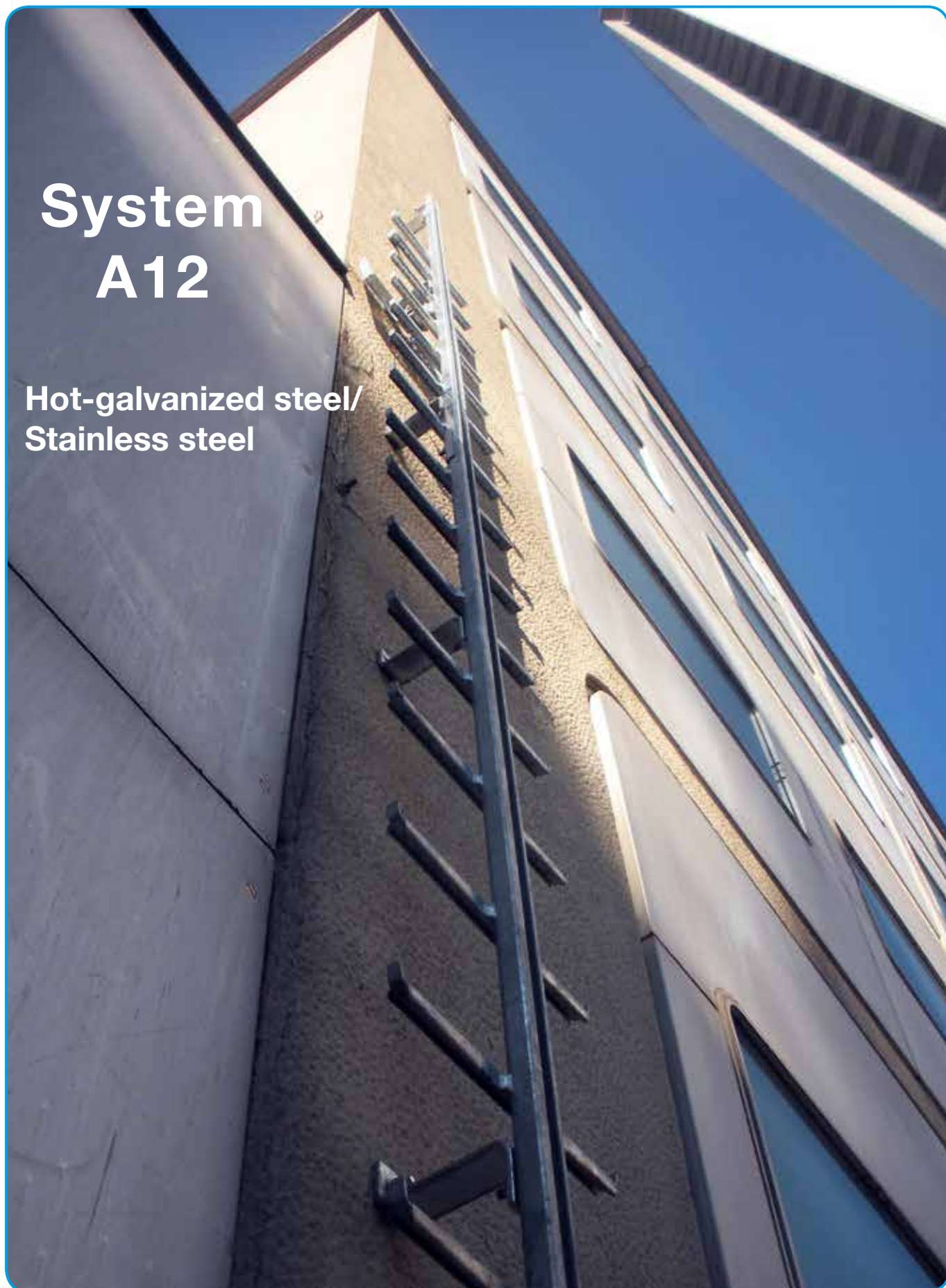


FABATM Climbing protection

System A12

Hot-galvanized steel/
Stainless steel



FABA™ CLIMBING PROTECTION

APPLICATIONS

- FABA™ climbing protection systems enable safe use of fixed vertical ladders/manhole steps, e.g.
- on towers, stacks, high storage tanks, bridge piers, masts, antenna masts, machines and operating facilities
 - on high-rise racks and industrial plants, buildings and facades
 - in pits, mines as well as water and wastewater basins

OPERATING PRINCIPLE

The user wears a harness as per EN 361. The carriage is connected to the harness and moves in the rigid anchor line (climbing protection rail) when climbing.

In the event of a fall, the carriage locks into the release facilities on the back of the rail, preventing the user from falling.

BENEFITS

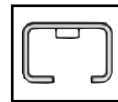
FABA™ climbing protection systems allow secured ascent and descent to any desired height or depth.

FABA™ is the only climbing protection system on the market with an enclosed glide roller system. In this case the base of the carriage and the securing rollers move entirely inside the rail profile. This principle allows for greater assembly tolerances e.g. at the rail end where the movement of the carriage is not impaired.

SYSTEMS & COMPONENTS

We offer three climbing protection systems, types A11, A12 and AL2, made of a variety of different materials (hot-galvanised steel, stainless steel or aluminium).

A variety of different system components such as brackets, platforms, pivoting gates, entries and exits, covers to prevent unauthorised ascent, etc. can be planned and adapted in accordance to the customer's needs.



SYSTEM A 12

- Hot-galvanised steel or stainless steel 1.4571
- Complete ladder or climbing protection rail only
- Ladder rung spacing: 280 mm
- Climbing protection profile dimensions (W x H): 48 x 32 mm
- Release facilities on the back of the rail every 40 mm
- Max. support bracket distance on the structure: Climbing protection ladder = 1400 mm
Climbing protection rail = 1960 mm
- The system can also be used for confined space access
- Carriage also suitable for system AL2 (aluminium)



All systems conform to DIN 18799 parts 1 and 2, EN 353-1 as well as 89/686/EEC.

Contents

Scope of application	3	Support bracket mounted laterally	
FABA climbing protection system A12	4	on round side rails	19
Notes for planning	5	Lateral fastening on rectangular side rails	19
Materials used	6	Catches	20
Applicable regulations	7	Type I resting platform	21
Climbing protection ladder		Type II resting platform	21
with centrally mounted guide rail	8	Entry and exit section	22
Climbing protection rail		Entry and exit (pivotable)	22
(for retrofitting to existing climbing facilities)	9	Step-over - curved -	23
Climbing protection ladder with release facility	10	Step-over - straight - for climbing	
Step-over - straight -	10	protection ladder	23
Climbing protection rail or ladder - curved -	11	Step-over - straight - for climbing	
Max. permitted distance between support		protection rail	24
brackets	12/13	Horizontal transfer with gate	25
Joint connectors	14	Components and accessories for confined	
Mounting material	14	spaces	26
Fastening to a building	15	Warning sign	27
Fastening to a mast with a clamp	16	Cover plate	27
Fastening to steel structures	17	Door cover	28
Fastening to a corner post	17	Climbing protection rail with mounting hook	29
Fastening to the centre of a climbing facility	18	Anchor bolt	30
Fastening to the centre of a climbing facility		Guided fall arrester (carriages)	31
(e.g. step irons)	18		

Scope of application

This catalogue presents our FABA™ A12 system climbing protection ladders and climbing protection rails.

Such ladders and rails are required on structures and buildings such as

high-rise buildings and parts of building, radio towers and antenna masts, different types of towers, such as cooling towers, etc. bridge piers, high storage tanks, masts, cable car supports, machines and other equipment, as well as on industrial stacks conforming to DIN 18799 parts 1 and 2.

The systems shown in this catalogue may also be used to retrofit existing ladders and manhole steps for fitting climbing protection on free-standing stacks according to DIN 1056. and steel stacks according to DIN 4133.

The systems shown in this catalogue may not be used in conjunction with climbing protection systems within silos, emergency ladders or ladders used by the fire brigade and may also not be used for climbing protection ladders on industrial stacks.

FABA™ climbing protection system A12

Technical data:

- Hot-galvanized steel
(Hot dip galvanized to EN ISO 1461 – tZn o)
or stainless steel (1.4571 pickled)
- C-rail made of 3 mm thick sectional steel
- Rail slot arranged asymmetrically
- The back side of the rail is provided with cut-outs
in 40 mm intervals for the carriage to catch
- A12 climbing protection ladder with welded rungs
to EN 1090
- Double rung with high-grip anti-slip tread
- Double rung with lateral 20 mm high anti-slip
protectors
- Climbing protection ladder to EN 141224, DIN
18799 Part 2 and BGV D 36
- Climbing protection system with rigid anchor line
to EN 353-1 + CNB/P/11.073

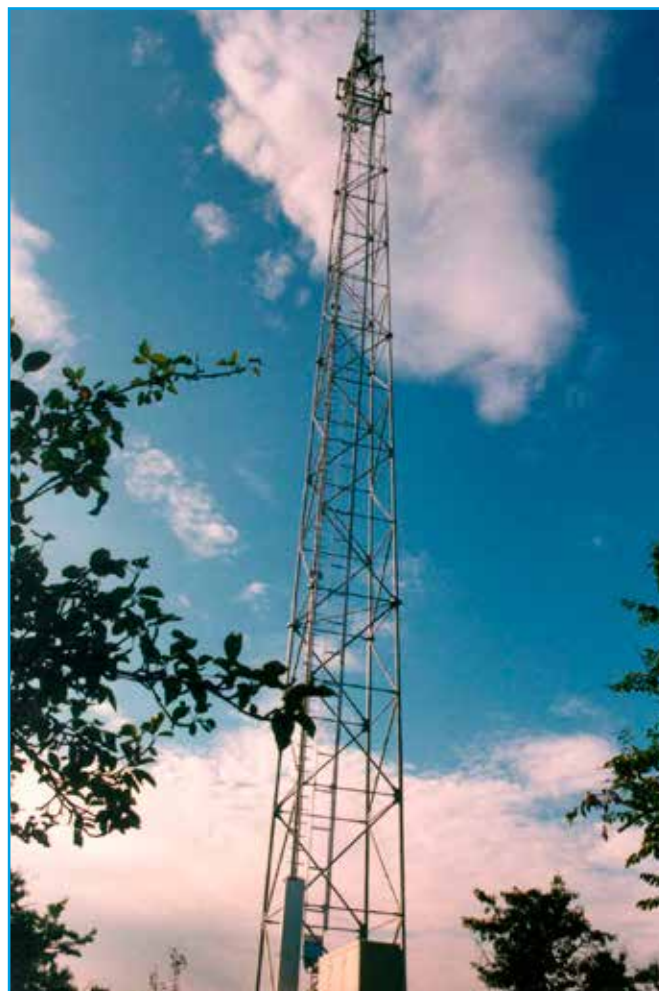
Information:

The FABA™ A12 climbing protection system is designed in accordance with the EU Directive 89/686/EWG and the EN 353-1 and CNB/P/11.073 standards.

The EC type approval was carried out by

[DEKRA EXAM GmbH](#)
[Dinnendahlstraße 9](#)
[44809 Bochum](#)
[Germany](#)
[Registration No. 0158](#)

The EU quality assurance of the product was also carried out by DEKRA EXAM GmbH.



Notes for planning

- Climbing protection ladders and climbing protection rails with associated accessories may only be installed and used for the intended purpose: Climbing protection ladders are designed for secured climbing only. They are not designed for lifting or transporting loads.
- The installation base or building must have adequate load bearing capacity.
- In principle there is no height limit! FABA™ climbing protection ladders are attached over the entire height of the building.
- System A12 climbing ladders used in accordance with EN 14122-4 and DIN 18799-2 may be mounted on buildings if the following applies:
 - the bracket distance is smaller than or equal to 1,400 mm,
 - the support bracket is resistant to bending and is capable of transferring an impact force of 6 kN over at least 4 anchoring points to the building structure; for support brackets see page 12 onward.

We can design the climbing protection system according to your specific needs – please contact us to discuss your requirements.

About the bottom entry point

The lowest climbing protection ladder is planned in such a way that the distance between the top edge of the lowest rung and the access level is 280 mm +/- 30 mm.

As a rule, the lowest climbing protection ladder with release facility and a releasable lock is planned directly above this.

The lower area is secured against unauthorised access (cover plate or door cover), if necessary.

About the upper end of the climbing facility

A catch must always be installed on the upper end of the climbing protection system. Depending on the application, this can be detachable or permanent.

The carriage may only be inserted or removed at the top end from a secure standing location. If the user wishes to leave the climbing protection system, s/he must protect himself against falling in another way (e.g. safety line with shock absorber).



Material selection

The materials must be selected as follows depending on the planned usage location of the climbing protection systems:

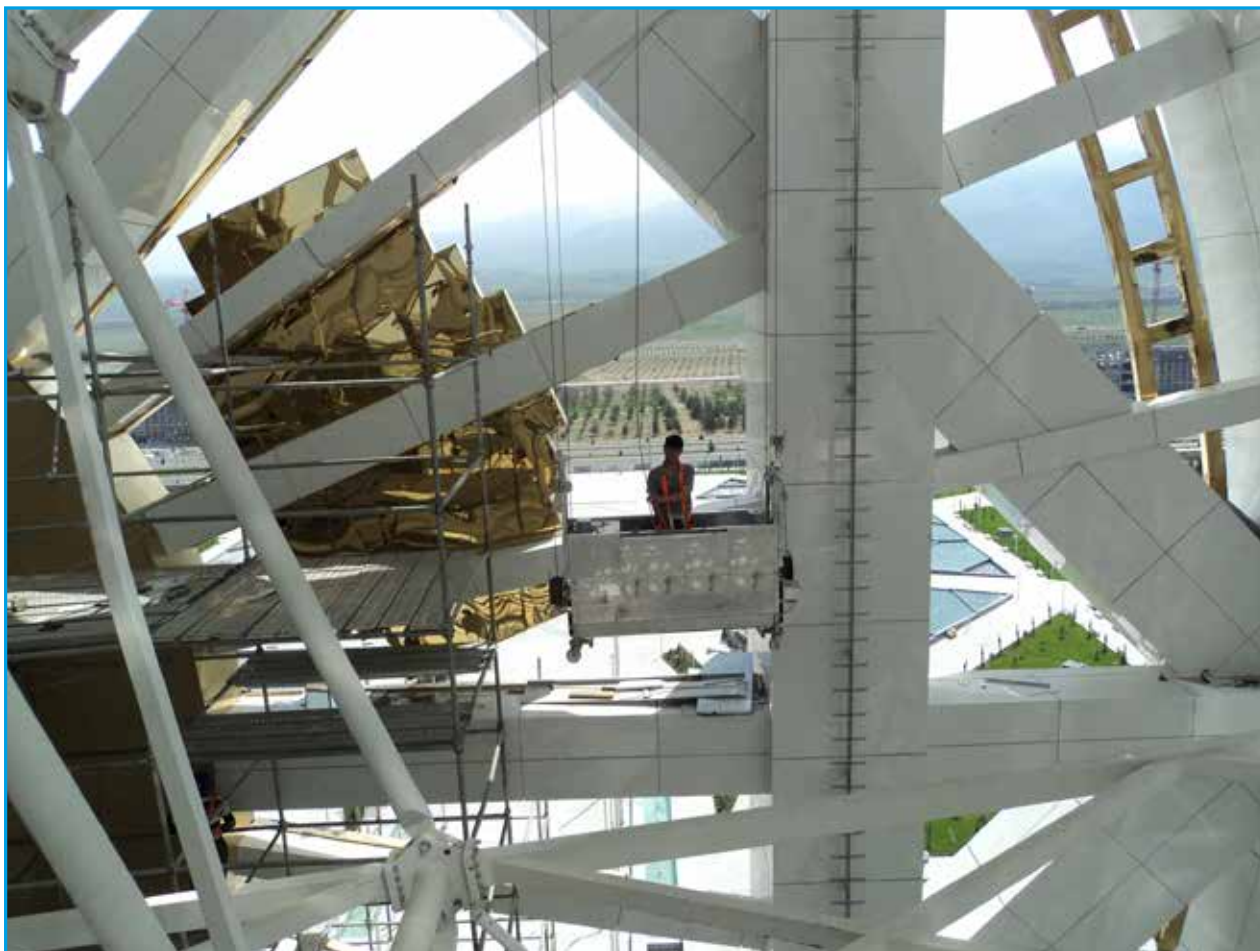
- Hot-galvanised steel EN ISO 1461 – tZn o for conventional applications
- Stainless steel 1.4571, pickled, for applications such as water treatment, in food preparation areas, in areas with constant humidity, when exposed to aggressive gases and seawater, etc.

Please note that, for quality reasons, certain parts (e.g. connecting equipment, fasteners) are always made of stainless steel.

NOTE:

Only those persons who have obtained expert training for FABA™ products from the climbing protection systems manufacturer in accordance with the code of practice BGG 906 (selection, instruction and certification of competence of experts in personal protective equipment against falls from a height) are regarded as technical experts for FABA climbing protection systems.

Damaged components or components which have been used in a fall may not be used until tested by a technical expert.



Applicable regulations

Please observe the generally accepted technical standards when installing climbing protection systems on buildings or structures; we refer to the following, in particular:

EEC 89/686	Council Directive on Personal Protective Equipment
EN 353-1	Personal protective equipment against falls from a height. Guided type fall arresters including a rigid anchor line
EN 354	Lanyards
EN 355	Energy absorbers
EN 358	Restraint systems
EN 359	Connectors
EN 360	Retractable type fall arresters
EN 361	Full body harnesses
EN 362	Connectors
EN 363	Arrest systems
EN 364	Test methods
EN 365	Instructions for use and marking
EN 795	Anchor devices
EN 14122-4	Fixed ladders, access to machine systems
DIN 1056	Solid construction, free-standing chimneys
DIN 4131	Steel radio towers and masts
DIN 4133	Steel chimneys
DIN 4228	Precast concrete masts
DIN 18799 Parts 1 to 2	Fixed ladders for construction works
ArbSchG (Occupational safety act)	Law on the implementation of protective measures to improve the safety and health of employees at work
PSA-BV	Ordinance on safety and health protection during use of personal protective equipment at work (Ordinance on the use of PPE)
ArbStättV	Ordinance on working premises
BGV-A 1	General accident prevention regulations
BGV D 6	Accident prevention cranes
BGV D 32	Accident prevention regulations "Working on masts, overhead lines and contact wires"
BGV D 36	Accident prevention ladders and steps
BGV C 22	Construction work
BGR 140	Use of climbing pegs and climbing peg ladders
BGR 177	Safety regulations for step irons and manhole steps/ladders
BGI 778	Regulations for construction work on towers and stacks
BGI 525	Regulations for construction work on towers and stacks
BGI 530	Structural engineering work
BGI 691	Regulations for retrofitting step iron ladders and fixed ladders with climbing protection systems on stacks
BGR 198	Regulations for the use of personal protective equipment against falls from a height
BGR 199	Regulations for the use of personal protective equipment for arresting and rescuing
BGG 906	Basic regulations for the selection, instruction and certification of competence of technical experts in personal protective equipment against falls from a height

Climbing protection ladder (with centrally mounted guide rail)

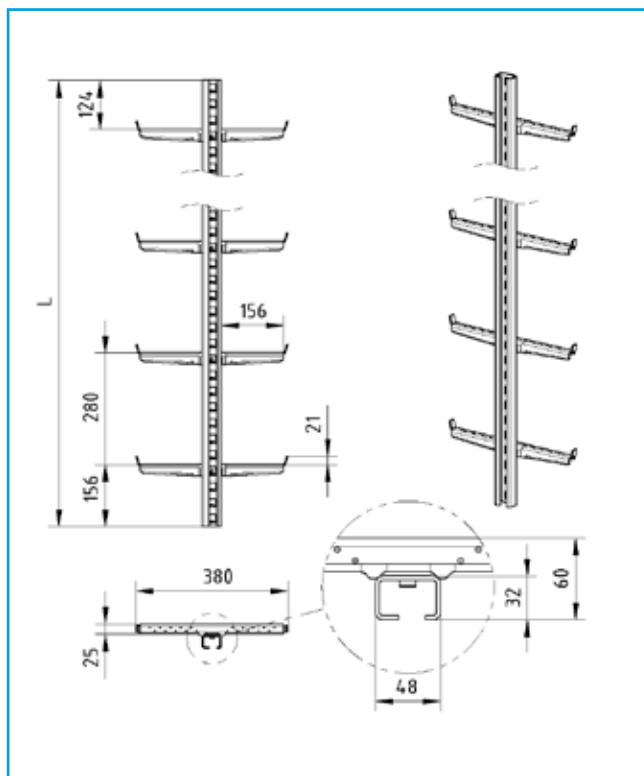
Specification conforming to:
 EN 353-1, EN 14122-4,
 DIN 18799 Part 2,
 BGV D 36

Side rail profile:

The climbing protection rail is manufactured from 3 mm thick sectional steel. The interior of the rail is fitted with cut-outs every 40 mm for secure catching of the FABA carriage; these cut-outs are also used to fasten the individual climbing protection segments (joints) and brackets to the rail ends using screws.

Rungs:

The rungs are made of formed steel sheets and welded to the back of the rail. They have a profiled tread and are fitted with 20 mm high lateral anti-slip protectors. The distance between rungs is 280 mm. The rungs are level on both sides.



Material: Hot-galvanized steel

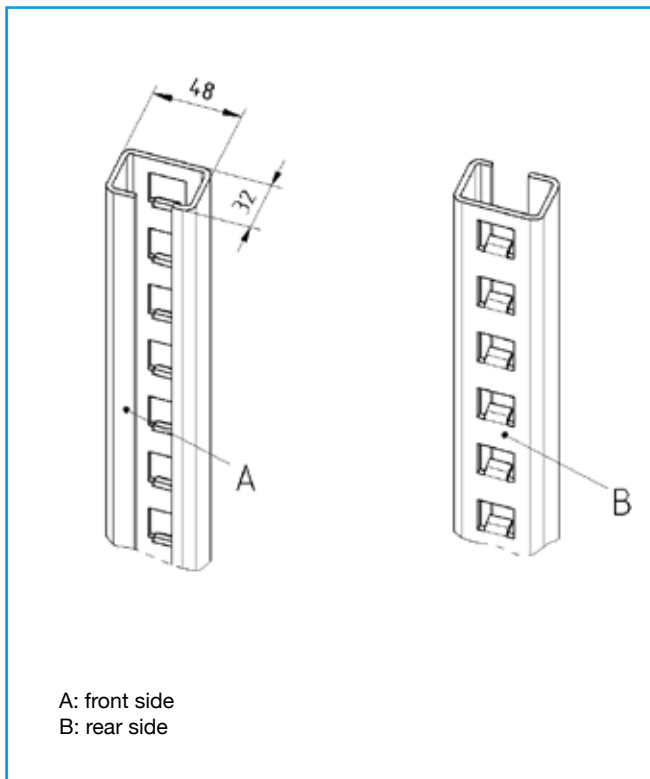
Art. no.	Name	Ladder length	Weight
		m	kg
501237	Climbing protection ladder (with centrally mounted guide rail)	0.56	2.70
501257		0.84	4.05
501297		1.12	5.40
501317		1.4	6.75
501337		1.68	8.10
501367		1.96	9.45
501387		2.24	10.80
501407		2.52	12.15
501427		2.8	13.50
501447		3.08	14.85
501467		3.36	16.20
501487		3.64	17.55
501507		3.92	18.90
501527		4.2	20.25
501547		4.48	21.60
501567		4.76	22.95
501587		5.04	24.30
501607		5.32	26.10
501627		5.6	27.00

Material: Stainless steel 1.4571

Art. no.	Name	Ladder length	Weight
		m	kg
501247	Climbing protection ladder (with centrally mounted guide rail)	0.56	2.70
501267		0.84	4.05
501307		1.12	5.40
501327		1.4	6.75
501357		1.68	8.10
501377		1.96	9.45
501397		2.24	10.80
501417		2.52	12.15
501437		2.8	13.50
501457		3.08	14.85
501477		3.36	16.20
501497		3.64	17.55
501517		3.92	18.90
501537		4.2	20.25
501557		4.48	21.60
501577		4.76	22.95
501597		5.04	24.30
501617		5.32	26.10
501637		5.6	27.00

Climbing protection rail

(for retrofitting to existing climbing facilities)



Specification conforming to:
EN 353-1

Rail profile:

The climbing protection rail is manufactured from 3 mm thick sectional steel. The interior of the rail is fitted with cut-outs every 40 mm for secure catching of the FABA carriage; these cut-outs are also used to fasten the individual climbing protection segments (joints) and brackets to the rail ends using screws.

Material: Hot-galvanized steel

Art. no.	Name	Ladder length	Weight
		m	kg
502845	Climbing protection rail	0.56	1.80
500038		0.84	2.70
502855		1.12	3.60
502865		1.4	4.50
502875		1.68	5.40
500048		1.96	6.30
502885		2.24	7.20
500058		2.52	8.10
502895		2.8	9.00
500068		3.08	9.90
500078		3.36	10.80
500088		3.64	11.70
500098		3.92	12.60
500108		4.2	13.50
500118		4.48	14.40
500128		4.76	15.30
500138		5.04	16.20
500148		5.32	17.10
500158		5.6	18.00

Material: Stainless steel 1.4571

Art. no.	Name	Ladder length	Weight
		m	kg
502905	Climbing protection rail	0.56	1.80
502915		0.84	2.70
502925		1.12	3.60
502935		1.4	4.50
502945		1.68	5.40
502955		1.96	6.30
502965		2.24	7.20
502975		2.52	8.10
502985		2.8	9.00
502995		3.08	9.90
503005		3.36	10.80
503015		3.64	11.70
503025		3.92	12.60
503035		4.2	13.50
503045		4.48	14.40
503055		4.76	15.30
503065		5.04	16.20
500168		5.32	17.10
503075		5.6	18.00

Climbing protection ladder with release facility

Application:

The climbing protection ladder with release facility enables the comfortable insertion and extraction of the FABA™ carriage at the lower end of the ladder.

The climbing protection ladder with release facility may only be installed as the lowermost segment from a secure standing location.

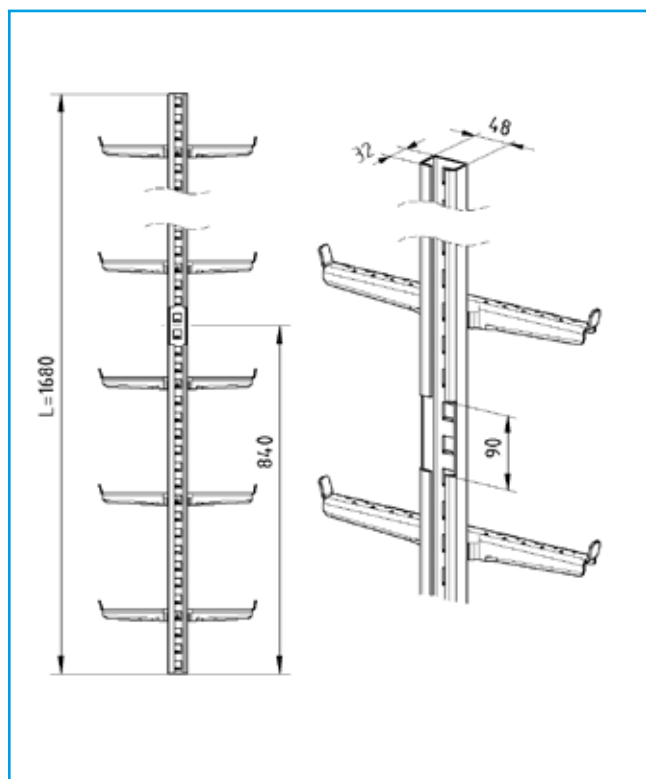
Implementation:

For side rail profile and rung see note on page 8.

Release facility:

The release (the window side pieces of the rail) is factory-fitted.

Art. no.	Name	Material	Weight
			kg
501288	Climbing protection ladder 1680 mm	Hot-galv.	8.1
501298	(with central release facility)	1.4571	



Climbing protection ladder with 7 rungs (for step-over - straight -)

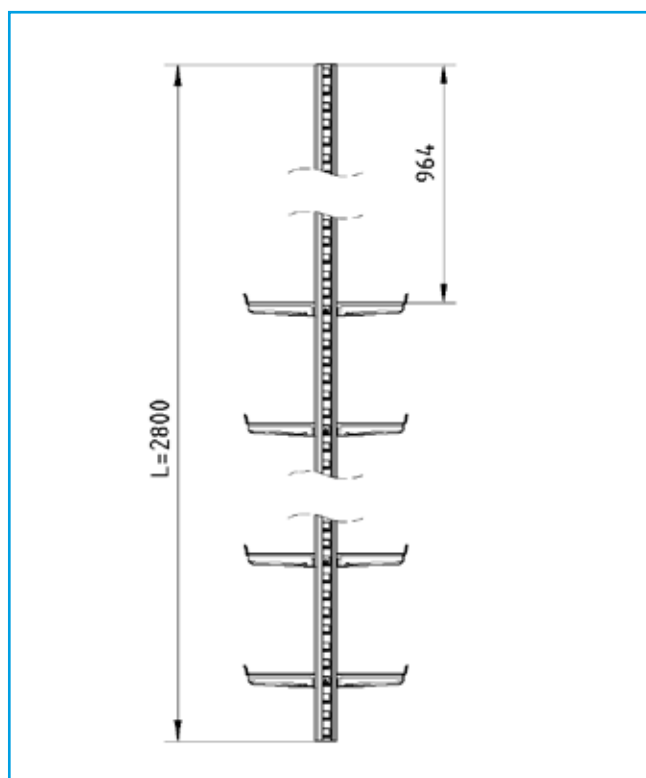
Application:

- Use only as the topmost ladder segment.
- Depending on the application, always install a permanent or detachable catch on the top end.
- A side rail reinforcement is required if no support bracket can be mounted on the end of this ladder section, see page 23.

Implementation:

- For side rail profile and rung see note on page 8.
- Climbing protection ladder with 7 bottom rungs.

Art. no.	Name	Material	Weight
			kg
500378	Climbing protection ladder with 7 bottom rungs	Hot-galv.	12.15
500388		1.4571	



Climbing protection rail or ladder - curved -

Implementation:

- For side rail profile and rung see note on page 8.

Curvature

The curvature is created by the manufacturer.

When asking for quotations or making an order, please provide a sketch with local dimensions or specify the required dimensions (dimensions A and B and extended length).

- A = offset
- B = straight length
- R1 = radius min. 500 mm
- R2 = radius min. 1,000 mm
- C = distance to support structure min. 160 mm

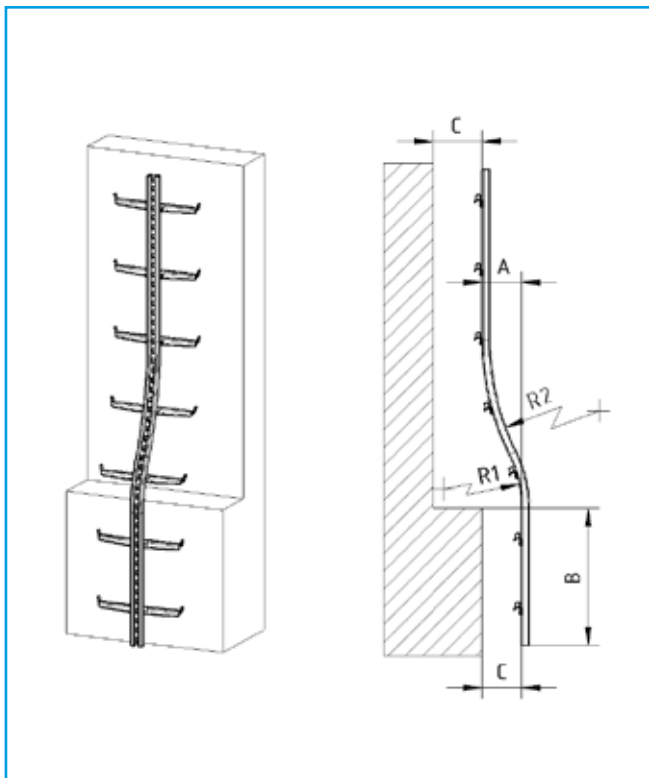


Figure 1

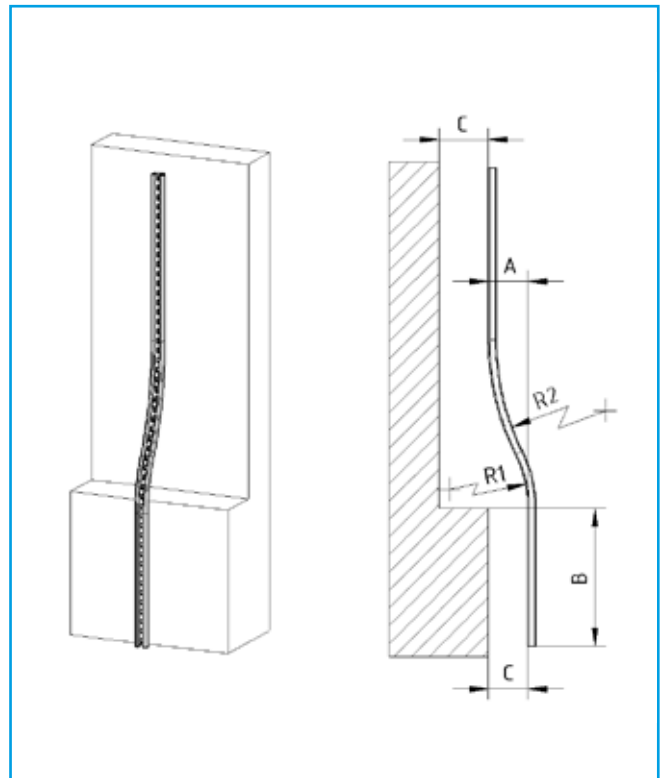


Figure 2

Art. no.	Name	Material	Fig.
as per order	Climbing protection ladder, curved	Hot-galv.	1
as per order		1.4571	
as per order	Climbing protection rail, curved	Hot-galv.	2
as per order		1.4571	

Maximum permitted support bracket spacing

Fastening method	Implementation	
	Climbing protection ladder with double rung	Climbing protection rail
max. system distance	1400	1960
Weld-on bracket or clamping device	1400	1960
Connection to steel structures with M12	1400	1960
in manhole rings with anchor bolt Bolt 14x60, M10/20 ¹⁾	1400	1960
in concrete at least B25 with anchor bolt Bolt 14x60, M10/20 ¹⁾	1400	1960
in brickwork ²⁾	1120	1120
on existing twin-rail ladder	not applicable	1960
on existing step irons	not applicable	1960
Retrofitting on existing step irons on stacks in compliance with BGI 691	not applicable	Spacing max. 3 step irons ³⁾
Retrofitting on existing twin-rail ladder on stacks in compliance with BGI 691	not applicable	Spacing max. 4 step irons ⁴⁾

Notes:

- 1) Fastening can also be carried out using other similar anchor fittings authorized by the building authorities.
- 2) Since there are no approved anchor fittings for use on walls, it will be necessary for an anchor fitting manufacturer to check and determine the type and size of anchor fittings to be used by means of tensile tests carried out on-site prior to installation. Documentation and certification of the anchor fittings used must be available.
- 3) In compliance with BGI 691/4.2.1, the climbing protection rail must be fastened at every third step iron, ensuring that the step irons used for fastening purposes have adequate load bearing capacity.
- 4) In compliance with BGI 691/4.3.5, the climbing protection rail must be fastened to the rung or side rail at intervals of no more than 4 rungs.

Number of support brackets

- Calculation = total ladder or rail length divided by separation distance given above between support brackets, round up, + 1 support bracket
- Example (ladder length = 15,000 mm, distance between support brackets = 1,400 mm) = $15,000 / 1,400 = 10.7$ round up + 1 = 12 support brackets, or = 12 + x, if special components require the use of additional support brackets.

- When using special components, such as entry and exit sections or gates, etc., additional support brackets must be incorporated and their minimum distances observed in accordance with the applicable system installation manual. The support brackets required therefore must be included in the example calculation shown above.

PLEASE NOTE

- FABA™ climbing protection systems with an overall height of less than 2,800 mm must be connected to the surface beneath by means of at least 3 fasteners
- For climbing protection systems with a total height of more than 2,800 mm, at least 4 brackets are to be used.
- The surface to which the FABA™ climbing protection system is secured must be capable of absorbing a falling load of at least 6 kN.
- Each FABA™ ladder or rail element is to be fastened to the surface with at least one bracket. Climbing protection systems installed before 07/2005 do not require upgrading.

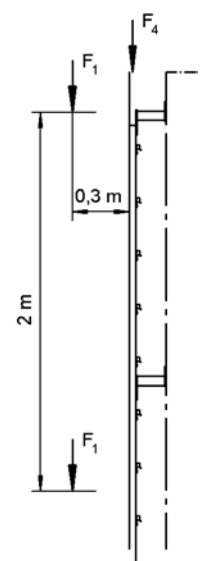
Mounting on brickwork

The maximum bracket separation is dependent on what loading can be absorbed by the anchor fastening. If it can be demonstrated in an anchor pull-out test that the pull-out force in an unfavourable position is at least 10 kN, the maximum bracket separation is 1120 mm.

Since there are no approved anchor fittings for use on walls, it will be necessary for an anchor fitting manufacturer to check and determine the type and size of anchor fittings to be used by means of tensile tests carried out on-site prior to installation. Documentation and certification of the anchor fittings used must be available.

The climbing protection system must be secured with at least 4 brackets. We recommend brackets with square tubing for wall fastening.

The falling load (extreme effects) should be assumed to be equal to an equivalent load along the rail axis of $F_4 = 6 \text{ kN}$. The force may be absorbed via 4 anchoring elements (see also DIN 18799, part 2). The traffic load (variable effect) is to be applied with $F_1 = 1.5 \text{ kN}$ in a line of action 30 cm parallel to the longitudinal axis of the ladder every 2 m (see drawing on right).

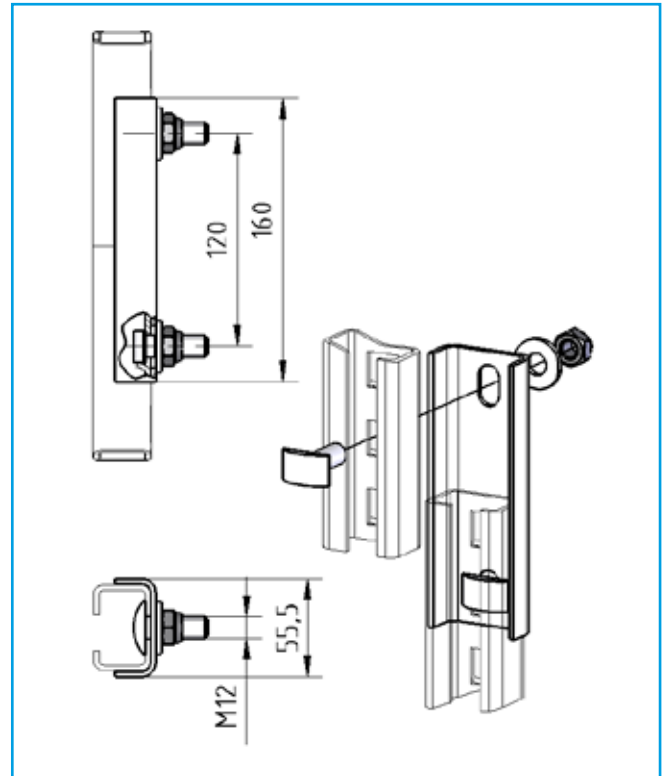


Joint connector

Application:

For FABA™ climbing protection ladder and FABA™ climbing protection rail, arranged vertically.

Art. no.	Name	Material	Weight
			kg
508117	U-joint connector with installation material	Hot-galv. / A4	0.5
508137		1.4571 / A4	



Fittings

Application:

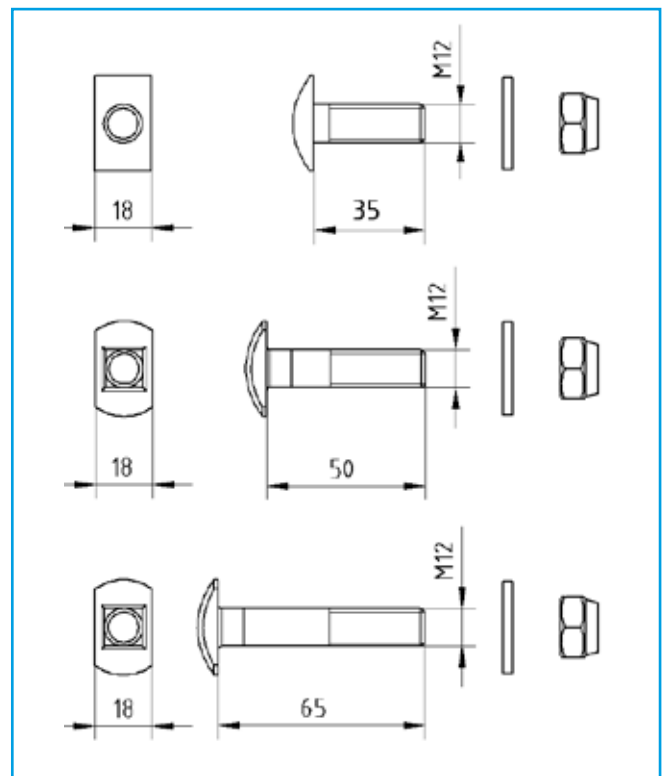
For mounting the A12 FABA™ climbing protection ladder or rail on support means constructed on-site.

Implementation:

The T-head bolts are special designs with customized head.

Do not use standard bolts.

Art. no.	Fig.	Name	Comment	Material	Weight
					kg
508107	1	T-head bolt M12x35 Spring washer 12 DIN 6796 Hex. nut M12 ISO 4032	Packaging unit	A4	0.08
516137	2	T-head bolt M12x50 Spring washer 12 DIN 6796 Hex. nut M12 ISO 4032	Packaging unit	A4	0.09
516147	3	T-head bolt M12x65 Spring washer 12 DIN 6796 Hex. nut M12 ISO 4032	Packaging unit	A4	0.11



Fastening to a building (Z-bracket)

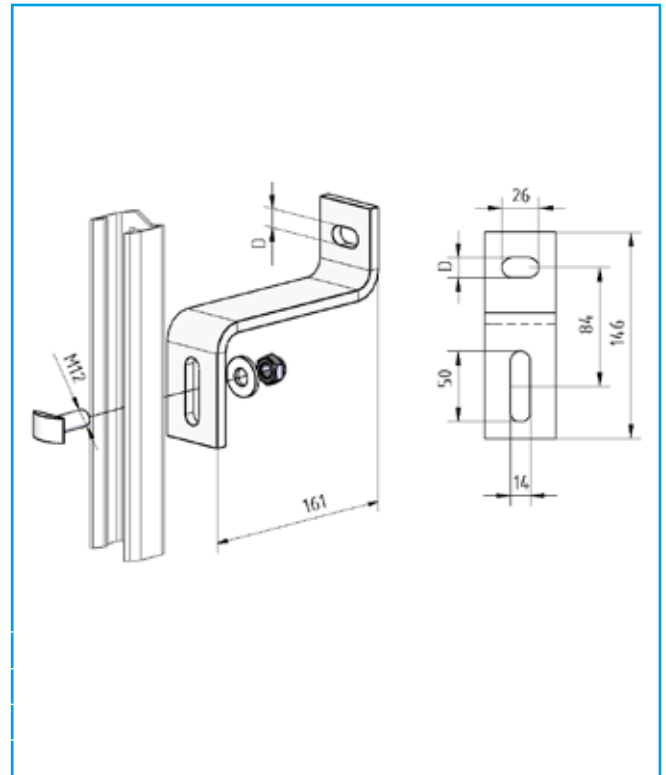
Application:

- Fastening of the FABA™ climbing protection ladder.
- See table for bracket distance
- Anchor base reinforced concrete at least B25 (observe edge distances and wall thickness) straight
- Use approved anchor fittings only.

Art. no.	Name	Material	D	Weight
			mm	kg
508087* ¹⁾	Z-bracket	Hot-galv. / A4	10.5	1.0
503418 ¹⁾			14	
503428* ¹⁾		1.4571 / A4	10.5	
503438 ¹⁾			14	

*Designated anchor fitting, see page 30

¹⁾ Included in the scope of delivery: 1 x 508107



Fastening to a building (square tube)

Recommended for mounting on walls due to reduced shear forces.

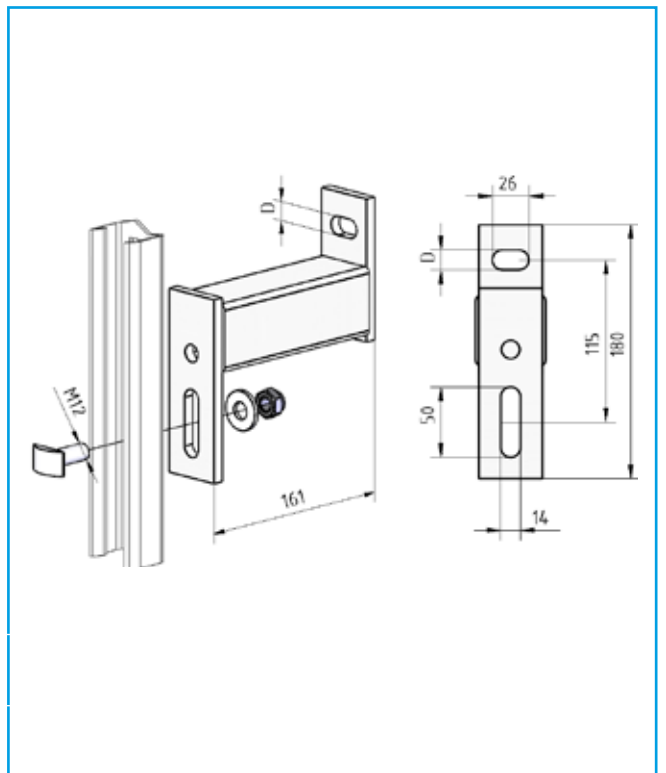
Application:

- Fastening of the FABA™ climbing protection ladder.
- See table for bracket distance
- Anchor base reinforced concrete at least B25 (observe edge distances and wall thickness).
- Use approved anchor fittings only.

Art. no.	Name	Material	D	Weight
			mm	kg
503558* ¹⁾	Bracket with square tube	Hot-galv. / A4	10.5	1.5
503538 ¹⁾			14	
503568* ¹⁾		1.4571 / A4	10.5	
503548 ¹⁾			14	

*Designated anchor fitting, see page 30

¹⁾ Included in the scope of delivery: 1 x 508107



Fastening to a mast (with clamp)

Application:

- Fastening of the FABA™ climbing protection ladder
- See table for bracket distance
- Brackets made of hot-galv. steel, all fittings in A4

The coding of the bracket consists of:

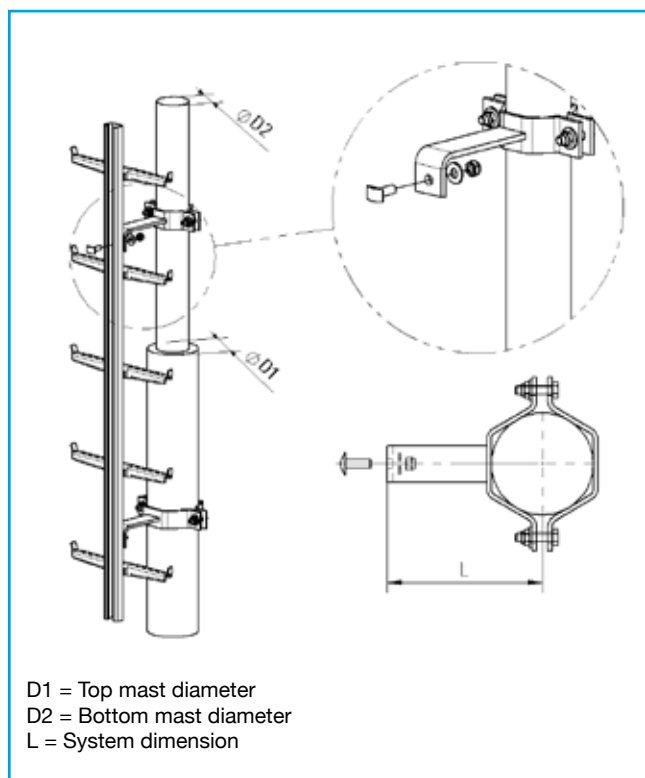
- the mast diameter at the position where the individual bracket is to be mounted,
- the system dimension L
- (mast centre to back side of rail)

Example: diameter 80 mm,
system dimension 213 mm

Designation: support bracket Ø80 / 213

Order No.: 506575

Included in the scope of delivery: 1 x 508107



Allocation table for mounting clamps:

for Ø	System dimension L= (see below) mm										
in mm	178	184	190	203	213	217	230	243	255	269	308
80.0					506575	506585					
88.9		503678	506595	506605	506615	506625	506635	503688	506645		
101.6			503698	506655	506665	506675	506685	506695	506705		
114.3				506715	503708	506725	503718	503728	503738	506735	
139.7					503748	506745	503758	503768	503778	503788	
159.0						506755	506765	506775	506785	506795	
168.3							503798	503808	503818	506805	
193.7								503828	506815	506825	
219.1									503838	506835	
244.5											
273.0											
350.0											

Other versions are available upon request!

INSTALLATION NOTE:

The system dimension L used in an installation is always defined by the lowermost mast diameter. This dimension is crucial for the selection of the other support brackets to be used in the same system dimension L.

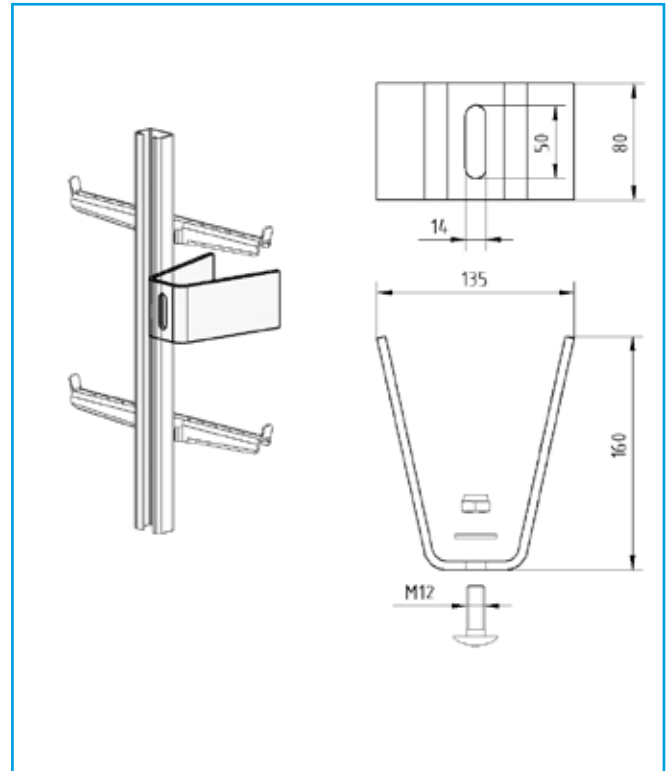
Fastening to steel structures

for welding

Application:

- Fastening of the FABA™ climbing protection ladder.
 - See table for bracket distance
 - For welding - by a certified welder - on a steel base.
- After welding, protect the bracket against corrosion.
- Installation screws must be ordered separately, see page 14.

Art. no.	Name	Material	Weight
			kg
505455	U-bracket	Steel (untreated)	1.4
503318		Steel (primed with welding primer)	
503308		1.4571 (untreated)	



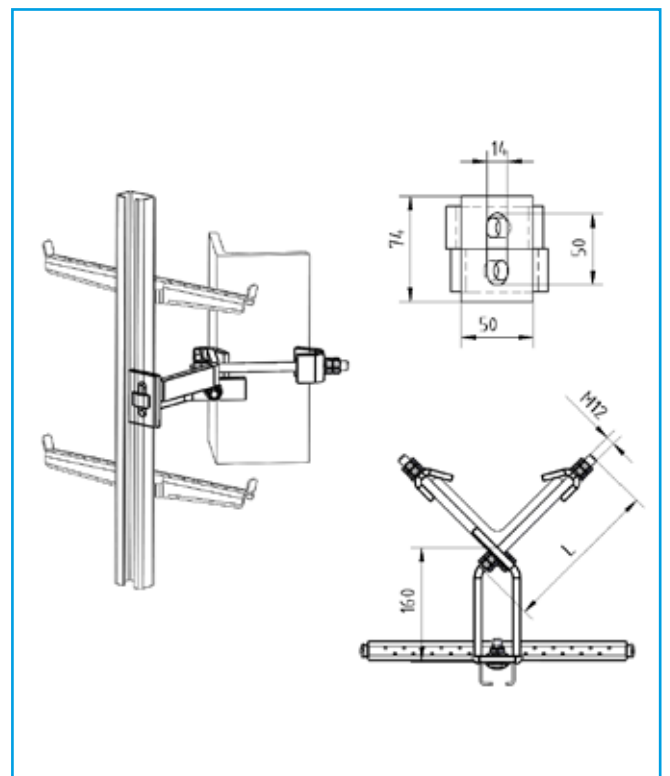
Fastening to a corner post

Application:

- Fastening of the FABA™ climbing protection ladder to an angle section (e.g. to the corner profile of a lattice mast).
- See table for bracket spacing
- Fastening kit to be ordered to suit the angle profile of the building.
- For angle profiles up to 250 x 250 mm.

Included in the scope of delivery: 1 x 508107

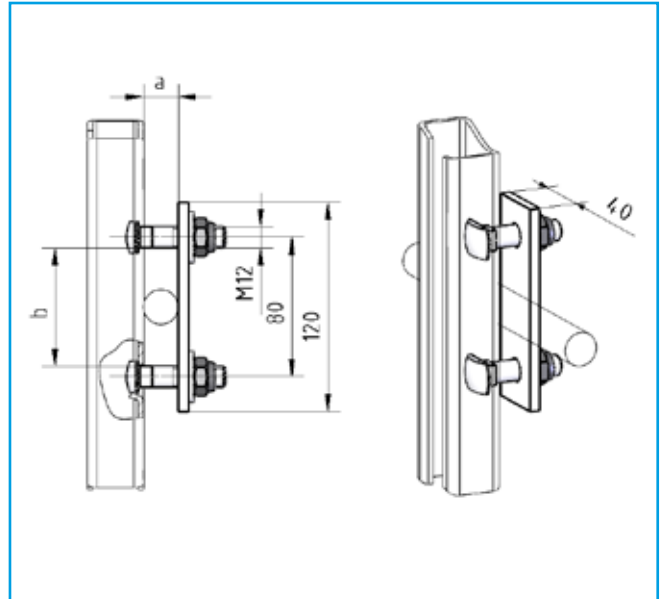
Art. no.	For angle profile dimensions (mm)	Secure	Weight
		(mm)	kg
503848	up to 130 x 130	220	1.6
503858	greater than 130 x 130 to 200 x 200	300	1.8
503668	greater than 200 x 200 to 250 x 250	350	1.9



Fastening to the centre of a climbing facility

Application:

- Fastening of the FABA™ climbing protection rail.
- See table for bracket spacing.
- The bracket is suitable for round and square profiles.
- Clamping area for round profiles up to \varnothing 40 mm.
- Clamping area for square profiles up to 40 x 65 mm.



Art. no.	Name	Clamping area for round profiles	Clamping area for square profiles		Material	Weight
		a	a	b		
503398 ¹⁾	Bracket on existing rungs	16 - 25	16 - 25	up to 65	Hot-galv. / A4	0.3
503408 ²⁾		25 - 40	24 - 40			
508817 ¹⁾		16 - 25	16 - 25	up to 65	1.4571 / A4	
508827 ²⁾		25 - 40	25 - 40			

1) Included in the scope of delivery: 2 x 516137

2) Included in the scope of delivery: 2 x 516147

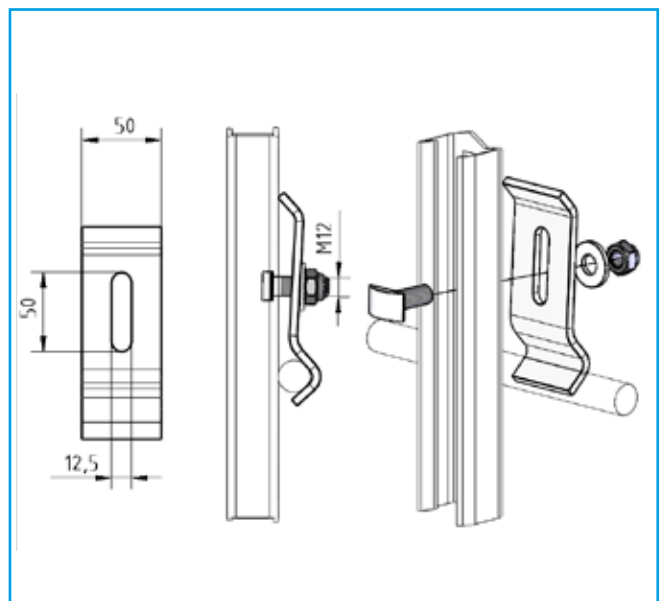
Fastening to the centre of a climbing facility (e.g. step irons)

Application:

- Fastening of the FABA™ climbing protection rail.
- See table for bracket spacing.
- The bracket is only suitable for round profiles.
- Clamping area for round profiles from \varnothing 15 to \varnothing 27 mm.

Included in the scope of delivery: 1 x 508107

Art. no.	Name	Clamping area for round profiles	Material	Weight
		a		kg
508327	Central fastening on step irons	15 - 27	Hot-galv. / A4	0.3
503528			1.4571 / A4	



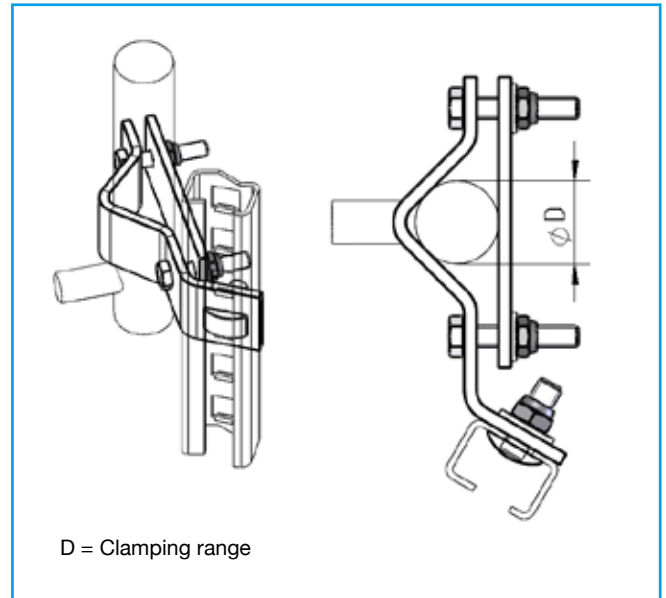
Lateral bracket (on round side rails)

Application:

- Lateral mounting on the side rail of the FABA™ climbing protection rail.
- See table for bracket distance.
- The bracket is only suitable for round profiles. Clamping area for round profiles \varnothing 25 mm to \varnothing 80 mm.

Included in the scope of delivery: 1 x 508107

Art. no.	Clamping area \varnothing		Material	Weight
	mm			
503368	25 to 33		Hot-galv. / A4	0.9
504008	34 to 55			1.1
508637	56 to 80			1.2
503378	25 to 55		1.4571 / A4	0.9
504018	34 to 55			1.1
508647	56 to 80			1.2



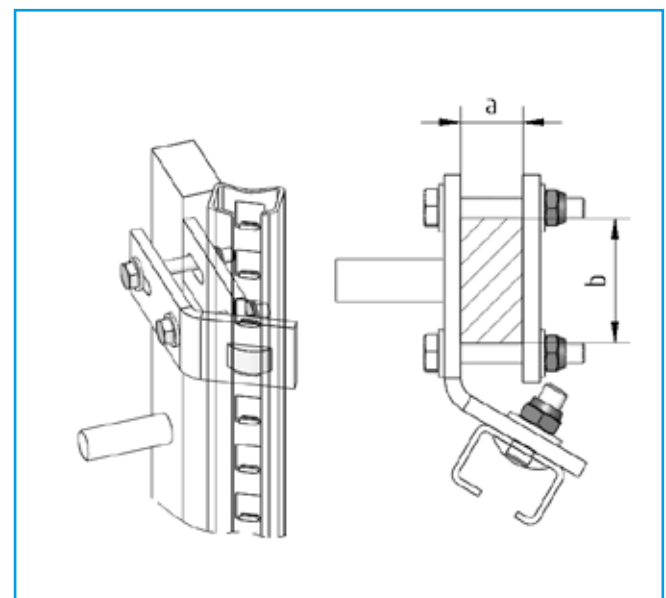
Lateral bracket (square side rails)

Application:

- Lateral mounting on the side rail of the FABA™ climbing protection rail.
- See table for bracket distance.
- The support bracket is suitable for rectangular side rails. Clamping area a x b, see table.

Included in the scope of delivery: 1 x 508107

Art. no.	Clamping range mm		Material	Weight
	a	b		
503888	6 to 20	40 to 60	Hot-galv. / A4	1.1
503898	21 to 30			
503908	31 to 50			
503918	6 to 20	61 to 80	Hot-galv. / A4	1.3
503928	21 to 30			
503938	31 to 50			
503948	6 to 20	40 to 60	1.4571 / A4	1.1
503958	21 to 30			
503968	31 to 50			
503978	6 to 20	61 to 80	1.4571 / A4	1.3
503988	21 to 30			
503998	31 to 50			



Catches

for climbing protection ladders or climbing protection rails

General use:

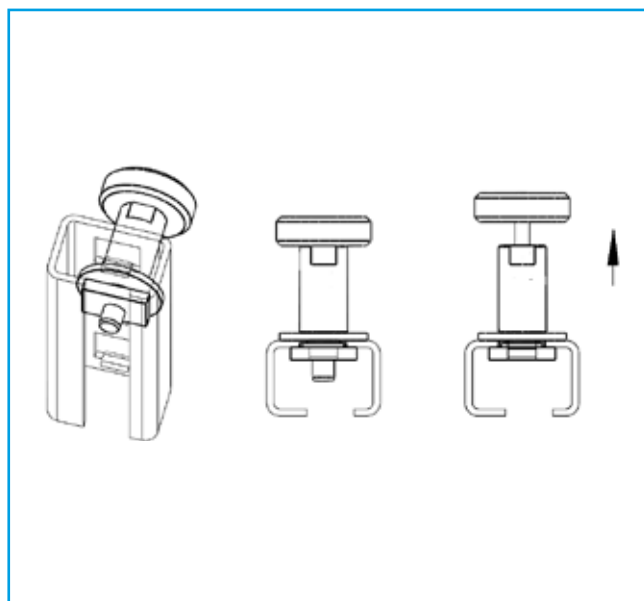
- Catches must be installed on all the entry and exit points of the rails in order to prevent unwanted running out of the FABA™ carriage.
- Detachable catches must be installed in those locations where the carriage is to be removed.
- Permanent catches must be installed in those locations where the carriage is not to be removed.

Detachable catch type DS

Suitable for all types manhole steps A12

- The detachable catch - type DS - is fitted to the end of the rail at the top or bottom end of the climbing facility.
- The catch must be manually unlocked and then automatically closes (spring).
- It is mounted on the back of the rail at the end of the rail in the third cut-out from the top or bottom.

Art. no.	Name	Material	Weight
			kg
517185	Detachable catch, type DS	1.4571 / A4	0.3



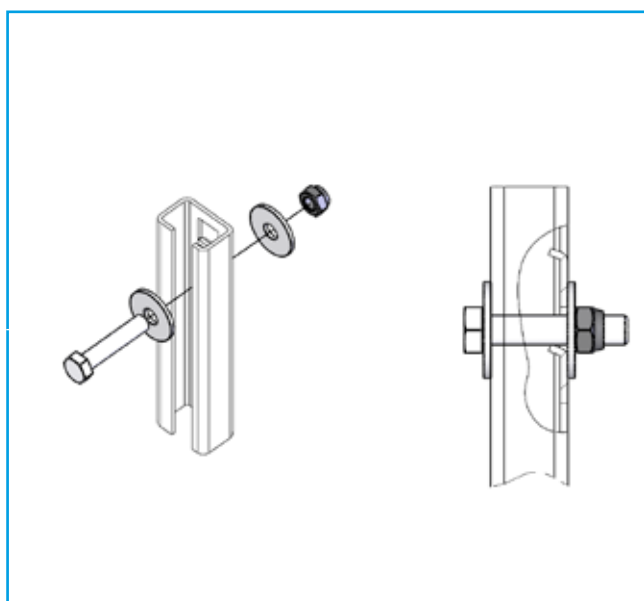
Installed above or below or using the release in the rail profile

Permanent catch

Suitable for all types manhole steps A12

- The permanent catch is mounted on the end of the climbing facility. It blocks the ladder and can not be unlocked.
- It is mounted on the back of the rail at the end of the rail in the second cut-out from the top or bottom.

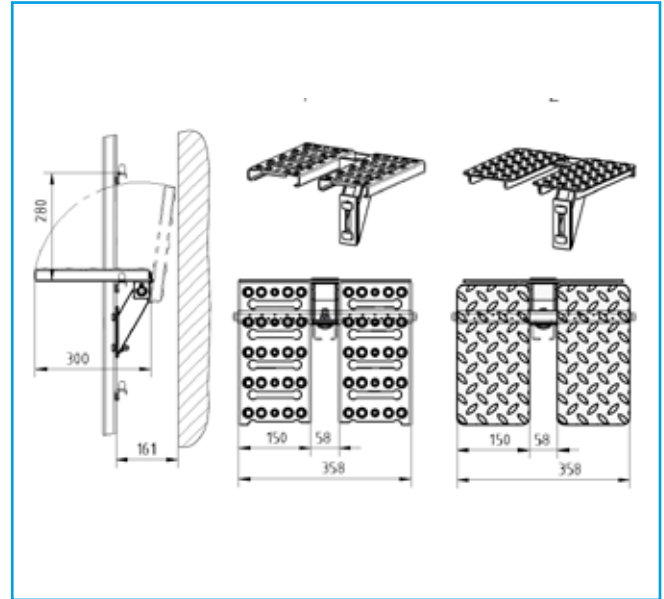
Art. no.	Name	Material	Weight
			kg
508067	Permanent catch	A4	0.1



Type I resting platform

Application:

- For FABA™ climbing protection ladder with double rung.
- For twin-rail ladder (rail separation at least 380 mm internal width), in which the FABA™ climbing protection rail has been centrally mounted on the rungs.
- Distance between rungs min. 280 mm.
- The resting platform is bolted onto the climbing protection rail, no fastening to the surface is required.
- The resting platforms are placed every 10 m or dependent on the building and standard or law.



Implementation:

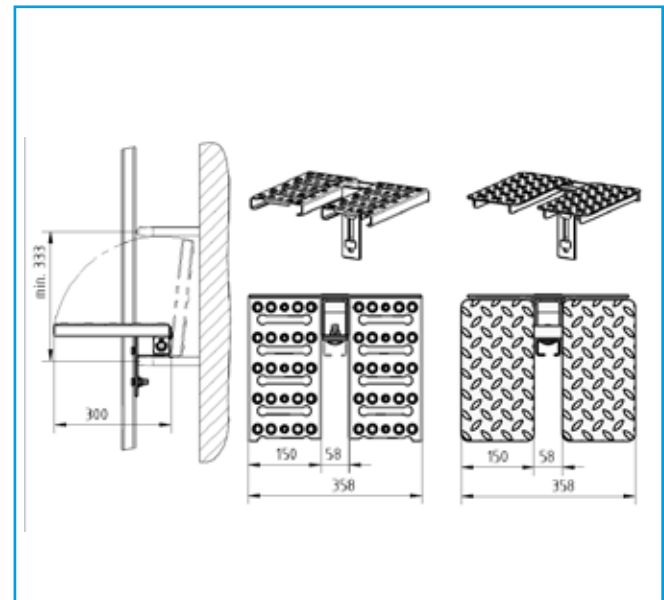
- 2 tread surfaces: 130 mm x 300 mm per tread surface; when used, these rest against the rung; the climbing path is not obstructed when folded up.

Art. no.	Name	Tread surface	Material	Weight
				kg
508227	Type I resting platform	Profile/perforated	Hot-galv. steel/A4	3.8
508787		Chequer plate	1.4571/A4	5.0

Type II resting platform

Application:

- For manhole steps in which the FABA™ climbing protection rail has been centrally mounted on the step irons.
- Distance between step irons min. 333 mm.
- For distances between the step irons of 333 mm, the free space on the platform is restricted to 110 mm. There are no restrictions for 400 mm distances.
- The resting platform is bolted onto the climbing protection rail, no fastening to the surface is required.
- The resting platforms are placed every 10 m or dependent on the building and standard or law.



Implementation:

- 2 tread surfaces: 130 mm x 300 mm per tread surface; when used, these do not rest against the rung; the climbing path is not obstructed when folded up.

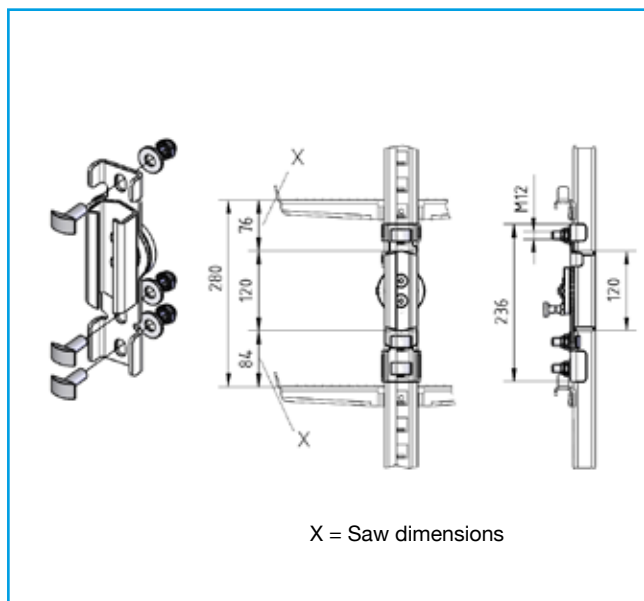
Art. no.	Name	Tread surface	Material	Weight
				kg
503458	Type II resting platform	Profile/perforated	Hot-galv. steel/A4	3.8
508197		Chequer plate	1.4571/A4	5.0

Entry and exit section

Application:

- The entry and exit section allows the comfortable insertion and extraction of the FABA™ carriage and must be installed at every position of the climbing facility that is intended to ensure safe release from the climbing protection system (e.g. work platforms).
- It should be installed approx. 1000 mm above the base.
- After its unlocking, the central rail piece can be rotated by 90° and the carriage removed laterally.
- Vertical movement is blocked while the rail piece is turned.
- The rail central piece is locked automatically in the vertical position.

Included in the scope of delivery: 3 x 508107



Art. no.	Name	Material	Weight
			kg
503498	Entry and exit section	Hot-galv. steel/A4 1.4301 / A4	1.6
503508		1.4571 / A4	

Entry and exit

(pivotable)

for base arranged laterally
or behind the climbing facility

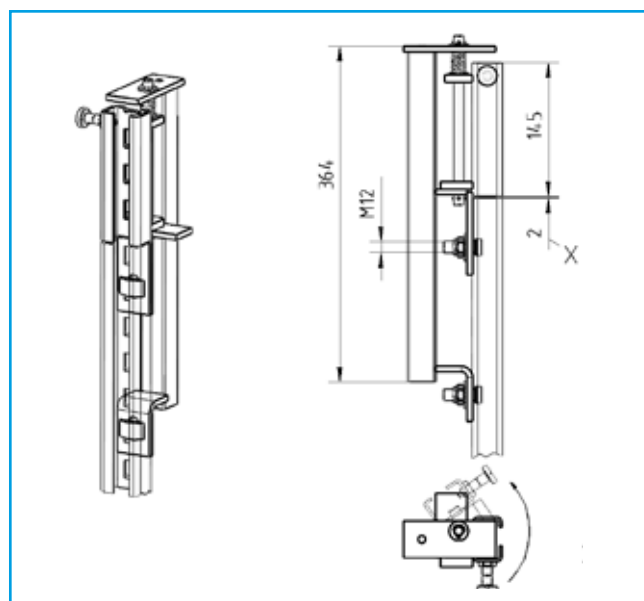
Application:

- The entry and exit allows comfortable insertion and removal of the carriage at that end of a climbing facility, at which point safe release from the climbing protection has to be ensured.
- It should be installed approx. 1000 mm above the base.
- An approx. 145 mm long rail section can be swivelled out by approx. 120°.
- Vertical movement is blocked while the rail piece is turned.
- In this case, the climber steps sideways beside the climbing protection system.

Note:

- The climbing protection ladder has no rungs above the platform. A side rail reinforcement is required for the installation of a step-over section, see page 24.

Included in the scope of delivery: 3 x 508107



Art. no.	Name	Material	Weight
			kg
506535	Entry and exit, right	Hot-galv. steel/A4 1.4301 / A4	1.3
506545		1.4571 / A4	
506555	Entry and exit, left	Hot-galv. steel/A4 1.4301 / A4	
506565		1.4571 / A4	

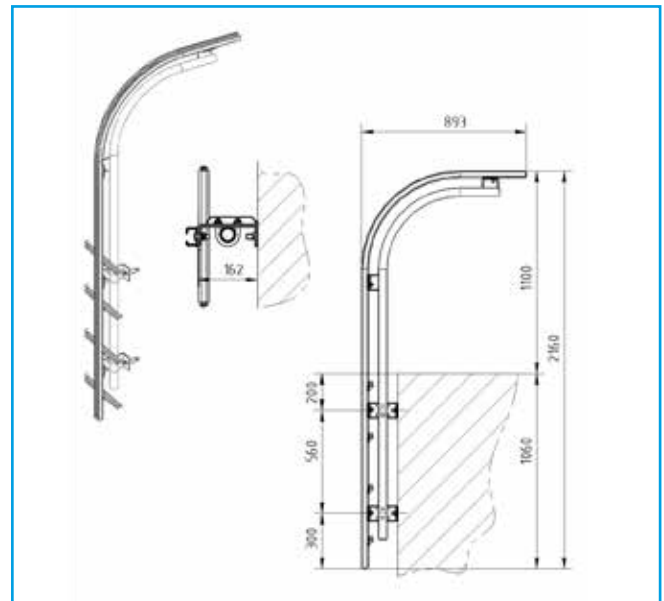
Step-over - curved -

Application:

- Step-over onto a platform on the top end of a fixed ladder, e.g. step-over onto a roof.
- The step-over is fastened to the surface with two support brackets (see sketch).
- A detachable, type DS catch is required at the end of the rail, see page 20.

Art. no.	Name	Material	Weight
			kg
503468	Step-over, curved, with 4 rungs	Hot-galv. steel/A4 A4	22
503478		1.4571 / A4	
503488	Step-over, curved, without rungs	Hot-galv. steel/A4 A4	20
508237		1.4571 / A4	

Designated anchor fitting, see page 30



Step-over - straight -

for climbing protection ladder with side rail reinforcement

Application:

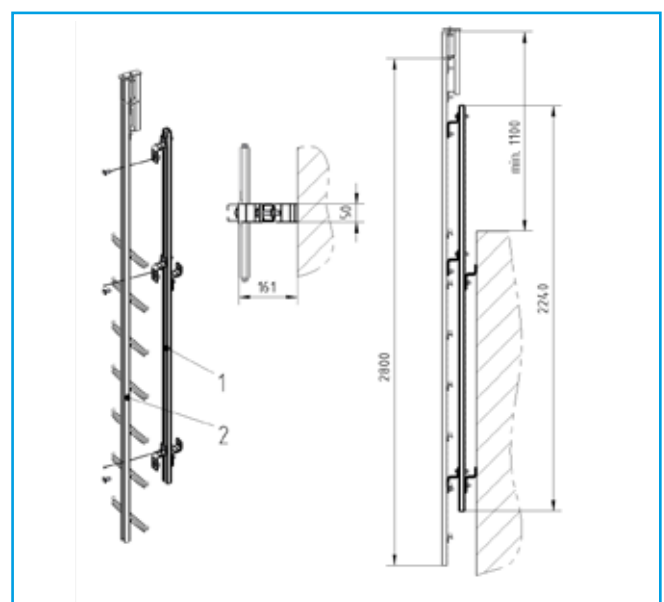
- For climbing protection rail used as straight step-over, when no support bracket can be fitted on the upper end.
- The side rail reinforcement is fastened to the surface with two support brackets and to the climbing protection ladder with three support brackets (see sketch).

Attention:

- The FABA™ climbing protection ladder must be ordered separately.

Art. no.	Item	Name	Material	Weight
				kg
503618	1	Side rail reinforcement	Hot-galv. steel/A4 A4	1.6
504058			1.4571 / A4	
500378	2	Climbing protection ladder with 7 bottom rungs	Hot-galv. steel/A4 A4	11
500388			1.4571 / A4	

Designated anchor fitting, see page 30



Step-over - straight - for climbing protection rail

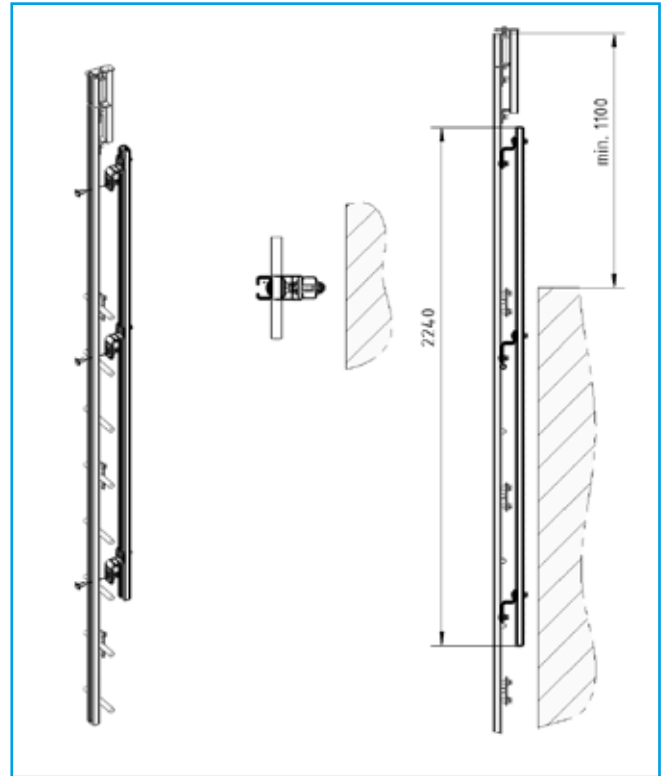
Side rail reinforcement on existing climbing facility

Application:

- For climbing protection rail used as straight step-over, when no support bracket can be fitted on the upper end.
- The step-over is fastened to the climbing protection rail with three support brackets (see sketch).
- No fastening to the surface required.
- The wall clearance of the existing rungs must be at least 150 mm.

Important note:

The FABA™ climbing protection rail must be ordered separately.



Art. no.	Name	Material	Weight
			kg
503628	Side rail reinforcement	Hot-galv. steel/A4 A4	1.6
504068		1.4571 / A4	

Horizontal transfer with gate

The horizontal transfer with gate (e.g. 360° - surround of a round mast) is designed as a function of the individual project.

Application:

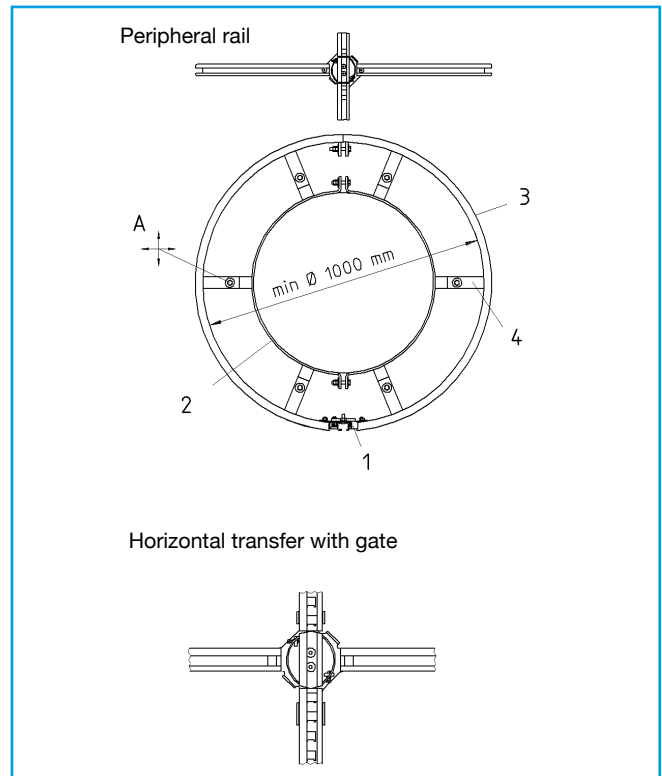
- The gate can be turned by 90° and allows the transfer from a vertical climbing protection device to a horizontal rail, without having to leave the climbing protection device.

Installation note:

- In order to maintain the distance between rungs of 280 mm, it will necessary to modify the FABA™ climbing protection ladders in the vicinity of the gate.
- When mounting a horizontal rail, remember that the rail is asymmetric and place it so that the wide side is on the top.

ATTENTION!

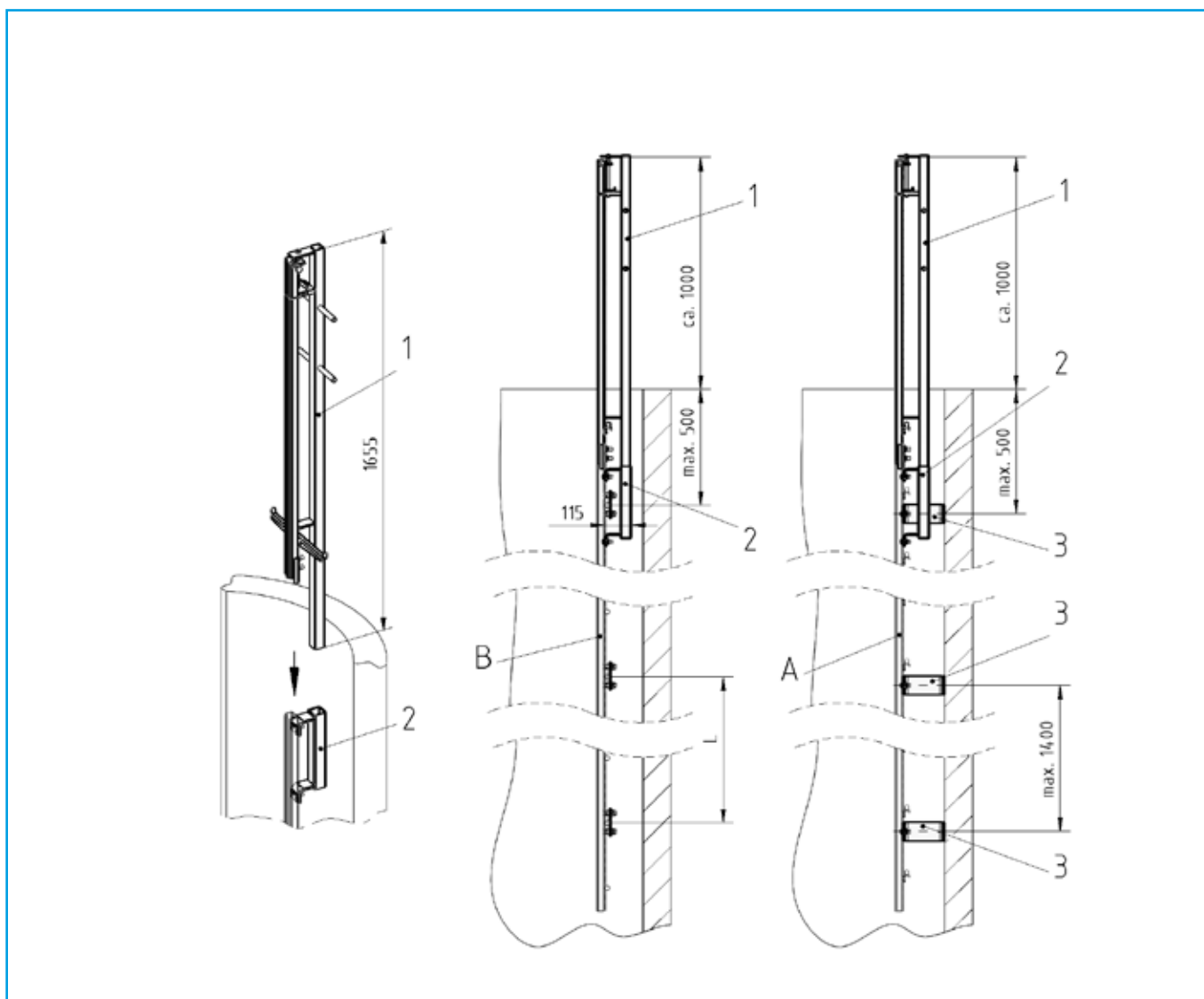
The peripheral rail and the horizontal transfer section must always be made of hot-galvanized steel.



Components and accessories for confined spaces Entry aid - portable -

Application:

- Specially designed for confined spaces or covered climbing facilities with FABA™ climbing protection A12.
- In order to enter a confined space while maintaining an ergonomic, upright body posture, the entry aid is placed on the existing A12 climbing protection system and removed after the work has been completed.
- The user is therefore able to secure him/herself while still standing beside the opening to the confined space.
- This system may only be used in conjunction with a fixed connection to the climbing protection ladder.



Art. no.	Item	Name	Material	Weight
				kg
507155	1	Entry aid, portable	1.4571 / A4	12
507175	2	Coupling	1.4571 / A4	1.9
503578*	3	Support bracket in shaft, for ladder	1.4571 / A4	1.4

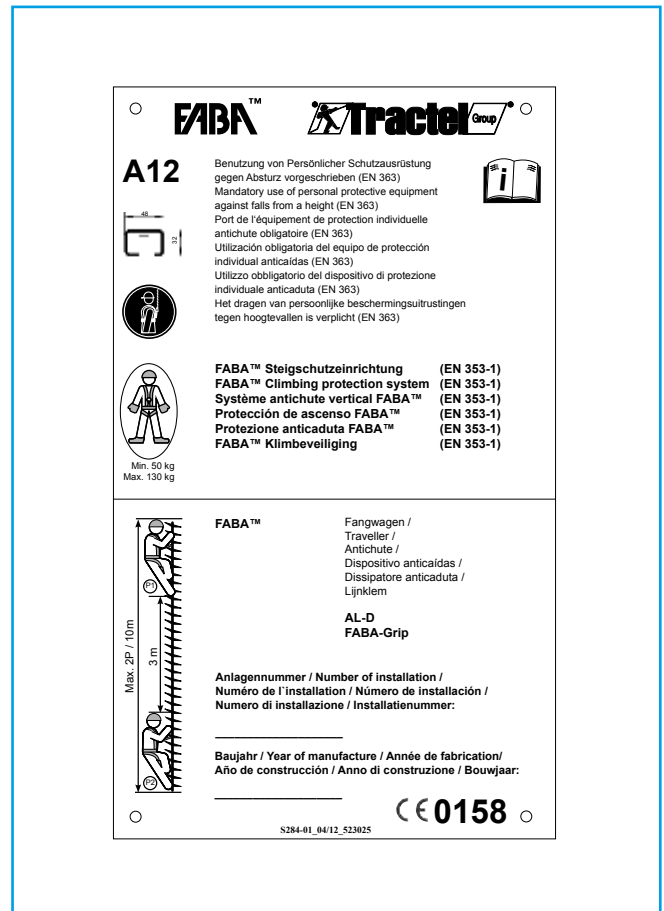
* Designated anchor fitting, see page 30.

Warning sign

Application:

- The warning sign should be attached at the entry point of the climbing protection system.
- A suitable location for the sign is within viewing height of the lower access level beside the climbing facility.
- The sign is attached in accordance with the on-site conditions.
- The warning sign is included in the scope of delivery.

Art. no.	Size	Material
	mm	
523897	210 width x 148 height	Anodized aluminium



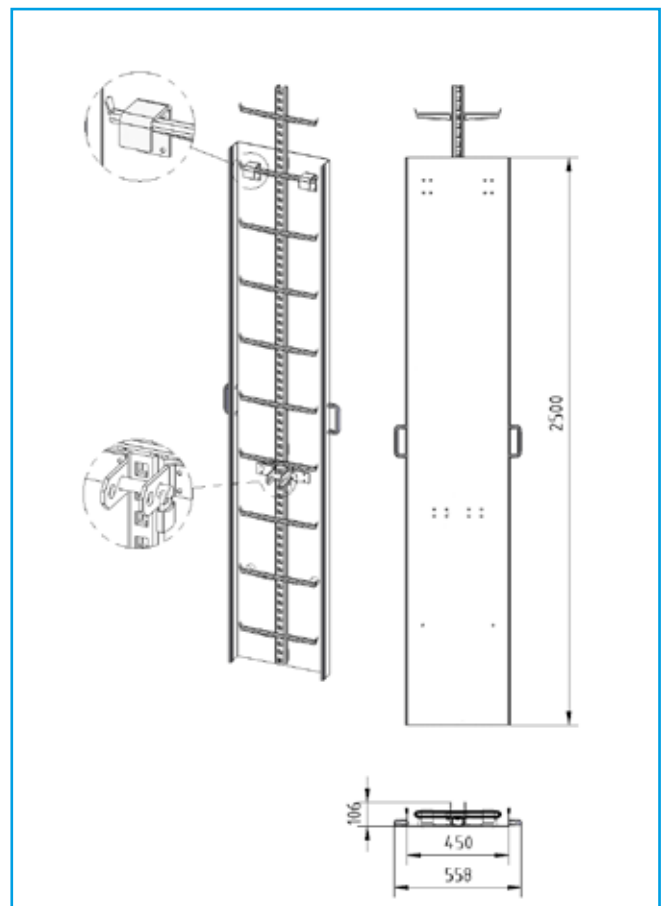
Cover plate

for securing the system against unauthorized access

Application:

- Lockable cover plate for climbing protection ladder.
- The cover plate is hung from two rungs, no fastening to the surface is required.
- Securing via padlock (included in the delivery).

Art. no.	Name	Material	Weight
			kg
509505	Cover plate	Anodised aluminium	6.5

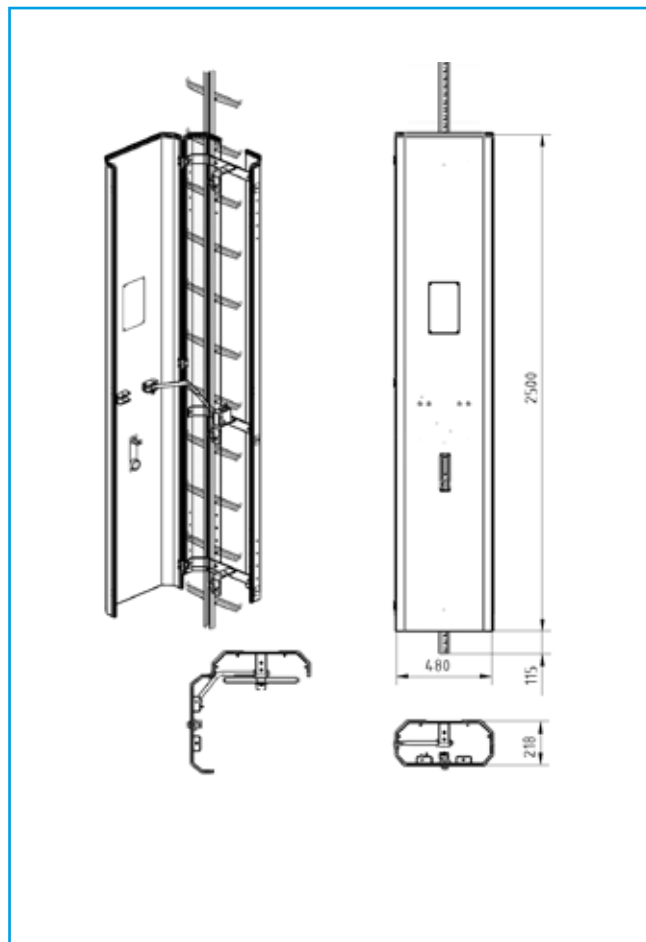


Door cover

for securing the system against unauthorized access

Application:

- Lockable side door cover pivoting through 180° for the climbing protection ladder.
- The door cover is fastened to the climbing protection rail with three support brackets. No fastening to the surface required.
- Secured via swivelling lock with locking cylinder.



Art. no.	Name	Material	Weight
			kg
503518	Door cover	Anodised aluminium, bracket in hot-galv. steel / A4	8.2



Climbing protection rail with mounting hook

for securing the system

against unauthorized access

Application:

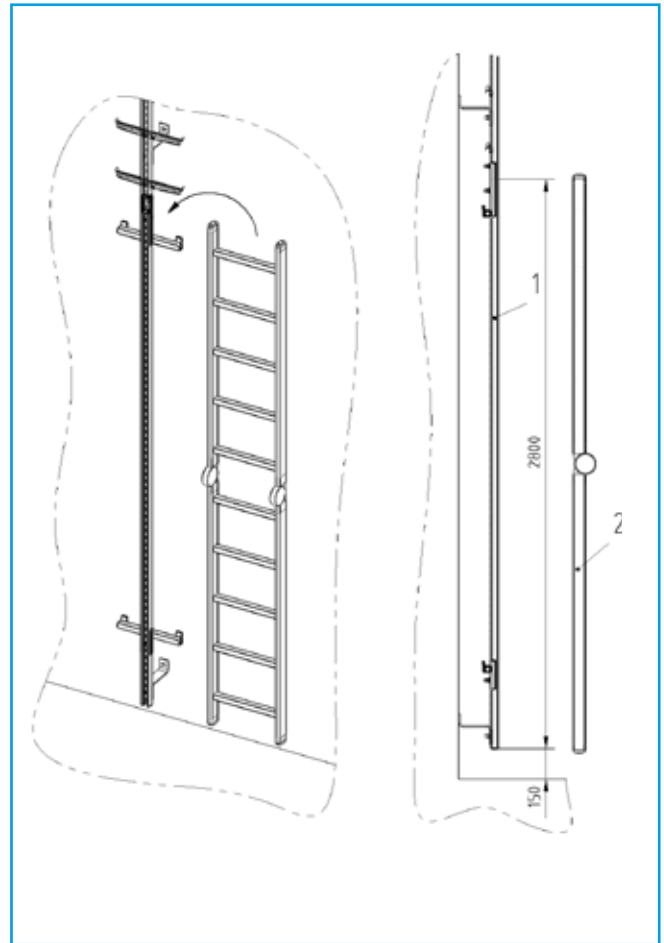
- The aluminium ladder with double handrail (pos. 2) is hung from the lower climbing protection rail (pos. 1) in order to allow access to the climbing protection installation. The ladder is removed again after its use.
- The climbing protection rail is thus located in front of the ladder with double handrail and can fit the FABA™ carriage in order to ensure secure climbing.

Implementation:

- Climbing protection rail without rungs with mounting hook.
- Portable aluminium ladder with double handrail - foldable.

Note:

- The climbing protection rail with mounting hooks may only be installed as the lowermost segment.
- The distance between the lowest rung of the aluminium ladder and the base may not exceed 560 mm.
- The lowermost support bracket must be mounted as far down on the climbing protection rail as possible.

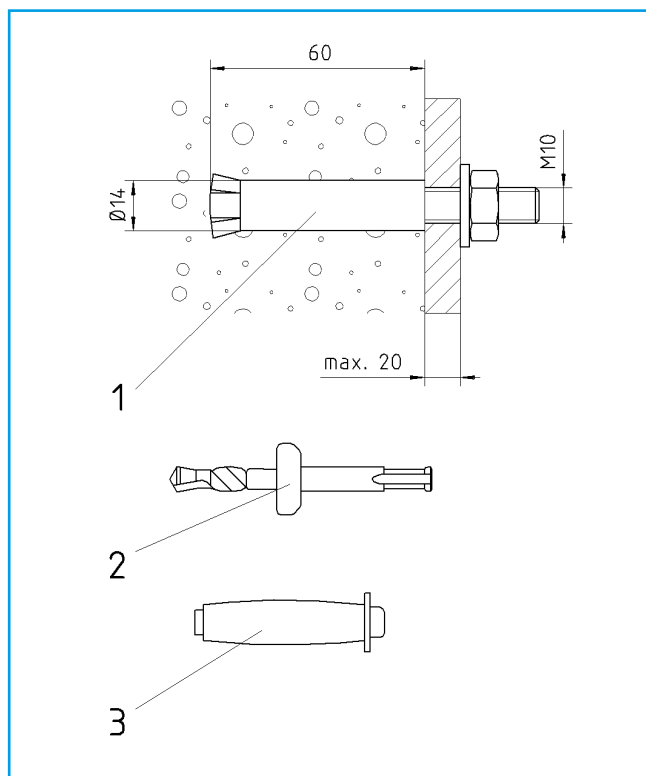


Art. no.	Item	Name	Material	Weight
				kg
503638	1	Climbing protection rail with mounting hook	Hot-galv. steel / A4	10
501705	2	2-part aluminium ladder with joint	Aluminium	6.7

Anchor bolt

Anchor bolt FZA 14 x 60, M 10/20

- Approved by the building authority;
- For strength class \geq B25 concrete;
- Load class 3.5 kN.
- For confirmed pressure zones, the permitted load force is 7.35 kN.
- Thanks to the reduced bore depth (only 65 mm) required, the bolt can also be used in components of limited thickness (e.g. concrete shaft rings).
- No drilling through;
- No leaking anchorage points!
- The cylindrical/conical safety borehole is created easily and quickly using a simple special drill bit.
- This drill bit fits all SDS plus hammer drills.
- After insertion of the anchor bolt, the expansion sleeve is expanded with the hammer device.
- Max. fastening distances, see table Page 12

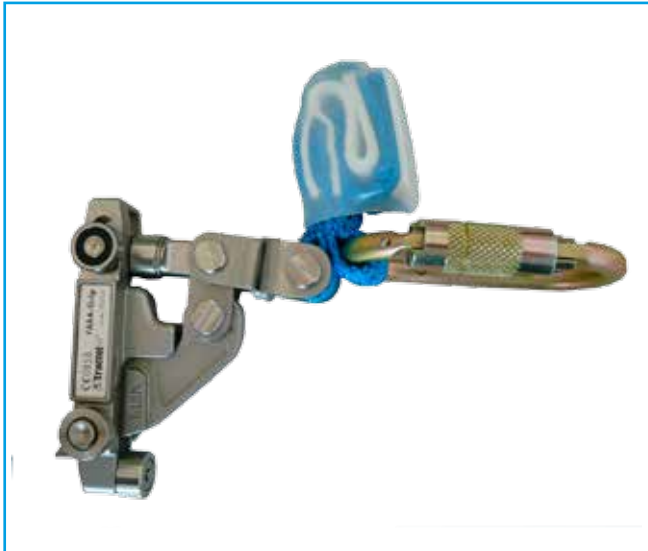


Art. no.	Name	Comment	Material	Weight
				kg
501455	Anchor bolt FZA 14 x 60		W.-No. 1.4571	0.4
501465	Drill FZUB 14 x 60	For hammer drills with SDS-plus drillholder		
501475	Hammer device FZE 14			

Guided fall arrester

FABA™ GRIP fall arrester

for use with back attachment – also for use without back attachment system
(for short distances e.g. platform manholes, hatches)



This system is used for climbing with a back attachment.

Important note!

Sufficient free space must be available behind the climber.

FABA™ AL-D fall arrester

for use without back attachment system

IMPORTANT NOTE! Cannot be used with back attachment system!



This system is used for limited free space behind the climber (also for laterally mounted rails).

Art. no.	Name	Application	Material	Weight
	FABA™ fall arrester			kg
513708	Type GRIP (with a strap fall attenuator) with steel safety hook	with back attachment	Stainless steel Zinc-plated hook	0.960
504968	Type AL-D (with a strap fall attenuator) with steel safety hook	without back attachment	Stainless steel Zinc-plated hook	0.850



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