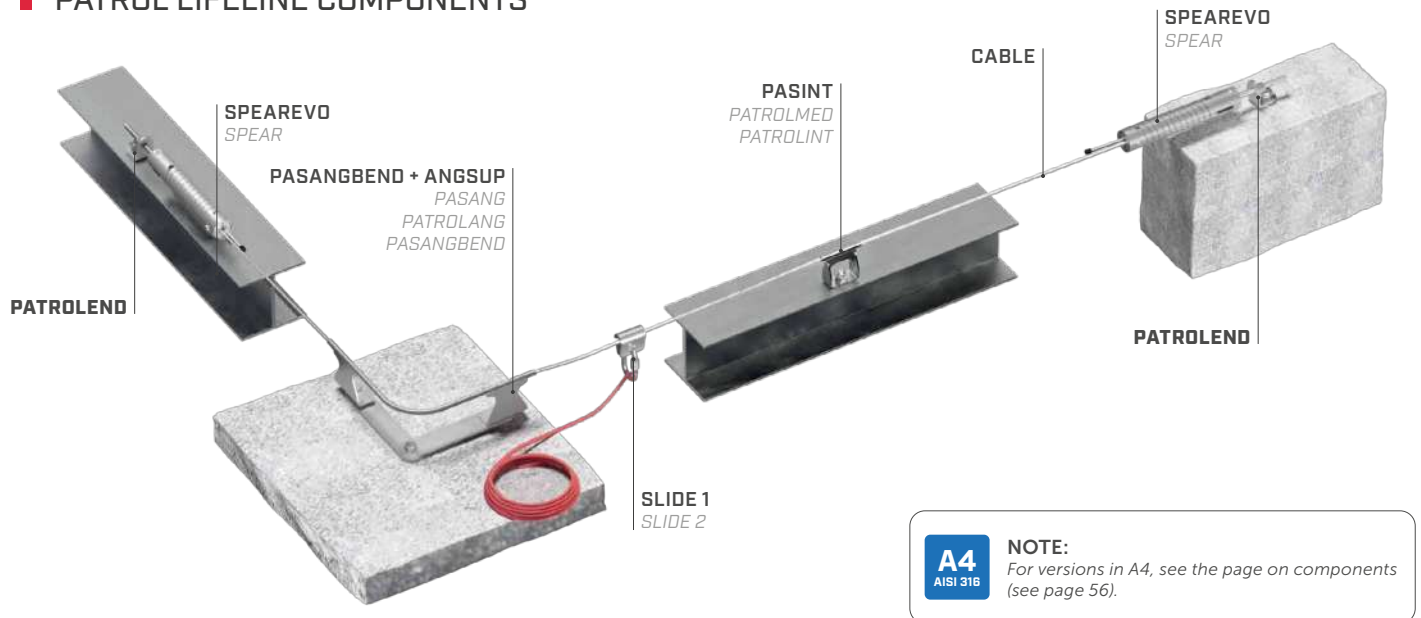
VIDEO



MANUALS



PATROL LIFELINE COMPONENTS

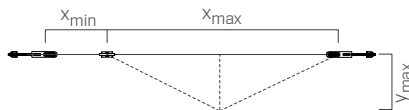


TECHNICAL DATA*

PATROLEND

substructure	minimum thickness	fasteners
C20/25	116 mm	INA 5.8 M16 VIN-FIX
	170 mm	SKR Ø16
	170 mm	AB1 M16

substructure	minimum thickness	fasteners
S235JR	5 mm	DIN 933 M16 DIN 125-1A M16 MUT AI 985 M16



			SPEAR					SPEAREVO				
			EN 795:2012 C	CEN/TS 16415:2013	UNI 11578:2015 C	AS/NZS 1891.2:2001	AS/NZS 1891.4:2009	EN 795:2012 C	CEN/TS 16415:2013	UNI 11578:2015 C	AS/NZS 1891.2:2001	AS/NZS 1891.4:2009
users	no.				 (SPAN)							
minimum span	$x_{\min}$	[m]	2		2		2			2		
maximum span	$x_{\max}$	[m]	7,5		7,5		15			15		
maximum deflection	$y_{\max}$	[m]	1,44		1,44		3,40			3,40		

* 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 correct calculation report with minimum distances according to the standard requirements, the substructure must be checked by a qualified engineer before installation.

PATROLEND | CODES AND DIMENSIONS

CODE	description	material		B [mm] [in]	H [mm] [in]	L [mm] [in]	s [mm] [in]	pcs	
PATROLEND	end element	AISI 304 stainless steel grade 1.4301	A2 AISI 304	40 1 9/16	61 2 3/8	66 2 5/8	6 0.24	1	
PATROLEND A4	A4 end element	AISI 316 stainless steel grade 1.4401	A4 AISI 316	40 1 9/16	61 2 3/8	66 2 5/8	6 0.24	1	

PATROL OVERHEAD

OVERHEAD LIFELINE ON STEEL AND CONCRETE

FUNCTIONAL

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

SAFE

The sliding device 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.

EN 795:2012 C	CEN/TS 18415:2013	UNI 11578:2015 C	AS/NZS 1891.4:2009	AS/NZS 1891.2:2001	CSA Z259.16
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CSA Z259.16 READY
Validated through testing



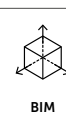
MAXIMUM NUMBER
OF USERS



LOAD DIRECTION



TYPES OF
APPLICATION

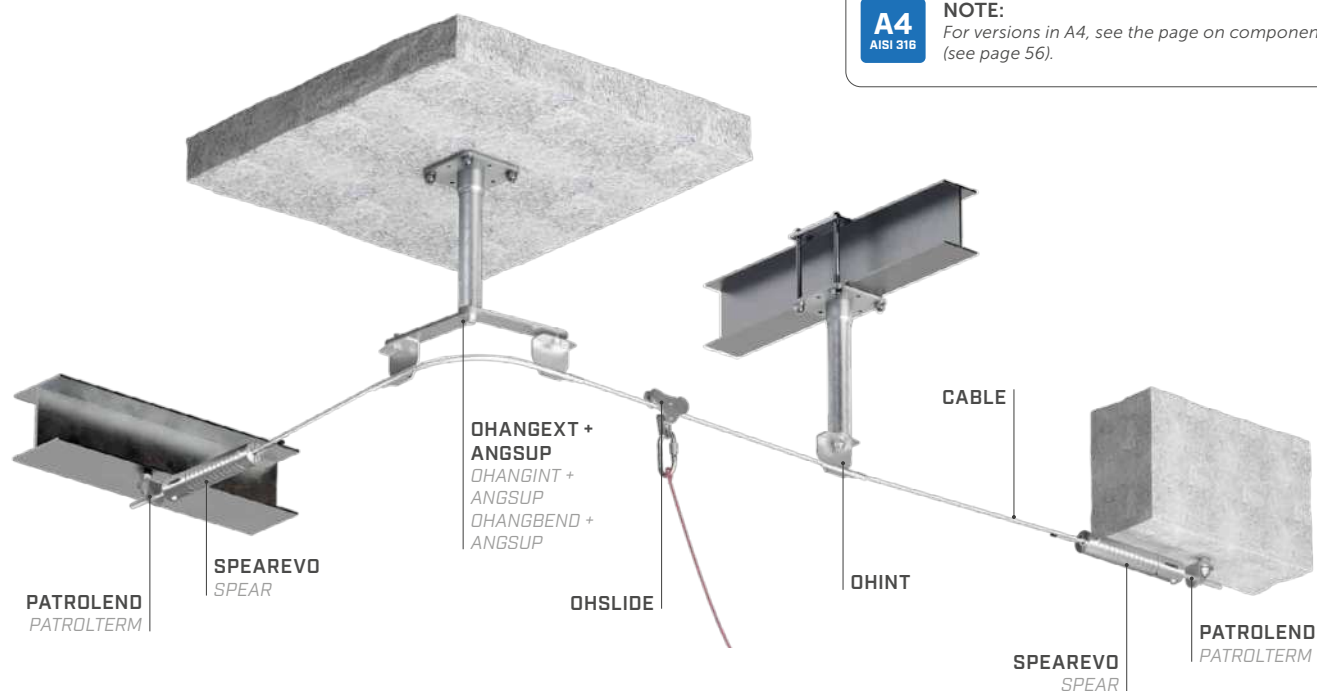


PATROL LIFELINE COMPONENTS

A4
AISI 316

NOTE:

For versions in A4, see the page on components (see page 56).



TECHNICAL DATA*

PATROLEND | PATROLTERM

substructure	minimum thickness	fasteners
C20/25	116 mm	INA 5.8 M16 VIN-FIX
	170 mm	SKR Ø16
	170 mm	AB1 M16

substructure	minimum thickness	fasteners
S235JR	5 mm	DIN 933 M16 DIN 125-1A M16 MUT AI 985 M16

* 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 correct calculation report with minimum distances according to the standard requirements, the substructure must be checked by a qualified engineer before installation.

PATROL + PATROLEND

		SPEAR					SPEAREVO				
		EN 795:2012 C	CEN/TS 16415:2013	UNI 11578:2015 C	AS/NZS 1891.2:2001	AS/NZS 1891.4:2009	EN 795:2012 C	CEN/TS 16415:2013	UNI 11578:2015 C	AS/NZS 1891.2:2001	AS/NZS 1891.4:2009
users	no.										
minimum span	x_{min} [m]	2		2			2		2		
maximum span	x_{max} [m]	7,5		7,5			15		15		
maximum deflection	y_{max} [m]	1,40		1,40			3,40		3,40		

For PATROLEND components, see page 56.

PATROL + TOWER / TOWERA2 / TOWERXL

		SPEAR					SPEAREVO				
		EN 795:2012 C	CEN/TS 16415:2013	UNI 11578:2015 C	AS/NZS 1891.2:2001	AS/NZS 1891.4:2009	EN 795:2012 C	CEN/TS 16415:2013	UNI 11578:2015 C	AS/NZS 1891.2:2001	AS/NZS 1891.4:2009
users	no.										
minimum span	x_{min} [m]	2		2			2		2		
maximum span	x_{max} [m]	7,5		7,5			15		15		
maximum deflection	y_{max} [m]	1,80		1,80			4,00		4,00		

For TOWER / TOWERA2 / TOWERXL components, see page 30-34.

I PATROL ON WALL

WALL-MOUNTED LIFELINE ON STEEL AND CONCRETE

MINIMALIST DESIGN

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

FUNCTIONAL

Thanks to the different components availability, it is possible to create customised lifelines according to site requirements.

PRACTICAL

It can be used components that allow the operator to overcome intermediate points and curves by means of a sliding device.

EN 795:2012 C	CEN/TS 18415:2013	UNI 11578:2015 C	AS/NZS 1891.4:2009	AS/NZS 1891.2:2001	CSA Z259.16
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CSA Z259.16 READY
Validated through testing



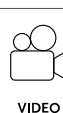
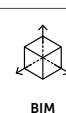
MAXIMUM NUMBER
OF USERS



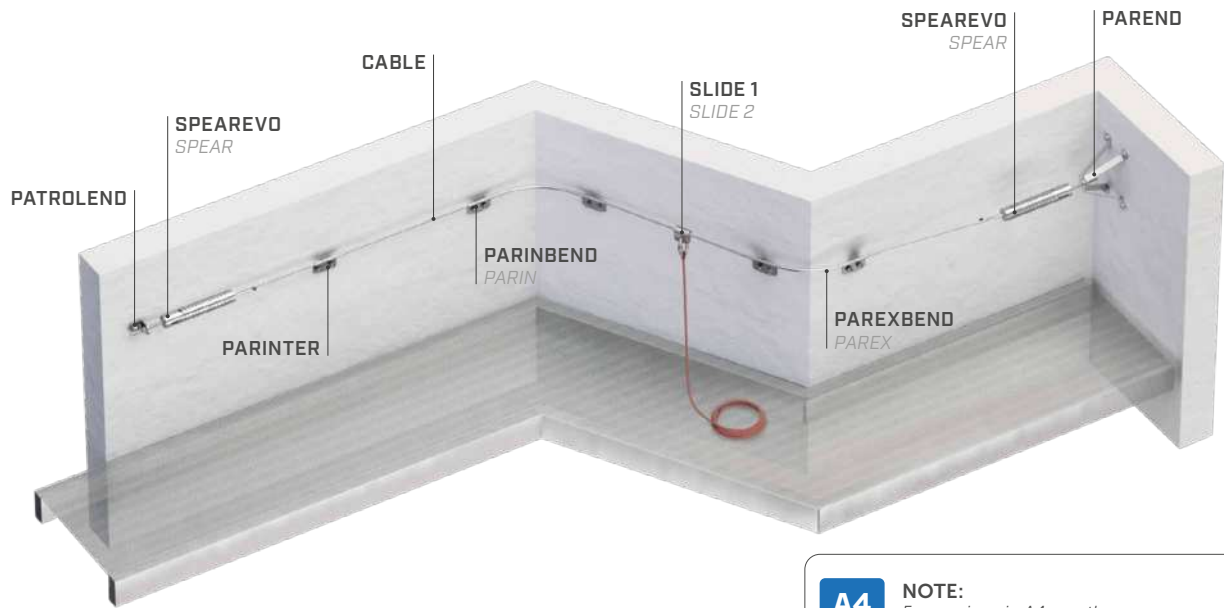
LOAD DIRECTION



TYPES OF
APPLICATION



PATROL LIFELINE COMPONENTS



A4
AISI 316

NOTE:

For versions in A4, see the page on components (see page 56).

TECHNICAL DATA*

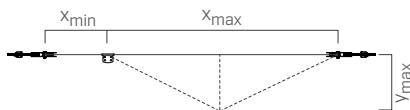
PATROLEND | PATROLEND A4

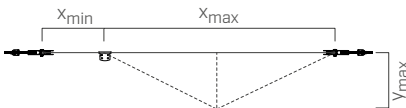
substructure	minimum thickness	fasteners
C20/25	116 mm	INA 5.8 M16 VIN-FIX
	170 mm	SKR Ø16
	170 mm	AB1 M16
S235JR	5 mm	DIN 933 M16 DIN 125-1A M16 MUT AI 985 M16

PAREND | PAREND A4

substructure	minimum thickness	fasteners
C20/25	98 mm	INA 5.8 M12 VIN-FIX
	130 mm	SKR Ø12
	140 mm	AB1 M12
S235JR	5 mm	DIN 933 M12 DIN 125-1A M12 MUT AI 985 M12

* 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 correct calculation report with minimum distances according to the standard requirements, the substructure must be checked by a qualified engineer before installation.



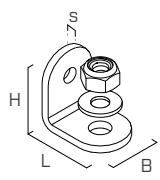
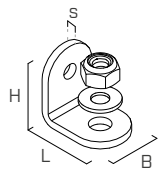
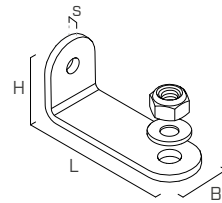
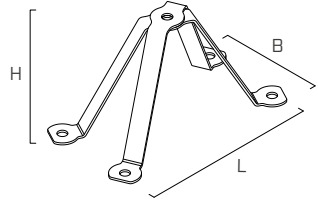
			SPEAR					SPEAREVO				
			EN 795:2012 C	CEN/TS 16415:2013	UNI 11578:2015 C	AS/NZS 1891.2:2001	AS/NZS 1891.4:2009	EN 795:2012 C	CEN/TS 16415:2013	UNI 11578:2015 C	AS/NZS 1891.2:2001	AS/NZS 1891.4:2009
users	no.					 (SPAN)					 (SPAN)	
minimum span	x_{min}	[m]	2			2		2			2	
maximum span	x_{max}	[m]	7,5			7,5		15			15	
maximum deflection	y_{max}	[m]	1,40			1,40		3,40			3,40	

END ELEMENTS | CODES AND DIMENSIONS

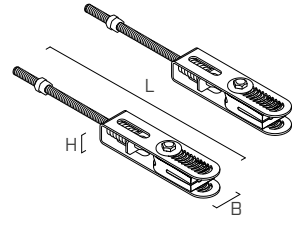
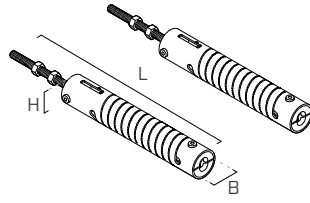
CODE	description	material		B [mm] [in]	H [mm] [in]	L [mm] [in]	s [mm] [in]	pcs	
PATROLEND	end element	AISI 304 stainless steel grade 1.4301	A2 AISI 304	40 1 9/16	61 2 3/8	66 2 5/8	6 0.24	1	
PATROLEND A4	A4 end element	AISI 316 stainless steel grade 1.4401	A4 AISI 316	40 1 9/16	61 2 3/8	66 2 5/8	6 0.24	1	
PAREND	end element	AISI 304 stainless steel grade 1.4301	A2 AISI 304	300 11 3/4	150 6	300 11 3/4	-	1	
PAREND A4	A4 end element	AISI 316 stainless steel grade 1.4401	A4 AISI 316	300 11 3/4	150 6	300 11 3/4	-	1	

T _{min}		T _{max}	
[°C]	[°F]	[°C]	[°F]
-40	-40	100	212

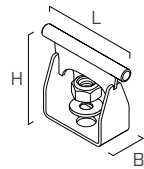
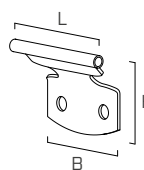
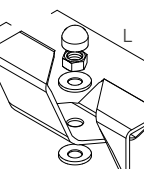
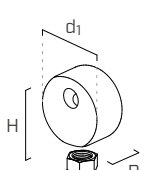
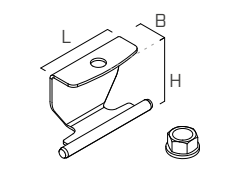
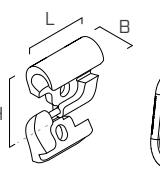
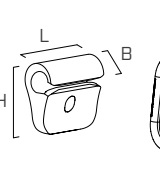
END ELEMENTS | CODES AND DIMENSIONS

CODE	description		B [mm] [in]	H [mm] [in]	L [mm] [in]	s [mm] [in]	pcs	MBS [kN] [lbf]	weight [kg] [lb]	
PATROLTERM	end element	A2 AISI 304	40 1 9/16	61 2 3/8	66 2 5/8	6 0.24	1	41,1 9240	0,24 0.52	
PATROLTERMA4	A4 end element	A4 AISI 316								
PATROLEND	end element	A2 AISI 304	40 1 9/16	61 2 3/8	66 2 5/8	6 0.24	1	41,4 9307	0,24 0.52	
PATROLEND A4	A4 end element	A4 AISI 316								
PATROLTERML	long end element	A2 AISI 304	40 1 9/16	61 2 3/8	180 7 1/8	6 0.24	1	31 6969	0,24 0.52	
PAREND	end element with 4 feet per side	A2 AISI 304	300 11 3/4	150 6	300 11 3/4	- -	1	50 11241	0,24 0.52	
PAREND A4	A4 end element with 4 feet per side	A4 AISI 316								

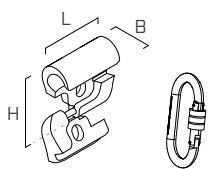
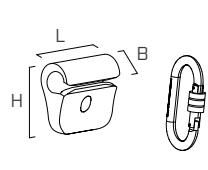
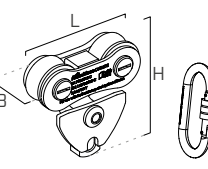
TENSIONERS AND ENERGY ABSORBERS | CODES AND DIMENSIONS

CODE	description		B [mm] [in]	H [mm] [in]	L [mm] [in]	s [mm] [in]	pcs	MBS [kN] [lbf]	weight [kg] [lb]	
SPEAR	set of pair of tensioners with absorber	A2 AISI 304 alu	50 1 15/16	63 2 1/2	334 13 3/16	- -	1	45 10116	2,16 4.76	
SPEAR A4	set of pair of tensioners with A4 absorber	A4 AISI 316 alu								
SPEAREVO	set of pair of tensioners with absorber	A2 AISI 304	50 1 15/16	50 1 15/16	436 17 1/8	- -	1	35 7868	3,67 8.09	
SPEAREVO A4	set of pair of tensioners with A4 absorber	A4 AISI 316								

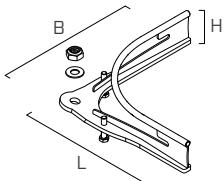
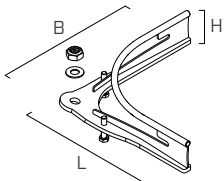
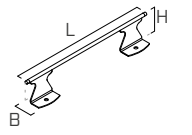
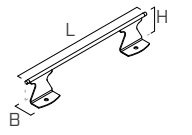
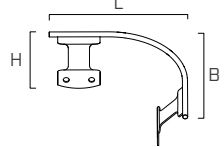
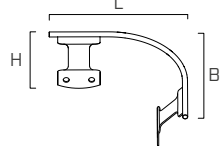
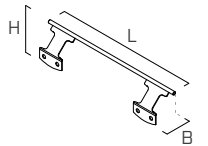
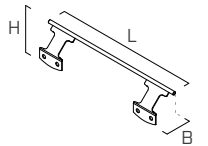
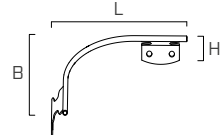
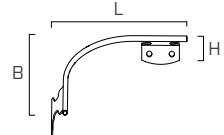
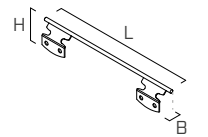
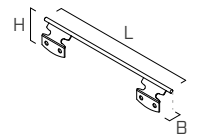
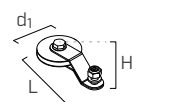
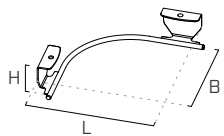
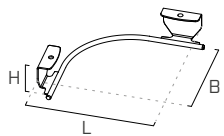
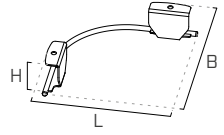
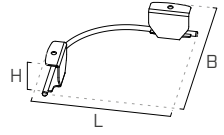
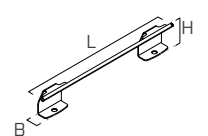
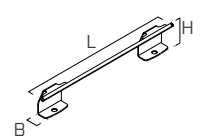
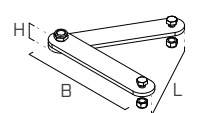
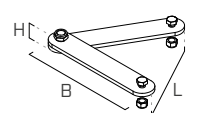
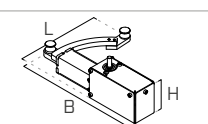
■ INTERMEDIATE ELEMENTS | CODES AND DIMENSIONS

CODE	description		d ₁ [mm] [in]	B [mm] [in]	H [mm] [in]	L [mm] [in]	s [mm] [in]	pcs	MBS [kN] [lbf]	weight [kg] [lb]	
PASINT	pass-through intermediate element	A2 AISI 304	-	35 1 3/8	86 3 3/8	100 4	-	1	29 6519	0,26 0.57	
PASINTA4	A4 pass-through intermediate element	A4 AISI 316	-	35 1 3/8	86 3 3/8	100 4	-	1	29 6519	0,26 0.57	
PARINTER	pass-through intermediate element for façades	A2 AISI 304	-	100 4	88 3 7/16	120 4 3/4	-	1	50 11241	0,32 0.71	
PARINTERA4	pass-through intermediate element for A4 façades	A4 AISI 316	-	100 4	88 3 7/16	120 4 3/4	-	1	50 11241	0,32 0.71	
PATROLINT	semi-automatic intermediate element	A2 AISI 304	-	50 1 15/16	50 1 15/16	375 14 3/4	5 0.20	1	37,5 8430	0,66 1.46	
PATROLMED	non-pass-through intermediate element	A2 AISI 304 alu	55 2.17	30 1 3/16	50 1 15/16	-	-	1	32 7194	0,16 0.35	
OHINT	pass-through intermediate element for aerial application	A2 AISI 304	-	40 1 9/16	86 3 3/8	130 5 1/8	-	1	36 8093	0,38 0.83	
OHINTA4	pass-through intermediate element for aerial application in A4	A4 AISI 316	-	40 1 9/16	86 3 3/8	130 5 1/8	-	1	36 8093	0,38 0.83	

■ SLIDING DEVICES | CODES AND DIMENSIONS

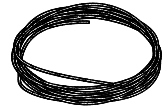
CODE	description		d ₁ [mm] [in]	B [mm] [in]	H [mm] [in]	L [mm] [in]	pcs	MBS [kN] [lbf]	weight [kg] [lb]	
SLIDE1	removable sliding device	A2 AISI 304	-	30 1 3/16	60 2 3/8	60 2 3/8	1	25 5620	0,59 1.30	
SLIDE1A4	removable A4 sliding device	A4 AISI 316	-	30 1 3/16	60 2 3/8	60 2 3/8	1	25 5620	0,59 1.30	
SLIDE2	fixed sliding device	A2 AISI 304	-	30 1 3/16	60 2 3/8	60 2 3/8	1	25 5620	0,60 1.32	
SLIDE2A4	fixed A4 sliding device	A4 AISI 316	-	30 1 3/16	60 2 3/8	60 2 3/8	1	25 5620	0,60 1.32	
OHSLIDE	removable sliding device for overhead lifeline	A2 AISI 304	-	46,5 1 7/8	93 3 11/16	98 3 7/8	1	25 5620	0,98 2.15	
OHSLIDEA4	removable sliding device for overhead A4 lifeline	A4 AISI 316	-	46,5 1 7/8	93 3 11/16	98 3 7/8	1	25 5620	0,98 2.15	

■ ANGLE BRACKETS AND ACCESSORIES | CODES AND DIMENSIONS

CODE	description		d ₁ [mm] [in]	B [mm] [in]	H [mm] [in]	L [mm] [in]	pcs	MBS [kN] [lbf]	weight [kg] [lb]	
PASANG	corner pass-through element	A2 AISI 304	-	300 11 3/4	69 2 11/16	300 11 3/4	1	33,5 7531	1,75 3.85	
PASANGA4	A4 pass-through angle bracket	A4 AISI 316	-	300 11 3/4	69 2 11/16	300 11 3/4	1	33,5 7531	1,75 3.85	
PASANGBEND	pass-through angle bracket for adjustable supports 105°-165°	A2 AISI 304	-	54,5 2 3/16	102 4	565 22 1/4	1	22,5 5058	0,76 1.68	
PASANGBENDA4	pass-through angle bracket for adjustable A4 supports 105°-165°	A4 AISI 316	-	54,5 2 3/16	102 4	565 22 1/4	1	22,5 5058	0,76 1.68	
PAREX	external pass-through angle bracket for façades	A2 AISI 304	-	326 12 3/4	116 4 9/16	326 12 3/4	1	20,9 4699	0,23 0.51	
PAREXA4	external pass-through angle bracket for A4 façades	A4 AISI 316	-	326 12 3/4	116 4 9/16	326 12 3/4	1	20,9 4699	0,23 0.51	
PAREXBEND	external pass-through angle bracket for façades adjustable 105°-165°	A2 AISI 304	-	72 2 13/16	116 4 9/16	565 22 1/4	1	20,9 4699	0,67 1.48	
PAREXBENDA4	external pass-through angle bracket for A4 façades adjustable 105°-165°	A4 AISI 316	-	72 2 13/16	116 4 9/16	565 22 1/4	1	20,9 4699	0,67 1.48	
PARIN	internal pass-through angle bracket for façades	A2 AISI 304	-	357 14	88 3 7/16	357 14	1	20,9 4699	0,57 1.26	
PARINA4	internal pass-through angle bracket for A4 façades	A4 AISI 316	-	357 14	88 3 7/16	357 14	1	20,9 4699	0,57 1.26	
PARINBEND	internal pass-through angle bracket for façades adjustable 105°-165°	A2 AISI 304	-	42 1 5/8	87 3 7/16	565 22 1/4	1	20,9 4699	0,58 1.28	
PARINBENDA4	internal pass-through angle bracket for A4 façades adjustable 105°-165°	A4 AISI 316	-	42 1 5/8	87 3 7/16	565 22 1/4	1	20,9 4699	0,58 1.28	
PATROLANG	non-pass-through angle bracket	A2 AISI 304 alu	90 3.50	- -	58 2 1/4	175 6 7/8	1	50 11241	0,62 1.32	
OHANGINT	internal pass-through angle bracket for overhead application	A2 AISI 304	-	354 13 15/16	86 3 7/16	354 13 15/16	1	45 10116	0,80 1.76	
OHANGINTA4	inside pass-through angle bracket for aerial application in A4	A4 AISI 316	-	354 13 15/16	86 3 7/16	354 13 15/16	1	45 10116	0,80 1.76	
OHANGEXT	external pass-through angle bracket for overhead application	A2 AISI 304	-	326 12 3/4	86 3 7/16	326 12 3/4	1	45 10116	0,80 1.76	
OHANGEXTA4	outside pass-through angle bracket for aerial application in A4	A4 AISI 316	-	326 12 3/4	86 3 7/16	326 12 3/4	1	45 10116	0,80 1.76	
OHANBEND	external/internal pass-through angle bracket for overhead application, adjustable 105°-165°	A2 AISI 304	-	39,5 1 9/16	86 3 7/16	565 22 1/4	1	45 10116	0,80 1.76	
OHANBENDA4	external/internal pass-through angle bracket for overhead application, adjustable 105°-165° in A4	A4 AISI 316	-	39,5 1 9/16	86 3 7/16	565 22 1/4	1	45 10116	0,80 1.76	
ANGSUP	support for PASANGBEND, OHANGINT and OHANGEXT	A2 AISI 304	-	275 10 7/8	16 5/8	0 - 550 0 - 19 3/4	1	50 11241	1,80 3.97	
ANGSUPA4	support for PASANGBENDA4, OHANGINTA4 and OHANGEXTA4	A4 AISI 316	-	275 10 7/8	16 5/8	0 - 550 0 - 19 3/4	1	50 11241	1,80 3.97	
BENDTOOL	adjustable angle bracket bending tool	S235 JR	-	353,5 13 15/16	95 3.75	171 - 353 6 3/4 - 13 15/16	1	-	-	

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	material	pcs
PATROLSTOP	limit switch element	-	1
TARGA _{xy} *	information plate for fall protection systems	stainless steel (AISI 304), plastic	1
TARGAHOR _{xy} *	information plate for PATROL and H-RAIL	stainless steel (AISI 304), plastic	1
TARGAVERT _{xy} *	information plate for VERTIGRIP	stainless steel (AISI 304), plastic	1

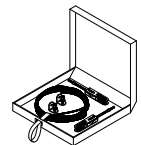
*xy represents the ISO 639-1 language code, see the table below for reference.

EXAMPLE:

TARGAEN information plate for fall protection systems in EN (English)
TARGAHOREN information plate for PATROL and H-RAIL in EN (English)
TARGAVERTEN information plate for VERTIGRIP in EN (English)

PATROLKIT10 | 10 m LIFELINE KIT

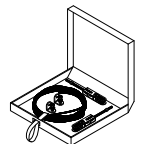
CODE	description	material	
PATROLKIT10	PATROLTERM end element	AISI 304 stainless steel grade 1.4301	2
	SPEAR set of pair of tensioners with absorber	AISI 304 stainless steel grade 1.4301 EN AW 6082 aluminium	1
	CABLE stainless steel rope Ø8 7x7 11 m	AISI 316 stainless steel grade 1.4401	1



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

PATROLKIT15 | 15 m LIFELINE KIT

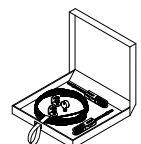
CODE	description	material	
PATROLKIT15	PATROLTERM end element	AISI 304 stainless steel grade 1.4301	2
	SPEAR set of pair of tensioners with absorber	AISI 304 stainless steel grade 1.4301 EN AW 6082 aluminium	1
	CABLE stainless steel rope Ø8 7x7 16 m	AISI 304 stainless steel grade 1.4301	1



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 end 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.